The Former Philippines thru Foreign Eyes

JAGOR'S TRAVELS IN THE PHILIPPINES

I

Difference from European time.

WHEN the clock strikes twelve in Madrid,* it is 8 hours, 18 minutes, and 41 seconds past eight in the evening at Manila; that is to say, the latter city lies 124° 40′ 15″ to the east of the former (7 hours, 54 minutes, 35 seconds from Paris). Some time ago, however, while the new year was being celebrated in Madrid, it was only New Year's eve at Manila.

Magellan's mistake in reckoning.

As Magellan, who discovered the Philippines in his memorable first circumnavigation of the globe, was following the sun in its apparent daily path around the world, every successive degree he compassed on his eastern course added four minutes to the length of his day; and, when he reached the Philippines, the difference amounted to sixteen hours. This, however, apparently escaped his notice, for Elcano, the captain of the only remaining vessel, was quite unaware, on his return to the longitude of his departure, why according to his ship's log-book, he was a day behind the time of the port which he had reached again by continuously sailing westward. † ‡

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* New York noon is Manila 1:04 next morning.—C.

† Navarrete, IV, 97 Obs. 2a.

‡ According to Albo's ship journal, he perceived the difference at the Cape de Verde Islands on July 9, 1522; "Y este día fué miercoles, y este día tienen ellos por jueves." (And this day was Wednesday and this day they had as Thursday.)

Change to the Asian day.

The error remained also unheeded in the Philippines. It was still, over there, the last day of the old year, while the rest of the world was commencing the new one; and this state of things continued till the close of 1844, when it was resolved, with the approval of the archbishop, to pass over New Year's eve for once altogether.* Since that time the Philippines are considered to lie no longer in the distant west, but in the far east, and are about eight hours in advance of their mother country. The proper field for their commerce, however, is what is to Europeans the far west; they were colonized thence, and for centuries, till 1811, they had almost no other communication with Europe but the indirect one by the annual voyage of the galleon between Manila and Acapulco. Now, however, when the eastern shores of the Pacific are at last beginning to teem with life, and, with unexampled speed, are pressing forward to grasp their stupendous future, the Philippines will no longer be able to remain in their past seclusion. No tropical Asiatic colony is so favorably situated for communication with the west coast of America, and it is only in a few matters that the Dutch Indies can compete with them for the favors of the Australian market. But, on the other hand, they will have to abandon their traffic with China, whose principal emporium Manila originally was, as well as that with those westward-looking countries of Asia, Europe's far east, which lie nearest to the Atlantic ports.† ‡

Future in American and Australian trade.

* In a note on the 13th page of the masterly English (Hakluyt Society) translation of Morga, I find the curious statement that a similar rectification was made at the same time at Macao, where the Portuguese, who reached it on an easterly course, had made the mistake of a day the other way.

† Towards the close of the sixteenth century the duty upon the exports to China amounted to $40,000 and their imports to at least $1,330,000. In 1810, after more than two centuries of undisturbed Spanish rule, the latter had sunk to $1,150,000. Since then they have gradually increased; and in 1861 they reached $2,130,000.

‡ The Panama canal prevents this. C.

When the circumstances mentioned come to be realized, the Philippines, or, at any rate, the principal market for their commerce, will finally fall within the limits of the western hemisphere, to which indeed they were relegated by the illustrious Spanish geographers at Badajoz.

Commercially in the New World.

The Bull issued by Alexander VI,* on May 4, 1493, which divided the earth into two hemispheres, decreed that all heathen lands discovered in the eastern half should belong to the Portuguese; in the western half to the Spaniards. According to this arrangement, the latter could only claim the Philippines under the pretext that they were situated in the western hemisphere. The demarcation line was to run from the north to the south, a hundred leagues to the south-west of all the so-called Azores and Cape de Verde Islands. In accordance with the treaty of Tordesillas, negotiated between Spain and Portugal on June 7, 1494, and approved by Julius II, in 1506, this line was drawn three hundred and seventy leagues west of the Cape de Verde Islands.

The Pope's world-partition.

At that time Spanish and Portuguese geographers reckoned seventeen and one-half leagues to a degree on the equator. In the latitude of the Cape de Verde Islands, three hundred and seventy leagues made 21° 55′. If to this we add the longitudinal difference between the westernmost point of the group and Cadiz, a difference of 18° 48′, we get 40° 43′ west, and 139° 17′ east from Cadiz (in round numbers 47° west and 133° east), as the limits of the Spanish hemisphere. At that time, however, the existing means for such calculations were entirely insufficient.

Faulty Spanish and Portuguese geography.

The latitude was measured with imperfect astrolabes, or wooden quadrants, and calculated from very deficient

* Navarrete, IV, 54 Obs. 1a.

Extravagant Spanish claims thereupon.

tables; the variation of the compass, moreover, was almost unknown, as well as the use of the log.* Both method and instruments were wanting for useful longitudinal calculations. It was under these circumstances that the Spaniards attempted, at Badajoz, to prove to the protesting Portuguese that the eastern boundary line intersected the mouths of the Ganges, and proceeded to lay claim to the possession of the Spice Islands.

Spain's error in calculation.

The eastern boundary should, in reality, have been drawn 46½° further to the east, that is to say, as much further as it is from Berlin to the coast of Labrador, or to the lesser Altai; for, in the latitude of Calcutta 46½° are equivalent to two thousand five hundred and seventy-five nautical miles. Albo's log-book gives the difference in longitude between the most eastern islands of the Archipelago and Cape Fermoso (Magellan's Straits), as 106° 30′, while in reality it amounts to 159° 85′.

Moluccan rights sold to Portugal.

The disputes between the Spaniards and the Portuguese, occasioned by the uncertainty of the eastern boundary—Portugal had already founded a settlement in the Spice Islands—were set at rest by an agreement made in 1529, in which Charles V. abandoned his pretended rights to the Moluccas in favor of Portugal, for the sum of 350,000 ducats. The Philippines, at that time, were of no value.

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The distance from Manila to Hongkong is six hundred fifty nautical miles, and the course is almost exactly south-east. The mail steamer running between the two

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* According to Gehler's *Phys. Lex.* VI. 450, the log was first mentioned by Purchas in an account of a voyage to the East Indies in 1608. Pigafetta does not cite it in his treatise on navigation; but in the forty fifth page of his work it is said: "Secondo la misura che facevamo del viaggio colla cadena a poppa, noi percorrevamo 60 a 70 leghe al giorno." This was as rapid a rate as that of our (1870) fastest steamboats—ten knots an hour.

ports makes the trip in from three to four days. This allows of a fortnightly postal communication between the colony and the rest of the world.*

Foreign mail facilities.

This small steamer is the only thing to remind an observer at Hongkong, a port thronged with the ships of all nations, that an island so specially favored in conditions and fertility lies in such close proximity.

Slight share in world commerce.

Although the Philippines belong to Spain, there is but little commerce between the two countries. Once the tie which bound them was so close that Manila was wont to celebrate the arrival of the Spanish mail with *Te Deums* and bell-ringing, in honor of the successful achievement of so stupendous a journey. Until Portugal fell to Spain, the road round Africa to the Philippines was not open to Spanish vessels. The condition of the overland route is sufficiently shown by the fact that two Augustinian monks who, in 1603, were entrusted with an important message for the king, and who chose the direct line through Goa, Turkey, and Italy, needed three years for reaching Madrid.†

Little commerce with Spain.

The trade by Spanish ships, which the merchants were compelled to patronize in order to avoid paying an additional customs tax, in spite of the protective duties for Spanish products, was almost exclusively in foreign goods to the colony and returning the products of the latter for foreign ports. The traffic with Spain was limited to the conveyance of officials, priests, and

Former Spanish ships mainly carried foreign goods.

* The European mail reaches Manila through Singapore and Hongkong. Singapore is about equidistant from the other two places. Letters therefore could be received in the Philippines as soon as in China, if they were sent direct from Singapore. In that case, however, a steamer communication with that port must be established, and the traffic is not yet sufficiently developed to bear the double expense. According to the report of the English Consul (May, 1870), there is, besides the Government steamer, a private packet running between Hongkong and Manila. The number of passengers it conveyed to China amounted, in 1868, to 441 Europeans and 3,048 Chinese; total, 3,489. The numbers carried the other way were 330 Europeans and 4,664 Chinese; in all, 4,994. The fare is $80 for Europeans and $20 for Chinamen.

† Zuñiga, Mayers, I, 215.

their usual necessaries, such as provisions, wine and other liquors; and, except a few French novels, some atrociously dull books, histories of saints, and similar works.

Manila's fine bay.

The Bay of Manila is large enough to contain the united fleets of Europe; it has the reputation of being one of the finest in the world. The aspect of the coast, however, to a stranger arriving, as did the author, at the close of the dry season, falls short of the lively descriptions of some travellers. The circular bay, one hundred twenty nautical miles in circumference, the waters of which wash the shores of five different provinces, is fringed in the neighborhood of Manila by a level coast, behind which rises an equally flat table land. The scanty vegetation in the foreground, consisting chiefly of bamboos and areca palms, was dried up by the sun; while in the far distance the dull uniformity of the landscape was broken by the blue hills of San Mateo. In the rainy season the numerous unwalled canals overflow their banks and form a series of connected lakes, which soon, however, change into luxuriant and verdant rice-fields.

City's appearance mediaeval European.

Manila is situated on both sides of the river Pasig. The town itself, surrounded with walls and ramparts, with its low tiled roofs and a few towers, had, in 1859, the appearance of some ancient European fortress. Four years later the greater part of it was destroyed by an earthquake.

The 1863 earthquake.

On June 3, 1863, at thirty-one minutes past seven in the evening, after a day of tremendous heat while all Manila was busy in its preparations for the festival of Corpus Christi, the ground suddenly rocked to and fro with great violence. The firmest buildings reeled visibly, walls crumbled, and beams snapped in two. The dreadful shock lasted half a minute; but this little interval

was enough to change the whole town into a mass of ruins, and to bury alive hundreds of its inhabitants.* A letter of the governor-general, which I have seen, states that the cathedral, the government-house, the barracks, and all the public buildings of Manila were entirely destroyed, and that the few private houses which remained standing threatened to fall in. Later accounts speak of four hundred killed and two thousand injured, and estimate the loss at eight millions of dollars. Forty-six public and five hundred and seventy private buildings were thrown down; twenty-eight public and five hundred twenty-eight private buildings were nearly destroyed, and all the houses left standing were more or less injured.

Damage in Cavite.

At the same time, an earthquake of forty seconds' duration occurred at Cavite, the naval port of the Philippines, and destroyed many buildings.

Destruction in walled city.

Three years afterwards, the Duc d'Alencon (*Lucon et Mindanao;* Paris, 1870, S. 38) found the traces of the catastrophe everywhere. Three sides of the principal square of the city, in which formerly stood the government, or governor's, palace, the cathedral, and the town-house, were lying like dust heaps overgrown with weeds. All the large public edifices were "temporarily" constructed of wood; but nobody then seemed to plan anything permanent.

Former heavy shocks.

Manila is very often subject to earthquakes; the most fatal occurred in 1601; in 1610 (Nov. 30); in 1645 (Nov. 30); in 1658 (Aug. 20); in 1675; in 1699; in 1796; in 1824; in 1852; and in 1863. In 1645, six hundred†, or, according to some accounts, three thousand‡ persons perished, buried under the ruins of their houses. Their

* Dr. Pedro Pelaez, in temporary charge of the diocese and dying in the cathedral, was the foremost Filipino victim. *Funds raised in Spain for relief never* reached the sufferers, but not till the end of Spanish rule was it safe to comment on this in the Philippines.—C.

† Zuñiga, XVIII, M. Velardé, p. 139.

‡ Captain Salmon, Goch., S. 33.

monastery, the church of the Augustinians, and that of the Jesuits, were the only public buildings which remained standing.

Frequent minor disturbances

Smaller shocks, which suddenly set the hanging lamps swinging, occur very often and generally remain unnoticed. The houses are on this account generally of but one story, and the loose volcanic soil on which they are built may lessen the violence of the shock. Their heavy tiled roofs, however, appear very inappropriate under such circumstances. Earthquakes are also of frequent occurrence in the provinces, but they, as a rule, cause so little damage, owing to the houses being constructed of timber or bamboo, that they are never mentioned.

Scanty data available.

M. Alexis Perrey (*Mém. de l'Académie de Dijon*, 1860) has published a list, collected with much diligence from every accessible source, of the earthquakes which have visited the Philippines, and particularly Manila. But the accounts, even of the most important, are very scanty, and the dates of their occurrence very unreliable. Of the minor shocks, only a few are mentioned, those which were noticed by scientific observers accidentally present at the time.

The 1610 catastrophe

Aduarte (I. 141) mentions a tremendous earthquake which occurred in 1610. I briefly quote his version of the details of the catastrophe, as I find them mentioned nowhere else.

"Towards the close of November, 1610, on St. Andrew's Day, a more violent earthquake than had ever before been witnessed, visited these Islands; its effects extended from Manila to the extreme end of the province of Nueva Segovia (the whole northern part of Luzon), a distance of 200 leagues. It caused great destruction over the entire area; in the province of Ilocos it buried palm trees, so that only the tops of their branches were left above the

earth's surface; through the power of the earthquake mountains were pushed against each other; it threw down many buildings, and killed a great number of people. Its fury was greatest in Nueva Segovia, where it opened the mountains, and created new lake basins. The earth threw up immense fountains of sand, and vibrated so terribly that the people, unable to stand upon it, laid down and fastened themselves to the ground, as if they had been on a ship in a stormy sea. In the range inhabited by the Mendayas a mountain fell in, crushing a village and killing its inhabitants. An immense portion of the cliff sank into the river; and now, where the stream was formerly bordered by a range of hills of considerable altitude, its banks are nearly level with the watercourse. The commotion was so great in the bed of the river that waves arose like those of the ocean, or as if the water had been lashed by a furious wind. Those edifices which were of stone suffered the most damage, our church and the convent fell in, etc., etc."

II

Customhouse red tape.

THE customs inspection, and the many formalities which the native minor officials exercised without any consideration appear all the more wearisome to the new arrival when contrasted with the easy routine of the English free ports of the east he has just quitted. The guarantee of a respectable merchant obtained for me, as a particular favor, permission to disembark after a detention of sixteen hours; but even then I was not allowed to take the smallest article of luggage on shore with me.

Shelter for shipping.

During the south-west monsoon and the stormy season that accompanies the change of monsoons, the roadstead is unsafe. Larger vessels are then obliged to seek protection in the port of Cavite, seven miles further down the coast; but during the north-east monsoons they can safely anchor half a league from the coast. All ships under three hundred tons burden pass

the breakwater and enter the Pasig, where, as far as the bridge, they lie in serried rows, extending from the shore to the middle of the stream, and bear witness by their numbers, as well as by the bustle and stir going on amongst them, to the activity of the home trade.

Silting up of river mouth.

In every rain-monsoon, the Pasig river sweeps such a quantity of sediment against the breakwater that just its removal keeps, as it seems, the dredging machine stationed there entirely occupied.

Few foreign vessels.

The small number of the vessels in the roadstead, particularly of those of foreign countries, was the more remarkable as Manila was the only port in the Archipelago that had any commerce with foreign countries. It is true that since 1855 three other ports, to which a fourth may now be added, had gotten this privilege; but at th time of my arrival, in March, 1859, not one of them had ever been entered by a foreign vessel, and it was a few weeks after my visit that the first English ship sailed into Iloilo to take in a cargo of sugar for Australia.*

Antiquated restrictions on trade.

The reason of this peculiarity laid partly in the feeble development of agriculture, in spite of the unexampled fertility of the soil, but chiefly in the antiquated and artificially limited conditions of trade. The customs duties were in themselves not very high. They were generally about seven per cent. upon merchandise conveyed under the Spanish flag, and about twice as much for that carried in foreign bottoms. When the cargo was of Spanish production, the duty was three per cent. if carried in national vessels, eight per cent. if in foreign ships. The latter were only allowed, as a rule, to enter the port in ballast.†

* The opening of this port proved so advantageous that I intended to have given a few interesting details of its trade in a separate chapter, chiefly gathered from the verbal and written remarks of the English Vice-Consul, the late Mr. N. Loney, and from other consular reports.

† In 1868, 112 foreign vessels, to the aggregate of 74,054 tons, and Spanish ships to the aggregate of 26,762 tons, entered the port of Manila. Nearly all the first came in ballast, but left with cargoes. The latter both came and left in freight. (English Consul's Report, 1869.)

As, however, the principal wants of the colony were imported from England and abroad, these were either kept back till an opportunity occurred of sending them in Spanish vessels, which charged nearly a treble freight (from £4 to £5 instead of from £1½ to £2 per ton), and which only made their appearance in British ports at rare intervals, or they were sent to Singapore and Hongkong, where they were transferred to Spanish ships. Tonnage dues were levied, moreover, upon ships in ballast, and upon others which merely touched at Manila without unloading or taking in fresh cargo; and, if a vessel under such circumstances landed even the smallest parcel, it was no longer rated as a ship in ballast, but charged on the higher scale. Vessels were therefore forced to enter the port entirely devoid of cargo, or carrying sufficient to cover the expense of the increased harbor dues; almost an impossibility for foreign ships, on account of the differential customs rates, which acted almost as a complete prohibition. The result was that foreign vessels came there only in ballast, or when summoned for some particular object.

Discouragements for foreign ships.

The exports of the colony were almost entirely limited to its raw produce, which was burdened with an export duty of three per cent. Exports leaving under the Spanish flag were only taxed to the amount of one per cent.; but, as scarcely any export trade existed with Spain, and as Spanish vessels, from their high rates of freight, were excluded from the carrying trade of the world, the boon to commerce was a delusive one.*

Export taxes.

These inept excise laws, hampered with a hundred suspicious forms, frightened away the whole carrying trade from the port; and its commission merchants were

Laws drove away trade.

* In 1868 the total exports amounted to $14,013,108; of this England alone accounted for $4,857,000, and the whole of the rest of Europe for only $102,477. The first amount does not include the tobacco duty paid to Spain by the colony, $3,169,144. (English Consul's Report, 1869.)

frequently unable to dispose of the local produce. So trifling was the carrying trade that the total yearly average of the harbor dues, calculated from the returns of ten years, barely reached $10,000.

Manila's favorable location.

The position of Manila, a central point betwixt Japan, China, Annam, the English and Dutch ports of the Archipelago and Australia, is in itself extremely favorable to the development of a world-wide trade.* At the time of the north-eastern monsoons, during our winter, when vessels for the sake of shelter pass through the Straits of Gilolo on their way from the Indian Archipelago to China, they are obliged to pass close to Manila. They would find it a most convenient station, for the Philippines, as we have already mentioned, are particularly favorably placed for the west coast of America.

The 1869 reform.

A proof that the Spanish Ultramar minister fully recognizes and appreciates these circumstances appears in his decree, of April 5, 1869, which is of the highest importance for the future of the colony. It probably would have been issued earlier had not the Spanish and colonial shipowners, pampered by the protective system, obstinately struggled against an innovation which impaired their former privileges and forced them to greater activity.

Bettered conditions.

The most noteworthy points of the decree are the moderation of the differential duties, and their entire extinction at the expiration of two years; the abrogation of all export duties; and the consolidation of the more annoying port dues into one single charge.

Pre-Spanish foreign commerce.

When the Spaniards landed in the Philippines they found the inhabitants clad in silks and cotton stuffs, which were imported by Chinese ships to exchange for

* La Pérouse said that Manila was perhaps the most fortunately situated city in the world.

gold-dust, sapan wood,* holothurian, edible birds' nests, and skins. The Islands were also in communication with Japan, Cambodia, Siam†, the Moluccas, and the Malay Archipelago. De Barros mentions that vessels from Luzon visited Malacca in 1511.‡

Early extension under Spain.

The greater order which reigned in the Philippines after the advent of the Spaniards, and still more the commerce they opened with America and indirectly with Europe, had the effect of greatly increasing the Island trade, and of extending it beyond the Indies to the Persian Gulf. Manila was the great mart for the products of Eastern Asia, with which it loaded the galleons that, as early as 1565, sailed to and from New Spain (at first to Navidad, after 1602 to Acapulco), and brought back silver as their principal return freight.§

Ag to Ag, in

Jealousy of Seville monopolists.

The merchants in New Spain and Peru found this commerce so advantageous, that the result was very damaging to the exports from the mother country, whose manufactured goods were unable to compete with the Indian cottons and the Chinese silks. The spoilt monopolists of Seville demanded therefore the abandon-

* *Sapan* or *Sibucao*, *Caesalpinia Sapan*. Pernambuco or Brazil wood, to which the empire of Brazil owes its name, comes from the Caesalpinia echinat and the Caesalpinia Braziliensis. (The oldest maps of America remark of Brazil: "Its only useful product is Brazil (wood).") The sapan of the Philippines is richer in dye stuff than all other eastern asiatic woods, but it ranks below the Brazilian sapan. It has, nowadays, lost its reputation, owing to its being often stupidly cut down too early. It is sent especially to China, where it is used for dyeing or printing in red. The stuff is first macerated with alum, and then for a finish dipped in a weak alcoholic solution of alkali. The reddish brown tint so frequently met with in the clothes of the poorer Chinese is produced from sapan.

† Large quantities of small mussel shells (*Cypraea moneta*) were sent at this period to Siam, where they are still used as money.

‡ Berghaus' *Geo. hydrogr. Memoir.*

§ Manila was first founded in 1571, but as early as 1565, Urdaneta, Legaspi's pilot, had found the way back through the Pacific Ocean while he was seeking in the higher northern latitudes for a favorable north-west wind. Strictly speaking, however, Urdaneta was not the first to make use of the return passage, for one of Legaspi's five vessels, under the command of Don Alonso de Arellano, which had on board as pilot Lope Martin, a mulatto, separated itself from the fleet after they had reached the Islands, and returned to New Spain on a northern course, in order to claim the promised reward for the discovery. Don Alonso was disappointed, however, by the speedy return of Urdaneta.

ment of a colony which required considerable yearly contributions from the home exchequer, which stood in the way of the mother country's exploiting her American colonies, and which let the silver of His Majesty's dominions pass into the hands of the heathen. Since the foundation of the colony they had continually thrown impediments in its path.* Their demands, however, were vain in face of the ambition of the throne and the influence of the clergy; rather, responding to the views of that time the merchants of Peru and New Spain were forced, in the interests of the mother country, to obtain merchandise from China, either directly, or through Manila. The inhabitants of the Philippines were alone permitted to send Chinese goods to America, but only to the yearly value of $250,000. The return trade was limited to $500,000.†

Prohibition of China trading.

The first amount was afterwards increased to $300,000, with a proportionate augmentation of the return freight; but the Spanish were forbidden to visit China, so that they were obliged to await the arrival of the junks. Finally, in 1720, Chinese goods were strictly prohibited throughout the whole of the Spanish possessions in both hemispheres. A decree of 1734 (amplified in 1769) once more permitted trade with China, and increased the maximum value of the annual freightage to Acapulco to $500,000 (silver) and that of the return trade to twice the amount.

Higher limit on suspension of galleon voyages.

After the galleons to Acapulco, which had been maintained at the expense of the government treasury, had stopped their voyages, commerce with America was

* Kottenkamp I., 1594.

† At first the maximum value of the imports only was limited, and the Manila merchants were not over scrupulous in making false statements as to their worth: to put an end to these *malpractices* a limit was placed to the amount of silver exported. According to Mas, however, the silver illegally exported amounted to six or eight times the prescribed limit.

handled by merchants who were permitted in 1820, to export goods up to $750,000 annually from the Philippines and to visit San Blas, Guayaquil and Callao, besides Acapulco.

British occupation inspired new wants.

This concession, however, was not sufficient to compensate Philippine commerce for the injuries it suffered through the separation of Mexico from Spain. The possession of Manila by the English, in 1762, made its inhabitants acquainted with many industrial products which the imports from China and India were unable to offer them. To satisfy these new cravings Spanish men-of-war were sent, towards the close of 1764, to the colony with products of Spanish industries, such as wine, provisions, hats, cloth, hardware, and fancy articles.

Manila opposition to trade innovations.

The Manila merchants, accustomed to a lucrative trade with Acapulco, strenuously resisted this innovation, although it was a considerable source of profit to them, for the Crown purchased the Indian and Chinese merchandise for its return freights from Manila at double their original value. In 1784, however, the last of these ships arrived.

Subterfuges of European traders.

After the English invasion, European vessels were strictly forbidden to visit Manila; but as that city did not want to do without Indian merchandise, and could not import it in its own ships, it was brought there in English and French bottoms, which assumed a Turkish name, and were provided with an Indian sham-captain.

The "Philippine Company" monopoly.

In 1785, the *Compañía de Filipinas* obtained a monopoly of the trade between Spain and the colony, but it was not allowed to interfere with the direct traffic between Acapulco and Manila. The desire was to acquire large quantities of colonial produce, silk, indigo, cinnamon, cotton, pepper, etc., in order to export it somewhat

as was done later on by the system of culture in Java; but as it was unable to obtain compulsory labor, it entirely failed in its attempted artificial development of agriculture.

Losses of the Company.

The *Company* suffered great losses through its erroneous system of operation, and the incapacity of its officials (it paid, for example, $13.50 for a picul of pepper which cost from three to four dollars in Sumatra).

Admission of foreign ships and goods.

In 1789 foreign ships were allowed to import Chinese and Indian produce, but none from Europe. In 1809 an English commercial house obtained permission to establish itself in Manila. In 1814, after the conclusion of the peace with France, the same permission, with greater or less restrictions, was granted to all foreigners.

Trade with Spain.

In 1820 the direct trade between the Philippines and Spain was thrown open without any limitations to the exports of colonial produce, on the condition that the value of the Indian and Chinese goods in each expedition should not exceed $50,000. Ever since 1834, when the privileges of the *Company* expired, free trade has been permitted in Manila; foreign ships, however, being charged double dues. Four new ports have been thrown open to general trade since 1855; and in 1869 the liberal tariff previously alluded to was issued.

Isolation from Spain.

Today, after three centuries of almost undisturbed Spanish rule, Manila has by no means added to the importance it possessed shortly after the advent of the Spaniards. The isolation of Japan and the Indo-Chinese empires, a direct consequence of the importunities and pretensions of the Catholic missionaries,*

* La Perouse mentions a French *barm* Selos, that in 1787, had been for many years established in Manila.

† E. Cooke to Thomas Wilson (Calendar of State Papers, India, No. 823). . . . "The English will obtain a trade in China, so they hope, not in any padres, as they term them, which the Chinese cannot abide to hear of, because heretofore they came in such swarms, and are always begging without shame."

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The Dutch officials are educated at home in schools specially devoted to the East Indian service. The art of managing the natives, the upholding of prestige, which is considered the secret of the Dutch power over the numerous native populations, forms an essential particular in their education. The Dutch, therefore, manage their intercourse with the natives, no matter how much they intend to get out of them, in strict accordance with customary usage (*adat*); they never wound the natives' *amor propio* and never expose themselves in their own mutual intercourse, which remains a sealed book to the inhabitants.

Dutch colonists well educated

Things are different in the Philippines. With the exception of those officials whose stay is limited by the rules of the service, or by the place-hunting that ensues at every change in the Spanish ministry, few Spaniards who have once settled in the colony ever return home. It is forbidden to the priests, and most of the rest have no means of doing so. A considerable portion of them consist of subaltern officers, soldiers, sailors, political delinquents and refugees whom the mother-country has got rid of; and not seldom of adventurers deficient both in means and desire for the journey back, for their life in the colony is far pleasanter than that they were forced to lead in Spain. These latter arrive without the slightest knowledge of the country and without being in the least prepared for a sojourn there. Many of them are so lazy that they won't take the trouble to learn the language even if they marry a daughter of the soil. Their servants understand Spanish, and clandestinely watch the conversation and the actions, and become acquainted with all the secrets, of their indiscreet masters, to whom the Filipinos remain an enigma which their conceit prevents them attempting to decipher.

Spanish officials and soldiers

Spanish lack of prestige deserved.

It is easy to understand how Filipino respect for Europeans must be diminished by the numbers of these uneducated, improvident, and extravagant Spaniards, who, no matter what may have been their position at home, are all determined to play the master in the colony.

Social standing of Filipinos thus enhanced.

The relative standing of the Filipinos naturally profits by all this, and it would be difficult to find a colony in which the natives, taken all in all, feel more comfortable than in the Philippines. They have adopted the religion, the manners, and the customs of their rulers; and though legally not on an equal footing with the latter, they are by no means separated from them by the high barriers with which, not to mention Java, the churlish reserve of the English has surrounded the natives of the other colonies.

Spanish-Filipino bonds of union.

The same religion, a similar form of worship, an existence intermixed with that of the indigenous population, all tend to bring the Europeans and the Indians together. That they have done so is proved by the existence of the proportionately very numerous band of *mestizos* who inhabit the Islands.

Latin races better for colonists in the tropics.

The Spaniards and the Portuguese appear, in fact, to be the only Europeans who take root in tropical countries. They are capable of permanent and fruitful amalgamation* with the natives.†

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* Bertillon (*Acclimatement et Acclimatation*, *Dict. Encycl. des Sciences Médicales*) ascribes the capacity of the Spaniards for acclimatization in tropical countries to the large admixture of Syrian and African blood which flows in their veins. The ancient Iberians appear to have reached Spain from Chaldea across Africa; the Phoenicians and Carthaginians had flourishing colonies in the peninsula, and, in later times, the Moors possessed a large portion of the country for a century, and ruled with great splendor, a state of things leading to a mixture of race. Thus Spanish blood has three distinct times been abundantly crossed with that of Africa. The warm climate of the peninsula must also largely contribute to render its inhabitants fit for life in the tropics. The pure Indo-European race has never succeeded in establishing itself on the southern shores of the Mediterranean, much less in the arid soil of the tropics.

In Martinique, where from eight to nine thousand whites live on the proceeds of the toil of 125,000 of the colored race, the population is diminishing instead of increasing. The French creoles seem to have lost the power of maintaining themselves, in proportion to the existing means of subsistence, and of multiplying. Families which do not from time to time fortify themselves with a strain of fresh European blood, die out in from three to four generations. The same thing happens in the English, but not in the Spanish Antilles, although the climate and the natural surroundings are the same. According to Ramón de la Sagra, the death-rate is smaller among the creoles, and greater among the natives, than it is in Spain; the mortality among the garrison, however, is considerable. The same writer states that the real acclimatization of the Spanish race takes place by selection; the unfit die, and the others thrive.

† An unnecessary line is here omitted.—C.

Initiative and individuality missing.

The want of originality, which among the *meslizos*, appears to arise from their equivocal position, is also to be found among the natives. Distinctly marked national customs, which one would naturally expect to find in such an isolated part of the world, are sought for in vain, and again and again the stranger remarks that everything has been learned and is only a veneer.

A compromise civilization.

As Spain forcibly expelled the civilization of the Moors, and in Peru that of the Incas, so in the Philippines it has understood how to set aside an equally well-founded one, by appropriating in an incredible manner, in order to take root itself the more quickly, all existing forms and abuses.*

Imitation instilled and self-respect banished.

The uncivilized inhabitants of the Philippines quickly adopted the rites, forms, and ceremonies of the strange religion, and, at the same time, copied the personal externalities of their new masters, learning to despise their own manners and customs as heathenish and barbarian. Nowadays, forsooth, they sing Andalusian songs, and dance Spanish dances; but in what sort of way? They imitate everything that passes before their eyes without using their intelligence to appreciate it. It is this which makes both themselves and their artistic productions wearisome, devoid of character, and, I may add, unnatural, in spite of the skill and patience they devote to them. These two peculiarities, moreover, are invariably to be found amongst nations whose civilization is but little developed; the patience so much admired is often nothing but waste of time and breath, quite

* Depons, speaking of the means employed in America to obtain the same end, says, "I am convinced that it is impossible to engraft the Christian religion on the Indian mind without mixing up their own inclinations and customs with those of Christianity; this has been even carried so far, that at one time theologians raised the question, whether it was lawful to eat human flesh? But the most singular part of the proceeding is, that the question was decided in favor of the anthropophagi."

out of proportion to the end in view, and the skill is the mere consequence of the backward state of the division of labor.

Educated Filipino unnatural.

If I entered the house of a well-to-do Filipino, who spoke Spanish, I was received with the same phrases his model, a Spaniard, would employ; but I always had the feeling that it was out of place. In countries where the native population remains true to its ancient customs this is not the case; and whenever I have not been received with proper respect, I have remarked that the apparent fact proceeded from a difference in social forms, not more to be wondered at than a difference in weights and measures. In Java, and particularly in Borneo and the Moluccas, the utensils in daily use are ornamented with so refined a feeling for form and color, that they are praised by our artists as patterns of ornamentation and afford a proof that the labor is one of love, and that it is presided over by an acute intelligence. Such a sense of beauty is seldom to be met with in the Philippines. Everything there is imitation or careless makeshift. Even the piña embroideries, which are fabricated with such wonderful patience and skill, and are so celebrated for the fineness of the work, are, as a rule, spiritless imitations of Spanish patterns. One is involuntarily led to these conclusions by a comparison of the art products of the Spanish-American communities with those of more barbarous races. The Berlin Ethnographical Museum contains many proofs of the facts I have just mentioned.

Native art-sense spoiled.

Indolence from absence of incentive.

The oars used in the Philippines are usually made of bamboo poles, with a board tied to their extremities with strips of rattan. If they happen to break, so much the better; for the fatiguing labor of rowing must necessarily be suspended till they are mended again.

In Java the carabao-carts, which are completely covered in as a protection against the rain, are ornamented with many tasteful patterns. The roofless wagons used in the Philippines are roughly put together at the last moment. When it is necessary to protect their contents from the wet, an old pair of mats is thrown over them, more for the purpose of appeasing the prejudices of the "Castilians" than really to keep off the rain.

Carelessness from lack of responsibility.

The English and the Dutch are always looked upon as strangers in the tropics; their influence never touches the ancient native customs which culminate in the religion of the country. But the populations whom the Spaniards have converted to their religion have lost all originality, all sense of nationality; yet the alien religion has never really penetrated into their inmost being, they never feel it to be a source of moral support, and it is no accidental coincidence that they are all more or less stamped with a want of dignity.....

Weakened character and want of dignity.

With the exception of this want of national individuality, and the loss of the distinguishing manners and customs which constitute the chief charm of most eastern peoples, the Filipino is an interesting study of a type of mankind existing in the easiest natural conditions. The arbitrary rule of their chiefs, and the iron shackles of slavery, were abolished by the Spaniards shortly after their arrival; and peace and security reigned in the place of war and rapine. The Spanish rule in these Islands was always a mild one, not because the laws, which treated the natives like children, were wonderfully gentle, but because the causes did not exist which caused such scandalous cruelties in Spanish America and in the colonies of other nations.

Spanish rule not benevolent, but beneficial.

It was fortunate for the Filipinos that their islands possessed no wealth in the shape of precious metals or valuable spices. In the earlier days of maritime traffic

Circumstances have favored the Filipinos.

there was little possibility of exporting the numerous agricultural productions of the colony; and it was scarcely worth while, therefore, to make the most of the land. The few Spaniards who resided in the colony found such an easy method of making money in the commerce with China and Mexico, by means of the galleons, that they held themselves aloof from all economical enterprises, which had little attraction for their haughty inclinations, and would have imposed the severest labor on the Filipinos. Taking into consideration the wearisome and dangerous navigation of the time, it was, moreover, impossible for the Spaniards, upon whom their too large possessions in America already imposed an exhausting man-tax, to maintain a strong armed force in the Philippines. The subjection, which had been inaugurated by a dazzling military exploit, was chiefly accomplished by the assistance of the friar orders, whose missionaries were taught to employ extreme prudence and patience. The Philippines were thus principally won by a peaceful conquest.

Have fared better than the Mexicans.

The taxes laid upon the peoples were so trifling that they did not suffice for the administration of the colony. The difference was covered by yearly contributions from Mexico. The extortions of unconscientious officials were by no means conspicuous by their absence. Cruelties, however, such as were practised in the American mining districts, or in the manufactures of Quito, never occurred in the Philippines.

A land of opportunity.

Uncultivated land was free, and was at the service of any one willing to make it productive; if, however, it remained untilled for two years, it reverted to the crown.*

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* As a matter of fact, productive land is always appropriated, and in many parts of the Islands is difficult and expensive to purchase. Near Manila, and in Bulacan, land has for many years past cost over $225 (silver) an acre.

The only tax which the Filipinos pay is the poll-tax, known as the *tributo*, which originally, three hundred years ago, amounted to one dollar for every pair of adults, and in a country where all marry early, and the sexes are equally divided, really constituted a family-tax. By degrees the tribute has been raised to two and one-sixteenth dollars. An adult, therefore, male or female, pays one and one-thirty-second dollar, and that from his sixteenth to his sixtieth year. Besides this, every man has to give forty days' labor every year to the State. This vassalage (*polos y servicios*) is divided into ordinary and extraordinary services: the first consists of the duties appertaining to a watchman or messenger, in cleaning the courts of justice, and in other light labors; the second in road-making, and similar heavier kinds of work, for the benefit of villages and provinces. The little use, however, that is made of these services, is shown by the fact that any one can obtain a release from them for a sum which at most is not more than three dollars. No personal service is required of women. A little further on, important details about the tax from official sources, which were placed at my disposal in the colonial office, appear in a short special chapter. *Low taxes.*

In other countries, with an equally mild climate, and an equally fertile soil, the natives, unless they had reached a higher degree of civilization than that of the Philippine Islanders, would have been ground down by native princes, or ruthlessly plundered and destroyed by foreigners. In these isolated Islands, so richly endowed by nature, where pressure from above, impulse from within, and every stimulus from the outside are wanting, the satisfaction of a few trifling wants is sufficient for an existence with ample comfort. Of all countries in the world, the Philippines have the greatest claim to be considered a lotos-eating Utopia. The traveller, whose *Fortunate factors.*

knowledge of the *dolce far niente* is derived from Naples, has no real appreciation of it; it only blossoms under the shade of palm-trees. These notes of travel will contain plenty of examples to support this. One trip across the Pasig gives a foretaste of life in the interior of the country. Low wooden cabins and bamboo huts, surmounted with green foliage and blossoming flowers, are picturesquely grouped with areca palms, and tall, feather-headed bamboos, upon its banks. Sometimes the enclosures run down into the stream itself, some of them being duck-grounds, and others bathing-places. The shore is fringed with canoes, nets, rafts, and fishing apparatus. Heavily-laden boats float down the stream, and small canoes ply from bank to bank between the groups of bathers. The most lively traffic is to be seen in the *tiendas*, large sheds, corresponding to the Javanese *barongs*, which open upon the river, the great channel for traffic.

River resorts.

They are a source of great attraction to the passing sailors, who resort to them for eating, drinking, and other convivialities; and while away the time there in gambling, betel chewing, and smoking, with idle companions of both sexes.

Sleeping pilots.

At times somebody may be seen floating down the stream asleep on a heap of coconuts. If the nuts run ashore, the sleeper rouses himself, pushes off with a long bamboo, and contentedly relapses into slumber, as his eccentric raft regains the current of the river. One cut of his bolo-knife easily detaches sufficient of the husk of the nuts to allow of their being fastened together; in this way a kind of wreath is formed which encircles and holds together the loose nuts piled up in the middle.

Labor-saving conditions.

The arduous labors of many centuries have left as their legacy a perfect system of transport; but in these Islands man can obtain many of his requirements direct

with proportionately trifling labor, and a large amount of comfort for himself.

Easy food.

Off the Island of Talim, in the great Lagoon of Bay, my boatmen bought for a few *cuartos* several dozens of fish quite twelve inches long; and those which they couldn't eat were split open, salted, and dried by a few hours' exposure to the heat of the sun on the roof of the boat. When the fishermen had parted with their contemplated breakfast, they stooped down and filled their cooking-vessels with sand-mussels (*paludina costata*, 2.a G.), first throwing away the dead ones from the handfuls they picked up from the bottom of the shallow water.

River's importance.

Nearly all the dwellings are built by the water's edge. The river is a natural self-maintaining highway, on which loads can be carried to the foot of the mountains. The huts of the people, built upon piles, are to be seen thickly scattered about its banks, and particularly about its broad mouths. The appropriateness of their position is evident, for the stream is at once the very center of activity and the most convenient spot for the pursuit of their callings. At each tide the takes of fish are more or less plentiful, and at low-water the women and children may be seen picking up shell-fish with their toes, for practice has enabled them to use their toes as deftly as their fingers, or gathering in the sand-crabs and eatable seaweed.

Riverside gaiety.

The riverside is a pretty sight when men, women, and children are bathing and frolicking in the shade of the palm-trees; and others are filling their water-vessels, large bamboos, which they carry on their shoulders, or jars, which they bear on their heads; and when the boys are standing upright on the broad backs of the carabaos and riding triumphantly into the water.

Coco-palms.

It is here too that the coco-palm most flourishes, a tree that supplies not only their food and drink, but also every material necessary for the construction of huts and the manufacture of the various articles which they use. While the greatest care is necessary to make those growing further inland bear even a little fruit, the palm-trees close to the shore, even when planted on wretched soil, grow plentiful crops without the slightest trouble. Has a palm-tree ever been made to blossom in a hot-house? Thomson* mentions that coco-trees growing by the sea-side are wont to incline their stems over the ocean, the waters of which bear their fruit to desert shores and islands, and render them habitable for mankind. Thus the coco-tree would seem to play an essential part in the ocean vagabondage of Malaysia and Polynesia.

Nipa-palms.

Close to the coco-trees grow clumps of the stunted *nipa*-palms, which only flourish in brackish waters;† their leaves furnish the best roof-thatching. Sugar, brandy, and vinegar are manufactured from their sap. Three hundred and fifty years ago Pigafetta found these manufactures in full swing, but nowadays they seem to be limited to the Philippines. Besides these, the *pandanus*-tree, from the leaves of which the softest mats are woven, is always found in near proximity to the shore.

Fertile fields.

Towards the interior the landscape is covered with rice-fields, which yearly receive a fresh layer of fertile soil, washed down from the mountains by the river, and spread over their surface by the overflowing of its waters; and which in consequence never require any fertilizer.

The carabao.

The carabao, the favorite domestic animal of the Malays, and which they keep especially for agri-

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* *Ind. Arch.* IV; 307.

† In Buitenzorger's garden, Java, the author observed, however, some specimens growing in fresh water.

cultural purposes, prefers these regions to all others. It loves to wallow in the mud, and is not fit for work unless permitted to frequent the water.

Bamboos with luxuriant leafy tops grow plentifully by the huts in the rice-fields which fringe the banks of the river. In my former sketches of travel I have endeavored to describe how much this gigantic plant contributes to the comfort and convenience of tropical life. Since then I have become acquainted with many curious purposes to which it is turned, but to describe them here would be out of place.* I may be allowed, however, to briefly cite a few examples showing what numerous results are obtained from simple means. Nature has endowed these splendid plants, which perhaps surpass all others in beauty, with so many useful qualities, and delivered them into the hands of mankind so ready for immediate use, that a few sharp cuts suffice to convert them into all kinds of various utensils. The bamboo possesses, in proportion to its lightness, an extraordinary strength; the result of its round shape, and the regularity of the joints in its stem. The parallel position and toughness of its fibers render it easy to split, and, when split, its pieces are of extraordinary pliability and elasticity. To the gravelly soil on which it grows it owes its durability, and its firm, even, and always clean surface, the brilliancy and color of which improve by use. And finally, it is a great thing for a population with such limited means of conveyance that the bamboo is to be found in such abundance in all kinds of localities and of all dimensions, from a few millimeters to ten or fifteen centimeters in diameter, even

Bamboo.

Strength.

Convenience.

* Boyle, in his *Adventures among the Dyaks*, mentions that he actually found pneumatic tinder-boxes, made of bamboo, in use among the Dyaks; Bastian met with them in Burmah. Boyle saw a Dyak place some tinder on a broken piece of earthenware, holding it steadily with his thumb while he struck it a sharp blow with a piece of bamboo. The tinder took fire. Wallace observed the same method of striking a light in Ternate.

sometimes to twice this amount; and that, on account of its unsurpassed floating power, it is pre-eminently fitted for locomotion in a country poor in roads but rich in watercourses. A blow with a bolo is generally enough to cut down a strong stem. If the thin joints are taken away, hollow stems of different thicknesses can be slid into one another like the parts of a telescope. From bamboos split in half, gutters, troughs, and roofing tiles can be made. Split into several slats, which can be again divided into small strips and fibers for the manufacture of baskets, ropes, mats, and fine plaiting work, they can be made into frames and stands. Two cuts in the same place make a round hole through which a stem of corresponding diameter can be firmly introduced. If a similar opening is made in a second upright, the horizontal stem can be run through both. Gates, closing perpendicularly or horizontally in frames moving without friction on a perpendicular or horizontal axis, can be made in this way.

Two deep cuts give an angular shape to the stem; and when its two sides are wide enough apart to admit of a cross-stem being placed between them, they can be employed as roof-ridges or for the framework of tables and chairs; a quantity of flat split pieces of bamboo being fastened on top of them with chair-cane. These split pieces then form the seats of the chairs and the tops of the tables, instead of the boards and large bamboo laths used at other times. It is equally easy to make an oblong opening in a large bamboo in which to fit the laths of a stand.

A couple of cuts are almost enough to make a fork, a pair of tongs or a hook.

If one makes a hole as big as the end of one's finger in a large bamboo close under a joint, one obtains by fastening a small piece of cloth to the open end, a syphon

or a filter. If a piece of bamboo is split down to the joint in strips, and the strips be bound together with others horizontally interlaced, it makes a conical basket. If the strips are cut shorter, it makes a peddler's pack basket. If a long handle is added, and it is filled with tar, it can be used as a signal torch. If shallower baskets of the same dimensions, but with their bottoms cut off or punched out, are placed inside these conical ones, the two together make capital snare baskets for crabs and fish. If a bamboo stem be cut off just below the joint, and its lower edge be split up into a cogged rim, it makes, when the partition of the joint is punched out, an earth-auger, a fountain-pipe, and many things of the kind.

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Pleasures of travel.

Strangers travelling in the interior have daily fresh opportunities of enjoying the hospitality of nature. The atmosphere is so equitably warm that one would gladly dispense with all clothing except a sun-hat and a pair of light shoes. Should one be tempted to pass the night in the open air, the construction of a hut from the leaves of the palm and the fern is the work of a few minutes; but in even the smallest village the traveller finds a "common house" (*casa real*), in which he can take up his quarters and be supplied with the necessaries of life at the market price. There too he will always meet with *semaneros* (those who perform menial duties) ready to serve him as messengers or porters for the most trifling remuneration. But long practice has taught me that their services principally consist in doing nothing. On one occasion I wanted to send a man who was playing cards and drinking *tuba* (fresh or weakly-fermented palm-sap) with his companions, on an errand. Without stopping his game the fellow excused himself on the ground of being a prisoner, and

Village rest houses.

Pleasant prison life.

one of his guardians proceeded in the midst of the intense heat to carry my troublesome message. Prisoners have certainly little cause to grumble. The only inconvenience to which they are exposed are the floggings which the local authorities very liberally dispense by the dozens for the most trifling offences. Except the momentary bodily pain, however, these appear in most cases to make little impression on a people who have been accustomed to corporal punishment from their youth upwards. Their acquaintances stand round the sufferers, while the blows are being inflicted, and mockingly ask them how it tastes.

Frequent floggings little regarded.

Change from Malayan character.

A long residence amongst the earnest, quiet, and dignified Malays, who are most anxious for their honor, while most submissive to their superiors, makes the contrast in character exhibited by the natives of the Philippines, who yet belong to the Malay race, all the more striking. The change in their nature appears to be a natural consequence of the Spanish rule, for the same characteristics may be observed in the natives of Spanish America. The class distinctions and the despotic oppression prevalent under their former chiefs doubtless rendered the Filipinos of the past more like the Malays of today.

V

The familiar field for travellers.

THE environs of Manila, the Pasig, and the Lagoon of Bay, which are visited by every fresh arrival in the colony, have been so often described that I have restricted myself to a few short notes upon these parts of the country, and intend to relate in detail only my excursions into the south-eastern provinces of Luzon, Camarines, and Albay, and the islands which lie to the east of them,

Samar and Leyte. Before doing this, however, it will not be out of place to glance at the map and give some slight description of their geographical conditions.

Archipelago's great extent.

The Philippine Archipelago lies between Borneo and Formosa, and separates the northern Pacific Ocean from the China Sea. It covers fourteen and one-half degrees of latitude, and extends from the Sulu Islands in the south, in the fifth parallel of north latitude, to the Babuyans in the north in latitude 19° 30′. If, however, the Bashee or Batanes Islands be included, its area may be said to extend to the twenty-first parallel of north latitude. But neither southwards or northwards does Spanish rule extend to these extreme limits, nor, in fact, does it always reach the far interior of the larger islands. From the eastern to the western extremity of the Philippines the distance is about nine degrees of longitude. Two islands, Luzon, with an area of two thousand, and Mindanao, with one of more than one thousand five hundred square miles, are together larger than all the rest. The seven next largest islands are Palawan, Samar, Panay, Mindoro, Leyte, Negros, and Cebu; of which the first measures about two hundred and fifty, and the last about one hundred square miles. Then come Bohol and Masbate, each about half the size of Cebu; twenty smaller islands, still of some importance; and numerous tiny islets, rocks, and reefs.

Favored by position and conditions.

The Philippines are extremely favored by their position and conditions. Their extension from north to south, over 16° of latitude, obtains for them a variety of climate which the Dutch Indies, whose largest diameter, their extent in latitude north and south of the equator being but trifling, runs from the east to the west, by no means enjoy. The advantages accruing from their neighborhood to the equator are added to those

acquired from the natural variety of their climate; and the produce of both the torrid and temperate zones, the palm-tree and the fir, the pine-apple, the corn ear and the potato, flourish side by side upon their shores.

Harbors and water highways.

The larger islands contain vast inland seas, considerable navigable rivers, and many creeks running far into the interior; they are rich, too, in safe harbors and countless natural ports of refuge for ships in distress. Another attribute which, though not to be realized by a glance at the map, is yet one of the most fortunate the Islands possess, is the countless number of small streams which pour down from the inland hills, and open out, ere they reach the ocean, into broad estuaries; up these watercourses coasting vessels of shallow draught can sail to the very foot of the mountains and take in their cargo.

Soil and sea alike productive.

The fertility of the soil is unsurpassed; both the sea around the coasts and the inland lakes swarm with fish and shell-fish, while in the whole archipelago there is scarcely a wild beast to be found. It seems that only two civets happen to appear: Miro (*paradoxurus philippinensis* Tem.) and galong (*viverra tangalunga* Gray). Luzon surpasses all the other islands, not only in size, but in importance; and its fertility and other natural superiority well entitle it to be called, as it is by Crawfurd, "the most beautiful spot in the tropics."

Luzon.

The mainland of the isle of Luzon stretches itself in a compact long quadrangle, twenty-five miles broad, from 18° 40′ north latitude to the Bay of Manila (14° 30′); and then projects, amid large lakes and deep creeks, a rugged promontory to the east, joined to the main continent by but two narrow isthmuses which stretch east and west of the large inland Lagoon of Bay. Many traces of recent upheavals betoken that the two portions were once separated and formed two distinct islands. The large eastern promontory, well-nigh as long as the

northern portion, is nearly cut in half by two deep bays, which, starting from opposite points on the south-eastern and north-western coasts, almost merge their waters in the center of the peninsula; the Bay of Ragay, and the Bay of Sogod. In fact, the southern portion of Luzon may be better described as two small peninsulas lying next to one another in parallel positions, and joined together by a narrow neck of land scarcely three miles broad. Two small streams which rise nearly in the same spot and pour themselves into the two opposite gulfs, make the separation almost complete, and form at the same time the boundary between the province of Tayabas on the west, and that of Camarines on the east. The western portion, indeed, consists almost entirely of the first-named district, and the eastern is divided into the provinces of North Camarines, South Camarines, and Albay. The first of these three is divided from Tayabas by the boundary already mentioned, and from South Camarines by a line drawn from the southern shore of the Bay of San Miguel on the north to the opposite coast. The eastern extremity of the peninsula forms the province of Albay; separated from South Camarines by a line which runs from Donzol, on the south coast, northwards across the volcano of Mayon, and which then, inclining to the west, reaches the northern shore. A look at the map will make these explanations clearer.

The monsoons.

There are two seasons in the Philippines, the wet and the dry. The south-west monsoon brings the rainy season, at the time of our summer, to the provinces which lie exposed to the south and west winds. On the northern and eastern coasts the heaviest downpours take place (in our winter months) during the north-eastern monsoons. The ruggedness of the country and its numerous mountains cause, in certain districts, many variations in these normal meteorological conditions.

The dry season lasts in Manila from November till June (duration of the north-east monsoon); rain prevails during the remaining months (duration of the south-west monsoon). The heaviest rainfall occurs in September; March and April are frequently free from rain. From October to February inclusively the weather is cool and dry (prevalence of N.W., N., and N.E. winds); March, April, and May are warm and dry (prevalence of E.N.E., E., and E.S.E. winds); and from June till the end of September it is humid and moderately warm.

There has been an observatory for many years past in Manila under the management of the Jesuits. The following is an epitome of the yearly meteorological report for 1867, for which I am indebted to Professor Dove:

Barometrical readings.—The average height of the mercury was, in 1867, 755.5; in 1865, 754.57; and in 1866, 753.37 millimeters.

In 1867 the difference between the highest and lowest barometrical readings was not more than 13.96 millimetres, and would have been much less if the mercury had not been much depressed by storms in July and September. The hourly variations amounted to very few millimeters.

Daily reading of the barometer.—The mercury rises in the early morning till about 9 a. m., it then falls up to 3 or 4 p. m., from then it rises again till 9 p. m., and then again falls till towards day-break. Both the principal atmospheric currents prevalent in Manila exercise a great influence over the mercury in the barometer; the northern current causes it to rise (to an average height of 756 millimeters), the southern causes it to fall (to about 753 millimeters).

Temperature.—The heat increases from January till the end of May, and then decreases till December.

Average yearly temperature, 27.9° C. The highest temperature ever recorded (on the 15th of April at 3 p. m.) was 37.7° C.; the lowest (on the 14th of December and on the 30th of January at 6 a. m.), 19.4° C. Difference, 18.3° C.*

Thermometrical variations.—The differences between the highest and lowest readings of the thermometer were, in January, 13.9°; in February, 14.2°; in March, 15°; in April, 14.6°; in May, 11.1°; in June, 9.9°; in July, 9°; in August, 9°; in September, 10°; in October, 11.9°; in November, 11.8°; and in December, 11.7°.

Coolest months.—November, December and January, with northerly winds.

Hottest months.—April and May. Their high temperature is caused by the change of monsoon from the north-east to the south-west. The state of the temperature is most normal from June to September; the variations are least marked during this period owing to the uninterrupted rainfall and the clouded atmosphere.

Daily variations of the thermometer.—The coolest portion of the day is from 6 to 7 a. m.; the heat gradually increases, reaches its maximum about 2 or 3 p. m., and then again gradually decreases. During some hours of the night the temperature remains unchanged, but towards morning it falls rapidly.

Winds

The direction of the wind is very regular at all seasons of the year, even when local causes make it vary a little. In the course of a twelvemonth the wind goes around the whole compass. In January and February north winds prevail; in March and April they blow from the south-east; and in May, June, July, August, and September,

* Centigrade is changed to Fahrenheit by multiplying by nine-fifths and adding thirty-two.—C.

from the south-west. In the beginning of October they vary between south-east and south-west, and settle down towards the close of the month in the north-east, in which quarter they remain tolerably fixed during the two following months. The two changes of monsoon always take place in April and May, and in October. As a rule, the direction of both monsoons preserves its equilibrium; but in Manila, which is protected towards the north by a high range of hills, the north-east monsoon is often diverted to the south-east and north-west. The same cause gives greater force to the south-west wind.

Sunshine and rain.

The sky is generally partially clouded; entirely sunny days are of rare occurrence, in fact, they only occur from January to April during the north-east monsoons. Number of rainy days in the year, 168. The most continuous and heaviest rain falls from June till the end of October. During this period the rain comes down in torrents; in September alone the rainfall amounted to 1.5 meters, nearly as much as falls in Berlin in the course of the whole year, 3,072.8 millimeters of rain fell in the twelve month; but this is rather more than the average.

The evaporation only amounted to 2,307.3 millimeters; in ordinary years it is generally about equal to the downfall, taking the early averages, not those of single months.

The average daily evaporation was about 6.3 millimeters.

Storms.

The changes of monsoons are often accompanied with tremendous storms; during one of these, which occurred in September, the velocity of the wind was as much as thirty-seven or thirty-eight meters per second. An official report of the English vice-consul mentions a typhoon which visited the Islands on September 27, 1865, and which did much damage at Manila, driving seventeen vessels ashore.

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The Philippines are divided into provinces (P), and districts (D), each of which is administered by an alcalde of the 1st (A1), 2nd (A2), or 3rd class (A3) (*de termino, de ascenso, de entrada*); by a political and military governor (G), or by a commandant (C). In some provinces an alcalde of the 3rd class is appointed as coadjutor to the governor. These divisions are frequently changed. *Provinces and districts.*

The population is estimated approximately at about five millions. *Population.*

In spite of the long possessions of the Islands by the Spaniards their language has scarcely acquired any footing there. A great diversity of languages and dialects prevails; amongst them the Bisayan, Tagalog, Ilocano, Bicol, Pangasinan, and Pampangan are the most important. *Language and dialects.*

ISLAND OF LUZON

Luzon Provinces and their languages and populations.

Rank of Official	Rank of District	Name	Prevailing Dialect	Population	Pueblos
G.	P.	Abra	Ilocano	34,337	5
A1.	P.	Albay	Bicol	330,121	34
A2.	P.	Batnan	Tagalog, Pampangan	44,794	10
A1.	P.	Batangas	Tagalog	280,100	
	D.	Benguet	Igorot, Ilocano, Pangasinan	8,465	
	D.	Bontoc	Suflin, Ilocano, Igorot	7,052	
A1.	P.	Bulacan	Tagalog	240,341	23
A1.	P.	Cagayan	Ibanag, Itanes, Idayan, Gaddan, Ilocano, Dadaya, Apayao, Malaneg	64,437	16
A2.	P.	Camarines Norte	Tagalog, Bicol	25,372	7
A2(?)	P.	Camarines Sur	Bicol	81,047	31
A3.	P.	Cavite	Spanish, Tagalog	109,501	17
A1.	P.	Ilocos Norte	Ilocano, Tinguian	134,767	12
A1.	P.	Ilocos Sur	Ilocano	105,251	18
C.	D.	Infanta	Tagalog	7,813	2
G.	P.	Isabela	Ibanag, Gaddan, Tagalog	29,200	9
A1.	P.	Laguna	Tagalog, Spanish	121,251	26
	D.	Lepanto	Igorot, Ilocano	8,851	48
3A1.	P.	Manila	Tagalog, Spanish, Chinese	323,683	23
C.	D.	Morong	Tagalog	41,239	12
A2.	P.	Nueva Ecija	Tagalog, Pangasinan, Pampangan, Ilocano	84,520	12
A3.	P.	Nueva Vizcaya	Gaddan, Ifugao, Ibilao, Ilongote	32,961	8
A1.	P.	Pampanga	Pampangan, Ilocano	193,423	21
A1.	P.	Pangasinan	Pangasinan, Ilocano	253,472	25
	D.	Porac	Pampangan	6,950	1
C.	D.	Principe	Tagalog, Ilocano, Ilongote	3,609	3
	D.	Saltan	Gaddan	6,610	
A2.	P.	Tayabas	Tagalog, Bicol	93,918	17
	D.	Tiagan	Different Igorot dialects	5,723	
G.	P.	Union	Ilocano	88,024	11
A2.	P.	Zambales	Zambal, Ilocano, Aeta, Pampangan, Tagalog, Pangasinan	72,936	16

Bisayas.

ISLANDS BETWEEN LUZON AND MINDANAO

Rank of Official.	Rank of District.	Name.	Prevailing Dialect.	Population.	Pueblos.
G a3.	P.	Antique (Panay)	Bisayan	88,874	13
G a3.	P.	Bohol	Bisayan	187,327	26
C.		Burias	Bicol	1,786	1
G a3.	P.	Capiz (Panay)	Bisayan	206,288	26
G a2.	P.	Cebu	Bisayan	318,715	44
G a3.	P.	Iloilo (Panay)	Bisayan	565,500	35
G a3.	P.	Leyte	Bisayan	170,591	28
	D.	Masbate, Ticao	Bisayan	12,457	9
A2.	P.	Mindoro	Tagalog	23,050	10
G a3.	P.	Negros	Cebuan, Panayan, Bisayan	144,923	31
	D.	Romblon	Bisayan	21,579	4
G a3.	P.	Samar	Bisayan	146,539	28

Mindanao.

MINDANAO

	D.	Cotabato	Spanish, Manobo	1,103	1
G a3.	D.	Misamis (J)	Bisayan	63,639	14
G a3.	D.	Surigao (J)		24,104	12
	D.	Zamboanga (J)	Maniaya, Spanish	9,608	2
G a3.	D.	Davao	Bisayan	1,537	

Outlying islands.

DISTANT ISLANDS

G a3.	P.	Batanes	Ibanag	8,381	6
G a3.	P.	Calamianes	Coyuvo, Agutaino Calamiano	17,703	5
G.	P.	Marianas	Chamorro, Carolino	5,940	6

Unreliability of government reports.

The statistics of the above table are taken from a small work, by Sr. [Vicente] Barrantes, the Secretary-General of the Philippines; but I have arranged them differently to render them more easily intelligible to the eye. Although Sr. Barrantes had the best official materials at his disposal, too much value must not be attributed to his figures, for the sources from which he drew them are tainted with errors to an extent that can hardly be realized in Europe. For example, he derives the following contradictory statements from his official sources:—The population of Cavite is set down as 115,300 and 65,225; that of Mindoro as 45,630, and 23,054; that of Manila as 230,443, and 323,683; and that of Capiz as 788,947, and 191,818.

VI

To Bulacan by steamer.

My first excursion was to the province of Bulacan, on the northern shore of the Bay of Manila. A couple of hours brought the steamer to the bar of Binuanga (not Bincanga as it is called in Coello's map), and a third to Bulacan, the capital of the province, situated on the flat banks of an influent of the Pampanga delta. I was the only European passenger, the others were composed of Tagalogs, *mestizos*, and a few Chinese; the first more particularly were represented by women, who are generally charged with the management of all business affairs, for which they are much better fitted than the men. As a consequence, there are usually more women than men seen in the streets, and it appears to be an admitted fact that the female births are more numerous than the male. According, however, to the church-record which I looked through, the reverse was, at any rate in the eastern provinces, formerly the case.

Carromatas.

At the landing-place a number of *carromatas* were waiting for us,—brightly painted, shallow, two-wheeled boxes, provided with an awning, and harnessed to a couple of horses, in which strangers with money to spend are quickly driven anywhere they may desire.

Town of Bulacan.

The town of Bulacan contains from 11,000 to 12,000 inhabitants; but a month before my arrival, the whole of it, with the exception of the church and a few stone houses, had been burnt to the ground. All were therefore occupied in building themselves new houses, which, oddly enough, but very practically, were commenced at the roof, like houses in a drawing. Long rows of roofs composed of palm-leaves and bamboos were laid in readiness on the ground, and in the meantime were used as tents.

Frequence of fires.

Similar destructive fires are very common. The houses, which with few exceptions are built of bamboo and wood, become perfectly parched in the hot season, dried into so much touchwood by the heat of the sun. Their inhabitants are extremely careless about fire, and there are no means whatever of extinguishing it. If anything catches fire on a windy day, the entire village, as a rule, is utterly done for. During my stay in Bulacan, the whole suburb of San Miguel, in the neighborhood of Manila, was burnt down, with the exception of the house of a Swiss friend of mine, which owed its safety to the vigorous use of a private fire-engine, and the intermediation of a small garden full of bananas, whose stems full of sap stopped the progress of the flames.

To Calumpit by carriage.

I travelled to Calumpit, a distance of three leagues, in the handsome carriage of an hospitable friend. The roads were good, and were continuously shaded by fruit-trees, coco and areca palms. The aspect of this fruitful province reminded me of the richest districts of Java; but the *pueblos* here exhibited more comfort than the *desas* there. The houses were more substantial; numerous roomy constructions of wood, in many cases, even, of stone, denoted in every island the residence of official and local magnates. But while even the poorer Javanese always give their wicker huts a smart appearance, border the roads of their villages with blooming hedges, and display everywhere a sense of neatness and cleanliness, there were here far fewer evidences of taste to be met with. I missed too the *alun-alun*, that pretty and carefully tended open square, which, shaded by *waringa* trees, is to be met with in every village in Java. And the quantity and variety of the fruit trees, under whose leaves the *desas* of Java are almost hidden, were by no means as great in this province, although it is the garden of the Philippines, as in its Dutch prototype.

I reached Calumpit towards evening, just as a procession, resplendent with flags and torches, and melodious with song, was marching round the stately church, whose worthy priest, on the strength of a letter of introduction from Madrid, gave me a most hospitable reception. Calumpit, a prosperous place of 12,250 inhabitants, is situated at the junction of the Quingua and Pampanga rivers, in an extremely fruitful plain, fertilized by the frequent overflowing of the two streams. *Calumpit.*

About six leagues to the north-west of Calumpit, Mount Arayat, a lofty, isolated, conical hill, lifts its head. Seen from Calumpit, its western slope meets the horizon at an angle of 20°, its eastern at one of 25°; and the profile of its summit has a gentle inclination of from 4° to 5°. *Mt. Arayat.*

At Calumpit I saw some Chinese catching fish in a peculiar fashion. Across the lower end of the bed of a brook which was nearly dried up, and in which there were only a few rivulets left running, they had fastened a hurdle of bamboo, and thrown up a shallow dam behind it. The water which collected was thrown over the dam with a long-handled winnowing shovel. The shovel was tied to a bamboo frame work ten feet high, the elasticity of which made the work much easier. As soon as the pool was emptied, the fisherman was easily able to pick out of the mud a quantity of small fish (*Ophiocephalus vagus*). These fishes, which are provided with peculiar organisms to facilitate respiration, at any rate, enabling them to remain for some considerable time on dry land, are in the wet season so numerous in the ditches, ponds, and rice-fields, that they can be killed with a stick. When the water sinks they also retire, or, according to Professor Semper, bore deeply into the ooze at the bottom of the watercourses, where, protected by a hard crust of earth from the persecutions of mankind, *Picking fish.*

they sleep away the winter. This Chinese method of fishing seems well adapted to the habits of the fish. The circumstances that the dam is only constructed at the lower end of the watercourse, and that it is there that the fish are to be met with in the greatest numbers, seem to indicate that they can travel in the ooze, and that as the brooks and ditches get dried up, they seek the larger water channels.

To Baliwag.

Following the Quingua in its upward and eastward course as it meandered through a well-cultivated and luxuriantly fertile country, past stone-built churches and chapels which grouped themselves with the surrounding palm-trees and bamboo-bushes into sylvan vignettes, Father Llano's four-horsed carriage brought me to the important town of Baliwag, the industry of which is celebrated beyond the limits of the province.

Board houses and their furniture.

I visited several families and received a friendly reception from all of them. The houses were built of boards and were placed upon piles elevated five feet above the ground. Each consisted of a spacious dwelling apartment which opened on one side into the kitchen, and on the other on to an open space, the azotea; a lofty roof of palm-trees spread itself above the dwelling, the entrance to which was through the azotea. The latter was half covered by the roof I have just mentioned. The floor was composed of slats an inch in width, laid half that distance apart. Chairs, tables, benches, a cupboard, a few small ornaments, a mirror, and some lithographs in frames, composed the furniture of the interior. The cleanliness of the house and the arrangement of its contents testified to the existence of order and prosperity.

Tapis weaving.

I found the women in almost all the houses occupied in weaving *tapis*, which have a great reputation in the Manila market. They are narrow, thickly-woven silk

scarves, six *varas* in length, with oblique white stripes on a dark-brown ground. They are worn above the *sarong*.

Baliwag is also especially famous for its *pelaca** cigar-cases, which surpass all others in delicacy of workmanship. They are not made of straw, but of fine strips of Spanish cane, and particularly from the lower ends of the leaf-stalks of the *calamusari*, which is said to grow only in the province of Nueva Ecija. *Pelaca cigar cases.*

A bundle of a hundred selected stalks, a couple of feet long, costs about six reals. When these stalks have been split lengthways into four or five pieces, the inner wood is removed, till nothing but the outer part remains. The thin strips thus obtained are drawn by the hand between a convex block and a knife fixed in a sloping position, and between a couple of steel blades which nearly meet. *Preparation of material.*

It is a task requiring much patience and practice. In the first operation, as a rule, quite one-half of the stems are broken, and in the second more than half, so that scarcely twenty per cent of the stalks survive the final process. In very fine matting the proportionate loss is still greater. The plaiting is done on wooden cylinders. A case of average workmanship, which costs two dollars on the spot, can be manufactured in six days' uninterrupted labor. Cigar-cases of exceptionally intricate workmanship, made to order for a connoisseur, frequently cost upwards of fifty dollars. *Costly weaving.*

Following the Quingua from Baliwag up its stream, we passed several quarries, where we saw the thickly-packed strata of volcanic stone which is used as a building material. The banks of the river are thickly studded with prickly bamboos from ten to twelve feet high. *Volcanic stone quarries.*

* Tylor (Anahuac 227) says that this word is derived from the Mexican *petlatl*, a mat. The inhabitants of the Philippines call this *petate*, and from the Mexican *petla-calli*, a mat "house," derive *pelaca*, a cigar case.

The water overflows in the rainy season, and floods the plain for a great distance. Hence the many shells of large freshwater mussels which are to be seen lying on the earth which covers the volcanic deposit. The country begins to get hilly in the neighborhood of Tobog, a small place with no church of its own, and dependent for its services upon the priest of the next parish. The gentle slopes of the hills are, as in Java, cut into terraces and used for the cultivation of rice. Except at Lucban I have never observed similar *sawas* anywhere else in the Philippines. Several small sugar-fields, which, however, the people do not as yet understand how to manage properly, show that the rudiments of agricultural prosperity are already in existence. The roads are partly covered with awnings, beneath which benches are placed affording repose to the weary traveller. I never saw these out of this province. One might fancy oneself in one of the most fertile and thickly-populated districts of Java.

A convento and the parish priest.

I passed the night in a *convento*, as the dwelling of the parish priest is called in the Philippines. It was extremely dirty, and the priest, an Augustinian, was full of proselytish ardor. I had to undergo a long geographical examination about the difference between Prussia and Russia; was asked whether the great city of Nuremberg was the capital of the grand-duchy or of the empire of Russia; learnt that the English were on the point of returning to the bosom of the Catholic Church, and that the "others" would soon follow, and was, in short, in spite of the particular recommendation of Father Llanos, very badly received. Some little time afterwards I fell into the hands of two young Capuchins, who tried to convert me, but who, with the exception of this little impertinence, treated me capitally. They gave me *pâtés de foie gras* boiled in water, which I quickly

recognized by the truffles swimming about in the grease. To punish them for their importunity I refrained from telling my hosts the right way to cook the pâtés, which I had the pleasure of afterwards eating in the forest, as I easily persuaded them to sell me the tins they had left. These are the only two occasions on which I was subjected to this kind of annoyance during my eighteen months' residence in the Philippines. Priestly hospi

The traveller who is provided with a passport is, however, by no means obliged to rely upon priestly hospitality, as he needs must do in many isolated parts of Europe. Every village, every hamlet, has its common-house, called *casa real* or *tribunal*, in which he can take up his quarters and be supplied with provisions at the market price, a circumstance that I was not acquainted with on the occasion of my first trip. The traveller is therefore in this respect perfectly independent, at least in theory, though in practice he will often scarcely be able to avoid putting up at the conventos in the more isolated parts of the country. In these the priest, perhaps the only white man for miles around, is with difficulty persuaded to miss the opportunity of housing such a rare guest, to whom he is only too anxious to give up the best bedroom in his dwelling, and to offer everything that his kitchen and cellar can afford. Everything is placed before the guest in such a spirit of sincere and undisguised friendliness, that he feels no obligation, but on the contrary easily persuades himself that he is doing his host a favor by prolonging his stay. Upon one occasion, when I had determined, in spite of an invitation from the padre, to occupy the *casa real*, just as I was beginning to instal myself, the priest appeared upon the scene with the municipal officials and a band of music which was in the neighborhood pending the preparations for a religious festival.

Arrangements for travellers.

He made them lift me up, chair and all, and with music and general rejoicing carried me off to his own house.

Kupang iron-foundry

On the following day I paid a visit to Kupang, an iron-foundry lying to the N.N.E of Angat, escorted by two armed men, whose services I was pressed to accept, as the district had a bad reputation for robberies. After travelling three or four miles in a northerly direction, we crossed the Banauon, at that time a mere brook meandering through shingle, but in the rainy season an impetuous stream more than a hundred feet broad; and in a couple of hours we reached the iron-works, an immense shed lying in the middle of the forest, with a couple of wings at each end, in which the manager, an Englishman, who had been wrecked some years before in Samar, lived with his wife, a pretty *mestiza*. If I laid down my handkerchief, my pencil, or any other object, the wife immediately locked them up to protect them from the kleptomania of her servants. These poor people, whose enterprise was not a very successful one, had to lead a wretched life. Two years before my visit a band of twenty-seven robbers burst into the place, sacked the house, and threw its mistress, who was alone with her maid at the time, out of the window. She fortunately alighted without receiving any serious hurt, but the maid, whom terror caused to jump out of the window also, died of the injuries she received. The robbers, who turned out to be miners and residents in Angat, were easily caught, and, when I was there, had already spent a couple of years in prison awaiting their trial.

A negrito family.

I met a negrito family here who had friendly relations with the people in the iron-works, and were in the habit of exchanging the produce of the forest with them for provisions. The father of this family accompanied me on a hunting expedition He was armed with a bow

and a couple of arrows. The arrows had spear-shaped iron points a couple of inches long; one of them had been dipped into arrow-poison, a mixture that looked like black tar. The women had guitars (*tabana*) similar to those used by the Mintras in the Malay peninsula. They were made of pieces of bamboo a foot long, to which strings of split chair-cane were fastened.*

Unwelcome hospitality.

Upon my return, to avoid spending the night at the wretched convento where I had left my servant with my luggage, I took the advice of my friends at the iron-works and started late, in order to arrive at the priest's after ten o'clock at night; for I knew that the padre shut up his house at ten, and that I could therefore sleep, without offending him, beneath the roof of a wealthy mestizo, an acquaintance of theirs. About half-past ten I reached the latter's house, and sat down to table with the merry women of the family, who were just having their supper. Suddenly my friend the parson made his appearance from an inner room, where with a couple of Augustinian friars, he had been playing cards with the master of the house. He immediately began to compliment me upon my good fortune, "for had you been but one minute later," said he, "you certainly wouldn't have got into the convento."

VII

The Lagoon of Bay.

My second trip took me up the Pasig to the great Lagoon of Bay. I left Manila at night in a *banca*, a boat hollowed out of a tree-trunk, with a vaulted roof made of bamboo and so low that it was almost impossible to sit upright under it, which posture, indeed, the banca-builder appeared to have neglected to consider. A

* Four lines, re an omitted sketch, left out.—C.

bamboo hurdle placed at the bottom of the boat protects the traveller from the water and serves him as a couch. Jurien de la Gravière* compares the banca to a cigar-box, in which the traveller is so tightly packed that he would have little chance of saving his life if it happened to upset. The crew was composed of four rowers and a helmsman; their daily pay was five reals apiece, in all nearly seven pesos, high wages for such lazy fellows in comparison with the price of provisions, for the rice that a hard-working man ate in a day seldom cost more than seven centavos (in the provinces often scarcely six), and the rest of his food (fish and vegetables), only one centavo. We passed several villages and *tiendas* on the banks in which food was exposed for sale. My crew, after trying to interrupt the journey under all sorts of pretences, left the boat as we came to a village, saying that they were going to fetch some sails; but they forgot to return. At last, with the assistance of the night watchman, I succeeded in hauling them out of some of their friends' houses, where they had concealed themselves. After running aground several times upon the sandbanks, we entered the land and hill-locked Lagoon of Bay, and reached Jalajala early in the morning.

The Pasig.

The Pasig forms a natural canal, about six leagues long, between the Bay of Manila and the Lagoon of Bay, a fresh water lake, thirty-five leagues in circumference, that washes the shores of three fertile provinces, Manila, Laguna and Cavite. Formerly large vessels full of cargo used to be able to sail right up to the borders of the lake; now they are prevented by sandbanks. Even flat-bottomed boats frequently run aground on the

* Voyage en Chine, vol. II., page 33.

Napindan and Taguig banks.* Were the banks removed, and the stone bridge joining Manila to Binondo replaced by a swing bridge, or a canal made round it, the coasting vessels would be able to ship the produce of the lagoon provinces at the very foot of the fields in which they grow. The traffic would be very profitable, the waters would shrink, and the shallows along the shore might be turned into rice and sugar fields. A scheme of this kind was approved more than thirty years ago in Madrid, but it was never carried into execution. The sanding up of the river has, on the contrary, been increased by a quantity of fish reels, the erection of which has been favored by the Colonial Waterways Board because it reaped a small tax from them.

A famous plantation.

Jalajala, an estate which occupies the eastern of the two peninsulas which run southward into the lake, is one of the first places visited by strangers. It owes this preference to its beautiful position and nearness to Manila, and to the fantastic description of it by a former owner, De la Gironnière. The soil of the peninsula is volcanic; its range of hills is very rugged, and the water-courses bring down annually a quantity of soil from the mountains, which increases the deposits at their base. The shore-line, overgrown with grass and prickly sensitive-plants quite eight feet high, makes capital pasture for carabaos. Behind it broad fields of rice and sugar extend themselves up to the base of the hills. Towards the north the estate is bounded by the thickly-wooded Sembrano, the highest mountain in the peninsula; on the remaining sides it is surrounded with water. With

* According to the report of an engineer, the sand banks are caused by the river San Mateo, which runs into the Pasig at right angles shortly after the latter leaves the Lagoon; in the rainy season it brings down a quantity of mud, which is heaped up and embanked by the south-west winds that prevail at the time. It would, therefore, be of little use to remove the sandbanks without giving the San Mateo, the cause of their existence, a direct and separate outlet into the lake.

the exception of the flat shore, the whole place is hilly and overgrown with grass and clumps of trees, capital pasture for its numerous herds—a thousand carabaos, one thousand five hundred to two thousand bullocks, and from six to seven hundred nearly wild horses. As we were descending one of the hills, we were suddenly surrounded by half-a-dozen armed men, who took us for cattle-thieves, but who, to their disappointment, were obliged to forego their expected chance of a reward.

Los Baños hot springs.

Beyond Jalajala, on the south coast of the Lagoon of Bay, lies the hamlet of Los Baños, so called from a hot spring at the foot of the Makiling volcano. Even prior to the arrival of the Spaniards, the natives used its waters as a remedy,* but they are now very little patronized. The shore of the lake is at this point, and indeed all round its circumference, so flat that it is impossible to land with dry feet from the shallowest canoe. It is quite covered with sand mussels. Northwest of Los Baños there lies a small volcanic lake fringed with thick woods, called Dagatan (the enchanted lagoon of travellers), to distinguish it from Dagàt, as the Tagals call the great Lagoon of Bay. I saw nothing of the crocodiles which are supposed to infest it, but we flushed several flocks of wild fowl, disturbed by our invasion of their solitude. From Los Baños I had intended to go to Lupang Puti (white earth), where, judging from the samples shown me, there is a deposit of fine white silicious earth, which is purified in Manila and used as paint. I did not reach the place, as the guide whom I had with difficulty obtained, pretended, after a couple of miles, to be dead beat. From the inquiries

* They take baths for their maladies, and have hot springs for this purpose, particularly along the shore of the king's lake (Estang du Roy, instead of Estang de Bay by a printer's mistake apparently), which is in the Island of Manila.—*Thevenot.*

I made, however, I apprehend that it is a kind of *solfatara*. Several deposits of it appear to exist at the foot of the Makiling.*

On my return I paid a visit to the Island of Talim, which, with the exception of a clearing occupied by a few miserable huts, is uninhabited and thickly overgrown with forest and undergrowth. In the center of the Island is the Susong-Dalaga (maiden's bosom), a dolerite hill with a beautifully formed crest. Upon the shore, on a bare rock, I found four eggs containing fully developed young crocodiles. When I broke the shells the little reptiles made off. *Talim island.*

Although the south-west monsoons generally occur later in Jalajala than in Manila, it was already raining so hard that I decided to go to Calauan, on the southern shore of the lake, which is protected by Mount Makiling, and does not experience the effect of the rainy monsoons till later in the season. I met M. de la Gironnière in Calauan, the "gentilhomme Breton" who is so well known for telling the most terrible adventures. He had lately returned from Europe to establish a large sugar manufactory. His enterprise, however, was a failure. The house of the lively old gentleman, whose eccentricity had led him to adopt the dress and the frugal habits of the natives, was neither clean or well kept, although he had a couple of friends to assist him in the business, a Scotchman, and a young Frenchman who had lived in the most refined Parisian society. *M. de la Gironnière.*

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* "One can scarcely walk thirty paces between Mount Makiling and a place called Bacon, which lies to the east of Los Baños, without meeting several kinds of natural springs, some very hot, some lukewarm, some of the temperature of the atmosphere, and some very cold. In a description of this place given in our archives for the year 1739, it is recorded that a hill called Natognos lies a mile to the south-east of the village, on the plateau of which there is a small plain 400 feet square, which is kept in constant motion by the volume of vapor issuing from it. The soil from which this vapor issues is an extremely white earth; it is sometimes thrown up to the height of a yard or a yard and a half, and meeting the lower temperature of the atmosphere falls to the ground in small pieces."—*Estado geograph.*, 1865.

Llanura de Imuc.

There were several small lakes and a few empty volcanic basins on the estate. To the south-west, not very far from the house, and to the left of the road leading to San Pablo, lies the Llanura de Imuc, a valley of dolerite more than a hundred feet deep. Large blocks of basalt enable one to climb down into the valley, the bottom of which is covered with dense growths. The center of the basin is occupied by a neglected coffee plantation laid out by a former proprietor. The density of the vegetation prevented my taking more precise observations. There is another shallower volcanic crater to the north of it. Its soil was marshy and covered with cane and grass, but even in the rainy season it does not collect sufficient water to turn it into a lake. It might, therefore, be easily drained and cultivated.

Tigui-mere.

To the south-west of this basin, and to the right of the road to San Pablo, lies the Tigui-mere. From a plain of whitish-grey soil, covered with concentric shells as large as a nut, rises a circular embankment with gently-sloping sides, intersected only by a small cleft which serves as an entrance, and which shows, on its edges denuded of vegetation, the loose *rapilli* of which the embankment is formed. The sides of this natural amphitheatre tower more than a hundred feet above its flat base. A path runs east and west right through the center. The northern half is studded with cocopalm trees and cultivated plants; the southern portion is full of water nearly covered with green weeds and slime. The ground consists of black *rapilli*.

Leaf impressions in lava.

From the Tigui-mere I returned to the *hacienda* along a bank formed of volcanic lava two feet in thickness and covered with indistinct impressions of leaves. Their state of preservation did not allow me to distinguish

their species, but they certainly belonged to some tropical genus, and are, according to Professor A. Braun, of the same kind as those now growing there.

There are two more small lakes half a league to the south-east. The road leading to them is composed of volcanic remains which cover the soil, and large blocks of lava lie in the bed of the stream.

Maycap Lake.

The first of the two, the Maycap Lake, is entirely embanked with the exception of a small opening fitted with sluices to supply water to a canal; and from its northern side, which alone admits of an open view, the southern peak of San Cristobal may be seen, about 73° to the north-east. Its banks, which are about eighty feet high, rise with a gentle slope in a westerly direction, till they join Mount Maiba, a hill about 500 feet high. The soil, like that of the embankments of the other volcanic lakes, consists of rapilli and lava, and is thickly wooded.

Lake Palakpakan.

Close by is another lake, Palakpakan, of nearly the same circumference, and formed in a similar manner (of black sand and rapilli). Its banks are from thirty to one hundred feet high. From its north-western edge San Cristobal lifts its head 70° to the northeast. Its waters are easily reached, and are much frequented by fishermen.

Palm brandy.

About nine o'clock, a. m., I rode from Calauan to Pila, and thence in a northeasterly direction to Santa Cruz, over even, broad, and well-kept roads, through a palm-grove a mile long and a mile and a half broad, which extends down to the very edge of the lagoons. The products of these palm trees generally are not used for the production of oil but for the manufacture of brandy. Their fruit is not allowed to come to maturity; but the buds are slit open, and the sweet sap is collected

as it drips from them. It is then allowed to ferment, and subjected to distillation.* As the sap is collected twice a day, and as the blossoms, situated at the top of the tree, are forty or fifty feet above the ground, bamboos are fastened horizontally, one above the other, from one tree to another, to facilitate the necessary ascent and descent. The sap collector stands on the lower cross-piece while he holds on to the upper.

Bought by government.

The sale of palm-brandy was at the time of my visit the monopoly of the government, which retailed it in the *Estanco* (government sale rooms) with cigars, stamped paper, and religious indulgences. The manufacture was carried on by private individuals; but the whole of the brandy was of necessity disposed of to the administration, which, however, paid such a high price for it that the contractors made large profits.

Profit in manufacture.

I afterwards met a Spaniard in Camarines who, according to his own account, must have made considerable and easy gains from these contracts. He had bought palm-trees at an average price of five reals apiece (they usually cost more, though they can be sometimes purchased for two reals). Thirty-five palms will furnish daily at least thirty-six quarts of *tuba* (sugar-containing sap), from which, after fermentation and distillation, six quarts of brandy of the prescribed strength can be manufactured. One man is sufficient to attend to them, and receives for his trouble half the proceeds. The

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* Pigafetta says that the natives, in order to obtain palm-wine, cut the top of the tree through to the pith, and then catch the sap as it oozes out of the incision. According to Regnaud, *Natural History of the Coco-tree*, the negroes of Saint Thomas pursue a similar method in the present day, a method that considerably injures the trees and produces a much smaller quantity of liquor. Hernandez describes an indigenous process of obtaining wine, honey, and sago from the *sacsac* palm, a tree which from its stunted growth would seem to correspond with the *arenga saccharifera*. The trees are tapped near the top, the soft part of the trunks is hollowed out, and the sap collects in this empty space. When all the juice is extracted, the tree is allowed to dry up, and is then cut into thin pieces which, after desiccation in the sun, are ground into meal.

administration pays six *cuartos* for a quart of brandy. My friend the contractor was in annual receipt, therefore, from every thirty-five of his trees, of $360 \times \frac{1}{2} \times 5$ cuartos = $40.50. As the thirty-five trees only cost him $21.875, his invested capital brought him in about 200 per cent.

Wine and liquor monopoly a failure.

The proceeds of this monopoly (wines and liquors) were rated at $1,622,810 in the colonial budget for 1861; but its collection was so difficult, and so disproportionately expensive, that it nearly swallowed up the whole profit. It caused espionage, robberies of all sorts, embezzlement, and bribery on a large scale. The retail of the brandy by officials, who are paid by a percentage on the consumption, did a good deal to injure the popular respect for the government. Moreover, the imposition of this improper tax on the most important industry of the country not only crippled the free trade in palms, but also the manufacture of raw sugar; for the government, to favor their own monopoly, had forbidden the sugar manufacturers to make rum from their molasses, which became in consequence so valueless that in Manila they gave it to their horses. The complaints of the manufacturers at last stirred up the administration to allow the manufacture of rum; but the palm-brandy monopoly remained intact. The Filipinos now drank nothing but rum, so that at last, in self-defence, the government entirely abandoned the monopoly (January, 1864). Since that, the rum manufacturers pay taxes according to the amount of their sale, but not upon the amount of their raw produce. In order to cover the deficit occasioned by the abandonment of the brandy monopoly, the government has made a small increase in the poll-tax. The practice of drinking brandy has

naturally much increased; it is, however, a very old habit.* With this exception, the measure has had the most favorable consequences.

Santa Cruz.

Santa Cruz is a lively, prosperous place (in 1865 it contained 11,385 inhabitants), through the center of which runs a river. As the day on which we passed through it was Sunday, the stream was full of bathers, amongst them several women, their luxuriant hair covered with broad-brimmed hats to shade them from the sun. From the ford the road takes a sharp turn and inclines first to the east and then to the south-east, till it reaches Magdalena, between which and Majaijai the country becomes hilly. Just outside the latter, a viaduct takes the road across a deep ravine full of magnificent ferns, which remind the traveller of the height—more than 600 feet—above the sea level to which he has attained. The spacious convento at Majaijai, built by the Jesuits, is celebrated for its splendid situation. The Lagoon of Bay is seen to extend far to the north-east; in the distance the Peninsula of Jalajala and the Island of Talim, from which rises the Susong-Dalaga volcano, terminate the vista. From the convento to the lake stretches an endless grove of coco-trees, while towards the south the slope of the distant high ground grows suddenly steeper, and forms an abruptly precipitous conical hill, intersected by deep ravines. This is the Banajao or Majaijai volcano, and beside it Mount San Cristobal rears its bell-shaped summit.

Scenery along Lucban-Mauban road.

As everybody was occupied with the preparations for an ensuing religious festival, I betook myself, through Lucban on the eastern shore, to Mauban, situated amidst deep ravines and masses of lava at the foot of Mount

* Pigafetta mentions that the natives were in the habit of making oil, vinegar, wine, and milk, from the coco-palm, and that they drank a great deal of the wine. Their kings, he says, frequently intoxicated themselves at their banquets.

Majaijai. The vegetation was of indescribable beauty, and the miserable road was enlivened with cheerful knots of pedestrians hastening to the festival.*

I reached Lucban in three hours; it is a prosperous place of 13,000 inhabitants, to the north-east of Majaijai. A year after my visit it burnt to the ground. The agricultural produce of the district is not very important, owing to the mountainous nature of the country; but considerable industrial activity prevails there. The inhabitants weave fine straw hats from the fibre of the leaf of the *buri* palm-tree (*corypha sp.*), manufacture *pandanus* mats, and carry on a profitable trade at Mauban with the placer miners of North Camarines. The entire breadth of the road is covered with cement, and along its center flows, in an open channel, a sparkling rivulet. *Lucban.*

The road from Lucban to Mauban, which is situated on the bay of Lamon, opposite to the Island of Alabat, winds along the narrow watercourse of the Mapon river, through deep ravines with perpendicular cliffs of clay. I observed several terrace-formed rice-fields similar to those so prevalent in Java, an infrequent sight in the Philippines. Presently the path led us into the very thick of the forest. Nearly all the trees were covered with *aroides* and creeping ferns; amongst them I noticed the *angiopteris*, *pandanus*, and several large specimens of the fan palm. *Java-like rice fields.*

Three leagues from Lucban the river flows under a rock supported on prismatically shaped pillars, and then runs through a bed of round pebbles, composed of volcanic stone and white lime, as hard as marble, in which impressions of shell-fish and coral can be traced. Further up the river the volcanic rubble disappears, and the *Mapon river.*

* A number of the *Illustrated London News*, of December, 1857, or January, 1858, contains a clever drawing, by an accomplished artist, of the mode of travelling over this road, under the title, "A macadamized road in Manila."

containing strata then consist of the marble-like pebbles cemented together with calcareous spar. These strata alternate with banks of clay and coarse-grained soil, which contain scanty and badly preserved imprints of leaves and mussel-fish. Amongst them, however, I observed a flattened but still recognizable specimen of the fossil *melania*. The river-bed must be quite five hundred feet above the level of the sea.

Bamboo raft ferry.

About a league beyond Mauban, as it was getting dusk, we crossed the river, then tolerably broad, on a wretched leaking bamboo raft, which sank at least six inches beneath the water under the weight of our horses, and ran helplessly aground in the mud on the opposite side.

Visitors to festival.

The tribunal or common-house was crowded with people who had come to attend the festival which was to take place on the following day. The *cabezas* wore, in token of their dignity, a short jacket above their shirts. A quantity of brightly decorated tables laden with fruit and pastry stood against the walls, and in the middle of the principal room a dining-table was laid out for forty persons.

Hospitality of tribunal.

A European who travels without a servant—mine had run away with some wages I had rashly paid him in advance—is put down as a beggar, and I was overwhelmed with impertinent questions on the subject, which, however, I left unanswered. As I hadn't had the supper I stood considerably in need of, I took the liberty of taking a few savory morsels from the meat-pot, which I ate in the midst of a little knot of wondering spectators; I then laid myself down to sleep on the bench beside the table, to which a second set of diners were already sitting down. When I awoke on the following morning there were already so many people stirring that I had no opportunity of performing my

toilet. I therefore betook myself in my dirty travelling dress to the residence of a Spaniard who had settled in the *pueblo*, and who received me in the most hospitable manner as soon as the description in my passport satisfied him that I was worthy of a confidence not inspired by my appearance.

Trade in molave.

My friendly host carried on no trifling business. Two English ships were at that moment in the harbor, which he was about to send to China laden with *molave*, a species of wood akin to teak.

Butucan waterfall.

On my return I visited the fine waterfall of Butucan, between Mauban and Lucban, a little apart from the high road. A powerful stream flows between two high banks of rocky soil thickly covered with vegetation, and, leaping from a ledge of volcanic rock suddenly plunges into a ravine, said to be three hundred and sixty feet in depth, along the bottom of which it is hurried away. The channel, however, is so narrow, and the vegetation so dense, that an observer looking at it from above can not follow its course. This waterfall has a great similarity to that which falls from the Semeru in Java. Here, as there, a volcanic stream flowing over vast rocky deposits forms a horizontal watercourse, which in its turn is overshadowed with immense masses of rock. The water easily forces its way between these till it reaches the solid lava, when it leaves its high, narrow, and thickly-wooded banks, and plunges into the deep chasm it has itself worn away. The pouring rain unfortunately prevented me from sketching this fine fall. It was raining when I reached the convento of Majaijai, and it was still raining when I left it three days later, nor was there any hope of improvement in the weather for another month to come. "The wet season lasts for eight or nine months in Majaijai, and during the whole period scarcely a day passes without the rain falling in torrents."—*Estado geograph.*

Mayayao

To ascend the volcano was under such circumstances impracticable. According to some notes written by the Majaijai priest, an ascent and survey of Mount Banajao was made on the 22nd of April, 1858, by Senors Roldan and Montero, two able Spanish naval officers, specially charged with the revision of the marine chart of the archipelago. From its summit they took observations of Manila cathedral, of Mayon, another volcano in Albay, and of the Island of Polillo. They estimated the altitude of Banajao to be seven thousand and twenty Spanish feet, and the depth of its crater to be seven hundred. The crater formerly contained a lake, but the last eruption made a chasm in its southern side through which the water flowed away.*

Calauan

I reached Calauan in the pouring rain, wading through the soft spongy clay upon wretched, half-starved ponies, and found I must put off my water journey to Manila till the following day, as there was no boat on the lake at this point. The next morning there were no horses to be found; and it was not till the afternoon that I procured a cart and a couple of carabaos to take me to Santa Cruz, whence in the evening the market-vessel started for Manila. One carabao was harnessed in front; the other was fastened behind the cart in order that I might have a change of animals when the first became tired. Carabao number one wouldn't draw, and number two acted as a drag—rather useless apparatus on a level

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* Erd and Pickering, of the United States exploring expedition, determined the height to be 6,500 English feet (7,143 Spanish), not an unsatisfactory result, considering the imperfect means they possessed for making a proper measurement. In the Manila *Estado geográfico* for 1865, the height is given, without any statement as to the source whence the estimate is derived, as 7,030 feet. The same authority says, "the large volcano is extinct since 1730, in which year its last eruption took place. The mountain burst into flames on the southern side, threw up streams of water, burning lava, and stones of an enormous size; traces of the last can be observed as far as the village of Sumaya. The crater is perhaps a league in circumference, it is highest on the northern side, and its interior is shaped like an egg-shell; the depth of the crater apparently extends half-way down the height of the mountain."

road—so I changed them. As soon as number two felt the load it laid down. A few blows persuaded it to pick itself up, when it deliberately walked to the nearest pool and dropped into it. It was with the greatest trouble that we unharnessed the cart and pushed it back on to the road, while our two considerate beasts took a mud bath. At last we reloaded the baggage, the carabaos were reharnessed in the original positions, and the driver, leaning his whole weight upon the nose-rope of the leading beast, pulled with might and main. To my great delight the animal condescended to slowly advance with the cart and its contents. At Pila I managed to get a better team, with which late in the evening, in the midst of a pouring rain, I reached a little hamlet opposite Santa Cruz. The market-vessel had left; our attempts to get a boat to take us across to the village only led to barefaced attempts at extortion, so I entered one of the largest of the hamlet's houses, which was occupied by a widow and her daughter. After some delay my request for a night's lodging was granted. I sent for some oil, to give me a little light, and something to eat. The women brought in some of their relations, who helped to prepare the food and stopped in the house to protect its owners. The next morning I crossed the river, teeming with joyous bathers, to Santa Cruz, and hired a boat there to take me across the lake to Pasig, and from thence to Manila. A contrary wind, however, forced us to land on the promontory of Jalajala, and there wait for the calm that accompanies the dawn. Betwixt the extreme southern point of the land and the houses I saw, in several places, banks of mussels projecting at least fifteen feet above the surface of the water, similar to those which are so frequently found on the sea-coast; —a proof that earthquakes have taken place in this neighborhood.

Pila.

Earthquake evidences.

VIII

To Albay by schooner.

TOWARDS the end of August I started from Manila for Albay in a schooner which had brought a cargo of hemp and was returning in ballast. It was fine when we set sail; but on the following day the signs of a coming storm increased so rapidly that the captain resolved to return and seek protection in the small but secure harbor of Mariveles, a creek on the southern shore of Bataan, the province forming the western boundary of Manila bay. We reached it about two o'clock in the night after cruising about for fourteen hours before the entrance; and we were obliged to remain here at anchor for a fortnight, as it rained and stormed continuously for that period.

Mariveles.

The weather obliged me to limit my excursions to the immediate neighborhood of Mariveles. Unfortunately it was not till the close of our stay that I learnt that there was a colony of negritos in the mountains; and it was not till just before my departure that I got a chance of seeing and sketching a couple of them, male and female. The inhabitants of Mariveles have not a very good reputation. The place is only visited by ships which run in there in bad weather, when their idle crews spend the time in drinking and gambling. Some of the young girls were of striking beauty and of quite a light color; often being in reality of mixed race, though they passed as of pure Tagal blood. This is a circumstance I have observed in many seaports, and in the neighborhood of Manila; but, in the districts which are almost entirely unvisited by the Spaniards, the natives are much darker and of purer race.

Storm-bound shipping.

The number of ships which were seeking protection from the weather in this port amounted to ten, of which three were schooners. Every morning regularly a small

*pontin** used to attempt to set sail; but it scarcely got a look at the open sea before it returned, when it was saluted with the jeers and laughter of the others. It was hunger that made them so bold. The crew, who had taken some of their own produce to Manila, had spent the proceeds of their venture, and had started on their return voyage scantily provided with provisions, with the hope and intention of soon reaching their home, which they could have done with any favorable wind. Such cases frequently occur. A few natives unite to charter a small vessel, and load it with the produce of their own fields, which they set off to sell in Manila.

The straits.

The straits between the Islands resemble beautiful wide rivers with charming spots upon the banks inhabited by small colonies; and the sailors generally find the weather gets squally towards evening, and anchor till the morning breaks.

Filipino hospitality.

The hospitable coast supplies them with fish, crabs, plenty of mussels, and frequently unprotected coconuts. If it is inhabited, so much the better. Filipino hospitality is ample, and much more comprehensive than that practised in Europe. The crews are accommodated in the different huts. After a repast shared in common, and washed down by copious draughts of palm-wine, mats are streched on the floor; the lamps—large shells, fitted with rush wicks—are extinguished, and the occupants of the hut fall asleep together. Once, as I was sailing into the bay of Manila after a five day's cruise, we overtook a craft which had sailed from the same port as we had with a cargo of coconut oil for Manila, and which had spent six months upon its trip. It is by no means uncommon for a crew which makes a long stay

* From *ponte*, deck; a two-masted vessel, with mat sails, of about 100 tons burden.

in the capital to squander the whole proceeds of their cargo, if they have not done it before reaching town.

Coasting Luzon.

At last one evening, when the storm had quite passed away, we sailed out of Mariveles. A small, volcanic, pillar-shaped rock, bearing a striking resemblance to the Island of the Cyclops, off the coast of Sicily, lies in front of the harbor—like there, a sharp pyramid and a small, flat island. We sailed along the coast of Cavite till we reached Point Santiago, the southwestern extremity of Luzon, and then turned to the east, through the fine straits that lie between Luzon to the north and the Bisayan islands to the south. As the sun rose, a beautiful spectacle presented itself. To the north was the peak of the Taal volcano, towering above the flat plains of Batangas; and to the south the thickly-wooded, but rock-bound coast of Mindoro, the iron line of which was broken by the harbor of Porto Galera, protected from the fury of the waves by a small islet lying immediately before it. The waters around us were thickly studded with vessels which had taken refuge from the storm in the Bisayan ports, and were now returning to Manila.

Importance of straits.

These straits, which extend from the south-east to the northwest, are the great commercial highway of the Archipelago, and remain navigable during the whole year, being protected from the fury of the north-easterly winds by the sheltering peninsula of Luzon, which projects to the south-east, and by Samar, which extends in a parallel direction; while the Bisayan islands shield them from the blasts that blow from the south-west. The Islands of Mindoro, Panay, Negros, Cebu and Bohol, which Nature has placed in close succession to each other, form the southern borders of the straits; and the narrow cross channels between them form as many outlets to the Sea of Mindoro, which is bounded on the west by

Palawan, on the east by Mindanao, and on the south by the Sulu group. The eastern waters of the straits wash the coasts of Samar and Leyte, and penetrate through three small channels only to the great ocean; the narrow straits of San Bernardino, of San Juanico, and of Surigao. Several considerable, and innumerable smaller islets, lie within the area of these cursorily explained outlines.

Batangas coast.

A couple of bays on the south coast of Batangas offer a road-stead, though but little real protection, to passing vessels, which in stormy weather make for Porto Galera, in the Island of Mindoro, which lies directly opposite. A river, a league and a half in length, joins Taal, the principal port of the province, to the great inland sea of Taal, or Bombon. This stream was formerly navigable; but it has now become so sanded up that it is passable only at flood tides, and then only by very small vessels.

Batangas exports.

The province of Batangas supplies Manila with its best cattle, and exports sugar and coffee.

A hilly range bounds the horizon on the Luzon side; the striking outlines of which enable one to conjecture its volcanic origin. Most of the smaller islands to the south appear to consist of superimposed mountainous ranges, terminating seaward in precipitous cliffs. The lofty and symmetrical peak of Mount Mayon is the highest point in the panoramic landscape. Towards evening we sighted Mount Bulusan, in the south-eastern extremity of Luzon; and presently we turned northwards, and sailed up the Straits of San Bernardino, which separate Luzon from Samar.

Bulusan like Vesuvius.

The Bulusan volcano, "which appears to have been for a long time extinct, but which again began to erupt in 1852,"* is surprisingly like Vesuvius in outline. It

* *Estado Geogr.*, p. 314.

has, like its prototype, a couple of peaks. The western one, a bell-shaped summit, is the eruption cone. The eastern apex is a tall, rugged mound, probably the remains of a huge circular crater. As in Vesuvius, the present crater is in the center of the extinct one. The intervals between them are considerably larger and more uneven than the *Atrio del Cavallo* of the Italian volcano.

San Bernardino current.

The current is so powerful in the Straits of San Bernardino that we were obliged to anchor twice to avoid being carried back again. To our left we had continually in view the magnificent Bulusan volcano, with a hamlet of the same name nestling at the foot of its eastern slope in a grove of coco-trees, close to the sea. Struggling with difficulty against the force of the current, we succeeded, with the assistance of light and fickle winds, in reaching Legaspi, the port of Albay, on the following evening. Our skipper, a Spaniard, had determined to accomplish the trip as rapidly as possible.

A native captain.

On my return voyage, however, I fell into the hands of a native captain; and, as my cruise under his auspices presented many peculiarities, I may quote a few passages relating to it from my diary..... The skipper intended to have taken a stock of vegetables for my use, but he had forgotten them. He therefore landed on a small island, and presently made his reappearance with a huge palm cabbage, which, in the absence of its owner, he had picked from a tree he cut down for the purpose. .....On another occasion the crew made a descent upon a hamlet on the north-western coast of Leyte to purchase provisions. Instead of laying in a stock for the voyage at Tacloban, the sailors preferred doing so at some smaller village on the shores of the straits, where food is cheaper, and where their landing gave them a pretext to run about the country. The straits of San Juanico, never more than a mile, and often only eight

hundred feet broad, are about twenty miles in length: yet it often takes a vessel a week to sail up them; for contrary winds and an adverse current force it to anchor frequently and to lie to for whole nights in the narrower places. Towards evening our captain thought that the sky appeared very threatening, so he made for the bay of Navo, of Masbate. There he anchored, and a part of the crew went on shore. The next day was a Sunday; the captain thought "the sky still appeared very threatening;" and besides he wanted to make some purchases. So we anchored again off Magdalena, where we passed the night. On Monday a favorable wind took us, at a quicker rate, past Marinduque and the rocky islet of Elefante, which lies in front of it. Elefante appears to be an extinct volcano; it looks somewhat like the Iriga, but is not so lofty. It is covered with capital pasture, and its ravines are dotted with clumps of trees. Nearly a thousand head of half-wild cattle were grazing on it. They cost four dollars a-piece; and their freight to Manila is as much more, where they sell for sixteen dollars. They are badly tended, and many are stolen by the passing sailors. My friend the captain was full of regret that the favorable wind gave him no opportunity of landing; perhaps I was the real obstacle. "They were splendid beasts! How easy it would be to put a couple on board! They could scarcely be said to have any real owners; the nominal proprietors were quite unaware how many they possessed, and the herd was continually multiplying without any addition from its masters. A man lands with a little money in his pocket. If he meets a herdsman, he gives him a dollar, and the poor creature thinks himself a lucky fellow. If not, so much the better. He can do the business himself; a barrel of shot or a sling suffices to settle the matter."

An intermittent voyage.

Plunder.

As we sailed along we saw coming towards us another vessel, the *Luisa*, which suddenly executed a very extraordinary tack; and in a minute or two its crew sent up a loud shout of joy, having succeeded in stealing a fish-box which the fishermen of Marinduque had sunk in the sea. They had lowered a hook, and been clever enough to grapple the rope of the floating buoy. Our captain was beside himself with envy of their prize.

Legaspi.

Legaspi is the principal port of the province of Albay. Its road-stead, however, is very unsafe, and, being exposed to the north-easterly storms, is perfectly useless during the winter. The north-east wind is the prevailing one on this coast; the south-west breeze only blows in June and July. The heaviest storms occur between October and January. They generally set in with a gentle westerly wind, accompanied with rain. The gale presently veers round to the north or the south, and attains the height of its fury when it reaches the north-east or the south-east. After the storm a calm generally reigns, succeeded by the usual wind of the prevailing monsoon. The lightly-built elastic houses of the country are capitally suited to withstand these storms; but roofs and defective houses are frequently carried away. The traffic between Manila and Legaspi is at its height between January and October; but during the autumn months all communication by water ceases. The letter-post, which arrives pretty regularly every week, is then the only link between the two places. At this season heavy packages can be sent only by a circuitous and expensive route along the south coast, and thence by water to Manila. Much more favorably situated for navigation is the port of Sorsogon, the mouth of which opens to the west, and is protected by the Island of Bagalao, which lies in front of it. Besides its security as a harbor, it has the advantage of a rapid and unbroken communica-

Sorsogon.

tion with the capital of the archipelago, while vessels sailing from Legaspi, even at the most favorable time of the year, are obliged to go round the eastern peninsula of Luzon, and meet the principal current of the Straits of San Bernardino, frequently a very difficult undertaking; and, moreover, small vessels obliged to anchor there are in great danger of being captured by pirates. The country about Sorsogon, however, is not so fertile as the neighborhood of Legaspi.

A worthy official.

I took letters of introduction with me to both the Spanish authorities of the province; who received me in the most amiable way, and were of the greatest use to me during the whole of my stay in the vicinity. I had also the good fortune to fall in with a model alcalde, a man of good family and of most charming manners; in short, a genuine *caballero.* To show the popular appreciation of the honesty of his character, it was said of him in Samar that he had entered the province with nothing but a bundle of papers, and had left it as lightly equipped.

IX

Daraga.

My Spanish friends enabled me to rent a house in Daraga,* a well-to-do town of twenty thousand inhabitants at the foot of the Mayon, a league and a half from Legaspi. The summit of this volcano was considered inaccessible until two young Scotchmen, Paton and

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* Officially called Cagsaua. The old town of Cagsaua, which was built higher up the hill and was destroyed by the eruption of 1814, was rebuilt on the spot where formerly stood a small hamlet of the name of Daraga.

Stewart by name, demonstrated the contrary.* Since then several natives have ascended the mountain, but no Europeans.

Ascent of Mayon.

I set out on September 25th, and passed the night, by the advice of Señor Muños, in a hut one thousand feet above the level of the sea, in order to begin the ascent the next morning with unimpaired vigor. But a number of idlers who insisted on following me, and who kept up a tremendous noise all night, frustrated the purpose of this friendly advice; and I started about five in the morning but little refreshed. The fiery glow I had noticed about the crater disappeared with the dawn. The first few hundred feet of the ascent were covered with a tall grass quite six feet high; and then came a slope of a thousand feet or so of short grass succeeded by a quantity of moss; but even this soon disappeared, and the whole of the upper part of the mountain proved entirely barren. We reached the summit about one o'clock. It was covered with fissures which gave out sulphurous gases and steam in such profusion that we were obliged to stop our mouths and nostrils with our handkerchiefs to prevent ourselves from being suffocated. We came to a halt at the edge of a broad and deep chasm, from which issued a particularly dense vapor. Apparently we were on the brink of a crater, but the thick fumes of the disagreeable vapor made it impossible for us to guess

* I learnt from Mr. Paton that the undertaking had also been represented as impracticable in Albay. "Not a single Spaniard, not a single native had ever succeeded in reaching the summit; in spite of all their precautions they would certainly be swallowed up in the sand." However, one morning, about five o'clock, they set off, and soon reached the foot of the cone of the crater. Accompanied by a couple of natives, who soon left them, they began to make the ascent. Resting half way up, they noticed frequent masses of shining lava, thrown from the mouth of the crater, gliding down the mountain. With the greatest exertions they succeeded, between two and three o'clock, in reaching the summit, where, however, they were prevented by the noxious gas from remaining more than two or three minutes. During their descent, they restored their strength with some refreshments Sr. Muñoz had sent to meet them; and they reached Albay towards evening, where during their short stay they were treated as heroes, and presented with an official certificate of their achievement, for which they had the pleasure of paying several dollars.

at the breadth of the fissure. The absolute top of the volcano consisted of a ridge, nearly ten feet thick, of solid masses of stone covered with a crust of lava bleached by the action of the escaping gas. Several irregular blocks of stone lying about us showed that the peak had once been a little higher. When, now and again, the gusts of wind made rifts in the vapor, we perceived on the northern corner of the plateau several rocky columns at least a hundred feet high, which had hitherto withstood both storm and eruption. I afterwards had an opportunity of observing the summit from Daraga with a capital telescope on a very clear day, when I noticed that the northern side of the crater was considerably higher than its southern edge.

The descent.

Our descent took some time. We had still two-thirds of it beneath us when night overtook us. In the hope of reaching the hut where we had left our provisions, we wandered about till eleven o'clock, hungry and weary, and at last were obliged to wait for daylight. This misfortune was owing not to our want of proper precaution, but to the unreliability of the carriers. Two of them, whom we had taken with us to carry water and refreshments, had disappeared at the very first; and a third, "a very trustworthy man," whom we had left to take care of our things at the hut, and who had been ordered to meet us at dusk with torches, had bolted, as I afterwards discovered, back to Daraga before noon. My servant, too, who was carrying a woolen blanket and an umbrella for me, suddenly vanished in the darkness as soon as it began to rain, and though I repeatedly called him, never turned up again till the next morning. We passed the wet night upon the bare rocks, where, as our very thin clothes were perfectly wet through, we chilled till our teeth chattered. As soon, however, as the sun

rose we got so warm that we soon recovered our tempers. Towards nine o'clock we reached the hut and got something to eat after twenty-nine hours' fast.

A suspicious medal.

In the *Trabajos y Hechos Notables de la Soc. Econom. de los Amigos del País*, for September 4th, 1823, it is said that "Don Antonio Siguenza paid a visit to the volcano of Albay on March 11th," and that the Society "ordered a medal to be struck in commemoration of the event, and in honor of the aforesaid Siguenza and his companions." Everybody in Albay, however, assured me that the two Scotchmen were the first to reach the top of the mountain. It is true that in the above notice the ascent of the volcano is not directly mentioned; but the fact of the medal naturally leads us to suppose that nothing less can be referred to. Arenas, in his memoir, says: "Mayon was surveyed by Captain Siguenza. From the crater to the base, which is nearly at the level of the sea, he found that it measured sixteen hundred and eighty-two Spanish feet or four sixty-eight and two-third meters." A little further on, he adds, that he had read in the records of the Society that they had had a gold medal struck in honor of Siguenza, who had made some investigations about the volcano's crater in 1823. He, therefore, appears to have had some doubt about Siguenza's actual ascent.

An early friar attempt.

According to the Franciscan records a couple of monks attempted the ascent in 1592, in order to cure the natives of their superstitious belief about the mountain. One of them never returned; but the other, although he did not reach the summit, being stopped by three deep abysses, made a hundred converts to Christianity by the mere relation of his adventures. He died in the same year, in consequence, it is recorded, of the many variations of temperature to which he was exposed in his ascent of the volcano.

Some books say that the mountain is of considerable height; but the *Estado Geografico* of the Franciscans for 1855, where one could scarcely expect to find such a thoughtless repetition of so gross a typographical error, says that the measurements of Siguenza give the mountain a height of sixteen hundred and eighty-two feet. According to my own barometrical reading, the height of the summit above the level of the sea was twenty-three hundred and seventy-four meters, or eighty-five hundred and fifty-nine Spanish feet. *Estimates of height.*

X

I SPRAINED my foot so badly in ascending Mayon that I was obliged to keep the house for a month. Under the circumstances, I was not sorry to find myself settled in a roomy and comfortable dwelling. My house was built upon the banks of a small stream, and stood in the middle of a garden in which coffee, cacao, oranges, papayas, and bananas grew luxuriantly, in spite of the tall weeds which surrounded them. Several over-ripe berries had fallen to the ground, and I had them collected, roasted, mixed with an equal quantity of sugar, and made into chocolate; an art in which the natives greatly excel. With the Spaniards chocolate takes the place of coffee and tea, and even the *mestizos* and the well-to-do natives drink a great deal of it. *An accident and a month's rest.*

The cacao-tree comes from Central America. It flourishes there between the 23rd parallel north and the 20th south latitude; but it is only at its best in the hottest and dampest climates. In temperate climates, where the thermometer marks less than 23° C., it produces no fruit. *Cacao.*

High quality.

It was first imported into the Philippines from Acapulco; either, according to Camarines, by a pilot called Pedro Brabo de Lagunas, in 1670; or, according to Samar, by some Jesuits, during Salcedo's government, between 1663 and 1668. Since then it has spread over the greater part of the Island; and, although it is not cultivated with any excessive care, its fruit is of excellent quality. The cacao of Albay, if its cheapness be taken into consideration, may be considered at least equal to that of Caracas, which is so highly-prized in Europe, and which, on account of its high price, generally is largely mixed with inferior kinds.* The bushes are usually found in small gardens, close to the houses; but so great is the native laziness that frequently the berries are allowed to decay, although the local cacao sells for a higher price than the imported. At Cebu and Negros a little more attention is paid to its cultivation; but it does not suffice to supply the wants of the colony, which imports the deficiency from Ternate and Mindanao. The best cacao of the Philippines is produced in the small Island of Maripipi, which lies to the north-west of Leyte; and it is difficult to obtain, the entire crop generally being long bespoke. It costs about one dollar per liter, whereas the Albay cacao costs from two to two and a half dollars per "ganta" (three liters).

Scanty production.

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* From 36,000,000 to 40,000,000 lbs. of cacao are consumed in Europe annually; of which quantity nearly a third goes to France, whose consumption of it between 1853 and 1866 has more than doubled. In the former year it amounted to 6,215,000 lbs., in the latter to 12,973,534 lbs. Venezuela sends the finest cacaos to the European market, those of Porto Cabello and Caracas. That of Caracas is the dearest and the best, and is of four kinds. Chuao, Ghoroni, O'Cumar, and Rio Chico. England consumes the cacao grown in its own colonies, although the duty (1*d* per lb.) is the same for all descriptions. Spain, the principal consumer, imports its supplies from Cuba, Porto Rico, Ecuador, Mexico, and Trinidad. Several large and important plantations have recently been established by Frenchmen in Nicaragua. The cacao beans of Soconusco (Central America) and Esmeralda (Ecuador) are more highly esteemed than the finest of the Venezuela sorts; but they are scarcely ever used in the Philippines, and cannot be said to form part of their commerce. Germany contents itself with the inferior kinds. Guayuquil cacao, which is only half the price of Caracas, is more popular amongst the Germans than all the other varieties together.

The natives generally cover the kernels, just as they are beginning to sprout, with a little earth, and, placing them in a spirally-rolled leaf, hang them up beneath the roof of their dwellings. They grow very rapidly, and, to prevent their being choked by weeds, are planted out at very short intervals. This method of treatment is probably the reason that the cacao-trees in the Philippines never attain a greater height than eight or ten feet, while in their native soil they frequently reach thirty, and sometimes even forty feet. The tree begins to bear fruit in its third or fourth year, and in its fifth or sixth it reaches maturity, when it usually yields a "ganta" of cacao, which, as I have mentioned, is worth from two to two and a half dollars, and always finds a purchaser.* *Culture.*

The profits arising from a large plantation would, therefore, be considerable; yet it is very rare to meet with one. I heard it said that the Economical Society had offered a considerable reward to any one who could exhibit a plantation of ten thousand berry-bearing trees; but in the Society's report I found no mention of this reward. *Neglect.*

The great obstacles in the way of large plantations are the heavy storms which recur almost regularly every year, and often destroy an entire plantation in a single day. In 1856 a hurricane visited the Island just before the harvest, and completely tore up several large plantations by the roots; a catastrophe that naturally has caused much discouragement to the cultivators.† One consequence of this state of things was that the free *Damage by storms.*

* C. Scherzer, in his work on Central America, gives the cacao-tree an existence of twenty years, and says that each tree annually produces from 15 to 20 ounces of cacao. 1,000 plants will produce 1,250 lbs. of cacao, worth $250; so that the annual produce of a single tree is worth a quarter of a dollar. Mitscherlich says that from 4 to 6 lbs. of raw beans is an average produce. A liter of dried cacao beans weighs 630 grains; of picked and roasted, 610 grains.

† In 1727 a hurricane destroyed at a single blast the important cacao plantation of Martinique, which had been created by long years of extraordinary care. The same thing happened at Trinidad.—*Mitscherlich.*

importation of cacao was permitted, and people were enabled to purchase Guayaqual cacao at fifteen dollars per quintal while that grown at home cost double the money.

Diseases and pests.

The plant is sometimes attacked by a disease, the origin of which is unknown, when it suffers severely from certain noxious insects.* It is also attacked by rats and other predatory vermin; the former sometimes falling upon it in such numbers that they destroy the entire harvest in a single night. Travellers in America say that a well-kept cacao plantation is a very picturesque sight. In the Philippines, however, or at any rate in East Luzon, the closely-packed, lifeless-looking, moss-covered trees present a dreary spectacle. Their existence is a brief one. Their oval leaves, sometimes nearly a foot long, droop singly from the twigs, and form no luxuriant masses of foliage. Their blossoms are very insignificant; they are of a reddish-yellow, no larger than the flowers of the lime, and grow separately on long weedy stalks. The fruit ripens in six months. When it is matured, it is of either a red or a yellow tint, and is somewhat like a very rough gherkin. Only two varieties appear to be cultivated in the Philippines.† The pulp of the fruit is white, tender, and of an agreeable acid taste, and contains from eighteen to twenty-four kernels, arranged in five rows. These kernels are as large as almonds, and, like them, consist of a couple of husks and a small core. This is the cacao bean; which,

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* F. Engel mentions a disease (*mancha*) which attacks the tree in America, beginning by destroying its roots. The tree soon dies, and the disease spreads so rapidly that whole groves of cacao trees utterly perish and are turned into pastures for cattle. Even in the most favored localities, after a long season of prosperity, thousands of trees are destroyed in a single night by this disease, just as the harvest is about to take place. An almost equally dangerous foe to cultivation is a moth whose larva entirely destroys the ripe cacao beans; and which only cold and wind will kill. Humboldt mentions that cacao beans which have been transported over the chilly passes of the Cordilleras are never attacked by this pest.

† G. Bornoulli quotes altogether eighteen kinds; of which he mentions only one as generally in use in the Philippines.

roasted and finely ground, produces cacao, and with the addition of sugar, and generally of spice, makes chocolate. Till the last few years, every household in the Philippines made its own chocolate, of nothing but cacao and sugar. The natives who eat chocolate often add roasted rice to it. Nowadays there is a manufactory in Manila, which makes chocolate in the European way. The inhabitants of the eastern provinces are very fond of adding roasted *pili* nuts to their chocolate.*

Chocolate.

Europeans first learnt to make a drink from cacao in Mexico, where the preparation was called *chocolatl.*† Even so far back as the days of Cortes, who was a tremendous chocolate drinker, the cacao-tree was extensively cultivated. The Aztecs used the beans as money; and Montezuma used to receive part of his tribute in this peculiar coin. It was only the wealthy among the ancient Mexicans who ate pure cacao; the poor, on account of the value of the beans as coins, used to mix maize and mandioca meal with them. Even in our own day the inhabitants of Central America make use of the beans as small coins, as they have no copper money, nor smaller silver coins than the half-real. Both in Central America and in Orinoco there yet are many

* *Pili* is very common in South Luzon, Samar, and Leyte; it is to be found in almost every village. Its fruit, which is almost of the size of an ordinary plum but not so round, contains a hard stone, the raw kernel of which is steeped in syrup and candied in the same manner as the kernel of the sweet pine, which it resembles in flavor. The large trees with fruit on them, "about the size of almonds and looking like sweet-pine kernels," which Pigafetta saw at Jomonjol were doubtless *pili*-trees. An oil is expressed from the kernels much resembling sweet almond oil. If incisions are made in the stems of the trees, an abundant pleasant-smelling white resin flows from them, which is largely used in the Philippines to calk ships with. It also has a great reputation as an anti-rheumatic plaster. It is twenty years since it was first exported to Europe; and the first consignees made large profits, as the resin, which was worth scarcely anything in the Philippines, became very popular and was much sought in Europe.

† The general name for the beverage was *Cacahoa-atl* (cacao water). *Chocolatl* was the term given to a particular kind. F. Hernandez found four kinds of cacao in use among the Aztecs, and he describes four varieties of drinks that were prepared from them. The third was called *chocolatl*, and apparently was prepared as follows:—Equal quantities of the kernels of the *pochotl* (*Bombax ceiba*) and *cacahoatl* (*cacao*) trees were finely ground, and heated in an earthen vessel, and all the grease removed as it rose to the surface. Maize, crushed and soaked, was added to it, and a beverage prepared from the mixture; to which the oily parts that had been skimmed off the top were restored, and the whole was drunk hot.

unpenetrated forests which are almost entirely composed of wild cacao-trees. I believe the natives gather some of their fruit, but it is almost worthless. By itself it has much less flavor than the cultivated kinds. Certainly it is not picked and dried at the proper season, and it gets spoilt in its long transit through the damp woods.

An uncertain venture.

Since the abolition of slavery, the crops in America have been diminishing year by year, and until a short time ago, when the French laid out several large plantations in Central America, were of but trifling value. According to F. Engel, a flourishing cacao plantation required less outlay and trouble, and yields more profit than any other tropical plant; yet its harvests, which do not yield anything for the first five or six years, are very uncertain, owing to the numerous insects which attack the plants. In short, cacao plantations are only suited to large capitalists, or to very small cultivators who grow the trees in their own gardens. Moreover, as we have said, since the abolition of slavery most of the plantations have fallen into decay, for the freed slaves are entirely wanting in industry.

Use in Europe.

The original chocolate was not generally relished in Europe. When, however, at a later period, it was mixed with sugar, it met with more approbation. The exaggerated praise of its admirers raised a bitter opposition amongst the opponents of the new drink; and the priests raised conscientious scruples against the use of so nourishing an article of food on fast days. The quarrel lasted till the seventeenth century, by which time cacao had become an everyday necessity in Spain. It was first introduced into Spain in 1520; but chocolate, on account of the monopoly of the Conquistadores, was for a long time secretly prepared on the other side of the ocean. In 1580, however, it was in common use in Spain, though

it was so entirely unknown in England that, in 1579, an English captain burnt a captured cargo of it as useless. It reached Italy in 1606, and was introduced into France by Anne of Austria. The first chocolate-house in London was opened in 1657, and in 1700 Germany at last followed suit.*

Coffee.

The history of coffee in the Philippines is very similar to that of cacao. The plant thrives wonderfully, and its berry has so strongly marked a flavor that the worst Manila coffee commands as high a price as the best Java. In spite of this, however, the amount of coffee produced in the Philippines is very insignificant, and, until lately, scarcely deserved mention. According to the report of an Englishman in 1828, the coffee-plant was almost unknown forty years before, and was represented only by a few specimens in the Botanical Gardens at Manila. It soon, however, increased and multiplied, thanks to the moderation of a small predatory animal (*paradoxurus musanga*), which only nibbled the ripe fruit, and left the hard kernels (the coffee beans) untouched, as indigestible. The Economical Society bestirred itself in its turn by offering rewards to encourage the laying out of large coffee plantations. In 1837 it granted to M. de la Gironnière a premium of $1,000, for exhibiting a coffee plantation of sixty thousand plants, which were yielding their second harvest; and four premiums to others in the following year. But as soon as the rewards were obtained the plantations were once more allowed to fall into neglect. From this it is pretty evident that the enterprise, in the face of the then market prices and the artificially high rates of freight, did not afford a sufficient profit.

* Berthold Seemann speaks of a tree with finger-shaped leaves and small round berries, which the Indians sometimes offered for sale. They made chocolate from them, which in flavor much surpassed that usually made from cacao.

Exports.

In 1856 the exports of coffee were not more than seven thousand piculs; in 1865 they had increased to thirty-seven thousand, five hundred and eighty-eight; and in 1871, to fifty-three thousand, three hundred and seventy. This increase, however, affords no criterion by which to estimate the increase in the number of plantations, for these make no returns for the first few years after being laid out. In short, larger exports may be confidently expected. But even greatly increased exports could not be taken as correct measures of the colony's resources. Not till European capital calls large plantations into existence in the most suitable localities will the Philippines obtain their proper rank in the coffee-producing districts of the world.

Highest grades.

The best coffee comes from the provinces of Laguna, Batangas and Cavite; the worst from Mindanao. The latter, in consequence of careless treatment, is very impure, and generally contains a quantity of bad beans. The coffee beans of Mindanao are of a yellowish-white color and flabby; those of Laguna are smaller, but much firmer in texture.

French preference.

Manila coffee is very highly esteemed by connoisseurs, and is very expensive, though it is by no means so nice looking as that of Ceylon and other more carefully prepared kinds. It is a remarkable fact that in 1865 France, which imported only $21,000 worth of hemp from the Philippines, imported more than $200,000 worth of Manila coffee, a third of the entire coffee produce of the Islands.* Manila coffee is not much prized in London, and does not fetch much more than good Ceylon ($15 per cwt.).† This, however, is no reproach to the coffee, as every one acquainted with an Englishman's appreciation of coffee will allow.

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* Report of the French consul.

† Mysore and Mocha coffees fetch the highest prices. From $20 to $22.50 per cwt. is paid for Mysore; and as much as $30, when it has attained an age of five or six years, for Mocha.

California, an excellent customer, always ready to give a fair price for a good article, will in time become one of its principal consumers.* In 1868, coffee in Manila itself cost an average of $16 per *picul*.† In Java, the authorities pay the natives, who are compelled to cultivate it, about $3.66 per *picul*. *Prices.*

Although the amount of coffee exported from the Philippines is trifling in comparison with the producing powers of the colony, it compares favorably with the exports from other countries. *Philippine exports.*

In my *Sketches of Travel*, I compared the decrease of the coffee produced in Java under the forced system of cultivation with the increase of that voluntarily grown in Ceylon, and gave the Javanese produce for 1858 as sixty-seven thousand tons, and the Cingalese as thirty-five thousand tons. Since that time the relative decrease and increase have continued; and in 1866 the Dutch Indies produced only fifty-six thousand tons, and Ceylon thirty-six thousand tons.‡ *Javan and Ceylon crops.*

During my enforced stay in Daraga the natives brought me mussels and snails for sale; and several of them wished to enter my service, as they felt "a particular vocation for Natural History." At last my kitchen was always full of them. They sallied forth every day to collect insects, and as a rule were not particularly *Amateur scientists.*

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* In 1865-66-67 California imported three and one-half, eight and ten million lbs. of coffee, of which two, four and five millions respectively came from Manila. In 1868 England was the best customer of the Philippines.

† Report of the Belgian consul.

‡ Coffee is such an exquisite beverage, and is so seldom properly prepared, that the following hints from a master in the art (Report of the Jury, Internat. Exhib., Paris, 1868) will not be unwelcome: 1st. Select good coffees. 2nd. Mix them in the proper proportions. 3rd. Thoroughly dry the beans; otherwise in roasting them a portion of the aroma escapes with the steam. 4th. Roast them in a dry atmosphere, and roast each quality separately. 5th. Allow them to cool rapidly. If it is impossible to roast the beans at home, then purchase only sufficient for each day's consumption. With the exception of the fourth, however, it is easy to follow all these directions at home; and small roasting machines are purchasable, in which, with the aid of a spirit lamp, small quantities can be prepared at a time. It is best, when possible to buy coffee in large quantities, and keep it stored for two or three years in a dry place.

fortunate in their search; but this was of no consequence; in fact, it served to give them a fresh appetite for their meals. Some of the neighboring Spaniards paid me almost daily visits; and several of the native and mestizo dignitaries from a distance were good enough to call upon me, not so much for the purpose of seeing my humble self as of inspecting my hat, the fame of which had spread over the whole province. It was constructed in the usual judicious mushroom shape, covered with *nito*,* and its pinnacle was adorned with a powerful oil lamp, furnished with a closely fitting lid, like that of a dark lantern, so that it could be carried in the pocket. This last was particularly useful when riding about on a dark night.

Nito cigar cases.

In the neighboring *pueblo* cigar-cases were made out of this *nito*. They are not of much use as an article of commerce, and usually are only made to order. To obtain a dozen a would-be purchaser must apply to as many individuals, who, at the shortest, will condescend to finish one in a few months. The stalk of the fern, which is about as thick as a lucifer match, is split into four strips. The workman then takes a strip in his left hand, and, with his thumb on the back and his forefinger on the edge, draws the strips up and down against the knife blade until the soft pithy parts are cut away, and what remains has become fine enough for the next process. The cases are made on pointed cylindrical pieces of wood almost a couple of feet long. A pin is stuck into the center of the end of the cylinder, and the workman commences by fastening the strips of fern stalk to it. The size of the case corresponds to the

* A creeping, or rather a running fern, nearly the only one of the kind in the whole species.

diameter of the roller, and a small wooden disk is placed in the bottom of the case to keep it steady while the sides are being plaited.

A Filipino theater.

When my ankle began to get better, my first excursion was to Legaspi, where some Filipinos were giving a theatrical performance. A Spanish political refugee directed the entertainment. On each side of the stage, roofed in with palm leaves, ran covered galleries for the dignitaries of the place; the uncovered space between these was set apart for the common people. The performers had chosen a play taken from Persian history. The language was Spanish, and the dresses were, to say the least, eccentric. The stage was erected hard by a public street, which itself formed part of the auditorium, and the noise was so great that I could only catch a word here and there. The actors stalked on, chattering their parts, which not one of them understood, and moving their arms up and down; and when they reached the edge of the stage, they tacked and went back again like ships sailing against the wind. Their countenances were entirely devoid of expression, and they spoke like automatons. If I had understood the words, the contrast between their meaning and the machine-like movements of the actors would probably have been droll enough; but, as it was, the noise, the heat, and the smoke were so great that we soon left the place.

An indifferent performance.

Both the theatrical performance and the whole festival bore the impress of laziness, indifference, and mindless mimicry. When I compared the frank cheerfulness I had seen radiating from every countenance at the religious holidays of Europe with the expressionless and immobile faces of the natives, I found it difficult to understand how the latter were persuaded to waste so much time and money upon a matter they seemed so thoroughly indifferent to.

Interest in festival.

Travellers have remarked the same want of gaiety amongst the Indians of America; and some of them ascribe it to the small development of the nervous system prevalent among these peoples, to which cause also they attribute their wonderful courage in bearing pain. But Tylor observes that the Indian's countenance is so different from ours that it takes us several years to rightly interpret its expression. There probably is something in both these explanations. And, although I observed no lively expression of amusement among my native friends at Legaspi, I noticed that they took the greatest possible pleasure in decorating their village, and that the procession which formed part of the festival had extraordinary charms for them. Every individual was dressed in his very best; and the honor of carrying a banner inspired those who attained it with the greatest pride, and raised an amazing amount of envy in the breasts of the remainder. Visitors poured in from all the surrounding hamlets, and erected triumphal arches which they had brought with them ready-made and which bore some complimentary inscription. I am obliged to confess that some of the holiday-makers were very drunk. The inhabitants of the Philippines have a great love for strong drink; even the young girls occasionally get intoxicated. When night came on, the strangers were hospitably lodged in the dwellings of the village. On such occasions native hospitality shows itself in a very favorable light. The door of every house stands open, and even balls take place in some of the larger hamlets. The Spanish and mestizo cavaliers, however, condescend to dance only with mestiza partners, and very seldom invite a pretty native girl to join them. The natives very rarely dance together; but in Samar I was present on one occasion at a by no means ungraceful native dance where "improvised" verses were sung.

The male dancer compared his partner with a rose, and she answered he should be careful in touching it as a rose had thorns. This would have been thought a charming compliment in the mouth of an Andalusian.

Servant subterfuges

The idle existence we spent in Daraga was so agreeable to my servants and their numerous friends that they were anxious I should stay there as long as possible; and they adopted some very ingenious means to persuade me to do so. Twice, when everything was prepared for a start the next morning, my shoes were stolen in the night; and on another occasion they kidnapped my horse. When a native has a particularly heavy load to carry, or a long journey to make, he thinks nothing of coolly appropriating the well-fed beast of some Spaniard; which, when he has done with it, he turns loose without attempting to feed it, and it wanders about till somebody catches it and stalls it in the nearest "Tribunal." There it is kept tied up and hungry until its master claims it and pays its expenses. I had a dollar to pay when I recovered mine, although it was nearly starved to death, on the pretence that it had swallowed rice to that value since it had been caught.

Petty robberies.

Small robberies occur very frequently, but they are committed—as an acquaintance, a man who had spent some time in the country, informed me one evening when I was telling him my troubles—only upon the property of new arrivals; old residents, he said, enjoyed a prescriptive freedom from such little inconveniences. I fancy some waggish native must have overheard our conversation, for early the next morning my friend, the old resident, sent to borrow chocolate, biscuits, and eggs of me, as his larder and his hen-house had been rifled during the night.

Daraga market.

Monday and Friday evenings were the Daraga market nights, and in fine weather always afforded a pretty sight. The women, neatly and cleanly clad, sat in long rows and offered their provisions for sale by the light of hundreds of torches; and, when the business was over, the slopes of the mountains were studded all over with flickering little points of brightness proceeding from the torches carried by the homeward-bound market women. Besides eatables, many had silks and stuffs woven from the fibers of the pine-apple and the banana for sale. These goods they carried on their heads; and I noticed that all the younger women were accompanied by their sweethearts, who relieved them of their burdens.

XI

Change of season.

DURING the whole time I was confined to the house at Daraga, the weather was remarkably fine; but unfortunately the bright days had come to an end by the time I was ready to make a start, for the north-east monsoon, the sure forerunner of rain in this part of the Archipelago, sets in in October. In spite, however, of the weather, I determined to make another attempt to ascend the mountain at Bulusan. I found I could go by boat to Bacon in the Bay of Albay, a distance of seven leagues, whence I could ride to Gubat, on the east coast, three leagues further, and then in a southerly direction along the shore to Bulusan. An experienced old native, who provided a boat and crew, had appointed ten o'clock at night as the best time for my departure. Just as we were about to start, however, we were told that four piratical craft had been seen in the bay. In a twinkling, the crew disappeared, and I was left alone in the darkness; and it took me four hours with the

assistance of a Spaniard to find them again, and make a fresh start. About nine o'clock in the morning we reached Bacon, whence I rode across a very flat country to San Roque, where the road leading to Gubat took a sharp turn to the south-east, and presently became an extremely bad one. After I had passed Gubat, my way lay along the shore; and I saw several ruined square towers, made of blocks of coral, and built by the Jesuits as a protection against the Moros, or "Moors"—a term here applied to the pirates, because, like the Moors who were formerly in Spain, they are Mahometans. They come from Mindanao and from the north-west coast of Borneo. At the time of my visit, this part of the Archipelago was greatly infested with them; and a few days before my arrival they had carried off some fishermen, who were busy pulling their fish-stakes, close to Gubat. A little distance from the shore, and parallel to it, ran a coral reef, which during the south-west monsoon was here and there bare at low tide; but, when the north-east wind blew, the waves of the Pacific Ocean entirely concealed it. Upon this reef the storms had cast up many remains of marine animals, and a quantity of fungi, amongst which I noticed some exactly resembling the common sponge of the Mediterranean. They were just as soft to the touch, of a dark brown tint, as large as the fist, and of a conical shape. They absorbed water with great readiness, and might doubtless be made a profitable article of commerce. Samples of them are to be seen in the Zoological Museum at Berlin. As I went further on, I found the road excellent; and wooden bridges, all of which were in good repair, led me across the mouths of the numerous small rivers. But almost all the arches of the stone bridges I came to had fallen in, and I had to cross the streams they were supposed to span in a small boat, and make my horse swim after

Moro pirates.

me. Just before I reached Bulusan, I had to cross a ravine several hundred feet deep, composed almost entirely of white pumice stone.

Bulusan.

Bulusan is so seldom visited by strangers that the "tribunal" where I put up was soon full of curiosity-mongers, who came to stare at me. The women, taking the places of honor, squatted round me in concentric rows, while the men peered over their shoulders. One morning when I was taking a shower-bath in a shed made of open bamboo work, I suddenly noticed several pairs of inquisitive eyes staring at me through the interstices. The eyes belonged exclusively to the gentler sex; and their owners examined me with the greatest curiosity, making remarks upon my appearance to one another, and seeming by no means inclined to be disturbed. Upon another occasion, when bathing in the open air in the province of Laguna, I was surrounded by a number of women, old, middle-aged, and young, who crowded round me while I was dressing, carefully inspected me, and pointed out with their fingers every little detail which seemed to them to call for special remark.

Storm damage

I had travelled the last part of the road to Bulusan in wind and rain; and the storm lasted with little intermission during the whole night. When I got up in the morning I found that part of the roof of the tribunal had been carried away, that the slighter houses in the hamlet were all blown down, and that almost every dwelling in the place had lost its roof. This pleasant weather lasted during the three days of my stay. The air was so thick that I found it impossible to distinguish the volcano, though I was actually standing at its foot; and, as the weather-wise of the neighborhood could hold out no promise of a favorable change at that time of the year, I put off my intended ascent till a better opportunity, and resolved to return. A former alcalde, Peñe-

randa, was reported to have succeeded in reaching the top fifteen years before, after sixty men had spent a couple of months in building a road to the summit; and the ascent was said to have taken him two whole days. But an experienced native told me that in the dry season he thought four men were quite sufficient to open a narrow path to the plateau, just under the peak, in a couple of days; but that ladders were required to get on to the actual summit.

Arrival of assistance.

The day after my arrival the inspector of highways and another man walked into the tribunal, both of them wet to the skin and nearly blown to pieces. My friend the alcalde had sent them to my assistance; and, as none of us could attempt the ascent, they returned with me. As we were entering Bacon on our way back, we heard the report of cannon and the sound of music. Our servants cried out "Here comes the alcalde," and in a few moments he drove up in an open carriage, accompanied by an irregular escort of horsemen, Spaniards and natives, the latter prancing about in silk hats and shirts fluttering in the wind. The alcalde politely offered me a seat, and an hour's drive took us into Sorsogon.

Albay road and bridges

The roads of the province of Albay are good, but they are by no means kept in good repair: a state of things that will never be remedied so long as the indolence of the authorities continues. Most of the stone bridges in the district are in ruins, and the traveller is obliged to content himself with wading through a ford, or get himself ferried across upon a raft or in a small canoe, while his horse swims behind him. The roads were first laid down in the days of Alcalde Peñaranda, a retired officer of the engineer corps, whom we have already mentioned, and who deserves considerable praise for having largely contributed to the welfare of his province,

and for having accomplished so much from such small resources. He took care that all socage service should be duly rendered, or that money, which went towards paying for tools and materials, should be paid in lieu of it. Many abuses existed before his rule; no real services were performed by anybody who could trace the slightest relationship to any of the authorities; and, when by chance any redemption money was paid, it went, often with the connivance of the alcalde of the period, into the pockets of the *gobernadorcillos*, instead of into the provincial treasury. Similar abuses still prevail all over the country, where they are not prevented by the vigilance of the authorities. The numerous population, and the prosperity which the province now enjoys, would make it an easy matter to maintain and complete the existing highways. The admirable officials of the district are certainly not wanting in good-will, but their hands are tied. Nowadays the alcaldes remain only three years in one province (in Peñaranda's time, they remained six); their time is entirely taken up with the current official and judicial business; and, just as they are beginning to become acquainted with the capabilities and requirements of their district, they are obliged to leave it. This shows the government's want of confidence in its own servants. No alcalde could now possibly undertake what Peñaranda accomplished. The money paid in lieu of socage service, which ought to be applied to the wants of the province in which the socage is due, is forwarded to Manila. If an alcalde proposes some urgent and necessary improvement, he has to send in so many tedious estimates and reports, which frequently remain unnoticed, that he soon loses all desire to attempt any innovation. Estimates for large works, to carry out which would require a considerable outlay, are invariably returned from headquarters marked "not

Handicapped officials.

urgent." The fact is, not that the colonial government is wanting in good-will, but that the *Caja de Comunidad* (General Treasury) in Manila is almost always empty, as the Spanish government, in its chronic state of bankruptcy, borrows the money and is never in a position to return it.

Funds diverted to Spain.

In 1840 Sorsogon suffered severely from an earthquake, which lasted almost continuously for thirty-five days. It raged with the greatest fury on the 21st of March. The churches, both of Sorsogon and of Casiguran, as well as the smallest stone houses, were destroyed; seventeen persons lost their lives, and two hundred were injured; and the whole neighborhood sank five feet below its former level.

Sorsogon earthquake.

The next morning I accompanied the alcalde in a *falua* (felucca), manned by fourteen rowers, to Casiguran, which lies directly south of Sorsogon, on the other side of a small bay, of two leagues in breadth, which it took us an hour and a half to cross. The bay was as calm as an inland lake. It is almost entirely surrounded by hills, and its western side, which is open to the sea, is protected by the Island of Bagalao, which lies in front of it. As soon as we landed, we were received with salutes of cannon and music, and flags and shirts streamed in the wind. I declined the friendly invitation of the alcalde to accompany him any further; as to me, who had no official business to transact, the journey seemed nothing but a continually recurring panorama of dinners, lunches, cups of chocolate, music, and detonations of gunpowder.

Casiguran.

In 1850 quicksilver was discovered on a part of the coast now covered by the sea. I examined the reported bed of the deposit, and it appeared to me to consist of a stratum of clay six feet in depth, superimposed over a layer of volcanic sand and fragments of pumice stone. An Englishman who was wrecked in this part of the

Quicksilver.

Archipelago, the same individual I met at the iron works at Angat, had begun to collect it, and by washing the sand had obtained something like a couple of ounces. Somebody, however, told the priest of the district that quicksilver was a poison; and, as he himself told me, so forcibly did he depict the dangerous nature of the new discovery to his parishioners that they abandoned the attempt to collect it. Since then none of them have ever seen a vestige of mercury, unless it might be from some broken old barometer. Towards evening Mount Bulusan in the south-east, and Mount Mayon in the north-west, were visible for a short time. They are both in a straight line with Casiguran.

Sea's encroachments.

Every year the sea makes great inroads upon the coast at Casiguran; as far as I could decide from its appearance and from the accounts given me, about a yard of the shore is annually destroyed. The bay of Sorsogon is protected towards the north by a ridge of hills, which suddenly terminate, however, at its north-eastern angle; and through this opening the wind sometimes blows with great fury, and causes considerable havoc in the bay, the more particularly as its coast is principally formed of clay and sand.

Pirate rumors and robberies.

When I reached Legaspi again in the evening I learnt that the alarm about the pirates which had interrupted my departure had not been an idle one. Moros they certainly could not have been, for at that season none of the Mahometan corsairs could reach that part of the coast; but they were a band of deserters and vagabonds from the surrounding country, who in this part of the world find it more agreeable to pursue their freebooting career on sea than on land. During my absence they had committed many robberies and carried off several people.*

* The official accounts stated that they had kidnapped twenty-one persons in a couple of weeks.

The beginning of November is the season of storms; when water communication between Albay and Manila entirely ceases, no vessel daring to put out to sea, even from the south coast. On the 9th of the month, however, a vessel that had been given up for lost entered the port, after having incurred great perils and being obliged to throw overboard the greater part of its cargo. Within twelve days of its leaving the straits of San Bernardino behind it, a sudden storm compelled it to anchor amongst the Islands of Balicuatro. One of the passengers, a newly-arrived Spaniard, put off in a boat with seven sailors, and made for four small vessels which were riding at anchor off the coast; taking them for fishermen, whereas they were pirates. They fired at him as soon as he was some distance from his ship, and his crew threw themselves into the water; but both he and they were taken prisoners. The captain of the trading brig, fearing that his vessel would fall into their clutches, slipped anchor and put out to sea again, escaping shipwreck with the greatest difficulty. The pirates, as a rule, do not kill their prisoners, but employ them as rowers. But Europeans seldom survive their captivity: the tremendous labor and the scanty food are too much for them. Their clothes always being stripped off their back, they are exposed naked to all sorts of weather, and their sole daily support is a handful of rice.

Real pirates.

XII

Camarines.

No favorable change in the weather was expected in Albay before the month of January. It stormed and rained all day. I therefore determined to change my quarters to South Camarines, which, protected from the monsoon by the high range of hills running along its north-eastern boundary, enjoyed more decent weather.

The two provinces of Camarines form a long continent, with its principal frontage of shore facing to the north-east and to the south-west; which is about ten leagues broad in its middle, and has its shores indented by many bays. From about the center of its north-eastern shore there boldly projects the Peninsula of Caramuan, connected with the mainland of Camarines by the isthmus of Isarog. The north-eastern portion of the two provinces contains a long range of volcanic hills; the south-western principally consisted, as far as my investigations permitted me to discover, of chalk, and coral reefs; in the midst of the hills extends a winding and fertile valley, which collects the waters descending from the slopes of the mountain ranges, and blends them into a navigable river, on the banks of which several flourishing hamlets have established themselves. This river is called the Bicol. The streams which give it birth are so abundant, and the slope of the sides of the valley, which is turned into one gigantic rice-field, is so gentle that in many places the lazy waters linger and form small lakes.

A chain of volcanoes.

Beginning at the south-eastern extremity, the volcanoes of Bulusan, Albay, Mazaraga, Iriga, Isarog, and Colasi—the last on the northern side of San Miguel bay—are situated in a straight line, extending from the south-east to the north-west. Besides these, there is the volcano of Buhi, or Malinao, a little to the north-east of the line. The hamlets in the valley I have mentioned are situated in a second line parallel to that of the volcanoes. The southern portion of the province is sparsely inhabited, and but few streams find their way from its plateau into the central valley. The range of volcanoes shuts out, as I have said, the north-east winds, and condenses their moisture in the little lakes scattered on its slopes. The south-west portion of Cama-

rines, therefore, is dry during the north-east monsoon, and enjoys its rainy season during the prevalence of the winds that blow from the south-west. The so-called dry season which, so far as South Camarines is concerned, begins in November, is interrupted, however, by frequent showers; but from January to May scarcely a drop of rain falls. The change of monsoon takes place in May and June; and its arrival is announced by violent thunderstorms and hurricanes, which frequently last without cessation for a couple of weeks, and are accompanied by heavy rains. These last are the beginning of the wet season proper, which lasts till October. The road passes the hamlets of Camalig, Guinobatan, Ligao, Oas and Polangui, situated in a straight line on the banks of the river Quinali, which, after receiving numerous tributary streams, becomes navigable soon after passing Polangui. Here I observed a small settlement of huts, which is called after the river. Each of the hamlets I have mentioned, with the exception of the last, has a population of about fourteen thousand souls, although they are situated not more than half a league apart.

Priestly assistance.

The convents in this part of the country are large, imposing buildings, and their incumbents, who were mostly old men, were most hospitable and kind to me. Every one of them insisted upon my staying with him, and, after doing all he could for me, passed me on to his next colleague with the best recommendations. I wished to hire a boat at Polangui to cross the lake of Batu, but the only craft I could find were a couple of *barotos* about eight feet long, hollowed out of the trunks of trees and laden with rice. To prevent my meeting with any delay, the padre purchased the cargo of one of the boats, on the condition of its being immediately unladen; and this kindness enabled me to continue my journey in the afternoon.

The priests' importance.

If a traveller gets on good terms with the priests he seldom meets with any annoyances. Upon one occasion I wished to make a little excursion directly after lunch, and at a quarter past eleven everything was ready for a start; when I happened to say that it was a pity to have to wait three-quarters of an hour for the meal. In a minute or two twelve o'clock struck; all work in the village ceased, and we sat down to table: it was noon. A message had been sent to the village bell-ringer that the Señor Padre thought he must be asleep, and that it must be long past twelve as the Señor Padre was hungry. *Il est l'heure que votre Majesté désire.*

Franciscan friars.

Most of the priests in the eastern provinces of Luzon and Samar are Franciscan monks (The barefooted friars of the orthodox and strictest rule of Our Holy Father St. Francis, in the Philippine Islands, of the Holy and Apostolic Province of St. Gregory the Great), brought up in seminaries in Spain specially devoted to the colonial missions. Formerly they were at liberty, after ten years' residence in the Philippines, to return to their own country; but, since the abolition of the monasteries in Spain, they can do this no longer, for they are compelled in the colonies to abandon all obedience to the rule of their order, and to live as laymen. They are aware that they must end their days in the colony, and regulate their lives accordingly. On their first arrival they are generally sent to some priest in the province to make themselves acquainted with the language of the country; then they are installed into a small parish, and afterwards into a more lucrative one, in which they generally remain till their death. Most of them spring from the very lowest class of Spaniards. A number of pious trusts and foundations in Spain enable a very poor man, who cannot afford to send his son to school, to put him into a religious seminary,

where, beyond the duties of his future avocation, the boy learns nothing. If the monks were of a higher social grade, as are some of the English missionaries, they would have less inclination to mix with the common people, and would fail to exercise over them the influence they wield at present. The early habits of the Spanish monks, and their narrow knowledge of the world, peculiarly fit them for an existence among the natives. This mental equality, or rather, this want of mental disparity, has enabled them to acquire the influence they undoubtedly possess.

Young men developed by responsibility.

When these young men first come from their seminaries they are narrow-brained, ignorant, frequently almost devoid of education, and full of conceit, hatred of heretics, and proselytish ardor. These failings, however, gradually disappear; the consideration and the comfortable incomes they enjoy developing their benevolence. The insight into mankind and the confidence in themselves which distinguish the lower classes of the Spaniards, and which are so amusingly exemplified in Sancho Panza, have plenty of occasions to display themselves in the responsible and influential positions which the priests occupy. The padre is frequently the only white man in his village, probably the only European for miles around. He becomes the representative not only of religion, but of the government; he is the oracle of the natives, and his decisions in everything that concerns Europe and civilization are without appeal. His advice is asked in all important emergencies, and he has no one whom he in his turn can consult. Such a state of things naturally develops his brain. The same individuals who in Spain would have followed the plough, in the colonies carry out great undertakings. Without any technical education, and without any scientific knowledge, they build churches and bridges, and con-

struct roads. The circumstances therefore are greatly in favor of the development of priestly ability; but it would probably be better for the buildings if they were erected by more experienced men, for the bridges are remarkably prone to fall in, the churches look like sheep-pens, and the roads soon go to rack and ruin. I had much intercourse in Camarines and Albay with the priests, and conceived a great liking for them all. As a rule, they are the most unpretending of men; and a visit gives them so much pleasure that they do all in their power to make their guest's stay as agreeable as possible. Life in a large convent has much resemblance to that of a lord of the manor in Eastern Europe. Nothing can be more unconstrained, more unconventional. A visitor lives as independently as in an hotel, and many of the visitors behave themselves as if it were one. I have seen a subaltern official arrive, summon the head servant, move into a room, order his meal, and then inquire casually whether the padre, who was an utter stranger to him, was at home.

Poor architects.

The priests of the Philippines have often been reproached with gross immorality. They are said to keep their convents full of bevies of pretty girls, and to lead somewhat the same sort of life as the Grand Turk. This may be true of the native padres; but I myself never saw, in any of the households of the numerous Spanish priests I visited, anything that could possibly cause the least breath of scandal. Their servants were exclusively men, though perhaps I may have noticed here and there an old woman or two. Ribadeneyra says:—"The natives, who observe how careful the Franciscan monks are of their chastity, have arrived at the conclusion that they are not really men, and that, though the devil had often attempted to lead these holy men astray, using the charms of some pretty Indian

girl as a bait, yet, to the confusion of both damsel and devil, the monks had always come scathless out of the struggle." Ribadeneyra, however, is a very unreliable author; and, if his physiological mistakes are as gross as his geographical ones (he says somewhere that Luzon is another name for the island of Cebu!), the monks are not perhaps as fireproof as he supposes. At any rate, his description does not universally apply nowadays. The younger priests pass their existence like the lords of the soil of old; the young girls consider it an honor to be allowed to associate with them; and the padres in their turn find many convenient opportunities. They have no jealous wives to pry into their secrets, and their position as confessors and spiritual advisers affords them plenty of pretexts for being alone with the women. The confessional, in particular, must be a perilous rock-a-head for most of them. In an appendix to the "Tagal Grammar" (which, by-the-bye, is not added to the editions sold for general use) a list of questions is given for the convenience of young priests not yet conversant with the Tagal language. These questions are to be asked in the confessional, and several pages of them relate exclusively to the relations between the sexes.

Superiority over government officials.

As the alcaldes remain only three years in any one province, they never understand much of its language; and, being much occupied with their official business, they have neither the time nor the desire to become acquainted with the peculiarities of the districts over which they rule. The priest, on the other hand, resides continually in the midst of his parishioners, is perfectly acquainted with each of them, and even, on occasion, protects them against the authorities; his, therefore, is the real jurisdiction in the district. The position of the priests, in contradistinction to that of the

government officials, is well expressed by their respective dwellings. The *casas reales*, generally small, ugly, and frequently half-ruined habitations, are not suited to the dignity of the chief authority of the province. The *convento*, on the contrary, is almost always a roomy, imposing, and well-arranged building. In former days, when governorships were sold to adventurers whose only care was to enrich themselves, the influence of the minister of religion was even greater than it is now.*

Former legal status.

The following extract from the General Orders, given by Le Gentil, will convey a clear idea of their former position:—

"Whereas the tenth chapter of the ordinances, wherein the governor of Arandia ordained that the alcaldes and the justices should communicate with the missionary priests only by letter, and that they should never hold any interview with them except in the presence of a witness, has been frequently disobeyed, it is now commanded that these disobediences shall no longer be allowed; and that the alcaldes shall make it their business to see that the priests and ministers of religion treat the *gobernadorcillos* and the subaltern officers of justice with proper respect, and that the aforesaid priests be not allowed either to beat, chastise, or ill-treat the latter, or make them wait at table."

Alcaldes formerly in trade.

The former alcaldes who, without experience in official business, without either education or knowledge, and without either the brains or the moral qualifications for such responsible and influential posts, purchased their appointments from the State, or received them in consequence of successful intrigues, received a nominal salary from the government, and paid it tribute for the right to carry on trade. Arenas considered this tribute

* Le Gentil, in his *Travels in the Indian Seas*, (1761) says: "The monks are the real rulers of the provinces. * * * Their power is so unlimited that no Spaniard cares to settle in the neighborhood. * * * The monks would give him a great deal of trouble."

paid by the alcaldes as a fine imposed upon them for an infringement of the law; "for several ordinances were in existence, strenuously forbidding them to dabble in any kind of commerce, until it pleased his Catholic Majesty to grant them a dispensation." The latter sources of mischief were, however, abolished by royal decree in September and October, 1844.

Their borrowed capital.

The alcaldes were at the same time governors, magistrates, commanders of the troops, and, in reality, the only traders in their province.* They purchased with the resources of the *obras pias* the articles required in the province; and they were entirely dependent for their capital upon these endowments, as they almost always arrived in the Philippines without any means of their own. The natives were forced to sell their produce to the alcaldes and, besides, to purchase their goods at the prices fixed by the latter.* In this corrupt state of things the priests were the only protectors of the unfortunate Filipinos; though occasionally they also threw in their lot with the alcaldes, and shared in the spoil wrung from their unfortunate flocks.

Improvement in present appointees.

Nowadays men with some knowledge of the law are sent out to the Philippines as alcaldes; the government pays them a small salary, and they are not allowed to trade. The authorities also attempt to diminish the influence of the priests by improving the position of the civil tribunals; a state of things they will not find easy of accomplishment unless they lengthen the period of service of the alcaldes, and place them in a pecuniary position that will put them beyond the temptation of pocketing perquisites.†

* St. Croix.

† There are three classes of alcaldeships, namely, *entrada*, *ascenso*, and *termino* (*vide* Royal Ordinances of March, 1837); in each of which an alcalde must serve for three years. No official is allowed, under any pretence, to serve more than ten years in any of the Asiatic magistracies.

In Huc's work on China I find the following passage, relating to the effects of the frequent official changes in China, from which many hints may be gathered:—

Similarity with Chinese conditions.

"The magisterial offices are no longer bestowed upon upright and just individuals, and, as a consequence, this once flourishing and well-governed kingdom is day by day falling into decay, and is rapidly gliding down the path that leads to a terrible and, perhaps, speedy dissolution. When we seek to discover the cause of the general ruin, the universal corruption which too surely is undermining all classes of Chinese society, we are convinced that it is to be found in the complete abandonment of the old system of government effected by the Manchu dynasty. It issued a decree forbidding any mandarin to hold any post longer than three years in the same province, and prohibiting any one from possessing any official appointment in his native province. One does not form a particularly high idea of the brain which conceived this law; but, when the Manchu Tartars found that they were the lords of the empire, they began to be alarmed at their small numbers, which were trifling in comparison with the countless swarms of the Chinese; and they dreaded lest the influence which the higher officials would acquire in their districts might enable them to excite the populace against their foreign rulers.

Unidentified with country.

"The magistrates, being allowed to remain only a year or two in the same province, lived there like strangers, without acquainting themselves with the wants of the people they governed; there was no tie between them. The only care of the mandarins was to amass as much wealth as possible before they quitted their posts; and they then began the same game in a fresh locality, until finally they returned home in possession of a handsome fortune gradually collected in their different appointments. They were only birds of passage. What did it matter? The morrow would find them at the other end of the kingdom, where the cries

of their plundered victims would be unable to reach them. In this manner the governmental policy rendered the mandarins selfish and indifferent. The basis of the monarchy is destroyed, for the magistrate is no longer a paternal ruler residing amongst and mildly swaying his children, but a marauder, who arrives no man knows whence, and who departs no one knows whither. The consequence is universal stagnation; no great undertakings are accomplished; and the works and labors of former dynasties are allowed to fall into decay. The mandarins say to themselves: 'Why should we undertake what we can never accomplish? Why should we sow that others may reap?' * * *They take no interest in the affairs of the district; as a rule, they are suddenly transplanted into the midst of a population whose dialect even they do not understand. When they arrive in their mandarinates they usually find interpreters, who, being permanent officials and interested in the affairs of the place, know how to make their services indispensable; and these in reality are the absolute rulers of the district."

Dependence on interpreters.

Interpreters are especially indispensable in the Philippines, where the alcaldes never by any chance understand any of the local dialects. In important matters the native writers have generally to deal with the priest, who in many cases becomes the virtual administrator of authority. He is familiar with the characters of the inhabitants and all their affairs, in the settlement of which his intimate acquaintance with the female sex stands him in good stead. An eminent official in Madrid told me in 1867 that the then minister was considering a proposal to abolish the restriction of office in the colonies to three years.*

Importance of interpreters in Philippines.

* The law limiting the duration of appointments to this short period dates from the earliest days of Spanish colonization in America. There was also a variety of minor regulations, based on suspicion, prohibiting the higher officials from mixing in friendly intercourse with the colonists.

Fear of officials' popularity.

The dread which caused this restriction, *viz.*, that an official might become too powerful in some distant province, and that his influence might prove a source of danger to the mother country, is no longer entertained. Increased traffic and easier means of communication have destroyed the former isolation of the more distant provinces. The customs laws, the increasing demand for colonial produce, and the right conceded to foreigners of settling in the country, will give a great stimulus to agriculture and commerce, and largely increase the number of Chinese and European residents. Then at last, perhaps, the authorities will see the necessity of improving the social position of their officials by decreasing their number, by a careful selection of persons, by promoting them according to their abilities and conduct, and by increasing their salaries, and allowing them to make a longer stay in one post. The commercial relations of the Philippines with California and Australia are likely to become very active, and liberal ideas will be introduced from those free countries. Then, indeed, the mother country will have earnestly to consider whether it is advisable to continue its exploitation of the colony by its monopolies, its withdrawal of gold, and its constant satisfaction of the unfounded claims of a swarm of hungry place-hunters.*

Different English and Dutch policy.

English and Dutch colonial officials are carefully and expressly educated for their difficult and responsible positions. They obtain their appointments after pas-

* A secular priest in the Philippines once related to me, quite of his own accord, what had led him to the choice of his profession. One day, when he was a non-commissioned officer in the army, he was playing cards with some comrades in a shady balcony. "*See*," cried one of his friends, observing a peasant occupied in tilling the fields in the full heat of the sun, "how the donkey yonder is toiling and perspiring while we are lolling in the shade." The happy conceit of letting the donkeys work while the idle enjoyed life made such a deep impression on him that he determined to turn priest; and it is the same felicitous thought that has impelled so many impecunious gentlemen to become colonial officials. The little opening for civil labor in Spain and Portugal, and the prospect of comfortable perquisites in the colonies, have sent many a starving *caballero* across the ocean.

sing a stringent examination at home, and are promoted to the higher colonial offices only after giving proofs of fitness and ability. What a different state of things prevails in Spain! When a Spaniard succeeds in getting an appointment, it is difficult to say whether it is due to his personal capacity and merit or to a series of successful political intrigues.*

XIII

Batu.

In an hour and a half after leaving Polangui we reached Batu, a village on the north-western shore of the lake of the same name. The inhabitants, particularly the women, struck me by their ugliness and want of cleanliness. Although they lived close to the lake, and drew their daily drinking water from it, they never appeared to use it for the purpose of washing. The streets of the village also were dirty and neglected; a circumstance explained, perhaps, by the fact of the priest being a native.

The lake.

Towards the end of the rainy season, in November, the lake extends far more widely than it does in the dry, and overflows its shallow banks, especially to the south-west. A great number of water-plants grow on its borders; amongst which I particularly noticed a delicate seaweed,† as fine as horse hair, but intertwined in such close and endless ramifications that it forms a flooring strong enough to support the largest waterfowl. I

* The exploitation of the State by party, and the exploitation of party by individuals, are the *real secrets of all revolutions in the Peninsula. They are* caused by a constant and universal struggle for office. No one will work, and everybody wants to live luxuriously; and this can only be done at the expense of the State, which all attempt to turn and twist to their own ends. Shortly after the expulsion of Isabella, an alcalde's appointment has been known to have been given away three times in one day. (*Prussian Year-Book*, January, 1869.)

† According to Grunow, *Cladophora arrisgona* Kuetzing—*Conferva arrisgona* Montague.

saw hundreds of them hopping about and eating the shell fish and prawns, which swarmed amidst the meshes of the net-like seaweed and fell an easy prey to their feathered enemies. The natives, too, were in the habit of catching immense quantities of the prawns with nets made for the purpose. Some they ate fresh; and some they kept till they were putrid, like old cheese, and then used them as a relish to swallow with their rice. These small shell-fish are not limited to the Lake of Batu. They are caught in shoals in both the salt and the fresh waters of the Philippine and Indian archipelagos, and, when salted and dried by the natives, form an important article of food, eaten either in soup or as a kind of potted paste. They are found in every market, and are largely exported to China. I was unable to shoot any of the waterfowl, for the tangles of the seaweed prevented my boat from getting near them.

A neglected product.

When I revisited the same lake in February, I found its waters so greatly fallen that they had left a circular belt of shore extending all around the lake, in most places nearly a hundred feet broad. The withdrawal of the waters had compressed the tangled seaweed into a kind of matting, which, bleached by the sun, and nearly an inch thick, covered the whole of the shore, and hung suspended over the stunted bushes which, on my first visit, had been under water. I have never either seen elsewhere, or heard any one mention, a similar phenomenon. This stuff, which could be had for nothing, was excellent for rifle-stoppers and for the stuffing of birds, so I took a great quantity of it with me. This time the bird-hunting went well, too.

The native priest of Batu was full of complaints about his parishioners, who gave him no opportunities of gaining an honest penny. "I am never asked for a mass, sir; in fact, this is such a miserable hole that it is shunned

by Death itself. In D., where I was for a long time coadjutor, we had our couple of burials regularly every day at three dollars a head, and as many masses at a dollar apiece as we had time to say, besides christenings and weddings, which always brought a little more grist to the mill. But here nothing takes place, and I scarcely make anything." This stagnant state of things had induced him to turn his attention to commerce. The average native priest, of those I saw, could hardly be called a credit to his profession. Generally ignorant, often dissipated, and only superficially acquainted with his duties, the greater part of his time was given over to gambling, drinking, and other objectionable amusements. Little care was taken to preserve a properly decorous behavior, except when officiating in the church, when they read with an absurd assumption of dignity, without understanding a single word. The conventos are often full of girls and children, all of whom help themselves with their fingers out of a common dish. The worthy padre of Batu introduced a couple of pretty girls to me as his two poor sisters, whom, in spite of his poverty, he supported; but the servants about the place openly spoke of these young ladies' babies as being the children of the priest.

The native clergy.

The guiding principle of Spanish colonial policy—to set one class against another, and to prevent either from becoming too powerful—seems to be the motive for placing so many native incumbents in the parsonages of the Archipelago. The prudence of this proceeding, however, seems doubtful. A Spanish priest has a great deal of influence in his own immediate circle, and forms, perhaps, the only enduring link between the colony and the mother-country. The native priest is far from affording any compensation for the lack of either of these advantages. He generally is but little respected

by his flock, and certainly does nothing to attach them to Spain; for he hates and envies his Spanish brethren, who leave him only the very worst appointments, and treat him with contempt.

Nabua.

I rode from Batu to Nabua over a good road in half an hour. The country was flat, with rice-fields on both sides of the road; but, while in Batu the rice was only just planted, in Nabua it already was almost ripe. I was unable to obtain any explanation of this incongruity, and know not how to account for such a difference of climate between two hamlets situated in such close proximity to one another, and separated by no range of hills. The inhabitants of both were ugly and dirty, and were different in these respects from the Tagalogs. Nabua, a place of 10,875 inhabitants, is intersected by several small streams, whose waters, pouring down from the eastern hills, form a small lake, which empties itself into the river Bicol. Just after passing the second bridge beyond Nabua the road, inclining eastwards, wends in a straight line to Iriga, a place lying to the south-west of the volcano of the same name.

Remontados.

I visited a small settlement of pagans situated on the slope of the volcano. The people of the plains call them indifferently Igorots, Cimarrons, Remontados, Infieles, or Montesinos. None of these names, however, with the exception of the two last, are appropriate ones. The first is derived from the term applied in the north of the Island to the mixed descendants of Chinese and Filipino parents. The word Cimarron (French, marrow) is borrowed from the American slave colonies, where it denoted negroes who escaped from slavery and lived in a state of freedom; but here it is applied to natives who prefer a wild existence to the comforts of village life, which they consider are overbalanced by the servitude and bondage which accompany them. The term

Remontado explains itself, and has the same signification as Cimarron. As the difference between the two states—on account of the mildness of the climate, and the ease with which the wants of the natives are supplied—is far less than it would be in Europe, these self-constituted exiles are more frequently to be met with than might be supposed; the cause of their separation from their fellowmen sometimes being some offence against the laws, sometimes annoying debts, and sometimes a mere aversion to the duties and labors of village life. Every Filipino has an innate inclination to abandon the hamlets and retire into the solitude of the woods, or live isolated in the midst of his own fields; and it is only the village prisons and the priests—the salaries of the latter are proportionate to the number of their parishioners—that prevent him from gradually turning the *pueblos* into *visitas*,* and the latter into *ranchos*. Until a visit to other *ranchos* in the neighborhood corrected my first impression, I took the inhabitants of the slopes of the Iriga for cross-breeds between the low-landers and *negritos*. The color of their skin was not black, but a dark brown, scarcely any darker than that of Filipinos who have been much exposed to the sun; and only a few of them had woolly hair. The *negritos* whom I saw at Angat and Mariveles knew nothing whatever about agriculture, lived in the open air, and supported themselves upon the spontaneous products of nature; but the half-savages of the Iriga dwell in decent huts, and cultivate several vegetables and a little sugar-cane. No pure *negritos*, as far as I could ascertain, are to be met with in Camarines. A thickly-populated province, only sparsely dotted with lofty hills, would be ill-suited for the residence of a nomadic hunting race ignorant of agriculture.

* A *visita* is a small hamlet or village with no priest of its own, and dependent upon its largest neighbor for its religious ministrations.

Iriga settlements.

The *ranchos* on the Iriga are very accessible, and their inhabitants carry on a friendly intercourse with the lowlanders; indeed, if they didn't, they would have been long ago exterminated. In spite of these neighborly communications, however, they have preserved many of their own primitive manners and customs. The men go about naked with the exception of a cloth about the loins; and the women are equally unclad, some of them perhaps wearing an apron reaching from the hip to the knee.* In the larger *ranchos* the women were decently clad in the usual Filipino fashion. Their household belongings consisted of a few articles made of bamboo, a few calabashes of coconut-shell, and an earthen cooking-pot, and bows and arrows. These latter are made very carefully, the shaft from reeds, the point from a sharp-cut bamboo, or from a palm-tree, with one to three sharp points. In pig-hunting iron-pointed poison arrows are used. Although the Igorots are not Christians, they decorate their huts with crucifixes, which they use as talismans. If they were of no virtue, an old man remarked to me, the Spaniards would not employ them so numerously.† The largest *rancho* I visited was nominally under the charge of a captain, who, however, had little real power. At my desire he called to some naked boys idly squatting about on the trees, who required considerable persuasion before they obeyed his summons; but a few small presents—brazen earrings and combs for the women, and cigars for the men—soon put me on capital terms with them.

Poison arrows.

Crucifixes.

Mt. Iriga.

After a vain attempt to reach the top of the Iriga volcano I started for Buhi, a place situated on the

* Pigafetta mentions that the female musicians of the King of Cebu were quite naked, or only covered with an apron of bark. The ladies of the Court were content with a hat, a short cloak, and a cloth around the waist.

† Perhaps the same reason induced the Chinese to purchase crucifixes at the time of their first intercourse with the Portuguese; for Pigafetta says: "The Chinese are white, wear clothes, and eat from tables. They also possess crucifixes but it is difficult to say why or where they got them."

southern shore of the lake of that name. Ten minutes after leaving Iriga I reached a spot where the ground sounded hollow beneath my horse's feet. A succession of small hillocks, about fifty feet high, bordered each side of the road; and towards the north I could perceive the huge crater of the Iriga, which, in the distance, appeared like a truncated cone. I had the curiosity to ascend one of the hillocks, which, seen from its summit, looked like the remains of some former crater, which had probably been destroyed by an earthquake and split up into these small mounds.

Advertising.

When I got to Buhi the friendly priest had it proclaimed by sound of drum that the newly-arrived strangers wished to obtain all kinds of animals, whether of earth, of air, or of water; and that each and all would be paid for in cash. The natives, however, only brought us moths, centipedes, and other vermin, which, besides enabling them to have a good stare at the strangers, they hoped to turn into cash as extraordinary curiosities.

A church procession.

The following day I was the spectator of a gorgeous procession. First came the Spanish flag, then the village kettle-drums, and a small troop of horsemen in short jackets and shirts flying in the wind, next a dozen musicians, and finally, as the principal figure, a man carrying a crimson silk standard. The latter individual evidently was deeply conscious of his dignified position, and his countenance eloquently expressed the quantity of palm wine he had consumed in honor of the occasion. He sat on his horse dressed out in the most absurd manner in a large cocked hat trimmed with colored paper instead of gold lace, with a woman's cape made of paper outside his coat, and with short, tight-fitting yellow breeches and immense white stockings and shoes. Both his coat and his breeches were liberally ornamented with paper trimmings. His steed, led by a couple of *cabezas*, was

appointed with similar trappings. After marching through all the streets of the village the procession came to a halt in front of the church.

Papal concessions to Spain.

This festival is celebrated every year in commemoration of the concession made by the Pope to the King of Spain permitting the latter to appropriate to his own use certain revenues of the Church. The Spanish Throne consequently enjoys the right of conferring different indulgences, even for serious crimes, in the name of the Holy See. This right, which, so to speak, it acquired wholesale, it sells by retail to its customers (it formerly disposed of it to the priests) in the *estanco*, and together with its other monopolies, such as tobacco, brandy, lottery tickets, stamped paper, etc., all through the agency of the priests; without the assistance of whom very little business would be done. The receipts from the sale of these indulgences have always been very fluctuating. In 1819 they amounted to $15,930; in 1839 to $36,390; and in 1860 they were estimated at $58,954. In the year 1844-5 they rose to $292,115. The cause of this large increase was that indulgences were then rendered compulsory; so many being alloted to each family, with the assistance and under the superintendence of the priests and tax-collectors who received a commission of five and eight per cent on the gross amount collected.*

Lake Buhi.

The Lake of Buhi (300 feet above the sea-level) presents an extremely picturesque appearance, surrounded as it is on all sides by hills fully a thousand feet high; and its western shore is formed by what still remains of the Iriga volcano. I was informed by the priests of the neighboring hamlets that the volcano, until the commencement of the seventeenth century, had been a closed cone, and that the lake did not come into

* One line here omitted.—C.

existence till half of the mountain fell in, at the time of its great eruption. This statement I found confirmed in the pages of the *Estado Geografico:*—"On the fourth of January, 1641—a memorable day, for on that date all the known volcanoes of the Archipelago began to erupt at the same hour—a lofty hill in Camarines, inhabited by heathens, fell in, and a fine lake sprang into existence upon its site. The then inhabitants of the village of Buhi migrated to the shores of the new lake, which, on this account, was henceforward called the Lake of Buhi."

1628. Camarines earthquake.

Perrey, in the *Mémoires de l'Académie de Dijon,* mentions another outbreak which took place in Camarines in 1628: "In 1628, according to trustworthy reports, fourteen different shocks of earthquake occurred on the same day in the province of Camarines. Many buildings were thrown down, and from one large mountain which the earthquake rent asunder there issued such an immense quantity of water that the whole neighborhood was flooded, trees were torn up by the roots, and, in one hour, from the seashore all plains were covered with water (the direct distance to the shore is two and one-half leagues).*

A mistranslation

It is very strange that the text given in the footnote does not agree with A. Perrey's translation. The former does not mention that water came out of the mountains and says just the contrary, that trees, which were torn up by the roots, took the place of the sea for one hour on the shore, so that no water could be seen.

* Apud Camarines quoque terram eodem die quator decies contremuisse, fide dignis testimoniis renuntiatum est: multa interim aedificia diruta. Ingentem montem medium crepuisse immani hiatu, ex immensa vi excussisse arbores per oras pelagi, ita ut lenenim occuparent aequoris, nec humor per illud intervallum appareret. Accidit hoc anno 1628.—*S. Eusebius Nierembergius, Historia Naturae,* lib. xvi., 383. Antwerpiae, 1635.

Unreliable authorities.

The data of the *Estado Geografico* are apt to create distrust as the official report on the great earthquake of 1641 describes in detail the eruptions of three volcanoes, which happened at the same time (of these two were in the South of the Archipelago and one in Northern Luzon) while Camarines is not mentioned at all. This suspicion is further strengthened by the fact that the same author (Nierembergius) whose remarks on the eruptions of 1628 in Camarines are quoted, gives in another book of his a detailed report on the events of 1641 without mentioning this province. If one considers the indifference of the friars toward such events in Nature, it is not improbable that the eruptions of 1641 when a mountain fell in in Northern Luzon and a lake took its place, has been transferred on the Iriga. To illustrate the indifference it may be mentioned that even the padres living at the foot of the Albay could not agree upon the dates of its very last eruptions.

Another attempt at mountain climbing.

When I was at Tambong, a small hamlet on the shore of the lake belonging to the parochial district of Buhi, I made a second unsuccessful attempt to reach the highest point of the Iriga. We arrived in the evening at the southern point of the crater's edge (1,041 meters above the level of the sea by my barometrical observation), where a deep defile prevented our further progress. Here the Igorots abandoned me, and the low-landers refused to bivouac in order to pursue the journey on the following day; so I was obliged to return. Late in the evening, after passing through a coco plantation, we reached the foot of the mountain and found shelter from a tempest with a kind old woman; to whom my servants lied so shamelessly that, when the rain had abated, we were, in spite of our failure, conducted with torches to Tambong, where we found the palm-grove

round the little hamlet magically illuminated with bright bonfires of dry coconut-leaves in honor of the *Conquistadores del Iriga;* and where I was obliged to remain for the night, as the people were too timorous or too lazy to cross the rough water of the lake.

Here I saw them preparing the fiber of the pine-apple for weaving. The fruit of the plants selected for this purpose is generally removed early; a process which causes the leaves to increase considerably both in length and in breadth. A woman places a board on the ground, and upon it a pine-apple-leaf with the hollow side upwards. Sitting at one end of the board, she holds the leaf firmly with her toes, and scrapes its outersurface with a potsherd; not with the sharp fractured edge but with the blunt side of the rim; and thus the leaf is reduced to rags. In this manner a stratum of coarse longitudinal fiber is disclosed, and the operator, placing her thumb-nail beneath it, lifts it up, and draws it away in a compact strip; after which she scrapes again until a second fine layer of fiber is laid bare. Then, turning the leaf round, she scrapes its back, which now lies upwards, down to the layer of fiber, which she seizes with her hand and draws at once, to its full length, away from the back of the leaf. When the fiber has been washed, it is dried in the sun. It is afterwards combed, with a suitable comb, like women's hair, sorted into four classes, tied together, and treated like the fiber of the *lupi*. In this crude manner are obtained the threads for the celebrated web nipis de Piña, which is considered by experts the finest in the world. Two shirts of this kind are in the Berlin Ethnographical Museum (Nos. 291 and 292). Better woven samples are in the Gewerbe Museum of Trade and Commerce. In the Philippines, where the fineness of the work is best

Pineapple fiber preparation.

Piña.

understood and appreciated, richly-embroidered costumes of this description have fetched more than $1,400 each.*

Rain prevents another ascent

At Buhi, which is not sufficiently sheltered towards the north-east, it rained almost as much as at Daraga. I had found out from the Igorots that a path could be forced through the tall canes up to the summit; but the continual rain prevented me; so I resolved to cross the Malinao, returning along the coast to my quarters, and then, freshly equipped, descend the river Bicol as far as Naga.

Mountaineers' arrow poison

Before we parted the Igorots prepared for me some arrow poison from the bark of two trees. I happened to see neither the leaves nor the blossoms, but only the bark. A piece of bark was beaten to pieces, pressed dry, wetted, and again pressed. This was done with the bare hand, which, however, sustained no injury. The juice thus extracted looked like pea-soup, and was warmed in an earthen vessel over a slow fire. During the process it coagulated at the edges; and the coagulated mass was again dissolved, by stirring it into the boiling fluid mass. When this had reached the consistency of syrup, a small quantity was scraped off the inner surface of a second piece of bark, and its juice squeezed into the vessel. This juice was a dark brown color. When the mass had attained the consistency of a thin jelly, it was scraped out of the pot with a chip and preserved on a leaf sprinkled with ashes. For poisoning an arrow they use a piece of the size of a hazel-nut, which, after being warmed, is distributed uniformly over the broad iron point; and the poisoned arrow serves for repeated use.

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* At Fort William, Calcutta, experiments have proved the extraordinary endurance of the pine-apple fibre. A cable eight centimeters in circumference was not torn asunder until a force of 2,850 kilogrammes had been applied to it.—*Report of the Jury, London International Exhibition.*

At the end of November I left the beautiful lake of Buhi, and proceeded from its eastern angle for a short distance up the little river Sapa,* the alluvial deposits of which form a considerable feature in the configuration of the lake. Across a marshy meadow we reached the base of the Malinao or Buhi mountain, the slippery clay of the lower slope merging higher up into volcanic sand. The damp undergrowth swarmed with small leeches; I never before met with them in such numbers. These little animals, no stouter when streched out than a linen thread, are extraordinarily active. They attach themselves firmly to every part of the body, penetrating even into the nose, the ears, and the eyelids, where, if, they remain unobserved, they gorge themselves to such excess that they become as round as balls and look like small cherries. While they are sucking no pain is felt; but afterwards the spots attacked often itch the whole day long.† In one place the wood consisted for the most part of fig-trees, with bunches of fruit quite six feet in length hanging from the stems and the thicker branches; and between the trees grew ferns, aroids, and orchids. After nearly six hours' toil we reached the pass (841 meters above the sea level), and descended the eastern slope. The forest on the eastern side of the mountain is still more magnificent than that on the west. From a clearing we obtained a fine view of the sea, the Island of Catanduanes, and the plain of Tabaco. At sunset we reached Tibi, where I quartered myself in the prison. This, a tolerably clean place, enclosed with strong bamboos, was the most habitable part of a long

Sapa river

Leeches

Fig-trees

Prison as hotel

* Sapa means shallow.

† To the extraordinary abundance of these annulates in Sikkin, Hooker (*Himalayan Journal*, i, 167) ascribes the death of many animals, as also the murrain known as rinderpest, if it occurred after a very wet season, when the leech appears in incredible numbers. It is a known fact that these worms have existed for days together in the nostrils, throat, and stomach of man, causing inexpressible pain and, finally, death.

shed which supplied the place of the tribunal destroyed in a storm two years before. At Tibi I had an opportunity of sketching Mount Malinao (called also Buhi and Takit), which from this side has the appearance of a large volcano with a distinct crater. From the lake of Buhi it is not so clearly distinguishable.

Igabo hot spring.

Not far from Tibi, exactly north-east of Malinao, we found a small hot spring called Igabo. In the middle of a plot of turf encircled by trees was a bare spot of oval form, nearly a hundred paces long and seventy wide. The whole space was covered with stones, rounded by attrition, as large as a man's head and larger. Here and there hot water bubbled out of the ground and discharged into a little brook; beside it some women were engaged in cooking their food, which they suspended in nets in the hottest parts of the water. On the lower surfaces of some of the stones a little sulphur was sublimated; of alum hardly a trace was perceptible. In a cavity some caolin had accumulated, and was used as a stain.

Naglegbeng silicious springs.

From here I visited the stalactite springs, not far distant, of Naglegbeng.* I had expected to see a calcareous fountain, but found the most magnificent masses of silica of infinite variety of form; shallow cones with cylindrical summits, pyramidal flights of steps, round basins with ribbed margins, and ponds of boiling water. One spot, denuded of trees, from two to three hundred paces in breadth and about five hundred in length, was, with the exception of a few places overgrown with turf, covered with a crust of silicious dross, which here and there formed large connected areas, but was generally broken up into flaky plates by the vertical springs which pierced it. In numerous localities boiling hot mineral water containing silica was forcing itself out of the

* Gemelli Careri has already mentioned them.

ground, spreading itself over the surface and depositing a crust, the thickness of which depended on its distance from the center point. In this manner, in the course of time, a very flat cone is formed, with a basin of boiling water in the middle. The continuous deposit of dross contracts the channel, and a less quantity of water overflows, while that close to the edge of the basin evaporates and deposits a quantity of fine silicious earth; whence the upper portion of the cone not only is steeper than its base, but frequently assumes a more cylindrical form, the external surface of which on account of the want of uniformity in the overflow, is ribbed in the form of stalactites. When the channel becomes so much obstructed that the efflux is less than the evaporation, the water ceases to flow over the edge, and the mineral dross, during the continual cooling of the water, is then deposited, with the greatest uniformity, over the inner area of the basin. When, however, the surface of the water sinks, this formation ceases at the upper portion of the basin; the interior wall thickens; and, if the channel be completely stopped up and all the water evaporated, there remains a bell-shaped basin as even as if excavated by the hand of man. The water now seeks a fresh outlet, and bursts forth where it meets with the least obstruction, without destroying the beautiful cone it has already erected. Many such examples exist. In the largest cones, however, the vapors generated acquire such power that, when the outlet is completely stopped up, they break up the overlying crust in concentrically radiating flakes; and the water, issuing anew copiously from the center, deposits a fresh crust, which again, by the process we have just described is broken up into a superimposed layer of flakes. In this manner are formed annular layers, which in turn are gradually covered by fresh deposits from the over-

flowing water. After the pyramid of layers is complete and the outlet stopped up, the water sometimes breaks forth on the slope of the same cone; a second cone is then formed near the first, on the same base. In the vicinity of the silicious springs are seen deposits of white, yellow, red, and bluish-grey clays, overlaying one another in narrow strata-like variegated marl, manifestly the disintegrated produce of volcanic rocks transported hither by rain and stained with oxide of iron. These clays perhaps come from the same rocks from the disintegration of which the silicious earth has been formed. Similar examples occur in Iceland and in New Zealand; but the products of the springs of Tibi are more varied, finer, and more beautiful than those of the Iceland Geysers.

A world-wonder.

The wonderful conformations of the red cone are indeed astonishing, and hardly to be paralleled in any other quarter of the world.*

XIV

Quinali river.

On my second journey in Camarines, which I undertook in February, I went by water from Polangui, past Batu, as far as Naga. The Quinali, which runs into the south-eastern corner of the lake of Batu, runs out again on the north side as the Bicol River, and flows in a north-westerly direction as far as the Bay of San Miguel. It forms the medium of a not inconsiderable trade between Albay and Camarines, particularly in rice; of which the supply grown in the former province does not suffice for the population, who consume the superfluity of Camarines. The rice is conveyed in large boats up the river as far as Quinali, and thence trans-

* I discovered similar formations, of extraordinary beauty and extent, in the great silicious beds of Steamboat Springs in Nevada.

ported further on in carabao carts; and the boats return empty. During the dry season of the year, the breadth of the very tortuous Bicol, at its mouth, is a little over sixty feet, and increases but very gradually. There is considerable variety of vegetation upon its banks, and in animal life it is highly attractive. I was particularly struck with its numerous monkeys and water-fowl. Of the latter the Plotus variety was most abundant, but difficult to shoot. They sit motionless on the trees on the bank, only their thin heads and necks, like those of tree-snakes, overtopping the leaves. On the approach of the boat they precipitate themselves hastily into the water; and it is not until after many minutes that the thin neck is seen rising up again at some distance from the spot where the bird disappeared. The Plotus appears to be as rapid on the wing as it is in swimming and diving.

Plotus water-fowl.

In Naga, the chief city of South Camarines, I alighted at the tribunal, from which, however, I was immediately invited by the principal official of the district—who is famed for his hospitality far beyond the limits of his province—to his house, where I was loaded with civilities and favors. This universally beloved gentleman put everybody under contribution in order to enrich my collections, and did all in his power to render my stay agreeable and to further my designs.

Naga

Naga is the seat of a bishopric and of the provincial government. In official documents it is called Nueva Caceres, in honor of the Captain-General, D. Fr. de Sande, a native of Caceres, who about 1578 founded Naga (the Spanish town) close to the Filipino village. At the beginning of the seventeenth century it numbered nearly one hundred Spanish inhabitants; at the present time it hardly boasts a dozen. Murillo Velarde remarks (xiii, 272), in contrast to the state of things in

Nueva Caceres

America, that of all the towns founded in the Philippines, with the exception of Manila, only the skeletons, the names without the substance, have been preserved. The reason is, as has been frequently shown, that up to the present time plantations, and consequently proper settlers, have been wanting. Formerly Naga was the principal town of the whole of that district of Luzon lying to the east of Tayabas, which, on account of the increased population, was divided into the three provinces of North and South Camarines and Albay. The boundaries of these governmental districts, those between Albay and South Camarines more especially, have been drawn very arbitrarily; although, the whole of the territory, as is shown by the map, geographically is very well defined. The country is named Camarines; but it might more suitably be called the country of the Bicols, for the whole of it is inhabited by one race, the Bicol-Filipinos, who are distinguished by their speech and many other peculiarities from their neighbors, the Tagals on the west, and the Bisayans on the islands to the south and east.

Land of the Bicols.

The Bicols.

The Bicols are found only in this district and in a few islands lying immediately in front of it. Of their coming hither no information is to be obtained from the comprehensive but confused histories of the Spanish monks. Morga considers them to be natives of the island; on the other hand, it is asserted by tradition that the inhabitants of Manila and its vicinity are descended from Malays who have migrated thither, and from the inhabitants of other islands and more distant provinces.* Their speech is midway between that of the Tagalogs and the Bisayans, and they themselves appear, in both their

* Arenas thinks that the ancient annals of the Chinese probably contain information relative to the settlement of the present inhabitants of Manila, as that people had early intercourse with the Archipelago.

manners and customs, to be a half-breed between these two races. Physically and mentally they are inferior to the Tagalogs, and superior to the inhabitants of the eastern Bisayan Islands. Bicol is spoken only in the two Camarines, Albay, Luzon, the Islands of Masbate, Burias, Ticao, and Catanduanes, and in the smaller adjoining islands. The inhabitants of the volcanic mountain Isarog and its immediate neighborhood speak it in the greatest purity. Thence towards the west the Bicol dialect becomes more and more like Tagalog, and towards the east like Bisayan, until by degrees, even before reaching the boundaries of their ethnographical districts, it merges into these two kindred languages.

Bicol language

In South Camarines the sowing of the rice in beds begins in June or July, always at the commencement of the rainy season; but in fields artificially watered, earlier, because thus the fruit ripens at a time when, the store in the country being small, its price is high. Although the rice fields could very well give two crops yearly, they are tilled only once. It is planted out in August, with intervals of a hand's-breadth between each row and each individual plant; and within four months the rice is ripe. The fields are never fertilized, and but seldom ploughed; the weeds and the stubble being generally trodden into the already soaked ground by a dozen carabaos, and the soil afterwards simply rolled with a cylinder furnished with sharp points, or loosened with the harrow (*sorod*). Besides the agricultural implements named above, there are the Spanish hatchet (*azadon*) and a rake of bamboo (*kag-kag*) in use. The harvest is effected in a peculiar manner. The rice which is soonest ripe is cut for ten per cent, that is, the laborer receives for his toil the tenth bundle for himself. At this time of year rice is very scarce,

Rice cultivation.

want is imminent, and labor reasonable. The more fields, however, that ripen, the higher become the reapers' wages, rising to twenty, thirty, forty, even fifty per cent; indeed, the executive sometimes consider it to be necessary to force the people to do harvest by corporal punishment and imprisonment, in order to prevent a large portion of the crop from rotting on the stalk. Nevertheless, in very fruitful years a part of the harvest is lost. The rice is cut halm by halm (as in Java) with a peculiarly-formed knife, or, failing such, with the sharp-edged flap of a mussel* found in the ditches of the rice-fields, which one has only to stoop to pick up.

Rice land production.

A *quiñon* of the best rice land is worth from sixty to one hundred dollars ($5.50 to $9 per acre). Rice fields on rising grounds are dearest, as they are not exposed to devastating floods as are those in the plain, and may be treated so as to insure the ripening of the fruit at the time when the highest price is to be obtained.

The harvest.

A *ganta* of rice is sufficient to plant four *topones* (1 topon = 1 loan); from which 100 *manojos* (bundles) are gathered, each of which yields half a ganta of rice. The old ganta of Naga, however, being equal to a modern ganta and a half, the produce may be calculated at 75 *cavanes* per quiñon, about 93¼ bushels per acre.† In books 250 cavanes are usually stated to be the average produce of a quiñon; but that is an exaggeration. The fertility of the fields certainly varies very much; but, when it is considered that the land in the Philippines is never fertilized, but depends, for the maintenance of its vitality, exclusively upon the overflowing of the mud which is washed down from the mountains, it may be believed that the first numbers better express the true

* Probably the *Anodonta Purpurea*, according to V. Martens.

† 1 *ganta* = 3 liters. 1 *quiñon* = 100 loànes = 2.79495 hectares = 6.89 acres. 1 *caban* = 25 *gantas*.

average. In Java the harvest, in many provinces, amounts to only 50 cavanes per quiñon; in some, indeed, to three times this amount; and in China, with the most careful culture and abundant manure, to 180 cabanes.* Besides rice, they cultivate the *camote* (sweet potato, *Convolvulus batatas*). This flourishes like a weed; indeed, it is sometimes planted for the purpose of eradicating the weeds from soil intended for coffee or cacao. It spreads out into a thick carpet, and is an inexhaustible storehouse to its owner, who, the whole year through, can supply his wants from his field. *Gabi* (*Caladium*), *Ubi* (*Dioscorea*), maize, and other kinds of grain, are likewise cultivated.

Sweet potatoes.

After the rice harvest the carabaos, horses, and bullocks, are allowed to graze in the fields. During the rice culture they remain in the *gogonales*, cane-fields which arise in places once cultivated for mountain-rice and afterwards abandoned. (Gogo is the name of a cane 7 to 8 feet high, *Saccharum sp.*). Transport then is almost impossible, because during the rainy season the roads are impassable, and the cattle find nothing to eat. The native does not feed his beast, but allows it to die when it cannot support itself. In the wet season of the year it frequently happens that a carabao falls down from starvation whilst drawing a cart. A carabao costs from $7. to $10; a horse $10 to $20; and a cow $6 to $8. Very fine horses are valued at from $30 to $50, and occasionally as much as $80; but the native horses are not esteemed in Manila, because they have no stamina. The bad water, the bad hay, and the great heat of the place at once point out the reason; otherwise it would be profitable to export horses in favorable seasons to Manila, where they would fetch twice their

Cattle and horses.

* Scherzer, *Miscellaneous Information.*

value. According to Morga, there were neither horses nor asses on the Island until the Spaniards imported them from China and New Spain.* They were at first small and vicious. Horses were imported also from Japan, "not swift but powerful, with large heads and thick manes, looking like Friesland horses;"† and the breed improved rapidly. Those born in the country, mostly cross-breeds, drive well.

Black cattle.

Black cattle are generally in the hands of a few individuals; some of whom in Camarines possess from 1000 to 3000 head; but they are hardly saleable in the province, although they have been exported profitably for some years past to Manila. The black cattle of the province are small but make good beef. They are never employed for labor, and the cows are not milked. The Filipinos, who generally feed on fish, crabs, mussels, and wild herbs together with rice, prefer the flesh of the carabao to that of the ox; but they eat it only on feast-days.

Sheep.

The old race of sheep, imported by the Spaniards previous to this century, still flourishes and is easily propagated. Those occasionally brought from Shanghai and Australia are considered to be deficient in endurance, unfruitful, and generally short-lived. Mutton is procurable every day in Manila; in the interior, however, at least in the eastern provinces, very rarely; although the rearing of sheep might there be carried on without difficulty, and in many places most profitably; the people being too idle to take care of the young lambs, which they complain are torn to pieces by the dogs

* More than one hundred years later, Father Taillandier writes:—"The Spaniards have brought cows, horses, and sheep from America; but these animals cannot live there on account of the dampness and inundations."—(*Letters from Father Taillandier to Father Willard.*)

† At the present time the Chinese horses are plump, large-headed, hairy, and with bushy tails and manes; and the Japanese, elegant and enduring, similar to the Arabian. Good Manila horses are of the latter type, and are much prized by the Europeans in Chinese seaport towns.

when they wander about free. The sheep appear to have been acclimatized with difficulty. Morga says that they were brought several times from New Spain, but did not multiply; so that in his time this kind of domestic animal did not exist. Pork is eaten by wealthy Europeans only when the hog has been brought up from the litter at home. In order to prevent its wandering away, it is usually enclosed in a wide meshed cylindrical hamper of bamboo, upon filling which it is slaughtered. The native hogs are too nauseous for food, the animals maintaining themselves almost entirely on ordure.

Swine.

Crawfurd observes that the names of all the domestic animals in the Philippines belong to foreign languages. Those of the dog, swine, goat, carabao, cat, even of the fowl and the duck, are Malay or Javanese; while those of the horse, ox, and sheep, are Spanish. Until these animals were first imported from Malaysia, the aborigines were less fortunate in this respect than the Americans, who at least had the alpaca, llamanda, vicuña. The names likewise of most of the cultivated plants, such as rice, yams, sugar-cane, cacao and indigo, are said to be Malay, as well as those for silver, copper, and tin. Of the words relating to commerce, one-third are Malay; to which belong most of the terms used in trades, as well as the denominations for weights and measures, for the calendar—so far as it exists—and for numbers, besides the words for writing, reading, speaking, and narrative. On the other hand, only a small number of terms which refer to war are borrowed from the Malay.

Guesses at history from language.

Referring to the degree of civilization which the Philippines possessed previous to their intercourse with the Malays, Crawfurd concludes from the purely domestic words that they cultivated no corn, their vegetable food consisting of batata (?) and banana. They had not a single domestic animal; they were acquainted with

Ancient Filipino civilization.

iron and gold, but with no other metal, and were clothed in stuffs of cotton and alpaca, woven by themselves. They had invented a peculiar phonetic alphabet; and their religion consisted in the belief in good and evil spirits and witches, in circumcision, and in somewhat of divination by the stars. They therefore were superior to the inhabitants of the South Sea, inasmuch as they possessed gold, iron, and woven fabrics, and inferior to them in that they had neither dog, pig, nor fowl.

Progress under Spain.

Assuming the truth of the above sketch of pre-Christian culture, which has been put together only with the help of defective linguistic sources, and comparing it with the present, we find, as the result, a considerable progress, for which the Philippines are indebted to the Spaniards. The influence of social relations has been already exhibited in the text. The Spaniards have imported the horse, the bullock, and the sheep; maize, coffee, sugar-cane, cacao, sesame, tobacco, indigo, many fruits, and probably the batata, which they met with in Mexico under the name of camotli.* From this circumstance the term camote, universal in the Philippines, appears to have had its origin, Crawfurd, indeed, erroneously considering it a native term. According to a communication from Dr. Witmack, the opinion has lately been conceived that the batata is indigenous not only to America, but also to the East Indies, as it has two names in Sanscrit, *sharkarakanda* and *ruktaloo.*

Slight industrial progress.

With the exception of embroidery, the natives have made but little progress in industries, in the weaving and the plaiting of mats; and the handicrafts are entirely carried on by the Chinese.

Rice and abaca exported.

The exports consist of rice and abaca. The province exports about twice as much rice as it consumes; a large

* Compare Hernandez, *Opera Omnia;* Torquemada, *Monarchia Indica.*

quantity to Albay, which, less adapted for the cultivation of rice, produces only abaca; and a fair share to North Camarines, which is very mountainous, and little fertile. The rice can hardly be shipped to Manila, as there is no high road to the south side of the province, near to the principal town, and the transport by water from the north side, and from the whole of the eastern portion of Luzon, would immediately enhance the price of the product. The imports are confined to the little that is imported by Chinese traders. The traders are almost all Chinese, who alone possess shops in which clothing materials and woolen stuffs, partly of native and partly of European manufacture, women's embroidered slippers, and imitation jewelry, may be obtained. The whole amount of capital invested in these shops certainly does not exceed $200,000. In the remaining pueblos of Camarines there are no Chinese merchants; and the inhabitants are consequently obliged to get their supplies from Naga.

Chinese monopolize trade.

The land belongs to the State, but is let to any one who will build upon it. The usufruct passes to the children, and ceases only when the land remains unemployed for two whole years; after which it is competent for the executive to dispose of it to another person.

Land for everybody.

Every family possesses its own house; and the young husband generally builds with the assistance of his friends. In many places it does not cost more than four or five dollars, as he can, if necessary, build it himself free of expense, with the simple aid of the forest-knife (*bolo*), and of the materials to his hand, bamboo, Spanish cane, and palm-leaves. These houses, which are always built on piles on account of the humidity of the soil, often consist of a single shed, which serves for all the uses of a dwelling, and are the cause of great laxity and of filthy habits, the whole family sleeping

Homes.

therein in common, and every passer-by being a welcome guest. A fine house of boards for the family of a cabeza perhaps costs nearly $100; and the possessions of such a family in stock, furniture, ornaments, etc. (of which they are obliged to furnish an annual inventory), would range in value between $100 and $1,000. Some reach even as much as $10,000, while the richest family of the whole province is assessed at $40,000.

People not travellers.

In general it may be said that every pueblo supplies its own necessaries, and produces little more. To the indolent native, especially to him of the eastern provinces, the village in which he was born is the world; and he leaves it only under the most pressing circumstances. Were it otherwise even, the strictness of the poll-tax would place great obstacles in the way of gratifying the desire for travel, generated by that oppressive impost.

Meals.

The Filipino eats three times a day—about 7 a. m., 12, and at 7 or 8 in the evening. Those engaged in severe labor consume at each meal a chupa of rice; the common people, half a chupa at breakfast, one at midday, and half again in the evening, altogether two chupas. Each family reaps its own supply of rice, and preserves it in barns, or buys it winnowed at the market; in the latter case purchasing only the quantity for one day or for the individual meals. The average retail price is 3 cuartos for 2 chupas (14 chupas for 1 real). To free it from the husk, the quantity for each single meal is rubbed in a mortar by the women. This is in accordance with an ancient custom; but it is also due to the fear lest, otherwise, the store should be too quickly consumed. The rice, however, is but half cooked; and it would seem that this occurs in all places where it constitutes an essential part of the sustenance of the people, as may be seen, indeed, in Spain and Italy. Salt and much Spanish pepper (*capsicum*) are eaten

as condiments; the latter, originally imported from America, growing all round the houses. To the common cooking-salt the natives prefer a so-called rock-salt, which they obtain by evaporation from sea-water previously filtered through ashes; and of which one chinanta (12 lbs. German) costs from one and one-half to two reals. The consumption of salt is extremely small.

Buyo and cigars

The luxuries of the Filipinos are buyo* and cigars—a cigar costing half a centavo, and a buyo much less. Cigars are rarely smoked, but are cut up into pieces, and chewed with the buyo. The women also chew buyo and tobacco, but, as a rule, very moderately; but they do not also stain their teeth black, like the Malays; and the young and pretty adorn themselves assiduously with veils made of the areca-nut tree, whose stiff and closely packed parallel fibers, when cut crosswise, form excellent tooth-brushes. They bathe several times daily, and surpass the majority of Europeans in cleanliness. Every native, above all things, keeps a fighting-cock; even when he has nothing to eat, he finds money for cock-fighting.

Household affairs.

The details of domestic economy may be summarized as follows:

For cooking purposes an earthen pot is used, costing between 3 and 10 cuartos; which, in cooking rice, is closed firmly with a banana-leaf, so that the steam of a very small quantity of water is sufficient. No other cooking utensils are used by the poorer classes; but those better off have a few cast-iron pans and dishes. In the smaller houses, the hearth consists of a portable earthen pan or a flat chest, frequently of an old cigar-

* Buyo is the name given in the Philippines to the preparation of betel suitable for chewing. A leaf of betel pepper (Chavica betel), of the form and size of a bean-leaf, is smeared over with a small piece of burnt lime of the size of a pea, and rolled together from both ends to the middle; when, one end of the roll being inserted into the other, a ring is formed, into which a smooth piece of areca nut of corresponding size is introduced.

chest full of sand, with three stones which serve as a tripod. In the larger houses it is in the form of a bedstead, filled with sand or ashes, instead of a mattress. The water in small households is carried and preserved in thick bamboos. In his bolo (forest-knife), moreover, every one has an universal instrument, which he carries in a wooden sheath made by himself, suspended by a cord of loosely-twisted bast fibers tied round his body. This, and the rice-mortar (a block of wood with a suitable cavity), together with pestles and a few baskets, constitute the whole of the household furniture of a poor family; sometimes a large snail, with a rush wick, is also to be found as a lamp. They sleep on a mat of pandanus (fan-palm, *Corypha*), when they possess one; if not, on the splittings of bamboo, with which the house is floored. By the poor oil for lighting is rarely used; but torches of resin, which last a couple of days, are bought in the market for half a cuarto.

Furniture.

Clothing.

Their clothing requirements I ascertained to be these: A woman wears a camisa de guinára (a short shift of abacá fiber), a patadíon (a gown reaching from the hip to the ancles), a cloth, and a comb. A piece of guinára, costing 1 real, gives two shifts; the coarsest patadíon costs 3 reals; a cloth, at the highest, 1 real; and a comb, 2 cuartos; making altogether 4 reals, 12 cuartos. Women of the better class wear a camisa, costing between 1 and 2 r., a patadíon 6 r., cloth between 2 and 3 r., and a comb 2 cu. The men wear a shirt, 1 r., hose, 3 r., hat (*tararura*) of Spanish cane, 10 cu., or a *salacot* (a large rain-hat, frequently decorated), at least 2 r.—often, when ornamented with silver, as much as $50. At least three, but more commonly four, suits are worn out yearly; the women, however, taking care to weave almost the whole quantity for the family themselves.

The daily wages of the common laborer are 1 real, without food; and his hours of work are from 6 to 12, and from 2 to 6 o'clock. The women, as a rule, perform no field labor, but plant out the rice and assist in the reaping; their wages on both occasions being equal to those of the men. Wood and stone-cutters receive 1.5 r. per day, and calkers 1.75 r. *Wages.*

The *Tercio* is a pretty general contract in the cultivation of the land. The owner simply lets arable land for the third part of the crop. Some mestizos possess several pieces of ground; but they are seldom connected together, as they generally acquire them as mortgages for sums bearing but a small proportion to their real value. *Land leases.*

Under the head of earnings I give the income of a small family. The man earns daily one real, and the woman, if she weaves coarse stuff, one-fourth real, and her food (thus a piece of *guimára*, occupying the labor of two days, costs half a real in weavers' wages). The most skilful female weaver of the finer stuffs obtains twelve reals per piece; but it takes a month to weave; and the month, on account of the numerous holy-days, must be calculated at the most as equal to twenty-four working days; she consequently earns one-fourth real per day and her food. For the knitting of the fibers of the ananas for the piña web (called *sugot*) she gets only an eighth of a real and her food. *Family income.*

In all the pueblos there are schools. The schoolmaster is paid by the Government, and generally obtains two dollars per month, without board or lodging. In large pueblos the salary amounts to three dollars and a half; out of which an assistant must be paid. The schools are under the supervision of theecclesiastics of the place. Reading and writing are taught, the writing copies being Spanish. The teacher, who has to teach his scholars Spanish exactly, does not understand it him- *Schools.*

self, while the Spanish officers, on the other hand, do not understand the language of the country; and the priests have no inclination to alter this state of things, which is very useful to them as a means of influence. Almost the only Filipinos who speak Spanish are those who have been in the service of Europeans. A kind of religious horn-book is the first that is read in the language of the country (Bicol); and after that comes the Christian Doctrine, the reading-book called *Casayayan*. On an average, half of all the children go to school, generally from the seventh to the tenth year. They learn to read a little; a few even write a little: but they soon forget it again. Only those who are afterwards employed as clerks write fluently; and of these most write well.

Some priests do not permit boys and girls to attend the same school; and in this case they pay a second teacher, a female, a dollar a month. The Filipinos learn arithmetic very quickly, generally aiding themselves by the use of mussels or stones, which they pile in little heaps before them and then count through.

Marriage age. The women seldom marry before the fourteenth year, twelve years being the legal limit. In the church-register of Polángui I found a marriage recorded (January, 1837) between a Filipino and a Filipina having the ominous name of Hilaria Concepción, who at the time of the performance of the marriage ceremony was, according to a note in the margin, only nine years and ten months old. Frequently people live together unmarried, because they cannot pay the expenses of the ceremony.*

Woman's work. European females, and even mestizas, never seek husbands amongst the natives. The women generally are well treated, doing only light work, such as sewing,

* Twelve lines are omitted here.—C.

weaving, embroidery, and managing the household; while all the heavy labor, with the exception of the beating of the rice, falls to the men.*

A patriarch.

Instances of longevity are frequent amongst the Filipinos, particularly in Camarines. The *Diario de Manila*, of March 13th, 1866, mentions an old man in Darága (Albay) whom I knew well—Juan Jacob, born in 1744, married in 1764, and a widower in 1845. He held many public posts up to 1840, and had thirteen children, of whom five are living. He has one hundred and seventy direct descendants, and now, at one hundred and twenty-two years of age, is still vigorous, with good eyes and teeth. Extreme unction was administered to him seven times!

Snake bite and rabies remedy.

The first excretion of a new-born child is carefully preserved, and under the name of triaca (*theriacum*) is held to be a highly efficacious and universal remedy for the bites of snakes and mad dogs. It is applied to the wound externally, and at the same time is taken internally.

Infant mortality.

A large number of children die in the first two weeks after birth. Statistical data are wanting; but, according to the opinion of one of the first physicians in Manila, at least one-fourth die. This mortality must arise from great uncleanliness and impure air; since in the chambers of the sick, and of women lying-in, the doors and windows are so closely shut that the healthy become sick from the stench and heat, and the sick recover with difficulty. Every aperture of the house is closed up by the husband early during travail, in order that *Patianac* may not break in—an evil spirit who brings mischief to lying-in women, and endeavors to hinder the birth. The custom has been further maintained even amongst many who

* Four lines are omitted.—C.

attach no belief to the superstition, but who, from fear of a draught of air through a hole, have discovered a new explanation for an old custom—namely, that instances of such practices occur amongst all people. One very widely-spread malady is the itch, although, according to the assurance of the physician above referred to, it may be easily subdued; and, according to the judgment of those who are not physicians and who employ that term for any eruptions of the skin, the natives generally live on much too low a diet; the Bicols even more than the Tagalogs.* Under certain conditions, which the physicians, on being questioned, could not define more precisely, the natives can support neither hunger nor thirst; of which fact I have on many occasions been a witness. It is reported of them, when forced into such a situation as to suffer from unappeased wants, that they become critically ill; and thus they often die.

The itch.

Imitation-mania.

Hence arises the morbid mania for imitation, which is called in Java Sakit-latar, and here Mali-mali. In Java many believe that the sickness is only assumed, because those who pretend to be afflicted with it find it to their advantage to be seen by newly arrived Europeans. Here, however, I saw one instance where indeed no simulation could be suspected. My companions availed themselves of the diseased condition of a poor old woman who met us in the highway, to practice some rough jokes upon her. The old woman imitated every motion as if impelled by an irresistible impulse, and expressed at the same time the most extreme indignation against those who abused her infirmity.

The sickness in Siberia.

In R. Maak's "Journey to the Amour," it is recorded:—"It is not unusual for the Maniagri to suffer also from a nervous malady of the most peculiar kind, with

* In the country it is believed that swine's flesh often causes this malady. A friend, a physiologist, conjectures the cause to be the free use of very fat pork; but the natives commonly eat but little flesh, and the pigs are very seldom fat.

which we had already been made acquainted by the descriptions of several travellers.* This malady is met with, for the most part, amongst the wild people of Siberia, as well as amongst the Russians settled there. In the district of the Jakutes, where this affliction very frequently occurs, those affected by it, both Russians and Jakutes, are known by the name of 'Emiura;' but here (that is, in that part of Siberia where the Maniagri live) the same malady is called by the Maniagri 'Olon,' and by the Argurian Cossacks 'Olgandshi.' The attacks of the malady which I am now mentioning consist in this, that a man suffering from it will, if under the influence of terror or consternation, unconsciously, and often without the smallest sense of shame, imitate everything that passes before him. Should he be offended, he falls into a rage, which manifests itself by wild shrieks and raving; and he precipitates himself at the same time, with a knife or any other object which may fall to his hand, upon those who have placed him in this predicament. Amongst the Maniagri, women, especially the very aged, are the chief sufferers from this malady; and instances, moreover, of men who were affected by it are likewise known to me. It is worthy of remark that those women who returned home on account of this sickness were notwithstanding strong, and in all other respects enjoyed good health."

Running amuck.

Probably it is only an accidental coincidence that in the Malay countries Sakit-latar and Amok exist together, if not in the same individual, yet amongst the same people. Instances of Amok seem to occur also in the Philippines.† I find the following account in the *Diario de Manila* of February 21, 1866: In

* Compare A. Erman, *Journey Round the Earth through Northern Asia*, vol. iii, sec. i, p. 191.

† According to Semper, p. 69, in Zamboanga and Basilan.

Cavite, on February 18, a soldier rushed into the house of a school-teacher, and, struggling with him, stabbed him with a dagger, and then killed the teacher's son with a second stab. Plunging into the street, he stabbed two young girls of ten and twelve years of age and wounded a woman in the side, a boy aged nine in the arm, a coachman (mortally) in the abdomen, and, besides another woman, a sailor and three soldiers; and arriving at his barracks, where he was stopped by the sentry, he plunged the dagger into his own breast.

Regard for the sleeping.

It is one of the greatest insults to stride over a sleeping native, or to awaken him suddenly. They rouse one another, when necessity requires, with the greatest circumspection and by the slowest degrees.*

Sense of smell.

The sense of smell is developed amongst the natives to so great a degree that they are able, by smelling at the pocket-handkerchiefs, to tell to which persons they belong ("Reisesk.," p. 39); and lovers at parting exchange pieces of the linen they may be wearing, and during their separation inhale the odor of the beloved being, besides smothering the relics with kisses.†

XV

A scientific priest-poet

FROM Naga I visited the parish priest of Libmanan (Ligmanan), who, possessing poetical talent, and having the reputation of a natural philosopher, collected and

* The fear of waking sleeping persons really refers to the widely-spread superstition that during sleep the soul leaves the body; numerous instances of which occur in Bastian's work. Amongst the Tinguianes (North Luzon) the worst of all curses is to this effect: "May'st thou die sleeping!"—*Informe*, i. 14.

† Lewin ("Chittagong Hill Tracks," 1869, p. 46) relates of the mountain people at that place: "Their manner of kissing is peculiar. Instead of pressing lip to lip, they place the mouth and nose upon the cheek, and inhale the breath strongly. Their form of speech is not 'Give me a kiss,' but 'Smell me.'"

named pretty beetles and shells, and dedicated the most elegant little sonnets. He favored me with the following narrative:—

Prehistoric remains

In 1851, during the construction of a road a little beyond Libmanan, at a place called Poro, a bed of shells was dug up under four feet of mould, one hundred feet distant from the river. It consisted of Cyrenæ (*C. suborbicularis*, Busch.), a species of bivalve belonging to the family of Cyclades which occurs only in warm waters, and is extraordinarily abundant in the brackish waters of the Philippines. On the same occasion, at the depth of from one and a half to three and a half feet, were found numerous remains of the early inhabitants—skulls, ribs, bones of men and animals, a child's thigh-bone inserted in a spiral of brass wire, several stags' horns, beautifully-formed dishes and vessels, some of them painted, probably of Chinese origin; striped bracelets, of a soft, gypseous, copper-red rock, gleaming as if they were varnished;* small copper knives, but no iron utensils; and several broad flat stones bored through the middle;† besides a wedge of petrified wood, embedded in a cleft branch of a tree. The place, which to this day may be easily recognized in a hollow, might, by excavation systematically carried on, yield many more interesting results. What was not immediately useful was then and there destroyed, and the remainder dispersed. In spite of every endeavor, I could obtain, through the kindness of Señor Fociños in Naga, only one small vessel. Similar remains of more primitive

* Probably pot-stone, which is employed in China in the manufacture of cheap ornaments. *Gypseous refers probably only to the degree of hardness.*

† In the Christy collection, in London, I saw a stone of this kind from the Schiffer Islands, employed in a contrivance for the purpose of protection against rats and mice. A string being drawn through the stone, one end of it is suspended from the ceiling of the room, and the objects to be preserved hang from the other. A knot in the middle of the string prevents its sliding below that point, and, every touch drawing it from its equilibrium, it is impossible for rats to climb upon it. A similar contrivance used in the Viti Islands, but of wood, is figured in the Atlas to Dumont D'Urville's "*Voyage to the South Pole*," (I. 95).

inhabitants have been found at the mouth of the Bigajo, not far from Libmánan, in a shell-bed of the same kind; and an urn, with a human skeleton, was found at the mouth of the Perlos, west of Sitio de Poro, in 1840. At the time when I wrote down these statements of the priest, neither of us was familiar with the discoveries made within the last few years relating to the lake dwellings (pile villages); or these notes might have been more exact, although probably they would not have been so easy and natural.

Ancient Chinese jar.

Mr. W. A. Franks, who had the kindness to examine the vessel, inclines to the opinion that it is Chinese, and pronounces it to be of very great antiquity, without, however, being able to determine its age more exactly; and a learned Chinese of the Burlingame Embassy expressed himself to the same effect. He knew only of one article, now in the British Museum, which was brought from Japan by Kaempfer, the color, glazing, and cracks in the glazing, of which (craqueles) corresponded precisely with mine. According to Kaempfer, the Japanese found similar vessels in the sea; and they value them very highly for the purpose of preserving their tea in them.

Morga writes:—

Used as tea canisters.

"On this island, Luzon, particularly in the provinces of Manila, Pampánga, Pangasinán, and Ilócos, very ancient clay vessels of a dark brown color are found by the natives, of a sorry appearance; some of a middling size, and others smaller; marked with characters and stamps. They are unable to say either when or where they obtained them; but they are no longer to be acquired, nor are they manufactured in the islands. The Japanese prize them highly, for they have found that the root of a herb which they call Tscha (tea), and which when drunk hot is considered as a great delicacy and of medicinal efficacy by the kings and lords in Japan, cannot be effectively preserved except in these vessels; which

are so highly esteemed all over Japan that they form the most costly articles of their show-rooms and cabinets. Indeed, so highly do they value them that they overlay them externally with fine gold embossed with great skill, and enclose them in cases of brocade; and some of these vessels are valued at and fetch from two thousand tael to eleven reals. The natives of these islands purchase them from the Japanese at very high rates, and take much pains in the search for them on account of their value, though but few are now found on account of the eagerness with which they have been sought for."

Strict search in Japan.

When Carletti, in 1597, went from the Philippines to Japan, all the passengers on board were examined carefully, by order of the governor, and threatened with capital punishment if they endeavored to conceal "certain earthen vessels which were wont to be brought from the Philippines and other islands of that sea," as the king wished to buy them all.

Prized by Japanese.

"These vessels were worth as much as five, six, and even ten thousand scudi each; but they were not permitted to demand for them more then one Giulio (about a half Paolo)." In 1615 Carletti met with a Franciscan who was sent as ambassador from Japan to Rome, who assured him that he had seen one hundred and thirty thousand scudi paid by the King of Japan for such a vessel; and his companions confirmed the statement. Carletti also alleges, as the reason for the high price, "that the leaf *cia* or *tea*, the quality of which improves with age, is preserved better in those vessels than in all others. The Japanese besides know these vessels by certain characters and stamps. They are of great age and very rare, and come only from Cambodia, Siam, Cochin-China, the Philippines, and other neighboring islands. From their external appearance they would be estimated at three or four quatrini (two dreier)..... It is perfectly true that the king and the princes of that kingdom possess a very large number of these vessels, and prize

them as their most valuable treasure and above all other rarities.... and that they boast of their acquisitions, and from motives of vanity strive to outvie one another in the multitude of pretty vessels which they possess."*

Found in Borneo

Many travellers mention vessels found likewise amongst the Dyaks and the Malays in Borneo, which, from superstitious motives, were estimated at most exaggerated figures, amounting sometimes to many thousand dollars.

$3,500 for a jar

St. John† relates that the Datu of Tamparuli (Borneo) gave rice to the value of almost $3,500 for a jar, and that he possessed a second jar of almost fabulous value, which was about two feet high, and of a dark olive green. The Datu fills both jars with water, which, after adding plants and flowers to it, he dispenses to all the sick persons in the country. But the most famous jar in Borneo is that of the Sultan of Brunei, which not only possesses all the valuable properties of the other jars but can also speak. St. John did not see it, as it is always kept in the women's apartment; but the sultan, a credible man, related to him that the jar howled dolefully the night before the death of his first wife, and that it emitted similar tones in the event of impending misfortunes. St. John is inclined to explain the mysterious phenomenon by a probably peculiar form of the mouth of the vessel, in passing over which the air-draught is thrown into resonant verberations, like the Aeolian harp. The vessel is generally enveloped in gold brocade, and is uncovered only when it is to be consulted; and hence, of course, it happens that it speaks only on solemn occasions. St. John states further that

A speaking jar.

* "Carletti's Voyages," ii. 11.
† "Life in the Forests of the Far East," i. 300.

the Bisayans used formerly to bring presents to the sultan; in recognition of which they received some water from the sacred jar to sprinkle over their fields and thereby ensure plentiful harvests. When the sultan was asked whether he would sell his jar for $100,000, he answered that no offer in the world could tempt him to part with it.

Morga's description.

Morga's description suits neither the vessel of Libmánan nor the jar of the British Museum, but rather a vessel brought from Japan a short time ago to our Ethnographical Museum. This is of brown clay, small but of graceful shape, and composed of many pieces cemented together; the joints being gilt and forming a kind of network on the dark ground. How highly ancient pots of a similar kind, even of native origin, are esteemed in Japan down to the present day, is shown by the following certificate translated by the interpreter of the German Consulate:—

A consecrated jar.

"This earthen vessel was found in the porcelain factory of Tschisuka in the province of Odori, in South Idzumi, and is an object belonging to the thousand graves..... It was made by Giogiboosat (a celebrated Buddhist priest), and after it had been consecrated to heaven was buried by him. According to the traditions of the people, this place held grave mounds with memorial stones. That is more than a thousand years ago. .....In the pursuit of my studies, I remained many years in the temple Sookuk, of that village, and found the vessel. I carried it to the high priest Shakudjo, who was much delighted therewith and always bore it about with him as a treasure. When he died it fell to me, although I could not find it. Recently, when Honkai was chief priest, I saw it again, and it was as if I had again met the spirit of Shakudjo. Great was my commotion, and I clapped my hands with astonishment; and, as

often as I look upon the treasure, I think it is a sign that the spirit of Shakudjo is returned to life. Therefore I have written the history, and taken care, of this treasure. —FUDJI KUZ DODJIN."

Baron Alexander von Siebold communicates the following:—

Tea societies

The value which the Japanese attach to vessels of this kind rests upon the use which is made of them by the mysterious tea societies called *Cha-no-yu*. Respecting the origin of these societies, which still are almost entirely unknown to Europeans, different legends exist. They flourished, however, principally during the reign of the emperor Taikosama, who, in the year 1588, furnished the society of *Cha-no-yu* at Kitano near Myako with new laws. In consequence of the religious and civil wars, the whole of the people had deteriorated and become ungovernable, having lost all taste for art and knowledge, and holding only rude force in any esteem; brute strength ruling in the place of the laws. The observant Taikosama perceived that, in order to tame these rough natures, he must accustom them to the arts of peace, and thus secure prosperity to the country, and safety for himself and his successors. With this in view he recalled the *Cha-no-yu* society anew into life, and assembled its masters and those acquainted with its customs around him.

Their object.

The object of the *Cha-no-yu* is to draw man away from the influences of the terrestrial forces which surround him, to plant within him the feeling of complete repose, and to dispose him to self-contemplation. All the exercises of the *Cha-no-yu* are directed to this object.

Ceremonies.

Clothed in light white garments, and without weapons, the members of the *Cha-no-yu* assemble round the master's house, and, after resting some time in the ante-room, are conducted into a pavilion appropriated exclusively to these assemblies. This consists of the most costly kinds of wood, but is without any ornament which could possibly be abstracted from it; without color, and without varnish, dimly lighted by small windows thickly overgrown with plants, and so low that it is impossible

to stand upright. The guests tread the apartment with solemn measured steps, and, having been received by him according to the prescribed formulas, arrange themselves in a half-circle on both sides of him. All distinctions of rank are abolished. The ancient vessels are now removed with solemn ceremonies from their wrappings, saluted and admired; and, with the same solemn and rigidly prescribed formulas, the water is heated on the hearth appropriated to the purpose, and the tea taken from the vessels and prepared in cups. The tea consists of the young green leaves of the tea-shrub rubbed to powder, and is very stimulating in its effect. The beverage is taken amidst deep silence, while incense is burning on the elevated pedestal of honor, *toko;* and, after the thoughts have thus been collected, conversation begins. It is confined to abstract subjects; but politics are not always excluded.

Reward of valor

The value of the vessels employed in these assemblages is very considerable; indeed, they do not fall short of the value of our most costly paintings; and Taikosama often rewarded his generals with vessels of the kind, instead of land, as was formerly the practice. After the last revolution some of the more eminent Daimios (princes) of the Mikado were rewarded with similar *Cha-no-yu* vessels, in acknowledgment of the aid rendered to him in regaining the throne of his ancestors. The best of them which I have seen were far from beautiful, simply being old, weather-worn, black or dark-brown jars, with pretty broad necks, for storing the tea in; tall cups of cracked Craquelé, either porcelain or earthenware, for drinking the infusion; and deep, broad cisterns; besides rusty old iron kettles with rings, for heating the water: but they were enwrapped in the most costly silken stuffs, and preserved in chests lacquered with gold. Similar old vessels are preserved amongst the treasures of the Mikado and the Tycoon, as well as in some of the temples, with all the care due to the most costly jewels, together with documents relating to their history.

Yamtik and Visita Bicul.

From Libmánan I visited the mountain, Yamtik (Amtik, Hantu),* which consists of lime, and contains many caverns. Six hours westward by water, and one hour S.S.W. on foot, brought us to the Visita Bícul, surrounded by a thousand little limestone hills; from which we ascended by a staircase of sinter in the bed of a brook, to a small cavern tenanted by multitudes of bats, and great long-armed spiders of the species *Phrynus*, known to be poisonous.†

Ant Activities.

A thick branch of a tree lying across the road was perforated from end to end by a small ant. Many of the natives did not venture to enter the cave; and those who did enter it were in a state of great agitation, and were careful first to enjoin upon each other the respect to be observed by them towards *Calapnitan*.‡

Superstitions.

One of the principal rules was to name no object in the cave without adding "Lord Calapnitan's." Thus they did not bluntly refer to either gun or torch, but devoutly said "Lord C.'s gun," or "Lord C.'s torch." At a thousand paces from this lies another cave, "San Vicente," which contains the same insects, but another kind of bat. Both caves are only of small extent; but in Libmánan a very large stalactite cave was mentioned to me, the description of which, notwithstanding the fables mixed up with it, could not but have a true foundation. Our guides feigned ignorance of it; and it was not till after two days' wandering about, and after many debates, that they came to the decision, since I adhered to my purpose, to encounter the risk; when, to my great astonishment, they conducted me back to Calapnitan's

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* According to Father Camel ("Philisoph. Trans. London," vol. xxvi, p. 246), *hantu* means black ants the size of a wasp; *amtiq*, smaller black; and *kantic*, red ants.

† According to Dr. Gerstaecker, probably *Phrynus Grayi Walck Gers.*, bringing forth alive. "S. Sitzungsb. Ges. Naturf. Freunde, Berl." March 18, 1862, and portrayed and described in G. H. Bronn, "Ord. Class.," vol. v. 184.

‡ *Calapnit*, Tagal and Bicol, the bat; *calapnitan*, consequently, lord of the bats.

cave; from which a narrow fissure, hidden by a projection of rock, led into one of the most gorgeous stalactite caves in the world. Its floor was everywhere firm and easy to the tread, and mostly dry; and it ran out into several branches, the entire length of which probably exceeds a mile; and the whole series of royal chambers and cathedrals, with the columns, pulpits, and altars which it contained, reflected no discredit upon its description. No bones or other remains were to be found in it. My intention to return subsequently with laborers, for the purpose of systematic excavation, was not carried out.

Unsuccessful climb.

I was not lucky enough to reach the summit of the mountain, upon which was to be found a lake, "from where else should the water come?" For two days we labored strenuously at different points to penetrate the thick forest; but the guide, who had assured the priest in Libmanan that he knew the road, now expressed himself to the contrary effect. I therefore made the fellow, who had hitherto been unburdened, now carry a part of the baggage as a punishment; but he threw it off at the next turning of the road and escaped, so that we were compelled to return. Stags and wild boars are very numerous in these forests; and they formed the principal portion of our meals, at which, at the commencement of our expedition, we had as many as thirty individuals; who, in the intervals between them, affected to search for snails and insects for me, but with success not proportionate to their zeal.

A clever pilfering servant.

Upon my departure from Daraga I took with me a lively little boy, who had a taste for the calling of a naturalist. In Libmanan he was suddenly lost, and with him, at the same time, a bundle of keys; and we looked for him in vain. The fact was, as I afterwards came to learn, that he went straight to Naga, and,

identifying himself by showing the stolen keys, got the majordomo of my host to deliver to him a white felt hat; with which he disappeared. I had once seen him, with the hat on his head, standing before a looking-glass and admiring himself; and he could not resist the temptation to steal it.

Trip with Internal Revenue Collector

In the beginning of March I had the pleasure of accompanying the Collector (Administrador) of Camarines and a Spanish head-man, who were travelling across Daet and Mauban to the chief town. At five p. m. we left Butungan on the Bicol River, two leagues below Naga, in a falúa of twelve oars, equipped with one 6-pounder and two 4-pounders, and reinforced by armed men; and about six we reached Cabusao, at the mouth of the Bicol, whence we put to sea about nine. The falua belonged to the collector of taxes, and had, in conjunction with another under the command of the alcalde, to protect the north coast of the province against smugglers and pirates, who at this time of the year are accustomed to frequent the hiding-places of the bay of San Miguel. Two similar gun-boats performed the duty on the south coast of the province.

Four volcanos.

Both the banks of the Bicol River are flat, and expand into broad fields of rice; and to the east are simultaneously visible the beautiful volcanos of Mayon, Iriga, Malina, and Isarog.

At daybreak we reached the bar of Daet, and, after two hours' travelling, the similarly named chief city of the province of North Camarines, where we found an excellent reception at the house of the alcalde, a polished Navarrese; marred only by the tame monkey, who should have welcomed the guests of his master, turning his back towards them with studiously discourteous gestures, and going towards the door. However, upon the majordomo placing a spirit flask preserving

a small harmless snake on the threshold, the monkey sprang quickly back and concealed himself, trembling, behind his master. In the evening there was a ball, but there were no dancers present. Some Filipinas, who had been invited, sat bashfully at one end of the apartment and danced with one another when called upon, without being noticed by the Spaniards, who conversed together at the other end.

A danceless ball.

Our departure hence was delayed by festivities and sudden showers for about two days, after which the spirited horses of the alcalde carried us within an hour on a level road north-west, to Talisáy, and in another hour to Indang, where a bath and breakfast were ready. Up to this time I had never seen a bath-room in the house of a Spaniard; whereas with the Northern Europeans it is never wanting. The Spaniards appear to regard the bath as a species of medicine, to be used only with caution; many, even to the present day, look upon it as an institution not quite Christian. At the time of the Inquisition frequent bathing, it is known, was a characteristic of the Moors, and certainly was not wholly free from danger. In Manila, only those who live near the Pasig are the exceptions to the rule; and there the good or bad practice prevails of whole families bathing, in the company of their friends, in the open air.

Spanish prejudice against bathing.

The road ends at Indáng. In two boats we went down the river till stopped by a bar, and there at a well-supplied table prepared for us by the kindness of the alcalde we awaited the horses which were being brought thither along a bad road by our servants. In the waste of Barre a tower, surrounded by two or three fishermen's huts and as many camarines, has been erected against the Moros, who, untempted by the same, seldom go so far westward, for it consists only of an open hut covered with palm-leaves—a kind of parasol—supported on stakes as thick

An unfortified fort.

as one's arm and fifteen feet high; and the two cannons belonging to it ought, for security, to be buried. We followed the sea-shore, which is composed of silicious sand, and covered with a carpet of creeping shore plants in full bloom. On the edge of the wood, to the left, were many flowering shrubs and *pandanus* with large scarlet-red flowers. After an hour we crossed the river Longos in a ferry, and soon came to the spur of a crystalline chain of mountains, which barred our road and extended itself into the sea as Point Longos. The horses climbed it with difficulty, and we found the stream on the other side already risen so high that we rode knee-deep in the water. After sunset we crossed singly, with great loss of time, in a miserable ferry-boat, over the broad mouth of the Pulundaga, where a pleasant road through a forest led us, in fifteen minutes, over the mountain-spur, Malanguit, which again projected itself right across our path into the sea, to the mouth of the Paracale. The long bridge here was so rotten that we were obliged to lead the horses over at wide intervals apart; and on the further side lies the place called Paracale, from which my companions continued their journey across Mauban to Manila.

Red lead.

Paracale and Mambulao are two localities well known to all mineralogists, from the red lead ore occurring there. On the following morning I returned to Longos; which consists of only a few miserable huts inhabited by gold-washers, who go about almost naked, probably because they are laboring during the greater part of the day in the water; but they are also very poor.

Gold mining.

The soil is composed of rubbish, decomposed fragments of crystalline rock, rich in broken pieces of quartz. The workmen make holes in the ground two and one-half feet long, two and one-half broad, and to thirty feet deep. At three feet below the surface the rock is generally

found to contain gold, the value increasing down to eighteen feet of depth, and then again diminishing, though these proportions are very uncertain, and there is much fruitless search. The rock is carried out of the holes in baskets, on ladders of bamboo, and the water in small pails; but in the rainy season the holes cannot possibly be kept free from water, as they are situated on the slope of the mountain, and are filled quicker than they can be emptied. The want of apparatus for discharging water also accounts for the fact that the pits are not dug deeper.

A primitive rock breaker.

The breaking of the auriferous rock is effected with two stones; of which one serves as anvil, and the other as hammer. The former, which is slightly hollowed in the center, is laid flat upon the ground; and the latter, four by eight by eight inches in dimensions, and therefore of about twenty-five pounds weight, is made fast with rattan to the top of a slender young tree, which lies in a sloping position in a fork, and at its opposite end is firmly fixed in the ground. The workman with a jerk forces the stone that serves for hammer down upon the auriferous rock, and allows it to be again carried upwards by the elasticity of the young tree.

An arrastre.

The crushing of the broken rock is effected with an apparatus equally crude. A thick stake rises from the center of a circular support of rough-hewn stones (which is enclosed in a circle of exactly similar stones) having an iron pin at its top, to which a tree, bent horizontally in the middle, and downwards at the two ends, is fixed, Being set in motion by two carabaos attached in front; it drags several heavy stones, which are bound firmly to it with rattans, round the circle, and in this manner crushes the broken rock, which has been previously mixed with water, to a fine mud. The same apparatus is employed by the Mexican gold-washers, under the

Gold-washing.

name of *Rastra*. The washing-out of the mud is done by women. They kneel before a small wooden gutter filled with water up to the brim, and provided with boards, sloping downwards, in front of the space assigned to each woman; the gutter being cut out at these places in a corresponding manner, so that a very slender stream of water flows evenly across its whole breadth downwards over the board. With her hand the workwoman distributes the auriferous mud over the board, which, at the lower edge, is provided with a cross-piece; and, when the light sand is washed away, there remains a stratum consisting chiefly of iron, flint, and ore, which is taken up from time to time with a flat piece of board, and laid on one side; and at the end of the day's work, it is washed out in a flat wooden dish (*batea*), and, for the last time, in a coco-shell; when, if they are lucky, a fine yellow dust shows itself on the edge.* During the last washing the slimy juice of the *Gogo* is added to the water, the fine heavy sand remaining suspended therein for a longer time than in pure water, and thus being more easily separated from the gold-dust.†

The clean-up.

It is further to be mentioned that the refuse from the pits is washed at the upper end of the water-gutter, so that the sand adhering to the stones intended for pounding may deposit its gold in the gutter or on the washing-board. In order to melt the gold thus obtained into a lump, in which form it is bought by the dealers, it is poured into a small heart-shell (*cardium*), and, after being covered with a handful of charcoal, placed

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* In only one out of several experiments made in the Berlin Mining College did gold-sand contain 0.014 gold; and, in one experiment on the heavy sand remaining on the mud-board, no gold was found.

† The *Gogo* is a climbing Mimosa (*Entada purseta*) with large pods, very abundant in the Philippines; the pounded stem of which is employed in washing, like the soap-bark of Chili (*Quillaja saponaria*); and for many purposes, such as baths and washing the hair of the head, is preferred to soap.

in a potsherd; when a woman blows through a narrow bamboo-cane on the kindled coals, and in one minute the work is completed.*

The result of many inquiries shows the profit per head to average not more than one and one-half reals daily. Further to the south-west from here, on the mountain Malaguit, are seen the ruins of a Spanish mining company; a heap of rubbish, a pit fifty feet deep, a large house fallen to ruin, and a stream-work four feet broad and six feet high. The mountain consists of gneiss much decomposed, with quartz veins in the stream-work, with the exception of the bands of quartz, which are of almost pure clay earth with sand.

Edible bird's nests.

On the sides hung some edible nests of the *salangane*, but not of the same kind as those found in the caverns on the south coast of Java. These, which are of much less value than the latter, are only occasionally collected by the Chinese dealers, who reckon them nominally at five cents each. We also found a few of the nest-building birds (*Collocalia troglodytes*, Gray).†

Abandoned workings.

Around lay so large a number of workings, and there were so many little abandoned pits, wholly or half fallen to ruin, and more or less grown over, that it was necessary to step between with great caution. Some of them

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* A small gold nugget obtained in this manner, tested at the Berlin Mining College, consisted of—

Gold	77.4
Silver	19.0
Iron	0.5
Flint earth	3.
Loss	0.1
	100.

† The nest and bird are figured in Gray's "Genera of Birds"; but the nest does not correspond with those found here. These are hemispherical in form, and consist for the most part of coir (coco fibers); and, as if prepared by the hand of man, the whole interior is covered with an irregular net-work of fine threads of the glutinous edible substance, as well as the upper edge, which swells gently outwards from the center towards the sides, and expands into two wing-shaped prolongations, resting on one another, by which the nest is fixed to the wall. Dr. v. Martens conjectures that the designation salangane comes from *langayan*, bird, and the Malay prefix *sa*, and signifies especially the *nest* as something coming from the bird.—("Journal of Ornith.," Jan., 1866.)

were still being worked after the mode followed at Lóngos, but with a few slight improvements. The pits are twice as large as those excavated there, and the rock is lifted, up by a pulley to a cylindrical framework of bamboo, which is worked by the feet of a lad who sits on a bank higher up.

Lead and mica.

Ten minutes north of the village of Malaguit is a mountain in which lead-glance and red lead have been obtained; the rock consisting of micaceous gneiss much decomposed. There is a stream-work over one hundred feet in length. The rock appears to have been very poor.

Chrome-lead ore.

The highly prized red-lead ores have been found on the top of this same hill, N. 30° W. from the village. The quarry was fallen to ruin and flooded with rain, so that only a shallow hollow in the ground remained visible; and after a long search amongst the bushes growing there a few small fragments were found, on which chrome-lead ore was still clearly to be recognized. Captain Sabino, the former governor of Paracale, a well-informed Filipino, who, at the suggestion of the alcalde, accompanied me, had for some years caused excavations to be carried on, in order to find specimens for a speculator who had in view the establishment of a new mining company in Spain; but the specimens which were found had not been removed, as speculation in mines in the Philippines had, in the interval, fallen into discredit on the Exchange of Madrid; and as yet only a little box full of sand, out of a few small drusy cavities, has been fixed upon and pounded, to be sold as variegated writing-sand, after being carefully sifted.

A pretty fan-palm.

A peculiarly beautiful fan-palm grows on this hill. Its stem is from thirty to forty feet high, cylindrical and dark-brown, with white rings a quarter of an inch broad at distances of four inches, and, at similar inter-

vals, crown-shaped bands of thorns two inches long. Near the crown-leaf the stem passes into the richest brown of burnt sienna.

Rooming in a powder-magazine.

Notwithstanding a very bad road, a pleasant ride carried us from Paracale to the sea-shore, and, through a beautiful wood, to Mambulao, which lies W. by N. I alighted at the tribunal, and took up my lodgings in the room where the ammunition was kept, as being the only one that could be locked. For greater security, the powder was stored in a corner and covered with carabao-hide; but such were my arrangements that my servant carried about a burning tallow light, and his assistant a torch in the hand. When I visited the Filipino priest, I was received in a friendly manner by a young girl who, when I offered my hand, thanked me with a bow, saying, "*Tengo las sarnas*" ("I have the itch"). The malady, which is very common in the Philippines, appears to have its focus in this locality.

Gneiss and crystalline rock.

A quarter of a league N.N.E. we came upon the ruins of another mining undertaking, the *Ancla de Oro*. Shaft and water-cutting had fallen in, and were thickly grown over; and only a few of the considerable buildings were still standing; and even those were ready to fall. In a circle some natives were busily employed, in their manner, collecting grains of gold. The rock is gneiss, weathered so much that it cannot be recognized; and at a thousand paces on the other side is a similar one, clearly crystalline.

Hornblende and hornblende slate.

Half a league N. by E. from Mambulao is the lead-mountain of Dinianan. Here also all the works were fallen in, choked with mud and grown over. Only after a long search were a few fragments found with traces of red-lead ore. This mountain consists of hornblende rock; in one place, of hornblende slate, with very beautiful large crystals.

Copper.

A league and a half S. from Mambulao a shallow hollow in the ground marks the site of an old copper-mine, which must have been eighty-four feet deep. Copper ores are found in several places in Luzon; and specimens of solid copper were obtained by me at the Bay of Luyang, N. of the Enseñada de Patag, in Caramuan.

Unsuccessful copper-mining.

Very considerable beds of copper ore occur in Mancayán, in the district of Lepanto, and in the central mountain-range of Luzon between Cagayán and Ilocos, which have been worked by a mining company in Manila since 1850; but the operations seem to have been most unsuccessful. In 1867 the society expended a considerable capital in the erection of smelting furnaces and hydraulic machinery; but until a very recent date, owing to local difficulties, particularly the want of roads, it has not produced any copper.*

Paying minus dividends.

In 1869 I heard, in London, that the undertaking had been given up. According to my latest information, however, it is certainly in progress; but the management have never, I believe, secured a dividend. The statement of 1872, in fact, shows a loss, or, as the Spaniards elegantly say, *a dividendo pasivo.*

Igorot-mining successful.

What Europeans yet appear unable to accomplish, the wild Igorots, who inhabit that trackless range of mountains, have carried on successfully for centuries, and to a proportionally larger extent; and this is the more remarkable as the metal in that district occurs only in the form of flints, which even in Europe can be made profitable only by particular management, and not without expense.

Long-established and considerable.

The copper introduced into commerce by the Igorots from 1840 to 1855, partly in a raw state, partly manufactured, is estimated at three hundred piculs yearly.

* Spanish Catalogue of the Paris Exhibition, 1867.

The extent of their excavations, and the large existing masses of slag, also indicate the activity of their operations for a long period of time.

Copper kettles attributed to Negritos.

In the Ethnographical Museum at Berlin is a copper kettle made by those wild tribes. Meyer, who brought it, states that it was made by the Negritos in the interior of the island, and certainly with hammers of porphyry, as they have no iron; and that he further found, in the collection of the Captain General of the Philippines, a large shallow kettle of three and one-half feet in diameter, which had been bought for only three dollars; whence it may be inferred that, in the interior of the island, the copper occurs in large masses, and probably solid; for how could those rude, uncultivated negritos understand the art of smelting copper?

Copper-working a pre-Spanish art.

The locality of these rich quarries was still unknown to the Governor, although the copper implements brought thence had, according to an official statement of his in 1833, been in use in Manila over two centuries. It is now known that the copper-smiths are not Negritos but Igorots; and there can be no question that they practiced this art, and the still more difficult one of obtaining copper from flint, for a long period perhaps previous to the arrival of the Spaniards. They may possibly have learnt them from the Chinese or Japanese. The chief engineer, Santos*, and many others with him, are of opinion that this race is descended from the Chinese or Japanese, from whom he insists that it acquired not only its features (several travellers mention the obliquely placed eyes of the Igorots), its idols, and some of its customs, but also the art of working in copper. At all events, the fact that a wild people, living isolated in the mountains, should have made such progress in the science of smelting, is of so great interest that a description of their procedure by Santos (essentially only a repetition of an earlier account by Hernandez, in the *Revista Minera*, i. 112) will certainly be acceptable.

* "Informe sobre las Minas de Cobre," Manila, 1862.

The Igorots' Method.

The present mining district acquired by the society mentioned, the *Sociedad Minero-metalurgica Cantabro-filipina de Mancayan*, was divided amongst the Igorots into larger or smaller parcels strictly according to the number of the population of the adjacent villages, whose boundaries were jealously watched; and the possessions of each separate village were again divided between certain families; whence it is that those mountain districts exhibit, at the present day, the appearance of a honeycomb. To obtain the ore, they made cavities, in which they lighted fires in suitable spots, for the purpose of breaking the rock into pieces by means of the elasticity of the heated water contained in the crevices, with the additional assistance of iron implements. The first breaking-up of the ore was done in the stream-work itself, and the dead heaps lay piled up on the ground, so that, in subsequent fires, the flame of the pieces of wood always reached the summit; and by reason of the quality of the rock, and the imperfection of the mode of procedure, very considerable down-falls frequently occurred. The ores were divided into rich and quartziferous; the former not being again melted, but the latter being subjected to a powerful and persistent roasting, during which, after a part of the sulphur, antimony, and arsenic had been exhaled, a kind of distillation of sulphate of copper and sulphate of iron took place, which appeared as "stone," or in balls on the surface of the quartz, and could be easily detached.*

* According to the Catalogue, the following ores are found:—Variegated copper ore (*cobre gris abigarrado*), arsenious copper (*c. gris arsenical*), vitreous copper (*c. vitreo*), copper pyrites (*pirita de cobre*), solid copper (*mata cobriza*), and black copper (*c. negro*). The ores of most frequent occurrence have the following composition—A, according to an analyzed specimen in the School of Mines at Madrid; B, according to the analysis of Santos, the mean of several specimens taken from different places:—

	A	B
Silicious Acid	25.800	47.06
Sulphur	31.715	44.44
Copper	24.640	16.64
Antimony	8.206	5.12
Arsenic	7.539	4.65
Iron	1.837	1.84
Lime	in traces	—
Loss	0.263	0.25
	100.000	100.00

The Smelter.

The furnace or smelting apparatus consisted of a round hollow in clayey gound, thirty centimeters in diameter and fifteen deep; with which was connected a conical funnel of fire-proof stone, inclined at an angle of 30°, carrying up two bamboo-canes, which were fitted into the lower ends of two notched pine-stems; in these two slips, covered all over with dry grass or feathers, moved alternately up and down, and produced the current required for the smelting.

Smelting.

When the Igorots obtained black copper or native copper by blasting, they prevented loss (by oxidation) by setting up a crucible of good fire-proof clay in the form of a still; by which means it was easier for them to pour the metal into the forms which it would acquire from the same clay. The furnace being arranged, they supplied it with from eighteen to twenty kilograms of rich or roasted ore, which, according to the repeated experiments of Hernandez, contained twenty per cent of copper; and they proceeded quite scientifically, always exposing the ore at the mouth of the funnel, and consequently to the air-drafts, and placing the coals at the sides of the furnace, which consisted of loose stones piled one over another to the height of fifty centimeters. The fire having been kindled and the blowing apparatus, already described, in operation, thick clouds of white, yellow, and orange-yellow smoke were evolved from the partial volatilization of the sulphur, arsenic, and antimony, for the space of an hour; but as soon as only sulphurous acid was formed, and the heat by this procedure had attained its highest degree, the blowing was discontinued and the product taken out. This consisted of a dross, or, rather, of the collected pieces of ore themselves, which, on account of the flinty contents of the stones composing the funnel, were transformed by the decomposition of the sulphurous metal into a porous

mass, and which could not be converted into dross nor form combinations with silicious acid, being deficient in the base as well as in the requisite heat; and also of a very impure "stone," of from four to five kilograms weight, and containing from fifty to sixty per cent of copper.

The copper "stone."

Several of these "stones" were melted down together for the space of about fifteen hours, in a powerful fire; and by this means a great portion of the three volatile substances above named was again evolved; after which they placed them, now heated red-hot, in an upright position, but so as to be in contact with the draught; the coals, however, being at the sides of the furnace. After blowing for an hour or half-an-hour, they thus obtained, as residuum, a silicate of iron with antimony and traces of arsenic, a "stone" containing from seventy to seventy-five per cent of copper, which they took off in very thin strips, at the same time using refrigerating vessels; and at the bottom of the hollow there remained, according as the mass was more or less freed from sulphur, a larger or smaller quantity (always, however, impure) of black copper.

Purifying the product.

The purified stones obtained by this second process were again made red-hot by placing them between rows of wood, in order that they might not melt into one another before the fire had freed them from impurities.

The black copper obtained from the second operation, and the stones which were re-melted at the same time, were then subjected to a third process in the same furnace (narrowed by quarry stones and provided with a crucible); which produced a residuum of silicious iron and black copper, which was poured out into clay moulds, and in this shape came into commerce. This black copper contained from ninety-two to ninety-four per cent of copper, and was tinged by a carbonaceous compound of the same metal known by its yellow color, and

the oxide on the surface arising from the slow cooling, which will occur notwithstanding every precaution; and the surface so exposed to oxidation they beat with green twigs. When the copper, which had been thus extracted with so much skill and patience by the Igorots, was to be employed in the manufacture of kettles, pipes, and other domestic articles, or for ornament, it was submitted to another process of purification, which differed from the preceding only in one particular, that the quantity of coals was diminished and the air-draught increased according as the process of smelting drew near to its termination, which involved the removal of the carbonaceous compound by oxidation. Santos found, by repeated experiment, that even from ores of the mean standard of twenty per cent, only from eight to ten per cent of black copper was extracted by the third operation; so that between eight to twelve per cent still remained in the residuum or porous quartz of the operation.

Tagalog women traders.

It was difficult to procure the necessary means of transport for my baggage on the return journey to Paracale, the roads being so soaked by the continuous rains that no one would venture his cattle for the purpose. In Mambulao the influence of the province on its western border is very perceptible, and Tagalog is understood almost better than Bicol; the Tagalog element being introduced amongst the population by women, who with their families come here, from Lucban and Mauban, in the pursuit of trade. They buy up gold, and import stuffs and other wares in exchange. The gold acquired is commonly from fifteen to sixteen carats, and a mark determines its quality. The dealers pay on the average $11 per ounce; but when, as is usually the case, it is

Miners' uncertain returns.

offered in smaller quantities than one ounce, only $10.* They weigh with small Roman scales, and have no great reputation for honesty.

North Camarines is thinly inhabited, the population of the mining districts having removed after the many undertakings which were artificially called into existence by the mining mania had been ruined. The gold-washers are mostly dissolute and involved in debt, and continually expecting rich findings which but very seldom occur, and which, when they do occur, are forthwith dissipated;—a fact which will acount for champagne and other articles of luxury being found in the shops of the very poor villagers.

Malaguit and Matango, during the dry season, are said to be connected by an extremely good road; but, when we passed, the two places were separated by a quagmire into which the horses sank up to their middle.

Labo.

In Labo, a little village on the right bank of the river Labo (which rises in the mountain of the same name), the conditions to which we have adverted are repeated—vestiges of the works of former mining companies fast disappearing, and, in the midst, little pits being worked by the natives. Red lead has not been found here, but gold has been, and especially "platinum," which some experiments have proved to be lead-glance. The mountain Labo appears from its bell-shape and the strata exposed in the river bed to consist of trachytic hornblende. Half a league W.S.W., after wading through mud a foot deep, we reached the mountain Dallas where lead-glance and gold were formerly obtained by a mining company; and to the present day gold is obtained by a few natives in the usual mode.

* According to the prices current with us, the value would be calculated at about $12; the value of the analyzed specimen, to which we have before referred, $14.50.

Neither in the latter province, nor in Manila, could I acquire more precise information respecting the histories of the numerous unfortunate mining enterprises. Thus much, however, appears certain, that they were originated only by speculators, and never properly worked with sufficient means. They therefore, of necessity, collapsed so soon as the speculators ceased from their operations. *Wild Cat Mining.*

North Camarines yields no metal with the exception of the little gold obtained by the natives in so unprofitable a manner. The king of Spain at first received a fifth, and then a tenth, of the produce; but the tax subsequently ceased. In Morga's time the tenth amounted on an average to $10,000 ("which was kept quite secret"); the profit, consequently, to above $100,000. Gemelli Carreri was informed by the governor of Manila that gold to the value of $200,000 was collected annually without the help of either fire or quicksilver, and that Paracale, in particular, was rich in gold. No data exist from which I could estimate the actual rate of produce; and the answers to several inquiries deserve no mention. The produce is, at all events, very small, as well on account of the incompleteness of the mode of procedure as of the irregularity of labor, for the natives work only when they are compelled by necessity. *Small output.*

I returned down the stream in a boat to Indang, a comparatively flourishing place, of smaller population but more considerable trade than Daet; the export consisting principally of abacá, and the import of rice. *Indang.*

An old mariner, who had navigated this coast for many years, informed me that the same winds prevail from Daet as far as Cape Engaño, the north-east point of Luzon. From October to March the north-east wind prevails, the monsoon here beginning with north winds, which are of short duration and soon pass into *Storms.*

the north-east; and in January and February the east winds begin and terminate the monsoon. The heaviest rains fall from October to January, and in October typhoons sometimes occur. Beginning from the north or north-east, they pass to the north-west, where they are most violent; and then to the north and east, sometimes as far as to the south-east, and even to the south. In March and April, and sometimes in the beginning of May, shifting winds blow, which bring in the south-west monsoon; but the dry season, of which April and May are the driest months, is uninterrupted by rain. Thunder storms occur from June to November; most frequently in August. During the south-west monsoon the sea is very calm; but in the middle of the north-east monsoon all navigation ceases on the east coast. In the outskirts of Baler rice is sown in October, and reaped in March and April. Mountain rice is not cultivated.

XVI

On foot to San Miguel bay.

SENDING my baggage from Daet to Cabusao in a schooner, I proceeded on foot, by the road to that place, to the coast on the west side of the Bay of San Miguel. We crossed the mouth of the river in a boat, which the horses swam after; but they were soon abandoned from unfitness. At the mouth of the next river, Sacavin, the water was so high that the bearers stripped themselves naked and carried the baggage over on their heads. In simple jacket and cotton hose, I found this precaution needless; indeed, according to my experience, it is both refreshing and salutary to wear wet clothes, during an uniformly high temperature; besides which, one is thereby spared many a spring over ditches, and

many a roundabout course to avoid puddles, which, being already wet through, we no longer fear. After having waded over eight other little rivers we were obliged to leave the shore and pursue the road to Colasi along steep, slippery, forest paths, the place lying right in the middle of the west side of the bay. The sea-shore was very beautiful. Instead of a continuous and, at the ebb, ill-smelling border of mangroves, which is never wanting in those places where the land extends into the sea, the waves here reach the foot of the old trees of the forest, many of which were washed underneath. Amongst the most remarkable was a fringe of stately old *Barringtoni*, covered with orchids and other epiphytes—gorgeous trees when in flower; the red stamens, five inches long, with golden yellow anthers like tassels, depending from the boughs; and their fruit, of the size of the fist, is doubly useful to the fisherman, who employs them, on account of their specific gravity, in floating his nets, and beats them to pieces to stupefy the fish. The foremost trees stood bent towards the sea, and have been so deflected probably for a long time, like many others whose remains still projected out of the water. The destruction of this coast appears to be very considerable. Amongst the climbing palms one peculiar kind was very abundant, the stem of which, as thick as the arm, either dragged itself, leafless, along the ground, or hung in arches above the branches, carrying a crown of leaves only at its extremity; while another, from its habitat the common calamus, had *caryota* leaves. Wild boars are very plentiful here; a hunter offered us two at one real each.

The direction of the flat coast which extends N.N.W. to S.S.E. from the point of Daet is here interrupted by the little peak of Colasi, which projects to the east, and has grown so rapidly that all old people remember *Colasi.*

it to have been lower. In the Visita Colasi, on the northern slope of the mountain, the sea is so rough that no boat can live in it. The inhabitants carry on fishing; their fishing-grounds lie, however, on the southern slope of the mountain, in the sheltered bay of Lalauigan, which we reached after thee hours' journey over the ridge.

By sea to Cabusao.

A four-oared *baroto*, hired at this place, as the weather was favorable, was to have conveyed us in two hours to Cabusao, the port of Naga; but the wind swung round, and a storm ensued. Thoroughly wet and not without loss, we ran to Barceloneta, a *visita* situated at a third of the distance. The intelligent Teniente of Colasi, whom we met here, also confirmed the fact of the rapid growth of the little peak.

Unreliable excuses.

In opposition to my wish to ascend the mountain, great obstacles were said to exist when every one would be occupied in preparations for the Easter festival, which would hardly occur during the succeeding weeks. As these objections did not convince me, a more substantial reason was discovered the next morning. Inland shoes are excellent for the mud, and particularly for horseback; but for climbing mountains, or rough ground, they would not last a day; and the one remaining pair of strong European shoes, which I reserved for particular purposes, had been given away by my servant, who did not like climbing mountains, on the pretext they were very much too heavy for me.

A shipwrecked family.

The shore from Barceloneta to Cabusao is of the same character as the Daet-Colasi but running north and south; the ground, sandy clay, is covered with a thick stratum of broken bivalves. The road was very difficult, as the high tide forced us to climb between the trees and thick underwood. On the way we met an enterprising family who had left Daet with a cargo

of coconuts for Naga, and had been wrecked here; saving only one out of five tinajas of oil, but recovering all the nuts.* They were living in a small hastily-run-up hut, upon coconuts, rice, fish, and mussels, in expectation of a favorable wind to return. There were several varieties of shore-birds; but my gun would not go off, although my servant, in expectation of a hunt, had cleaned it with especial care. As he had lost the ramrod whilst cleaning it, the charge was not withdrawn before we reached Cabusao, when it was discovered that both barrels were full of sand to above the touchhole.

Making palm-sugar.

The coast was still more beautiful than on the preceding day, particularly in one place where the surge beat against a wood of fan-palms (*Corypha sp.*). On the side facing the sea, in groups or rows stood the trees, bereft of their crowns, or lying overthrown like columns amid the vast ruins of temples (one of them was three feet in diameter); and the sight immediately reminded me of Pompeii. I could not account for the bareness of the trunks, until I discovered a hut in the midst of the palms, in which two men were endeavoring to anticipate the waves in their work of destruction by the preparation of sugar (*lunguleh*). For this purpose, after stripping off the leaves (this palm flowering at the top), the upper end of the stem is cut across, the surface of the incision being inclined about five degrees towards the horizon, and, near its lower edge, hollowed out to a very shallow gutter. The juice exudes over the whole surface of the cut, with the exception of the intersected exterior petioles, and, being collected in the shallow channel, is conducted by a piece of banana-leaf, two inches broad, and four inches long, into a bamboo-cane

* In Daet at that season six nuts cost one cuarto; and in Naga, only fifteen leagues away by water, they expected to sell two nuts for nine cuartos (twenty-sevenfold). The fact was that in Naga, at that time, one nut fetched two cuartos;—twelve times as much as in Daet.

attached to the trunk. In order to avert the rain from the saccharine issue, which has a faint, pleasantly aromatic flavor as of barley-sugar, all the trees which have been tapped are provided with caps formed of bent and folded palm-leaves. The average daily produce of each tree is four bamboos, the interior of which is about three inches and a half in diameter. When removed, they are full to about eighteen inches; which gives somewhat more than ten quarts daily.

The money side.

The produce of each tree of course is very unequal. Always intermittent, it ceases completely after two months—at the utmost, three months; but, the proportion of those newly cut to those cut at an earlier date being the same, the yield of the incisions is about equal. The juice of thirty-three palms, after evaporation in an iron pan immediately upon each collection, produces one ganta, or (there being four such collections) four gantas, daily; the weekly result being twenty gantas, or two tinajas of sugar, each worth two dollars and a half on the spot. This statement, derived from the people themselves, probably shows the proportion somewhat more unfavorable than it really is; still, according to the opinion of an experienced mestizo, the difference cannot be very considerable. Assuming the above figures as correct, however, one of these magnificent trees would give about one dollar and two-thirds, or, after deducting the laborers' wages one real per diem, about a thaler and two-thirds; not a large sum truly; but it is some consolation to know that, even if man did not interfere, these trees would in process of time fall victims to the breakers, and that, even if protected against external ravages, they are doomed to natural extinction after once producing fruit.

Neglected roads.

Cabusao lies in the southern angle of San Miguel Bay which is, almost on every side, surrounded by high

mountains, and affords good anchorage for ships. From here I repaired across Naga to the south coast. Four leagues from Naga, in the heart of Ragay, on the southern border of Luzon, is the small but deep harbor of Pasacao; and two hours by water conducted us to the intermediate Visita Pamplona, whence the route is pursued by land. The still-existing remnant of the old road was in a miserable condition, and even at that dry season of the year scarcely passable; the bridges over the numerous little ditches were broken down, and in many places, right across the road, lay large stones and branches of trees which had been brought there years before to repair the bridges, and, having been unused, have ever since continued to obstruct the road.

A French planter.

In Quitang, between Pamplona and Pasacao, where two brooks unite themselves into one little river debouching at the latter place, a young Frenchman had established a hacienda. He was contented and hopeful, and loudly praised the industry and friendliness of his people. Probably because they make fewer exactions, foreigners, as a rule, seem to agree better with the natives than Spaniards. Of these exactions, the bitterest complaints are rife of the injustice of the demands made upon the lower classes in the settlement of their wages; which, if they do not immediately find the necessary hands for every employment, do not correspond with the enhanced value of the products; and, according to them, the natives must even be driven from public employments, to labor in their service.*

The Filipino as a laborer.

The Filipino certainly is more independent than the European laborer, because he has fewer wants and, as a

* N. Loney asserts, in one of his excellent reports, that there never is a deficiency of suitable laborers. As an example, at the unloading of a ship in Iloilo, many were brought together at one time, induced by the small rise of wages from one to one and one-half reales; even more hands than could be employed. The Belgian consul, too, reports that in the provinces where the abacá grows the whole of the male population is engaged in its cultivation, in consequence of a small rise of wages.

native landowner, is not compelled to earn his bread as the daily laborer of another; yet, with reference to wages, it may be questioned whether any colony whatever offers more favorable conditions to the planter than the Philippines. In Dutch India, where the prevalence of monopoly almost excludes private industry, free laborers obtain one-third of a guilder—somewhat more than one real, the usual wages in the wealthy provinces of the Philippines (in the poorer it amounts to only the half); and the Javanese are not the equals of the Filipinos, either in strength, or intelligence, or skill; and the rate of wages in all the older Slave States is well known. For the cultivation of sugar and coffee, Mauritius and Ceylon are obliged to import foreign laborers at great expense, and to pay them highly; and yet they are successful.

From Quitang to Pasacao the road was far worse than it had heretofore been; and this is the most important road in the province! Before reaching Pasacao, evident signs are visible, on the denuded sides of the limestone, of its having been formerly washed by the sea. Pasacao is picturesquely situated at the end of the valley which is intersected by the Itulan, and extends from Pamplona, between wooded mountains of limestone, as far as the sea. The ebb tides here are extremely irregular. From noon to evening no difference was observable, and, when the decrease just became visible, the tide rose again. Immediately to the south, and facing the district, the side of a mountain, two thousand feet high and above one thousand feet broad, had two years ago given way to the subterranean action of the waves. The rock consists of a tough calcareous breccia, full of fragments of mussels and corals; but, being shoeless, I could not remain on the sharp rock sufficiently long to make a closer examination.

For the same reason, I was obliged to leave the ascent of the Yamtík, which I had before vainly attempted from Libmanan, unaccomplished from this point, although I had the advantage of the company of an obliging French planter in a boat excursion in a northwesterly direction along the coast. Here our boat floated along over gardens of coral, swarming with magnificently colored fishes; and after two hours we reached a cavern in the limestone, *Suminabang*, so low that one could stir in it only by creeping; which contained a few swallows and bats. On the Calebayan river, on the further side of Point Tanaun, we came upon a solitary shed, our night-quarters. Here the limestone range is interrupted by an isolated cliff on the left bank of the little river, consisting of a crystalline rock chiefly composed of hornblende; which moreover, on the side exposed to the water, is surrounded completely by limestone. *A beautiful coast.*

The surrounding mountains must swarm with wild boars. Under the thatched roof of our hut, which serves as a shelter to occasional hunters, more than a hundred and fifty lower jaw-bones were set up as hunting trophies. The place appeared as if created for the breeding of cattle. Soft with fodder grass, and covered with a few groups of trees, with slopes intersected by rustling brooks, it rose up out of the sea, and was encompassed by a steep wall of rock in the form of a semicircle; and here cattle would find grass, water, shade, and the protection of an enclosing rampart. While travelling along the coast, we had remarked a succession of similar localities, which however, from lack of enterprise and from the dread of pirates, were not utilized. As soon as our supper was prepared, we carefully extinguished our fire, that it might not serve as a signal to the vagabonds of the sea, and kept night watches. *Cattle.*

A delusive cave.

On the following morning we intended to visit a cave never before entered; but, to our astonishment, we found no proper cavern, but only an entrance to a cavern a few feet in depth. Visible from a distance, it must often have been passed by the hunters, although, as we were assured by our companions—who were astonished at the delusion—no one had ventured to enter it from stress of superstitious terror.

Isolation of fertile regions.

The north coast of Camarines, as I have frequently mentioned, is, during the north-east monsoon, almost unapproachable; while the south coast, screened by the outlying islands, remains always accessible. The most fertile districts of the eastern provinces, which during summer export their produce by the northern ports, in the winter often remain for months cut off from all communication with the chief town, because there is no road over the small strip of land to the south coast. How much has been done by Nature, and how little by man, to facilitate this intercourse, is very evident when we reflect upon the condition of the road to Pasacao, lately described, in connection with the condition of matters in the east, as shown by the map.

River highways.

Two rivers, one coming from the north-west, and the other from the south-east, and both navigable before they reach the borders of the province, flow through the middle of it in a line parallel with the coast (taking no account of its windings), and, after their junction, send their waters together through the estuary of Cabusao into the Bay of San Miguel. The whole province, therefore, is traversed through its center by two navigable rivers, which, as regards commerce, form only one.

Cabusao and Pasacao harbors.

But the harbor of Cabusao, at the bottom of the Bay of San Miguel, is not accessible during the north-east monsoon, and has this further disadvantage, that the

intercourse of the whole of the eastern part of Luzon with Manila can be carried on only by a very circuitous route. On the south coast, on the other hand, is the harbor of Pasacao, into which a navigable little river, above a mile in width, discharges itself; so that the distance between this river highway and the nearest point of the Bicol River amounts to a little more than a mile. The road connecting the two seas, laid out by an active alcalde in 1847, and maintained up to 1852, was however, at the date of my inquiry, in so bad a condition that a picul of abacá paid two reals freight for this short distance, in the dry season; and in the wet season it could not be forwarded for double the price.*

Bad roads raise freights.

Many similar instances may be brought forward. In 1861 the English vice-consul reported that in Iloilo a picul of sugar had risen more than 2 r. in price (as much as the cost of freight from Iloilo to Manila), in consequence of the bad state of the road between the two places, which are only one league asunder.

Social and political reasons for bad roads.

If, without reference to transport by sea, the islands were not favored in so extraordinary a manner by innumerable rivers with navigable mouths, a still greater proportion of their produce would not have been convertible into money. The people, as well as the local authorities, have no desire for roads, which they themselves construct by forced labor, and, when completed, must maintain by the same method; for, when no roads are made, the laborers are so much more easily employed in private operations. Even the parish priests, generally, are as little favorable to the planning of commercial intercourse, by means of which trade, prosperity, and enlightenment would be introduced into the country, and their authority undermined. Indeed the Govern-

* An unfinished canal, to run from the Bicol to the Pasacao River, was once dug, as is thought, by the Chinese, who carried on commerce in great numbers.—*Arenas*, p. 140.

ment itself, up to within a short time since, favored such a state of affairs; for bad roads belong to the essence of the old Spanish colonial policy, which was always directed to effect the isolation of the separate provinces of their great transmarine possessions, and to prevent the growth of a sense of national interest, in order to facilitate their government by the distant mother country.

Spanish economic backwardness.

Besides, in Spain itself matters are no better. The means of communication there are so very deficient that, as an instance, merchandise is sent from Santander to Barcelona, round the whole Iberian peninsula, in preference to the direct route, which is partly accomplished by railway.* In Estremadura the hogs were fed with wheat (live animals can be transported without roads), while at the same time the seaports were importing foreign grain.† The cause of this condition of affairs in that country is to be sought less in a disordered state of finance, than in the enforcement of the Government maxim which enjoins the isolation of separate provinces.

XVII

Mt. Isaróg.

THE Isaróg (pronounced Issaró) rises up in the middle of Camarines, between San Miguel and Lagonoy bays. While its eastern slope almost reaches the sea, it is separated on its western side by a broad strip of inundated land from San Miguel Bay. In circumference it is at least twelve leagues; and its height 1,966 meters.‡ Very flat at its base, it swells gradually to 16°, and higher

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* *La Situation Economique de l'Espagne.*

† Lesage, "Coup d' Oeil," in *Journal des Economistes*, September, 1868

‡ From barometrical observations—

	m.
Goa, on the northern slope of the Isarog	32
Uacloy, a settlement of Igorots	161
Ravine of Baira	1,134
Summit of the Isarog	1,966

up to 21° of inclination, and extends itself, in its western aspect, into a flat dome-shaped summit. But, if viewed from the eastern side, it has the appearance of a circular chain of mountains rent asunder by a great ravine. On Coello's map this ravine is erroneously laid down as extending from south to north; its bearing really is west to east. Right in front of its opening, and half a league south from Goa, lies the pretty little village of Rungus, by which it is known. The exterior sides of the mountain and the fragments of its large crater are covered with impenetrable wood. Respecting its volcanic eruptions tradition says nothing.

Primitive mountaineers.

The higher slopes form the dwelling-place of a small race of people, whose independence and the customs of a primitive age have almost entirely separated them from the inhabitants of the plain. One or two Cimarrons might occasionally have been attracted hither, but no such instance is remembered. The inhabitants of the Isaróg are commonly, though mistakenly, called Igorots; and I retain the name, since their tribal relationship has not yet been accurately determined; they themselves maintaining that their ancestors always dwelt in that locality. There are some who, in the opinion of the parish priest of Camarines, speak the Bicol language in the purest manner. Their manners and customs are very similar, in many respects, to what they were on the arrival of the Spaniards; and sometimes they also remind one of those prevailing among the Dyaks of Borneo at the present day.* These circumstances give rise to the conjecture that they may be the last of a race which maintained its independence against the Spanish rule, and probably also against the little

* The skull of a slain Igorot, as shown by Professor Virchow's investigation, has a certain similarity to Malay skulls of the adjoining Islands of Sunda, especially to the skulls of the Dyaks.

tyrants who ruled over the plain before the arrival of the Europeans. When Juan de Salcedo undertook his triumphal march round North Luzon he found everywhere, at the mouths of the rivers, seafaring tribes living under many chieftains who, after a short struggle, were slain by the superior discipline and better arms of the Spaniards, or submitted voluntarily to the superior race; but he did not succeed in subduing the independent tribes in the interior; and these are still to be found in all the larger islands of the Philippine group.

Similarity to Indian Archipelago conditions.

Similar conditions are found in many places in the Indian Archipelago. The Malays, carrying on trade and piracy, possess the shore, and their language prevails there; the natives being either subdued by them, or driven into the forests, the inaccessibility of which ensures to them a miserable but independent existence.*

Policy of non-intercourse with heathens.

In order to break down the opposition of the wild races, the Spanish Government forbade its subjects, under the penalty of one hundred blows and two years of forced labor, "to trade or to have any intercourse with the heathens in the mountains who pay no tribute to his Catholic Majesty, for although they would exchange their gold, wax, etc., for other necessaries, they will never change for the better." Probably this law has for centuries directly contributed to save the barbarians, notwithstanding their small numbers, from complete extermination; for free intercourse between a people existing by agriculture, and another living principally by the chase, speedily leads to the destruction of the latter.

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* Pigafetta found Amboyna inhabited by Moors (Mohammedans) and heathens; "but the first possessed the seashore, the latter the interior." In the harbor of Brune (Borneo) he saw two towns; one inhabited by Moors, and the other, larger than that, and standing entirely in the salt-water, by heathen. The editor remarks that Sonnerat ("Voyage aux Indes") subsequently found that the heathen had been driven from the sea, and had retired into the mountains.

The number of the Igorots of the Isaróg has, however, been much diminished by deadly battles between the different ranchos, and by the marauding expenditions which, until a short time since, were annually undertaken by the commissioners of taxes, in the interest of the Government monopoly, against the tobacco fields of the Igorots. Some few have been "pacified" (converted to Christianity and tribute); in which case they are obliged to establish themselves in little villages of scattered huts, where they can be occasionally visited by the priest of the nearest place; and, in order to render the change easier to them, a smaller tax than usual is temporarily imposed upon such newly-obtained subjects.

Christian Mountaineers' villages.

I had deferred the ascent of the mountain until the beginning of the dry season of the year; but I learned in Naga that my wish was hardly practicable, because the expeditions against the ranchos of the mountain, which I have already mentioned, usually occurred about this time. As the wild people could not understand why they should not cultivate on their own fields a plant which had become a necessity to them, they saw in the *Cuadrilleros*, not functionaries of a civilized State, but robbers, against whom they were obliged to defend themselves by force; and appearances contributed no less to confirm them in their error; for these did not content themselves with destroying the plantations of tobacco, but the huts were burnt to the ground, the fruit-trees hewn down, and the fields laid waste. Such forays never occurred without bloodshed, and often developed into a little war which was carried on by the mountaineers for a long time afterwards, even against people who were entirely uninterested in it—Filipinos and Europeans. The expedition this year was to take place in the beginning of April; the Igorots consequently were in a state of great agitation, and

Tobacco monopoly wars.

had, a few days previously, murdered a young unarmed Spaniard in the vicinity of Mabotoboto, at the foot of the mountain, by bringing him to the ground with a poisoned arrow, and afterwards inflicting twenty-one wounds with the wood-knife (bolo).

A policy of peace.

Fortunately there arrived soon after a countermand from Manila, where the authorities seemed to have been gradually convinced of the harmful tendency of such violent measures. It could not be doubted that this intelligence would quickly spread amongst the ranchos; and, acting upon the advice of the commandant (upon whom, very much against his inclination, the conduct of the expedition had devolved), I lost no time in availing myself of the anticipated season of quiet. The Government have since adopted the prudent method of purchasing the tobacco, which is voluntarily cultivated by the Igorots, at the ordinary rate, and, where practicable, encouraging them to lay out new fields, instead of destroying those in existence.

A populous fertile district.

The next day at noon I left Naga on horseback. The pueblos of Mogarao, Canaman, Quipayo, and Calabanga, in this fertile district follow so thickly upon one another that they form an almost uninterrupted succession of houses and gardens. Calabanga lies half a league from the sea, between the mouths of two rivers, the more southerly of which is sixty feet broad and sufficiently deep for large trading vessels.*

A bare plain and wretched village.

The road winds round the foot of the Isaróg first to the north-east and then to the east. Soon the blooming hedges cease, and are succeeded by a great bare plain, out of which numerous flat hillocks raise themselves. Both hills and plain, when we passed, served for pasturage; but from August to January they are sown with rice; and fields of batata are occasionally seen. After four hours we arrived at the little village

of Maguiring (Manguirin), the church of which, a tumble-down shed, stood on an equally naked hillock; and from its neglected condition one might have guessed that the priest was a native.

Many mountain water courses.

This hillock, as well as the others which I examined, consisted of the *débris* of the Isaróg, the more or less decomposed trachytic fragments of hornblende rock, the spaces between which were filled up with red sand. The number of streams sent down by the Isaróg, into San Miguel and Lagonoy bays, is extraordinarily large. On the tract behind Maguiring I counted, in three-quarters of an hour, five considerable estuaries, that is to say, above twenty feet broad; and then, as far as Goa, twenty-six more; altogether, thirty-one: but there are more, as I did not include the smallest; and yet the distance between Maguiring and Goa, in a straight line, does not exceed three miles. This accounts for the enormous quantity of steam with which this mighty condenser is fed. I have not met with this phenomenon on any other mountain in so striking a manner. One very remarkable circumstance is the rapidity with which the brimming rivulets pass in the estuaries, enabling them to carry the trading vessels, sometimes even ships, into a main stream (if the expression may be allowed), while the scanty contributions of their kindred streams on the northern side have scarcely acquired the importance of a mill-brook. These waters, from their breadth, look like little rivers, although in reality they consist of only a brook, up to the foot of the mountain, and of a river's mouth in the plain; the intermediate part being absent.

Comparison with Jasan Mountain district.

The country here is strikingly similar to the remarkable mountain district of the Gelungúng, described by

* On Coello's map these proportions are wrongly stated.

Junghuhn;* yet the origin of these rising grounds differs in some degree from that of those in Java. The latter were due to the eruption of 1822, and the great fissure in the wall of the crater of the Gelungúng, which is turned towards them, shows unmistakably whence the materials for their formation were derived; but the great chasm of the Isaróg opens towards the east, and therefore has no relation to the numberless hillocks on the north-west of the mountain. Behind Maguiring they run more closely together, their summits are flatter, and their sides steeper; and they pass gradually into a gently inclined slope, rent into innumerable clefts, in the hollows of which as many brooks are actively employed in converting the angular outlines of the little islands into these rounded hillocks. The third river behind Maguiring is larger than those preceding it; on the sixth lies the large Visita of Borobod; and on the tenth, that of Ragay. The rice fields cease with the hill country, and on the slope, which is well drained by deep channels, only wild cane and a few groups of trees grow. Passing by many villages, whose huts were so isolated and concealed that they might remain unobserved, we arrived at five o'clock at Tagunton; from which a road, practicable for carabao carts, and used for the transport of the abacá grown in the district, leads to Goa; and here, detained by sickness, I hired a little house, in which I lay for nearly four weeks, no other remedies offering themselves to me but hunger and repose.

Useful friends.

During this time I made the acquaintance of some newly-converted Igorots, and won their confidence. Without them I would have had great difficulty in ascending the mountains as well as to visit their tribe in its

* "Java, seine Gestalt (its formation)" II. 125.

farms without any danger.* When, at last, I was able to quit Goa, my friends conducted me, as the first step, to their settlement; where, having been previously recommended and expected, I easily obtained the requisite number of attendants to take into their charge the animals and plants which were collected for me.

A heathen Mountaineers' settlement.

On the following morning the ascent was commenced. Even before we arrived at the first rancho, I was convinced of the good report that had preceded me. The master of the house came towards us and conducted us by a narrow path to his hut, after having removed the foot-lances, which projected obliquely out of the ground, but were dexterously concealed by brushwood and leaves.† A woman employed in weaving, at my desire, continued her occupation. The loom was of the simplest kind. The upper end, the chain-beam, which consists of a piece of bamboo, is fixed to two bars or posts; and the weaver sits on the ground, and to the two notched ends of a small lath, which supplies the place of the weaving beam, hooks on a wooden bow, in the arch of which the back of the lath is fitted. Placing her feet against two pegs in the ground and bending her back, she, by means of the bow, stretches the material out straight. A netting-needle, longer than the breadth of the web, serves instead of the weaver's shuttle, but it can be pushed through only by considerable friction, and not always without breaking the chains of threads. A lath of hard wood (caryota), sharpened like a knife, represents the trestle, and after every stroke it is placed upon the edge; after which the comb is pushed

* An intelligent mestizo frequently visited me during my sickness. According to his statements, besides the copper already mentioned, coal is found in three places, and even gold and iron were to be had. To the same man I am indebted for Professor Virchow's skull of Caramuan, referred to before, which was said to have come from a cavern in Umang, one league from Caramuan. Similar skulls are also said to be found at the Visita Paniniman, and on a small island close to the Visita Guialo.

† They are made of bamboo.

forward, a thread put through, and struck fast, and so forth. The web consisted of threads of the abacá, which were not spun, but tied one to another.

A giant fern hedge.

The huts I visited deserve no special description. Composed of bamboos and palm-leaves, they are not essentially different from the dwellings of poor Filipinos; and in their neighborhood were small fields planted with batata, maize, caladium and sugar-cane, and enclosed by magnificent polypody ferns. One of the highest of these, which I caused to be felled for the purpose, measured in the stem nine meters, thirty centimeters; in the crown, two meters, twelve centimeters; and its total length was eleven meters, forty-two centimeters or over thirty-six feet.

Simple stringed instruments.

A young lad produced music on a kind of lute, called *baringbau*; consisting of the dry shaft of the *scitamina* stretched in the form of a bow by means of a thin tendril instead of gut. Half a coco shell is fixed in the middle of the bow, which, when playing, is placed against the abdomen, and serves as a sounding board; and the string when struck with a short wand, gave out a pleasing humming sound, realizing the idea of the harp and plectrum in their simplest forms. Others accompanied the musician on Jews' harps of bamboos, as accurate as those of the Mintras on the Malay Peninsula; and there was one who played on a guitar, which he had himself made, but after a European pattern. The hut contained no utensils besides bows, arrows, and a cooking pot. The possessor of clothes bore them on his person. I found the women as decently clad as the Filipino Christian women, and carrying, besides, a forest knife, or bolo. As a mark of entire confidence, I was taken into the tobacco fields, which were well concealed and protected by foot-lances; and they appeared to be carefully looked after.

The result of my familiarity with this people, both before and after this opportunity, may be briefly summed up: They live on the higher slopes of the mountain, never, indeed, below 1,500 feet; each family by itself. It is difficult to ascertain how many of them there may now be, as but little intercourse takes place amongst them. In the part of the mountain belonging to the district of Goa, their number is estimated at about fifty men and twenty women, including the children: but twenty years before the population was more numerous. Their food consists principally of *batata*, besides some gabi (*caladium*). A little maize is likewise cultivated, as well as some ubi (*dioscorea*), and a small quantity of sugar-cane for chewing. *The people and their crops.*

In laying out a batata field, a wood is partially cleared, the earth loosened with the blunt forest knife (bolo), and the bulbs or layers then planted; and within four months the harvest begins, and continues uninterruptedly from the time the creeping plant strikes root and forms tubers. After two years, however, the produce is so much diminished that the old plants are pulled up, in order to make room for new ones obtained from the runners. The field is then changed, or other fruits cultivated thereon, but with the addition of manure. A piece of land, fifty brazas long, and thirty wide, is sufficient for the support of a family. Only occasionally in the wet season does this resource fail, and then they resort to gabi, which appears to be as easily cultivated on wet as on dry ground, but is not so profitable as batata. The young shoots of the gabi are planted at distances of a vara, and if consumed in a proper manner, ought not to be cropped till after a year. Each family kills weekly one or two wild hogs. Stags are rare, although I obtained a fine pair of horns; and they do not use the skin. Bows and arrows are used in hunting; some poisoned, *Batatas.* *Rotation of crops.*

and some not. Every rancho keeps dogs, which live principally on *balata*, and also cats to protect the fields against rats; and they also have poultry, but no game cocks; which, having been first introduced into the Philippines by the Spaniards, are seldom, if ever, wanting in the huts of the Filipinos; but the inhabitants of the Isaróg are as yet free from this passion.

Game cocks a Spanish innovation.

Trade.

The few products of a more advanced civilization which they require, they obtain by the sale of the spontaneous productions of their forests, chiefly wax and resin (pili),* apnik, dagiangan (a kind of copal), and some abacá. Wax, which is much in request for church solemnities, fetches half a dollar per catty; and resin averages half a real per chinanta. Business is transacted very simply. Filipinos, having intercourse with the Igorots, make a contract with them; and they collect the products and bring them to a place previously agreed on, where the Filipinos receive them, after paying down the stipulated price.

Religion.

Physicians and magicians, or persons supposed to be possessed of secret powers, are unknown; every one helps himself. In order to arrive at a clear understanding of their religious views, a longer intercourse would be necessary. But they certainly believe in one God, or, at least, say so, when they are closely questioned by Christians; and have also loosely acquired several of the external practices of Catholicism, which they employ as spells.

Respect for women and aged.

Hunting and hard labor constitute the employment of man in general, as well as in the Philippines. The practice of employing women as beasts of burden—which, although it exists among many of the peoples of Europe, for example, the Basques, Wallachians, and

* The fruit of the wild pili is unfit for food.

Portuguese, is almost peculiar to barbarous nations,—seems to have been lost in the Philippines as far back as the time of its discovery by the Spaniards; and even among the wild people of the Isaróg, the women engage only in light labor, and are well treated. Every family supports its aged and those unfit for labor. Headaches and fevers were stated to me as the prevalent maladies; for which burnt rice, pounded and mixed to a pap with water, is taken as a remedy; and in case of severe headache they make an incision in the forehead of the sufferer. Their prevalence is explained by the habit of neutralizing the ill effects of drinking water in excess, when they are heated, by the consumption of warm water in large doses; and the rule holds with regard to coco-water; the remedy for immoderate use of which is warm coco-water. Their muscular power is small, and they are not able to carry more than fifty pounds weight to any considerable distance.

Medicine.

Besides the chase and agriculture, their occupations are restricted to the manufacture of extremely rude weapons, for which they purchase the iron, when required, from the Filipinos, and of the coarse webs made by the women, and of wicker work. Every father of a family is master in his own house, and acknowledges no power higher than himself. In the event of war with neighboring tribes, the bravest places himself at the head, and the rest follow him as long as they are able; there is no deliberate choosing of a leader.

Manufactures.

On the whole, they are peaceful and honorable towards each other, although the idle occasionally steal the fruits of the fields; and, should the thief be caught, the person robbed punishes him with blows of the rattan, without being under any apprehensions of vengeance in consequence. If a man dies, his nearest kinsmen go out to requite his death by the death of some other individual,

Death customs.

taken at random. The rule is strictly enforced. For a dead man a man must be killed; for a woman a woman; and for a child a child. Unless, indeed, it be a friend they encounter, the first victim that offers is killed. Latterly, however, owing to the unusual success attained by some of them in representing the occurrence of death as an unavoidable destiny, the custom is said to have fallen into desuetude; and the relatives do not exact the satisfaction. This was easy in the case of the deceased being an ordinary person; but, to the present day, vengeance is required in the event of the death of a beloved child or wife. If a man kills a woman of another house, her nearest kinsman endeavors to kill a woman of the house of the murderer; but to the murderer himself he does nothing; and the corpse of the victim thus slain as a death-offering is not buried, nor is its head cut off; and her family, in their turn, seek to avenge the death by murder. This is reckoned the most honorable course. Should the murderer, however, be too strong to be so overcome, any weaker person, be it who it may, is slain in retaliation; and hence, probably, the comparatively small number of women.

Marriage.

Polygamy is permitted; but even the most courageous and skilful seldom or never have more than one wife. A young man wishing to marry commissions his father to treat with the father of the bride as to the price; which latterly has greatly increased; but the average is ten bolos, costing from four to six reals each, and about $12 in cash; and the acquisition of so large a sum by the sale of wax, resin, and abacá, often takes the bridegroom two years. The bride-money goes partly to the father, and partly to the nearest relations; every one of whom has an equal interest. If there should

be many of them, almost nothing remains for the father, who has to give a great feast, on which occasion much palm-wine is drunk.

Sexual crimes.

Any man using violence towards a girl is killed by her parents. If the girl was willing, and the father hears of it, he agrees upon a day with the former, on which he is to bring the bride's dowry; which should he refuse to do, he is caught by the relations, bound to a tree, and whipped with a cane. Adultery is of most rare occurrence; but, when it does take place, the dowry is returned either by the woman, who then acquires her freedom, or by the seducer, whom she then follows. The husband has not the right to detain her, if he takes the money, or even if he should refuse it; but the latter contingency is not likely to arise, since that sum of money will enable him to buy for himself a new wife.

Basira ravine.

In the afternoon we reached a vast ravine, called "Basira," 973 meters above Uacloy, and about 1,134 meters above the sea, extending from south-east to north-west between lofty, precipitous ranges, covered with wood. Its base, which has an inclination of 33°, consists of a naked bed of rock, and, after every violent rainfall, gives issue to a torrent of water, which discharges itself violently. Here we bivouacked; and the Igorots, in a very short time, built a hut, and remained on the watch outside. At daybreak the thermometer stood at 13.9° R.*

At the summit.

The road to the summit was very difficult on account of the slippery clay earth and the tough network of plants; but the last five hundred feet were unexpectedly easy, the very steep summit being covered with a very thick growth of thinly leaved, knotted, mossy *thibaudia*, *rhododendra*, and other dwarf woods, whose innumerable

* 17.375 Cent. or 63 Far.—C.

tough branches, running at a very small height along the ground and parallel to it, form a compact and secure lattice-work, by which one mounted upwards as on a slightly inclined ladder. The point which we reached * * * was evidently the highest spur of the horse-shoe-shaped mountain side, which bounds the great ravine of Rungus on the north. The top was hardly fifty paces in diameter, and so thickly covered with trees that I have never seen its like; we had not room to stand. My active hosts, however, went at once to work, though the task of cutting a path through the wood involved severe labor, and, chopping off the branches, built therewith, on the tops of the lopped trees, an observatory, from which I should have had a wide panoramic view, and an opportunity for taking celestial altitudes, had not everything been enveloped in a thick mist. The neighboring volcanoes were visible only in glimpses, as well as San Miguel Bay and some lakes in the interior. Immediately after sunset the thermometer registered 12.5° R.*

The descent.

On the following morning it was still overcast; and when, about ten o'clock, the clouds became thicker, we set out on our return. It was my intention to have passed the night in a rancho, in order next day to visit a solfatara which was said to be a day's journey further; but my companions were so exhausted by fatigue that they asked for at least a few hours' rest.

Ferns and orchids.

On the upper slope I observed no palms, with the exception of calamus; but polypodies (ferns) were very frequent, and orchids surprisingly abundant. In one place all the trees were hung, at a convenient height, with flowering aërids; of which one could have collected

* 15.6 Cent. or 60 Far.—C.

thousands without any trouble. The most beautiful plant was a Medinella, of so delicate a texture that it was impossible to preserve it.

Carbonic acid spring.

Within a quarter of an hour north-east of Uacloy, a considerable spring of carbonic acid bursts from the ground, depositing abundance of calcareous sinter. Our torches were quickly extinguished, and a fowl covered with a cigar-box died in a few minutes, to the supreme astonishment of the Igorots, to whom these phenomena were entirely new.

Farewell to mountaineers.

On the second day of rest, my poor hosts, who had accompanied me back to Uacloy, still felt so weary that they were not fit for any undertaking. With naked heads and bellies they squatted in the burning sun in order to replenish their bodies with the heat which they had lost during the bivouac on the summit; for they are not allowed to drink wine. When I finally left them on the following day, we had become such good friends that I was compelled to accept a tamed wild pig as a present. A troop of men and women accompanied me until they saw the glittering roofs of Maguiring, when, after the exchange of hearty farewells, they returned to their forests. The natives whom I had taken with me from Goa had proved so lazy and morose that nearly the whole task of making the path through the forest had fallen upon the Igorots. From sheer laziness they threw away the drinking water of which they were the porters; and the Igorots were obliged to fetch water from a considerable distance for our bivouac on the summit. In all my troublesome marches, I have always done better with Cimarrons than with the civilized natives. The former I have found obliging, trustworthy, active and acquainted with localities, while the latter generally displayed the opposite qualities. It would, however, be unjust to form a conclusive opinion as to their com-

parative merits from these facts; for the wild people are at home when in the forest; what they do is done voluntarily, and the stranger, when he possesses their confidence, is treated as a guest. But the Filipinos are reluctant companions, *Polistas*, who, even when they receive a high rate of wages, consider that they are acting most honorably when they do as little as possible. Atany rate, it is no pleasure to them to leave their village in order to become luggage-porters or beaters of roads on fatiguing marches in impracticable districts, and to camp out in the open air under every deprivation. For them, still more than for the European peasant, repose is the most agreeable refreshment. The less comfort any one enjoys at home, the greater is the reluctance with which he leaves it; and the same thing may be observed in Europe.

Forced labor.

A petition for liquors.

As the Igorots were not permitted to have cocoa-palms for the preparation of wine, vinegar and brandy, so that they might not infringe the monopoly of the government, they presented me with a petition entreating me to obtain this favor for them. The document was put together by a Filipino writer in so ludicrously confused a manner that I give it as a specimen of Philippine clerkship.* At all events, it had the best of results, for the petitioners were accorded twice as much as they had prayed for.

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* Sor Inspector por S. M.

Nosotros dos Capnes actuales de Rancherias de Lalud y Uacloy comprension del pueblo de Goa prov.a de Camarines Sur. Ante los pies de vmd postramos y decimos. Que por tan deplorable estado en que nos hallabamos de la infedelidad recienpoblados esta visitas de Rancherias ya nos Contentamos bastantemente en su felis llegada y suvida de este eminente monte de Isarog loque havia con quistado industriamente de V. bajo mis consuelos, y alibios para poder con seguir a doce ponos (*i. e.* arboles) de cocales de mananguiterin para Nuestro uso y alogacion a los demas Igorotes, o montesinos q. no quieren vendirnos; eta utilidad publica y reconocer a Dios y a la soberana Reyna y Sora Doña Isabel 2a (que Dios Gue) Y por intento.

A. V. pedimos, y suplicamos con humildad seciva proveer y mandar, si es gracia segun lo q. imploramos, etc. Domingo Talest. Jose Laurenciano†.

The south-west monsoon lasts in this region (district of Goa) from April to October. April is very calm (*navegación de señoras*). From June to August the south-west winds blow steadily; March, April, and May are the driest months; there are shifting winds in March and the beginning of April; while from October to December is the time of storms; "S. Francisco (4th October) brings bad weather." Rice is planted in September and reaped in February. *Winds and planting season.*

XVIII

FROM the Isarog I returned through Naga and Nabua to Iriga, the ascent of which I at length accomplished. *Mt. Iriga.*

The chief of the Montesinos had received daily rations for twenty-two men, with whom he professed to make a road to the summit; but when, on the evening of the third day, he came himself to Iriga, in order to fetch more provisions, on the pretext that the work still required some time for execution, I explained that I should endeavor to ascend the mountain on the following morning, and requested him to act as guide. He consented, but disappeared, together with his companions, during the night; the Filipinos in the tribunal having been good enough to hold out the prospect of severe punishment in case the work performed should not correspond to the working days. After fruitless search for another guide, we left Buhi in the afternoon, and passed the night in the rancho, where we had previously been so hospitably received. The fires were still burning, but the inhabitants, on our approach, had fled. About six o'clock on the following morning the ascent began. After we had gone through the forest, by availing ourselves of the path which we had previously *The ascent.*

beaten, it led us through grass three or four feet in height, with keen-edged leaves; succeeded by cane, from seven to eight feet high, of the same habitat with our *Arundo phragmites* (but it was not in flower), which occupied the whole of the upper part of the mountain as far as the edge. Only in the ravine did the trees attain any height. The lower declivities were covered with aroids and ferns; towards the summit were tendrils and mosses; and here I found a beautiful, new, and peculiarly shaped orchid.* The Cimarrons had cut down some cane; and, beating down our road for ourselves with bolos, we arrived at the summit a little before ten o'clock. It was very foggy. In the hope of a clear evening or morning I caused a hut to be erected, for which purpose the cane was well fitted. The natives were too lazy to erect a lodging for themselves, or to procure wood for a watch-fire. They squatted on the ground, squeezed close to one another to warm themselves, ate cold rice, and suffered thirst because none of them would fetch water. Of the two water-carriers whom I had taken with me, one had "inadvertently" upset his water on the road, and the other had thrown it away "because he thought we should not require it."

Altitude.

I found the highest points of the Iriga to be 1,212 meters, 1,120 meters above the surface of the Buhi Lake. From Buhi I went to Batu.

Changes in Batu Lake.

The Batu Lake (one hundred eleven meters above the sea) had sunk lower since my last visit in February. The carpet of algae had increased considerably in breadth, its upper edge being in many places decomposed; and the lower passed gradually into a thick consistency of putrid water-plants (charae, algae, pontederiae, valisneriae, pistiae, etc.), which encompassed the surface of the water so that only through a few gaps could one reach the bank.

* *Dendrobium ceraula*, Reichenbach.

Right across the mouth of the Quinali lies, in the lake, a bar of black mud, the softest parts of which were indicated by some insignificant channels of water. As we could not get over the bar in a large boat, two small skiffs were bound together with a matting of bamboo, and provided with an awning. By means of this contrivance, which was drawn by three strong carabaos (the whole body of men with evident delight and loud mirth wading knee-deep in the black mud and assisting by pushing behind) we succeeded, as if on a sledge, in getting over the obstacle into the river; which on my first visit overflowed the fields in many places, till the huts of the natives rose out of the water like so many ships: but now (in June) not one of its channels was full. We were obliged in consequence to continue our sledge journey until we were near to Quinali.

At Ligao I alighted at a friendly Spaniard's, a great part of the place, together with the tribunal and convent, having been burnt down since my last visit. After making the necessary preparations, I went in the evening to Barayong, a little rancho of Cimarrons at the foot of the Mazaraga, and, together with its inhabitants, ascended the mountain on the following morning. The women also accompanied us for some distance, and kept the company in good humor; and when, on the road, a Filipino who had been engaged for the purpose wished to give up carrying a bamboo full of water, and, throwing it away, ran off, an old woman stepped forward in his stead, and dragged the water cheerfully along up to the summit. This mountain was moister than any I had ever ascended, the Semeru in Java, in some respects, excepted; and half-way up I found some rotten rafflesia.* Two miserable-looking Cimarron dogs drove a young stag towards us, which was slain by one of the people

Ascent of Mt. Mazaraga.

* *Rafflesia Cumingii* R. Brown, according to Dr. Kuhn.

with a blow of his bolo. The path ceased a third of the way up, but it was not difficult to get through the wood. The upper portion of the mountain, however, being thickly overgrown with cane, again presented great obstacles. About twelve we reached the summit-level, which, pierced by no crater, is almost horizontal, smoothly arched, and thickly covered with cane. Its height is 1,354 meters. In a short time the indefatigable Cimarrons had built a fine large hut of cane: one room for myself and the baggage, a large assembly-room for the people, and a special apartment for cooking. Unfortunately the cane was so wet that it would not burn. In order to procure firewood to cook the rice, thick branches were got out of the wood, and their comparatively dry pith extracted with great labor. The lucifer-matches, too, were so damp that the phosphorus was rubbed away in friction; but, being collected on blotting-paper, and kneaded together with the sulphurous end of the match-wood, it became dry and was kindled by friction. Not a trace of solid rock was to be seen. All was obstructed by a thick overgrowth from where the path ceased, and the ground covered with a dense bed of damp wood-earth. The following morning was fine, and showed a wide panorama; but, before I had completed my drawing, it again became misty; and as, after several hours of waiting, the heavens were overspread with thick rain-clouds, we set out on our return.

Altitude.

Butterflies.

Numerous butterflies swarmed around the summit. We could, however, catch only a few, as the passage over the cane-stubble was too difficult for naked feet; and, the badly-stitched soles of two pairs of new shoes which I had brought from Manila having dropped off some time before I reached the summit, I was compelled to perform the journey to Ligao barefoot.

On the following day my Spanish host went twice to the tribunal to procure the carabao carts which were necessary for the furtherance of my collections. His courteous request was unsuccessful; but the command of the parish priest, who personally informed the Gobernadorcillo in his house, was immediately obeyed. The Filipino authorities have, as a rule, but little respect for private Spanish people, and treat them not seldom with open contempt. An official recommendation from the alcalde is usually effectual, but not in all the provinces; for many alcaldes do hurt to their own authority by engaging the assistance or connivance of the native magistrates in the furtherance of their personal interests.

Native contempt for private Spaniards.

I here shot some *panikes*, great bats with wings nearly five feet wide when extended, which in the day time hang asleep from the branches of trees, and, among them, two mothers with their young sucking ones uninjured. It was affecting to see how the little animals clung more and more firmly to the bodies of their dying parents, and how tenderly they embraced them even after these were dead. The apparent feeling, however, was only self-interest at bottom, for, when their store of milk was exhausted, the old ones were treated without respect, like empty bottles. As soon as the young ones were separated, they fed on bananas, and lived several days, until I at length placed them in spirits.

Giant bats.

Early in the morning I rode on the priest's horse to Legaspi, and in the evening through deep mud to the alcalde at Albay. We were now (June) in the middle of the so-called dry season, but it rained almost every day; and the road between Albay and Legaspi was worse than ever. During my visit information arrived from the commandant of the faluas on the south coast that, as he was pursuing two pirate vessels, six others suddenly made their appearance, in order to cut off his return;

A muddy dry season.

Power of Moro pirates.

for which reason he had quickly made his way back. The faluas are very strongly manned, and provided with cannon, but the crews furnished by the localities on the coast are entirely unpractised in the use of fire-arms, and moreover hold the Moros in such dread that, if the smallest chance offers of flight, they avail themselves of it to ensure their safety by making for the land. The places on the coast, destitute of other arms than wooden pikes, were completely exposed to the pirates, who had firmly established themselves in Catanduanes, Biri, and several small islands, and seized ships with impunity, or robbed men on the land. Almost daily fresh robberies and murders were announced from the villages on the shore. During a plundering expedition the men caught are employed at the oars and at its close sold as slaves; and, on the division of the spoil, one of the crew falls to the share of the dato (Moro chief) who fitted out the vessel.* The coasting vessels in these waters, it is true, are mostly provided with artillery, but it is generally placed in the hold of the ship, as no one on board knows how to use it. If the cannon be upon deck, either the powder or the shot is wanting; and the captain promises to be better prepared next time.† The alcalde reported the outrages of the pirates by every post to Manila, as well as the great injury done to trade, and spoke of the duty of the Government to protect its subjects, especially as the latter were not permitted to use fire-arms;‡ and from the

No protection from Government.

* According to E. Bernaldez ("Guerra al Sur") the number of Spaniards and Filipinos kidnapped and killed within thirty years amounted to twenty thousand.

† The richly laden *Nao* (Mexican galleon) acted in this way.

‡ Extract from a letter of the alcalde to the captain-general, June 20, '60: "For ten days past ten pirate vessels have been lying undisturbed at the island of San Miguel, two leagues from Tabaco, and interrupt the communication with the island of Catanduanes and the eastern part of Albay. * * * They have committed several robberies, and carried off six men. Nothing can be done to resist them as there are no fire-arms in the villages, and the only two faluas have been detained in the roads of San Bernardino by stress of weather."

Letter of June 25:—"Besides the above private ships four large pancos and four small vintas have made their appearance in the straits of San Bernardino. * * * Their force amounts from four hundred and fifty to five hundred men. * * * Already they have killed sixteen men, kidnapped ten, and captured one ship."

Bisayan Islands came the same cry for help. The Government, however, was powerless against the evil. If the complaints were indeed very urgent, they would send a steamer into the waters most infested; but it hardly ever came in sight of pirates, although the latter were carrying on their depredations close in front and behind.

Government steamer easily eluded.

At Samars, the principal town, I subsequently met with a Government steamer, which for fourteen days past had been nominally engaged in cruising against the pirates; but the latter, generally forewarned by their spies, perceive the smoke of the steamers sufficiently soon to slip away in their flat boats; and the officers knew beforehand that their cruise would have no other result than to show the distressed provinces that their outcry was not altogether unnoticed.*

Steam gunboats more successful.

Twenty small steam gunboats of light draught had shortly before been ordered from England, and were nearly ready. The first two indeed arrived soon after in Manila (they had to be transported in pieces round the Cape), and were to be followed by the rest; and they were at one time almost successful in delivering the archipelago from these burdensome pests;† at least, from the proscribed Moros who came every year from the Sulu Sea, mostly from the island of Tawitawi, arriving in May at the Bisayas, and continuing their depredations in the archipelago until the change of the monsoon

* In Chamisso's time it was even worse. "The expeditions in armed vessels, which were sent from Manila to cruise against the enemy (the pirates) * * * serve only to promote smuggling, and Christians and Moros avoid one another with equal diligence on such occasions." ("Observations and Views," p. 73.) * * * Mas (i. iv. 43) reports to the same effect, according to notices from the secretary-general's office at Manila, and adds that the cruisers sold even the royal arms and ammunition, which had been entrusted to them, whence much passed into the hands of the Moros. The alcaldes were said to influence the commanders of the cruisers, and the latter to overreach the alcaldes; but both usually made common cause. La Pérouse also relates (ii., p. 357), that the alcaldes bought a very large number of persons who had been made slaves by the pirates (in the Philippines); so that the latter were not usually brought to Batavia where they were of much less value.

† According to the *Diario de Manila*, March 14, 1866, piracy on the seas had diminished, but had not ceased. Paragua, Calamianes, Mindoro, Mindanao, and the Bisayas still suffer from it. Robberies and kidnapping are frequently carried on as opportunity favors; and such casual pirates are to be extirpated only by extreme severity. According to my latest accounts, piracy is again on the increase.

Renegades join pirates and bandits.

in October or November compelled them to return.* In the Philippines they gained new recruits among vagabonds, deserters, runaway criminals, and ruined spendthrifts; and from the same sources were made up the bands of highway robbers (tulisanes), which sometimes started up, and perpetuated acts of extraordinary daring. Not long before my arrival they had made an inroad into a suburb of Manila, and engaged with the military in the highways. Some of the latter are regularly employed in the service against the tulisanes. The robbers are not, as a rule, cruel to their victims when no opposition is offered.†

Plants from Berlin.

In Legaspi I found awaiting me several chests with tin lining, which had been sixteen months on their passage by overland route, instead of seven weeks, having been conveyed from Berlin by way of Trieste, on account of the Italian war. Their contents, which had been intended for use in the Philippines exclusively, were now for the most part useless. In one chest there were two small flasks with glass stoppers, one filled with moist charcoal, and the other with moist clay, both

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* The Spaniards attempted the conquest of the Sulu Islands in 1628, 1629, 1637, 1731, and 1746; and frequent expeditions have since taken place by way of reprisals. A great expedition was likewise sent out in October, 1871, against Sulu, in order to restrain the piracy which recently was getting the upper hand; indeed, a year or two ago, the pirates had ventured as far as the neighborhood of Manila; but in April of this year (1872) the fleet returned to Manila without having effected its object. The Spaniards employed in this expedition almost the whole marine force of the colony, fourteen ships, mostly steam gunboats; and they bombarded the chief town without inflicting any particular damage, while the Moros withdrew into the interior, and awaited the Spaniards (who, indeed, did not venture to land) in a well-equipped body of five thousand men. After months of inactivity the Spaniards burnt down an unarmed place on the coast, committing many barbarities on the occasion, but drew back when the warriors advanced to the combat. The ports of the Sulu archipelago are closed to trade by a decree, although it is questionable whether all navigators will pay any regard to it. Not long since the sovereignty of his district was offered by the Sultan of Sulu to the King of Prussia; but the offer was declined.

† The *Diario de Manila* of June 4, 1866, states:—"Yesterday the military commission, established by ordinance of the 3rd August, 1865, discontinued its functions. The ordinary tribunals are again in force. The numerous bands of thirty, forty, and more individuals, armed to the teeth, which have left behind them their traces of blood and fire at the doors of Manila and in so many other places, are annihilated. * * * More than fifty robbers have expiated their crimes on the gallows, and one hundred and forty have been condemned to presidio (forced labor) or to other punishments."

containing seeds of the Victoria Regia and tubers of red and blue nymphae (water-lily). Those in the first flask were spoiled, as might have been expected; but in that filled with moist clay two tubers had thrown out shoots of half an inch in length, and appeared quite sound. I planted them at once, and in a few days vigorous leaves were developed. One of these beautiful plants, which had been originally intended for the Buitenzorg Garden in Java, remained in Legaspi; the other I sent to Manila, where, on my return, I saw it in full bloom. In the charcoal two Victoria seeds had thrown out roots above an inch in length, which had rotted off. Most likely they had been torn up by the custom-house inspectors, and had afterwards rotted, for the neck of the bottle was broken, and the charcoal appeared as if it had been stirred. I communicated the brilliant result of his mode of packing to the Inspector of the Botanical Gardens at Berlin, who made a second consignment direct to Java, which arrived in the best condition; so that not only the Victoria, but also the one which had been derived in Berlin from an African father and an Asiatic mother, now adorn the water-basins of Java with red pond-roses (the latter plants probably those of the Philippines also).

Carpentering difficulties.

Being compelled by the continuous rain to dry my collections in two ovens before packing them, I found that my servant had burned the greater part, so that the remains found a place in a roomy chest which I purchased for a dollar at an auction. This unfortunately lacked a lid; to procure which I was obliged, in the first place, to liberate a carpenter who had been imprisoned for a small debt; secondly, to advance money for the purchase of a board and the redemption of his tools out of pawn; and even then the work, when it was begun, was several times broken off because previous claims of violent creditors had to be discharged by labor. In

five days the lid was completed, at the cost of three dollars. It did not last long, however, for in Manila I had to get it replaced by a new one.

Off to Samar.

At Legaspi I availed myself of an opportunity to reach the island of Samar in a small schooner. It is situated south-east from Luzon, on the farther side of the Strait of San Bernardino, which is three leagues in breadth. At the moment of my departure, to my great regret, my servant left me, "that he might rest a little from his fatigue," for Pepe was good-natured, very skilful, and always even-tempered. He had learned much from the numerous Spanish soldiers and sailors resident in Cavite, his native place, where he used to be playfully called the "Spaniard of Cavite." Roving from one place to another was his delight; and he quickly acquired acquaintances. He knew especially how to gain the favor of the ladies, for he possessed many social accomplishments, being equally able to play the guitar and to milk the carabao-cows. When we came to a pueblo, where a mestiza, or even a "daughter of the country" (creole), dwelt, he would, when practicable, ask permission to milk a cow; and after bringing the señora some of the milk, under pretext of being the interpreter of my wishes, he would maintain such a flow of ingeniously courteous conversation, praising the beauty and grace of the lady, and most modestly allowing his prodigious travelling adventures to be extracted from him, that both knight and esquire beamed with brilliant radiance. A present was always welcome, and brought us many a little basket of oranges; and carabao milk is excellent with chocolate: but it seemed as if one seldom has the opportunity of milking a cow. Unfortunately Pepe did not like climbing mountains, and when he was to have gone with me he either got the stomach-ache or gave away my strong shoes, or allowed them to be stolen;

Losing a clever assistant.

the native ones, however, being allowed to remain untouched, for he knew well that they were fit only for riding, and derived comfort from the fact. In company with me he worked quickly and cheerfully; but, when alone, it became tedious to him. Particularly he found friends, who hindered him, and then he would abandon his skinning of the birds, which therefore became putrid and had to be thrown away. Packing was still more disagreeable to him, and consequently he did it as quickly as possible, though not always with sufficient care, as on one occasion he tied up, in one and the same bundle, shoes, arsenic-soap, drawings, and chocolate. Notwithstanding trifling faults of this kind, he was very useful and agreeable to me; but he did not go willingly to such an uncivilized island as Samar; and when he received his wages in full for eight months all in a lump, and so became a small capitalist, he could not resist the temptation to rest a little from his labors.

XIX

Samar.

THE island of Samar, which is of nearly rhomboidal outline, and with few indentations on its coasts, stretches from the north-west to the south-east from 12° 37′ to 10° 54′ N.; its mean length being twenty-two miles, its breadth eleven, and its area two hundred and twenty square miles. It is separated on the south by the small strait of San Juanico from the island of Leyte, with which it was formerly united into one province. At the present time each island has its separate governor.

Former names.

By the older authors the island is called Tendaya, Ibabao, and also Achan and Filipina. In later times the eastern side was called Ibabao, and the western

Samar, which is now the official denomination for the whole island, the eastern shore being distinguished as the Contracosta.*

Seasons and weather.

As on the eastern coasts of Luzon, the north-east monsoon here exceeds that from the south-west in duration and force, the violence of the latter being arrested by the islands lying to the southwest, while the north-east winds break against the coasts of these easterly islands with their whole force, and the additional weight of the body of water which they bring with them from the open ocean. In October winds fluctuating between north-west and north-east occur; but the prevalent ones are northerly. In the middle of November the north-east is constant; and it blows, with but little intermission, from the north until April. This is likewise the rainy season, December and January being the wettest, when it sometimes rains for fourteen days without interruption. In Lauang, on the north coast, the rainy season lasts from October to the end of December. From January to April it is dry; May, June, and July are rainy; and August and September, again, are dry; so that here there are two wet and two dry seasons in the year. From October to January violent storms (baguios or typhoons) sometimes occur. Beginning generally with a north wind, they pass to the north-west, accompanied by a little rain, then back to the north, and with increasing violence to the north-east and east, where they acquire their greatest power, and then moderate

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* According to Arenas ("Memorias," 21) Albay was formerly called Ibalon; Tayabas, Calilaya; Batangas, Comintan; Negros, Buglas; Cebu, Sogbu; Mindoro, Malt; Samar, Ibabao; and Basilan, Taguima. Mindanao is called Cesarea by B. de la Torre, and Samar, by R. Dudleo "Arcano del Mare" (Florence, 1761), Camlala. In Hondiv'a map of the Indian islands (Purchas, 605) Luzon is Luconia; Samar, Achan; Leyte, Saburn; Camarines, Nebul. In Albo's "Journal," Cebu is called Suba; and Leyte, Seilani. Pigafetta describes a city called Cingapola in Zubu, and Leyte, on his map, is in the north called Baybay, and in the south Ceylon.

to the south. Sometimes, however, they change rapidly from the east to the south, in which quarter they first acquire their greatest force.

Winds and storms.

From the end of March to the middle of June inconstant easterly winds (N.E.E. and S. E.) prevail, with a very heavy sea on the east coast. May is usually calm; but in May and June there are frequent thunderstorms, introducing the south-west monsoon, which though it extends through the months of July, August, and September, is not so constant as the north-east. The last-named three months constitute the dry season, which, however, is often interrupted by thunderstorms. Not a week, indeed, passes without rain; and in many years a storm arises every afternoon. At this season of the year ships can reach the east coast; but during the north-east monsoon navigation there is impossible. These general circumstances are subject to many local deviations, particularly on the south and west coasts, where the uniformity of the air currents is disturbed by the mountainous islands lying in front of them. According to the *Estado geografico* of 1855, an extraordinarily high tide, called *dolo*, occurs every year at the change of the monsoon in September or October. It rises sometimes sixty or seventy feet, and dashes itself with fearful violence against the south and east coasts, doing great damage, but not lasting for any length of time. The climate of Samar and Leyte appears to be very healthy on the coasts; in fact, to be the best of all the islands of the archipelago. Dysentery, diarrhoea, and fever occur less frequently than in Luzon, and Europeans also are less subject to their attacks than in that place.

Only the coast settled.

The civilized natives live almost solely on its coasts, and there are also Bisayans who differ in speech and manners from the Bicols in about the same degree that the latter do from the Tagalogs. Roads and villages

are almost entirely wanting in the interior, which is covered with a thick wood, and affords sustenance to independent tribes, who carry on a little tillage (vegetable roots and mountain rice), and collect the products of the woods, particularly resin, honey, and wax, in which the island is very rich.

A tedious but eventful voyage.

On the 3rd of July we lost sight of Legaspi, and, detained by frequent calms, crawled as far as Point Montufar, on the northern edge of Albay, then onwards to the small island of Viri, and did not reach Lauang before evening of the 5th. The mountain range of Bacon (the Pocdol of Coello), which on my previous journeys had been concealed by night or mist, now revealed itself to us in passing as a conical mountain; and beside it towered a very precipitous, deeply-cleft mountain-side, apparently the remnant of a circular range. After the pilot, an old Filipino and native of the country, who had made the journey frequently before, had conducted us, to begin with, to a wrong port, he ran the vessel fast on to the bar, although there was sufficient water to sail into the harbor conveniently.

Lauang.

The district of Lauang (Lahuan), which is encumbered with more than four thousand five hundred inhabitants, is situated at an altitude of forty feet, on the southwest shore of the small island of the same name, which is separated from Samar by an arm of the Catubig. According to a widely-spread tradition, the settlement was originally in Samar itself, in the middle of the rice-fields, which continue to the present day in that place, until the repeated inroads of sea-pirates drove the inhabitants, in spite of the inconvenience attending it, to protect themselves by settling on the south coast of the little island, which rises steeply out of the sea.* The latter

* No mention is made of it in the *Estado geografico* of the Franciscans, published at Manila in 1855.

consists of almost horizontal banks of tufa, from eight to twelve inches in thickness. The strata being continually eaten away by the waves at low watermark, the upper layers break off; and thus the uppermost parts of the strata, which are of a tolerably uniform thickness, are cleft by vertical fissures, and look like the walls of a fortress. Pressed for space, the church and the convent have taken up every level bit of the rock at various heights; and the effect of this accommodation of architecture to the requirements of the ground, though not designed by the architect, is most picturesque.

Deterioration in the town.

The place is beautifully situated; but the houses are not so frequently as formerly surrounded by little gardens while there is a great want of water, and foul odors prevail. Two or three scanty springs afford a muddy, brackish water, almost at the level of the sea, with which the indolent people are content so that they have just enough. Wealthy people have their water brought from Samar, and the poorer classes are sometimes compelled, by the drying-up of the springs, to have recourse to the same place. The spring-water is not plentiful for bathing purposes; and, sea-bathing not being in favor, the people consequently are very dirty. Their clothing is the same as in Luzon; but the women wear no *tapis*, only a *camisa* (a short chemise, hardly covering the breast), and a *saya*, mostly of coarse, stiff guinara, which forms ugly folds, and when not colored black is very transparent. But dirt and a filthy existence form a better screen than opaque garments. The inhabitants of Lauang rightly, indeed, enjoy the reputation of being very idle. Their industry is limited to a little tillage, even fishing being so neglected that frequently there is a scarcity of fish. In the absence of roads by land, there

is hardly any communication by water; and trade is mostly carried on by mariners from Catbalogan, who exchange the surplus of the harvests for other produce.

From the convent a view is had of part of the island of Samar, the mountain forms of which appear to be a continuation of the horizontal strata. In the centre of the district, at the distance of some miles, a table mountain, famous in the history of the country, towers aloft. The natives of the neighboring village of Palapat retreated to it after having killed their priest, a too covetous Jesuit father, and for years carried on a guerilla warfare with the Spaniards until they were finally overpowered by treachery.

The Palapat revolt.

Pirate outrages.

The interior of the country is difficult to traverse from the absence of roads, and the coasts are much infested by pirates. Quite recently several pontins and four schooners, laden with abacá, were captured, and the crews cruelly murdered, their bodies having been cut to pieces. This, however, was opposed to their general practice, for the captives are usually employed at the oars during the continuance of the foray, and afterwards sold as slaves in the islands of the Sulu sea. It was well that we did not encounter the pirates, for, although we carried four small cannons on board, nobody understood how to use them.*

Electing officers.

The governor, who was expected to conduct the election of the district officials in person, but was prevented by illness, sent a deputy. As the annual elections are conducted in the same manner over the whole country, that at which I was present may be taken as typical of the rest. It took place in the common hall; the gov-

* Small ships which have no cannon should be provided with pitchers filled with water and the fruit of the saccharíferous arenga, for the purpose of besprinkling the pirates, in the event of an attack, with the corrosive mixture, which causes a burning heat. Dumont d'Urville mentions that the inhabitants of Solo had, during his visit, poisoned the wells with the same fruit. The kernels preserved in sugar are an agreeable confection.

ernor (or his deputy) sitting at the table, with the pastor on his right hand, and the clerk on his left—the latter also acting as interpreter; while Cabezas de Barangay, the gobernadorcillo, and those who had previously filled the office, took their places all together on benches. First of all, six cabezas and as many gobernadorcillos are chosen by lot as electors; the actual gobernadorcillo is the thirteenth, and the rest quit the hall. After the reading of the statutes by the president, who exhorts the electors to the conscientious performance of their duty, the latter advance singly to the table, and write three names on a piece of paper. Unless a valid protest be made either by the parish priest or by the electors, the one who has the most votes is forthwith named gobernadorcillo for the coming year, subject to the approval of the superior jurisdiction at Manila; which, however, always consents, for the influence of the priest would provide against a disagreeable election. The election of the other functionaries takes place in the same manner, after the new gobernadorcillo has been first summoned into the hall, in order that, if he have any important objections to the officers then about to be elected, he may be able to make them. The whole affair was conducted very quietly and with dignity.*

Unsatisfactory forced labor.

On the following morning, accompanied by the obliging priest, who was followed by nearly all the boys of the village, I crossed over in a large boat to Samar. Out of eleven strong baggage porters whom the governor's representative had selected for me, four took possession of some trifling articles and sped away with them, three

* There were also elected a teniente mayor (deputy of the gobernadorcillo), a juez mayor (superior judge) for the fields, who is always an ex-captain; a second judge for the police; a third judge for disputes relating to cattle; a second and third teniente; and first and second policemen; and finally, in addition, a teniente, a judge, and a policeman for each visita. All three of the judges can be ex-capitanes, but no ex-capitan can be teniente. The first teniente must be taken from the higher class, the others may belong either to that or to the common people. The policemen (alguacils) are always of the latter class.

others hid themselves in the bush, and four had previously decamped at Lauang. The baggage was divided and distributed amongst the four porters who were detained, and the little boys who had accompanied us for their own pleasure. We followed the sea-shore in a westerly direction, and at a very late hour reached the nearest visita (a suburban chapel and settlement) where the priest was successful, after much difficulty, in supplying the places of the missing porters. On the west side of the mouth of the Pambujan a neck of land projects into the sea, which is a favorite resort of the sea-pirates, who from their shelter in the wood command the shore which extends in a wide curve on both sides, and forms the only communication between Lauang and Catarman. Many travellers had already been robbed in this place; and the father, who was now accompanying me thus far, had, with the greatest difficulty, escaped the same danger only a few weeks before.

A pirate base.

The last part of our day's journey was performed very cautiously. A messenger who had been sent on had placed boats at all the mouths of rivers, and, as hardly any other Europeans besides ecclesiastics are known in this district, I was taken in the darkness for a Capuchin in travelling attire; the men lighting me with torches during the passage, and the women pressing forward to kiss my hand. I passed the night on the road, and on the following day reached Catarman (Caladman on Coello's map), a clean, spacious locality numbering 6,358 souls, at the mouth of the river of the same name. Six pontins from Catbalogan awaited their cargoes of rice for Albay. The inhabitants of the north coast are too indifferent sailors to export their products themselves, and leave it to the people of Catbalogan, who, having no rice-fields, are obliged to find employment for their activity in other places.

Catbalogan monopoly of interisland traffic.

The river Catarman formerly emptied further to the east, and was much choked with mud. In the year 1851, after a continuous heavy rain, it worked for itself, in the loose soil which consists of quartz sand and fragments of mussels, a new and shorter passage to the sea—the present harbor, in which ships of two hundred tons can load close to the land; but in doing so it destroyed the greater part of the village, as well as the stone church and the priest's residence. In the new convent there are two salons, one 16.2 by 8.8, the other 9 by 7.6 paces in dimensions, boarded with planks from a single branch of a dipterocarpus (guiso). The pace is equivalent to 30 inches; and, assuming the thickness of the boards, inclusive of waste, to be one inch, this would give a solid block of wood as high as a table (two and one-half feet), the same in breadth, eighteen feet in length, and of about one hundred and ten cubic feet.* The houses are enclosed in gardens; but some of them only by fencing, within which weeds luxuriate. At the rebuilding of the village, after the great flood of water, the laying out of gardens was commanded; but the industry which is required to preserve them is often wanting. Pasture grounds extend themselves, on the south side of the village, covered with fine short grass; but, with the exception of some oxen and sheep belonging to the priest, there are no cattle.

A changed river and a new town.

Still without servants, I proceeded with my baggage in two small boats up the river, on both sides of which rice-fields and coco-groves extended; but the latter, being concealed by a thick border of Nipa palms and lofty cane, are only visible occasionally through the gaps. The sandy banks, at first flat, became gradually steeper,

Up the river.

*G. Squier ("States of Central America," 192) mentions a block of mahogany, seventeen feet in length, which, at its lowest section, measured five feet six, inches square, and contained altogether five hundred fifty cubic feet.

and the rock soon showed itself close at hand, with firm banks of sandy clay containing occasional traces of indistinguishable petrifactions. A small mussel* has pierced the clay banks at the water-line, in such number that they look like honeycombs. About twelve we cooked our rice in an isolated hut, amongst friendly people. The women whom we surprised in dark ragged clothing of guinara drew back ashamed, and soon after appeared in clean chequered sayas, with earrings of brass and tortoise-shell combs. When I drew a little naked girl, the mother forced her to put on a garment. About two we again stepped into the boat, and after rowing the whole night reached a small visita, Cobocobo, about nine in the forenoon. The rowers had worked without interruption for twenty-four hours, exclusive of the two hours' rest at noon, and though somewhat tired were in good spirits.

Salta Sangley ridge.

At half-past two we set out on the road over the Salta Sangley (Chinese leap) to Tragbucan, which, distant about a mile in a straight line, is situated at the place where the Calbayot, which empties on the west coast at Point Hibaton, becomes navigable for small boats. By means of these two rivers and the short but troublesome road, a communication exists between the important stations of Catarman on the north coast, and Calbayot on the west coast. The road, which at its best part is a small path in the thick wood uninvaded by the sun, and frequently is only a track, passes over slippery ridges of clay, disappearing in the mud puddles in the intervening hollows, and sometimes running into the bed of the brooks. The watershed between the Catarman and Calbayot is formed by the Salta Sangley already

* According to Dr. V. Martens, *Modiola striatula*, Hanley, who found the same bivalve at Singapore, in brackish water, but considerably larger. Reeve also delineates the species collected by Cumming in the Philippines, without precise mention of the locality, as being larger (38 mm.), that from Catarman being 17 mm.

mentioned, a flat ridge composed of banks of clay and sandstone, which succeed one another ladder-wise downwards on both its sides, and from which the water collected at the top descends in little cascades. In the most difficult places rough ladders of bamboo are fixed. I counted fifteen brooks on the north-east side which feed the Catarman, and about the same number of feeders of the Calbayot on the south-west side. About forty minutes past four we reached the highest point of the Salta Sangley, about ninety feet above the sea; and at half-past six we got to a stream, the highest part of the Calbayot, in the bed of which we wandered until its increasing depth forced us, in the dark, laboriously to beat out our path through the underwood to its bank; and about eight o'clock we found ourselves opposite the visita Tragbucan. The river at this place was already six feet deep, and there was not a boat. After shouting entreaties and threats for a long time, the people, who were startled out of sleep by a revolver shot, agreed to construct a raft of bamboo, on which they put us and our baggage. The little place, which consists of only a few poor huts, is prettily situated, surrounded as it is by wooded hillocks on a plateau of sand fifty feet above the reed-bordered river.

On the Calbayot River.

Thanks to the activity of the teniente of Catarman who accompanied me, a boat was procured without delay, so that we were able to continue our journey about seven o'clock. The banks were from twenty to forty feet high; and, with the exception of the cry of some rhinoceros birds which fluttered from bough to bough on the tops of the trees, we neither heard nor saw a trace of animal life. About half-past eleven we reached Taibago, a small visita, and about half-past one a similar one, Magubay; and after two hours' rest at noon, about five o'clock, we got into a current down which we skil-

fully floated, almost without admitting any water. The river, which up to this point is thirty feet broad, and on account of many projecting branches of trees difficult to navigate, here is twice as broad. About eleven at night we reached the sea, and in a complete calm rowed for the distance of a league along the coast to Calbayot, the convent at which place affords a commanding view of the islands lying before it.

A thunderstorm obliged us to postpone the journey to the chief town, Catbalogan (or Catbalonga), which was seven leagues distant, until the afternoon. In a long boat, formed out of the stem of one tree, and furnished with outriggers, we travelled along the shore, which is margined by a row of low-wooded hills with many small visitas; and as night was setting in we rounded the point of Napalisan, a rock of trachytic conglomerate shaped by perpendicular fissures with rounded edges into a series of projections like towers, which rises up out of the sea to the height of sixty feet, like a knight's castle. At night we reached Catbalogan, the chief town of the island, with a population of six thousand, which is picturesquely situated in the middle of the western border, in a little bay surrounded by islands and necks of land, difficult to approach and, therefore, little guarded. Not a single vessel was anchored in the harbor.

Catbalogan.

The houses, many of which are of boards, are neater than those in Camarines; and the people, though idle, are more modest, more honorable, more obliging, and of cleaner habits, than the inhabitants of South Luzon. Through the courtesy of the governor I quickly obtained a roomy dwelling, and a servant who understood Spanish. Here I also met a very intelligent Filipino who had acquired great skill in a large variety of crafts. With the simplest tools he improved in many points on my instru-

An ingenious mechanic.

ments and apparatus, the purpose of which he quickly comprehended to my entire satisfaction, and gave many proofs of considerable intellectual ability.

In Samar the flying monkey or lemur (the kaguang of the Bisayans—*galeopithecus*) is not rare. These animals, which are of the size of the domestic cat, belong to the quadrumana; but, like the flying squirrels, they are provided with a bird-like membrane, which, commencing at the neck, and passing over the fore and hinder limbs, reaches to the tail; by means of which they are able to glide from one tree to another at a very obtuse angle.* Body and membrane are clothed with a very short fur, which nearly equals the chinchilla in firmness and softness, and is on that account in great request. While I was there, six live kaguangs arrived as a present for the priest (three light grey, one dark brown, and two greyish brown; all with irregularly distributed spots); and from these I secured a little female with her young.

It appeared to be a very harmless, awkward animal. When liberated from its fetters, it remained lying on the ground with all its four limbs stretched out, and its belly in contact with the earth, and then hopped in short awkward leaps, without thereby raising itself from the ground, to the nearest wall, which was of planed boards. Arrived there, it felt about it for a long time with the sharp claw, which is bent inwards, of its fore-hand, until at length it realized the impossiblity of climbing it at any part. It succeeded by means of a corner or an accidental crevice in climbing a foot upwards, and fell down again immediately, because it had abandoned the comparatively secure footing of its hinder limbs before its fore-claws had obtained a firm hold. It

* In Sumatra Wallace saw, in the twilight, a lemur run up the trunk of a tree, and then glide obliquely through the air to another trunk, by which it nearly reached the ground. The distance between the two trees amounting to 210 feet, and the difference of height was not above 35 or 40 feet; consequently less than 1:5.—("Malay Archipelago," i. 211).

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A hasty and unfounded judgment.

It appeared to be a very harmless, awkward animal. When liberated from its fetters, it remained lying on the ground with all its four limbs stretched out, and its belly in contact with the earth, and then hopped in short awkward leaps, without thereby raising itself from the ground, to the nearest wall, which was of planed boards. Arrived there, it felt about it for a long time with the sharp claw, which is bent inwards, of its fore-hand, until at length it realized the impossiblity of climbing it at any part. It succeeded by means of a corner or an accidental crevice in climbing a foot upwards, and fell down again immediately, because it had abandoned the comparatively secure footing of its hinder limbs before its fore-claws had obtained a firm hold. It

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received no hurt, as the violence of the fall was broken by the flying membrane which was rapidly extended. These attempts, which were continued with steady perseverance, showed an astonishing deficiency of judgment, the animal endeavoring to do much more than was in its power to accomplish. All its endeavors, therefore, were unsuccessful, though made without doing itself any hurt—thanks to the parachute with which Nature had provided it. Had the kaguang not been in the habit of relying so entirely on this convenient contrivance, it probably would have exercised its judgment to a greater extent, and formed a more correct estimate of its ability. The animal repeated its fruitless efforts so often that I no longer took any notice of it, and after some time it disappeared: but I found it again in a dark corner, under the roof, where it would probably have waited for the night in order to continue its flight. Evidently it had succeeded in reaching the upper edge of the boarded wall by squeezing its body between this and the elastic covering of bamboo hurdle-work which lay firmly imposed upon it; so that the poor creature, which I had rashly concluded was stupid and awkward, had, under the circumstances, manifested the greatest possible skill, prudence, and perseverance.

A promise of rare animals and wild people.

A priest who was present on a visit from Calbigan promised me so many wonders in his district—abundance of the rarest animals, and Cimarrones uncivilized in the highest degree—that I accompanied him, on the following day, in his journey home. In an hour after our departure we reached the little island of Majava, which consists of perpendicular strata of a hard, fine-grained, volcanic tufa, with small, bright crystals of hornblende. The island of Buat (on Coello's map) is called by our mariners Tubigan. In three hours we reached Umauas, a dependency of Calbigan. It is

situated, fifty feet above the sea, in a bay, before which (as is so often the case on this coast) a row of small picturesque islands succeed one another, and is exactly four leagues from Catbalogan. But Calbigan, which we reached towards evening, is situated two leagues N.N.E. from Umauas, surrounded by rice-fields, forty feet above the river of the same name, and almost a league and a half from its mouth. A tree with beautiful violet-blue panicles of blossoms is especially abundant on the banks of the Calbigan, and supplies a most valuable wood for building purposes in the Philippines. It is considered equal to teak, like which it belongs to the class verbenaceae; and its inland name is molave (*Vitex geniculata*, Blanco). *Molave.*

According to the statements of credible men, there are serpent-tamers in this country. They are said to pipe the serpents out of their holes, directing their movements, and stopping and handling them at will, without being injured by them. The most famous individual amongst them, however, had been carried off by the sea-pirates a short time before; another had run away to the Cimarronese in the mountains; and the third, whose reputation did not appear to be rightly established, accompanied me on my excursion, but did not justify the representations of his friends. He caught two poisonous serpents,* which we encountered on the road, by dexterously seizing them immediately behind the head, so that they were incapable of doing harm; and, when he commanded them to lie still, he took the precaution of placing his foot on their necks. In the chase I hurt my foot so severely against a sharp-pointed branch which was concealed by the mud that I was obliged to return to Catbalogan without effecting my object. The inhabitants of Calbigan are considered more active *Serpent-charmers.*

* According to W. Peters, *Tropidolaemus Philippinensis*, Gray.

and circumspect than those on the west coast, and they are praised for their honesty. I found them very skilful; and they seemed to take an evident pleasure in making collections and preparing plants and animals, so that I would gladly have taken with me a servant from the place; but they are so reluctant to leave their village that all the priest's efforts to induce one to ride with us were fruitless.

A coral garden.

At a short distance north-west from Catbalogan a most luxuriant garden of corals is to be observed in less than two fathoms, at the ebb. On a yellow carpet of calcareous polyps and sponges, groups of leather-like stalks, finger-thick, lift themselves up like stems of vegetable growth; their upper ends thickly covered with polyps (*Sarcophyton pulmo* Esp.), which display their roses of tentacula wide open, and resplendent with the most beautiful varying colors, looking, in fact, like flowers in full bloom. Very large serpulites extend from their calcareous tubes, elegant red, blue, and yellow crowns of feelers, and, while little fishes of marvellously gorgeous color dart about in this fairy garden, in their midst luxuriantly grow delicate, feathered plumulariae.

Ornamental but useless forts.

Bad weather and the flight of my servant, who had gambled away some money with which he had been entrusted, at a cock-fight, having detained me some days in the chief town, I proceeded up the bay, which extends southwards from Catbalogan and from west to east as far as Paranas. Its northern shore consists of ridges of earth, regular and of equal height, extending from north to south, with gentle slopes towards the west, but steep declivities on the east, and terminating abruptly towards the sea. Nine little villages are situated on this coast between Catbalogan and Paranas. From the hollows, amidst coco and betel palms, they expand in isolated groups of houses up the gentle western slopes, and, on

reaching the summit, terminate in a little castle, which hardly affords protection against the pirates, but generally forms a pretty feature in the landscape. In front of the southern edge of the bay, and to the south-west, many small islands and wooded rocks are visible, with the mountains of Leyte in the high-ground, constituting an ever-shifting series of views.

As the men, owing to the sultry heat, the complete calm, and almost cloudless sky, slept quite as much as they rowed, we did not reach Paranas before the afternoon. It is a clean village, situated on a declivity between twenty and a hundred and fifty feet above the sea. The sides, which stand perpendicularly in the sea, consist of grey banks of clay receding landwards, and overspread with a layer of fragments of mussels, the intervals between which are filled up with clay, and over the latter is a solid breccia, cemented with lime, composed of similar fragments. In the clay banks are well-preserved petrifactions, so similar in color, habitat, and aspect to many of those in the German tertiary formations that they might be taken for them. The breccia also is fossil, probably also tertiary; at all events, the identity of the few species which were recognisable in it—Cerithium, Pecten, and Venus—with living species could not be determined.*

On the following morning I proceeded northwards by a small canal, through a stinking bog of rhizophora (mangroves), and then continued my journey on land to Loquilocun, a little village which is situated in the forest. Half-way we passed through a river, twenty feet broad, flowing east to west, with steep banks rendered accessible by ladders.

* V. Martens identified amongst the tertiary mussels of the banks of clay the following species, which still live in the Indian Ocean:—Venus [illegible] *hiantina*, Lam.; *V. squamosa*, L.; *Arca recillei*, Phil.; *A.* [illegible] *A. chalcanthum*, Rv., and the genera *Yoldia*, *Pleurotoma*, *Cuttersia*, [illegible] without being able to assert their identity with living species.

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A canal through the bog.

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Hammock-travelling.

As I still continued lame (wounds in the feet are difficult to heal in warm countries), I caused myself to be carried part of the way in the manner which is customary hereabouts. The traveller lies on a loose mat, which is fastened to a bamboo frame, borne on the shoulders of four robust polistas. About every ten minutes the bearers are relieved by others. As a protection against sun and rain, the frame is furnished with a light roof of pandanus.

Poor roads.

The roads were pretty nearly as bad as those at the Salta Sangley; and, with the exception of the sea-shore, which is sometimes available, there appear to be none better in Samar. After three hours we reached the Loquilocun, which, coming from the north, here touches its most southerly point, and then flows south-east to the great ocean. Through the kind care of the governor, I found two small boats ready, which were propelled with wonderful dexterity by two men squatted at the extreme ends, and glided between the branches of the trees and rocks into the bed of the rapid mountain torrent. Amidst loud cheers both the boats glided down a cascade of a foot and a half in height without shipping any water.

Running the rapids.

Loquilocun.

The little village of Loquilocun consists of three groups of houses on three hillocks. The inhabitants were very friendly, modest, and obliging, and so successful in collecting that the spirits of wine which I had with me was quickly consumed. In Catbalogan my messengers were able with difficulty to procure a few small flasks. Through the awkward arrangements of a too obliging friend, my own stores, having been sent to a wrong address, did not reach me until some months afterwards; and the palm-wine, which was to be bought in Samar, was too weak. One or two boats went out daily to fish for me; but I obtained only a few specimens,

which belonged to almost as many species and genera. Probably the bad custom of poisoning the water in order to kill the fish (the pounded fruit of a Barringtonia here being employed for the purpose) is the cause of the river being so empty of fish.

Numerous small streams.

After a few days we left the little place about half-past nine in the forenoon, packed closely in two small boats; and, by seven minutes past one when we reached an inhabited hut in the forest, we had descended more than forty streams of a foot and a foot and a half and more in depth. The more important of them have names which are correctly given on Coello's map; and the following are their distances by the watch:—At ten o'clock we came to a narrow, rocky chasm, at the extremity of which the water falls several feet below into a large basin; and here we unloaded the boats, which hitherto had, under skilful management, wound their way, like well-trained horses, between all the impediments in the bed of the river and over all the cascades and waves, almost without taking any water; only two men remaining in each boat, who, loudly cheering, shot downwards; in doing which the boats were filled to the brim.

Jasper and coal.

Opposite this waterfall a bank of rubbish had been formed by the alluvium, in which, besides fragments of the subjacent rock, were found well-rounded pieces of jasper and porphyry, as well as some bits of coal containing several pyrites, which had probably been brought during the rain from higher up the river. Its origin was unknown to the sailors. From fifty-six minutes past eleven to twelve o'clock there was an uninterrupted succession of rapids, which were passed with the greatest dexterity, without taking in water. Somewhat lower down, at about three minutes past twelve, we took in so much water that we were compelled to land and bale

it out. At about fifteen minutes past twelve, we proceeded onwards, the river now being on the average sixty feet broad. On the edge of the wood some slender palms, hardly ten feet high, were remarkable by their frequency, and many phalænopses by their display of blossoms, which is of rare occurrence. Neither birds nor apes, nor serpents were observed; but large pythons, as thick as one's leg are said to be not unfrequent.

Big pythons.

About thirty-six minutes past twelve we reached one of the most difficult places—a succession of waves, with many rocks projecting out of the water, between which the boats, now in full career, and with rapid evolutions, glided successfully. The adventure was accomplished with equal skill by the two crews, who exerted their powers to the utmost. At seventeen minutes past one we arrived at Dini, the most considerable waterfall in the whole distance; and here we had to take the boats out of the water; and, availing ourselves of the lianas which hung down from the lofty forest trees like ropes, we dragged them over the rocks. At twenty-one minutes past two we resumed our journey; and from twenty-two minutes past to half past eight we descended an irregular stair composed of several ledges, shipping much water. Up to this point the Loquilocun flowed in a rocky bed, with (for the most part) steep banks, and sometimes for a long distance under a thick canopy of boughs, from which powerful tendrils and ferns, more than a fathom in length, were suspended. Here the country was to some extent open; flat hillocks, with low underwood, came to view, and, on the north-west, loftier wooded mountains. The last two hours were notable for a heavy fall of rain, and, about half past five, we reached a solitary house occupied by friendly people, where we took up our quarters for the night.

Dini portage.

On the following morning the journey was continued down the river. Within ten minutes we glided past the last waterfall, between white calcareous rocks of a kind of marble, covered with magnificent vegetation. Branches, completely covered with phalænopses (*P. Aphrodite*, Reichb. fls.), projected over the river, their flowers waving like large gorgeous butterflies over its foaming current. Two hours later the stream became two hundred feet broad, and, after leaping down a ladder of fifty meters in height from Loquilocun, it steals away in gentle windings through a flat inundated country to the east coast; forming a broad estuary, on the right bank of which, half a league from the sea, the district of Jubasan or Paric (population 2,300) is situated. The latter give their names to the lower portion of the stream. Here the excellent fellows of Loquilocun left me in order to begin their very arduous return journey. *Down the river.*

Owing to bad weather, I could not embark for Tubig (population 2,858), south of Paric, before the following day; and, being continually hindered by difficulties of land transit, I proceeded in the rowboat along the coast to Borongan (population 7,685), with the equally intelligent and obliging priest with whom I remained some days, and then continued my journey to Guiuan (also Guiuang, Guiguan), the most important district in Samar (population 10,781), situated on a small neck of land which projects from the south-east point of the island into the sea. *Along the coast.*

Close to the shore at the latter place a copious spring bursts out of five or six openings, smelling slightly of sulphuretted hydrogen. It is covered by the sea during the flow, but is open during the ebb, when its salt taste is hardly perceptible. In order to test the water, a well was formed by sinking a deep bottomless jar, and from this, after the water had flowed for the space of half *A tideland spring.*

an hour, a sample was taken, which, to my regret, was afterwards lost. The temperature of the water of the spring, at eight o'clock in the forenoon, was 27.7°; of the atmosphere, 28.7°; of the sea-water, 31.2°C. The spring is used by the women to dye their sarongs. The materials, after being steeped in the decoction of a bark abounding in tannin (materials made of the abacá are first soaked in a calcareous preparation), and dried in the sun, are placed in the spring during the ebb, taken out during the flow, re-dried, dipped in the decoction of bark, and again, while wet, placed in the spring; and this is repeated for the space of three days; when the result is a durable, but ugly inky black (*gallussaures*, oxide of iron).

East Indian monkeys.

At Loquilocun and Borongan I had an opportunity of purchasing two live macaques.* These extremely delicate and rare little animals, which belong to the class of semi-apes, are, as I was assured in Luzon and Leyte, to be found only in Samar, and live exclusively on charcoal. My first "mago" was, in the beginning, somewhat voracious, but he disdained vegetable food, and was particular in his choice of insects, devouring live grasshoppers with delight.† It was extremely ludicrous, when he was fed in the day time, to see the animal standing, perched up perpendicularly on his two thin legs with his bare tail, and turning his large head—round as a ball, and with very large, yellow, owl-like eyes—in every direction, looking like a dark lantern on a pedestal with a circular swivel. Only gradually did he succeed in fixing his eyes on the object presented to him; but, as soon as he did perceive it,

* *Tarsius spectrum*, Tem.; in the language of the country—*mago*.

† Father Camel mentions that the little animal is said to live only on coal, but that it was an error, for he ate the ficus Indica (by which we here understand him to mean the banana) and other fruits. (*Camel de quadruped. Phil. Trans.*, 1706—7. London.) Camel also gives (p. 194) an interesting account of the kngung, which is accurate at the present day.—*Ibid.*, ii. S. 2197.

he immediately extended his little arms sideways, as though somewhat bashful, and then, like a delighted child, suddenly seizing it with hand and mouth at once, he deliberately tore the prey to pieces. During the day the mago was sleepy, short-sighted, and, when disturbed, morose; but with the decreasing daylight he expanded his pupils, and moved about in a lively and agile manner, with rapid noiseless leaps, generally sideways. He soon became tame, but to my regret died after a few weeks; and I succeeded only for a short time in keeping the second little animal alive.

XX

Pearl divers from the Carolines.

In Guiuan I was visited by some Micronesians, who for the last fourteen days had been engaged at Sulangan on the small neck of land south-east from Guiuan, in diving for pearl mussels (mother-of-pearl), having undertaken the dangerous journey for the express purpose.*

Hardships and perils of their voyage.

They had sailed from Uleai (Uliai, 7° 20′ N., 143° 57′ E. Gr.) in five boats, each of which had a crew of nine men and carried forty gourds full of water, with coconuts and batata. Every man received one coconut daily, and two batatas, which they baked in the ashes of the coco shells; and they caught some fish on the way, and collected a little rain-water. During the day they directed their course by the sun, and at night by the

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* The following communication appeared for the first time in the reports of a session of the Anthropological Society of Berlin; but my visitors were there denominated Palnos islanders. But, as Prof. Semper, who spent a long time on the true Palnos (Pelew) islands, correctly shows in the "Corresp.-Bl. f. Anthropol.," 1871, No. 2, that Uliai belongs to the group of the Carolines, I have here retained the more common expression, Micronesian, although those men, respecting whose arrival from Uliai no doubt existed, did not call themselves Caroline islanders, but Palnos. As communicated to me by Dr. Graeffe, who lived many years in Micronesia, Palnos is a loose expression like Kanaka and many others, and does not, at all events, apply exclusively to the inhabitants of the Pelew group.

stars. A storm destroyed the boats. Two of them sank, together with their crews, before the eyes of their companions, and of these, only one—probably the sole individual rescued—two weeks afterwards reached the harbor of Tandag, on the east coast of Mindanao. The party remained at Tandag two weeks, working in the fields for hire, and then proceeded northwards along the coast to Cantilang, 8° 25′ N.; Banouan (called erroneously Bancuan by Coello), 9° 1′ N.; Taganaan, 9° 25′ N.; thence to Surigao, on the north point of Mindanao; and then, with an easterly wind, in two days, direct to Guiuan. In the German translation of Captain Salmon's "History of the Oriental Islands" (Altona; 1733), it is stated that:

Castaways from the Pelews.

"Some other islands on the east of the Philippines have lately been discovered which have received the name of the New Philippines because they are situated in the neighborhood of the old, which have been already described. Father Clan (Clain), in a letter from Manila, which has been incorporated in the 'Philosophical Transactions,' makes the following statement respecting them:—It happened that when he was in the town of Guivam, on the island of Samar, he met twenty-nine Palaos (there had been thirty, but one died soon after in Guiuan), or natives of certain recently discovered islands, who had been driven thither by the east winds, which prevail from December to May. According to their own statement, they were driven about by the winds for seventy days, without getting sight of land, until they arrived opposite to Guivam. When they sailed from their own country, their two boats were quite full, carrying thirty-five souls, including their wives and children; but several had died miserably on the way from the fatigue which they had undergone. When some one from Guivam wished to go on board to them, they were thrown into such a state of terror that all who were in one of the boats sprang overboard, along with their wives and children. However, they at last thought it

best to come into the harbor; so they came ashore on December 28, 1696. They fed on coconuts and roots, which were charitably supplied to them, but refused even to taste cooked rice, which is the general food of the Asiatic nations. *Two women who had previously been cast away on the same islands* acted as interpreters for them.* * *

Previous castaways.

"The people of the country went half naked, and the men painted their bodies with spots and all kinds of devices. * * * As long as they were on the sea they lived on fish, which they caught in a certain kind of fish-basket, with a wide mouth but tapering to a point at the bottom, which was dragged along underneath the boats; and rain-water, when they could catch it (or, as is stated in the letter itself, preserved in the shells of the coconut), served them for drink. When they were about to be taken into the presence of the Father, whom, from the great respect which was shown to him, they took for the governor, they colored their bodies entirely yellow, an operation which they considered highly important, as enabling them to appear as persons of consideration. They are very skilful divers, and now and then find pearls in the mussels which they bring up, which, however, they throw away as useless things."

Lived by sea-fishing and rain water.

But one of the most important parts of Father Clain's letter has been omitted by Capt. Salmon:—"*The oldest of these strangers had once before been cast away on the coast of the province of Caragan*, on one of our islands (Mindanao); but as he found only heathens (infidels), who lived in the mountains or on the desert shore, he returned to his own country."

Not the first time for one.

In a letter from Father Cantova to Father d'Aubenton, dated from Agdana (*i. e.* Agaña, of the Marianne Islands), March 20, 1722, describing the Caroline and Pelew Islands, it is said:—"The fourth district lies to the west. Yap (9° 25′ N., 138° 1′ E. Gr.),* which is the principal island,

Yap camoles from Philippines.

* Dumont d'Urville, *Voyage to the South Pole*, v. 206, remarks that the natives call their island Gounp or Ounp, but never Yap; and that the husbandry in that place was superior to anything he had seen in the South Sea.

is more than forty leagues in circumference. Besides the different roots which are used by the natives of the island instead of bread, there is the batata, which they call camote, and which they have acquired *from the Philippines*, as I was informed by one of our Caroline Indians, who is a native of the island. He states *that his father, named Coorr, * * * three of his brothers, and himself had been cast away in a storm on one of the provinces in the Philippines, which was called Bisayas;* that a missionary of our society (Jesus) received them in a friendly manner * * * that on returning to their own island they took with them the seeds of different plants, amongst others the batata, which multiplied so fast that they had sufficient to supply the other islands of the Archipelago with them." Murillo Velarde states that in 1708 some Palaos were wrecked in a storm on Palapag (north coast of Samar); and I personally had the opportunity, in Manila, of photographing a company of Palaos and Caroline islanders, who had been the year before cast on the coast of Samar by foul weather. Apart from the question of their transport, whether voluntary or not, these simply were six examples, such as still occur occasionally, of Micronesians cast up on the shore of the Philippines; and probably it would not be difficult to find several more; but how often, both before and after the arrival of the Spaniards, might not vessels from those islands have come within the influence of the northeast storms, and been driven violently on the east coast of the Philippines without any record of such facts being preserved?* Even as, on the west side of the Archipelago, the type of the race seems to have been modified by its long intercourse with China, Japan, Lower India, and later with Europe, so likewise may Poly-

Other arrivals of Micronesians.

* The voyages of the Polynesians were also caused by the tyranny of the victorious parties, which compelled the vanquished to emigrate.

nesian influences have operated in a similar manner on the east side; and the further circumstance that the inhabitants of the Ladrones* and the Bisayans† possess the art of coloring their teeth black, seems to point to early intercourse between the Bisayans and the Polynesians.‡

Possible influence on Filipinos.

At Guiuan I embarked on board an inconveniently cranky, open boat, which was provided with an awning only three feet square, for Tacloban, the chief town of Leyte. After first experiencing an uninterrupted calm, we incurred great danger in a sudden tempest, so that we had to retrace the whole distance by means of the oars. The passage was very laborious for the crew, who were not protected by an awning (temperature in the sun 35° R., of the water 25° R.§), and lasted thirty-one hours, with few intermissions; the party voluntarily abridging their intervals of rest in order to get back quickly to Tacloban, which keeps up an active intercourse with Manila, and has all the attractions of a luxurious city for the men living on the inhospitable eastern coast. It is questionable whether the sea anywhere washes over a spot of such peculiar beauty as the narrow strait which divides Samar from Leyte. On the west it is enclosed by steep banks of tuff, which tolerate no swamps of mangroves on their borders. There the lofty primeval forest approaches in all its sublimity close to the shore, interrupted only here and there by groves of cocos, in whose sharply defined shadows solitary

A futile sea voyage in an open boat.

Beauty of Samar-Leyte strait.

* Pigafetta, p. 51.

† Morga, f. 127.

‡ "The Bisayans cover their teeth with a shining varnish, which is either black, or of the color of fire, and thus their teeth become either black, or red like cinnabar; and they make a small hole in the upper row, which they fill with gold, the latter shining all the more on the black or red ground."—(Thévenot, *Religieux*, 54.) Of a king of Mindanao, visited by Magellan at Massana, it is written:—"In every tooth he had three *mackie* (spots?) of gold, so that they had the appearance of being tied together with gold;" which Ramusio interprets—"On each finger he had three rings of gold."—Pigafetta, p. 66; and compare also Carletti, *Voyages*, i. 153.

§ 42 and 30 Cent. or 108 and 86 Fahr.—*C.*

huts are to be found; and the steep hills facing the sea, and numerous small rocky islands, are crowned with little castles of blocks of coral. At the eastern entrance of the strait the south coast of Samar consists of white limestone, like marble, but of quite modern date, which in many places forms precipitous cliffs.* At Nipa-Nipa, a small hamlet two leagues from Basey, they project into the sea in a succession of picturesque rocks, above one hundred feet in height, which, rounded above like a dome, thickly covered with vegetation, and corroded at the base by the waters of the sea, rise out of the waves like gigantic mushrooms. A peculiar atmosphere of enchantment pervades this locality, whose influence upon the native mariner must be all the more powerful when, fortunately escaping from the billows outside and the buffeting of the north-east wind, he suddenly enters this tranquil place of refuge. No wonder that superstitious imagination has peopled the place with spirits.

Burial cares.

In the caverns of these rocks the ancient Pintados interred the corpses of their heroes and ancestors in well-locked coffins, surrounded by those objects which had been held in the highest regard by them during life. Slaves were also sacrificed by them at their obsequies, in order that they might not be without attendance in the world of shadows;† and the numerous coffins, imple-

* In one of these cliffs, sixty feet above the sea, beds of mussels were found: *ostrea, pinna, chama;* according to Dr. V. M.—*O. denticulo*, Bron.; *O. cornucopiae*, Chemn.; *O. rosacea*, Desh.; *Chama sulfurea*, Reeve; *Pinna Nigrina*, Lam. (?).

† In the *Athenaeum* of January 7, 1871, Captain Ullmann describes a funeral ceremony (*liwa*) of the Dyaks, which corresponds in many points with that of the ancient Bisayans. The coffin is cut out of the branch of a tree by the nearest male kinsman, and it is so narrow that the body has to be pressed down into it, lest another member of the family should die immediately after to fill up the gap. As many as possible of his effects must be heaped on the dead person, in order to prove his wealth and to raise him in the estimation of the spirit world; and under the coffin are placed two vessels, one containing rice and the other water.

One of the principal ceremonies of the *liwa* consisted formerly (and does still in some places) in human sacrifices. Where the Dutch Government extended these were not permitted; but sometimes carabaos or pigs were killed in a cruel manner, with the blood of which the high priest smeared the forehead, breast, and arms of the head of the family. Similar sacrifices of slaves or pigs were practised amongst the ancient Filipinos, with peculiar ceremonies by female priests (Catalonas).

ments, arms, and trinkets, protected by superstitious terrors, continued to be undisturbed for centuries. No boat ventured to cross over without the obsevance of a religious ceremony, derived from heathen times, to propitiate the spirits of the caverns who were believed to punish the omission of it with storm and ship-wreck.

Objects destroyed but superstition persists.

About thirty years ago a zealous young ecclesiastic, to whom these heathen practices were an abomination, determined to extirpate them by the roots. With several boats well equipped with crosses, banners, pictures of saints, and all the approved machinery for driving out the Devil, he undertook the expedition against the haunted rocks, which were climbed amidst the sounds of music, prayers, and the reports of fireworks. A whole pailful of holy water first having been thrown into the cave for the purpose of confounding the evil spirits, the intrepid priest rushed in with elevated cross, and was followed by his faithful companions, who were fired with his example. A brilliant victory was the reward of the well-contrived and carefully executed plot. The coffins were broken to fragments, the vessels dashed to pieces, and the skeletons thrown into the sea; and the remaining caverns were stormed with like results. The objects of superstition have indeed been annihilated, but the superstition itself survives to the present day.

Skulls from a rock near Basey.

I subsequently learned from the priest at Basey that there were still some remains on a rock, and a few days afterwards the worthy man surprised me with several skulls and a child's coffin, which he had had brought from the place. Notwithstanding the great respect in which he was held by his flock, he had to exert all his powers of persuasion to induce the boldest of them to engage in so daring an enterprise. A boat manned by sixteen rowers was fitted out for the purpose; with a smaller crew they would not have ventured to under-

take the journey. On their return home a thunderstorm broke over them, and the sailors, believing it to be a punishment for their outrage, were prevented only by the fear of making the matter worse from throwing coffin and skulls into the sea. Fortunately the land was near, and they rowed with all their might towards it; and, when they arrived, I was obliged to take the objects out of the boat myself, as no native would touch them.

The cavern's contents.

Notwithstanding, I was the next morning successful in finding some resolute individuals who accompanied me to the caverns. In the first two which we examined we found nothing; the third contained several broken coffins, some skulls, and potsherds of glazed and crudely painted earthenware, of which, however, it was impossible to find two pieces that belonged to each other. A narrow hole led from the large cavern into an obscure space, which was so small that one could remain in it only for a few seconds with the burning torch. This circumstance may explain the discovery, in a coffin which was eaten to pieces by worms, and quite mouldered away, of a well-preserved skeleton, or rather a mummy, for in many places there were carcasses clothed with dry fibers of muscle and skin. It lay upon a mat of pandanus, which was yet recognizable, with a cushion under the head stuffed with plants, and covered with matting of pandanus. There were no other remains of woven material. The coffins were of three shapes and without any ornament. Those of the first form, which were of excellent molave-wood, showed no trace of worm-holes or decay, whereas the others had entirely fallen to dust; and those of the third kind, which were most numerous, were distinguishable from the first only by a less curved form and inferior material.

Impressive location of burial cave.

No legend could have supplied an enchanted royal sepulchre with a more suitable approach than that of

the last of these caverns. The rock rises out of the sea with perpendicular sides of marble, and only in one spot is to be observed a natural opening made by the water, hardly two feet high, through which the boat passed at once into a spacious court, almost circular, and over-arched by the sky, the floor of which was covered by the sea, and adorned with a garden of corals. The steep sides are thickly hung with lianas, ferns, and orchids, by help of which one climbs upwards to the cavern, sixty feet above the surface of the water. To add to the singularity of the situation, we also found at the entrance to the grotto, on a large block of rock projecting two feet above the ground, a sea-snake, which tranquilly gazed at us, but which had to be killed, because, like all genuine sea-snakes, it was poisonous. Twice before I had found the same species in crevices of rock on the dry land, where the ebb might have left it; but it was strange to meet with it in this place, at such a height above the sea. It now reposes, as *Platurus fasciatus Daud.*, in the Zoological Museum of the Berlin University.

A sea snake.

In Guiuan I had an opportunity of purchasing four richly painted Chinese dishes which came from a similar cavern, and a gold signet ring; the latter consisting of a plate of gold, originally bent into a tube of the thickness of a quill with a gaping seam, and afterwards into a ring as large as a thaler, which did not quite meet. The dishes were stolen from me at Manila.

Chinese dishes from a cave.

There are similar caverns which have been used as burial-places in many other localities in this country; on the island of Andog, in Borongan (a short time ago it contained skulls); also at Batinguitan, three hours from Borongan, on the banks of a little brook; and in Guiuan, on the little island of Monhon, which is difficult of approach by reason of the boisterous sea. In Catubig trinkets of gold have been found, but they have been converted

Burial caves.

into modern articles of adornment. One cavern at Lauang, however, is famous over the whole country on account of the gigantic, flat, compressed skulls, without sutures, which have been found in it.* It will not be uninteresting to compare the particulars here described with the statements of older authors; and for this reason I submit the following extracts:—

Embalming.

Mas (*Informe*, i. 21), who does not give the sources of his information, thus describes the customs of the ancient inhabitants of the archipelago at their interments:—They sometimes embalmed their dead with aromatic substances * * * and placed those who were of note in chests carved out of a branch of a tree, and furnished with well-fitted lids * * * The coffin was placed, in accordance with the wish of the deceased, expressed before his death, either in the uppermost room of the house, where articles of value were secreted, or under the dwelling-house, in a kind of grave, which was not covered, but enclosed with a railing; or in a distant field, or on an elevated place or rock on the bank of a river, where he might be venerated by the pious. A watch was set over it for a certain time, lest boats should cross over, and the dead person should drag the living after him.

Burial customs.

According to Gaspar San Agustín (p. 169), the dead were rolled up in cloths, and placed in clumsy chests, carved out of a block of wood, and buried under their houses, together with their jewels, gold rings, and some plates of gold over the mouth and eyes, and furnished with provisions, cups, and dishes. They were also accustomed to bury slaves along with men of note, in order that they might be attended in the other world.

* In the chapter *De monstris et quasi monstris* * * * of Father Camel, *London Philos. Trans.*, p. 2269, it is stated that in the mountains between Guluan and Borongan, footsteps, three times as large as those of ordinary men, have been found. Probably the skulls of Lauang, which are pressed out in breadth, and covered with a thick crust of calcareous sinter, the gigantic skulls (skulls of giants) have given rise to the fable of the giants' footsteps.

"Their chief idolatry consisted in the worship of those of their ancestors who had most distinguished themselves by courage and genius, whom they regarded as deities * * * * They called them *humalagar*, which is the same as manes in the Latin * * * Even the aged died under this conceit, choosing particular places, such as one on the island of Leyte, which allowed of their being interred at the edge of the sea, in order that the mariners who crossed over might acknowledge them as deities, and pay them respect." (*Thévenot, Religieux*, p. 2.)

Slaves sacrificed.

"They did not place them (the dead) in the earth, but in coffins of very hard, indestructible wood * * * Male and female slaves were sacrificed to them, that they should not be unattended in the other world. If a person of consideration died, silence was imposed upon the whole of the people, and its duration was regulated by the rank of the deceased; and under certain circumstances it was not discontinued until his relations had killed many other persons to appease the spirit of the dead." (*Ibid.*, p. 7.)

"For this reason (to be worshipped as deities) the oldest of them chose some remarkable spot in the mountains, and particularly on headlands projecting into the sea, in order to be worshipped by the sailors." (*Gemelli Careri*, p. 449.)

Basey and its river.

From Tacloban, which I chose for my headquarters on account of its convenient tribunal, and because it is well supplied with provisions, I returned on the following day to Samar, and then to Basey, which is opposite to Tacloban. The people of Basey are notorious over all Samar for their laziness and their stupidity, but are advantageously distinguished from the inhabitants of Tacloban by their purity of manners. Basey is situated on the delta of the river, which is named after it. We proceeded up a small arm of the principal stream, which

winds, with a very slight fall, through the plain; the brackish water, and the fringe of nipa-palms which accompanies it, consequently extending several leagues into the country. Coco plantations stretch behind them; and there the floods of water (*avenidas*), which sometimes take place in consequence of the narrow rocky bed of the upper part of the river, cause great devastation, as was evident from the mutilated palms which, torn away from their standing-place, rise up out of the middle of the river. After five hours' rowing we passed out of the flat country into a narrow valley, with steep sides of marble, which progressively closed in and became higher. In several places they are underwashed, cleft, and hurled over each other, and with their naked side-walls form a beautiful contrast to the blue sky, the clear, greenish river, and the luxuriant lianas, which, attaching themselves to every inequality to which they could cling, hung in long garlands over the rocks.

A frontage.

The stream became so rapid and so shallow that the party disembarked and dragged the boat over the stony bed. In this manner we passed through a sharp curve, twelve feet in height, formed by two rocks thrown opposite to each other, into a tranquil oval-shaped basin of water enclosed in a circle of limestone walls, inclining inwards, of from sixty to seventy feet in height; on the upper edge of which a circle of trees permitted only a misty sunlight to glimmer through the thick foliage. A magnificent gateway of rock, fifty to sixty feet high, and adorned with numerous stalactites, raised itself up opposite the low entrance; and through it we could see, at some distance, the upper portion of the river bathed in the sun. A cavern of a hundred feet in length, and easily climbed, opened itself in the left side of the oval court, some sixty feet above the surface of the water; and it ended in a small gateway, through which you

A beautiful grotto.

stepped on to a projection like a balcony, studded with stalactites. From this point both the landscape and the rocky cauldron are visible, and the latter is seen to be the remainder of a stalactitic cavern, the roof of which has fallen in. The beauty and peculiar character of the place have been felt even by the natives, who have called it Sogoton (properly, a bay in the sea). In the very hard limestone, which is like marble, I observed traces of bivalves and multitudes of spines of the sea-urchin, but no well-defined remains could be knocked off. The river could still be followed a short distance further upwards; and in its bed there were disjointed fragments of talcose and chloritic rocks.

Fishing.

A few small fishes were obtained with much difficulty; and amongst them was a new and interesting species, viviparous.* An allied species (*H. fluviatilis*, Bleeker) which I had two years previously found in a limestone cavern on Nusa Kambangan, in Java, likewise contained living young ones. The net employed in fishing appears to be suited to the locality, which is a shallow river, full of transparent blocks. It is a fine-meshed, longish, four-cornered net, having its ample sides fastened to two poles of bamboo, which at the bottom were provided with a kind of wooden shoes, which curve upwards towards the stems when pushed forwards. The fisherman, taking hold of the upper ends of the poles, pushes the net, which is held obliquely before him, and the wooden shoes cause it to slide over the stones, while another person drives the fish towards him.

Fossil beds.

On the right bank, below the cavern, and twenty feet above the surface of the water, there are beds of fossils, pectunculus, tapes, and placuna, some of which, from the fact of their barely adhering by the tip, must be of very recent date. I passed the night in a small hut,

* *Hemiramphus viviparus*, W. Peters (*Berlin Monatsb.*, March 16, 1865).

which was quickly erected for me, and on the following day attempted to pass up the river as far as the limits of the cyrstalline rock, but in vain. In the afternoon we set out on our return to Basey, which we reached at night.

Recent elevation of coast.

Basey is situated on a bank of clay, about fifty feet above the sea, which towards the west elevates itself into a hill several hundred feet in height, and with steep sides. At twenty-five to thirty feet above the sea I found the same recent beds of mussels as in the stalactitic cavern of Sogoton. From the statements of the parish priest and of other persons, a rapid elevation of the coasts seems to be taking place in this country. Thirty years ago ships could lie alongside the land in three fathoms of water at the flood, whereas the depth at the same place now is not much more than one fathom. Immediately opposite to Basey lie two small islands, Genamok and Tapontonan, which, at the present time, appear to be surrounded by a sandbank at the lowest ebb-tide. Twenty years ago nothing of the kind was to be seen. Supposing these particulars to be correct, we must next ascertain what proportion of these changes of level is due to the floods, and how much to volcanic elevation; which, if we may judge by the neighboring active solfatara at Leyte, must always be of considerable amount.

Crocodiles.

As the priest assured us, there are crocodiles in the river Basey over thirty feet in length, those in excess of twenty feet being numerous. The obliging father promised me one of at least twenty-four feet, whose skeleton I would gladly have secured; and he sent out some men who are so practised in the capture of these animals that they are dispatched to distant places for the purpose. Their contrivance for capturing them, which I, however, never personally witnessed, consists of a light raft of bamboo, with a stage, on which, several

feet above the water, a dog or a cat is bound. Alongside the animal is placed a strong iron hook, which is fastened to the swimming bamboo by means of fibers of abacá. The crocodile, when it has swallowed the bait and the hook at the same time, endeavors in vain to get away, for the pliability of the raft prevents its being torn to pieces, and the peculiar elasticity of the bundle of fibers prevents its being bitten through. The raft serves likewise as a buoy for the captured animal. According to the statements of the hunters, the large crocodiles live far from human habitations, generally selecting the close vegetation in an oozy swamp, in which their bellies, dragging heavily along, leave trails behind them which betray them to the initiated. After a week the priest mentioned that his party had sent in three crocodiles, the largest of which, however, measured only eighteen feet, but that he had not kept one for me, as he hoped to obtain one of thirty feet. His expectation, however, was not fulfilled.

Ignatius bean.

In the environs of Basey the Ignatius bean grows in remarkable abundance, as it also does in the south of Samar and in some other of the Bisayan islands. It is not met with in Luzon, but it is very likely that I have introduced it there unwittingly. Its sphere of propagation is very limited; and my attempts to transplant it to the Botanical Garden of Buitenzorg were fruitless. Some large plants intended for that purpose, which during my absence arrived for me at Daraga, were incorporated by one of my patrons into his own garden; and some, which were collected by himself and brought to Manila, were afterwards lost. Every effort to get these seeds (kernels), which are used over the whole of Eastern Asia as medicine, to germinate mis-

carried, they having been boiled before transmission, ostensibly for their preservation, but most probably to secure the monopoly of them.

Strychnine.

According to Flueckinger,* the gourd-shaped berry of the climbing shrub (*Ignatia amara*, L. *Strychnos Ignatii*, Berg. *Ignatiana Philippinica*. Lour.) contains twenty-four irregular egg-shaped seeds of the size of an inch which, however, are not so poisonous as the Ignatius beans, which taste like crack-nuts. In these seeds strychnine was found by Pelletier and Caventou in 1818, as it subsequently was in crack-nuts. The former contained twice as much of it as the latter, viz. one and a half per cent; but, as they are four times as dear, it is only produced from the latter.

Cholera and snake-bite cure.

In many households in the Philippines the dangerous drug is to be found as a highly prized remedy, under the name of Pepita de Catbalonga. Gemelli Careri mentions it, and quotes thirteen different uses of it. Dr. Rosenthal ("Synopsis Plantarum Diaphor." p. 363) says:—"In India it has been employed as a remedy against cholera under the name of *Papecta*." Papecta is probably a clerical error. In K. Lall Dey's "Indigenous Drugs of India," it is called Papeeta, which is pronounced Pepita in English; and Pepita is the Spanish word for the kernel of a fruit. It is also held in high estimation as an antidote for the bite of serpents. Father Blanco ("Flora of the Philippines," 61), states that he has more than once proved its efficacy in this respect in his own person; but he cautions against its employment internally, as it had been fatal in very many cases. It should not be taken into the mouth, for should the spittle be swallowed, and vomiting not ensue, death would be inevitable. The parish priest of Tabaco, however, almost always

* *Lehrbuch der Pharmakognosie des Pflanzenreichs* (Compendium of the "Pharmacopoeia of the Vegetable Kingdom,") p. 698.

carried a pepita in his mouth. From 1842 he began occasionally to take an Ignatius bean into his mouth as a protection against cholera, and so gradually accustomed himself to it. When I met him in 1860 he was quite well, and ascribed his health and vigor expressly to that habit. According to his communication, in cases of cholera the decoction was successfully administered in small doses introduced into tea; but it was most efficacious when, mixed with brandy, it was applied as a liniment.

Superstitions regarding the "Bisayan" bean.

Huc also ("Thibet," I. 252) commends the expressed juice of the kouo-kouo ((*Faba Ign. amar.*), both for internal and external use, and remarks that it plays a great part in Chinese medicine, no apothecary's shop being without it. Formerly the poisonous drug was considered a charm, as it is still by many. Father Camel* states that the Catbalogan or Bisayan-bean, which the Indians call Igasur or Mananaog (the victorious), was generally worn as an amulet round the neck, being a preservative against poison, contagion, magic, and philtres, so potent, indeed, that the Devil *in propia persona* could not harm the wearer. Especially efficacious is it against a poison communicated by breathing upon one, for not only does it protect the wearer, but it kills the individual who wishes to poison him. Camel further mentions a series of miracles which superstition ascribed to the Ignatius bean.

Coconuts.

On the southern half of the eastern border, on the shore from Borongan by Lauang as far as Guiuan, there are considerable plantations of cocos, which are most imperfectly applied to the production of oil. From Borongan and its visitas twelve thousand pitchers of coconut oil are yearly exported to Manila, and the nuts consumed by men and pigs would suffice for at least

* *Philos. Trans.* 1699, No. 249, pages 44, 87.

eight thousand pitchers. As a thousand nuts yield eight pitchers and a half, the vicinity of Borongan alone yields annually six million nuts; for which, assuming the average produce at fifty nuts, one hundred-twenty thousand fullbearing palms are required. The statement that their number in the above-mentioned district amounts to several millions must be an exaggeration.

Getting coco oil. The oil is obtained in a very rude manner. The kernel is rasped out of the woody shell of the nut on rough boards, and left to rot; and a few boats in a state of decay, elevated on posts in the open air, serve as reservoirs, the oil dropping through their crevices into pitchers placed underneath; and finally the boards are subjected to pressure. This operation, which requires several months for its completion, yields such a bad, dark-brown, and viscid product that the pitcher fetches only two dollars and a quarter in Manila, while a superior oil costs six dollars.*

Oil factory. Recently a young Spaniard has erected a factory in Borongan for the better preparation of oil. A winch, turned by two carabaos, sets a number of rasps in motion by means of toothed wheels and leather straps. They are somewhat like a gimlet in form, and consist of five iron plates, with dentated edges, which are placed radiating on the end of an iron rod, and close together, forming a blunt point towards the front. The other end of the rod passes through the center of a disk, which communicates the rotary motion to it, and projects beyond it. The workman, taking a divided coconut in his two hands, holds its interior arch, which contains the oil-bearing nut, with a firm pressure against the revolving rasp, at the same time urging with his breast,

* At Borongan the tinaja of 12 gantas cost six reals (one quart about two pesetas), the pot two reals, the freight to Manila three reals, or, if the product is carried as cargo (matrose), two and one-half reals. The price at Manila refers to the tinaja of sixteen gantas.

which is protected by a padded board, against the projecting end of the rod. The fine shreds of the nut remain for twelve hours in flat pans, in order that they may be partially decomposed. They are then lightly pressed in hand-presses; and the liquor, which consists of one-third oil and two-thirds water, is caught in tubs, from which, at the end of six hours, the oil, floating on the surface, is skimmed off. It is then heated in iron pans, containing 100 liters, until the whole of the water in it has evaporated, which takes from two to three hours. In order that the oil may cool rapidly, and not become dark in color, two pailfuls of cold oil, freed from water, are poured into it, and the fire quickly removed to a distance. The compressed shreds are once more exposed to the atmosphere, and then subjected to a powerful pressure. After these two operations have been twice repeated, the rasped substance is suspended in sacks between two strong vertical boards and crushed to the utmost by means of clamp screws, and repeatedly shaken up. The refuse serves as food for pigs. The oil which runs from the sacks is free from water, and is consequently very clear, and is employed in the cooling of that which is obtained in the first instance.*

Limited output.

The factory produces fifteen hundred tinajas of oil. It is in operation only nine months in the year; from December to February the transport of nuts being prevented by the tempestuous seas, there being no land communication. The manufacturer was not successful in procuring nuts from the immediate vicinity in sufficient quantity to enable him to carry on his operations

* Newly prepared coconut oil serves for cooking, but quickly becomes rancid. It is very generally used for lighting. In Europe, where it seldom appears in a fluid state, as it does not dissolve until 16° R., (20 C. or 68 Fahr.) it is used in the manufacture of tapers, but especially for soap, for which it is peculiarly adapted. Coconut soap is very hard, and brilliantly white, and is dissolved in salt water more easily than any other soap. The oily nut has lately been imported from Brazil into England under the name of "copperah," (copra) and pressed after heating.

without interruption, nor, during the favorable season of the year, could he lay up a store for the winter months, although he paid the comparatively high price of three dollars per thousand.

Illogical business.

While the natives manufactured oil in the manner just described, they obtained from a thousand nuts three and a half pots, which, at six reals each, fetched twenty-one reals; that is three reals less than was offered them for the raw nuts. These data, which are obtained from the manufacturers, are probably exaggerated, but they are in the main well founded; and the traveller in the Philippines often has the opportunity of observing similar anomalies. For example, in Daet, North Camarines, I bought six coconuts for one cuarto, at the rate of nine hundred and sixty for one dollar, the common price there. On my asking why no oil-factory had been erected, I received for answer that the nuts were cheaper singly than in quantities. In the first place, the native sells only when he wants money; but he knows that the manufacturer cannot well afford to have his business suspended; so, careless of the result, he makes a temporary profit, and never thinks of ensuring for himself a permanent source of income.

Sugar venders.

In the province of Laguna, where the natives prepare coarse brown sugar from sugar-cane, the women carry it for leagues to the market, or expose it for sale on the country roads, in small loaves (*panoche*), generally along with buyo. Every passenger chats with the seller, weighs the loaf in the hand, eats a bit, and probably passes on without buying any. In the evening the woman returns to her home with her wares, and the next day repeats the same process.

Disproportionate prices.

I have lost my special notes, but I remember that in two cases at least the price of the sugar in these loaves was cheaper than by the picul. Moreover, the

Government of the day anticipated the people in setting the example, by selling cigars cheaper singly than in quantities.

Uncertain trading.

In Europe a speculator generally can calculate beforehand, with the greatest certainty, the cost of production of any article; but in the Philippines it is not always so easy. Independently of the uncertainty of labor, the regularity of the supply of raw material is disturbed, not only by laziness and caprice, but also by jealousy and distrust. The natives, as a rule, do not willingly see Europeans settle amongst them and engage successfully in local operations which they themselves do not understand how to execute; and in like manner the creoles are reserved with foreigners, who generally are superior to them in capital, skill, and activity. Besides jealousy, suspicion also plays a great part, and this influences the native as well against the mestizo as against the Castilian. Enough takes place to the present day to justify this feeling; but formerly, when the most thrifty subjects could buy governorships, and shamelessly fleece their provinces, such outrageous abuses are said to have been permitted until, in process of time, suspicion has become a kind of instinct amongst the Filipinos.

XXI

Leyte

THE island of Leyte, between 9° 49′ and 11° 34′ N., and 124° 7′ and 125° 9′ E. Gr., is above twenty-five miles in length, and almost twelve miles broad, and contains one hundred seventy square miles. As I have already remarked, it is divided from Samar only by the small strait of San Juanico. The chief town, Tacloban or Taclobang, lies at the eastern entrance of this

strait, with a very good harbor and uninterrupted communication with Manila, and has consequently become the chief emporium of trade to Leyte, Biliran, and South and East Samar.*

Obliging Spanish officials.

The local governor likewise showed me much obliging attention; indeed, almost without exception I have, since my return, retained the most agreeable remembrances of the Spanish officials; and, therefore, if fitting opportunity occurred, I could treat of the improprieties of the Administration with greater impartiality.

Locusts.

In the afternoon of the day after my arrival at Tacloban, on a sudden there came a sound like the rush of a furious torrent; the air became dark, and a large cloud of locusts swept over the place.† I will not again recount that phenomenon, which has been so often described, and is essentially the same in all quarters of the globe, but will simply remark that the swarm, which was more than five hundred feet in width, and about fifty feet in depth, its extremity being lost in the forest, was not thought a very considerable one. It caused vigilance, but not consternation. Old and young eagerly endeavored to catch as many of the delicate creatures as they could, with cloths, nets, and flags, in order, as Dampier relates, "to roast them in an earthen pan over fire until their legs and wings drop off, and their heads and backs assume the color of boiled crabs;" after which

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* On Pigafetta's map Leyte is divided into two parts, the north being called Balbuy, and the south Ceylon. When Magellan in Massana (Limasana) inquired after the most considerable places of business, Ceylon (*i. e.* Leyte), Calagan (Caraga), and Zubu (Cebu) were named to him. Pigaf., 70.

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Plan for their extermination.

The locusts are one of the greatest plagues of the Philippines, and sometimes destroy the harvest of entire provinces. The *Legislación Ultramarina* (iv. 604) contains a special edict respecting the extirpation of these devastating pests. As soon as they appear, the population of the invaded localities are to be drawn out in the greatest possible numbers, under the conduct of the authorities, in order to effect their destruction. The most approved means for the attainment of this object are set forth in an official document referring to the adoption of extraordinary measures in cases of public emergency; and in this the locusts are placed midway between sea-pirates and conflagrations. Of the various means that have been contrived against the destructive creatures, that, at times, appear in incredible numbers, but have been as frequently ineffectual as otherwise, only a few will be now mentioned. On April 27, 1824, the *Sociedad Economica* determined to import the bird, the martin (*Gracula sp.*), "which feeds by instinct on locusts." In the autumn of the following year the first consignment arrived from China; in 1829 a second; and in 1852 again occurs the item of $1,311 for martins.

Tacloban to Tanauan.

On the following day I proceeded with the priest of Dagami (there are roads in Leyte) from Tacloban southwards to Palos and Tanauan, two flourishing places on the east coast. Hardly half a league from the latter place, and close to the sea, a cliff of crystal lime rock rises up out of the sandy plain, which was level up to this point. It is of a greyish-green quartzose chlorite schist, from

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which the enterprising Father had endeavored, with a perseverance worthy of better success, to procure lime by burning. After an ample breakfast in the convent, we proceeded in the afternoon to Dagami, and, on the next day, to Burauen.*

A pleasing people.

The country was still flat. Coco-groves and rice-fields here and there interrupted the thick forest; but the country is thinly inhabited, and the people appear more cheerful, handsomer, and cleaner than those of Samar. South of Burauen rises the mountain ridge of Manacagan, on the further slope of which is a large solfatara, which yields sulphur for the powder manufactory in Manila, and for commerce. A Spanish sailor accompanied me. Where the road passed through swamp we rode on carabaos. The pace of the animals is not unpleasant, but the stretching across the broad backs of the gigantic carabaos of the Philippines is very fatiguing. A quarter of an hour beyond Burauen we crossed the Daguitan, which flows south-west to north-east, and is a hundred feet broad, its bed being full of large volcanic blocks; and, soon after, a small river in a broad bed; and, some hundred paces farther, one of a hundred and fifty feet in breadth; the two latter being arms of the Burauen. They flow from west to east, and enter the sea at Dulag. The second arm was originated only the preceding year, during a flood.

The height of hospitality.

We passed the night in a hut on the northern slope of the Manacagan, which the owner, on seeing us approach, had voluntarily quitted, and with his wife and child sought other lodgings. The customs of the country require this when the accommodation does not suffice for both parties; and payment for the same is neither demanded nor, except very rarely, tendered.

* The names of these two localities, on Coello's map, are confounded. Burauen lies south of Dagami.

About six o'clock on the following morning we started; and about half-past six climbed, by a pleasant path through the forest, to the ridge of the Manacagan, which consists of trachytic hornblende; and about seven o'clock we crossed two small rivers flowing north-west, and then, by a curve, reached the coast at Dulag. From the ridge we caught sight, towards the south, of the great white heaps of *débris* of the mountain Danan glimmering through the trees. About nine o'clock we came through the thickly-wooded crater of the Kasiboi, and, further south, to some sheds in which the sulphur is smelted. *Up the Manacagan*

The raw material obtained from the solfatara is bought in three classes: firstly, sulphur already melted to crusts; secondly, sublimated, which contains much condensed water in its interstices; and thirdly, in the clay, which is divided into the more or less rich, from which the greatest quantity is obtained. Coconut oil, which is thrown into flat iron pans holding six arrobas, is added to the sulphurous clay, in the proportion of six quarts to four arrobas, and it is melted and continually stirred. The clay which floats on the surface, now freed from the sulphur, being skimmed off, fresh sulphurous clay is thrown into the cauldron, and so on. In two or three hours six arrobas of sulphur, on an average, may be obtained in this manner from twenty-four arrobas of sulphurous clay, and, poured into wooden chests, it is moulded into blocks of about four arrobas. Half the oil employed is recovered by throwing the clay which has been saturated with it into a frame formed by two narrow bamboo hurdles, placed at a sharp angle. The oil drops into a sloping gutter of bamboo which is placed underneath, and from that flows into a pot. The price of the sulphur at Manila varies between $1.25 and $4.50 per picul. I saw the frames, full of clay, from which the oil exuded; but the operation itself I did *Sulphur.* *Prices.*

not, unfortunately, then witness, and I cannot explain in what manner the oil is added. From some experiments made on a small scale, therefore under essentially different conditions, and never with the same material, it appeared that the oil accelerates the separation of the sulphur, and retards the access of the air to the sulphur. In these experiments, the sulphur contained in the bottom of the crucible was always colored black by the separation of charcoal from the oil, and it was necessary to purify it by distillation beforehand. Of this, however, the smelters at Leyte made no mention, and they even had no apparatus for the purpose, while their sulphur was of a pure yellow color.

Hot spring. Some hundreds of paces further south, a hot spring (50° R.),* twelve feet broad, flows from the east, depositing silicious sinter at its edges.

A solfatara. As we followed a ravine stretching from north to south, with sides one hundred to two hundred feet in height, the vegetation gradually ceased, the rock being of a dazzling white, or colored by sublimated sulphur. In numerous places thick clouds of vapor burst from the ground, with a strong smell of sulphurated water. At some thousand paces further, the ravine bends round to the left (east), and expands itself to the bay; and here numerous silicious springs break through the loose clay-earth, which is permeated with sulphur. This solfatara must formerly have been much more active than it is now. The ravine, which has been formed by its destruction of the rock, and is full of lofty heaps of *débris*, may be one thousand feet in breadth, and quite five times as long. At the east end there are a number of small, boiling quagmires, which, on forcing a stick into the matted ground, send forth water and steam.

* 62.5 Cent. or 144.5 Fahr.—*C.*

In some deep spots further west, grey, white, red, and yellow clays have been deposited in small beds over each other, giving them the appearance of variegated marls.

Petrifying water

To the south, right opposite to the ridge which leads to Burauen, may be seen a basin twenty-five feet broad, in a cavern in the white decomposed rock, from which a petrifying water containing silicious acid flows abundantly. The roof of the cavern is hung with stalactites, which either are covered with solid sulphur, or consist entirely of that substance.

Danan solfatara.

On the upper slope of the Danan mountain, near to the summit, so much sulphur is deposited by the vapors from the sulphurated water that it may be collected with coconut shells. In some crevices, which are protected against the cooling effects of the atmospheric air, it melts together in thick, brown crusts. The solfatara of Danan is situated exactly south of that below, at the end of the ravine of the Kasiboi. The clay earth, from which the silicic acid has been washed out by the rains, is carried into the valley, where it forms a plain, the greater part of which is occupied by a small lake, Malaksan (sour), slightly impregnated with sulphuric acid. Its surface, which, by reason of the very flat banks, is protected against the weather, I found to be about five hundred paces long and one hundred broad. From the elevation of the solfatara, a rather large fresh-water lake, surrounded by wooded mountains, is seen through a gap, exactly south, which is named Jaruanan. The night was passed in a ruined shed at the south-east of the lake Malaksan; and on the following morning we climbed the south side of the mountain ridge and, skirting the solfatara of the Danan, arrived in an hour and a half at lake Jaruanan.

Jaruanan Lake.

This lake, as well as the Malaksan, inspires the natives with superstitious fear on account of the suspicious

neighborhood of the solfatara, and therefore has not been profaned by either mariner, fisher, or swimmer, and was very full of fish. For the purpose of measuring its depth, I had a raft of bamboos constructed; and when my companions saw me floating safely on the lake, they all, without exception, sprang into it, and tumbled about in the water with infinite delight and loud outcries, as if they wished to indemnify themselves for their long abstinence; so that the raft was not ready before three o'clock. The soundings at the centre of the basin, which was, at the southern edge, steeper than on the north, gave thirteen brazas, or over twenty-one meters of depth; the greatest length of the lake amounted to nearly eight hundred varas (six hundred and sixty-eight meters), and the breadth to about half as much. As we returned in the evening, by torchlight, over the crest of the mountain to our night-quarters at the lake, we passed by the very modest dwelling-place of a married pair. Three branches, projecting outwards from the principal trunk of a tree, and lopped at equal points, sustained a hut of bamboos and palm-leaves of eight feet square. A hole in the floor formed the entrance, and it was divided into a chamber and ante-chamber, and four bamboo poles supported, above and below, two layers of bamboos, one of which furnished a balcony, and the other a shop in which betel was sold.

To Dulag.

The day after my return to Burauen an obliging Spanish merchant drove me through the fertile plain of volcanic sand, on which rice, maize, and sugar-cane were cultivated, to Dulag, which lies directly to the west, on the shore of the tranquil sea. The distance (according to Coello three leagues) hardly amounts to two leagues. From this place, Point Guiuan, the south point of Samar, appears like an island separated from the mainland, and further south (N. 102° 4′ to 103° 65° S.) Jo-

monjol is seen, the first island of the Archipelago sighted by Magellan on April 16, 1521. At Dulag, my former companion joined us in order to accompany us on the journey to the Bito Lake. The arrangement of transportation and of provisions, and, still more, the due consideration of all the propositions of three individuals, each of whose claims were entitled to equal respect, occupied much time and required some address. We at length sailed in a large *casco* (barge) southwards along the coast to the mouth of the river Mayo, which, according to the map and the information there given, is said to come from the Bito Lake. We proceeded upwards in a boat, but were informed at the first hut that the lake could be reached only by making a long circuit through swampy forest; when most of our party proposed to return. Various reasons besides the want of unanimity in the conduct of our adventure, which had proceeded thus far, delayed our arrival at Abuyog until eleven o'clock at night. In the first place, on our way, we had to cross a small branch of the Mayo, and after that the Bito River. The distance of the latter from Abuyog (extravagantly set down on Coello's map) amounts to fourteen hundred brazas, according to the measurement of the gobernadorcillo, which is probably correct.*

Up Mayo River.

The following day, as it rained heavily, was employed in making inquiries respecting the road to the Bito Lake. We received very varied statements as to the distance, but all agreed in painting the road thither in a discouraging light. A troublesome journey of at least ten hours appeared to us to be what most probably awaited us.

An unpromising road.

On the morrow, through a pleasant forest road, we reached in an hour the Bito River, and proceeded in boats, which we met there, up the river between flat

Bito Lake.

* A small river enters the sea 950 brazas south of the tower of Abuyog.

sandy banks covered with tall cane and reeds. In about ten minutes, some trees fallen right across the stream compelled us to make a circuit on land, which in half an hour brought us again to the river, above the obstacles. Here we constructed rafts of bamboo, upon which, immersed to the depth of half a foot, the material being very loosely adjusted, we reached the lake in ten minutes. We found it covered with green confervae; a double border of pistia and broad-leaved reed grasses, six to seven feet high, enclosing it all round. On the south and west some low hillocks rose up, while from the middle it appeared to be almost circular, with a girdle of forest. Coello makes the lake much too large (four instead of one square mile), and its distance from Abuyog can be only a little over a league. With the assistance of a cord of lianas tied together, and rods placed in a line, we found its breadth five hundred and eighty-five brazas or nine hundred and seventy-seven meters, (in the broadest part it might be a little over one thousand meters); and the length, as computed from some imperfect observations, one thousand and seven brazas (sixteen hundred and eighty meters), consequently less than one square mile. Soundings showed a gently inclined basin, eight brazas, or over thirteen meters, deep in the middle. I would gladly have determined the proportions with more accuracy; but want of time, the inaccessibility of the edge of the bank, and the miserable condition of our raft, allowed of only a few rough measurements.

A forest home.

Not a trace of human habitations was observable on the shore; but a quarter of an hour's distance from the northern edge we found a comfortable hut, surrounded by deep mud and prickly calamus, the tenants of which, however, were living in plenty, and with greater conveniences than many dwellers in the villages. We were

very well received and had fish in abundance, as well as tomatoes, and capsicum to season them with, and dishes of English earthenware out of which to eat them.

Snaring swine.

The abundance of wild swine had led the settlers to invent a peculiar contrivance, by which they are apprised of their approach even when asleep, and guided to their trail in the darkness. A rope made of strips of banana tied together, and upwards of a thousand feet in length, is extended along the ground, one end of which is attached to a coconut shell, full of water, which is suspended immediately over the sleeping-place of the hunter. When a pig comes in contact with the rope, the water is overturned by the jerk upon the sleeper, who, seizing the rope in his hand, is thereby conducted to his prey. The principal employment of our hosts appeared to be fishing, which is so productive that the roughest apparatus is sufficient. There was not a single boat, but only loosely-bound rafts of bamboo, on which the fishers, sinking, as we ourselves did on our raft, half a foot deep, moved about amongst the crocodiles, which I never beheld in such numbers and of so large a size as in this lake. Some swam about on the surface with their backs projecting out of the water. It was striking to see the complete indifference with which even two little girls waded in the water in the face of the great monsters. Fortunately the latter appeared to be satisfied with their ample rations of fish. Four kinds of fish are said to be found in the lake, amongst them an eel; but we got only one.*

A secret still.

Early on the following morning our native attendants were already intoxicated. This led to the discovery of another occupation of the settlers, which I do not hesitate to disclose now that the Government monopoly

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* *Gobius giuris* Buch. Ham.

has been abolished. They secretly distilled palm-brandy and carried on a considerable trade in it; and this also explained to me why the horrors of the road to the Mayo River and to Abuyog had been painted in such warm colors.* We returned on our rafts to the place where we had found them, a distance of about fifteen hundred feet; and onwards, through wild cane with large clusters of flowers (*Saccharum sp.*), sixteen feet high, east by north, we got to our boats, and then to the bar, whence, after a march of an hour and a half, we reached Abuyog. From Abuyog we returned by water to Dulag, and by land to Burauen, where we arrived at night, sooner than our hostlers had expected, for we caught them sleeping in our beds.

Tobacco prohibition.

Not long ago much tobacco was cultivated in this country, and was allowed to be sold to the peasantry under certain conditions; but recently it was forbidden to be sold, except by the Government, who themselves determined its value at so very low a rate that the culture of tobacco has almost entirely ceased. As the tobacco company, however, had already erected stores and appointed collectors, the knowing ones rightly foresaw that these steps would be followed by compulsory labor, even as it occurred in other places. The east coast of Leyte is said to be rising while the west is being destroyed by the sea, and at Ormog the sea is said to have advanced about fifty ells† in six years.

* The lake at that time had but one outlet, but in the wet season it may be in connection with the Mayo, which, at its north-east side, is quite flat.

† Or some thirty-eight yards if the old Dutch ell is meant.—*C.*

XXII

The Bisayans

THE Bisayans—at least the inhabitants of the Islands of Samar and Leyte (I have not become closely acquainted with any others)—belong to one race.* They are, physically and intellectually, in character, dress, manners and customs, so similar that my notes, which were originally made at different points of the two Islands, have, after removal of the numerous repetitions, fused into one, which affords a more complete picture, and affords, at the same time, opportunity for the small differences, where they do occur, to stand out more conspicuously.

Mountaineers.

There are no Negritos either in Samar or Leyte, but Cimarronese, who pay no tribute, and who do not live in villages, but independently in the forests. Unfortunately I have had no personal intercourse with them, and what I have learned respecting them from the Christian inhabitants of Samar is too uncertain to be repeated. But it does seem certain that all these Cimarronese or their ancestors have traded with the Spaniards, and that their religion has appropriated many Catholic forms. Thus, when planting rice, and, according to ancient practices, setting apart some of the seed to be offered in the four corners of the field as sacrifice, they are accustomed to repeat some mutilated Catholic

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* *Pintados*, or *Bisayas*, according to a native word denoting the same, must be the inhabitants of the islands between Luzon and Mindanao, and must have been so named by the Spaniards from their practice of tattoing themselves. Crawfurd ("Dict." 339) thinks these facts not firmly established, and they are certainly not mentioned by Pigafetta; who, however, writes, p. 80:—"He (the king of Zubut) was * * * painted in various ways with fire." Purchas ("Pilgrimage," fo. i. 603)—"The king of Zubut has his skinne painted with a hot iron pensill;" and Morga, fo. 4—"Traen todo il cuerpo labrado con fuego." From this they appear to have tattoed themselves in the manner of the Papuas, by burning in spots and stripes into the skin. But Morga states in another place (f. 138)—"They are distinguished from the inhabitants of Luzon by their hair which the men cut into a pigtail after the old Spanish manner, and paint their bodies in many patterns, without touching the face." The custom of tattooing, which appears to have ceased with the introduction of Christianity, for the clergyman so often quoted (Thevenot, p. 4) describes it as unknown, cannot be regarded as a characteristic of the Bisayans; and tribes of the northern part of Luzon tattoo at the present day.

prayers, which they appear to consider as efficacious as their old heathenish ones. Some have their children baptized as well, as it costs nothing; but, save in these respects, they perform no other Christian or civil obligations. They are very peaceable, neither making war with one another, nor having poisoned arrows. Instances of Cimarronese, who go over to Christianity and village life, together with tribute and servitude, are very rare; and the number of the civilized, who return to the forests in order to become Cimarronese, is, on the other hand, very inconsiderable indeed—still smaller than in Luzon, as the natives, from the dull, almost vegetating life which they lead, are not easily brought into such straitened circumstances as to be compelled to leave their village, which, still more than in Luzon, is all the world to them.

Rice-farming.

The culture of rice follows the seasons of the year. In some places where there are large fields the plough (arado) and the sod-sod (here called surod) are employed; but, almost universally, the rice-field is only trodden over by carabaos in the rainy season. Sowing is done on the west coast in May and June, planting in July and August, and reaping from November to January. One ganta of seed-corn gives two, sometimes from three to four, cabanes (*i. e.*, fifty, seventy-five, and a hundred fold). In the chief town, Catbalogan, there are but very few irrigated fields (*tubigan*, from *tubig*, water), the produce of which does not suffice for the requirements, and the deficiency is made up from other places on the coasts of the Island. On the other hand, Catbalogan produces abaca, coco-nut oil, wax, balate (edible holothuria, sea cucumber), dried fish, and woven stuffs. On the north and east coasts sowing takes place from November to January, and reaping six months later. During the remaining six months the field serves as

pasture for the cattle; but in many places rice culture goes on even during these months, but on other fields. A large portion of this rice is frequently lost on account of the bad weather.

Land tenure.

Purchases of land are seldom made, it being generally acquired by cultivation, by inheritance, or forfeiture. In Catbalogan the best rice land was paid for at the rate of one dollar for a ganta of seed-corn, and, on the north coast of Lauang, a field producing yearly one hundred cabanes was purchased for thirty dollars. Reckoning, as in Naga, one ganta of seed-corn at four loanes, and seventy-five cabanes of produce at one quiñon, the eastern rice land costs, in the first instance, three thalers and a third, in the second three thalers. The owner lets the bare property out on leases, and receives one-half the harvest as rent.* The cultivation of rice in Leyte is conducted as in Samar, but it has given way to the cultivation of abacá; the governors, while they were allowed to trade, compelled the natives to devote a part of their fields and of their labor to it. Should a peasant be in arrears, it is the prevalent custom in the country for him to pay to the dealer double the balance remaining due at the next harvest.

Mountain rice.

Mountain-rice culture, which in Catbalogan is almost the only cultivation, requires no other implement of agriculture than the bolo to loosen the soil somewhat, and a sharp stick for making holes at distances of six inches for the reception of five or six grains of rice. Sowing is done from May to June, weeding twice, and five months later it is cut stalk by stalk; the reaper receiving half a real daily wages and food. The produce is between two and three cabanes per ganta, or fifty

* Mezzeria (Italian); métayer (French).

to seventy fold. The land costs nothing, and wages amount to nearly five reals per ganta of seed-corn. After a good harvest the caban fetches four reales; but just before the harvest the price rises to one dollar, and often much higher. The ground is used only once for dry rice; camote (batata), abacá, and caladium being planted on it after the harvest. Mountain rice is more remunerative than watered rice about in the proportion of nine to eight.

Other products. Next to rice the principal articles of sustenance are camote (*convolvulus batatas*), ubi (*dioscorea*), gabi (*caladium*), palauan (a large *arum*, with taper leaves and spotted stalk). Camote can be planted all the year around, and ripens in four months; but it takes place generally when the rice culture is over, when little labor is available. When the cultivation of camote is retained, the old plants are allowed to multiply their runners, and only the tubers are taken out of the ground. But larger produce is obtained by cleaning out the ground and planting anew. From eighteen to fifteen gantas may be had for half a real.

Abacá. Although there are large plantations of abacá, during my visit it was but little cultivated, the price not being sufficiently remunerative.

Tobacco. Tobacco also is cultivated. Formerly it might be sold in the country, but now it has to be delivered to the government.

Balao oil. A resinous oil (*balao* or *malapajo*) is found in Samar and Albay, probably also in other provinces. It is obtained from a dipterocarpus (*apitong*), one of the loftiest trees of the forest, by cutting in the trunk a wide hole, half a foot deep, hollowed out into the form of a basin, and from time to time lighting a fire in it, so as to free the channels, through which it flows, of obstructions. The oil thus is collected daily and comes

into commerce without any further preparation. Its chief application is in the preservation of iron in ship-building. Nails dipped in the oil of the balao, before being driven in, will, as I have been assured by credible individuals, defy the action of rust for ten years; but it is principally used as a varnish for ships, which are painted with it both within and without, and it also protects wood against termites and other insects. The balao is sold in Albay at four reals for the tinaja of ten gantas (the liter at eight pence). A cement formed by the mixture of burnt lime, gum elemi, and coconut oil, in such proportions as to form a thick paste before application, is used for the protection of the bottoms of ships; and the coating is said to last a year.* Wax is bartered by the Cimarronese. The whole of Samar annually yields from two hundred to three hundred piculs, whose value ranges between twenty-five and fifty dollars per picul, while in Manila the price is generally five to ten dollars higher; but it fluctuates very much, as the same product is brought from many other localities and at very irregular intervals of time.

Wax.

There is hardly any breeding of cattle, notwithstanding the luxuriant growth of grasses and the absence of destructive animals. Horses and carabao are very rare, and are said to have been introduced late, not before the present century. As in Samar there are hardly any other country roads than the seashore and the shallow beds of rivers (it is better in the north of Leyte), the carabao is used only once every year in treading over the earth of the rice-field. During the year he roams at large on the pastures, in the forest, or on a small island, where such exists, in the neighbor-

Scarcity of stock.

* In China an oil is procured from the seeds of *vernicia montana*, which, by the addition of alum, litharge, and steatite, with a gentle heat, easily forms a valuable varnish which, when mixed with resin, is employed in rendering the bottoms of vessels watertight. P. Champion, *Indust. Anc. et Mod. de l'Emp. Chinois.*" 114.

hood. Some times in the year one may see several carabaos, attached to the large trunk of a tree, dragging it to the village. Their number, consequently, is extremely small. Carabaos which tread the rice land well are worth as much as ten dollars. The mean price is three dollars for a carabao, and five to six dollars for a caraballa. Horned cattle are only occasionally used as victims at festivals. The property of several owners, they are very limited in number, and live half-wild in the mountains. There is hardly any trade in them, but the average price is three dollars for a heifer, and five or six dollars for a cow. Almost every family possesses a pig; some, three or four of them. A fat pig costs six or seven dollars, even more than a cow. Many Filipino tribes abstain strictly from beef; but pork is essential to their feasts. Grease, too, is so dear that from three to four dollars would, under favorable circumstances, be got on that account for a fat animal. Sheep and goats thrive well, and propagate easily, but also exist only in small numbers, and are hardly utilized either for their wool or their flesh. Creoles and mestizos are for the most part too idle even to keep sheep, preferring daily to eat chicken. The sheep of Shanghai, imported by the governor of Tacloban, also thrive and propagate famously. A laying hen costs half a real, a rooster the same, and a game cock as much as three dollars, often considerably more. Six or eight hens, or thirty eggs, may be bought for one real.

Swine.

Sheep and goats.

Poultry.

Cost of food.

A family consisting of father, mother, and five children requires daily nearly twenty-four chupas of palay (rice in the husk), which, after winnowing, comes to about twelve chupas. This at the average price of four reals per cavan costs about half a real. The price, however, varies. Sometimes, after the harvest, it is three reals per cavan; before it, ten; and in Albay, even about

thirty reals. Then about three cuartos are wanted for extras (as fish, crabs, vegetables, etc.), which, however, are generally collected by the children; and, lastly, for oil two cuartos, buyo one cuarto, tobacco three cuartos (three leaves for one cuarto), the latter being smoked, not chewed. A woman consumes half as much buyo and tobacco as a man. Buyo and tobacco are less used in Leyte than in Samar.

Clothing cost.

For clothing a man requires yearly—four rough shirts of *guinara*, costing from one to two reals; three or four pairs of trousers, at one to two and a half reals; two kerchiefs for the head, at one and a half real (hats are not worn on the south and west coasts), and for the church festivals generally one pair of shoes, seven reals; one fine shirt, a dollar or more; and fine pantaloons, at four reals. A woman requires—four to six camisas of *guinara*, at one real; two to three sayas of *guinara*, at three to four reals, and one or two sayas of European printed cotton, at five reals; two head-kerchiefs at one and a half to two reals; and one or two pairs of slippers (*chinelas*) to go to mass in, at two reals and upwards.

Women's extras.

The women genrally have, besides, a fine camisa costing at least six reals; a mantilla for churchgoing, six reals (it lasts four years); and a comb, two cuartos. Many also have under skirts (*nabuas*), two pieces at four reals, and earrings of brass and a rosary, which last articles are purchased once for all. In the poorer localities, Lauang for instance, only the home-woven *guinaras* are worn: and there a man requires—three shirts and three pairs of trousers, which are cut out of three pieces of *guinara*, at two reals, and a *salacot* (hat), generally home made, worth half a real; while a woman uses yearly—four sayas, value six reals; and a camisa,

with a finer one for the festivals, eight reals. Underskirts are not worn; and the clothing of the children may be estimated at about half of the above rates.

Household furniture.

For household furniture a family has a cooking pot* of unglazed burnt clay, imported by ships from Manila, the cost of which is fixed by the value of its contents in rice; a supply of bamboo-canes; seven plates, costing between two and five cuartos; a *carahai* (iron pan), three to four reals; coconut shells serving for glasses; a few small pots, altogether half a real; a *sundang*, four to six reals, or a *bolo* (large forest knife), one dollar; and a pair of scissors (for the women), two reals. The loom, which every household constructs for itself of bamboo of course costs nothing.

Wages.

The rate of daily wages, in the case of Filipino employers, is half a real, without food; but Europeans always have to give one real and food, unless, by favor of the gobernadorcillo, they get *polistas* at the former rate, which then regularly goes into the public coffers. An ordinary carpenter earns from one to two reals; a skilful man, three reals daily. The hours of work are from six to noon, and from two to six in the evening.

Industries.

Almost every village has a rude smith, who understands the making of sundangs and bolos; but the iron and the coal required for the purpose mut be supplied with the order. No other work in metal is executed. With the exception of a little ship-building, hardly any other pursuit than weaving is carried on; the loom is rarely wanting in a household. *Guinara, i. e.*, stuff made of the abacá, is manufactured, as well as also some piña, or figured silk stuffs, the silk being brought from Manila, and of Chinese origin. All these fabrics are made in private homes; there are no factories.

* Petzholdt ("Caucasus," I. 203) mentions that in Bossiewi the price of a clay vessel is determined by its capacity of maize.

In places where rice is scarce the lower class of people catch fish, salt and dry them, and barter them for rice. In the chief towns purchases are made with the current money; but, in the interior, where there is hardly any money, fabrics and dried fish are the most usual means of exchange. Salt is obtained by evaporating the sea-water in small iron hand-pans (carahais), without previous evaporation in the sun. The navigation between Catbalogan and Manila continues from December to July, and in the interval between those months the ships lie dismantled under sheds. There also is communication by the coast eastwards to Guian, northwards to Catarman, and sometimes to Lauang. The crews consist partly of natives, and partly of foreigners, as the natives take to the sea with great reluctance; indeed, almost only when compelled to leave their villages. Samar has scarcely any other means of communication besides the navigation of the coast and rivers, the interior being roadless; and burdens have to be conveyed on the shoulders. An able-bodied porter, who receives a real and a half without food, will carry three arrobas (seventy-five pounds at most) six leagues in a day, but he cannot accomplish the same work on the following day, requiring at least one day's rest. A strong man will carry an arroba and a half daily for a distance of six leagues for a whole week.

Barter.

Communication.

There are no markets in Samar and Leyte; so that whoever wishes to buy seeks what he requires in the houses, and in like manner the seller offers his goods.

No markets.

A Filipino seeking to borrow money has to give ample security and pay interest at the rate of one real for every dollar per month (twelve and one-half per cent. monthly); and it is not easy for him to borrow more than five dollars, for which sum only he is legally liable. Trade and credit are less developed in eastern and northern Samar than

Debts.

in the western part of the island, which keeps up a more active communication with the other inhabitants of the Archipelago. There current money is rarely lent, but only its value in goods is advanced at the rate of a real per dollar *per mensem*. If the debtor fails to pay within the time appointed, he frequently has to part with one of his children, who is obliged to serve the lender for his bare food, without wages, until the debt has been extinguished. I saw a young man who had so served for the term of five years, in liquidation of a debt of five dollars which his father, who had formerly been a gobernadorcillo in Paranas, owed to a mestizo in Catbalogan; and on the east coast a pretty young girl, who, for a debt of three dollars due by her father, had then, for two years, served a native, who had the reputation of being a spendthrift. I was shown in Borongan a coconut plantation of three hundred trees, which was pledged for a debt of ten dollars about twenty years ago, since which period it had been used by the creditor as his own property; and it was only a few years since that, upon the death of the debtor, his children succeeded, with great difficulty, in paying the original debt and redeeming the property. It is no uncommon thing for a native to borrow two dollars and a half from another in order to purchase his exemption from the forty days of annual service, and then, failing to repay the loan punctually, to serve his creditor for a whole year.*

People of Samar and Leyte.

The inhabitants of Samar and Leyte, who are at once idler and filthier than those of Luzon, seem to be as much behind the Bicols as the latter are behind the Tagalogs.

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* As usual these abuses spring from the non-enforcement of a statute passed in 1848 (*Leg. ult.*, i. 144), which prohibits usurious contracts with servants or assistants, and threatens with heavy penalties all those who, under the pretext of having advanced money, or of having paid debts or the poll-tax or exemption from service, keep either individual natives or whole families in a continual state of dependence upon them, and always secure the increase of their obligations to them by not allowing them wages sufficient to enable them to satisfy the claims against them.

In Tacloban, where a more active intercourse with Manila exists, these qualities are less pronounced, and the women, who are agreeable, bathe frequently. For the rest, the inhabitants of the two islands are friendly, obliging, tractable, and peaceable. Abusive language or violence very rarely occurs, and, in case of injury, information is laid against the offender at the tribunal. Great purity of manners seems to prevail on the north and west coasts, but not on the east coast, nor in Leyte. External piety is universally conspicuous, through the training imparted by the priests; the families are very united, and great influence is wielded by the women, who are principally engaged in household employments, and are tolerably skilful in weaving, and to whom only the lighter labors of the field are assigned. The authority of the parents and of the eldest brother is supreme, the younger sisters never venturing to oppose it; women and children are kindly treated.

Leyte.

The natives of Leyte, clinging as strongly to their native soil as those of Samar, like them, have no partiality for the sea, though their antipathy to it is not quite so manifest as that of the inhabitants of Samar.*

Public charity not accepted.

There are no benevolent institutions in either of the two islands. Each family maintains its own poor and crippled, and treats them tenderly. In Catbalogan, the chief town of the island, with five to six thousand inhabitants, there were only eight recipients of charity; but in Albay mendicants are not wanting. In Lauang, when a Spaniard, on a solemn festival, had caused it to be proclaimed that he would distribute rice to the poor, not a single applicant came forward. The honesty

* Formerly it appears to have been different with them. "These Bisayans are a people little disposed to agriculture, but practised in navigation, and eager for war and expeditions by sea, on account of the pillage and prizes, which they call 'manguban,' which is the same as taking to the field in order to steal."—*Morga*, f. 138.

of the inhabitants of Samar is much commended. Obligations are said to be contracted almost always without written documents, and never forsworn, even if they make default in payment. Robberies are of rare occurrence in Samar, and thefts almost unknown. There are schools also here in the pueblos, which accomplish quite as much as they do in Camarines.

Amusements.

Of the public amusements cock-fighting is the chief, but it is not so eagerly pursued as in Luzon. At the church festivals they perform a drama translated from the Spanish, generally of a religious character; and the expense of the entertainment is defrayed by voluntary contributions of the wealthy. The chief vices of the population are play and drunkenness; in which latter even women and young girls occasionally indulge. The marriage feasts, combining song and dance, often continue for several days and nights together, where they have a sufficient supply of food and drink. The suitor has to serve in the house of the bride's parents two, three, and even five years, before he takes his bride home; and money cannot purchase exemption from this onerous restriction. He boards in the house of the bride's parents who furnish the rice, but he has to supply the vegetables himself.* At the expiration of his term of service he builds, with the assistance of his relations and friends, the house for the family which is about to be newly established.

Suitor's service.

Morals.

Though adultery is not unknown, jealousy is rare, and never leads to violence. The injured individual generally goes with the culprit to the minister, who,

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* Ill-usage prevails to a great extent, although prohibited by a stringent law; the non-enforcement of which by the alcaldes is charged with a penalty of 100 dollars for every single case of neglect. In many provinces the bridegroom pays to the bride's mother, besides the dower, an indemnity for the rearing ("mother's milk") which the bride has enjoyed (*bigay susu*). According to Colin ("Labor Evangelico," p. 129) the *penkimayat*, the present which the mother received for night-watching and care during the bringing up of the bride, amounted to one-fifth of the dowry.

with a severe lecture to one, and words of consolation to the other, sets everything straight again. Married women are more easily accessible than girls, whose prospect of marriage, however, it seems is not greatly diminished by a false step during single life. While under parental authority girls, as a rule, are kept under rigid control, doubtless in order to prolong the time of servitude of the suitor. External appearance is more strictly regarded among the Bisayans than by the Bicols and Tagalogs. Here also the erroneous opinion prevails, that the number of the women exceeds that of the men. Instances occur of girls of twelve being mothers; but they are rare; and though women bear twelve or thirteen children, many of these, however, do not live. So much so is this the case, that families of more than six or eight children are very rarely met with.

Great infant mortality.

Superstition is rife. Besides the little church images of the Virgin, which every Filipina wears by a string round the neck, many also have heathen amulets, of which I had an opportunity of examining one that had been taken from a very daring criminal. It consisted of a small ounce flask, stuffed full of vegetable root fibres, which appeared to have been fried in oil. This flask, which is prepared by the heathen tribes, is accredited with the virtue of making its owner strong and courageous. The capture of this individual was very difficult; but, as soon as the little flask was taken from him, he gave up all resistance, and allowed himself to be bound. In almost every large village there are one or more *Asuang* families who are generally dreaded and avoided, and regarded as outlaws, and who can marry only amongst themselves. They have the reputation of being cannibals.* Perhaps they are descended from such tribes? At any rate, the belief is very general and firmly

Superstitions.

Ghouls.

* The *Asuang* is the ghoul of the Arabian Nights' tales.—*C.*

rooted; and intelligent old natives when questioned by me on the subject, answered that they certainly did not believe that the Asuangs ate men at the present time, but that their forefathers had assuredly done so.*

Ancient literature.

Of ancient legends, traditions, or ballads, it is stated that there are none. It is true they have songs at their dances, but these are spiritless improvisations, and mostly in a high key. They have not preserved any memorials of former civilization. "The ancient Pintados possessed no temples, every one performing his *anitos* in his own house, without any special solemnity"—(*Morga*, f. 145 v). Pigafetta (p. 92) certainly mentions that the King of Cebu, after his conversion to Christianity, caused many temples built on the seashore to be destroyed; but these might only have been structures of a very perishable kind. On certain occasions the Bisayans celebrated a great festival, called *Pandol*, at which they worshipped their gods in huts, which were expressly built for the purpose, covered with foliage, and adorned with flowers and lamps. They called these huts *simba* or *simbahan* (the churches are so called to the present day), "and this is the only thing which they have similar to a church or a temple"—(*Informe*, I., i., 17). According to Gemelli Careri they prayed to some particular gods, derived from their forefathers, who are called by the Bisayans *Davata* (*Divata*), and by the Tagalogs *Anito*; one anito being for the sea and another for the house, to watch over the children.† In the number of these anitos they placed their grandfathers and great-grandfathers, whom they invoked in all their necessities, and

Festivals and shrines.

Ancestor worship.

* Veritable cannibals are not mentioned by the older authors on the Philippines. Pigafetta (p. 127) heard that a people lived on a river at Cape Bantian (north of Mindanao) who ate only the hearts of their captured enemies, along with lemon-juice; and Dr. Semper ("Philippines,") in '62 found the same custom, with the exception of the lemon-juice, on the east coast of Mindanao.

† The Anito occurs amongst the tribes of the Malayan Archipelago as Antu, but the Anito of the Philippines is essentially a protecting spirit, while the Malayan Antu is rather of a demoniacal kind.

in whose honor they preserved little statues of stone, wood, gold, and ivory, which they called *liche* or *laravan*. Amongst their gods they also reckoned all who perished by the sword, or were killed by lightning, or devoured by crocodiles, believing that their souls ascended to heaven on a bow which they called *balangas*. Pigafetta thus describes the idols which were seen by him:—"They are of wood, and concave, or hollow, without any hind quarters, with their arms extended, and their legs and feet bent upwards. They have very large faces, with four powerful teeth like boars' tusks, and are painted all over."*

In conclusion, let me take a brief account of the religion of the ancient Bisayans from Fr. Gaspar San Agustin (Conquest, 169):

Old religion.

The dæmon, or genius, to whom they sacrificed was called by them *Divata*, which appears to denote an antithesis to the Deity, and a rebel against him. Hell was called *Solad*, and Heaven (in the language of the educated people) *Ologan* * * * The souls of the departed go to a mountain in the province of Oton†, called *Medias*, where they are well entertained and served. The creation of the universe is thus explained. A vulture hovering between heaven and earth finds no place to settle himself upon, and the water rises towards heaven; whereupon Heaven, in its wrath, creates islands. The vulture splits a bamboo, out of which spring man and woman, who beget many children, and, when their number becomes too great, drive them out with blows.

Creation myth.

* These idol images have never come under my observation. Those figured in Bastian and Hartmann's *Journal of Ethnology* (b. i. pl. viii. *Idols from the Philippines*,) whose originals are in the Ethnographical Museum of Berlin, were certainly acquired in the Philippines, but, according to A. W. Franks, undoubtedly belong to the Solomon Islands. Sections ii. to viii., p. 46, in the catalogue of the Museum at Prague are entitled:—"Four heads of idols, made of wood, from the Philippines, contributed by the Bohemian naturalist Thaddæus Haenke, who was commissioned by the King of Spain, in the year 1817, to travel in the islands of the South Sea." The photographs, which were obligingly sent here at my request by the direction of the museum, do not entirely correspond to the above description, pointing rather to the west coast of America, the principal field of Haenke's researches. The *Reliquiae Botanicae*, from his posthumous papers, likewise afford no information respecting the origin of these idols.

† On the Island of Panay.

Some conceal themselves in the chamber, and these become the Datos; others in the kitchen, and these become the slaves. The rest go down the stairs and become the people.

XXIII

Ports of entry.

In 1830 seven new ports were opened as an experiment, but, owing to great frauds in the charges, were soon afterwards closed again. In 1831 a custom-house was established at Zamboanga, on the south-west point of Mindanao; and in 1855 Sual, in the Gulf of Lingayen, one of the safest harbors on the west coast of Luzon, and Iloilo in Panay, were thrown open; and in 1863 Cebu, on the island of the same name, for the direct communication with foreign countries.

Old Zamboanga fort.

Before 1635 the Spaniards had established a fort at Zamboanga, which, although it certainly could not wholly prevent the piratical excursions against the colonies, yet considerably diminished them.* Until 1848 from eight hundred to fifteen hundred individuals are stated to have been carried off yearly by the Moros.† The establishment of this custom-house has, therefore, been based upon political rather than commercial motives, it being found desirable to open an easily accessible place to the piratical states of the Sulu Sea for the disposal of their products. Trade, up to the present date, is but of very inconsiderable amount, the exports consisting chiefly of a little coffee (in 1871 nearly six thousand piculs), which, from bad management, is worth thirty per cent. less than Manila coffee, and of the collected products of the forest and of the water, such as wax, birds'-nests, tortoise-shell, pearls, mother-of-pearl, and edible holothuria. This trade,

Exports.

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* As an example, in anticipation of an attack on Cogseng, all the available forces, including those of Zamboanga, were collected round Manila, and the Moros attacked the island with sixty ships, whereas formerly their armaments used not to exceed six or eight ships. Torrubia, p. 363.

† Hakluyt Morga, Append. 360.

as well as that with Sulu, is entirely in the hands of the Chinese, who alone possess the patience, adaptiveness, and adroitness which are required for the purpose.

Sual's foreign trade.

Sual is specially important for its exports of rice; and its foreign trade is therefore affected by the results of the harvests in Saigon, Burma, and China. In 1868, when the harvests in those countries turned out good, Sual carried on only a coasting trade.

Cebu.

Cebu (with a population of 34,000) is the chief town of the island of the same name, the seat of Government and of the bishop of the Bisayas, and within forty-eight hours from Manila by steamer. It is as favorably situated with regard to the eatern portion of the Bisayan group as Iloilo is for the western, and is acquiring increased importance as the emporium for its products. Sugar and tobacco are obtained from Bohol; rice from Panay; abacá from Leyte and Mindanao; and coffee, wax, Spanish cane, and mother-of-pearl from Misamis (Mindanao). Its distance from Samar is twenty-six, from Leyte two and a half, from Bohol four, and from Negros eighteen miles.

Cebu island.

The island of Cebu extends over seventy-five square miles. A lofty mountain range traverses it from north to south, dividing the east from the west side, and its population is estimated at 340,000,—4,533 to the square mile. The inhabitants are peaceable and docile; thefts occur very seldom, and robberies never. Their occupations are agriculture, fishing, and weaving for home consumption. Cebu produces sugar, tobacco, maize, rice, etc., and in the mountains potatoes; but the rice produced does not suffice for their requirements, there being only a little level land, and the deficiency is imported from Panay.

Land tenure.

The island possesses considerable beds of coal, the full yield of which may now be looked for, as the duty

on export was abandoned by a decree of the 5th of May, 1869.* While in Luzon and Panay the land is for the most part the property of the peasantry, in Cebu it mostly belongs to the mestizos, and is let out by them, in very small allotments, upon lease. The owners of the soil know how to keep the peasants in a state of dependence by usurious loans; and one of the results of this abuse is that agriculture in this island stands lower than in almost any other part of the archipelago.†

Customhouse data.

The entire value of the exports in 1868 amounted to $1,181,050; of which sugar to the value of $481,127, and abacá to the value of $378,256; went to England, abacá amounting to $112,000 to America, and tobacco to $118,260 to Spain. The imports of foreign goods, mostly by the Chinese, come through Manila, where they purchase from the foreign import houses. The value of these imports amounted in 1868 to $182,522; of which $150,000 were for English cotton stuffs. The entire imports of the island were estimated at $1,243,582, and the exports at $226,898. Among the importations were twenty chests of images, a sign of the deeply-rooted worship of the Virgin. Formerly the products for exportation were bought up by the foreign merchants, mostly Chinese mestizos; but now they are bought

* According to the *Mineral Review*, Madrid, 1866, xvii. 244, the coal from the mountain of Alpacó, in the district of Naga, in Cebu, is dry, pure, almost free of sulphur pyrites, burns easily, and with a strong flame. In the experiments made at the laboratory of the School of Mines in Madrid it yielded four per cent. of ashes, and a heating power of 4,825 calcria; *i. e.*, by the burning of one part by weight 4,825 parts by weight of water were heated to 1° C. Good pit-coal gives 6,000 cal. The first coal pits in Cebu were excavated in the Massanga valley; but the works were discontinued in 1859, after considerable outlay had been made on them. Four strata of considerable thickness were subsequently discovered in the valley of Alpacó and in the mountain of Oling, in Naga. * * "The coal of Cebu is acknowledged to be better than that of Australia and Labuan, but has not sufficient heating power to be used, unmixed with other coal, on long sea voyages."

According to the Catalogue of the Products of the Philippines (Manila, 1866), the coal strata of Cebu have, at many places in the mountain range which runs from north to south across the whole of the island, an average thickness of two miles. The coal is of middling quality, and is burnt in the Government steam works after being mixed with Cardiff coal. The price in Cebu is on the average six dollars per ton.

† English Consular Report, 217.

direct from the producers, who thus obtain better prices in consequence of the abolition of the high brokerages. To this and to the energy of the foreign merchants, under favorable circumstances, is the gradual improvement of agriculture principally to be ascribed.

Iloilo. Iloilo is the most important of the newly opened ports, being the central point of the Bisayan group, and situated in one of the most thickly populated and industrious provinces. Nicholas Loney* estimates the export of goods woven from the fiber of the piña, from Iloilo, and the neighboring provinces, at about one million dollars annually. The harbor is excellent, being completely protected by an island which lies immediately before it; and at high tide there is about twelve feet of water close in shore for vessels to lie in. On account of the bar, however, ships of a deeper draught than this are obliged to complete their loading outside. Previous to the opening of the new harbors, all the provinces were compelled as well to bring their products intended for exportation to Manila, as to receive from the same place their foreign imports; the cost of which therefore was greatly increased through the extra expenses incurred by the double voyage, reloading, brokerage, and wharfage charges. According to a written account by N. Loney, it is shown how profitable, even after a few years, the opening of Iloilo has been to the provinces immediately adjoining—the islands of Panay and Negros.

Sugar. The higher prices which can be obtained for directly exported sugar, combined with the facility and security of the trade as contrasted with the late monopoly enjoyed by Manila, have occasioned a great extension of the cultivation of that article. Not only in Iloilo, but also in Antique and Negros, many new plantations have

* The man credited with the development of the sugar industry through machinery. A monument has been erected to his memory.—T.

arisen, and the old ones have been enlarged as much as possible; and not less important has been the progress in the manufacture. In 1857 there was not one iron mill to be found on the island; so that, in working with the wooden mill, about thirty per cent. of the sap remained in the cane, even after it had thrice passed through. The old wooden presses, which were worked by steam or carabaos, have now been supplanted by new ones; and these the native planters have no difficulty in obtaining, as they can get them on credit from the warehouses of the English importers. Instead of the old Chinese cast-iron pans which were in use, far superior articles have been imported from Europe; and many large factories worked by steam-power and with all modern improvements have been established. In agriculture, likewise, creditable progress is noticeable. Improved ploughs, carts, and farming implements generally, are to be had in plenty. These changes naturally show how important it was to establish at different points, extending over two hundred miles of the Archipelago, commercial centers, where it was desirable that foreigners should settle. Without these latter, and the facilities afforded to credit which thereby ensued, the sudden rise and prosperity of Iloilo would not have been possible, inasmuch as the mercantile houses in that capital would have been debarred from trading with unknown planters in distant provinces, otherwise than for ready money. A large number of half-castes, too, who before traded in manufactured goods purchased in Manila, were enabled after this to send their goods direct to the provinces, to the foreign firms settled there; and as, ultimately, neither these latter nor the Chinese retail dealers could successfully compete with them, the result has been that, as much to their own profit as to that of the country, they have betaken themselves to

the cultivation of sugar. In this manner important plantations have been established in Negros, which are managed by natives of Iloilo: but there is a scarcity of laborers on the island.

Land disputes.

Foreigners now can legally acquire property, and possess a marketable title; in which respect the law, until a very recent period, was of an extremely uncertain nature. Land is to be obtained by purchase, or, when not already taken up, by "denuncia" (*i. e.* priority of claim). In such case, the would-be possessor of the land must enter into an undertaking in the nearest of the native Courts to cultivate and keep the said land in a fit and serviceable condition. Should no other claim be put in, notice is thereupon given of the grant, and the magistrate or alcalde concludes the compact without other cost than the usual stamp duty.

Lack of capital for large plantations.

Many mestizos and natives, not having the necessary capital to carry on a large plantation successfully, sell the fields which they have already partially cultivated to European capitalists, who are thus relieved of all the preliminary tedious work. Evidently the Colonial Government is now sincerely disposed to favor the laying out of large plantations.

Lack of roads.

The want of good roads is particularly felt: but, with the increase of agriculture, this defect will naturally be remedied; and, moreover, most of the sugar factories are situated on rivers which are unnavigable even by flat freight boats. The value of land in many parts of the country has doubled within the last ten years.*

Sugar prices.

Up to 1854 the picul of sugar was worth in Iloilo from $1.05 to $1.25 and seldom over $2.00 in Manila;

* In Jaro the leases have increased threefold in six years: and cattle which were worth $10 in 1860, fetched $25 in 1866. Plots of land on the "Ria," in Iloilo, have risen from $100 to $500, and even as high as $800. (*Diario*, February 1867). These results are to be ascribed to the sugar trade, which, through free exportation, has become extremely lucrative.

in 1866, $3.25; and in 1868, $4.75 to $5.00 in Iloilo. The business in Iloilo therefore shows an increase of $1.75 per picul.*

Negros.

At the end of 1866 there were as many as twenty Europeans established on the island of Negros as sugar planters, besides a number of mestizos. Some of them were working with steam machinery and vacuum pans. The general rate of pay is from $2.05 to $3.00 per month. On some plantations the principle of *aesa*, *i. e.* part share, is in operation. The owner lets out a piece of ground, providing draught cattle and all necessary ploughing implements, to a native, who works it, and supplies the mill with the cut cane, receiving as payment a share, generally a third, of the product. In Negros the violet cane is cultivated, and in Manila the white (Otaheiti). The land does not require manuring. On new ground, or what we may term virgin soil, the cane often grows to a height of thirteen feet. A vast improvement is to be observed in the mode of dress of the people. Piña and silk stuffs are beoming quite common. Advance in luxury is always a favorable sign; according to the increase of requirements, industry flourishes in proportion.

The future sugar market.

As I have already mentioned, California, Japan, China, and Australia appear designed by nature to be the principal consumers of the products of the Philippine Islands. Certainly at present England is the best customer; but nearly half the account is for sugar, in consequence of their own custom duties. Sometimes it happens that not more than one-fourth of the sugar crop is sufficiently refined to compete in the Australian and Californian markets with the sorts from Bengal, Java,

* In 1855 Iloilo took altogether from Negros 3,000 piculs out of 11,700; in 1860 as much as 90,000 piculs; in 1863, 176,000 piculs (in twenty-seven foreign ships); in 1866, 250,000 piculs; in 1871, 312,379 piculs from both islands.

and the Mauritius; the remaining three-fourths, if particularly white, must perforce undertake the long voyage to England, despite the high freight and certain loss on the voyage of from ten to twelve per cent. through the leakage of the molasses. The inferior quality of the Philippine sugar is at once perceived by the English refiners, and is only taxed at 8*s*. per cwt., while purer sorts pay 10*s*. to 12*s*.*

A valuable by-product.

In this manner the English customs favor the inferior qualities of manufactured sugar. The colonial Government did not allow those engaged in the manufacture of sugar to distil rum from the molasses until the year 1862. They had, therefore, little inducement to extract, at a certain expense, a substance the value on which they were not permitted to realize; but under ordinary circumstances the distillation of the rum not only covered the cost of refining, but gave, in addition, a fair margin of profit.

XXIV

Manila hemp.

ONE of the most interesting productions of the island is Manila hemp. The French, who, however, hardly use it, call it "Silk-Plant," because of its silky appearance.

The natives call the fiber *bandala*, and in commerce (generally speaking) *abacá*, just as the plant from which it is obtained.

Abacá.

The latter is a wild species of banana growing in the Philippine Islands, known also as Arbol de Cañamo (hemp-tree), *Musa textilis*, Lin. It does not differ in

* The sugar intended for the English market cost in Manila, in the years 1868 and 1869, from £15 to £16 per ton, and fetched in London about £20 per ton. The best refined sugar prepared in Manila for Australia was, on account of the higher duty, worth only £3 per ton more in London; but, being £5 dearer than the inferior quality, it commanded a premium of £2. Manila exports the sugar chiefly from Pangasinan, Pampanga, and Laguna.—(From private information.)

appearance to any great extent from the edible banana (*Musa paradisiaca*), one of the most important plants of the torrid zone, and familiar to us as being one of our most beautiful hot-house favorites.

Undetermined plant relations.

Whether this and the "musæ" (*M. troglodytarum*, *M. sylvestris*, and others), frequently known, too, as *M. textilis*, are of the same species, has not yet been determined. The species Musaceæ are herbaceous plants only. The outer stem consists of crescent-shaped petioles crossing one another alternately, and encircling the thin main stem. These petioles contain a quantity of bast fiber, which is used as string, but otherwise is of no commercial value. The serviceable hemp fiber has, up to the present time, been exclusively obtained from the southern portion of the Philippines.

Abacá districts.

The southern Camarines and Albay are favorably adapted for the cultivation of this plant, as are also the islands of Samar and Leyte, and the adjacent islands; and Cebu likewise, although a portion of the so-called "Cebu hemp" comes from Mindanao. In Negros the bast-banana thrives only in the south, not in the north; and Iloilo, which produces most of the hemp cloth (*guinara*), is obliged to import the raw material from the eastern district, as it does not flourish in the island of Panay. In Capiz, it is true, some abacá may be noticed growing, but it is of trifling value. Hitherto all attempts, strenuous though the efforts were, to acclimatize the growth of hemp in the western and northern provinces have failed. The plants rarely grow as high as two feet, and the trouble and expense are simply unremunerative. This failure may be accounted for by the extreme dryness prevailing during many months of the year, whereas in the eastern provinces plentiful showers fall the whole year round.

Peculiar to the Philippines.

The great profit which the Manila hemp has yielded in the few years since its production, however, has given encouragement to still further experiments; so that, indeed, it will shortly be shown whether the cultivation of abacá is to be confined to its present limited area, while the edible species of banana has spread itself over the whole surface of the earth within the tropics. On the volcanic mountains of Western Java a species of the Musaceæ grows in great luxuriance. The Government has not, however, made any real effort to cultivate it, and what has been done in that respect has been effected, up to the present date, by private enterprise. Various writers have stated that abacá is to be obtained in the north of the Celebes. Bickmore, however, says positively that the inhabitants having made great efforts in attempting its successful cultivation, have abandoned it again in favor of the cultivation of coffee, which is found to be far more profitable.* According to previous statements, Guadaloupe appears to be able to produce abacá (fiber of the *M. textilis?*);† and Pondicherry and Guadaloupe have produced fabrics woven from abacá, and French Guiana stuffs from the fiber of the edible banana;‡ all these, however, are only experiments.

Superiority o fiber.

Royle affirms that the Manila hemp (abacá fiber) excels the Russian in firmness, lightness, and strength in tension, as well as in cheapness, and has only the one disadvantage that ropes made from it become stiff in wet weather. The reason, however, is found in the manner in which it is spun, and may be avoided by

* *The Islands of the East Indian Archipelago*, 1858, p. 340.

† Exhibition Catalogue: section, French Colonies, 1867, p. 80.

‡ Report of the Commissioners, Exhibition 1867, iv. 102. The South American Indians have for a long time past employed the banana fiber in the manufacture of clothing material;—(The *Technologist*, September, 1865, p. 89, from unauthenticated sources,) and in Loo Choo the banana fiber is the only kind in use (*Faits Commerciaux*, No. 1514. p. 36).

proper preparation.* Through the better preparation of the raw material in Manila by means of adequate machinery, these difficulties have been overcome; but abacá no longer has the advantage of superior cheapness, as the demand has increased much faster than the supply. During the year 1859 it was worth from £22 to £25 per ton; in 1868, £45 per ton; while Russian hemp fetched £31 per ton. Thus in nine years it rose to double its value.

Banana varieties.

In Albay there are about twelve varieties of the best banana cultivated, which are particularly favored by the qualities of the soil. The cultivation is extremely simple, and entirely independent of the seasons. The plants thrive best on the slopes of the volcanic mountains (in which Albay and Camarines abound), in open spaces of the woods protected by the trees, which cast their shadows to an extent of about sixty feet. In exposed level ground they do not thrive so well, and in marshy land not at all.

Cultivation.

In the laying out of a new plantation the young shoots are generally made use of, which sprout so abundantly from the roots that each individual one soon becomes a perfect plant. In favorable ground the custom is to allow a distance of about ten feet between each plant; in poor ground six feet. The only care necessary is the extermination of the weeds, and clearing away the undergrowth during the first season; later on, the plants grow so luxuriantly and strongly that they entirely prevent the growth of anything else in their vicinity. The protection afforded by the shade of the trees at this period is no longer required, the young buds finding sufficient protection against the sun's rays under cover of the fan-like leaves. Only in excep-

* Abacá not readily taking tar is, consequently, only used for running, and not standing, rigging.

tional cases, contrary to the usual practice, are the plants raised from seed. The fruit, when ready, is cut off and dried, though care must be taken that it is not over ripe; otherwise the kernels will not germinate. These latter are about the size of peppercorns; and the extraction of them in the edible species almost always brings about decay. Two days before sowing, the kernels are taken out of the fruit, and steeped overnight in water; on the following day they are dried in a shady place; and on the third day they are sown in holes an inch deep in fresh, unbroken, and well-shaded forest ground, allowing six inches distance between each plant and row. After a year the seedlings, which are then about two feet high, are planted out, and tended in the same way as the suckers. While many of the edible bananas bear fruit after one year, and a few varieties even after six months, the abacá plant requires on an average three years to produce its fiber in a proper condition; when raised from suckers four years; and raised from year-old seedlings, even under the most favorable conditions, two years.

Differences with abacá.

On the first crop, only one stalk is cut from each bush; but later on the new branches grow so quickly that they can be cut every two months.* After a few years the plants become so strong and dense that it is scarcely possible to push through them. Bast is in its best condition at the time of blossoming; but, when the price of the fiber happens to stand high in the market, this particular time is not always waited for.

Cutting.

Plants which have blossomed cease to be profitable in any way, by reason of the fiber becoming too weak—a matter of too great nicety for the unpractical consummers on the other side of the Atlantic to decide

Prejudice against cutting after blossoming.

* A plant in full growth produces annually 30 cwt. bandala to the acre, whereas from an acre of flax not more than from 2 to 4 cwt. of pure flax, and from 2 to 8 cwt. seed can be obtained.

upon, and one in which, despite inquiries and careful inspections, they might be deceived. There really is no perceptible reason why the fiber should become weaker through fructification, which simply consists in the fact of the contents of the vascular cells changing into soluble matter, and gradually oozing away, the consequence of which is that the cells of the fiber are not replenished. These, on the contrary, acquire additional strength with the age of the plant, because the emptied cells cling so firmly together, by means of a certain resinous deposit, that it is impossible to obtain them unbroken without a great deal of trouble. The idea may have erroneously arisen from the circumstance that, previously to drying, as with hemp, the old plants were picked out, and allowed to be thrown away, though not without considerably increasing the rate of pay, which already consumed the greater part of the general expenses.*

Extracting the fiber.

In order to obtain the bast, the stalk above ground is closely pruned and freed from leaves and other encumbrances; each leaf is then singly divided into strips—a cross incision being made through the membrane on the inner or concave side, and connected by means of the pulpy parts (the parenchym) clinging together. In this manner as much as possible of the clear outer skin only remains behind. Another method is to strip the bast from the undivided stem. To effect this the operator makes an oblique incision in the skin of the under part of the stalk, drawing the knife gradually to the tip, and stripping off the whole length as broad a piece as possible; and the operation is repeated as many times as practicable. This method of handling

* As Dr. Wittmack communicated to me, only fiber or seed can be obtained from hemp, as when the hemp is ripe, i.e. run to seed, the fiber becomes then both brittle and coarse. When cultivating flax very often both seeds and fiber are used, but then they both are of inferior quality.

is more productive than the one previously described; but, on the other hand, it takes considerably more time, and for that reason is not often practised. The strips of bast are then drawn under a knife, the blade of which is three inches broad by six long, fastened at one end to the extremity of a flexible stick so that it is suspended perpendicularly over a well-smoothed block, and at the other end to a handle connected by means of a cord to a treadle, which can be pressed firmly down, as occasion requires. The workman draws the bast, without any regard to quality, between the knife and block, commencing in the middle, and then from side to side. The knife must be free from notches, or all indentations, according to the direction of Father Blanco.*

Laborers' work and wages.

Three hired-men usually get twenty-five pounds per day. One worker cuts up the stalks, strips off the leaves, and attends to the supply; the second, frequently a boy, spreads out the strips; and the third draws them under the knife. A single plant has been known to yield as much as two pounds of fiber; but the most favorable average rarely affords more than one pound, and plants grown in indifferent soil scarcely a sixth of that quantity. The plantations are worked either by the owner or by day-laborers, who, when the market prices are very low, take half share of the crop harvested by them. In these cases an industrious workman may obtain as much as one picul in a week. During my stay exceptionally low prices ruled—sixteen and one-half reals per picul undelivered. The workman could, therefore, in six days earn half the amount, viz., eight and a quarter reals at a rate of one and three-eighths

* *Flora de Filipinas.*

reals per day. The day's pay at that time was half a real, and board a quarter of a real, making together three-quarters of a real.

Profit.

	By daily pay.		*Half share.*
The workman therefore earned daily	0.75 *r.*	or	1.375 *r.*
Wages amounted to per picul	12. 6 *r.*	or	8. 25 *r.*
Profit of the planters after deduction of the wages	3. 9 *r.*	or	8. 25 *r.*

Lupis and bandala.

The edges of the petioles, which contain much finer fiber than the middle parts, are separately divided into strips an inch wide, and with strong pressure are drawn several times under the knife. This substance, which is called *lupis*, is in high request, being employed in the native weaving; while *bandala* is chiefly used for ships' rigging.*

Grades of lupis.

Lupis, according to the fineness of the fiber, is sorted into four classes—first, *Binani*; second, *Tologna*; third, *Sogotan*; and fourth, *Cadaclan*. A bundle of these is then taken up in the left hand, and, while with the right the first three sorts are inserted between the fingers, the fourth is held between the thumb and forefinger. This last description is no longer used in fine weaving, and is therefore sold with *bandala*. After the fine sorts have been pounded in a rice-mortar, in order to render the fiber soft and pliable, they are severally knotted into one another, and converted into web.

Lupis fabrics.

Generally the first sort is worked as woof with the second as warp, and the third as warp with the second as woof. The fabrics so woven are nearly as fine as piña fabrics (*Nipis de Piña*), and almost equal the best quality of cambric; and, notwithstanding the many little nodules occasioned by the tangling of the fiber, which may be discerned on close inspection, are clearer and

* In 1868, £100 per ton was paid for lupis, although only imported in small quantities—about five tons per annum—and principally used at one time in France in the manufacture of a particular kind of underclothing. The fashion soon, however, died out. Quitol, a less valuable sort of lupis, could be sold at £75 per ton.

stouter, and possess a warmer yellowish tint.* As to these last three qualities—purity, flexibility, and color—they stand in relation to cambric somewhat as cardboard to tissue-paper.

Weaving.

Weaving such fabrics on very simple looms is exceedingly troublesome as the fibers, which are not spun but twisted, very frequently break. The finest stuffs require so great an amount of dexterity, patience, and time in their preparation, and for that reason are so expensive, that they would find no purchasers in Europe where there is the competition of cheap, machine-made goods. Their fine, warm yellowish color also is objected to by the European women, who are accustomed to linen and calicoes strongly blued in the washing. In the country, however, high prices are paid for them by the rich mestizos, who understand the real goodness of their qualities.

Bandala fabrics.

The fibers of the inner petioles, which are softer but not so strong as the outer, are called *lupus*, and sold with *bandala*, or mixed with *tapis* and used in the native weaving. *Bandala* also serves for weaving purposes; and, in that portion of the Archipelago where the native abacá plantations are, the entire dress of both sexes is made of coarse *guinara*. Still coarser and stronger fabrics are prepared for the European market, such as crinoline and stiff muslin used by dressmakers.

A Pre-Spanish product.

Before the arrival of the Spaniards the natives wore stuffs from abacá; which became an important article of export only some few decades since. This is in great measure due to the enterprising spirit of two American firms, and would not have been attained without great perseverance and liberal pecuniary assistance.

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* Inflexibility is peculiar to all fibers of the Monocotyledons, because they consist of conrsely rounded cells. On the other hand, the true bast fibers—the Dicotyledons (flax, for instance)—are the reverse.

Unbusinesslike early methods.

The plants flourish without any care or attention, the only trouble being to collect the fiber; and, the bounteousness of Nature having provided them against want, the natives shirk even this trouble when the market price is not very enticing. In general low prices are scarcely to be reckoned on, because of the utter indifference of the laborers, over whom the traders do not possess enough influence to keep them at work. Advances to them are made both in goods and money, which the creditor must repay either by produce from his own plantation or by giving an equivalent in labor.* As long as the produce stands high in price, everything goes on pretty smoothly, although even then, through the dishonesty of the workers and the laziness, extravagance, and mercantile incapacity of the middlemen, considerable loss frequently ensues. If, however, prices experience any considerable fall, then the laborers seek in any and every way to get out of their uncomfortable position, whilst the percentage of profit secured to the middleman is barely sufficient to cover the interest on his outlay. Nevertheless, they must still continue the supplies, inasmuch as they possess no other means of securing payment of their debt in the future. The laborers, in their turn, bring bitter complaints against the agents, to the effect that they are forced to severe labor, unprofitable to themselves, through their acceptance of advances made to them at most exorbitant rates; and the agents (generally mestizos or creoles) blame the crafty, greedy,

* Through the agricultural system, also, the mestizos and natives secure the work of their countrymen by making these advances, and renewing them before the old ones are paid off. These thoughtless people consequently fall deeper and deeper into debt, and become virtually the peons of their creditors, it being impossible for them to escape in any way from their position. The "part-share contract" is much the same in its operative effects, the landlord having to supply the farmer with agricultural implements and draught-cattle, and often in addition supplying the whole family with clothing and provisions; and, on division of the earnings, the farmer is unable to cover his debt. It is true the Filipinos are responsible legally to the extent of five dollars only, a special enactment prohibiting these usurious bargains. As a matter of fact, however, they are generally practised.

extortionate foreigners, who shamelessly tempt the lords of the soil with false promises, and bring about their utter ruin. As a general rule, the "crafty foreigner" experiences a considerable diminution of his capital. It was just so that one of the most important firms suffered the loss of a very large sum. At length, however, the Americans, who had capital invested in this trade, succeeded in putting an end to the custom of advances, which hitherto had prevailed, erected stores and presses on their own account, and bought through their agents direct from the growers. All earlier efforts tending in this direction had been effectually thwarted by the Spaniards and creoles, who considered the profits derived from the country, and especially the inland retail trade, to be their own by prescriptive right. They are particularly jealous of the foreign intruders, who enrich themselves at their expense; consequently they place every obstacle in their way. If it depended upon the will of these people, all foreigners would be ejected from the country—the Chinese alone, as workmen (coolies), being allowed to remain.*

Change to a safer basis.

The same feeling was exhibited by the natives towards the Chinese, whom they hated for being industrious and trustworthy workers. All attempts to carry out great undertakings by means of Chinese labor were frustrated by the native workmen intimidating them, and driving them away either by open violence or by secret persecution; and the Colonial authorities were reproached for not affording suitable protection against these and similar outrages. That, as a rule, great undertakings did not succeed in the Philippines, or at least did not yield a profit commensurate with the outlay and trouble, is a fact beyond dispute, and is solely to be ascribed to many of the

Anti-Chinese feeling.

* This feeling of jealousy had very nearly the effect of closing the new harbors immediately after they were opened.

circumstances related above. There are those, however, who explain these mishaps in other ways, and insist upon the fact that the natives work well enough when they are punctually and sufficiently paid. The Government, at any rate, appears gradually to have come to the conclusion that the resources of the country cannot be properly opened up without the assistance of the capital and enterprise of the foreigners; and, therefore, of late years it has not in any way interfered with their establishment. In 1869 their right of establishment was tardily conceded to them by law.

Good work for good pay.

Tardy justice to foreigners.

Abacá production and prospects.

At this period the prospects of the abacá cultivation seemed very promising; and since the close of the American war, which had the effect of causing a considerable fall in the value of this article in America, the prices have been steadily increasing. It is stated (on authority) that, in 1840, 136,034 piculs of abacá, to the value of $397,995 were exported, the value per picul being reckoned at about $2.09. The rate gradually rose and stood between four and five dollars—and, during the civil war, reached the enormous sum of nine dollars per picul—the export of Russian hemp preventing, however, a further rise. This state of affairs occasioned the laying out of many new plantations, the produce of which, when it came on the market, after three years, was valued at $3.50 per picul, in consequence of the prices having returned to their normal condition; and even then it paid to take up an existing plantation, but not to lay out a new one. This rate continued until 1860, since which time it has gradually risen (only during the American civil war was there any stoppage), and it now stands once more as high as during the civil war; and there is no apparent prospect of a fall so long as the Philippines have no competitors in the trade. In 1866 the picul in Manila never cost less than $7 which two years previously

was the maximum value; and it rose gradually, until $9.50 was asked for ordinary qualities. The production in many provinces had reached the extreme limit; and a further increase, in the former at least, is impossible, as the work of cultivation occupies the whole of the male population—an evidence surely that a suitable recompense will overcome any natural laziness of the natives.*

An examination of the following table will confirm the accuracy of these views:—

EXPORT OF ABACÁ (In Piculs).

To	1861	1864	1866	1868	1870	1871
Great Britain	198,954	226,258	96,000	125,540	131,180	143,498
North America, Atlantic Ports	158,610	249,106	280,000	294,728	327,728	285,112
California	6,600	9,426	—	14,200	15,900	22,500
Europe	901	1,134	—	200	244	640
Australia	16	5,194	—	21,244	11,434	6,716
Singapore	2,648	1,932	—	3,646	1,202	2,992
China	5,531	302	—	—	882	2,294
TOTAL	273,260	493,352	406,682	460,558	488,570	463,752
	Commercial Report	Prussian Consular Report	Belgian Consular Report	English Consular Report	Market Report, T. H. & Co.	

Export of "Manila hemp."

The consumption in the country is not contained in the above schedule, and is difficult to ascertain; but it must certainly be very considerable, as the natives throughout entire provinces are clothed in *quinara*, the weaving of which for the family requirements generally is done at home.

Large local consumption.

Sisal, also sisal-hemp, or, as it is sometimes known, Mexican grass, has for some years past been used in the trade in increasing quantities as a substitute for abacá, which it somewhat resembles in appearance, though wanting that fine gloss which the latter possesses. It is somewhat weaker, and costs from £5 to £10 less per ton; it is only used for ships' rigging. The refuse from it has been found an extremely useful adjunct to the ma-

Sisal-hemp.

* *Rapport Consulaire Belge*, XIV., 68.

terials ordinarily used in the manufacture of paper. The *Technologist* for July, 1865, calls attention to the origin of this substitute, in a detailed essay differing essentially from the representations contained in the "U. S. Agricultural Report" published at Washington in 1870; and the growing importance of the article, and the ignorance prevailing abroad as to its extraction, may render a short account of it acceptable. The description shows the superior fineness of the abacá fiber, but not its greater strength.*

Sisal-hemp, which is named after the export harbor of Sisal (in the north-western part of the peninsula), is by far the most important product of Yucatan; and this rocky, sun-burnt country seems peculiarly adapted to the growth of the fiber. In Yucatan the fiber is known as *jenequem*, as indeed the plant is obtained from it. Of the latter there are seven sorts or varieties for purposes of cultivation; only two, the first and seventh, are also to be found in a wild state. First, *Chelem*, apparently identical with *Agave angustifolia*; this ranks first. Second, *Yaxci* (pronounced Yachki; from *yax*, green, and *ki*, agave), the second in order; this is used only for fine weaving. Third, *Sacci* (pronounced Sakki; *sack*, white), the most important and productive, supplying almost exclusively the fiber for exportation; each plant yields annually twenty-five leaves, weighing twenty-five pounds, from which is obtained one pound of clear fiber. Fourth, *Chucumci*, similar to No. 3, but coarser. Fifth, *Babci*; the fiber very fair, but the leaves rather small, therefore not very productive. Sixth, *Citamci* (pronounced Kitamki; *kitam*, hog);

Varieties of sisal.

* In the Agricultural Report of 1869, p. 232, another fiber was highly mentioned, belonging to a plant very closely reinted to sisal (*Bromelia Sylvestris*), perhaps even a variety of the same. The Mexican name, *ixtle*, is possibly derived from the fact of their curiously flattened, spike-edged leaves, resembling the dentated knives formed from volcanic stone (obsidian) possessed by the Aztecs and termed by them *ixtli*.

neither good nor productive. Seventh, *Cajun* or *Cajum*, probably *Fourcroya cubensis*; leaves small, from four to five inches long.

Machine-spinning.

The cultivation of sisal has only in recent times been prosecuted vigorously; and the extraction of the fiber from the leaves, and the subsequent spinning for ships' rigging, are already done by steam-machinery. This occupation is especially practiced by the Maya Indians, a memorial of the Toltecs, who brought it with them upon their emigration from Mexico, where it was in vogue long before the arrival of the Spaniards.

Profit.

The sisal cultivation yields an annual profit of 95 per cent. A *mecate*, equal to five hundred seventy-six square yards (*varas*), contains sixty-four plants, giving sixty-four pounds of clear fiber, of the value of $3.84; which, after deducting $1.71, the cost of obtaining it, leaves $2.13 remaining. The harvesting commences from four to five years after the first laying out of the plantation, and continues annually for about fifty or sixty years.

Banana substitute unsatisfactory.

In tropical countries there is scarcely a hut to be seen without banana trees surrounding it; and the idea presented itself to many to utilize the fiber of these plants, at that time entirely neglected, which might be done by the mere labor of obtaining it; besides which, the little labor required for their proper cultivation is quickly and amply repaid by their abundant fruitfulness.*

* The banana trees are well known to be among the most valuable of plants to mankind. In their unripe state they afford starch-flour; and when mature, they supply an agreeable and nutritious fruit, which, although partaken of freely, will produce neither unpleasantness nor any injurious after-effects. One of the best of the edible species bears fruit as early as five or six months after being planted, suckers in the meantime constantly sprouting from the roots, so that continual fruit-bearing is going on, the labor of the growers merely being confined to the occasional cutting down of the old plants and to gathering in the fruit. The broad leaves afford to other young plants the shade which is so requisite in tropical countries, and are employed in many useful ways about the house. Many a hut, too, has to thank the banana trees surrounding it from the conflagration, which, generally speaking, lays the village in ashes. I should here like to make an observation upon a mistake which has spread rather widely. In Bishop Pallegoix's excellent work, *Description du Royaume Thaï ou Siam*, I. 144, he says: "*L'arbre a vernis qui est une espece de bananier, et que les Siamois appellent 'rak,' fournit ce beau vernis qu'on admire dans les petits meubles qu'on apporte de Chine.*" When I was in Bangkok, I called the attention of the amiable white-haired, and at that time nearly nonagenarian, bishop to this curious statement. Shaking his head, he said he could not have written it. I showed him the very passage. "*Ma foi, j'ai dit une betise; j'en ai dit bien d'autres,*" whispered he in my ear, holding up his hand as if afraid somebody might overhear him.

This idea, however, under the existing circumstances, would certainly not be advantageous in the Philippines, as it does not pay to obtain bast from the genuine abacá plant as soon as it has borne fruit. The fiber of the edible banana might very well be used as material for paper-making, though obtaining it would cost more than the genuine bandala.

Fiber-extracting machinery.

In the Report of the Council of the Society of Arts, London, May 11, 1860, attention was called to a machine invented by F. Burke, of Montserrat, for obtaining fiber from banana and other endogenous plants. While all the earlier machines worked the fiber parallelwise, this one operated obliquely on it; the consequence of which was that it was turned out particularly clear. With this machine, from seven to nine per cent. of fibrous substance may be obtained from the banana. The Tropical Fiber Company have sent these machines to Demerara, also to Java and other places, with the design of spinning the fiber of the edible banana, and also to utilize some portions of the plant as materials in the manufacture of paper. Proofs have already been brought forward of fiber obtained in this manner in Java, the value of which to the spinner has been reckoned at from £20 to £25. It does not appear, however, that these promising experiments have led to any important results; at least, the consular reports which have come to hand contain no information on the subject. In the obtaining of bandala in the Philippines this machine has not yet been used; nor has it even been seen, though the English consul, in his latest report, complains that all the hitherto ingeniously constructed machines have proved virtually useless.

The bast of the edible banana continues still to be used in the Philippines, notwithstanding that the plants, instead of being grown, as in many parts of America,

in large well-tended gardens, are here scattered around the huts; but the forwarding of the raw material, the local transport, and the high freightage will always render this material too expensive for the European market (considering always its very ordinary quality)—£10 per ton at the very least; while "Sparto grass" (*Lygaeum spartum*, Lœffl.), which was imported some few years since in considerable quantities for the purpose of paper-making, costs in London only £5 per ton.* The jute (*Corchurus casularis*) coffee-sacks supply another cheap paper material. These serve in the fabrication of strong brown packing paper, as the fiber will not stand bleaching. According to P. Symmonds, the United States in recent years have largely used bamboo. The rind of the *Adansonia digitata* also yields an extremely good material; in particular, paper made entirely from New Zealand flax deserves consideration, being, by virtue of its superior toughness, eminently suited for "bill paper."

Paper-making materials.

It must not be overlooked that, in the manufacture of paper, worn linen and cotton rags are the very best materials that can be employed, and make the best paper. Moreover, they are generally to be had for the trouble of collecting them, after they have once covered the cost of their production in the form of clothing materials; when, through being frayed by repeated washings, they undergo a preparation which particularly adapts them to the purpose of paper-making.

Preferability of discarded cloth.

The more paper-making progresses, the more are ligneous fibers brought forward, particularly wood and straw, which produce really good pastes; all the raw

Increasing use of wood and straw.

* In 1862, English took from Spain 156 tons; 1863, 18,074 tons; 1866, 66,913 tons; 1868, 95,000 tons; and the import of rags fell from 24,000 tons in 1866 to 17,000 tons in 1668. In Algiers a large quantity of sparto (Alfa) grows but the cost of transport is too expensive to admit of sending it to France.

materials being imported from a distance. That England takes so much sparto is easily explained by the fact that she has very little straw of her own, for most of the grain consumed by her is received from abroad in a granulated condition.

XXV

Tobacco revenue. OF all the productions of the country tobacco is the most important, so far (at least) as concerns the Government, which have the cultivation of this plant, its manipulation, and sale, the subjects of an extensive and strictly guarded monopoly, and derives a very considerable portion of the public revenue therefrom.* As to the objections raised against this revenue on the score of its being opposed to justice and morality, many other sources of revenue in the colonial budget might be condemned (such as the poll-tax, gaming and opium licenses, the brandy trade, and the sale of indulgences); yet none is so invidious and pernicious as the tobacco monopoly.

Injustice of the monopoly. Often in the course of this narrative of my travels I have had occasion to commend the clemency of the Spanish Government. In glaring contrast therewith, however, stands the management of the tobacco regulations. They appropriated the fields of the peasantry without the slightest indemnification—fields which had been brought under cultivation for their necessary means of sustenance; forced them, under penalty of bodily punishment, to raise, on the confiscated property, an article which required an immense amount of trouble and attention, and which yielded a very uncertain crop; and they then valued the harvested leaves arbitrarily

* The British Consul estimates the receipts from this monopoly for the year 1866-7 at $8,418,939, after an expenditure of $4,519,866; thus leaving a clear profit of $3,899,073. In the colonial budget for 1867 the profit on tobacco was estimated at $2,627,976, while the total expenditure of the colony, after deduction of the expenses occasioned by the tobacco management, was set down at $7,033,576.

According to the official tables of the chief of the Administration in Manila, 1871, the total annual revenue derived from the tobacco management between the years 1865 and 1869 amounted, on an average, to $5,367,262. By reason of proper accounts being wanting an accurate estimate of the expenditure cannot be delivered; but it would be at least $4,000,000, so that a profit of only $1,367,262 remains.

and without any appeal, and, in the most favorable case, paid for them at a nominal price fixed by themselves. To be paid at all, indeed, appears to have been a favor, for it has not been done in full now for several years in succession. Spain regularly remains indebted to the unlucky peasants in the amount of the miserable pittance allowed, from one year's end to another. The Government ordered the officials to exact a higher return from the impoverished population of the tobacco districts; and even rewarded informers who, after pointing out fields already owned, but which were considered suitable to the cultivation of tobacco, were installed into possession of the proclaimed lands in the place of the original owners.

For proofs of these accusations, one need only peruse a few paragraphs contained in the following stringent regulations, entitled "General Instructions,"* and, further, a few extracts from the official dispatches of Intendant-General Agius to the Colonial Minister:—†

Résumé of regulations.

Cap. 25, § 329. The compulsory system of cultivation in Cagayan, New Vizcaya, Gapan, Igorots, and Abra to remain in force.

§ 331. The Director-General of the Government is authorized to extend compulsory labor to the other provinces, or to abolish it where already introduced. These instructions may be altered wholly or in part as occasion requires.

§ 332. Prices may be either increased or lowered.

§ 337. Claims or actions concerning the possession of tobacco lands pending before the usual tribunal shall not prevent such lands from being used for the purposes of tobacco cultivation, the present proprietor being under strict obligation to continue the cultivation either in person or by substitute. (If he omits to do so, the magistrate or judge takes upon himself to appoint such substitute.)

* Instruccion general para la Direccion, Administracion, y Intervencion de las Rentas Estancadas, 1849.

† *Memoria sobre el Desestanco del Tabaco en las Islas Filipinas.* Don J. S. Agius, Binondo (Manila,) 1871.

§ 351. The collectors have received *denuncias*, *i. e.* information, that land adapted to tobacco growing is lying fallow, and that it is private property. In case such land is really suitable to the purposes of tobacco cultivation, the owners thereof are hereby summoned to cultivate the same with tobacco in preference to anything else. At the expiration of a certain space of time the land in question is to be handed over to the informer. Be it known, however, that, notwithstanding these enactments, the possessory title is not lost to the owner, but he is compelled to relinquish all rights and usufruct for three years.

Cap. 27, § 357. An important duty of the collector is to insure the greatest possible extension of the tobacco cultivation upon all suitable lands, but in particular upon those which are specially convenient and fertile. Lands which, although suitable for tobacco growing, were previously planted with rice or corn, shall, as far as practicable, be replaced by forest clearings, in order, as far as possible, to prevent famine and to bring the interests of the natives into harmony with those of the authorities.

§ 361. In order that the work which the tobacco cultivation requires may not be neglected by the natives, and that they may perform the field work necessary for their sustenance, it is ordered that every two persons working together shall, between them cultivate eight thousand square varas, that is, two and one-half acres of tobacco land.

§ 362. Should this arrangement fail to be carried out either through age, sickness, or death, it shall be left to the priest of the district to determine what quantity of work can be accomplished by the little children, having regard to their strength and number.

§ 369. Every collector who consigns from his district 1,000 *fardos* more than in former years, shall receive for the overplus a double gratuity, but this only where the proportion of first-class leaves has not decreased.

§ 370. The same gratuity will be bestowed when there is no diminution in bulk, and one-third of the leaves is of first-class quality.

The following sections regulate the action of the local authorities:—

§ 379. Every governor must present annually a list, revised by the priest of the district, of all the inhabitants in his district of both sexes, and of those of their children who are old enough to help in the fields.

§ 430. The officers shall forward the emigrants on to Cagayan and Nueva Vizcaya, and will be entrusted with $5 for that purpose, which must be repaid by each individual, as they cannot be allowed to remain indebted in their province.

§ 436. Further it is ordered by the *Buen Gobierno* (good government) that no Filipino shall be liable for a sum exceeding $5, incurred either as a loan or a simple debt. Thus the claim of a higher sum can not impede emigration.

§ 437. The Hacienda (Public Treasury) shall pay the passage money and the cost of maintenance from Ilocos.

§ 438. They are to be provided with the means of procuring cattle, tools, etc., until the first harvest (although the Indian is only liable for $5).

§ 439. Such advances are, it is true, personal and individual; but, in the case of death or flight of the debtor, the whole village is to be liable for the amount due.

Tobacco from Mexico.

Tobacco (*Nicotiana tabacum*, L.) was introduced into the Philippines soon after the arrival of the Spaniards by the missionaries, who brought the seed with them from Mexico.* The soil and climate being favorable to its production, and the pleasure derived from it

* The tobacco in China appears to have come from the Philippines. "The memorandum discovered in Wang-tao fenve no possible doubt that it was first introduced into South China from the Philippine Islands in the sixteenth and seventeenth century, most probably by way of Japan."—(*Notes and Queries*, China and Japan, May 31st, 1867.)

From Schlegel, in Batavia, it was brought by the Portuguese into Japan somewhere between the years 1573 and 1591, and spread itself so rapidly in China that we find even as early as 1638, that the sale of it was forbidden under penalty of beheading.

According to *Notes and Queries*, China and Japan, July 31, 1867, the use of tobacco was quite common in the "Manchu" army. In a Chinese work, *Natural History Miscellany*, it is written: "Yen t'sao (literally smoke plant) was introduced into Fukien about the end of the Wan-li Government, between 1573 and 1620, and was known as Tan-pa-ku (from Tombaku)."

being speedily discovered by the natives, naturally assisted in its rapid adoption. Next to the Cuban tobacco and a few sorts of Turkish* it is admitted to be the best; and in the colony it is asserted by competent judges that it would soon surpass all others, if the existing regulations were abolished and free trade established. There can be no doubt in the minds of impartial observers that the quality and quantity of the produce might be considerably increased by such a change; on the other hand, many of the prejudiced officials certainly maintain the direct contrary. The real question is, to what extent these expectations may be realized in the fulfilment of such a measure; of course, bearing in mind that the judgment is swayed by a strong desire for the abolition of a system which interferes at present with their prospects of gain. But the fact is that, even now, the native grown tobacco, notwithstanding all the defects inseparable from an illicit trade, is equal to that produced by the Government officials in their own factories, and is valued at the same rate with many of the Havana brands; and the Government cigars of the Philippines are preferred to all others throughout Eastern Asia. Indeed, rich merchants, to whom a difference of price is no object, as a rule take the Manila cigars before Havanas.

High grade of Philippine product.

Manila tobacco handicapped.

According to Agius ("Memoria," 1871), in the European market the Manila tobacco was admitted to be without any rival, with the sole exception of the *Vuelta abajo* of Cuba; and most certainly in the Asiatic and Oceanic ports its superior quality was undisputed,

* West Cuba produces the best tobacco, the famous Vuelta abajo, 400,000 cwt. at from $14.28 to $99.96 the cwt.; picked sorts being valued at from $571.20 to $714.00 per cwt. Cuba produces 640,000 cwt. The cigars exhibited in the Paris Exhibition of 1867 were worth from $24.99 to $406.98 per thousand. The number of cigars annually exported is estimated at about 5,000,000. (*Jury Report*, v., 375.) In Jenidje-Karasu (Salonica) 17,500 cwt. are obtained annually, of which 2,500 cwt. are of the first quality; the cost is $1.75 the oka (about .75 per lb.). Picked sorts are worth 15s. per lb., and even more.—Saladin Bey, *La Turquie à l'Exposition*, p. 91.

as the Havana tobacco loses its flavor on the long voyage to these countries; but now, from year to year, it is surely losing its reputation. If, then, the Manila cigars have not hitherto succeeded in making themselves acceptable in Europe on account of their inferiority, the blame is attributable simply to the system of compulsory labor, and the chronic insolvency of the Insular Treasury, whilst the produce of other tobacco countries has steadily progressed in quality in consequence of free competition. The fame of the Manila cigars may also have suffered in some slight measure from the wide-spread, though perfectly erroneous, idea that they contained opium.

Hampered by government restrictions.

How greatly the produce might be increased by means of free trade is shown under other circumstances by the example of Cuba. At the time when the Government there monopolized the tobacco trade, the crops were only partly sufficient to cover the home consumption; whereas, at the present time, Cuba supplies all the markets of the world.* The decision of Captain-General De la Gandara upon this question is in the highest degree worthy of notice. In a MS. Report to the Colonial Minister, March, 1868, concerning a measure for rendering the regulations of the tobacco monopoly still more stringent, he says: "If the tobacco cultivation is placed without restriction into the hands of private traders, we shall most probably, in a few years, be in a position to command nearly all the markets in the world." Most of the islands produce tobacco. According to

* In Cuba the tobacco industry is entirely free. The extraordinary increase of the trade and the improved quality of the tobacco are, in great measure, to be ascribed to the honest competition existing between the factories, who receive no other protection from the Government than a recognition of their operations. —(*Jary Report*, 1867, v., 375.)

the quality of the produce, the tobacco provinces rank in the following order: First, Cagayan and Isabela; Second, Igorots; Third, Island of Mindanao; Fourth, Bisayas; Fifth, Nueva Ecija.

Origin of monopoly.

From the Government Order, dated November 20, 1625, it is evident that even at that early period the sale of betel nut, palm spirit (toddy), tobacco, etc., was a Government monopoly: but it does not seem to have been very strictly carried out. The tobacco monopoly, as it stands at present, the whole trade of which from the sowing of the seedling plants to the sale of the manufactured article is exclusively in the hands of the Government, was first introduced by Captain-General José Basco y Vargas. And a Government Order, under date of [January 9, 1780] (confirmed by Departmental Regulations, December 13, 1781), further enacted that the tobacco regulations should be extended to the Philippine Islands, in like manner as in all Spanish possessions in this and the other hemisphere (*de uno y otro mundo*).

Governor Basco's innovations.

Before the administration of this very jealous Governor, for a period of two hundred years the colony received annual contributions from New Spain (*Situado de Nueva España*). In order to relieve the Spanish Exchequer, from this charge Basco introduced (at that time national economic ideas prevailed of making the natural resources of a State supply its immediate wants) a plan upon which, fifty years later, Java modelled its "Culture System." In the Philippines, however, the conditions for this system were less favorable. In addition to the very slight submissiveness of the population, there were two great obstacles in the opposition of the priests and the want of trustworthy officials. Of all the provincial trades brought into existence by the energy of Basco, the indigo cultivation is the only one that

remains in the hands of private individuals, the tobacco trade still being a Government monopoly.* Basco first of all confined the monopoly to the provinces immediately contiguous to the capital, in all of which the cultivation of tobacco was forbidden under penalty of severe punishment, except by persons duly authorized and in the service of the Government.† In the other provinces the cultivation was to a certain extent permitted; but the supply remaining after deduction of what was consumed in each province was to be sold to the Government only.

Speculation with public funds.

In the Bisayas the magistrates purchased the tobacco for the Government and paid for it at the rate previously fixed by the Government factories at Manila; and they were allowed to employ the surplus money of the Government treasury chest for this purpose. A worse system than this could scarcely be devised. Officials, thinking only of their own private advantage, suffered no competition in their provinces, employed their official power to oppress the producer to the utmost extent, and thereby naturally checked the production; and the Government treasury chest consequently suffered frequent losses through bankruptcies, inasmuch as the magistrates, who drew a salary of $600 and paid a license of from $100 to $300 for the right of trading, in order to make money quickly, engaged in the most hazardous speculations. In 1814 this stupid arrangement was first put an end to; and forthwith the tobacco supplies from the Bisayas increased, through the competition of the

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* Basco also introduced the cultivation of silk, and had 4,500,000 mulberry trees planted in the Camarines. This industry, immediately upon his retirement, was allowed to fall into decay.

† According to La Pérouse, this measure occasioned a revolt in all parts of the island, which had to be suppressed by force of arms. In the same manner the monopoly introduced into America at the same time brought about a dangerous insurrection, and was the means of reducing Venezuela to a state of extreme poverty, and, in fact, was the cause of the subsequent downfall of the colony.

private dealers, who then, for the first time, had the power of purchase; and from 1839 the planters were empowered to obtain higher prices than those afforded by the greedy monopolizing magistrates. At present, the following general regulations are in force, subject, however, to continual variation in details.

Changes bring improvement.

By a Departmental Order, September 5, 1865, the cultivation of tobacco was permitted in all the provinces, though the produce was allowed to be sold only to the Government at the price regulated by them. The wholesale purchases are made in Luzon and the adjacent islands in *fardos** by "colleccion," that is, direct through the finance officials, who have the management of the plants from the sowing; but in the Bisayas by *acopio*; that is, the Government officials buy up the tobacco tendered by the growers or speculators by the cwt.

Different usages in Bisayas and Mindanao.

In the Bisayas and in Mindanao everybody is allowed to manufacture cigars for his own particular use, though trade therein is strictly prohibited; and advances to the tobacco growers are also made there; while in Luzon and the neighboring islands the Government provides seed and seedling plants. Here, however, no land which is adapted to the cultivation of tobacco is allowed to be used for any other purpose of agriculture.

Crude system of grading.

As the Financial Administration is unable to classify the tobacco at its true value, as might be done were free competition permitted, they have adopted the expedient of determining the price by the size of the leaves; the care necessary to be bestowed upon the training of the plants in order to produce leaves of the required

* A *fardo* (pack) contains 40 *manos* (bundles); 1 *mano* = 10 *manojitos*, 1 *manojito* = 10 leaves. Regulations, § 7.

size being at least a guarantee of a certain amount of proper attention and handling, even if it be productive of no other direct good.*

Burden knowingly increased.

It is well known at Madrid how the tobacco monopoly, by oppressing the wretched population, interferes with the prosperity of the colony; yet, to the present day, the Government measures have been so arranged as to exact a still larger gain from this very impolitic source of revenue.

* Regulations for the tobacco collection agencies in Luzon.—*1st.* Four classes of Tobacco will be purchased. *2nd.* These classes are thus specified: the first to consist of leaves at least 18 inches long (0m 418;) the second of leaves between 14 and 18 inches (0m 325); the third of leaves between 10 and 14 inches (0m 232); and the fourth of leaves at least 7 inches in length (0m 163). Smaller leaves will not be accepted. This last limitation, however, has recently been abandoned so that the quality of the tobacco is continually depreciating in the hands of the Government, who have added two other classes.

A fardo, 1st class, weighs 60 lbs., and in 1867 the Government rate of pay was as follows:—

1 Fardo, 1st class, 60 lbs.	$9.50
1 Fardo, 2nd class, 46 lbs.	6.00
1 Fardo, 3rd class, 33 lbs.	2.75
1 Fardo, 4th class, 18 lbs.	1.00

—*English Consular Report.*

The following table gives the different branda of cigars manufactured by the Government, and the prices at which they could be bought in 1867 in Estanco (*i. e.* a place privileged for the sale):—

Menas (Classes.)	Corresponding Havana Brands.	PRICE.			Number of cigars in an arroba.
		Per †arroba	Per 1000.	Per. cigar	
		Dols.	Dols.	Cents.	
Imperiales	The same.	37.50	30.00	4	..
Prima Veguéro	Do.	37.50	30.00	4	..
Segunda Veguéro	Regalia.	..	26.00	..	..
Prima superiór Filipino	Do.	..	26.00	..	..
2.a Superiór Filipino	None.	38.00	19.00	3	..
3.a Superiór Filipino	Londres	..	15.10	..	..
Prima Filipino	Superior Habano.	21.00	15.00	2	1400
Segunda Superior	Segunda superior Habano	24.00	8.57½	1	2800
Prima Cortado	The Same	21.00	15.00	2	1400
Segunda Cortado	Do.	24.00	8.57½	1	2800
Mistu	Segunda Batido.	20.50	..	..	..
Prima Batigo, largn	None.	18.75	..	½	1800
Segunda Batido, largo	None.	18.75	..	½	3750

† Arroba, 33 lbs.

"Killing the goose that lays the golden egg."

A Government Order of January, 1866, directed the tobacco cultivation in the Philippines to be extended as much as possible, in order to satisfy the requirements of the colony, the mother country, and also the export trade; and in the memorial already quoted, "reforms" are proposed by the Captain-General, in the spirit of the goose with golden eggs. By grafting new monopolies upon those already existing, he believes that the tobacco produce can be increased from 182,102 cwt. (average of the years 1860 to 1867) to 600,000, and even 800,000 cwt. Meantime, with a view to obtaining increased prices, the Government resolved to export the tobacco themselves to the usual markets for sale; and in the year 1868 this resolution was really carried out. It was sent to London, where it secured so favorable a market that it was at once decreed that no tobacco in Manila should thenceforth be sold at less than $25 per cwt.* This decree, however, referred only to the first three qualities, the quantity of which decreased in a relative measure with the increased pressure upon the population. Even in the table annexed to the record of La Gandara this is very clearly shown. Whilst the total produce for 1867 stood at 176,018 cwt. (not much under the average of the years 1860 to 1867, viz., 182,102 cwt.), the tobacco of the first class had decreased in quantity since 1862 from over 13,000 to less than 5,000 cwt.

Gift to Spain of unusable tobacco.

The fourth, fifth, and sixth classes, the greater part of which would before have been burnt, but which now form no inconsiderable portion of the total crop, are in the open markets positively unsaleable, and can be utilized only in the form of a bonus to Spain, which

* On an average 407,500,000 cigars and 1,041,000 lbs. raw tobacco are exported annually, the weight of which together is about 56,000 cwt. after deducting what is given away in the form of gratuities.

annually receives, under the title of *atenciones á la peninsula*, upwards of 100,000 cwt. If the colony were not compelled to pay half the freight of these gifts, Spain would certainly ask to be relieved of these "marks of attention." Seeing that, according to the decision of the chief of the Government, the greater portion of this tobacco is of such inferior quality that it can find no purchaser at any price, it is impossible that its value should cover either the cost of carriage or the customs duty. Moreover, this tobacco tribute is a great burden on the colonial budget; which, in spite of all deficits, is charged with the expenses attending the collection of the tobacco, its packing, its cost of local transport, and half the expense of its carriage to Europe.

De La Gandara's proposed reforms.

Dated in March, 1871,—the beginning of a Golden Age, if De La Gandara's plans had been carried out and his expectations realized,—there exists an excellent statement from the Intendant-General addressed to the Minister of Colonies pointing out plainly to the chief of the Government the disadvantages arising from this mode of administration, and urging the immediate repeal of the monopoly. In the next place proof was adduced, supported by official vouchers, that the profits derived from the tobacco monopoly were much smaller than usual. The total average receipts of the tobacco administration for the five years 1865 to 1869, according to official accounts, amounted to $5,367,262; for the years 1866 to 1870, only $5,240,935. The expenses cannot be accurately estimated, inasmuch as there are no strict accounts obtainable; if, however, the respective expenses charged in the colonial budget are added together, they amount to $3,717,322 of which $1,812,250 is for purchase of raw tobacco.

Slight real profit from monopoly.

Besides these expenses pertaining exclusively to the tobacco administration there are still many other differ-

ent items to be taken into account; yet the cost incurred in this branch of the service would be saved, if not altogether, at least largely, if the State surrendered the tobacco monopoly. The total of the disbursements must certainly, at the very lowest, be estimated at $4,000,000; so, therefore, the State receives only a net profit of $1,367,000; but even this is not to be reckoned on in the future, for if the Government does not speedily cease carrying on this trade, they will be forced into a very considerable and unavoidable expense. To begin with, they must erect new factories and warehouses; better machinery must be bought; wages will have to be considerably increased; and, above all, means must be devised to pay off the enormous sum of $1,600,000 in which the Government is indebted to the peasants for the crops of 1869 and 1870, and to assure cash payments for future harvests. "This is the only possible mode of preventing the decay of the tobacco cultivation in the different provinces, as well as relieving the misery of the wretched inhabitants."

Suffering and law-breaking thru the monopoly.

Later Agius proved how trifling in reality the arrears were on account of which the Government was abandoning the future of the colony, and showed the misfortunes, of which I shall mention, these briefly, only a few, resulting from the monopoly. He represented that the people of the tobacco district, who were the richest and most contented of all in the Archipelago, found themselves plunged into the deepest distress after the increase of the Government dues. They were, in fact, far more cruelly treated than the slaves in Cuba, who, from self-interested motives, are well-nourished and taken care of; whereas in this case, the produce of compulsory labor has to be delivered to the State at an arbitrarily determined price; and even this price is paid only when the condition of the treasury, which is invariably in diffi-

culties, permits. Frequently their very means of subsistence failed them, in consequence of their being forbidden to carry on the cultivation; and the unfortunate people, having no other resources for the relief of their pressing necessities, were compelled to alienate the debtor's bond, which purchased the fruits of their enforced toil but had been left unpaid. Thus, for an inconsiderable deficit of about $1,330,000, the whole population of one of the richest provinces is thrown into abject misery; a deep-rooted hatred naturally arises between the people and their rulers; and incessant war ensues between the authorities and their subjects. Besides which, an extremely dangerous class of smugglers have recently arisen, who even now do not confine themselves to mere smuggling, but who, on the very first opportunity presented by the prevailing discontent, will band themselves together in one solid body. The official administrators, too, are charged with gross bribery and corruption; which, whether true or not, occasions great scandal, and engenders increasing disrespect and distrust of the colonial administration as well as of the Spanish people generally.*

Growing opposition to the monopoly.

The preceding memorial has been not only written, but also printed; and it seems to indicate that gradually in Spain, and also in wider circles, people are becoming convinced of the untenableness of the tobacco monopoly; yet, in spite of this powerful review, it is considered doubtful by competent judges whether it will be given up so long as there are any apparent or appreciable returns derived therefrom. These acknowledged evils have long been known to the Colonial Government;

* The poor peasant being brought into this situation finds it very hard to maintain his family. He is compelled to borrow money at an exorbitant rate of interest, and, consequently, sinks deeper and deeper into debt and misery. The dread of fines or bodily punishment, rather than the prospect of high prices, is the chief method by which the supplies can be kept up.—(Report of the English Consul.)

but, from the frequent changes of ministers, and the increasing want of money, the Government is compelled, so long as they are in office, to use all possible means of obtaining profits, and to abstain from carrying out these urgent reforms lest their own immediate downfall should be involved therein. Let us, however, cherish the hope that increased demand will cause a rise in the prices; a few particularly good crops, and other propitious circumstances, would relieve at once the Insular Treasury from its difficulties; and then the tobacco monopoly might be cheerfully surrendered. One circumstance favorable to the economical management of the State that would be produced by the surrender of the tobacco monopoly would be the abolition of the numerous army of officials which its administration requires. This might, however, operate reversely in Spain. The number of place-hunters created must be very welcome to the ministers in power, who thus have the opportunity of providing their creatures with profitable places, or of shipping off inconvenient persons to the Antipodes from the mother-country, free of cost. The colony, be it known, has not only to pay the salaries, but also to bear the cost of their outward and homeward voyages. Any way, the custom is so liberally patronized that occasionally new places have to be created in order to make room for the newly-arrived nominees.*

* From December 1853 to November 1854 the *colony possessed four captains-general* (two effective and two provisional). In 1850 a new nominee, Oidor (member of the Supreme Court of Judicature) who with his family voyaged to Manila by the Cape, found, *upon his arrival*, his successor already in office, the latter having travelled by way of Suez. Such circumstances need not occasion surprise when it is remembered how such operations are repeated in Spain itself.

According to an essay in the *Revue Nationale*, April, 1867, Spain has had, from 1834 to 1862, *i.e.* since the accession of Isabella, 4 Constitutions, 28 Parliaments, 47 Chief Ministers, 520 Cabinet Ministers, and 68 Ministers of the Interior; of which last class of officials each, on an average, was in power only six months. For ten years past the Minister of Finance has not remained in office longer than two months; and since that time, particularly since 1868, the changes have followed one another with still greater rapidity.

At the time of my visit, the royal factories could not turn out a supply of cigars commensurate with the requirements of commerce; and this brought about a peculiar condition of things; the wholesale dealer, who purchased cigars in very considerable quantities at the government auctions, paying higher than the retail rates at which he could buy them singly in the *estancia*. In order, therefore, to prevent the merchants drawing their stocks from the *estancias*, it was determined that only a certain quantity should be purchased, which limit no merchant dared exceed. A very intricate system of control, assisted by espionage, had to be employed in seeing that no one, through different agents and different *estancias*, collected more than the authorised supply; and violation of this rule, when discovered, was punished by confiscation of the offender's stock. Everybody was free to purchase cigars in the *estancia*, but nobody was permitted to sell a chest of cigars to an acquaintance at cost price. Several Spaniards with whom I have spoken concerning these strange regulations maintained them to be perfectly just, as otherwise all the cigars would be carried off by foreigners, and they would not be able themselves in their own colony to smoke a decent cigar.

Wholesale rate higher than retail from government.

There was, as I afterwards learnt, a still more urgent reason for the existence of these decrees. The government valued their own gold at sixteen dollars per ounce, while in commerce it fetched less, and the premium on silver had, at one time, risen to thirty-three per cent. Moreover, on account of the insufficient quantity of copper money for minor currency, the small change frequently gained a premium on the silver dollar, so much so that by every purchaser not less than half a dollar was realized. In exchanging the dollar from five to fifteen per cent discount was charged;

Money juggling.

it was profitable, therefore, to purchase cigars in the *estancias* with the gold ounce, and then to retail them in smaller quantities nominally at the rate of the *estancias*. Both premiums together might in an extreme case amount to as much as forty-three per cent.*

Directions for cultivating tobacco.

Not being able to give a description of the cultivation of tobacco from personal knowledge and experience, I refer the reader to the following short extract from the *Cartilla Agricola:*—

Directions for preparing and laying out the seed beds.—A suitable piece of land is to be enclosed quadrilaterally by boundaries, ploughed two or three times, cleared of all weeds and roots, made somewhat sloping, and surrounded by a shallow ditch, the bed of which is to be divided by drains about two feet wide. The soil of the same must be very fine, must be ground almost as fine as powder, otherwise it will not mix freely and thoroughly with the extremely fine tobacco seed. The seed is to be washed, and then suspended in cloths during the day, in order to allow the water to run off; after which it is to be mixed with a similar quantity of ashes, and strewn carefully over the bed. The subsequent successful results depend entirely upon the careful performance of this work. From the time the seed first begins to sprout, the beds must be kept very clean, in dry weather sprinkled daily, and protected from birds and animals by brambles strewn over, and by means of light mats from storms and heavy rains. After two months the plants will be between five and six inches high, and generally have from four to six leaves; they must then be replanted. This occurs,

* The reason of this premium on silver was, that the Chinese bought up all the Spanish and Mexican dollars, in order to send them to China, where they are worth more than other dollars, being known from the voyage of the galleon thither in olden times, and being current in the inland provinces. (The highest price there can be obtained for a Carlos III.)

A mint erected in Manila since that time, which at least supports itself, if the government has derived no other advantage from it, has removed this difficulty. The Chinese are accustomed to bring gold and silver as currency, mixed also with foreign coinage, to Manila for the purpose of buying the produce of the country; and all this the native merchants had recoined. At first only silver ounces were usually obtainable in Manila, gold ounces very rarely. This occasioned such a steady importation that the conditions were completely reversed. In the Insular Treasury the gold and silver dollar are always reckoned at the same value.

supposing the seed-beds to have been prepared in September, about the beginning or the middle of November. A second sowing takes place on the 15th of October, as much as a precaution against possible failure, as for obtaining plants for the lowlands.

Concerning the land most advantageous to the tobacco and its cultivation. Replanting of the seedlings.—Land must be chosen of middling grain; somewhat difficult, calciferous soil is particularly recommended, when it is richly fertilized with the remains of decayed plants, and not less than two feet deep; and the deeper the roots are inserted the higher will the plant grow. Of all the land adapted to the tobacco cultivation, that in Cagayan is the best, as from the overflowing of the large streams, which occurs every year, it is laid under water, and annually receives a new stratum of mud, which renders the soil particularly productive. Plantations prepared upon such soil differ very materially from those less favored and situated on a higher level. In the former the plants shoot up quickly as soon as the roots strike; in the latter they grow slowly and only reach a middling height. Again in the fertile soil the plants produce quantities of large, strong, juicy leaves, giving promise of a splendid harvest. In the other case the plants remain considerably smaller and grow sparsely. Sometimes, however, even the lowlands are flooded in January and February, and also in March, when the tobacco has already been transplanted, and grown to some little height. In that event everything is irreparably lost, particularly if the flood should occur at a time when it is too late to lay out new plantations. High-lying land also must, therefore, be cultivated, in the hope that by very careful attention it may yield a similar return. In October these fields must be ploughed three or four times, and harrowed twice or thrice. On account of the floods, the lowlands cannot be ploughed until the end of December, or the middle of January; when the work is light and simple. The strongest plants in the seed-beds are chosen, and set in the prepared grounds at a distance of three feet from each other, care being taken that the earth clinging to the roots is not shaken off.

Of the care necessary to be bestowed upon the plants.—In the east a little screen, formed by two clods, is to be erected, with a view to protecting the plant from the morning sun, and retaining the dew for a longer time. The weeds to be carefully exterminated, and the wild shoots removed. A grub which occasionally appears in great numbers is particularly dangerous. Rain is very injurious immediately before the ripening, when the plants are no longer in a condition to secrete the gummy substance so essential to the tobacco, which, being soluble in water, would be drawn off by the action of the rain. Tobacco which has been exposed to bad weather is always deficient in juice and flavor, and is full of white spots, a certain sign of its bad quality. The injury is all the greater the nearer the tobacco is to its ripening period; the leaves hanging down to the ground then decay, and must be removed. If the subsoil is not deep enough, a carefully tended plant will turn yellow, and nearly wither away. In wet seasons this does not occur so generally, as the roots in insufficient depth are enabled to find enough moisture.

Cutting and manipulation of the leaves in the drying shed.—The topmost leaves ripen first; they are then of a dark yellow color, and inflexible. They must be cut off as they ripen, collected into bundles, and brought to the shed in covered carts. In wet or cloudy weather, when the nightly dews have not been thoroughly evaporated by the sun, they must not be cut. In the shed the leaves are to hang upon cords or split Spanish cane, with sufficient room between them for ventilation and drying. The dried leaves are then laid in piles, which must not be too big, and frequently turned over. Extreme care must be taken that they do not become overheated and ferment too strongly. This operation, which is of the utmost importance to the quality of the tobacco, demands great attention and skill, and must be continued until nothing but an aromatic smell of tobacco can be noticed coming from the leaves; but the necessary skill for this manipulation is only to be acquired by long practice, and not from any written instructions.

XXVI

Importance of Chinese.

An important portion of the population remains to be discussed, *viz.* the Chinese, who are destined to play a remarkable part, inasmuch as the development of the land-cultivation demanded by the increasing trade and commercial intercourse can be affected only by Chinese industry and perseverance. Manila has always been a favorite place for Chinese immigrants; and neither the hostility of the people, nor oppressing and prohibitory decrees for a long time by the Government, not even the repeated massacres, have been able to prevent their coming. The position of the Islands, south-east of two of the most important of the Chinese provinces, must necessarily have brought about a trade between the two countries very early, as ships can make the voyage in either direction with a moderate wind, as well in the south-west as the north-east monsoon. In a few old writers may even be found the assertion that the Philippine Islands were at one time subject to the dominion of China; and Father Gaubil (*Lettres Edifiantes*) mentions that Jaung-lo (of the Ming dynasty) maintained a fleet consisting of 30,000 men, which at different times proceeded to Manila. The presence of their ships as early as the arrival of Magellan in the extreme east of the archipelago, as well as the China plates and earthenware vessels discovered in the excavations, plainly show that the trade with China had extended far earlier to the most distant islands of the archipelago. It formed the chief support of the young Spanish colony, and, after the rise of the *Encomiendas*, was nearly the only source of its prosperity. It was feared that the junks would offer their cargoes to the Dutch if any obstacle was put in the way of their coming to Manila. The colony certain-

Early Chinese Associations.

ly could not maintain its position without the "Sangleys,"* who came annually in great numbers in the junks from China, and spread all over the country and in the towns as shopkeepers, artisans, gardeners, and fishermen; besides which, they were the only skillful and industrious workers, as the Filipinos under the priestly domination had forgotten altogether many trades in which they had engaged in former times. I take these facts from Morga.

Industrial and commercial activity.

Unsuccessful attempts at restriction.

In spite of all this, the Spaniards have, from the very commencement, endeavored rigorously to limit the number of the Chinese; who were then, as they are now, envied and hated by the natives for their industry, frugality, and cunning, by which means they soon became rich. They were an abomination, moreover, in the eyes of the priests as being irreclaimable heathens, whose example prevented the natives from making progress in the direction of Christianity; and the government feared them on account of the strong bond of union existing between them, and as being subjects of so powerful a nation, whose close proximity threatened the small body of Spaniards with destruction.† Fortunately for the latter, the Ming dynasty, which at that time was hastening to its downfall, did not think of conquest; but wickedly disposed powers which sprang into existence upon their downfall brought the colony into extreme danger.

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* The Chinese were generally known in the Philippines as "Sangleys"; according to Professor Schott, "*sang-loi (in the south szang-loi, also szang-loi) mercatorum ordo.*" "Sang" is more specially applied to the travelling traders, in opposition to "ku," *tabernarii.*

† ....."They are a wicked and vicious people, and, owing to their numbers, and to their being such large enters, they consume the provisions and render them dear .....*It is true the town cannot exist without the Chinese*, as they are the workers in all the trades and business, and very industrious, and work for small wages; but for that very reason a lesser number of them would be sufficient."—Morga, p. 349.

Limahong and the Mandarins' visit.

In the attack of the noted pirate, Limahong, in 1574, they escaped destruction only by a miracle; and soon new dangers threatened them afresh. In 1603 a few mandarins came to Manila, under the pretence of ascertaining whether the ground about Cavite was really of gold. They were supposed to be spies, and it was, concluded, from their peculiar mission, that an attack upon the colony was intended by the Chinese.

Early massacre of Chinese.

The archbishop and the priests incited the distrust which was felt against the numerous Chinese who were settled in Manila. Mutual hate and suspicion arose; both parties feared one another and prepared for hostilities. The Chinese commenced the attack; but the united forces of the Spaniards, being supported by the Japanese and the Filipinos, twenty-three thousand, according to other reports twenty-five thousand, of the Chinese were either killed or driven into the desert. When the news of this massacre reached China, a letter from the Royal Commissioners was sent to the Governor of Manila. That noteworthy document shows in so striking a manner how hollow the great government was at that time that I have given a literal translation of it at the end of this chapter.

Chinese labor limited.

After the extermination of the Chinese, food and all other necessaries of life were difficult to obtain on account of the utter unreliability of the natives for work; but by 1605 the number of Chinese* had again so increased that a decree was issued limiting them to six thousand, "these to be employed in the cultivation of the country;" while at the same time their rapid increase was taken advantage of by the captain-general for his own interest, as he exacted eight dollars from each Chinaman for permission to remain. In 1639 the Chinese population had risen to thirty thousand, according to other informa-

* "Recopilacion," Lib. iv., Tit. xviii., ley. 1.

tion, to forty thousand, when they revolted and were reduced to seven thousand. "The natives, who generally were so listless and indifferent, showed the utmost eagerness in assisting in the massacre of the Chinese, but more from hatred of this industrious people than from any feeling of friendship towards the Spaniards."*

The void occasioned by this massacre was soon filled up again by Chinese immigrants; and in 1662 the colony was once more menaced with a new and great danger, by the Chinese pirate Kog-seng, who had under his command between eighty and one hundred thousand men, and who already had dispossessed the Dutch of the Island of Formosa. He demanded the absolute submission of the Philippines; his sudden death, however, saved the colony, and occasioned a fresh outbreak of fury against the Chinese settlers in Manila, a great number of whom were butchered in their own "quarter" (ghetto).† Some dispersed and hid themselves; a few in their terror plunged into the water or hanged themselves; and a great number fled in small boats to Formosa.‡

In 1709 the jealousy against the Chinese once more had reached such a height that they were accused of rebellion, and particularly of monopolizing the trades, and, with the exception of the most serviceable of the artisans and such of them as were employed by the Government, they were once again expelled. Spanish writers praise the salutariness of these measures; alleging that "under the pretence of agriculture the Chinese carry on trade; they are cunning and careful, making money and sending it to China, so that they defraud the Philippines annually of an enormous amount."

* "Informe," I., lii., 73.
† The Chinese were not permitted to live in the town, but in a district specially set apart for them.
‡ Velarde, 274.

Sonnerat, however, complains that art, trade, and commerce had not recovered from these severe blows; though, he adds, fortunately the Chinese, in spite of prohibitory decrees, are returning through the corrupt connivance of the governor and officials.

Thrifty traders.

To the present day they are blamed as being monopolists, particularly by the creoles; and certainly, by means of their steady industry and natural commercial aptitude, they have appropriated nearly all the retail trade to themselves. The sale of European imported goods is entirely in their hands; and the wholesale purchase of the produce of the country for export is divided between the natives, creoles, and the Chinese, the latter taking about one-half. Before this time only the natives and creoles were permitted to own ships for the purpose of forwarding the produce to Manila.

In 1757 the jealousy of the Spaniards broke out again in the form of a new order from Madrid, directing the expulsion of the Chinese; and in 1759 the decrees of banishment, which were repeatedly evaded, were carried into effect: but, as the private interests of the officials did not happen to coincide with those of the creole traders, the consequence was that "the Chinese soon streamed back again in incredible numbers," and made common cause with the English upon their invasion in 1762.* Thereupon, Sr. Anda commanded "that all the Chinese in the Philippine Islands should be hanged," which order was very generally carried out.† The last great Chinese massacre took place in 1819, when the aliens were suspected of having brought about the cholera by poisoning the wells. The greater part of the Europeans in Manila also fell victims to the fury of the populace, but the Spaniards generally were spared. The prejudice of the Spaniards, especially of the creoles, had

Anda's and 1819 massacres.

* See following chapter.

† Zuñiga, xvi.

always been directed against the Chinese tradesmen, who interfered unpleasantly with the fleecing of the natives; and against this class in particular were the laws of limitation aimed. They would willingly have let them develop the country by farming but the hostility of the natives generally prevented this.

Expulsion of merchants from Manila.

A decree, issued in 1804, commanded all Chinese shopkeepers to leave Manila within eight days, only those who were married being allowed to keep shops; and their residence in the provinces was permitted only upon the condition that they confined themselves entirely to agriculture. Magistrates who allowed these to travel in their districts were fined $200; the deputy-governor $25; and the wretched Chinese were punished with from two to three years' confinement in irons.

In 1839 the penalties against the Chinese were somewhat mitigated, but those against the magistrates were still maintained on account of their venality. In 1843 Chinese ships were placed upon terms of equality with those of other foreign countries (Leg. Ult., II., 476). In 1850 Captain-General Urbiztondo endeavored to introduce Chinese colonial farming, and with this object promised a reduction of the taxes to all agricultural immigrants. Many Chinese availed themselves of this opportunity in order to escape the heavy poll-tax; but in general they soon betook themselves to trading once more.

Oppressive taxation.

Of late years the Chinese have not suffered from the terrible massacres which used formerly to overtake them; neither have they suffered banishment; the officials being content to suppress their activity by means of heavy and oppressive taxes. For instance, at the end of 1867 the Chinese shopkeepers were annually taxed $60 for permission to send their goods to the weekly market; this was in addition to a tax of from $12 to $100

on their occupations; and at the same time they were commanded thenceforth to keep their books in Spanish (English Consular Report, 1869).

The Chinese remain true to their customs and mode of living in the Philippines, as they do everywhere else. When they outwardly embrace Christianity, it is done merely to facilitate marriage, or from some motive conducive to their worldly advantage; and occasionally they renounce it, together with their wives in Manila, when about to return home to China. Very many of them, however, beget families, are excellent householders, and their children in time form the most enterprising, industrious, and wealthy portion of the resident population.

Excellent element in population.

Invigorated by the severe struggle for existence which they have experienced in their over-populated country, the Chinese appear to preserve their capacity for labor perfectly unimpaired by any climate. No nation can equal them in contentedness, industry, perseverance, cunning, skill, and adroitness in trades and mercantile matters. When once they gain a footing, they generally appropriate the best part of the trade to themselves. In all parts of external India they have dislodged from every field of employment not only their native but, progressively, even their European competitors. Not less qualified and successful are they in the pursuance of agriculture than in trade. The emigration from the too thickly peopled empire of China has scarcely begun. As yet it is but a small stream, but it will by-and-by pour over all the tropical countries of the East in one mighty torrent, completely destroying all such minor obstacles as jealous interference and impotent precaution might interpose.

Formidable competitors.

Over every section of remote India, in the South Sea, in the Indian Archipelago, in the states of South

Sphere of future influence.

America, the Chinese seem destined, in time, either to supplant every other element, or to found a mixed race upon which to stamp their individuality. In the Western States of the Union their number is rapidly on the increase; and the factories in California are worked entirely by them, achieving results that cannot be accomplished by European labor.

Mongolian vs. Caucasian in America.

One of the most interesting of the many questions of large comprehensiveness which connect themselves with the penetration of the Mongolian race into America, which up till now it had been the fashion to regard as the inheritance of the Caucasians, is the relative capacity of labor possessed by both these two great races, who in the Western States of America have for the first time measured their mutual strength in friendly rivalry. Both are there represented in their most energetic individuality;* and every nerve will be strained in carrying on the struggle, inasmuch as no other country pays for labor at so high a rate.

Efficiency and reliability of Chinese labor.

The conditions, however, are not quite equal, as the law places certain obstacles in the way of the Chinese. The courts do not protect them sufficiently from insult, which at times is aggravated into malicious manslaughter through the ill-usage of the mob, who hate them bitterly

* No single people in Europe can in any way compare with the inhabitants of California, which, in the early years of its existence, was composed only of men in the prime of their strength and activity, without aged people, without women, and without children. Their activity, in a country where everything had to be provided (no civilised neighbors living within some hundred miles or so), and where all provisions were to be obtained only at a fabulous cost, was stimulated to the highest pitch. Without here going into the particulars of their history, it need only be remembered that they founded, in twenty-five years, a powerful State, the fame of which has spread all over the world, and around whose borders young territories have sprung into existence and flourished vigorously; two of them indeed having attained to the condition of independent States. After the Californian gold-diggers had changed the configuration of the ground of entire provinces by having, with Titanic might, deposited masses of earth into the sea until they expanded into hilly districts, so as to obtain therefrom, with the aid of ingenious machinery, the smallest particle of gold which was contained therein, they have astonished the world in their capacity of agriculturalists, whose produce is sent even to the most distant markets, and everywhere takes the first rank without dispute. Such mighty results have been achieved by a people whose total number scarcely, indeed, exceeds 500,000; and therefore, perhaps, they may not find it an easy matter to withstand the competition of the Chinese.

as being reserved, uncompanionable workers. Nevertheless, the Chinese immigrants take their stand firmly. The western division of the Pacific Railway has been chiefly built by the Chinese, who, according to the testimony of the engineers, surpass workmen of all other nationalities in diligence, sobriety, and good conduct. What they lack in physical power they make up for in perseverance and working intelligently together. The unique and nearly incredible performance that took place on April 28, 1869, when ten miles of railway track were laid in eleven working hours along a division of land which had in no way been prepared beforehand, was accomplished by Chinese workmen; and indeed only by them could it have been practicable.*

Chinese cleverness and industry.

Of course, the superiority of the European in respect of the highest intellectual faculties is not for a moment to be doubted; but, in all branches of commercial life in which cleverness and perservering industry are necessary to success, the Chinese certainly appear entitled to the award. To us it appears that the influx of Chinese must certainly sooner or later kindle a struggle between capital and labor, in order to set a limit upon demands perceptibly growing beyond moderation.

Chinese problem in America.

The increasing Chinese immigration already intrudes upon the attention of American statesmen questions of the utmost social and political importance. What influence will this entirely new and strange element

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* The rails, if laid in one continuous line, would measure about 103,000 feet, the weight of them being 20,000 cwt. Eight Chinamen were engaged in the work, relieving one another by fours. These men were chosen to perform this feat on account of their particular activity, out of 10,000.

(The translator of the 1875 London edition notes: "This statement is incorrect, so far as the fact of the feat being accomplished by Chinese is concerned. Eight Europeans were engaged in this extraordinary piece of work. During the rejoicings which took place in Sacramento upon the opening of the line, these men were paraded in a van, with the account of their splendid achievement painted in large letters on the outside. Certainly not one of them was a Chinaman."—*C.*

exercise over the conformation of American relations? Will the Chinese found a State in the States, or go into the Union on terms of political equality with the other citizens, and form a new race by alliance with the Caucasian element? These problems, which can only be touched upon here in a transitory form, have been dealt with in a masterly manner by Pumpelly, in his work *Across America and Asia*, published in London in 1870.

Letter of the Commissary-General of Chinchew To Don Pedro De Acuña, Governor of the Philippines

To the powerful Captain-General of Luzon:

"Having been given to understand that the Chinese who proceeded to the kingdom of Luzon in order to buy and sell had been murdered by the Spaniards, I have investigated the motives for these massacres, and begged the Emperor to exercise justice upon those who had engaged in these abominable offences, with a view to security in the future.

"In former years, before my arrival here as royal commissioner, a Chinese merchant named Tioneg, together with three mandarins, went with the permission of the Emperor of China from Luzon to Cavite, for the purpose of prospecting for gold and silver; which appears to have been an excuse, for he found neither gold nor silver; I thereupon prayed the Emperor to punish this imposter Tioneg, thereby making patent the strict justice which is exercised in China.

"It was during the administration of the ex-Viceroy and Eunuchs that Tioneg and his companion, named Yanglion, uttered the untruth already stated; and subsequently I begged the Emperor to transmit all the papers bearing upon the matter, together with the minutes of Tioneg's accusation; when I myself examined the before-mentioned papers, and knew that everything that the accused Tioneg had said was utterly untrue.

"I wrote to the Emperor and stated that, on account of the untruth which Tioneg had been guilty of, the Castilians entertained the suspicion that he wished to make war upon them, and that they, under this idea, had murdered more than thirty thousand Chinese in Luzon. The Emperor, complying with my request, punished the accused Yanglion, though he omitted to put him to death; neither was Tioneg beheaded or confined in a cage. The Chinese people who had settled in Luzon were in no way to blame. I and others discussed this with the Emperor in order to ascertain what his pleasure was in this matter, as well as in another, namely, the arrival of two English ships on the coast of Chinchew (Fukien or Amoy district)—a very dangerous circumstance for China; and to obtain His Imperial Majesty's decision as to both these most serious matters.

"We also wrote to the Emperor that he should direct the punishment of both these Chinese; and, in acknowledging our communication, he replied to us, in respect to the English ships which had arrived in China, that in case they had come for the purpose of plundering, they should be immediately commanded to depart thence for Luzon; and, with regard to the Luzon difficulty, that the Castilians should be advised to give no credence to rogues and liars from China; and both the Chinese who had discovered the harbor to the English should be executed forthwith; and that in all other matters upon which we had written to him, our will should be his. Upon receipt of this message by us—the Viceroy, the Eunuch, and myself—we hereby send this our message to the Governor of Luzon, that his Excellency may know the greatness of the Emperor of China and of his Empire, for he is so powerful that he commands all upon which the sun and moon shine, and also that the Governor of Luzon may learn with what great wisdom this mighty empire is governed, and which power no one for many years has attempted to insult, although the Japanese have sought to disturb the tranquillity of Korea, which belongs to the Government of China. They did not succeed, but on the

contrary were driven out, and Korea has remained in perfect security and peace, which those in Luzon well know by report.

"Years ago, after we learnt that so many Chinese perished in Luzon on account of Tioneg's lies, many of us mandarins met together, and resolved to leave it to the consideration of the Emperor to take vengeance for so great a massacre; and we said as follows:—The country of Luzon is a wretched one, and of very little importance. It was at one time only the abode of devils and serpents; and only because (within the last few years) so large a number of Chinese went thither for the purpose of trading with the Castilians has it improved to such an extent; in which improvement the accused Sangleyes materially assisted by hard labor, the walls being raised by them, houses built, and gardens laid out, and other matters accomplished of the greatest use to the Castilians; and now the question is, why has no consideration been paid for these services, and these good offices acknowledged with thanks, without cruelly murdering so many people? And although we wrote to the King twice or thrice concerning the circumstances, he answered us that he was indignant about the before-mentioned occurrences, and said for three reasons it is not advisable to execute vengeance, nor to war against Luzon. The first is that for a long time till now the Castilians have been friends of the Chinese; the second, that no one can predict whether the Castilians or the Chinese would be victorious; and the third and last reason is, because those whom the Castilians have killed were wicked people, ungrateful to China, their native country, their elders, and their parents, as they have not returned to China now for very many years. These people, said the Emperor, he valued but little for the foregoing reasons; and he commanded the Viceroy, the Eunuch, and myself, to send this letter through those messengers, so that all in Luzon may know that the Emperor of China has a generous heart, great forbearance, and much mercy, in not declaring war against Luzon; and his justice is indeed manifest, as he has already punished the liar

Tioneg. Now, as the Spaniards are wise and intelligent, how does it happen that they are not sorry for having massacred so many people, feeling no repentance thereat, and also are not kinder to those of the Chinese who are still left? Then when the Castilians show a feeling of good-will, and the Chinese and Sangleyes who left after the dispute return, and the indebted money is repaid, and the property which was taken from the Sangleyes restored, then friendship will again exist between this empire and that, and every year trading-ships shall come and go; but if not, then the Emperor will allow no trading, but on the contrary will at once command a thousand ships of war to be built, manned with soldiers and relations of the slain, and will, with the assistance of other peoples and kingdoms who pay tribute to China, wage relentless war, without quarter to any one; and upon its conclusion will present the kingdom of Luzon to those who do homage to China.

"This letter is written by the Visitor-General on the 12th of the second month."

A contemporary letter of the Ruler of Japan forms a somewhat notable contrast:—

Letter of Daifusama, Ruler of Japan

"*To the Governor Don Pedro de Acuña, in the year* 1605:

"I have received two letters from your Excellency, as also all the donations and presents described in the inventory. Amongst them was the wine made from grapes, which I enjoyed very much. In former years your Excellency requested that six ships might come here, and recently four, which request I have always complied with.

"But my great displeasure has been excited by the fact that of the four ships upon whose behalf your Excellency interposed, one from Antonio made the journey without my permission. This was a circumstance of great audacity, and a mark of disrespect to me. Does your Excellency wish to send that ship to Japan without my permission?

"Independently of this, your Excellency and others have many times discussed with me concerning the antecedents and interests of Japan, and many other matters, your requests respecting which I cannot comply with. This territory is called Xincoco, which means 'consecrated to Idols,' which have been honored with the highest reverence from the days of our ancestor until now, and whose actions I alone can neither undo nor destroy. Wherefore, it is in no way fitting that your laws should be promulgated and spread over Japan; and if, in consequence of these misunderstandings, your Excellency's friendship with the empire of Japan should cease, and with me likewise, it must be so, for I must do that which I think is right, and nothing which is contrary to my own pleasure.

"Finally, I have heard it frequently said, as a reproach, that many Japanese—wicked, corrupt men—go to your kingdom, remaining there many years, and then return to Japan. This complaint excites my anger, and therefore I must request your Excellency henceforth not to allow such persons to return in the ships which trade here. Concerning the remaining matters, I trust your Excellency will hereafter employ your judgment and circumspection in such a manner as to avoid incurring my displeasure for the future."

XXVII

Spain's discovery and occupation.

THE Philippines were discovered by Magellan on the 16th of March, 1521—St. Lazarus' day.* But it was not until 1564,† after many previous efforts had miscarried, that Legaspi, who left New Spain with five ships, took possession of the Archipelago in the name of Philip II. The discoverer had christened the islands after the sanctified Lazarus. This name, however,

* Magellan fell on April 27, struck by a poisoned arrow, on the small island of Mactan, lying opposite the harbor of Cebu. His lieutenant, Sebastian de Elcano, doubled the Cape of Good Hope, and on September 6, 1522, brought back one of the five ships with which Magellan set sail from St. Lucar in 1519, and eighteen men, with Pigafetta, to the same harbor, and thus accomplished the first voyage round the world in three years and fourteen days.

† 1565 is the date for what is now the Philippines.—C.

never grew into general use; the Spaniards persistently calling them the Western Islands—*Islas del Poniente*; and the Portuguese, *Islas del Oriente*. Legaspi gave them their present name* in honor of Philip II, who, in his turn, conferred upon them the again extinct name of New Castile.† Legaspi first of all annexed Cebu, and then Panay; and six years later, in 1571, he first subdued Manila, which was at that time a village surrounded by palisades, and commenced forthwith the construction of a fortified town. The subjection of the remaining territory was effected so quickly that, upon the death of Legaspi (in August, 1572), all the western parts were in possession of the Spaniards. Numerous wild tribes in the interior, however, the Mahomedan states of Mindanao and the Sulu group, for example, have to this day preserved their independence. The character of the people, as well as their political disposition, favored the occupancy. There was no mighty power, no old dynasty, no influential priestly domination to overcome, no traditions of national pride to suppress. The natives were either heathens, or recently proselytized superficially to Islamism, and lived under numerous petty chiefs who ruled them despotically, made war upon one another and were easily subdued. Such a community was called *Barangay*; and it forms to this day, though in a considerably modified form, the foundation of the constitutional laws. The Spaniards limited the power of the petty chiefs, upheld slavery, and abolished hereditary nobility and dignity, substituting in its place an aristocracy created by themselves for services rendered to the State; but they carried out all these changes very grad-

Numerous names.

Mindanao and Sulu independent.

Spanish improvements.

* Villalobos gave this name to one of the Southern islands and Legaspi extended it to the entire archipelago.—C.

† "According to recent authors they were also named after Villalobos in 1543. —Morga, p. 5.

ually and cautiously.* The old usages and laws, so long as they did not interfere with the natural course of government, remained untouched and were operative by legal sanction; and even in criminal matters their validity was equal to those emanating from the Spanish courts. To this day the chiefs of Barangay, with the exception of those bearing the title of "Don," have no privileges save exemption from the poll-tax and socage service. They are virtually tax-collectors, excepting that they are not paid for such service, and their private means are made responsible for any deficit. The prudence of such a measure might well be doubted, without regard to the fact that it tempts the chiefs to embezzlement and extortion; and it must alienate a class of natives who would otherwise be a support to the Government.

Unthinking policy of greed.

Since the measures adopted in alleviation of the conquest and occupancy succeeded in so remarkable a man-

High character of early administrators.

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* According to Morga (p. 140) there was neither king nor governor, but in each island and province were numerous persons of rank, whose dependants and subjects were divided into quarters (*barrios*) and families. These petty rulers had to render homage by means of tributes from the crops (*buis*), also by socage or personal service: but their relations were exempted from such services as were rendered by the plebeians (*timaguas*). The dignities of the chieftains were hereditary, their honors descended also to their wives. If a chief particularly distinguished himself, then the rest followed him; but the Government retained to themselves the administration of the *Barangays* through their own particular officials. Concerning the system of slavery under the native rule, Morga says (p. 41, abbreviated),—"The natives of these islands are divided into three classes —nobles, timaguas or plebeians, and the slaves of the former. There are different sorts of slaves: some in complete slavery (*Saguiguilires*), who work in the house, as also their children. Others live with their families in their own houses and render service to their lords at sowing and harvest-time, also as boatmen, or in the construction of houses, etc. They must attend as often as they are required, and give their services without pay or recompense of any kind. They are called *Namamahayes*; and their duties and obligations descend to their children and successors. Of these *Saguiguilires* and *Namamahayes* a few are full slaves, some half slaves, and others quarter slaves.

When, for instance, the mother or father was free, the only son would be half free, half slave. Supposing there were several sons, the first one inherits the father's position, the second that of the mother. When the number is unequal the last one is half free and half slave; and the descendants born of such half slaves and those who are free are quarter slaves. The half slaves, whether *saguiguilires* or *namamahayes*, serve their lords equally every month in turns. Half and quarter slaves can, by reason of their being partially free, compel their lord to give them their freedom at a previously determined and unfluctuating price: but full slaves do not possess this right. A *namamahaye* is worth half as much as a *saguiguilire*. All slaves are natives."

Again, at p. 143, he writes:—"A slave who has children by her lord is thereby freed together with her children. The latter, however, are not considered well born, and cannot inherit property; nor do the rights of nobility, supposing in such a case the father to possess any, descend to them."

ner, the governors and their subordinates of those days, at a time when Spain was powerful and chivalrous, naturally appear to have been distinguished for wisdom and high spirit. Legaspi possessed both qualities in a marked degree. Hardy adventurers were tempted there, as in America, by privileges and inducements which power afforded them; as well as by the hope, which, fortunately for the country, was never realized, of its being rich in auriferous deposits. In Luzon, for instance, Hernando Riquel stated that there were many gold-mines in several places which were seen by the Spaniards; "the ore is so rich that I will not write any more about it, as I might possibly come under a suspicion of exaggerating; but I swear by Christ that there is more gold on this island than there is iron in all Biscay." They received no pay from the kingdom; but a formal right was given them to profit by any territory which was brought into subjection by them. Some of these expeditions in search of conquest were enterprises undertaken for private gain, others for the benefit of the governor; and such service was rewarded by him with grants of lands, carrying an annuity, offices, and other benefits (*encomiendas, oficios y aprovechamientos*). The grants were at first made for three generations (in New Spain for four), but were very soon limited to two; when De los Rios pointed this out as being a measure very prejudicial to the Crown, "since they were little prepared to serve his Majesty, as their grand-children had fallen into the most extreme poverty." After the death of the feoffee the grant reverted to the State; and the governor thereupon disposed of it anew.

Conquerors on commission.

The whole country at the outset was completely divided into these livings, the defraying of which formed by far the largest portion of the expenses of the kingdom. Investitures of a similar nature existed, more or less,

The feudal "encomiendas."

in a territory of considerable extent, the inhabitants of which had to pay tribute to the feoffee; and this tribute had to be raised out of agricultural produce, the value of which was fixed by the feudal lord at a very low rate, but sold by him to the Chinese at a considerable profit. The feudal lords, moreover, were not satisfied with these receipts, but held the natives in a state of slavery, until forbidden by a Bull of Pope Gregory XIV, dated April 18, 1591. Kafir and negro slaves, whom the Portuguese imported by way of India, were, however, still permitted.

Extortions of encomenderos.

The original holders of feudal tenures amassed considerable booty therefrom. Zuñiga relates that as early as the time of Lavezares, who was provisional governor between 1572 and 1575, he visited the Bisayas and checked the covetousness of the encomenderos, so that at least during his rule they relaxed their system of extortion. Towards the end of Sande's government (1575-80) a furious quarrel broke out between the priests and the encomenderos; the first preached against the oppression of the latter, and memorialized Philip II thereon. The king commanded that the natives should be protected, as the extortionate greed of the feudal chiefs had exceeded all bounds; and the natives were then at liberty to pay their tribute either in money or in kind. The result of this well-intentioned regulation appears to have produced a greater assiduity both in agriculture and trade, "as the natives preferred to work without coercion, not on account of extreme want."

Salcedo "most illustrious of the conquerors."

And here I may briefly refer to the achievements of Juan de Salcedo, the most illustrious of all the conquerors. Supported by his grandfather, Legaspi, with forty-five Spanish soldiers, he fitted out an expedition at his own expense, embarked at Manila, in May, 1572, examined all parts of the west coast of the island, landed

in all the bays which were accessible to his light-draught ships, and was well received by the natives at most of the places. He generally found great opposition in penetrating into the interior; yet he succeeded in subduing many of the inland tribes; and when he reached Cape Bojeador, the north-west point of Luzon, the extensive territory which at present forms the provinces of Zambales, Pangasinan, and Ilocos Norte and Sur, acknowledged the Spanish rule. The exhaustion of his soldiers obliged Salcedo to return. In Vigan, the present capital of Ilocos Sur, he constructed a fort, and left therein for its protection his lieutenant and twenty-five men, while he himself returned, accompanied only by seventeen soldiers, in three small vessels. In this manner he reached the Cagayan River, and proceeded up it until forced by the great number of hostile natives to retreat to the sea. Pursuing the voyage to the east coast, he came down in course of time to Paracale, where he embarked in a boat for Manila, was capsized, and rescued from drowning by some passing natives.

"The Cortes of the Philippines."

In the meantime Legaspi had died, and Lavezares was provisionally carrying on the government. Salcedo heard of this with vexation at being passed over; but, when he recovered from his jealousy, he was entrusted with the subjugation of Camarines, which he accomplished in a short time. In 1574 he returned to Ilocos, in order to distribute annuities among his soldiers, and to receive his own share. While still employed upon the building of Vigan, he discovered the fleet of the notorious Chinese pirate, Limahong, who, bent upon taking possession of the colony, was then passing that part of the coast with sixty-two ships and a large number of soldiers. He hastened at once, with all the help which he could summon together in the neighborhood, to Manila, where he was nominated to the command of the troops, in the

place of the already deposed master of the forces; and he drove the Chinese from the town, which they had destroyed. They then withdrew to Pangasinan, and Salcedo burnt their fleet; which exploit was achieved with very great difficulty. In 1576 this Cortes of the Philippines died.*

Commercial importance of early Manila.

Apart from the priests, the first-comers consisted only of officials, soldiers, and sailors; and to them, naturally, fell all the high profits of the China trade. Manila was their chief market, and it also attracted a great portion of the external Indian trade, which the Portuguese had frightened away from Malacca by their excessive cruelty. The Portuguese, it is true, still remained in Macao and the Moluccas: but they wanted those remittances which were almost exclusively sought after by the Chinese, viz., the silver which Manila received from New Spain.

Spain and Portugal united.

In 1580 Portugal, together with all its colonies, was handed over to the Spanish Crown; and the period extending from this event to the decay of Portugal (1580-1640) witnessed the Philippines at the height of their power and prosperity.

Manila as capital of a vast empire.

The Governor of Manila ruled over a part of Mindanao, Sulu, the Moluccas, Formosa, and the original Portuguese possessions in Malacca and India. "All that lies between Cape Singapore and Japan is subject to Luzon; their ships cross the ocean to China and New Spain, and drive so magnificent a trade that, if it were only free, it would be the most extraordinary that the world could show. It is incredible what glory these islands confer upon Spain. The Governor of the Philippines treats with the Kings of Cambodia, Japan, China. The first is his ally, the last his friend; and the same with Japan. He declares war or peace, without waiting for the com-

* He made the Filipinos of his encomienda of Vigan his heirs, and has ever been held in grateful memory.—*C.*

mand from distant Spain."* But the Dutch had now begun the struggle, which they managed to carry on against Philip II in every corner of the world; and even in 1610 De Los Rios complained that he found the country very much altered through the progress and advance made by the Dutch; also that the Moros of Mindanao and Sulu, feeling that they were supported by Holland, were continually in a state of discontent. *Dutch opposition.*

The downfall of Portugal occasioned the loss of her colonies once more. Spanish policy, the government of the priests, and the jealousy of the Spanish merchants and traders especially, did everything that remained to be done to prevent the development of agriculture and commerce—perhaps, on the whole, fortunately, for the natives. *Decline of colony.*

The subsequent history of the Philippines is, in all its particulars, quite as unsatisfactory and uninteresting as that of all the other Spanish-American possessions. Ineffectual expeditions against pirates, and continual disputes between the clerical and secular authorities, form the principal incidents.† *Philippine history unimportant and unsatisfactory.*

After the first excitement of religious belief and military renown had subsided, the minds of those who went later to these outlying possessions, consisting generally as they did of the very dregs of the nation, were seized with an intense feeling of selfishness; and frauds and peculations were the natural sequence. The Spanish writers are full of descriptions of the wretched state of society then existing, which it is unnecessary to repeat here. *Undesirable emigrants from Spain.*

The colony had scarcely been molested by external enemies, with the exception of pirates. In the earliest *English occupation.*

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* Grav. 30.

† Chamisso ("Observations and Views," p. 72), thanks to the translator of Zuñiga, knew that he was in duty bound to dwell at some length over this excellent history; though Zuñiga's narrative is always, comparatively speaking, short and to the point. The judiciously abbreviated English translation, however, contains many miscomprehensions.

time the Dutch had engaged occasionally in attacks on the Bisayas. But in 1762 (during the war of the Bourbon succession) an English fleet suddenly appeared before Manila, and took the surprised town without any difficulty. The Chinese allied themselves with the English. A great insurrection broke out among the Filipinos, and the colony, under the provisional government of a feeble archbishop, was for a time in great danger. It was reserved for other dignitaries of the Church and Anda, an energetic patriot, to inflame the natives against the foreigners; and the opposition incited by the zealousness of the priests grew to such an extent that the English, who were confined in the town, were actually glad to be able to retreat. In the following year the news arrived from Europe of the conclusion of peace; but in the interval this insurrection, brought about by the invasion, had rapidly and considerably extended; and it was not suppressed until 1765, when the work was accomplished by creating enmity among the different tribes.* But this was not done without a loss to the province of Ilocos of two hundred sixty-nine thousand two hundred and seventy persons—half of the population, as represented by Zuñiga.

Many minor uprisings from local grievances.

Severity and want of tact on the part of the Government and their instruments, as well as bigoted dissensions, have caused many revolts of the natives; yet none, it is true, of any great danger to the Spanish rule. The discontent has always been confined to a single district, as the natives do not form a united nation; neither the bond of a common speech nor a general interest binding the different tribes together. The state communications and laws among them scarcely reach beyond the borders of the villages and their dependencies.

* Principally by hiring the assassination of the gifted native leader, Silang.—*C.*

Danger from mestizos and creoles.

A consideration of far more importance to the distant metropolis than the condition of the constantly excited natives, who are politically divided among themselves, and really have no steady object in view, is the attitude of the mestizos and creoles, whose discontent increases in proportion to their numbers and prosperity. The military revolt which broke out in 1823, the leaders of which were two creoles, might easily have terminated fatally for Spain. The latest of all the risings of the mestizos seems to have been the most dangerous, not only to the Spanish power, but to all the European population.*

Cavite 1872 mutiny.

On the 20th of January, 1872, between eight and nine in the evening, the artillery, marines, and the garrison of the arsenal revolted in Cavite, the naval base of the Philippines, and murdered their officers; and a lieutenant who endeavored to carry the intelligence to Manila fell into the hands of a crowd of natives. The news therefore did not reach the capital until the next morning, when all the available troops were at once dispatched, and, after a heavy preliminary struggle, they succeeded the following day in storming the citadel. A dreadful slaughter of the rebels ensued. Not a soul escaped. Among them was not a single European; but there were many mestizos, of whom several were priests and lawyers. Though perhaps the first accounts, written under the influence of terror, may have exaggerated many particulars, yet both official and private letters agree in describing the conspiracy as being long contemplated, widely spread, and well planned. The whole fleet and a large number of troops were absent at the time, engaged in the expedition against Sulu.

* Danger to Europeans, "Massacre of all white people," was a frequent Spanish allegation in political disturbances, but the only proof ever given (the 9th degree Masonic apron stupidly attributed to the Katipunan in 1896) was absurd and irrelevant.—C.

A portion of the garrison of Manila were to rise at the same time as the revolt in Cavite, and thousands of natives were to precipitate themselves on the *caras blancas* (pale faces), and murder them. The failure of the conspiracy was, it appears, only attributable to a fortunate accident—to the circumstance, namely, that a body of the rebels mistook some rocket fired upon the occasion of a Church festival for the agreed signal, and commenced the attack too soon.*

Summing up.

Let me be permitted, in conclusion, to bring together a few observations which have been scattered through the text, touching the relations of the Philippines with foreign countries, and briefly speculate thereon.

Credit due Spain.

Credit is certainly due to Spain for having bettered the condition of a people who, though comparatively speaking highly civilized, yet being continually distracted by petty wars, had sunk into a disordered and uncultivated state. The inhabitants of these beautiful islands, upon the whole, may well be considered to have lived as comfortably during the last hundred years, protected from all external enemies and governed by mild laws, as those of any other tropical country under native or European sway,—owing, in some measure, to the frequently discussed peculiar circumstances which protect the interests of the natives.

Friars an important factor.

The friars, also, have certainly had an essential part in the production of the results.

Their defects have worked out for good.

Sprung from the lowest orders, inured to hardship and want, and on terms of the closest intimacy with the natives, they were peculiarly fitted to introduce them to a practical conformity with the new religion and code of morality. Later on, also, when they possessed rich

* Professor Jagor here follows the report sent out by the authorities. There seems better ground for believing the affair to have been merely a military mutiny over restricting rights which was made a pretext for getting rid of those whose liberal views were objectionable to the government.—*C.*

livings, and their devout and zealous interest in the welfare of the masses relaxed in proportion as their incomes increased, they materially assisted in bringing about the circumstances already described, with their favorable and unfavorable aspects. Further, possessing neither family nor good education, they were disposed to associate themselves intimately with the natives and their requirements; and their arrogant opposition to the temporal power generally arose through their connection with the natives. With the altered condition of things, however, all this has disappeared. The colony can no longer be kept secluded from the world. Every facility afforded for commercial intercourse is a blow to the old system, and a great step made in the direction of broad and liberal reforms. The more foreign capital and foreign ideas and customs are introduced, increasing the prosperity, enlightenment, and self-respect of the population, the more impatiently will the existing evils be endured.

Contrast with English colonies.

England can and does open her possessions unconcernedly to the world. The British colonies are united to the mother country by the bond of mutual advantage, *viz.* the production of raw material by means of English capital, and the exchange of the same for English manufactures. The wealth of England is so great, the organization of her commerce with the world so complete, that nearly all the foreigners even in the British possessions are for the most part agents for English business houses, which would scarcely be affected, at least to any marked extent, by a political dismemberment. It is entirely different with Spain, which possesses the colony as an inherited property, and without the power of turning it to any useful account.

Menaces to Spanish rule.

Government monopolies rigorously maintained, insolent disregard and neglect of the mestizos and power-

ful creoles, and the example of the United States, were the chief reasons of the downfall of the American possessions. The same causes threaten ruin to the Philippines: but of the monopolies I have said enough.

Growing American influence.

Mestizos and creoles, it is true, are not, as they formerly were in America, excluded from all official appointments; but they feel deeply hurt and injured through the crowds of place-hunters which the frequent changes of ministries send to Manila. The influence, also, of the American element is at least visible on the horizon, and will be more noticeable when the relations increase between the two countries. At present they are very slender. The trade in the meantime follows in its old channels to England and to the Atlantic ports of the United States. Nevertheless, whoever desires to form an opinion upon the future history of the Philippines, must not consider simply their relations to Spain, but must have regard to the prodigious changes which a few decades produce on either side of our planet.

Powerful neighbors.

For the first time in the history of the world the mighty powers on both sides of the ocean have commenced to enter upon a direct intercourse with one another—Russia, which alone is larger than any two other parts of the earth; China, which contains within its own boundaries a third of the population of the world; and America, with ground under cultivation nearly sufficient to feed treble the total population of the earth. Russia's future role in the Pacific Ocean is not to be estimated at present.

China and America.

The trade between the two other great powers will therefore be presumably all the heavier, as the rectification of the pressing need of human labor on the one side, and of the corresponding overplus on the other, will fall to them.

Nearing predominance of the Pacific.

The world of the ancients was confined to the shores of the Mediterranean; and the Atlantic and Indian Oceans sufficed at one time for our traffic. When first the shores of the Pacific re-echoed with the sounds of active commerce, the trade of the world and the history of the world may be really said to have begun. A start in that direction has been made; whereas not so very long ago the immense ocean was one wide waste of waters, traversed from both points only once a year. From 1603 to 1769 scarcely a ship had ever visited California, that wonderful country which, twenty-five years ago, with the exception of a few places on the coast, was an unknown wilderness, but which is now covered with flourishing and prosperous towns and cities, served by a sea-to-sea railway, and its capital already ranking the third of the seaports of the Union; even at this early stage of its existence a central point of the world's commerce, and apparently destined, by the proposed junction of the great oceans, to play a most important part in the future.

The mission of America.

In proportion as the navigation of the west coast of America extends the influence of the American element over the South Sea, the captivating, magic power which the great republic exercises over the Spanish colonies* will not fail to make itself felt also in the Philippines. The Americans are evidently destined to bring to a full development the germs originated by the Spaniards. As conquerors of modern times, representing the age of free citizens in contrast to the age of knighthood,

* I take the liberty, here, of citing an instance of this. In 1861, when I found myself on the West Coast of Mexico, a dozen backwoods families determined upon settling in Sonora (forming an oasis in the desert); a plan which was frustrated by the invasion at that time of the European powers. Many native farmers awaited the arrival of these immigrants in order to settle under their protection. The value of land in consequence of the announcement of the project rose very considerably.

they follow with the plow and the axe of the pioneer, where the former advanced under the sign of the cross with their swords.

Superiority over Spanish system.

A considerable portion of Spanish-America already belongs to the United States, and has since attained an importance which could not possibly have been anticipated either under the Spanish Government or during the anarchy which followed. With regard to permanence, the Spanish system cannot for a moment be compared with that of America. While each of the colonies, in order to favor a privileged class by immediate gains, exhausted still more the already enfeebled population of the metropolis by the withdrawal of the best of its ability, America, on the contrary, has attracted to itself from all countries the most energetic element, which, once on its soil and, freed from all fetters, restlessly progressing, has extended its power and influence still further and further. The Philippines will escape the action of the two great neighboring powers all the less for the fact that neither they nor their metropolis find their condition of a stable and well-balanced nature.

Need of gradual Philippine awakening.

It seems to be desirable for the Filipinos that the above-mentioned views should not speedily become accomplished facts, because their education and training hitherto have not been of a nature to prepare them successfully to compete with either of the other two energetic, creative, and progressive nations. They have, in truth, dreamed away their best days.