
MINDORO
100 Fathom line
Pangutarang
Group
Pangutarang Passage
SULU
ARCHIPELAGO
Sulu Island
Tapul Group
Siasi
Tawi-Tawi Group
Tawi-Tawi
Sibutu Passage
6°
120°
Stanford's Geogl Estabt

[No. 21.]

JOURNAL

OF THE

STRAITS BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

JUNE, 1890.

SINGAPORE:

PRINTED AT THE GOVERNMENT PRINTING OFFICE.

AGENTS OF THE SOCIETY:

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THE

STRAITS BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

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MR. R. B. SHARPE ON BIRDS COLLECTED IN PERAK.

FROM the collections previously sent by Mr. WRAY (*cf.* P. Z. S., 1886, p. 350, and 1887, p. 431), it was so easy to prophecy that his future explorations would bring to light the existence of more Himalayan genera in the high mountains of the Malay Peninsula, that I can take little credit for my prognostications; but the foreshadowing of Mr. WRAY'S accomplishments does not impair the credit of that explorer's success in his last expedition into the mountain ranges of the interior of the Peninsula.

He states that the mountains, on which he has lived for six months, "contain really very few more birds than the Larut range, though they are so much more extensive," and he collected up to an altitude of 7,000 feet.

By the present collection several interesting forms have been revealed, representatives of allied species in Tenasserim, and the ranges of several birds are extended southwards. The genera hitherto unrecorded from the mountains of Malacca are *Anthipes*, *Brachypteryx*, *Gamsorhynchus*, and *Cutia*—all Himalayan in Tenasserim forms, of which, so far as we know, only *Brachypteryx* has occurred in Sumatra. The Avifauna of the latter island is further linked to that of the mountain ranges of the Malay Peninsula by the discovery of a black Babbling Thrush representing the *Melanocichla bicolor* of Sumatra.

The unexampled success which has attended Mr. WRAY'S efforts so far will, we hope, encourage him to still further investigations of the interesting region in which he is domiciled.

The references in the present paper are chiefly to Mr. OATES' "Handbook of the Birds of British Burma," which

includes an allusion to the paper on the birds of Tenasserim by Messrs. HUME & DAVISON. I have also referred to Count SALVADORI'S essay on Dr. BECCARI'S collections from high Sumatra (Ann. Mus. Civic. Genov. xiv, p. 169), whenever there occurs any affinity in the Avifauna of that island with the collection under discussion.

Mr. WRAY'S original remarks, by far the most important part of the present paper, are placed in inverted commas.

FAM.—FALCONIDÆ.

Neopus malayensis (Temm.).

Neopus malayensis, Sharpe, P. Z. S., 1887, p. 433; Hume, Str. F., 1879, p. 44.

"No. 18. ♀ ad. Mountains of Perak (Gunong Batu Puteh).

"Irides brown; feet yellow; cere yellow; expanse 5 feet 10 in., length 2 feet 5 in.

"The stomach contained the remains of a rat, a bird's egg, and a snake's egg. The plumage of this specimen was far darker than that of the two I obtained last year on the Larut Hills."

FAM.—CORVIDÆ.

Platylophus ardeciacus (Blyth).

Platylophus ardesiacus, Sharpe, Cat. Birds Brit. Mus., iii, p. 137; Hume & Davison, Str. F., 1878, p. 380; Oates, B. Brit. Burm., i, p. 410; Hume, Str. F., 1879, p. 66.

"No. 117. ♀ ad. Batang Padang (mountains of Perak).

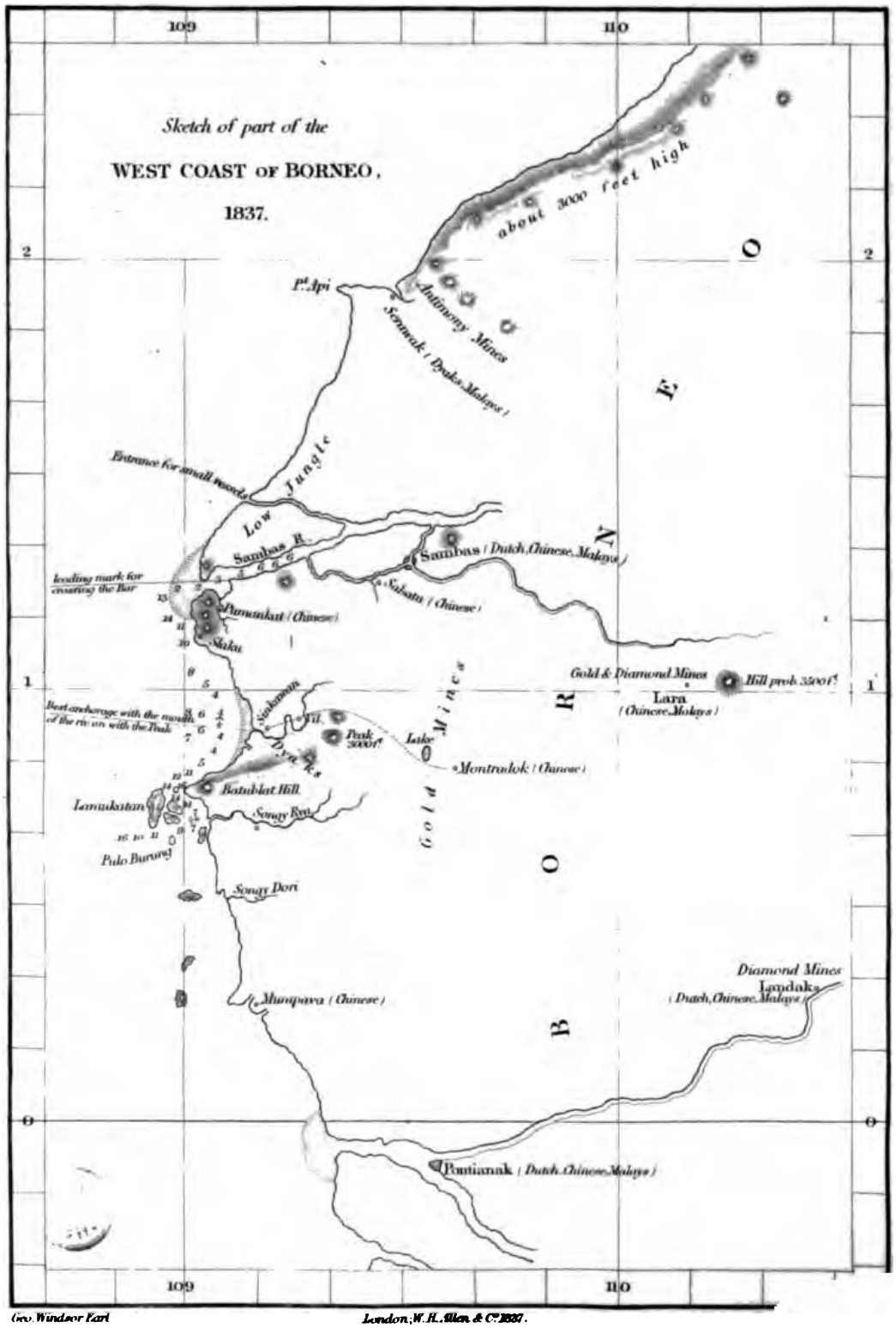
"Irides dark brown; bill black; feet and leg black. It frequents the undergrowth of the forest."

FAM.—CAMPOPHAGIDÆ.

Pericrocotus wrayi, Sp. n. (Plate xv).

"No. 53. *P. igneus,* ♂ ♀ ad. Batang Padang mountains, Perak."

I can hardly believe that this is the species I identified and returned to Mr. WRAY as *Pericrocotus igneus* (P. Z. S., 1887, p. 435. If such be the case, I was greatly in error, for the pair of birds now sent are decidedly distinct from that species. *P. wrayi* has the quill-lining red, instead



Geo. Windsor Earl

London; W. H. Allen & Co. 1837.

of yellow, and also the under wing-coverts, and it has the throat slaty grey and the ear-coverts slaty black, instead of glassy black like the head. Total length 6.3 in., culmen 0.5, wing 3.1, tail 3.2, tarsus 0.55. The female of *P. igneus* differs very much from the female of *P. wrayi* in being entirely bright yellow below and in having a scarlet rump. The nearest ally of *P. wrayi* as regards the female plumage is that of *P. brevirostris*, but *P. wrayi* is of a darker slate-grey, has a brighter yellow lower back and rump, no yellow on the forehead, and the chin white.

The males of *P. neglectus* and *P. brevirostris* differ in their glassy black throat and fiery crimson, not scarlet, under surface.

While on the subject of the genus *Pericrocotus*, I may mention that Count SALVADORI very kindly sent me over the types of his new species from Tenasserim, and I am able to state with certainty that *P. rubrolimbatus*, Salvad., Ann. Mus. Civic. Genov. (2) v, p. 582, is=*P. solaris*, and *P. pulcherrimus*, Salvad., *t. c.*, p. 580, is=*P. neglectus* of Hume.

Pericrocotus croceus, Sp. n.

"No. 107. ♂ ad. Gunong Batu Puteh (4,300 feet).

"Irides dark brown; legs and feet black."

This is a beautiful bird, but I feel grave doubts whether it is anything more than a yellow variety of *P. wrayi*, the red part in *P. wrayi* being golden yellow in *P. croceus*, and the throat is darker, being black like the cheeks and sides of face. Total length 6.1 inches, culmen 0.45, wing 3.4, tail 2.95, tarsus 0.55.

FAM.—MUSCICAPIDÆ.

Muscicapula hyperythra (Blyth).

Muscicapula hyperythra, Sharpe, Cat. B. Brit. Mus., iv, p. 206; Salvad., *t. c.*, p. 203.

"No. 93. ♂ ad. Ulu Batang Padang (4,200 feet).

"Irides dark brown; legs and feet flesh-colour. Frequents the undergrowth in the forests."

This little Flycatcher is now recorded from the Malay

Peninsula for the first time. Its presence was, however, to be suspected, as the species occurs in the Eastern Hymalayas and again in Java and Sumatra.

Muscicapula westermanni, Sp. n.

"No. 115. ♂ ad. Gunong Ulu Batang Padang (4,200 feet).

"Irides light brown."

Adult male.—General colour above blue grey, with a slight brown wash on the scapulars and lower back; rump ochreous brown; upper tail-coverts a little more refuscent; wing-coverts dusky, edged with ochreous brown; bastard-wing, primary-coverts, and quills blackish, fringed with olive-brown, the secondaries rather more rufescent on the base of the outer web, tail feathers brown, externally rufous brown; head blue-grey like the back, a little more hoary on the forehead; lores and eyelid white; ear-coverts and sides of face blue-grey, with a few whitish lines on the former; throat white, with a slight ashy tinge; remainder of under surface of body white, the sides of the breast ashy grey; sides of the body also washed with ashy grey; under tail-coverts white; thighs ashy; axillaries and under wing-coverts white, the edge of the wing blackish; quills dusky below, white along the edge of the inner web. Total length 3.7 inches, culmen 0.45, wing 2.2, tail 1.55, tarsus 0.55.

This is a very curious form, recalling the characters of several of the other *Muscicapulæ*. It may not be the fully adult of its species, but I believe it to be so. The reddish upper tail-coverts and tail remind one of the female of *M. maculata,* but the blue-grey upper surface distinguishes it at a glance. The female and young male of *M. superciliaris* have generally an ochreous tinge on the throat which distinguish them; but one specimen from Sikhim is white below like *M. westermanni,* while the upper surface is brown and the shade of blue which is seen on it (it is apparently a young male) is not slaty blue, but bright blue as in the adults.

Tersiphone affinis (Blyth.).

Tersiphone affinis, Oates, B. Brit. Burm., i., p. 261.

Muscipeta affinis, Hume, Str. F., 1879, p. 58.

"No. 118. ♂ ad. Batang Padang mountains, Perak.

"Irides dark brown; bill black; legs and feet same. This species occurs in Penang, Province Wellesley, and Batang Padang District of Perak, but in Larut it is replaced by a slightly larger and whiter species."

Philentoma velatum (Temm.).

Philentoma velatum, Oates, *t. c.*, p. 263; Hume, Str. F, 1879, p. 58.

"No. 128. ♂ ad. Batang Padang mountains, Perak.

"Irides crimson; bill black; feet and legs black."

Philentoma pyrrhopterum (Temm.).

Philentoma pyrrhopterum, Oates, *t. c.*, p. 264; Hume, Str. F., 1879, p. 58.

"No. 127. ♂ ad. Batang Padang mountains, Perak.

"Irides red; bill black."

Identical with male from other parts of the peninsula and from Tenasserim. I have re-examined the type of *P. intermedium* of Hume from Johor, and I cannot see how it differs from *P. pyrrhopterum*.

Culicicapa ceylonensis (Sw.).

Culicicapa ceylonensis, Sharpe, Cat. Birds Brit. Mus., iv, p. 369; Oates, *t. c.*, p. 274; Hume, Str. F., 1879, p. 59.

"No. 111. ♂ ad. Gunong Puteh (3,400 feet).

"Irides reddish brown; feet and legs warm brown; soles of feet red; bill black."

Cryptolopha davisoni, Sp. n.

"No. 96. ♂ ad. Gunong Ulu Batang Padang (4,200 feet).

"Irides dark brown; bill above brown, beneath yellow; legs and feet flesh-colour."

This is a Malayan representative of *C. montis* of Kina Balu, from which it differs in its larger size and intensified colouring, being dark grass-green instead of yellowish green, having all the rufus parts of the head chestnut instead of ferruginous, and in being much brighter yellow below. Total length 3.8 inches, culmen 0.4, wing 2.15, tail 1.55, tarsus 0.7.

Cryptolopha trivirgata (Strickl.).
Cryptolopha trivirgata, Sharpe, P. Z. S., 1887, p. 435; Salvad., *t. c.*, 204.
"No. 97. ♀ ad. Gunong Batu Puteh (4,300 feet).
"Irides dark brown."

Stoparola thalassinoides (Cab.).
Stoparola thalassinoides, Sharpe, Cat. B. Brit. Mus., iv, p. 432; Hume, Str. F., 1879, p. 59.
"No. 136. ♂ ad. Larut.
"Irides light brown."
A truly Malayan species, represented by the ordinary *S. melanops* in Tenasserim, to which province the present bird does not extend.

Anthipes malayana, Sharpe, *antea,* p. 247.
"No. 94. ♂ ad. Gunong Batu Puteh (4,300 feet).
"Irides dark brown; legs and feet white; bill nearly black. Lives apparently on the ground."
A young bird, mottled all over after the manner of Fly-catchers, is sent by Mr. WRAY from the same locality. "No. 98. Irides deep brown; legs and feet pale flesh-colour. Hops about among the undergrowth, searching for insects, making a nearly continual chirping." Although the Hume collection does not contain any young *Anthipes* for comparison, I think that the present specimen must belong to a species of that subgenus.

Niltava grandis (Hodgs.).
Niltava grandis, Sharpe, P. Z. S., 1886, p. 251.
"No. 11. ♀ ad. Batang Padang mountains, Perak."

Niltava leucoprocta (Tweed.).
Niltava leucoprocta, Oates, B. Brit. Burm., i, p. 298.
"No. 103. ♂ ad. Gunong Batu Puteh (3,400 feet).
"Irides light brown; bill black; legs and feet light grey; soles of feet flesh-colour."
I have compared the adult male now sent with others from Tenasserim, and find it to be identical. The extension of the range of the species is interesting.

FAM.—PYCNONOTIDÆ.

Criniger gutturalis (Bp.).

Criniger gutturalis, Oates, *t. c.*, p. 185; Hume, Str. F., 1879, p. 61.

"Nos. 104, 105. ♂ ad. Gunong Batu Puteh (3,400 feet).

"Irides red-brown. A noisy harsh-voiced bird; flies in small parties, rather high up in the trees."

Mr. WRAY sends me one *Criniger* (No. 105), which, after much hesitation and careful comparison with the series of skins in the Hume collection, I have decided to be only the young of *C. gutturalis*. Its much lighter bill and rufous wings and tail, at first sight, make it look very different.

Rubigula cyaniventris (Blyth).

Rubigula cyaniventris, Oates, *t. c.*, p. 200.

Ixidia cyaniventris, Hume, Str. F., 1879, p. 63; Salvad., *t. c.*, p. 230.

"No. 131. ♀ ad. Larut.

"Irides light brown."

Trachycomus ochrocephalus (Gm.).

Trachycomus ochrocephalus, Oates, *t. c.*, p. 188; Hume, Str. F., 1879, p. 61; Salvad, *t. c.*, p. 218.

"No. 121. ♂ ad. Batang Patang mountains, Perak.

"Irides brown; bill black.

"This is the *Sibharoh* or *Upih Bidau* of the Malays. It is very plentiful among the bushes which fringe the river-banks, but it is so shy that is hardly ever seen, though its prolonged, loud, musical, and very involved song is one of the most noticeable river side sounds in the country."

FAM.—TROLODYTIDÆ.

Pnoëpyga pusilla (Hodgs.).

Pnoëpyga pusilla, Hume and Davison, *t. c.*, p. 234; Salvad., *t. c.*, p. 226.

"No. 95. ♀ ad. Gunong Batu Puteh (4,300 feet).

"Irides dark brown; feet and legs pale brown; bill black, whitish beneath and at angle. Ground bird."

Identical with a specimen collected in Karennee by Captain WARDLAW RAMSAY. It has also occurred on Mooleyit.

FAM.—TIMELIIDÆ.

Brachypteryx nipalensis (Hodgs.).

Brachypteryx nipalensis, Hume and Davison, *t. c.*, p. 236; Oates, *t. c.*, p. 19.

"No. 89. ♂ ad. Gunong Batu Puteh (4,300 feet).

"Irides brown; bill black; feet and legs ash-colour. Lives on the ground in the forest."

An adult male, rather darker than the generality of Himalayan and Tenasserim specimens, though some of the latter equal it in intensity of colouring.

Phyllergates cucullatus (Temm.).

Phyllergates cucullatus, Sharpe, P. Z. S., 1887, p. 440.

"No. 112. ♀ ad. Gunong Batu Puteh (3,400 feet).

"Irides dark brown; bill black above, yellowish beneath; legs and feet pale-brown. Also met with on Gunong Ulu Batang Padang at about the same altitude."

Gampsorhynchus saturatior, Sp. n.

"No. 101. ♀ ad. Gunong Batu Puteh (3,400 feet).

"Irides bright yellow; legs and feet bluish ash with tintings of flesh-colour in places; claws flesh-colour; soles of feet dull yellow; bill pale flesh-colour, dusky on the ridge below the nostrils. The fold of skin in which the rictal bristles are inserted is very prominent, and evidently when alive the bird can move the bristles as a whole backwards and forwards with great freedom.

"Length 10½ inches, expanse 12 inches. The stomach contained one large hairy caterpillar and the partly digested remains of various insects, and the egg of one of the Phasmidæ.

"This bird gave me a great deal of trouble, for every night and early each morning a small party of them used to pass the camp, sometimes on one side and sometimes on the other. They made a loud shrill cry something like the cry of the

Krekah monkey, and flew quickly from tree to tree. Day after day we went out into the jungle to watch for them, but as there was no certainty which side of the camp they would take, and they always passed when it was so dark in the forest that neither they nor the sight of the gun could be distinguished, we were never successful, until nearly the last day of our stay at that camp, in shooting one. The strange thing was that we never saw these birds in the daytime. They passed up the hill to roost at night-fall and down again at dawn. Their note is so loud and distinctive, and they are so noisy, that they could not easily be overlooked or mistaken for any other bird.

"They are evidently rare, as only this one small party was seen."

This new species is very closely allied to *G. torquatus* (Hume) from Tenasserim, but is altogether of much darker colour, the upper surface being more rufous-brown. It is evidently a southern race of the Tenasserim form.

Sibia simillima, Salvad.
Sibia simillima, Sharpe, P. Z. S., 1886, p. 352.
Heterophasia simillima, Salvad., *t. c.*, p. 232.
"No. 13. ♂ ad. Batang Padang mountains, Perak."

Pomatorhinus borneensis, (Cab.).
Pomatorhinus borneensis, Sharpe, Cat. B. Brit. Mus., vii, p. 411; Hume, Str. F., 1879, p. 61.
"No. 100. ♂ ad. Gunong Batu Puteh (3,400 feet).
"Irides very light brown; bill white, with black on the top of the ridge, reaching about halfway to the point; legs and feet bluish ash; soles of feet yellowish brown.
"Only one pair of these birds were seen; they were in company with a number of other birds."

Melanocichla peninsularis, Sp. n.
"No. 84. ♂ ad. Gunong Batu Puteh (3,400 feet).
"Irides bluish grey; bare skin round eye and also the skin of the head and neck under the feathers dark purplish blue; bill bright reddish orange; legs grey, edges of the scales

yellowish; feet same, but more yellow; soles of feet yellow. Stomach contained a quantity of reddish-coloured ants. It is a shy and uncommon bird, frequents dense jungle, in pairs or small parties of three or four, is noisy and harsh-voiced. I saw it also at nearly 5,000 feet on Gunong Ulu Batang Padang."

This species is an interesting representative of *M. lugubris* of Sumatra, but is slaty grey, instead of brown on blackish, both above and below.

Total length 10 inches, culmen 1.1, wing 4.8, tail 4.6, tarsus 1.45.

Rhinocichla mitrata (S. Müll.).
Rhinocichla mitrata, Sharpe, P. Z. S., 1886, p. 352.
Leiothrix mitrata, Salvad., *t. c.*, p. 230.
"No. 12. ♀ ad. Batang Padang mountains, Perak."

Stachyris nigriceps (Hodgs.).
Stachyris nigriceps, Sharpe, P. Z. S., 1887, p. 440.
"No. 84. ♀ ad. Gunong Batu Puteh and Gunong Ulu Batang Padang (4,000 to 5,000 feet).
"Irides light brown; bill black, greyish beneath; feet, legs and claws ash-colour, slightly tinted with green. Soles of feet light brown. Stomach contained insects. This birds is usually in company with other small birds."

Stachyris nigricollis (Temm.).
Stachyris nigricollis, Sharpe, Cat. B. Brit. Mus., vii, p. 535.
Timelia nigricollis, Hume, Str. F., 1879, p. 60.
"No. 125. ♂ ♀ ad. Batang Padang mountains, Perak."
"Irides red; bill above black, lower mandible pale straw-colour, tipped dusky."

Turdinus sepiarius (Horsf.).
Turdinus sepiarius, Sharpe, Cat. B. Brit. Mus., vii, p. 544.
"No. 132. ♀ ad. Kinta, Perak mountains.
"Apparently not to be separated from Javan and Bornean specimens. The flanks are perhaps a trifle more rufous-brown."

Drymocataphus nigricapitatus (Eyton.).
Drymocataphus nigricapitatus, Oates, *t. c.*, p. 63.
"No. 135. ♂ ad. Larut, Perak mountains.
"Irides red."

Mixornis gularis (Raffl.).
Mixornis gularis, Oates, *t. c.*, p. 51 ; Hume, Str. F., 1879, p. 60; Salvad., *t. c.*, p. 223.
"No. 134. Larut, Perak mountains.
"Irides dark brown."

Macronus ptilosus, J. & S.
Macronus ptilosus, Sharpe, Cat. B. Brit. Mus., vii, p. 583; Hume, Str. F., 1879, p. 60; Salvad., *t. c.*, p. 224.
"No. 124. ♂ ad. Batang Padang mountains, Perak.
"Irides dark brown; bill black; skin of head and neck and round eyes cobalt-blue."

Herpornis xantholeuca (Hodgs.).
Herpornis xantholeuca, Oates, *t. c.*, p. 151.
"No. 109. ♂ ad. Gunong Batu Puteh (3,400 feet).
"Irides dark brown; feet and legs flesh-colour, bill black above, fleshy beneath and at angle."

Siva castaneicauda (Hume).
Siva castaneicauda, Hume and Davison, Str. F., 1878, p. 371 ; Oates, *t. c.*, p. 145.
"No. 102. ♂ ad. Gunong Batu Puteh.
"Irides dark brown; feet and legs bluish-grey ; bill brown, pale beneath. This bird seems to have the same habits as *Mesia argentauris.* I saw it on the summits of Gunong Batu Puteh and Gunong Brumbrin at between 6,000 and 7,000 feet altitude. The only other birds I noticed were *Æthopyga wrayi* (Sharpe) and a large light greyish-brown-coloured Eagle; but this latter was far out of range."
Identical with the types from Tenasserim in the Hume collection.

Siva sordidior, Sp. n.
Siva sordida, Sharpe, P. Z. S., 1887, p. 438 (nec Hume).

"No. 33. ♂ ad. Batang Padang mountains, Perak."

In my first paper I ventured to doubt the identity of a specimen sent by Mr. WRAY with *Siva sordida* of Hume from Tenasserim; but as that specimen was not adult, I refrained from describing it. Now that two more adult birds have been procured by Mr. WRAY, there is no longer any doubt that the Perak bird is distinct, differing in its still duller colouration, the absence of blue on the head, which is like the back, and also in the absence of the ochreous brown-colour of the lower back and rump. Total length 6 inches, culmen 0.55, wing 2.55, tail 2.6, tarsus 0.85.

Mesia argentauris (Hodgs.).
Mesia argentauris, Sharpe, P. Z. S., 1886, p. 352.
"No. 10. ♂ ad. Batang Padang mountains, Perak."

Cutia cervinicrissa, Sp. n.
"No. 85. ♂ ♀ ad. Gunong Batu Puteh.
"Irides light brown; legs and feet bright chrome-yellow; claws white; bill black above, grey beneath and at angle. It is a rare bird, and I did not see it lower than 4,000 feet. It frequents the higher trees, in small parties of three or four, and has a loud whistling double note, repeated several times in succession."

This is a race of *C. nipalensis*, a bird unknown in Tenasserim, from which the Perak form differs in its fulvescent under-surface, and twany-coloured lower abdomen and under tail-coverts. These characters, though slight, are well established when the pair sent by Mr. WRAY are compared with our large series in the British Museum, all of which are white below. The measurement are as follows:—

	Total length.	*Culmen.*	*Wing.*	*Tail.*	*Tarsus.*
♂ ad. Perak (*Wray*)	7.0	0.8	3.65	2.3	1.1.
♀ ad. „ „	6.4	0.85	3.3	2.15	1.1.

FAM.—LANIIDÆ.

Pterythrius æralatus (Tickell).
Pterythrius æralatus, Sharpe, P. Z. S., 1887, p. 440.

"No. 34. ♀ ad. Batang Padang mountains, Perak."

Count SALVADORI has recently (Ann. Mus. Civic. Genov. (2) v, p. 600) expressed his non-concurrence in the views of Captain WARDLAW RAMSAY and myself that *Pterythrius cameranoi* of Sumatra is identical with *P. æralatus* of Tickell. The male of *P. cameranoi* is said by him to want the rosey tinge on the flanks, which is present in Tenasserim specimens, which are also larger; while the female of *P. cameranoi* differs from that of *P. æralatus* in the grey of the head being less pure, the back more olivaceous, and in the rufous colour of the under parts being brighter and more extened towards the throat. I therefore once more compared our series of these two birds in the British Museum, including the specimens in the Tweeddale collection. I agree with Count SALVADORI that the females are rather different, as described by him, and the female from Perak is grey-headed like the Tenasserim bird, but the male agrees with the Sumatran *P. cameranoi* better than with the true *P. æralatus*. There is a slight difference in the gloss of the head in the males from Tenasserim and Sumatra, the latter having a blue black gloss, and the Tenasserim birds being rather greenish black on the head. The Sumatra birds have decidedly more pink on the flanks.

FAM.—PARIDÆ.

Melanochlora sultanea (Hodgs.).

Melanochlora sultanea, Hume and Davison, Str. F., 1878, p. 378; Oates, *t. c.*, p. 129; Hume, Str. F., 1879, p. 65.

"No. 90. ♂ ad. Gunong Batu Puteh.

"Irides brown; bill dark grey; feet and legs blue grey. This 'Sultan Tit' I have seen as high as 4,500 feet, both on the Larut Hills and also on the main mountain chain."

FAM.—NECTARINIIDÆ.

Æthopyga wrayi.

Æthopyga wrayi, Sharpe, P. Z. S., 1887, p. 440.

"No. 108. ♀ ad. Gunong Batu Puteh (3,400 feet).

"Irides black; legs and feet brown; bill black, yellowish at angle."

Not distinguishable from the female of *Æ. sanguinipectus*.

FAM.—DICÆIDÆ.

Prionochilus ignicapillus (Eyton).

Prionochilus ignicapillus, Sharpe, Cat. B. Brit. Mus., x, p. 65.

"No. 110. ♂ ad. Gunong Batu Puteh (3,400 feet).

"Irides brown; bill black above, yellow beneath with dusky tip; legs and feet nearly black."

A young bird, without any of the fine colouring of the adult, being almost entirely olive green.

Proc. Zool. Soc., 1888, No. xx.

FAM.—MOFACILLIDÆ.

Limonidromus indicus (Gm.).

Limonidromus indicus, Oates, *t. c.*, p. 164; Hume, Str. F., 1879, p. 65.

"No. 133. ♀ ad. Larut, Perak mountains."

FAM.—EURYLÆMIDÆ.

Corydon sumatranus (Raffl.).

Corydon sumatranus, Hume and Davison, *t. c.*, p. 97; Oates, *t. c.*, p. 430; Hume, Str. F., 1879, p. 50; Salvad., *t. c.*, p. 220.

"No. 92. ♀ ad. Gunong Batu Puteh (3,400 feet).

"Irides light brown; bill above reddish, on ridge lighter, white at tip, beneath pale flesh-colour; bare skin round eye flesh-red; feet and legs black; soles of feet light brown.

"Male has the bill black above tinted with red. The patch under the neck is also paler than in the female.

"The bird I send from the low country (No. 116) differs in several respects from the hill form, but possibly the differences are not sufficient to separate the two specially. Iris brown; bill fleshy red."

The difference in plumage noticed by Mr. WRAY consists principally in the darker colouration of one of the specimens, but it is not sufficient to separate them.

FAM.—CAPRIMULGIDÆ.

Lyncornis temmincki (Gould).
Lyncornis temmincki, Hume, Str. F., 1879, p. 48; Salvad., *t. c.*, p. 195.
"No. 129. ♂ ad. Batang Padang mountains, Perak.
"Irides dark brown."

FAM.—CYPSELIDÆ.

Macropteryx comatus (Temm.).
Macropteryx comatus, Hume and Davison, Str. F., 1878, p. 51; Salvad., *t. c.*, p. 196.
Dendrochelidon comata, Hume, Str. F., 1879, p. 47.
"No. 120. ♂ ♀ Batang Padang mountains, Perak."
"Irides dark brown. This bird sits on the upper branches of a tall tree and flies off, like a Flycatcher, after insect, returning again to its perch. I have seen it on the hills as high as 1,000 feet."

Macropteryx longipennis (Raffl.).
Macropteryx longipennis, Hume and Davison, *t. c.*, p. 52.
Dendrochelidon longipennis, Hume, Str. F., 1879, p. 47.
"No. 130. ♂ ad. Larut, Perak mountains.
"Irides dark brown."

FAM.—PICIDÆ.

Miglyptes tukki (Less.).
Myglyptes tukki, Oates, *t. c.*, vol. ii, p. 61; Hume, Str. F., 1879, p. 52; Hargitt, Ibis, 1884, p. 193.
"No. 123. ♂ ad. Batang Padang mountains, Perak."
"Irides brown; bill black above, pale hony beneath."

Lepocestes pyrrhotis (Hodgs.).
Venilia pyrrhotis, Hume and Davison, Str. F., 1878, p. 142; Oates, *t. c.*, p. 39.
"No. 99. ♂ ad. Gunong.
"Irides warm light brown; bill pale yellow; feet and legs

dull blackish brown. Seems to be rare, as I only saw this single specimen."

Lepocestes porphyromelas (Boil.).
Lepocestes porphyromelas, Salvad., *t. c.*, p. 181.
Venilia porphyromelas, Hume and Davison, *t. c.*, p. 143; Oates, *t. c.*, p. 40; Sharpe, P. Z. S., 1887, p. 443.
Blythipicus porphyromelas, Hume, Str. F., 1879, p. 52.
"No. 91. ♂ ad. Gunong Batu Puteh (3,400 feet).
"Irides red; bill bright yellow; feet and legs dark blackish brown."

Gecinus puniceus (Horsf.).
Gecinus puniceus, Hargitt, Ibis, 1888, p. 176.
Chrysophlegma puniceus, Oates, *t. c.*, p. 44.
Collolophus puniceus, Hume, Str. F., 1879, p. 52.
"No. 113. ♀ ad. Gunong Batu Puteh (3,400 feet).
"Irides red brown; bill black above, yellow beneath."

Micropternus brachyurus (V.).
Micropternus brachyurus, Oates, *t. c.*, p. 58; Hume, Str. F., 1879, p. 52; Hargitt, Ibis, 1888, p. 10.
"No. 122. ♂ ad. Batang Padang mountains, Perak.
"Irides dark brown; bill black."

Sasia abnormis (T.).
Sasia abnormis, Hume, Str. F., 1879, p. 53; Hargitt, Ibis, 1881, p. 235.
"No. 126. ♂ ad. Batang Padang mountains, Perak.
"Irides white, skin round eye fleshy red; bill above black, beneath yellow; legs and feet flesh-colour; claws pale yellow."

Chrysophlegma wrayi, Sp. n.
"No. 87. ♀ ad. Gunong Batu Puteh (from 3,400 to 4,000 feet).
"Irides red brown; feet and legs ash-colour; bill black above, grey beneath and at angle. The irides in one specimen were dark brown. No males were collected."
A very interesting race of *C. flavinucha* of Tenasserim,

with a large series of which I have compared it. I showed the specimens to my friend Mr. HARGITT, and examined it together, so that I have the best possible confirmation of the distinctness of the species. It differs from *C. flavinucha* in having the feathers of the throat pure black, narrowly margined, except at the tip, with white, the black expanding about midway. The bill is black, yellowish at the angle of the lower mandible; the rufous bars on the wings are about equal in width to the black interspaces.

The size is considerably less, and the general colouration is darker, especially on the face, which is deep olive. Total length 10.5 inches, culmen 1.28, wing 5.6, tail 4, tarsus 0.93.

The immature female of *C. flavinucha*, which the Perak bird most resembles, has the feathers of the throat of an olive-black, edged with white, the black contracted above midway. The adult of the same species has the base of the feathers entirely white, the apex only being olive-black.

FAM.—TROGONIDÆ.

Harpactes erythrocephalus (Gould).

Harpactes erythrocephalus, Oates, *t. c.*, p. 99.

Harpactes hodgsoni, Gould, Hume and Davison, *t. c.*, p. 66.

"No. 86. ♂ ♀ ad. Gunong Batu Puteh (3,400 feet).

"Irides light red; feet pale flesh-colour, with bluish-white bloom; bill cobalt-blue, black on ridge and at points; bare skin round eye purple. The female has the irides light brown, at least in the single specimen I met with. It keeps usually in the undergrowth and lower trees of the forest, and has the same habits as *Harpactes kasumba*."

Compared with Himalayan specimens, and apparently quite identical.

Harpactes oreskius (T.).

Harpactes oreskius, Oates, *t. c.*, p. 100.

"No. 114. ♂ ♀ ad. Gunong Batu Puteh (3,400 feet).

"Irides light brown, the female pale grey; bill black, shading into cobalt-blue at angle; legs and feet ash."

FAM.—CAPITONIDÆ.

Megalæma versicolor (Raffl.).
Megalæma vesicolor, Hume, Str. F., 1879, p. 53.
"No. 119. ♀ ad. Batang Padang mountains, Perak.
"Irides dark brown, bill black.
"This is a rare bird, which I have only met with on two occasions, both times in heavy jungle."

Calorhamphus hayii (Gray).
Calorhamphus hayii, Oates, *t. c.*, p. 138; Hume, Str. F., 1879, p. 53.
"No. 106. ♂ ad. Gunong Batu Puteh (3,400 feet).
"Irides red-brown; legs and feet orange."

BRITISH BORNEO:

SKETCHES OF

BRUNAI, SARAWAK, LABUAN

AND

NORTH BORNEO.

(Continued from Journal No. 20, p. 74.)

CHAPTER IV.

Having alluded to the circumstances under which the Government of Sarawak became vested in the BROOKE family, it may be of interest if I give a brief outline of the history of that State under its European rulers up to the present time. The territory acquired by Sir JAMES BROOKE in 1841 and known as Sarawak Proper, was a small district with a coast line of sixty miles and with an average depth inland of fifty miles—an area of three thousand square miles. Since that date, however, rivers and districts lying to the northward have been acquired by cessions for annual payments from the Brunai Government and have been incorporated with the original district of Sarawak, which has given its name to the enlarged territory, and the present area of Raja BROOKE'S possessions is stated to be about 40,000 square miles, supporting a population of 280,000 souls, and possessing a coast line of 380 miles. The most recent acquisition of territory was in 1884, so that the young State has shewn a very vigorous growth since its birth in 1841—at the rate of about 860 square miles a year, or an increase of thirteen times its original size in the space of forty-three years.

Now, alas, there are no "more lands to conquer," or acquire, unless the present kingdom of Brunai, or Borneo Proper, as it is styled by the old geographers, is altogether swal-

lowed up by its offspring, which, under its white ruler, has developed a vitality never evinced under the rule of the Royal house of Brunai in its best days.*

The limit of Sarawak's coast line to the South-West is Cape, or *Tanjong*, Datu, on the other side of which commences the Dutch portion of Borneo, so that expansion in that direction is barred. To the North-East the boundary is Labuk Pulai the Eastern limit of the watershed, on the coast, of the important river Barram which was acquired by Raja BROOKE, in 1881, for an annual payment of £1,000. Beyond this commences what is left of the Brunai Sultanate, there being but one stream of any importance between the Barram river and that on which the capital—Brunai—is situated. But Sarawak does not rest here; it acquired, in 1884, from the then Pangeran Tumonggong, who is now Sultan, the Trusan, a river to the East of the Brunai, under somewhat exceptional circumstances. The natives of the river were in rebellion against the Brunai Government, and in November, 1884, a party of Sarawak Dyaks, who had been trading and collecting jungle produce in the neighbourhood of the capital, having been warned by their own Government to leave the country because of its disturbed condition, and having further been warned [redacted] also by the Sultan not to enter the Trusan, could not refrain from visiting that river on their homeward journey, in order to collect some outstanding trade debts. They were received is so friendly a manner, that their suspicions were not in the slightest degree aroused, and they took no precautions, believing themselves to be amongst friends. Suddenly in the night they were attacked while asleep in their boats, and the whole party, numbering about seventeen, massacred, with the exception of one man who, though wounded, managed to effect his escape and ultimately found his way to Labuan, where he was treated in the Government Hospital and made a recovery. The heads of the murdered men were, as is customary, taken by the murderers. No very distinct reason can be given for the attack, except that the Trusan

* On the 17th March, 1890 the Limbang River was forcibly annexed by Sarawak, subject to the Queen's sanction.

people were in a "slaying" mood, being on the "war-path" and in arms against their own Government, and it has also been said that those particular Dyaks happened to be wearing trowsers instead of their ordinary *chawat*, or loin cloth, and, as their enemies, the Brunais, were trowser-wearers, the Trusan people thought fit to consider all natives wearing such extravagant clothing as their enemies. The Sarawak Government, on hearing of the incident, at once despatched Mr. MAXWELL, the Chief Resident, to demand redress. The Brunai Government, having no longer the warlike Kyans at their beck and call, that tribe having passed to Raja BROOKE with the river Barram, were wholly unable to undertake the punishment of the offenders. Mr. MAXWELL then demanded as compensation the sum of $22,000, basing his calculations on the amount which some time previously the British Government had exacted in the case of some British subjects who had been murdered in another river.

This demand the bankrupt Government of Brunai was equally incompetent to comply with, and, thereupon, the matter was settled by the transfer of the river to Raja BROOKE in consideration of the large annual payment of $4,500, two years' rental—$9,000, being paid in advance, and Sarawak thus acquired, as much by good luck as through good management, a *pied à terre* in the very centre of the Brunai Sultanate and practically blocked the advance of their northern rivals—the Company—on the capital. This river was the *kouripan* (see *ante*, page 38 of Journal No. 20) of the present Sultan, and a feeling of pique which he then entertained against the Government of British North Borneo, on account of their refusing him a monetary loan to which he conceived he had a claim, caused him to make this cession with a better grace and more readily than might otherwise have been the case, for he was well aware that the British North Borneo Company viewed with some jealousy the extension of Sarawak territory in this direction, having, more than probably, themselves an ambition to carry their own southern boundary as near to Brunai as circumstances would admit. The same feeling on the part of the Tumonggong induced him to listen to Mr. MAXWELL'S proposals for the cession to Sarawak of a still

more important river—the Limbang—one on which the existence of Brunai itself as an independent State may be said to depend. But the then reigning Sultan and the other Ministers of State refused their sanction, and the Tumonggong, since his accession to the throne, has also very decidedly changed his point of view, and is now in accord with the large majority of his Brunai subjects to whom such a cession would be most distasteful. It should be explained that the Limbang is an important sago-producing river, close to the capital and forming an actual portion of the Brunai river itself, with the waters of which it mingles; indeed, the Brunai river is probably the former mouth of the Limbang, and is itself but a salt-water inlet, producing nothing but fish and prawns. As the Brunais themselves put it, the Limbang is their *priuk nasi*, their rice pot, an expression which gains the greater force when it is remembered that rice is the chief food with this eastern people, in a more emphatic sense even than bread is with us. This question of the Limbang river will afford a good instance and specimen of the oppressive government, or want of government, on the part of the Brunai rulers, and I will return to it again, continuing now my short glance at Sarawak's progress. Raja BROOKE has had little difficulty in establishing his authority in the districts acquired from time to time, for not only were the people glad to be freed from the tyranny of the Brunai Rajas, but the fame of both the present Raja and of his famous uncle Sir JAMES had spread far and wide in Borneo, and, in addition, it was well known that the Sarawak Government had at its back its war-like Dyak tribes, who, now that "head-hunting" has been stopped amongst them, would have heartily welcomed the chance of a little legitimate fighting and "at the commandment of the Magistrate to wear weapons and serve in the wars," as the XXXVIIth Article of our Church permits. In the Trusan, the Sarawak flag was freely distributed and joyfully accepted, and in a short time the Brunai river was dotted with little roughly "dug-out" canoes, manned by repulsive-looking, naked, skin-diseased savages, each proudly flying an enormous Sarawak ensign, with its Christian symbol of the Cross, in the Muhammadan capital.

A fine was imposed and paid for the murder of the Sarawak Dyaks, and the heads delivered up to Mr. A. H. EVERETT, the Resident of the new district, who thus found his little launch on one occasion decorated in an unusual manner with these ghastly trophies, which were, I believe, forwarded to the sorrowing relatives at home.

In addition to these levies of warriors expert in jungle fighting, on which the Government can always count, the Raja has a small standing army known as the "Sarawak Rangers," recruited from excellent material—the natives of the country—under European Officers, armed with breech-loading rifles, and numbering two hundred and fifty or three hundred men. There is, in addition, a small Police Force, likewise composed of natives, as also are the crews of the small steamers and launches which form the Sarawak Navy. With the exception, therefore, of the European Officers, there is no foreign element in the military, naval and civil forces of the State, and the peace of the people is kept by the people themselves, a state of things which makes for the stability and popularity of the Government, besides enabling it to provide for the defence of the country and the preservation of internal order at a lower relative cost than probably any other Asiatic country the Government of which is in the hand of Europeans. Sir JAMES BROOKE did not marry, and died in 1868, having appointed as his successor the present Raja CHARLES JOHNSON, who has taken the name of BROOKE, and has proclaimed his eldest son, a youth of sixteen, heir apparent, with the title of Raja Muda. The form of Government is that of an absolute monarchy, but the Raja is assisted by a Supreme Council composed of two European officials and four natives nominated by himself. There is also a General Council of some fifty members, which is not usually convened more frequently than once in two or three years. For administrative purposes, the country is divided into Divisions, each under a European Resident with European and Native Assistants. The Resident administers justice, and is responsible for the collection of the Revenue and the preservation of order in the district, reporting direct to the Raja. Salaries are on an equitable scale, and the regulations for leave and pension on retirement are conceived in a liberal spirit.

There is no published Code of Laws, but the Raja, when the occasion arises, issues regulations and proclamations for the guidance of officials, who, in criminal cases, follow as much as possible the Indian Criminal Code. Much is left to the common sense of the Judicial Officers, native customs and religious prejudices receive due consideration, and there is a right of appeal to the Raja. Slavery was in full force when Sir JAMES BROOKE assumed the Government, all captives in the numerous tribal wars and piratical expeditions being kept or sold as slaves.

Means were taken to mitigate as much as possible the condition of the slaves, not, as a rule, a very hard one in these countries, and to gradually abolish the system altogether, which latter object was to be accomplished by 1888.

The principal item of revenue is the annual sum paid by the person who secures from the Government the sole right of importing, preparing for consumption, and retailing opium throughout the State. The holder of this monopoly is known as the "Opium Farmer," and the monopoly is termed the "Opium Farm." These expressions have occasionally given rise to the notion that the opium-producing poppy is cultivated locally under Government supervision, and I have seen it included among the list of Borneo products in a recent geographical work. It is evident that the system of farming out this monopoly has a tendency to limit the consumption of the drug, as, owing to the heavy rental paid to the Government, the retail price of the article to the consumer is very much enhanced.

Were the monopoly abolished, it would be impossible for the Government efficiently to check the contraband importation of so easily smuggled an article as prepared opium, or *chandu*, and by lowering the price the consumption would be increased.

The use of the drug is almost entirely confined to the Chinese portion of the population. A poll-tax, customs and excise duties, mining royalties and fines and fees make up the rest of the revenue, which in 1884 amounted to $237,752 and in 1885 to $315,264. The expenditure for the same years is given by Vice-Consul CADELL as $234,161 and $321,264,

respectively. In the early days of Sarawak, it was a very serious problem to find the money to pay the expenses of a most economical Government. Sir JAMES BROOKE sunk all his own fortune—£30,000—in the country, and took so gloomy a view of the financial prospects of his kingdom that, on the refusal of England to annex it, he offered it first to France and then to Holland. Fortunately these offers were never carried into effect, and, with the assistance of the Borneo Company (not to be confused with the British North Borneo Company), who acquired the concession of the right to work the minerals in Sarawak, bad times were tided over, and, by patient perseverance, the finances of the State have been brought to their present satisfactory condition. What the amount of the national public debt is, I am not in a position to say, but, like all other countries aspiring to be civilized, it possesses a small one. The improvement in the financial position was undoubtedly chiefly due to the influx of Chinese, especially of gambier and pepper planters, who were attracted by liberal concessions of land and monetary assistance in the first instance from the Government. The present Raja has himself said that "without the Chinese we can do nothing," and we have only to turn to the British possession in the far East—the Straits Settlements, the Malay Peninsula, and Hongkong—to see that this is the case. For instance, the revenue of the Straits Settlements in 1887 was $3,847,475, of which the opium farm alone—that is a tax practically speaking borne by the Chinese population—contributed $1,779,600, or not very short of one half of the whole, and they of course contribute in many other ways as well. The frugal, patient, industrious, go-ahead, money-making Chinaman is undoubtedly the colonist for the sparsely inhabited islands of the Malay archipelago. Where, as in Java, there is a large native population and the struggle for existence has compelled the natives to adopt habits of industry, the presence of the Chinaman is not a necessity, but in a country like Borneo, where the inhabitants, from time immemorial, except during unusual periods of drought or epidemic sickness, have never found the problem of existence bear hard upon them, it is impossible to impress upon the natives that they ought to have "wants," whether

they feel them or not, and that the pursuit of the dollar for the sake of mere possession is an ennobling object, differentiating the simple savage from the complicated product of the higher civilization. The Malay, in his ignorance, thinks that if he can obtain clothing suitable to the climate, a hut which adequately protects him from sun and rain, and a wife to be the mother of his children and the cooker of his meals, he should therewith rest content; but, then, no country made up of units possessed of this simple faith can ever come to anything—can ever be civilized, and hence the necessity for the Chinese immigrant in Eastern Colonies that want to shew an annual revenue advancing by leaps and bounds. The Chinaman, too, in addition to his valuable properties as a keen trader and a man of business, collecting from the natives the products of the country, which he passes on to the European merchant, from whom he obtains the European fabrics and American "notions" to barter with the natives, is also a good agriculturist, whether on a large or small scale; he is muscular and can endure both heat and cold, and so is, at any rate in the tropics, far and away a superior animal to the white labourer, whether for agricultural or mining work, as an artizan, or as a hewer of wood and drawer of water, as a cook, a housemaid or a washerwoman. He can learn any trade that a white man can teach him, from ship-building to watchmaking, and he does not drink and requires scarcely any holidays or Sundays, occasionally only a day to worship his ancestors.

It will be said that if he does not drink he smokes opium. Yes! he does, and this, as we have seen, is what makes him so beloved of the Colonial Chancellors of the Exchequer. At the same time he is, if strict justice and firmness are shewn him, wonderfully law-abiding and orderly. Faction fights, and serious ones no doubt, do occur between rival classes and rival secret societies, but to nothing like the extent that would be the case were they white men. It is not, I think, sufficiently borne in mind, that a very large proportion of the Chinese there are of the lower, I may say of the lowest, orders, many of them of the criminal class and the scourings of some of the large cities of China, who arrive at their destination in possession of nothing but a pair of trowsers and a jacket and,

may be, an opium pipe; in addition to this they come from different provinces, between the inhabitants of which there has always been rivalry, and the languages of which are so entirely different that it is a usual thing to find Chinese of different provinces compelled to carry on their conversation in Malay or "pidgeon" English, and finally, as though the elements of danger were not already sufficient, they are pressed on their arrival to join rival secret societies, between which the utmost enmity and hatred exists. Taking all these things into consideration, I maintain that the Chinaman is a good and orderly citizen and that his good qualities, especially as a revenue-payer in the Far East, much more than counterbalance his bad ones. The secret societies, whose organization permeates Chinese society from the top to the bottom, are the worst feature in the social condition of the Chinese colonists, and in Sarawak a summary method of suppressing them has been adopted. The penalty for belonging to one of these societies is death. When Sir JAMES BROOKE took over Sarawak, there was a considerable Chinese population, settled for generations in the country and recruited from Dutch territory, where they had been subject to no supervision by the Government, whose hold over the country was merely nominal. They were principally gold diggers, and being accustomed to manage their own affairs and settle their disputes amongst themselves, they resented any interference from the new rulers, and, in 1857, a misunderstanding concerning the opium revenue having occurred, they suddenly rose in arms and seized the capital. It was some time before the Raja's forces could be collected and let loose upon them, when large numbers were killed and the majority of the survivors took refuge in Dutch territory.

The scheme for introducing Chinese pepper and gambier planters into Sarawak was set on foot in 1878 or 1879, and has proved a decided success, though, as Vice-Consul CADELL remarked in 1886, it is difficult to understand why even larger numbers have not availed themselves of the terms offered "since coolies have the protection of the Sarawak Government, which further grants them free passages from Singapore, whilst the climate is a healthy one, and there are

no dangers to be feared from wild animals, tigers being unknown in Sarawak." The fact remains that, though there is plenty of available land, there is an insufficiency of Chinese labour still. The quantity of pepper exported in 1885 was 392 tons, valued at £19,067, and of gambier 1,370 tons, valued at £23,772.

Sarawak is said to supply more than half of the sago produce of the world. The value of the sago it exported in 1885 is returned at £35,953. Of the purely uncultivated jungle products that figure in the exports the principal are gutta-percha, India rubber, and rattans.

Both antimony ores and cinnabar (an ore of quicksilver) are worked by the Borneo Company, but the exports of the former ore and of quicksilver are steadily decreasing, and fresh deposits are being sought for. Only one deposit of cinnabar has so far been discovered, that was in 1867. Antimony was first discovered in Sarawak in 1824, and for a long time it was from this source that the principal supplies for Europe and America were obtained. The ores are found "generally as boulders deep in clayey soil, or perched on tower-like summits and craggy pinnacles and, sometimes, in dykes *in situ*." The ores, too poor for shipment, are reduced locally, and the *regulus* exported to London. Coal is abundant, but is not yet worked on any considerable scale.* The Borneo Company excepted, all the trade of the country is in the hands of Chinese and Natives, nor has the Government hitherto taken steps to attract European capital for planting, but expirements are being made with the public funds under European supervision in the planting of cinchona, coffee, and tobacco. The capital of Sarawak is *Kuching*, which in Malay signifies a "cat." It is situated about fifteen miles up the Sarawak river and, when Sir JAMES first arrived, was a wretched native town, with palm leaf huts and a population, including a few Chinese and Klings (natives of India), of some two thousand. Kuching now possesses a well built "Istana," or Palace of the Raja, a Fort, impregnable to natives, a substan-

* Since this was written, Raja Sir CHARLES BROOKE has acquired valuable coal concessions at Muara, at the mouth of the Brunai river, and the development of the coal resources of the State is being energetically pushed forward.

tial Gaol, Court House, Government Offices, Public Market and Church, and is the headquarters of the Bishop of Singapore and Sarawak, who is the head of the Protestant Mission in the country. There is a well built brick Chinese trading quarter, or "bazaar," the Europeans have comfortable bungalows, and the present population is said to number twelve thousand.

In the early days of his reign, Sir JAMES BROOKE was energetically assisted in his great work of suppressing piracy and rendering the seas and rivers safe for the passage of the peaceful trader, by the British men-of-war on the China Station, and was singularly fortunate in having an energetic co-adjutor in Captain (now Admiral) Sir HENRY KEPPEL, K.C.B.

It will give some idea of the extent to which piracy, then almost the sole occupation of the Illanun, Balinini, and Sea Dyak tribes, was indulged in that the "Headmoney," then paid by the British Government for pirates destroyed, amounted in these expeditions to the large total of £20,000, the awarding of which sum occasioned a great stir at the time and led to the abolition of this system of "payment by results." Mr. HUME took exception altogether to the action of Sir JAMES BROOKE, and, in 1851, charges were brought against him, and a Royal Commission appointed to take evidence on the spot, or rather at Singapore.

A man like BROOKE, of an enthusiastic, impulsive, unselfish and almost Quixotic disposition, who wore his heart on his sleeve and let his opinions of men and their actions be freely known, could not but have incurred the enmity of many meaner, self-seeking minds. The Commission, after hearing all that could be brought against him, found that there was nothing proved, but it was not deemed advisable that Sir JAMES should continue to act as the British representative in Borneo and as Governor of the Colony of Labuan, positions which were indeed incompatible with that of the independent ruler of Sarawak. Sarawak independence was first recognised by the Americans, and the British followed suit in 1863, when a Vice-Consulate was established there. The question of formally proclaiming a British Protectorate over Sarawak is now being

considered, and it is to be hoped, will be carried into effect.* The *personel* of the Government is purely British, most of the merchants and traders are of British nationality, and the whole trade of the country finds its way to the British Colony of the Straits Settlements.

We can scarely let a country such as this, with its local and other resources, so close to Singapore and on the route to China, fall into the hands of any other European Power, and the only means of preventing such a catastrophe is by the proclamation of a Protectorate over it—a Protectorate which, so long as the successors of Raja BROOKE prove their competence to govern, should be worked so as to interfere as little as possible in the internal affairs of the State. The virulently hostile and ignorant criticisms to which Sir JAMES BROOKE was subjected in England, and the financial difficulties of this little kingdom, coupled with a serious dispute with a nephew whom he had appointed his successor, but whom he was compelled to depose, embittered the last years of his life. To the end he fought his foes in his old, plucky, honest, vigorous and straightforward style. He died in June, 1868, from a paralytic stroke, and was succeeded by his nephew, the present Raja. What Sir JAMES BROOKE might have accomplished had he not been hampered by an opposition based on ignorance and imperfect knowledge at home, we cannot say; what he did achieve, I have endeavoured briefly to sketch, and unprejudiced minds cannot but deem the founding of a prosperous State and the total extirpation of piracy, slavery and head-hunting, a monument worthy of a high, noble and unselfish nature.

In addition to that of the Church of England, there has, within the last few years, been established a Roman Catholic Mission, under the auspices of the St. Joseph's College, Mill Hill.

The Muhammadans, including all the true Malay inhabitants, do not make any concerted effort to disseminate the doctrines of their faith.

The following information relative to the Church of England Mission has been kindly furnished me by the Right

* This has since been formally proclaimed.

Reverend Dr. HOSE, the present Bishop of "Singapore, Labuan and Sarawak," which is the official title of his extensive See which includes the Colony of the Straits Settlements—Penang, Province Wellesley, Malacca and Singapore—and its Dependencies, the Protected States of the Malay Peninsula, the State of Sarawak, the Crown Colony of Labuan, the Territories of the British North Borneo Company and the Congregation of English people scattered over Malaya.

The Mission was, in the first instance, set on foot by the efforts of Lady BURDETT-COUTTS and others in 1847, when Sir JAMES BROOKE was in England and his doings in the Far East had excited much interest and enthusiasm, and was specially organized under the name of the "Borneo Church Mission." The late Reverend T. MCDOUGALL, was the first Missionary, and subsequently became the first Bishop. His name was once well known, owing to a wrong construction put upon his action, on one occasion, in making use of fire arms when a vessel, on which he was aboard, came across a fleet of pirates. He was a gifted, practical and energetic man and had the interest of his Mission at heart, and, in addition to other qualifications, added the very useful one, in his position, of being a qualified medical man. Bishop MCDOUGALL was succeeded on his retirement by Bishop CHAMBERS, who had experience gained while a Missionary in the country. The present Bishop was appointed in 1881. The Mission was eventually taken over by the Society for the Propagation of the Gospel, and this Society defrays, with unimportant exceptions, the whole cost of the See.

Dr. HOSE has under him in Sarawak eight men in holy orders, of whom six are Europeans, one Chinese and one Eurasian. The influence of the Missionaries has spread over the Skerang, Balau and Sibuyan tribes of *Sea*-Dyaks, and also among the *Land*-Dyaks near Kuching, the Capital, and among the Chinese of that town and the neighbouring pepper plantations.

There are now seven churches and twenty-five Mission chaples in Sarawak, and about 4,000 baptized Christians of the Church of England. The Mission also provides means of

education and, through its press, publishes translations of the Bible, the Prayer Book and other religious and educational works, in Malay and in two Dyak dialects, which latter have only become written languages since the establishment of the Mission. In their Boys' School, at Kuching, over a hundred boys are under instruction by an English Master, assisted by a staff of Native Assistants; there is also a Girls' School, under a European Mistress, and schools at all the Mission Stations. The Government of Sarawak allows a small grant-in-aid to the schools and a salary of £200 a year to one of the Missionaries, who acts as Government Chaplain.

The Roman Catholic Mission commenced its works in Sarawak in 1881, and is under the direction of the Reverend Father JACKSON, Prefect Apostolic, who has also two or three Missionaries employed in British North Borneo. In Sarawak there are six or eight European priests and schoolmasters and a sisterhood of four or five nuns. In Kuching they have a Chapel and School and a station among the Land-Dyaks in the vicinity. They have recently established a station and erected a Chapel on the Kanowit River, an affluent of the Rejang. The Missionaries are mostly foreigners and, I believe, are under a vow to spend the remainder of their days in the East, without returning to Europe.

Their only reward is their consciousness of doing, or trying to do good, and any surplus of their meagre stipends which remains, after providing the barest necessaries of life, is refunded to the Society. I do not know what success is attending them in Sarawak, but in British North Borneo and Labuan, where they found that Father QUARTERON'S labours had left scarcely any impression, their efforts up to present have met with little success, and experiments in several rivers have had to be abandoned, owing to the utter carelessness of the Pagan natives as to matters relating to religion. When I left North Borneo in 1887, their only station which appeared to show a prospect of success was one under Father PUNDLEIDER, amongst the semi-Chinese of Bundu, to whom reference has been made on a previous page. But these people, while permitting their children to be educated and baptized by the

Father, did not think it worth their while to join the Church themselves.

Neither Mission has attempted to convert the Muhammadan tribes, and indeed it would, at present, be perfectly useless to do so and, from the Government point of view, impolitic and inadvisable as well.

CHAPTER V.

I will now take a glance at the incident of the rebellion of the inhabitants of the Limbang, the important river near Brunai to which allusion has already been made, as from this one sample he will be able to judge of the ordinary state of affairs in districts near the Capital, since the establishment of Labuan as a Crown Colony and the conclusion of the treaty and the appointment of a British Consul-General in Brunai, and will also be able to attempt to imagine the oppression prevalent before those events took place. The river, being a fertile and well populated one and near Brunai, had been from old times the common purse of the numerous nobles who, either by inheritance, or in virtue of their official positions, as I have explained, owned as their followers the inhabitants of the various villages situated on its banks, and many were the devices employed to extort the uttermost farthing from the unfortunate people, who were quite incapable of offering any resistance because the warlike Kyan tribe was ever ready at hand to sweep down upon them at the behest of their Brunai oppressors. The system of *dagang sera* (forced trade) I have already explained. Some of the other devices I will now enumerate. *Chukei basoh batis*, or the tax of washing feet, a contribution, varying in amount at the sweet will of the imposer, levied when the lord of the village, or his chief agent, did it the honour of a visit. *Chukei bongkar-sauh*, or tax on weighing anchor, similarly levied when the lord took his departure and perhaps therefore, paid with more willingness. *Chukei tolongan*, or tax of assistance, levied when the lord had need of funds for some special purpose or on a special occasion such as a wedding—and these are numerous amongst polygamists—a birth,

the building of a house or of a vessel. *Chop bibas*, literally a free seal; this was a permission granted by the Sultan to some noble and needy favourite to levy a contribution for his own use anywhere he thought he could most easily enforce it. The method of inventing imaginary crimes and delinquencies and punishing them with heavy fines has been already mentioned. Then there are import and export duties as to which no reasonable complaint can be made, but a real grievance and hindrance to legitimate trade was the effort which the Malays, supported by their rulers, made to prevent the interior tribes trading direct with the Chinese and other foreign traders—acting themselves as middlemen, so that but a very small share of profit fell to the aborigines. The lords, too, had the right of appointing as many *orang kayas*, or headmen, from among the natives as they chose, a present being expected on their elevation to that position and another on their death. In many rivers there was also an annual poll-tax, but this does not appear to have been collected in the Limbang. Sir SPENCER ST. JOHN, writing in 1856, gives, in his "Life in the Forests of the Far East," several instances of the grievous oppression practiced on the Limbang people. Amongst others he mentions how a native, in a fit of desperation, had killed an extortionate tax-gatherer. Instead of having the offender arrested and punished, the Sultan ordered his village to be attacked, when fifty persons were killed and an equal number of women and children were made prisoners and kept as slaves by His Highness. The immediate cause of the rebellion to which I am now referring was the extraordinary extortion practised by one of the principal Ministers of State. The revenues of his office were principally derived from the Limbang River and, as the Sultan was very old, he determined to make the best possible use of the short time remaining to him to extract all he could from his wretched feudatories. To aid him in his design, he obtained, with the assistance of the British North Borneo Company, a steam launch, and the Limbang people subsequently pointed out to me this launch and complained bitterly that it was with the money forced out of them that this means of oppressing them had been purchased. He then employed the

most uncrupulous agents he could discover, imposed outrageous fines for trifling offences, and would even interfere if he heard of any private disputes among the villagers, adjudicate unasked in their cases, taking care always to inflict a heavy fine which went, not to the party aggrieved, but into his own pocket. If the fines could not be paid, and this was often the case, owing to their being purposely fixed at such a high rate, the delinquent's sago plantations—the principal wealth of the people in the Limbang River—would be confiscated and became the private property of the Minister, or of some of the members of his household. The patience of the people was at length exhausted, and they remembered that the Brunai nobles could no longer call in the Kayans to enforce their exactions, that tribe having become subjects to Raja BROOKE. About the month of August, 1884, two of the Minister's messengers, or tax collectors, who were engaged in the usual process of squeezing the people, were fired on and killed by the Bisayas, the principal pagan tribe in the river. The Tumonggong determined to punish this outrage in person and probably thought his august presence on the spot in a steam-launch, would quickly bring the natives to their knees and afford him a grand opportunity of replenishing his treasury.

He accordingly ascended the river with a considerable force in September, and great must have been his surprise when he found that his messenger, sent in advance to call the people to meet him, was fired on and killed. He could scarcely have believed the evidence of his own ears, however, when shortly afterwards his royal launch and little fleet were fired on from the river banks. For two days was this firing kept up, the Brunais having great difficulty in returning it, owing to the river being low and the banks steep and lined with large trees, behind which the natives took shelter, and, a few casualties having occurred on board and one of the Royal guns having burst, which was known as the *Amiral Muminin*, the Tumonggong deemed it expedient to retire and returned ignominiously to Brunai. The rebels, emboldened by the impunity they had so far enjoyed, were soon found to be hovering round the outskirts of the capital, and every

now and then an outlying house would be attacked during the night and the headless corpses of its occupants be found on the morrow. There being no forts and no organized force to resist attack, the houses, moreover, being nearly all constructed of highly inflammable palm leaf thatch and matting, a universal panic prevailed amongst all classes, when the Limbang people announced their intention of firing the town. Considerable distress too prevailed, as the spirit of rebellion had spread to all the districts near the capital, and the Brunai people who had settled in them were compelled to flee for their lives, leaving their property in the hands of the insurgents, while the people of the city were unable to follow their usual avocations—trading, planting, sago washing and so forth, the Brunai River, as has been pointed out, producing nothing itself. British trade being thus affected by the continuance of such a state of affairs, and the British subjects in the city being in daily fear from the apprehended attack by the rebels, the English Consul-General did what he could to try and arrange matters. A certain Datu KLASSIE, one of the most influential of the Bisaya Chiefs, came into Brunai without any followers, but bringing with him, as a proof of the friendliness of his mission, his wife. Instead of utilizing the services of this Chief in opening communication with the natives, the Tumonggong, maddened by his ignominious defeat, seized both Datu KLASSIE and his wife and placed them in the public stocks, heavily ironed.

I was Acting Consul-General at the time, and my assistance in arranging matters had been requested by the Brunai Government, while the Bisayas also had expressed their warm desire to meet and consult with me if I would trust myself amongst them, and I at once arranged so to do; but, being well aware that my mission would be perfectly futile unless I was the bearer of terms from the Sultan and unless Datu KLASSIE and his wife were released, I refused to take any steps until these two points were conceded.

This was a bitter pill for the Brunai Rajas and especially for the Tumonggong, who, though perfectly aware that he was quite unable, not only to punish the rebels, but even to defend the city against their attacks, yet clung to the vain hope that

the British Government might be induced to regard them as pirates and so interfere in accordance with the terms of the treaty, or that the Raja of Sarawak would construe some old agreement made with Sir JAMES BROOKE as necessitating his rendering armed assistance.

However, owing to the experience, tact, perseverance and intelligence of Inche MAHOMET, the Consular Agent, we gained our point after protracted negotiations, and obtained the seals of the Sultan, the Bandahara, the Di Gadong and the Tumonggong himself to a document, by which it was provided that, on condition of the Limbang people laying down their arms and allowing free intercourse with Brunai, all arbitrary taxation such as that which has been described should be for ever abolished, but that, in lieu therefor, a fixed poll-tax should be paid by all adult males, at the rate of $3 per annum by married men and $2 by bachelors; that on the death of an *orang kaya* the contribution to be paid to the feudal lord should be fixed at one pikul of brass gun, equal to about $21; that the possession of their sago plantations should be peaceably enjoyed by their owners; that jungle products should be collected without tax, except in the case of gutta percha, on which a royalty of 5% *ad valorem* should be paid, instead of the 20% then exacted; that the taxes should be collected by the headmen punctually and transmitted to Brunai, and that four Brunai tax-gatherers, who were mentioned by name and whose rapacious and criminal action had been instrumental in provoking the rebellion, should be forbidden ever again to enter the Limbang River; that a free pardon should be granted to the rebels.

Accompanied by Inche MAHOMET and with some Bisaya interpreters, I proceeded up the Limbang River, on the 21st October, in a steam-launch, towing the boats of Pangeran ISTRI NAGARA and of the Datu AHAMAT, who were deputed to accompany us and represent the Brunai Government.

Several hundred of the natives assembled to meet us, and the Government conditions were read out and explained. It was evident that the people found it difficult to place much reliance in the promises of the Rajas, although the document was formally attested by the seals of the Sultan and of his

three Ministers, and a duplicate had been prepared for them to keep in their custody for future reference. It was seen, too, that there were a number of Muhammadans in the crowd who appeared adverse to the acceptance of the terms offered, and, doubtless, many of them were acting at the instigation of the Tumonggong's party, who by no means relished so peaceful a solution of the difficulties their chief's action had brought about.

Whilst the conference was still going on and the various clauses of the *firman* were being debated, news arrived that the Rajas had, in the basest manner, let loose the Trusan Muruts on the district the day we had sailed for the Limbang, and that these wretches had murdered and carried off the heads of four women, two of whom were pregnant, and two young unmarried girls and of two men who were at work in their gardens.

This treacherous action was successful in breaking up the meeting, and was not far from causing the massacre of at any rate the Brunai portion of our party, and the Pangeran and the Datu quickly betook themselves to their boats and scuttled off to Brunai not waiting for the steam-launch.

But we determined not to be beaten by the Rajas' manœuvres, and so, though a letter reached me from the Sultan warning me of what had occurred and urging me to return to Brunai, we stuck to our posts, and ultimately were rewarded by the Bisayas returning and the majority of their principal chiefs signing, or rather marking the document embodying their new constitution, as it might be termed, in token of their acquiescence—a result which should be placed to the credit of the indefatigable Inche MAHOMET, whose services I am happy to say were specially recognised in a despatch from the Foreign Office. Returning to Brunai, I demanded the release of Datu KLASSIE, as had been agreed upon, but it was only after I had made use of very plain language to his messengers that the Tumonggong gave orders for his release and that of his wife, whom I had the pleasure of taking up the river and restoring to their friends.

H. M. *S. Pegasus* calling at Labuan soon afterwards, I seized the opportunity to request Captain BICKFORD to make a little demonstration in Brunai, which was not often visited

by a man-of-war, with the double object of restoring confidence to the British subjects there and the traders generally and of exacting a public apology for the disgraceful conduct of the Government in allowing the Muruts to attack the Limbang people while we were up that river. Captain BICKFORD at once complied with my request, and, as the *Pegasus* drew too much water to cross the bar, the boats were manned and armed and towed up to the city by a steam-launch. It was rather a joke against me that the launch which towed up the little flotilla designed to overawe Brunai was sent for the occasion by one of the principal Ministers of the Sultan. It was placed at my disposal by the Pangeran Di Gadong, who was then a bitter enemy of the Tumonggong, and glad to witness his discomfiture. This was on the 3rd November, 1884.

With reference to the heads taken on the occasion mentioned above, I may add that the Muruts were allowed to retain them, and the disgusting sight was to be seen, at one of the watering places in the town, of these savages "cooking" and preparing the heads for keeping in their houses.

As the Brunai Government was weak and powerless, I am of opinion that the agreement with the Limbang people might have been easily worked had the British Government thought it worth while to insist upon its observance. As it was, hostilities did cease, the headmen came down and visited the old Sultan, and trade recommenced. In June, 1885, Sultan MUMIM died, at the age, according to Native statements, which are very unreliable on such points, of 114 years, and was succeeded by the Tumonggong, who was proclaimed Sultan on the 5th June of the same year, when I had the honour of being present at the ceremony, which was not of an imposing character. The new Sultan did not forget the mortifying treatment he had received at the hands of the Limbang people, and refused to receive their Chiefs. He retained, too, in his own hands the appointment of Tumonggong, and with it the rights of that office over the Limbang River, and it became the interest of many different parties to prevent the completion of the pacification of that district. The gentleman for whom I had been acting as Con-

sul-General soon afterwards returned to his post. In May, 1887, Sir FREDERICK WELD, Governor of the Straits Settlements, was despatched to Brunai by Her Majesty's Government, on a special mission, to report on the affairs of the Brunai Sultanate and as to recent cessions of territory made, or in course of negotiation, to the British North Borneo Company and to Sarawak. His report has not been yet made public. There were at one time grave objections to allowing Raja BROOKE to extend his territory, as there was no guarantee that some one of his successors might not prefer a life of inglorious ease in England to the task of governing natives in the tropics, and sell his kingdom to the highest bidder—say France or Germany; but if the British Protectorate over Sarawak is formally proclaimed, there would appear to be no reasonable objection to the BROOKES establishing their Government in such other districts as the Sultan may see good of his own free will to cede, but it should be the duty of the British Government to see that their ally is fairly treated and that any cessions he may make are entirely voluntary and not brought about by coercion in any form—direct or indirect.

CHAPTER VI.

The British Colony of Labuan was obtained by cession from the Sultan of Brunai and was in the shape of a *quid pro quo* for assistance in suppressing piracy in the neighbouring seas, which the Brunai Government was supposed to have at heart, but in all probability, the real reason of the willingness on the Sultan's part to cede it was his desire to obtain a powerful ally to assist him in reasserting his authority in many parts of the North and West portions of his dominions, where the allegiance of the people had been transferred to the Sultan of Sulu and to Illanun and Balinini piratical leaders. It was a similar reason which, in 1774, induced the Brunai Government to grant to the East India Company the monopoly of the trade in pepper, and is explained in Mr. JESSE'S letter to the Court of Directors as follows. He says that he found the reason of their unanimous inclination to cultivate the friendship and alliance of the Company was their desire for

"protection from their piratical neighbours, the Sulus and Mindanaos, and others, who make continual depredations on their coast, by taking advantage of their natural timidity."

The first connection of the British with Labuan was on the occasion of their being expelled by the Sulus from Balambangan, in 1775, when they took temporary refuge on the island.

In 1844, Captain Sir EDWARD BELCHER visited Brunai to enquire into rumours of the detention of a European female in the country—rumours which proved to be unfounded. Sir JAMES BROOKE accompanied him, and on this occasion the Sultan, who had been terrified by a report that his capital was to be attacked by a British squadron of sixteen or seventeen vessels, addressed a document, in conjunction with Raja Muda HASSIM, to the Queen of England, requesting her aid "for the suppression of piracy and the encouragement and extension of trade; and to assist in forwarding these objects they are willing to cede, to the Queen of England, the Island of Labuan, and its islets on such terms as may hereafter be arranged by any person appointed by Her Majesty. The Sultan and the Raja Muda HASSIM consider that an English Settlement on Labuan will be of great service to the natives of the coast, and will draw a considerable trade from the northward, and from China; and should Her Majesty the Queen of England decide upon the measure, the Sultan and the Raja Muda HASSIM promise to afford every assistance to the English authorities." In February of the following year, the Sultan and Raja Muda HASSIM, in a letter accepting Sir JAMES BROOKE as Her Majesty's Agent in Borneo, without specially mentioning Labuan, expressed their adherence to their former declarations, conveyed through Sir EDWARD BELCHER, and asked for immediate assistance "to protect Borneo from the pirates of Marudu," a Bay situated at the northern extremity of Borneo—assistance which was rendered in the following August, when the village of Marudu was attacked and destroyed, though it is perhaps open to doubt whether the chief, OSMAN, quite deserved the punishment he received. On the 1st March of the same year (1845) the Sultan verbally asked Sir JAMES BROOKE whether and at what time the English

proposed to take possession of Labuan. Then followed the episode already narrated of the murder by the Sultan of Raja Muda HASSIM and his family and the taking of Brunai by Admiral COCHRANE'S Squadron. In November, 1846, instructions were received in Singapore, from Lord PALMERSTON, to take possession of Labuan, and Captain RODNEY MUNDY was selected for this service. He arrived in Brunai in December, and gives an amusing account of how he proceeded to carry out his orders and obtain the *voluntary* cession of the island. As a preliminary, he sent "Lieutenant "LITTLE in charge of the boats of the *Iris* and *Wolf*, armed "with twenty marines, to the capital, with orders to moor "them in line of battle opposite the Sultan's palace, and to "await my arrival." On reaching the palace, Captain MUNDY produced a brief document, to which he requested the Sultan to affix his seal, and which provided for eternal friendship between the two countries, and for the cession of Labuan, in consideration of which the Queen engaged to use her best endeavours to suppress piracy and protect lawful commerce. The document of 1844 had stated that Labuan would be ceded "on such terms as may hereafter be arranged," and a promise to suppress piracy, the profits in which were shared by the Sultan and his nobles, was by no means regarded by them as a fair set off; it was a condition with which they would have readily dispensed. The Sultan ventured to remark that the present treaty was different to the previous one, and that a money payment was required in exchange for the cession of territory. Captain MUNDY replied that the former treaty had been broken when Her Majesty's Ships were fired on by the Brunai forts, and "at last I turned to the Sultan, and exclaimed firmly, 'Bobo chop bobo chop!' followed up by a few other Malay words, the tenor of which was, that I recommended His Majesty to put his seal forthwith." And he did so. Captain MUNDY hoisted the British Flag at Labuan on the 24th December, 1846, and there still exists at Labuan in the place where it was erected by the gallant Captain, a granite slab, with an inscription recording the fact of the formal taking possession of the island in Her Majesty's name.

In the following year, Sir JAMES BROOKE was appointed the first Governor of the new Colony, retaining his position as the British representative in Brunai, and being also the ruler of Sarawak, the independence of which was not formally recognised by the English Government until the year 1863. Sir JAMES was assisted at Labuan by a Lieutenant-Governor and staff of European Officers, who on their way through Singapore are said to have somewhat offended the susceptibilities of the Officials of that Settlement by pointing to the fact that they were Queen's Officers, whereas the Straits Settlements were at that time still under the Government of the East India Company. Sir JAMES BROOKE held the position of Governor until 1851, and the post has since been filled by such well-known administrators as Sir HUGH LOW, Sir JOHN POPE HENNESSY, Sir HENRY E. BULWER and Sir CHARLES LEES, but the expectations formed at its foundation have never been realized and the little Colony appears to be in a moribund condition, the Governorship having been left unfilled since 1881. On the 27th May, 1847, Sir JAMES BROOKE concluded the Treaty with the Sultan of Brunai which is still in force. Labuan is situated off the mouth of the Brunai River and has an area of thirty square miles. It was uninhabited when we took it, being only occasionally visited by fishermen. It was then covered, like all tropical countries, whether the soil is rich or poor, with dense forest, some of the trees being valuable as timber, but most of this has since been destroyed, partly by the successive coal companies, who required large quantities of timber for their mines, but chiefly by the destructive mode of cultivation practised by the Kadyans and other squatters from Borneo, who were allowed to destroy the forest for a crop or two of rice, the soil, except in the flooded plains, being not rich enough to carry more than one or two such harvests under such primitive methods of agriculture as only are known to the natives. The lands so cleared were deserted and were soon covered witb a strong growth of fern and coarse useless *lalang* grass, difficult to eradicate, and it is well known that, when a tropical forest is once destroyed and the land left to itself, the new jungle which may in time spring up rarely contains any

of the valuable timber trees which composed the original forest.

A few cargoes of timber were also exported by Chinese to Hongkong. Great hopes were entertained that the establishment of a European Government and a free port on an island lying alongside so rich a country as Borneo would result in its becoming an emporium and collecting station for the various products of, at any rate, the northern and western portions of this country and perhaps, too, of the Sulu Archipelago. Many causes prevented the realization of these hopes. In the first place, no successful efforts were made to restore good government on the mainland, and without a fairly good government and safety to life and property, trade could not be developed. Then again Labuan was overshaded by the prosperous Colony of Singapore, which is the universal emporium for all these islands, and, with the introduction of steamers, it was soon found that only the trade of the coast immediately opposite to Labuan could be depended upon, that of the rest' including Sarawak and the City of Brunai, going direct to Singapore, for which port Labuan became a subsidiary and unimportant collecting station. The Spanish authorities did what they could to prevent trade with the Sulu Islands, and, on the signing of the Protocol between that country and Great Britain and Germany freeing the trade from restrictions, Sulu produce has been carried by steamers direct to Singapore. Since 1881, the British North Borneo Company having opened ports to the North, the greater portion of the trade of their possessions likewise finds its way direct by steamers to the same port.

Labuan has never shipped cargoes direct to England, and its importance as a collecting station for Singapore is now diminishing, for the reasons above-mentioned.

Most or a large portion of the trade that now falls to its share comes from the southern portion of the British North Borneo Company's territories, from which it is distant, at the nearest point, only about six miles, and the most reasonable solution of the Labuan question would certainly appear to be the proclamation of a British Protectorate over North Borneo, to which, under proper guarantees, might be assigned the

task of carrying on the government of Labuan, a task which it could easily and economically undertake, having a sufficiently well organised staff ready to hand.* By the Royal Charter it is already provided that the appointment of the Company's Governor in Borneo is subject to the sanction of Her Majesty's Secretary of State, and the two Officers hitherto selected have been Colonial servants, whose service have been *lent* by the Colonial Office to the Company.

The Census taken in 1881 gives the total population of Labuan as 5,995, but it has probably decreased considerably since that time. The number of Chinese supposed to be settled there is about 300 or 400—traders, shopkeepers, coolies and sago-washers; the preparation of sago flour from the raw sago, or *lamuntah*, brought in from the mainland by the natives, being the principal industry of the island and employing three or four factories, in which no machinery is used. All the traders are only agents of Singapore firms and are in a small way of business. There is no European firm, or shop, in the island. Coal of good quality for raising steam is plentiful, especially at the North end of the island, and very sanguine expectations of the successful working of these coal measures were for a long time entertained, but have hitherto not been realised. The Eastern Archipelago Company, with an ambitious title but too modest an exchequer, first attempted to open the mines soon after the British occupation, but failed, and has been succeeded by three others, all I believe Scotch, the last one stopping operations in 1878. The cause of failure seems to have been the same in each case—insufficient capital, local mismanagement, difficulty in obtaining labour. In a country with a rainfall of perhaps over 120 inches a year, water was naturally another difficulty in the deep workings. but this might have been very easily overcome had the Companies been in a position to purchase sufficiently powerful pumping engines.

There were three workable seams of coal, one of them, I think, twelve feet in thickness; the quality of the coal, though

* My suggestion has taken shape more quickly than I expected. In 1889 Labuan was put under the administration of the Company.

inferior to Welsh, was superior to Australian, and well reported on by the engineers of many steamers which had tried it; the vessels of the China squadron and the numerous steamers engaged in the Far East offered a ready market for the coal.

In their effort to make a "show," successive managers have pretty nearly exhausted the surface workings and so honeycombed the seams with their different systems of developing their resources, that it would be, perhaps, a difficult and expensive undertaking for even a substantial company to make much of them now.*

It is needless to add that the failure to develop this one internal resource of Labuan was a great blow to the Colony, and on the cessation of the last company's operations the revenue immediately declined, a large number of workmen—European, Chinese and Natives—being thrown out of employment, necessitating the closing of the shops in which they spent their wages. It was found that both Chinese and the Natives of Borneo proved capital miners under European supervision.

Notwithstanding the ill-luck that has attended it, the little Colony has not been a burden on the British tax-payer since the year 1860, but has managed to collect a revenue—chiefly from opium, tobacco, spirits, pawnbroking and fish "farms" and from land rents and land sales—sufficient to meet its small expenditure, at present about £4,000 a year. There have been no British troops quartered in this island since 1871, and the only armed force is the Native Constabulary, numbering, I think, a dozen rank and file. Very seldom are the inhabitants cheered by the welcome visit of a British gunboat. Still, all the formality of a British Crown Colony is kept up. The administrator is by his subjects styled "His Excellency" and the Members of the Legislative Council, Native and Europeans, are addressed as the "Honourable so and so." An Officer, as may be supposed, has to play many parts. The present Treasurer, for instance, is an ex-Lieutenant of

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* Since the above was written, a fifth company—the Central Borneo Company, Limited, of London—has taken in hand the Labuan coal and, finding plenty of coal to work on without sinking a shaft, confidently anticipate success. Their £1 shares recently went up to £4.

Her Majesty's Navy, and is at the same time Harbour Master, Postmaster, Coroner, Police Magistrate, likewise a Judge of the Supreme Court, Superintendent of Convicts, Surveyor-General, and Clerk to the Legislative Council, and occasionally has, I believe, to write official letters of reprimand or encouragement from himself in one capacity to himself in another.

The best thing about Labuan is, perhaps, the excellence of its fruit, notably of its pumeloes, oranges and mangoes, for which the Colony is indebted to the present Sir HUGH LOW, who was one of the first officials under Sir JAMES BROOKE, and a man who left no stone unturned in his efforts to promote the prosperity of the island. His name was known far and wide in Northern Borneo and in the Sulu Archipelago. As an instance, I was once proceeding up a river in the island of Basilan, to the North of Sulu, with Captain C. E. BUCKLE, R.N., in two boats of H. M. S. *Frolic*, when the natives, whom we could not see, opened fire on us from the banks. I at once jumped up and shouted out that we were Mr. LOW'S friends from Labuan, and in a very short time we were on friendly terms with the natives, who conducted us to their village. They had thought we might be Spaniards, and did not think it worth while to enquire before firing. The mention of the *Frolic* reminds me that on the termination of a somewhat lengthy cruise amongst the Sulu Islands, then nominally undergoing blockade by Spanish cruisers, we were returning to Labuan through the difficult and then only partially surveyed Malawalli Channel, and after dinner we were congratulating one another on having been so safely piloted through so many dangers, when before the words were out of our mouths, we felt a shock and found ourselves fast on an unmarked rock which has since had the honour of bearing the name of our good little vessel.

Besides Mr. LOW'S fruit garden, the only other European attempt at planting was made by my Cousin, Dr. TREACHER, Colonial Surgeon, who purchased an outlying island and opened a coco-nut plantation. I regret to say that in neither case, owing to the decline of the Colony, was the enterprise of the pioneers adequately rewarded.

Labuan* at one time boasted a Colonial Chaplain and gave its name to the Bishop's See; but in 1872 or 1873, the Church was "disestablished" and the few European Officials who formed the congregation were unable to support a Clergyman. There exists a pretty little wooden Church, and the same indefatigable officer, whom I have described as filling most of the Government appointments in the Colony, now acts as unpaid Chaplain, having been licensed thereto by the Bishop of Singapore and Sarawak, and reads the service and even preaches a sermon every Sunday to a congregation which rarely numbers half a dozen.

CHAPTER VII.

The mode of acquisition of British North Borneo has been referred to in former pages; it was by cession for annual money payments to the Sultans of Brunai and of Sulu, who had conflicting claims to be the paramount power in the northern portion of Borneo. The actual fact was that neither of them exercised any real government or authority over by far the greater portion, the inhabitants of the coast on the various rivers following any Brunai, Illanun, Bajau, or Sulu Chief who had sufficient force of character to bring himself to the front. The pagan tribes of the interior owned allegiance to neither Sultan, and were left to govern themselves, the Muhammadan coast people considering them fair game for plunder and oppression whenever opportunity occurred, and using all their endeavours to prevent Chinese and other foreign traders from reaching them, acting themselves as middlemen, buying (bartering) at very cheap rates from the aborigines and selling for the best price they could obtain to the foreigner.

I believe I am right in saying that the idea of forming a Company, something after the manner of the East India Company, to take over and govern North Borneo, originated in the fol-

* The administration of this little Crown Colony has since been entrusted to the British North Borneo Company, their present Governor, Mr. C. V. CREAGH, having been gazetted Governor of Labuan.

lowing manner. In 1865 Mr. MOSES, the unpaid Consul for the United Sates in Brunai, to whom reference has been made before, acquired with his friends from the Sultan of Brunai some concessions of territory with the right to govern and collect revenues, their idea being to introduce Chinese and establish a Colony. This they attempted to carry out on a small scale in the Kimanis River, on the West Coast, but not having sufficient capital the scheme collapsed, but the concession was retained. Mr. MOSES subsequently lost his life at sea, and a Colonel TORREY became the chief representative of the American syndicate. He was engaged in business in China, where he met Baron VON OVERBECK, a merchant of Hongkong and Austrian Consul-General, and interested him in the scheme. In 1875 the Baron visited Borneo in company with the Colonel, interviewed the Sultan of Brunai, and made enquiries as to the validity of the concessions, with apparently satisfactory results. Mr. ALFRED DENT * was also a China merchant well known in Shanghai, and he in turn was interested in the idea by Baron OVERBECK. Thinking there might be something in the scheme, he provided the required capital, chartered a steamer, the *America*, and authorised Baron OVERBECK to proceed to Brunai to endeavour, with Colonel TORREY'S assistance, to induce the Sultan and his Ministers to transfer the American cessions to himself and the Baron, or rather to cancel the previous ones and make out new ones in their favour and that of their heirs, associates, successors and assigns for so long as they should choose or desire to hold them. Baron VON OVERBECK was accompanied by Colonel TORREY and a staff of three Europeans, and, on settling some arrears due by the American Company, succeeded in accomplishing the objects of his mission, after protracted and tedious negotiations, and obtained a "chop" from the Sultan nominating and appointing him supreme ruler, "with the title of Maharaja of Sabah (North Borneo) and Raja of Gaya and Sandakan, with power of life and death over the inhabitants, with all the absolute rights of

* Now Sir ALFRED DENT, K.C.M.G.

property vested in the Sultan over the soil of the country, and the right to dispose of the same, as well as of the rights over the productions of the country, whether mineral, vegetable, or animal, with the rights of making laws, coining money, creating an army and navy, levying customs rates on home and foreign trade and shipping, and other dues and taxes on the inhabitants as to him might seem good or expedient, together with all other powers and rights usually exercised by and belonging to sovereign rulers, and which the Sultan thereby delegated to him of his own free will; and the Sultan called upon all foreign nations, with whom he had formed friendly treaties and alliances, to acknowledge the said Maharaja as the Sultan himself in the said territories and to respect his authority therein; and in the case of the death or retirement from the said office of the said Maharaja, then his duly appointed successor in the office of Supreme Ruler and Governor-in-Chief of the Company's territories in Borneo should likewise succeed to the office and title of Maharaja of Sabah and Raja of Gaya and Sandakan, and all the powers above enumerated be vested in him." I am quoting from the preamble to the Royal Charter. Some explanation of the term "Sabah" as applied to the territory—a term which appears in the Prayer Book version of the 72nd Psalm, verse 10, "The kings of Arabia and Sabah shall bring gifts"—seems called for, but I regret to say I have not been able to obtain a satisfactory one from the Brunai people, who use it in connection only with a small portion of the West Coast of Borneo, North of the Brunai river. Perhaps the following note, which I take from Mr. W. E. MAXWELL'S "Manual of the Malay Language," may have some slight bearing on the point:—"Sawa, Jawa, Saba, Jaba, Zaba, etc., has evidently in all times been the capital local name in Indonesia. The whole archipelago was pressed into an island of that name by the Hindus and Romans. Even in the time of MARCO POLO we have only a Java Major and a Java Minor. The Bugis apply the name of Jawa, *Jawaka* (comp. the Polynesian *Sawaiki*, Ceramese *Sawai*) to the Moluccas. One of the principal divisions of Battaland in Sumatra is called *Tanah* Jawa. PTOLEMY has both Jaba and Saba."—"Logan, Journ. Ind. Arch., iv, 338." In the Brunai use of

the term, there is always some idea of a Northerly direction; for instance, I have heard a Brunai man who was passing from the South to the Northern side of his river, say he was going *Saba*. When the Company's Government was first inaugurated, the territory was, in official documents, mentioned as Sabah, a name which is still current amongst the natives, to whom the now officially accepted designation of *North Borneo* is meaningless and difficult of pronunciation.

Having settled with the Brunai authorities, Baron VON OVERBECK next proceeded to Sulu, and found the Sultan driven out of his capital, Sugh or Jolo, by the Spaniards, with whom he was still at war, and residing at Maibun, in the principal island of the Sulu Archipelago. After brief negotiations, the Sultan made to Baron VON OVERBECK and Mr. ALFRED DENT a grant of his rights and powers over the territories and lands tributary to him on the mainland of the island of Borneo, from the Pandassan River on the North West Coast to the Sibuko River on the East, and further invested the Baron, or his duly appointed successor in the office of supreme ruler of the Company's territories in Borneo, with the high sounding titles of Datu Bandahara and Raja of Sandakan.

On a company being formed to work the concessions, Baron VON OVERBECK resigned these titles from the Brunai and Sulu Potentates and they have not since been made use of, and the Baron himself terminated his connection with the country.

The grant from the Sultan of Sulu bears date the 22nd January, 1878, and on the 22nd July of the same year he signed a treaty, or act of re-submission to Spain. The Spanish Government claimed that, by previous treaties with Sulu, the suzerainty of Spain over Sulu and its dependencies in Borneo had been recognised and that consequently the grant to Mr. DENT was void. The British Government did not, however, fall in with this view, and in the early part of 1879, being then Acting Consul-General in Borneo, I was despatched to Sulu and to different points in North Borneo to publish, on behalf of our Government, a protest against the claim of Spain to any portion of the country. In March, 1885, a

protocol was signed by which, in return for the recognition by England and Germany of Spanish sovereignty throughout the Archipelago of Sulu, Spain renounced all claims of sovereignty over territories on the Continent of Borneo which had belonged to the Sultan of Sulu, including the islands of Balambangan, Banguey and Malawali, as well as all those comprised within a zone of three maritime leagues from the coast.

Holland also strenuously objected to the cessions and to their recognition, on the ground that the general tenor of the Treaty of London of 1824 shews that a mixed occupation by England and the Netherlands of any island in the Indian Archipelago ought to be avoided.

It is impossible to discover anything in the treaty which bears out this contention. Borneo itself is not mentioned by name in the document, and the following clauses are the only ones regulating the future establishment of new Settlements in the Eastern Seas by either Power:—"Article 6. It is agreed that orders shall be given by the two Governments to their Officers and Agents in the East not to form any new Settlements on any of the islands in the Eastern Seas, without previous authority from their respective Governments in Europe. Art. 12. His Britannic Majesty, however, engages, that no British Establishment shall be made on the Carimon islands or on the islands of Battam, Bintang, Lingin, or on any of the other islands South of the Straits of Singapore, nor any treaty concluded by British authority with the chiefs of those islands." Without doubt, if Holland in 1824 had been desirous of prohibiting any British Settlement in the island of Borneo, such prohibition would have been expressed in this treaty. True, perhaps half of this great island is situated South of the Straits of Singapore, but the island cannot therefore be correctly said to lie to the South of the Straits and, at any rate, such a business-like nation as the Dutch would have noticed a weak point here and have included Borneo in the list with Battam and the other islands enumerated. Such was the view taken by Mr. GLADSTONE'S Cabinet, and Lord GRANVILLE informed the Dutch Minister in 1882 that the XIIth Article of the Treaty could not be taken to apply to Borneo, and "that as a a matter of international right they would have no ground to

object even to the absolute annexation of North Borneo by Great Britain," and, moreover, as pointed out by his Lordship, the British had already a settlement in Borneo, namely the island of Labuan, ceded by the Sultan of Brunai in 1845 and confirmed by him in the Treaty of 1847. The case of Raja BROOKE in Sarawak was also practically that of a British Settlement in Borneo.

Lord GRANVILLE closed the discussion by stating that the grant of the Charter does not in any way imply the assumption of sovereign rights in North Borneo, *i.e.*, on the part of the British Government.

There the matter rested, but now that the Government is proposing* to include British North Borneo, Brunai and Sarawak under a formal "British Protectorate," the Netherlands Government is again raising objections, which they must be perfectly aware are groundless. It will be noted that the Dutch do not lay any claim to North Borneo themselves, having always recognized it as pertaining, with the Sulu Archipelago, to the Spanish Crown. It is only to the presence of the British Government in North Borneo that any objection is raised. In a "Resolution" of the Minister of State, Governor-General of Netherlands India, dated 28th February, 1846, occurs the following:—"The parts of Borneo on which the Netherlands does not exercise any influence are:—

a. The States of the Sultan of Brunai or Borneo Proper;

* * * * *

b. The State of the Sultan of the Sulu Islands, having for boundaries on the West, the River Kimanis, the North and North-East Coasts as far as 3° N.L., where it is bounded by the River Atas, forming the extreme frontier towards the North with the State of Berow dependant on the Netherlands.

c. All the islands of the Northern Coasts of Borneo."

Knowing this, Mr. ALFRED DENT put the limit of his cession from Sulu at the Sibuku River, the South bank of which is in N. Lat. 4° 5′; but towards the end of 1879, that is, long

* The Protectorate has since been proclaimed.

after the date of the cession, the Dutch hoisted their flag at Batu Tinagat in N. Lat. 4° 19′, thereby claiming the Sibuko and other rivers ceded by the Sultan of Sulu to the British Company. The dispute is still under consideration by our Foreign Office, but in September, 1883, in order to practically assert the Company's claims, I, as their Governor, had a very pleasant trip in a very small steam launch and steaming at full speed past two Dutch gun-boats at anchor, landed at the South bank of the Sibuko, temporarily hoisted the North Borneo flag, fired a *feu-de-joie*, blazed a tree, and returning, exchanged visits with the Dutch gun-boats, and entertained the Dutch Controlleur at dinner. Having carefully given the Commander of one of the gun-boats the exact bearings of the blazed tree, he proceeded in hot haste to the spot, and, I believe, exterminated the said tree. The Dutch Government complained of our having violated Netherlands territory, and matters then resumed their usual course, the Dutch station at Batu Tinagat, or rather at the Tawas River, being maintained unto this day.

As is hereafter explained, the cession of coast line from the Sultan of Brunai was not a continuous one, there being breaks on the West Coast in the case of a few rivers which were not included. The annual tribute to be paid to the Sultan was fixed at $12,000, and to the Pangeran Tumonggong $3,000—extravagantly large sums when it is considered that His Highness' revenue per annum from the larger portion of the territory ceded was *nil*. In March, 1881, through negotiations conducted by Mr. A. H. EVERETT, these sums were reduced to more reasonable proportions, namely, $5,000 in the case of the Sultan, and $2,500 in that of the Tumonggong.

The intermediate rivers which were not included in the Sultan's cession belonged to Chiefs of the blood royal, and the Sultan was unwilling to order them to be ceded, but in 1883 Resident DAVIES procured the cession from one of these Chiefs of the Pangalat River for an annual payment of $300, and subsequently the Putalan River was acquired for $1,000 per annum, and the Kawang River and the Mantanani Islands for lump sums of $1,300 and $350 respectively. In 1884, after prolonged negotiations, I was also enabled to obtain the ces-

sion of an important Province on the West Coast, to the South of the original boundary, to which the name of Dent Province has been given, and which includes the Padas and Kalias Rivers, and in the same deed of cession were also included two rivers which had been excepted in the first grant—the Tawaran and the Bangawan. The annual tribute under this cession is $3,100. The principal rivers within the Company's boundaries still unleased are the Kwala Lama, Membakut, Inanam and Menkabong. For fiscal reasons, and for the better prevention of the smuggling of arms and ammunition for sale to head-hunting tribes, it is very desirable that the Government of these remaining independent rivers should be acquired by the Company.

On the completion of the negotiations with the two Sultans, Baron VON OVERBECK, who was shortly afterwards joined by Mr. DENT, hoisted his flag—the house flag of Mr. DENT'S firm—at Sandakan, on the East Coast, and at Tampassuk and Pappar on the West, leaving at each a European, with a few so-called Police to represent the new Government, agents from the Sultans of Sulu and Brunai accompanying him to notify to the people that the supreme power had been transferred to Europeans. The common people heard the announcement with their usual apathy, but the officer left in charge had a difficult part to play with the headmen who, in the absence of any strong central Government, had practically usurped the functions of Government in many of the rivers. These Chiefs feared, and with reason, that not only would their importance vanish, but that trade with the inland tribes would be thrown open to all, and slave dealing be put a stop to under the new regime. At Sandakan, the Sultan's former Governor refused to recognise the changed position of affairs, but he had a resolute man to deal with in Mr. W. B. PRYER, and before he could do much harm, he lost his life by the capsizing of his prahu while on a trading voyage.

At Tampassuk, Mr. PRETYMAN, the Resident, had a very uncomfortable post, being in the midst of lawless, cattle-lifting and slave-dealing Bajaus and Illanuns. He, with the able assistance of Mr. F. X. WITTI, an ex-Naval officer of the

Austrian Service, who subsequently lost his life while exploring in the interior, and by balancing one tribe against another, managed to retain his position without coming to blows, and, on his relinquishing the service a few months afterwards, the arduous task of representing the Government without the command of any force to back up his authority developed on Mr. WITTI. In the case of the Pappar River, the former Chief, Datu BAHAR, declined to relinquish his position, and assumed a very defiant attitude. I was at that time in the Labuan service, and I remember proceeding to Pappar in an English man-of-war, in consequence of the disquieting rumours which had reached us, and finding the Resident, Mr. A. H. EVERETT, on one side of the small river with his house strongly blockaded and guns mounted in all available positions, and the Datu on the other side of the stream, immediately opposite to him, similarly armed to the teeth. But not a shot was fired, and Datu BAHAR is now a peaceable subject of the Company.

The most difficult problem, however, which these officers had to solve was that of keeping order, or trying to do so, amongst a lawless people, with whom for years past might had been right, and who considered kidnapping and cattle-lifting the occupations of honourable and high spirited gentlemen. That they effected what they did, that they kept the new flag flying and prepared the way for the Government of the Company, reflects the highest credit upon their pluck and diplomatic ingenuity, for they had neither police nor steam launches, nor the prestige which would have attached to them had they been representatives of the British Government, and under the well known British flag. They commenced their work with none of the *éclat* which surrounded Sir JAMES BROOKE in Sarawak, where he found the people in successful rebellion against the Sultan of Brunai, and was himself recognised as an agent of the British Government, so powerful that he could get the Queen's ships to attack the head hunting pirates, killing such numbers of them that, as I have said, the Head money claimed and awarded by the British Government reached the sum of £20,000. On the other hand, it is but fair to add that the fame of Sir JAMES' exploits and the

action taken by Her Majesty's vessels, on his advice, in North-West Borneo years before, had inspired the natives with a feeling of respect for Englishmen which must have been a powerful factor in favour of the newly appointed officers. The native tribes, too, inhabiting North Borneo were more sub-divided, less warlike, and less powerful than those of Sarawak.

The promoters of the scheme were fortunate in obtaining the services, for the time being, as their chief representative in the East of Mr. W. H. READ, C.M.G., an old friend of Sir JAMES BROOKE, and who, as a Member of the Legislative Council of Singapore, and Consul-General for the Netherlands, had acquired an intimate knowledge of the Malay character and of the resources, capabilities and needs of Malayan countries.

On his return to England, Mr. DENT found that, owing to the opposition of the Dutch and Spanish Governments, and to the time required for a full consideration of the subject by Her Majesty's Ministers, there would be a considerable delay before a Royal Charter could be issued, meanwhile, the expenditure of the embryo Government in Borneo was not inconsiderable, and it was determined to form a "Provisional Association" to carry on till a Chartered Company could be formed.

Mr. DENT found an able supporter in Sir RUTHERFORD ALCOCK, K.C.B., who energetically advocated the scheme from patriotic motives, recognising the strategic and commercial advantages of the splendid harbours of North Borneo and the probability of the country becoming in the near future a not unimportant outlet for English commerce, now so heavily weighted by prohibitive tariffs in Europe and America.

The British North Borneo Provisional Association Limited, was formed in 1881, with a capital of £300,000, the Directors being Sir RUTHERFORD ALCOCK, Mr. A. DENT, Mr. R. B. MARTIN, Admiral MAYNE, and Mr. W. H. READ. The Association acquired from the original lessees the grants and commissions from the Sultans, with the object of disposing of these territories, lands and property to a Company to be incorporated by Royal Charter. This Charter passed the Great

Seal on the 1st November, 1881, and constituted and incorporated the gentlemen above-mentioned as "The British North Borneo Company."

The Provisional Association was dissolved, and the Chartered Company started on its career in May, 1882. The nominal capital was two million pounds, in £20 shares, but the number of shares issued, including 4,500 fully paid ones representing £90,000 to the vendors, was only 33,030, equal to £660,600, but on 23,449 of these shares only £12 have so far been called up. The actual cash, therefore, which the Company has had to work with and to carry on the development of the country from the point at which the original concessionaires and the Provisional Association had left it, is, including some £1,000 received for shares forfeited, about £384,000, and they have a right of call for £187,592 more. The Charter gave official recognition to the concessions from the Native Princes, conferred extensive powers on the Company as a corporate body, provided for the just government of the natives and for the gradual abolition of slavery, and reserved to the Crown the right of disapproving of the person selected by the Company to be their Governor in the East, and of controlling the Company's dealings with any Foreign Power.

The Charter also authorised the Company to use a distinctive flag, indicating the British character of the undertaking, and the one adopted, following the example of the English Colonies, is the British flag, "defaced," as it is termed, with the Company's badge—a lion. I have little doubt that this selection of the British flag, in lieu of the one originally made use of, had a considerable effect in imbuing the natives with an idea of the stability and permanence of the Company's Government.

Mr. DENT'S house flag was unknown to them before and, on the West Coast, many thought that the Company's presence in the country might be only a brief one, like that of its predecessor, the American syndicate, and, consequently, were afraid to tender their allegiance, since, on the Company's withdrawal, they would be left to the tender mercies of their former Chiefs. But the British flag was well-known to those of them who were traders, and they had seen it flying

for many a year in the Colony of Labuan and on board the vessels which had punished their piratical acts in former days.

Then, too, I was soon able to organise a Police Force mainly composed of Sikhs, and was provided with a couple of steam-launches. Owing doubtless to that and other causes, the refractory chiefs, soon after the Company's formation, appeared to recognize that the game of opposition to the new order of things was a hopeless one.

CHAPTER VIII.

The area of the territory ceded by the original grants was estimated at 20,000 square miles, but the additions which have been already mentioned now bring it up to about 31,000 square miles, including adjacent islands, so that it is somewhat larger than Ceylon, which is credited with only 25,365 square miles. In range of latitude, in temperature and in rainfall, North Borneo presents many points of resemblance to Ceylon, and it was at first thought that it might be possible to attract to the new country some of the surplus capital, energy and aptitude for plantiug which had been the foundation of Ceylon's prosperity.

Even the expression "The New Ceylon" was employed as an alternative designation for the country, and a description of it under that title was published by the well known writer—Mr. JOSEPH HATTON.

These hopes have not so far been realized, but on the other hand North Borneo is rapidly becoming a second Sumatra, Dutchmen, Germans and some English having discovered the suitability of its soil and climate for producing tobacco of a quality fully equal to the famed Deli leaf of that island.

The coast line of the territory is about one thousand miles, and a glance at the map will shew that it is furnished with capital harbours, of which the principal are Gaya Bay on the West, Kudat in Marudu Bay on the North, and Sandakan Harbour on the East. There are several others, but at those enumerated the Company have opened their principal stations.

Of the three mentioned, the more striking is that of Sandakan, which is 15 miles in length, with a width varying from 1¼ miles, at its entrance, to 5 miles at the broadest part. It is here that the present capital is situated—Sandakan, a town containing a population of not more than 5,000 people, of whom perhaps thirty are Europeans and a thousand Chinese. For its age, Sandakan has suffered serious vicissitudes. It was founded by Mr. PRYER, in 1878, well up the bay, but was soon afterwards burnt to the ground. It was then transferred to its present position, nearer the mouth of the harbour, but in May, 1886, the whole of what was known as the "Old Town" was utterly consumed by fire; in about a couple of hours there being nothing left of the *atap*-built shops and houses but the charred piles and posts on which they had been raised above the ground. When a fire has once laid hold of an atap town, probably no exertions would much avail to check it; certainly our Chinese held this opinion, and it was impossible to get them to move hand or foot in assisting the Europeans and Police in their efforts to confine its ravages to as limited an area as possible. They entertain the idea that such futile efforts tend only to aggravate the evil spirits and increase their fury. The Hindu shopkeepers were successful in saving their quarter of the town by means of looking glasses, long prayers and chants. It is now forbidden to any one to erect atap houses in the town, except in one specified area to which such structures are confined. Most of the present houses are of plank, with tile, or corrugated iron roofs, and the majority of the shops are built over the sea, on substantial wooden piles, some of the principal "streets," including that to which the ambitious name of "The Praya" has been given, being similarly constructed on piles raised three or four feet above high water mark. The reason is that, owing to the steep hills at the back of the site, there is little available flat land for building on, and, moreover, the pushing Chinese trader always likes to get his shops as near as possible to the sea—the highway of the "prahus" which bring him the products of the neighbouring rivers and islands. In time, no doubt, the Sandakan hills will be used to reclaim more land from the sea, and the town will cease to

be an amphibious one. In the East there are, from a sanitary point of view, some points of advantage in having a tide-way passing under the houses. I should add that Sandakan is a creation of the Company's and not a native town taken over by them. When Mr. PRYER first hoisted his flag, there was only one solitary Chinaman and no Europeans in the harbour, though at one time, during the Spanish blockade of Sulu, a Singapore firm had established a trading station, known as "Kampong German," using it as their head-quarters from which to run the blockade of Sulu, which they successfully did for some considerable time, to their no small gain and advantage. The success attending the Germans' venture excited the emulation of the Chinese traders of Labuan, who found their valuable Sulu trade cut off and, through the good offices of the Government of the Colony, they were enabled to charter the Sultan of Brunai's smart little yacht the *Sultana*, and engaging the services as Captain of an ex-member of the Labuan Legislative Council, they endeavoured to enact the roll of blockade runner. After a trip or two, however, the *Sultana* was taken by the Spaniards, snugly at anchor in a Sulu harbour, the Captain and Crew having time to make their escape. As she was not under the British flag, the poor Sultan could obtain no redress, although the blockade was not recognised as effective by the European Powers and English and German vessels, similarly seized, had been restored to their owners. The *Sultana* proved a convenient despatch boat for the Spanish authories. The Sultan of Sulu to prove his friendship to the Labuan traders, had an unfortunate man cut to pieces with krisses, on the charge of having betrayed the vessel's position to the blockading cruisers.

Sandakan is one of the few places in Borneo which has been opened and settled without much fever and sickness ensuing, and this was due chiefly to the soil being poor and sandy and to there being an abundance of good, fresh, spring water. It may be stated, as a general rule, that the richer the soil the more deadly will be the fever the pioneers will have to encounter when the primeval jungle is first felled and the sun's rays admitted to the virgin soil.

Sandakan is the principal trading station in the Company's territory, but with Hongkong only 1,200 miles distant in one direction, Manila 600 miles in another, and Singapore 1,000 miles in a third, North Borneo can never become an emporium for the trade of the surrounding countries and islands, and the Court of Directors must rest content with developing their own local trade and pushing forward, by wise and encouraging regulations, the planting interest, which seems to have already taken firm root in the country and which will prove to be the foundation of its future prosperity. Gold and other minerals, including coal, are known to exist, but the mineralogical exploration of a country covered with forest and destitute of roads is a work requiring time, and we are not yet in a position to pronounce on North Borneo's expectations in regard to its mineral wealth.

The gold on the Segama River, on the East coast, has been several times reported on, and has been proved to exist in sufficient quantities to, at any rate, well repay the labours of Chinese gold diggers, but the district is difficult of access by water, and the Chinese are deferring operations on a large scale until the Government has constructed a road into the district. A European Company has obtained mineral concessions on the river, but has not yet decided on its mode of operation, and individual European diggers have tried their luck on the fields, hitherto without meeting with much success, owing to heavy rains, sickness and the difficulty of getting up stores. The Company will probably find that Chinese diggers will not only stand the climate better, but will be more easily governed, be satisfied with smaller returns, and contribute as much or more than the Europeans to the Government Treasury, by their consumption of opium, tobacco and other excisable articles, by fees for gold licenses, and so forth.

Another source of natural wealth lies in the virgin forest with which the greater portion of the country is clothed, down to the water's edge. Many of the trees are valuable as timber, especially the *Billian*, or Borneo iron-wood tree, which is impervious to the attacks of white-ants ashore and almost equally so to those of the *teredo navalis* afloat, and is wonderfully enduring of exposure to the tropical sun and the tropical

downpours of rain. I do not remember having ever come across a bit of *billian* that showed signs of decay during a residence of seventeen years in the East. The wood is very heavy and sinks in water, so that, in order to be shipped, it has to be floated on rafts of soft wood, of which there is an abundance of excellent quality, of which one kind—the red *serayah*—is likely to come into demand by builders in England. Other of the woods, such as *mirabau*, *penagah* and *rengas*, have good grain and take a fine polish, causing them to be suitable for the manufacture of furniture. The large tree which yields the Camphor *barus* of commerce also affords good timber. It is a *Dryobalanops*, and is not to be confused with the *Cinnamomum camphora*, from which the ordinary "camphor" is obtained and the wood of which retains the camphor smell and is largely used by the Chinese in the manufacture of boxes, the scented wood keeping off ants and other insects which are a pest in the Far East. The Borneo camphor tree is found only in Borneo and Sumatra. The camphor which is collected for export, principally to China and India, by the natives, is found in a solid state in the trunk, but only in a small percentage of the trees, which are felled by the collectors. The price of this camphor *barus* as it is termed, is said to be nearly a hundred times as much as that of the ordinary camphor, and it is used by the Chinese and Indians principally for embalming purposes. Billian and other woods enumerated are all found near the coast and, generally, in convenient proximity to some stream, and so easily available for export. Sandakan harbour has some thirteen rivers and streams running into it, and, as the native population is very small, the jungle has been scarcely touched, and no better locality could, therefore, be desired by a timber merchant. Two European Timber Companies are now doing a good business there, and the Chinese also take their share of the trade. China affords a ready and large market for Borneo timber, being itself almost forestless, and for many years past it has received ironwood from Sarawak. Borneo timber has also been exported to the Straits Settlements, Australia and Mauritius, and I hear that an order has been given for England. Iron wood is only found in certain districts, notably in Sandakan Bay and on

the East coast, being rarely met with on the West coast. I have seen a private letter from an officer in command of a British man-of-war who had some samples of it on board which came in very usefully when certain bearings of the screw shaft were giving out on a long voyage, and were found to last *three times* as long as lignum vitæ.

In process of time, as the country is opened up by roads and railways, doubtless many other valuable kinds of timber trees will be brought to light in the interior.

A notice of Borneo Forests would be incomplete without a reference to the mangroves, which are such a prominent feature of the country as one approaches it by sea, lining much of the coast and forming, for mile after mile, the actual banks of most of the rivers. Its thick, dark-green, never changing foliage helps to give the new comer that general impression of dull monotony in tropical scenery, which, perhaps, no one, except the professed botanist, whose trained and practical eye never misses the smallest detail, ever quite shakes off.

The wood of the mangrove forms most excellent firewood, and is often used by small steamers as an economical fuel in lieu of coal, and is exported to China in the timber ships. The bark is also a separate article of export, being used as a dye and for tanning, and is said to contain nearly 42% of *tannin*.

The value of the general exports from the territory is increasing every year, having been $145,444 in 1881 and $525,879 in 1888. With the exception of tobacco and pepper, the list is almost entirely made up of the natural raw products of the land and sea—such as bees-wax, camphor, damar, gutta percha, the sap of a large forest tree destroyed in the process of collection of gutta, India rubber, from a creeper likewise destroyed by the collectors, rattans, well known to every school boy, sago, timber, edible birds'-nests, seed-pearls, Mother-o'-pearl shells in small quantities, dried fish and dried sharks'-fins, trepang (sea-slug or bêche de mer), aga, or edible sea-weed, tobacco (both Native and European grown), pepper, and occasionally elephants' tusks—a list which shews the country to be a rich store house of natural productions, and one which will be added to, as the land is brought under cultivation with coffee,

tea, sugar, cocoa, Manila hemp, pine apple fibre, and other tropical products for which the soil, and especially the rainfall, temperature and climatic conditions generally, including entire freedom from typhoons and earthquakes, eminently adapt it, and many of which have already been tried with success on an experimental scale. As regards pepper, it has been previously shewn that North Borneo was in former days an exporter of this spice. Sugar has been grown by the natives for their own consumption for many years, as also tapioca, rice and Indian corn. It is not my object to give a detailed list of the productions of the country, and I would refer any reader who is anxious to be further enlightened on these and kindred topics to the excellent "Hand-book of British North Borneo," prepared for the Colonial and Indian Exhibition of 1886, at which the new Colony was represented, and published by Messrs. WILLIAM CLOWES & SONS.

The edible birds'-nests are already a source of considerable revenue to the Government, who let out the collection of them for annual payments, and also levy an export duty as they leave the country for China, which is their only market. The nests are about the size of those of the ordinary swallow and are formed by innumerable hosts of swifts—*Collocalia fuciphaga*—entirely from a secretion of the glands of the throat. These swifts build in caves, some of which are of very large dimensions, and there are known to be some sixteen of them in different parts of British North Borneo. With only one exception, the caves occur in limestone rocks and, generally, at no great distance from the sea, though some have been discovered in the interior, on the banks of the Kinabatangan River. The exception above referred to is that of a small cave on a sand-stone island at the entrance of Sandakan harbour. The *Collocalia fuciphaga* appears to be pretty well distributed over the Malayan islands, but of these, Borneo and Java are the principal sources of supply. Nests are also exported from the Andaman Islands, and a revenue of £30,000 a year is said to be derived from the nests in the small islands in the inland sea of Tab Sab, inhabited by natives of Malay stock.

The finest caves, or rather series of caves, as yet known in the Company's territories are those of Gomanton, a limestone

hill situated at the head of the Sapa Gaia, one of the streams running into Sandakan harbour.

These grand caves, which are one of the most interesting sights in the country, are, in fine weather, easily accessible from the town of Sandakan, by a water journey across the harbour and up the Sapa Gaia, of about twelve miles, and by a road from the point of debarkation to the entrance of the lower caves, about eight miles in length.

The height of the hill is estimated at 1,000 feet, and it contains two distinct series of caves. The first series is on the "ground floor" and is known as *Simud Hitam*, or "black entrance." The magnificent porch, 250 feet high and 100 broad, which gives admittance to this series, is on a level with the river bank, and, on entering, you find yourself in a spacious and lofty chamber well lighted from above by a large open space, through which can be seen the entrance to the upper set of caves, some 400 to 500 feet up the hill side. In this chamber is a large deposit of guano, formed principally by the myriads of bats inhabiting the caves in joint occupancy with the edible-nest-forming swifts. Passing through this first chamber and turning a little to the right you come to a porch leading into an extensive cave, which extends under the upper series. This cave is filled half way up to its roof, with an enormous deposit of guano, which has been estimated to be 40 to 50 feet in depth. How far the cave extends has not been ascertained, as its exploration, until some of the deposit is removed, would not be an easy task, for the explorer would be compelled to walk along on the top of the guano, which in some places is so soft that you sink in it almost up to your waist. My friend Mr. C. A. BAMPFYLDE, in whose company I first visited Gomanton, and who, as "Commissioner of Birds-nest Caves," drew up a very interesting report on them, informed me that, though he had found it impossible to explore right to the end, he had been a long way in and was confident that the cave was of very large size. To reach the upper series of caves, you leave Simud Hitam and clamber up the hill side—a steep but not difficult climb, as the jagged limestone affords sure footing. The entrance to this series, known as *Simud Putih*, or "white entrance," is estimated to be at an

elevation of 300 feet above sea level, and the porch by which you enter them is about 30 feet high by about 50 wide. The floor slopes steeply downwards and brings you into an enormous cave, with smaller ones leading off it, all known to the nest collectors by their different native names. You soon come to a large black hole, which has never been explored, but which is said to communicate with the large guano cave below, which has been already described. Passing on, you enter a dome-like cave, the height of the roof or ceiling of which has been estimated at 800 feet, but for the accuracy of this guess I cannot vouch. The average height of the cave before the domed portion is reached is supposed to be about 150 feet, and Mr. BAMPFYLDE estimates the total length, from the entrance to the furthest point, at a fifth of a mile. The Simud Putih series are badly lighted, there being only a few "holes" in the roof of the dome, so that torches or lights of some kind are required. There are large deposits of guano in these caves also, which could be easily worked by lowering quantities down into the Simud Hitam caves below, the floor of which, as already stated, is on a level with the river bank, so that a tramway could be laid right into them and the guano be carried down to the port of shipment, at the mouth of the Sapa Gaia River. Samples of the guano have been sent home, and have been analysed by Messrs. VOELCKER & CO. It is rich in ammonia and nitrogen and has been valued at £5 to £7 a ton in England. The bat-guano is said to be richer as a manure than that derived from the swifts. To ascend to the top of Gomanton, one has to emerge from the Simud Putih entrance and, by means of a ladder, reach an overhanging ledge, whence a not very difficult climb brings one to the cleared summit, from which a fine view of the surrounding country is obtained, including Kina-balu, the sacred mountain of North Borneo. On this summit will be found the holes already described as helping to somewhat lighten the darkness of the dome-shaped cave, on the roof of which we are in fact now standing. It is through these holes that the natives lower themselves into the caves, by means of rattan ladders and, in a most marvellous manner, gain a footing on the ceiling and construct cane stages, by means of which they can reach any part of the roof

and, either by hand or by a suitable pole to the end of which is attached a lighted candle, secure the wealth-giving luxury for the epicures of China. There are two principal seasons for collecting the nests, and care has to be taken that the collection is made punctually at the proper time, before the eggs are all hatched, otherwise the nests become dirty and fouled with feathers, &c., and discoloured and injured by the damp, thereby losing much of their market value. Again, if the nests are not collected for a season, the birds do not build many new ones in the following season, but make use of the old ones, which thereby become comparatively valueless.

There are, roughly speaking, three qualities of nests, sufficiently described by their names—white, red, and black—the best quality of each fetching, at Sandakan, per catty of 1⅓ lbs., $16, $7 and 8 cents respectively.

The question as to the true cause of the difference in the nests has not yet been satisfactorily solved. Some allege that the red and black nests are simply white ones deteriorated by not having been collected in due season. I myself incline to agree with the natives that the nests are formed by different birds, for the fact that, in one set of caves, black nests are always found together in one part, and white ones in another, though both are collected with equal care and punctuality, seems almost inexplicable under the first theory. It is true that the different kinds of nests are not found in the same season, and it is just possible that the red and black nests may be the second efforts at building made by the swifts after the collectors have disturbed them by gathering their first, white ones. In the inferior nests, feathers are found *mixed up* with the gelatinous matter forming the walls, as though the glands were unable to secrete a sufficient quantity of material, and the bird had to eke it out with its own feathers. In the substance of the white nests no feathers are found.

Then, again, it is sometimes found in the case of two distinct caves, situated at no great distance apart, that the one yields almost entirely white nests, and the other nearly all red, or black ones, though the collections are made with equal regularity in each. The natives, as I have said, seem to think that there are two kinds of birds, and the Hon. R. ABER-

CROMBY reports that, when he visited Gomanton, they shewed him eggs of different size and explained that one was laid by the white-nest bird and the other by the black-nest builder. Sir HUGH LOW, in his work on Sarawak, published in 1848, asserts that there are "two different and quite dissimilar kinds of birds, though both are swallows" (he should have said swifts), and that the one which produces the white nest is larger and of more lively colours, with a white belly, and is found on the sea-coast, while the other is smaller and darker and found more in the interior. He admits, however, that though he had opportunities of observing the former, he had not been able to procure a specimen.

The question is one which should be easily settled on the spot, and I recommend it to the consideration of the authorities of the British North Borneo Museum, which has been established at Sandakan.

The annual value of the nests of Gomanton, when properly collected, has been reckoned at $23,000, but I consider this an excessive estimate. My friend Mr. A. COOK, the Treasurer of the Territory, to whose zeal and perseverance the Company owes much, has arranged with the Buludupih tribe to collect these nests on payment to the Government of a royalty of $7,500 per annum, which is in addition to the export duty at the rate of 10% *ad valorem* paid by the Chinese exporters.

The swifts and bats—the latter about the size of the ordinary English bat—avail themselves of the shelter afforded by the caves without incommoding one another, for, by a sort of Box and Cox arrangement, the former occupy the caves during the night and the latter by day.

Standing at the Simud Putih entrance about 5 P. M., the visitor will suddenly hear a whirring sound from below, which is caused by the myriads of bats issuing, for their nocturnal banquet, from the Simud Itam caves, through the wide open space that has been described. They come out in a regularly ascending continuous spiral or corkscrew coil, revolving from left to right in a very rapid and regular manner. When the top of the spiral coil reaches a certain height, a colony of bats breaks off, and continuing to revolve in a well kept ring from left to right gradually ascends higher and higher, until all of

a sudden the whole detachment dashes off in the direction of the sea, towards the mangrove swamps and the *nipas*. Sometimes these detached colonies reverse the direction of their revolutions after leaving the main body, and, instead of from left to right, revolve from right to left. Some of them continue for a long time revolving in a circle, and attain a great height before darting off in quest of food, while others make up their minds more expeditiously, after a few revolutions. Amongst the bats, three white ones were, on the occasion of my visit, very conspicuous, and our followers styled them the Raja, his wife and child. Hawks and sea-eagles are quickly attracted to the spot, but only hover on the outskirts of the revolving coil, occasionally snapping up a prize. I also noticed several hornbills, but they appeared to have been only attracted by curiosity. Mr. BAMPFYLDE informed me that, on a previous visit, he had seen a large green snake settled on an overhanging branch near which the bats passed and that occasionally he managed to secure a victim. I timed the bats and found that they took almost exactly fifty minutes to come out of the caves, a thick stream of them issuing all that time and at a great pace, and the reader can endeavour to form for himself some idea of their vast numbers. They had all got out by ten minutes to six in the evening, and at about six o'clock the swifts began to come home to roost. They came in in detached, independent parties, and I found it impossible to time them, as some of them kept very late hours. I slept in the Simud Putih cave on this occasion, and found that next morning the bats returned about 5 A.M., and that the swifts went out an hour afterwards.

As shewing the mode of formation of these caves, I may add that I noticed, imbedded in a boulder of rock in the upper caves, two pieces of coral and several fossil marine shells, bivalves and others.

The noise made by the bats going out for their evening promenade resembled a combination of that of the surf breaking on a distant shore and of steam being gently blown off from a vessel which has just come to anchor.

There are other interesting series of caves, and one—that of Madai, in Darvel Bay on the East coast—was

visited by the late Lady BRASSEY and Miss BRASSEY in April, 1887, when British North Borneo was honoured by a visit of the celebrated yacht the *Sunbeam*, with Lord BRASSEY and his family on board.

I accompanied the party on the trip to Madai, and shall not easily forget the pluck and energy with which Lady BRASSEY, then in bad health, surmounted the difficulties of the jungle track, and insisted upon seeing all that was to be seen; or the gallant style in which Miss BRASSEY unwearied after her long tramp through the forest, led the way over the slippery boulders in the dark caves.

The Chinese ascribe great strengthening powers to the soup made of the birds'-nests, which they boil down into a syrup with barley sugar, and sip out of tea cups. The gelatinous looking material of which the substance of the nests is composed is in itself almost flavourless.

It is also with the object of increasing their bodily powers that these epicures consume the uninviting sea-slug or bêche-de-mer, and dried sharks'-fins and cuttle fish.

To conclude my brief sketch of Sandakan Harbour and of the Capital, it should be stated that, in addition to being within easy distance of Hongkong, it lies but little off the usual route of vessels proceeding from China to Australian ports, and can be reached by half a day's deviation of the ordinary track.

Should, unfortunately, war arise with Russia, there is little doubt their East Asiatic squadron would endeavour both to harass the Australian trade and to damage, as much as possible, the coast towns, in which case the advantages of Sandakan, midway between China and Australia, as a base of operations for the British protecting fleet would at once become manifest. It is somewhat unfortunate that a bar has formed just outside the entrance of the harbour, with a depth of water of four fathoms at low water, spring tides, so that ironclads of the largest size would be denied admittance.

There are at present, no steamers sailing direct from Borneo to England, and nearly all the commerce from British North Borneo ports is carried by local steamers to that great emporium of the trade of the Malayan countries, Singapore,

distant from Sandakan a thousand miles, and it is a curious fact, that though many of the exports are ultimately intended for the China market, *e.g.*, edible birds'-nests, the Chinese traders find it pays them better to send their produce to Singapore in the first instance, instead of direct to Hongkong. This is partly accounted for by the further fact that, though the Government has spent considerable sum in endeavouring to attract Chinamen from China, the large proportion of our Chinese traders and of the Chinese population generally has come to us *viâ* Singapore, after as it were having undergone there an education in the knowledge of Malayan affairs.

As further illustrating the commercial and strategical advantages of the harbours of British North Borneo, it should be noted that the course recommended by the Admiralty instructions for vessels proceeding to China from the Straits, *viâ* the Palawan passage, brings them within ninety miles of the harbours of the West Coast.

As to postal matters, British North Borneo, though not in the Postal Union, has entered into arrangements for the exchange of direct closed mails with the English Post Office, London, with which latter also, as well as with Singapore and India, a system of Parcel Post and of Post Office Orders has been established.

The postal and inland revenue stamps, distinguished by the lion, which has been adopted as the Company's badge, are well executed and in considerable demand with stamp collectors, owing to their rarity.

The Government also issues its own copper coinage, one cent and half-cent pieces, manufactured in Birmingham and of the same intrinsic value as those of Hongkong and the Straits Settlements.

The revenue derived from its issue is an important item to the Colony's finances, and considerable quantities have been put ino circulation, not only within the limits of the Company's territory, but also in Brunai and in the British Colony of Labuan, where it has been proclaimed a legal tender on the condition of the Company, in return for the profit which they reap by its issue in the island, contributing to the impoverished Colonial Treasury the yearly sum of $3,000.

Trade, however, is still, to a great extent, carried on by a system of barter with the Natives. The primitive currency medium in vogue under the native regime has been described in the Chapters on Brunai.

The silver currency is the Mexican and Spanish Dollar and the Japanese Yen, supplemented by the small silver coinage of the Straits Settlements. The Company has not yet minted any silver coinage, as the profit thereon is small, but in the absence of a bank, the Treasury, for the convenience of traders and planters, carries on banking business to a certain extent, and issues bank notes of the values of $1, $5 and $25, cash reserves equal to one-third of the value of the notes in circulation being maintained.*

Sir ALFRED DENT is taking steps to form a Banking Company at Sandakan, the establishment of which would materially assist in the development of the resources of the territory.

British North Borneo is not in telegraphic communication with any part of the world, except of course through Singapore, nor are there any local telegraphs. The question, however, of supplementing the existing cable between the Straits Settlements and China by another touching at British territory in Borneo has more than once been mooted, and may yet become a *fait accompli*. The Spanish Government appear to have decided to unite Sulu by telegraphic communication with the rest of the world, *viâ* Manila, and this will bring Sandakan within 180 miles of the telegraphic station.

CHAPTER IX.

In the eyes of the European planter, British North Borneo is chiefly interesting as a field for the cultivation of tobacco, in rivalry to Sumatra, and my readers may judge of the importance of this question from a glance at the following figures, which shew the dividends declared of late years by three of the principal Tobacco Planting Companies in the latter island :—

* Agencies of Singapore Banks have since been established at Sandakan.

In	Dividends paid by		
	The Deli Maatschappi.	The Tabak Maatschappi.	The Amsterdam Deli Co.
1882	65 per cent. ...	25 per cent. ...	10 per cent.
1883	101 „ ...	50 „ ...	30 „
1884	77 „ ...	60 „ ...	30 „
1885	107 „ ...	100 „ ...	60 „
1886	108 „ ...	.....	.....

In Sumatra, under Dutch rule, tobacco culture can at present only be carried on in certain districts, where the soil is suitable and where the natives are not hostile, and, as most of the best land has been taken up, and planters are beginning to feel harassed by the stringent regulations and heavy taxation of the Dutch Government, both Dutch and German planters are turning their attention to British North Borneo, where they find the regulations easier, and the authorities most anxious to welcome them, while, owing to the scanty population, there is plenty of available land. It is but fair to say that the first experiment in North Borneo was made by an English, or rather an Anglo-Chinese Company, the China-Sabah Land Farming Company, who, on hurriedly selected land in Sandakan and under the disadvantages which usually attend pioneers in a new country, shipped a crop to England which was pronounced by experts in 1886 to equal in quality the best Sumatra-grown leaf. Unfortunately, this Company, which had wasted its resources on various experiments, instead of confining itself to tobacco planting, was unable to continue its operations, but a Dutch planter from Java, Count GELOES D'ELSLOO, having carefully selected his land in Marudu Bay, obtained, in 1887, the high average of $1 per lb. for his trial crop at Amsterdam, and, having formed an influential Company in Europe, is energetically bringing a large area under culti-

vation, and has informed me that he confidently expects to rival Sumatra, not only in quality, but also in quantity of leaf per acre, as some of his men have cut twelve pikuls per field, whereas six pikuls per field is usually considered a good crop. The question of "quantity" is a very important one, for quality without quantity will never pay on a tobacco estate. Several Dutchmen have followed Count GELOES' example, and two German Companies and one British are now at work in the country. Altogether, fully 350,000 acres* of land have been taken up for tobacco cultivation in British North Borneo up to the present time.

In selecting land for this crop, climate, that is, temperature and rainfall, has equally to be considered with richness of soil. For example, the soil of Java is as rich, or richer than that of Sumatra, but owing to its much smaller rainfall, the tobacco it produces commands nothing like the prices fetched by that of the former. The seasons and rainfall in Borneo are found to be very similar to those of Sumatra. The average recorded annual rainfall at Sandakan for the last seven years is given by Dr. WALKER, the Principal Medical Officer, as 124.34 inches, the range being from 156.9 to 101.26 inches per annum.

Being so near the equator, roughly speaking between N. Latitudes 4 and 7, North Borneo has, unfortunately for the European residents whose lot is cast there, nothing that can be called a winter, the temperature remaining much about the same from year's end to year's end. It used to seem to me that during the day the thermometer was generally about 83 or 85 in the shade, but, I believe, taking the year all round, night and day, the mean temperature is 81, and the extremes recorded on the coast line are 67.5 and 94.5. Dr. WALKER has not yet extended his stations to the hills in the interior, but mentions it as probable that freezing point is occasionally reached near the top of the Kinabalu Mountains, which is 13,700 feet high; he adds that the lowest recorded temperature he has found is 36.5, given by Sir SPENCER ST. JOHN in his "Life in the Forests of the Far East." Snow has never

* Governor CREAGH tells me 600,000 acres have now been taken up.

been reported even on Kinabalu, and I am informed that the Charles Louis Mountains in Dutch New Guinea, are the only ones in tropical Asia where the limit of perpetual snow is attained. I must stop to say a word in praise of Kinabalu, "the Chinese Widow,"* the sacred mountain of North Borneo whither the souls of the righteous Dusuns ascend after death. It can be seen from both coasts, and appears to rear its isolated, solid bulk almost straight out of the level country, so dwarfed are the neighbouring hills by its height of 13,680 feet. The best view of it is obtained, either at sunrise or at sunset, from the deck of a ship proceeding along the West Coast, from which it is about twenty miles inland. During the day time the Widow, as a rule, modestly veils her features in the clouds.

The effect when its huge mass is lighted up at evening by the last rays of the setting sun is truly magnificent.

On the spurs of Kinabalu and on the other lofty hills, of which there is an abundance, no doubt, as the country becomes opened up by roads many suitable sites for sanitoria will be discovered, and the day will come when these hill sides, like those of Ceylon and Java, will be covered with thriving plantations.

Failing winter, the Bornean has to be content with the the change afforded by a dry and a wet season, the latter being looked upon as the "winter," and prevailing during the month of November, December and January. But though the two seasons are sufficiently well defined and to be depended upon by planters, yet there is never a month during the dry season when no rain falls, nor in the wet season are fine days at all rare The dryest months appear to be March and April, and in June there generally occurs what Doctor WALKER terms an "intermediate" and moderately wet period.

Tobacco is a crop which yields quick returns, for in about 110 to 120 days afrer the seed is sown the plant is ripe for cutting. The *modus operandi* is somewhat after this fashion. First select your land, virgin soil covered with untouched

* For the native derivation of this appellation see page 66 of Journal No. 20.

jungle, situated at a distance from the sea, so that no salt breezes may jeopardise the proper burning qualities of the future crop, and as devoid as possible of hills. Then, a point of primary importance which will be again referred to, engage your Chinese coolies, who have to sign agreements for fixed periods, and to be carefully watched afterwards, as it is the custom to give them cash advances on signing, the repayment of which they frequently endeavour to avoid by slipping away just before your vessel sails and probably engaging themselves to another master.

Without the Chinese cooly, the tobacco planter is helpless, and if the proper season is allowed to pass, a whole year may be lost. The Chinaman is too expensive a machine to be employed on felling the forest, and for this purpose, indeed, the Malay is more suitable and the work is accordingly given him to do under contract. Simultaneously with the felling, a track should be cut right through the heart of the estate by the natives, to be afterwards ditched and drained and made passable for carts by the Chinese coolies.

That as much as possible of the felled jungle should be burned up is so important a matter and one that so greatly affects the individual Chinese labourer, that it is not left to the Malays to do, but, on the completion of the felling, the whole area which is to be planted is divided out into "fields," of about one acre each, and each "field" is assigned by lot to a Chinese cooly, whose duty it is to carefully burn the timber and plant, tend and finally cut the tobacco on his own division, for which he is remunerated in accordance with the quality and quantity of the leaf he is able to bring into the drying sheds. Each "field," having been cleared as carefully as may be of the felled timber, is next thoroughly hoed up, and a small "nursery" prepared in which the seeds provided by the manager are planted and protected from rain and sun by palm leaf mats (*kajangs*) raised on sticks. In about a week, the young plants appear, and the Chinese tenant, as I may call him, has to carefully water them morning and evening. As the young seedlings grow up, their enemy, the worms and grubs, find them out and attack them in such numbers that at least once a day, sometimes oftener, the anxious planter

has to go through his nursery and pick them off, otherwise in a short time he would have no tobacco to plant out. About thirty days after the seed has been sown, the seedlings are old enough to be planted out in the field, which has been all the time carefully prepared for their reception. The first thing to be done is to make holes in the soil, at distances of two feet one way and three feet the other, the earth in them being loosened and broken up so that the tender roots should meet with no obstacles to their growth. As the holes are ready for them, the seedlings are taken from the nursery and planted out, being protected from the sun's rays either by fern, or coarse grass, or, in the best managed estates, by a piece of wood, like a roofing shingle, inserted in the soil in such a way as to provide the required shelter. The watering has to be continued till the plants have struck root, when the protecting shelter is removed and the earth banked up round them, care being taken to daily inspect them and remove the worms which have followed them from the nursery. The next operation is that of "topping" the plants, that is, of stopping their further growth by nipping off the heads.

According to the richness of the soil and the general appearance of the plants, this is ordered to be done by the European overseer after a certain number of leaves have been produced. If the soil is poor, perhaps only fourteen leaves will be allowed, while on the richest land the plant can stand and properly ripen as many as twenty-four leaves. The signs of ripening, which generally takes place in about three months from the date of transplantation, are well known to the overseers and are first shewn by a yellow tinge becoming apparent at the tips of the leaves.

The cooly thereupon cuts the plants down close to the ground and lightly and carefully packs them into long baskets so as not to injure the leaves, and carries them to the drying sheds. There they are examined by the overseer of his division, who credits him with the value, based on the quantity and quality of the crop he brings in, the price ranging from $1 up to $8 per thousand trees. The plants are then tied in rows on sticks, heads downwards, and hoisted up in tiers to dry in the shed.

After hanging for a fortnight, they are sufficiently dry and, being lowered down, are stripped of their leaves, which are tied up into small bundles, similar leaves being roughly sorted together.

The bundles of leaves are then taken to other sheds, where the very important process of fermenting them is carried out. For this purpose, they are put into orderly arranged heaps—small at first, but increased in size till very little heat is given out, the heat being tested by a thermometer, or even an ordinary piece of stick inserted into them. When the fermentation is nearly completed and the leaves have attained a fixed colour, they are carefully sorted according to colour, spottiness and freedom from injury of any kind. The price realized in Europe is greatly affected by the care with which the leaves have been fermented and sorted. Spottiness is not always considered a defect, as it is caused by the sun shining on the leaves when they have drops of rain on them, and to this the best leaves are liable; but spotted leaves, broken leaves and in short leaves having the same characteristics should be carefully sorted together. After this sorting is completed as regards class and quality, there is a further sorting in regard to length, and the leaves are then tied together in bundles of thirty-five. These bundles are put into large heaps and, when no more heating is apparent, they are ready to be pressed under a strong screw press and sewn up in bags which are carefully marked and shipped off to Europe—to Amsterdam as a rule.

As the coolies' payment is by "results," it is their interest to take the greatest care of their crops; but for any outside work they may be called on to perform, and for their services as sorters, etc. in the sheds, they are paid extra. During the whole time, also, they receive, for "subsistence" money, $4 or $3 a month. At the end of the season their accounts are made up, being debited with the amount of the original advance, subsistence money and cost of implements, and credited with the value of the tobacco brought in and any wages that may be due for outside work. Each estate possesses a hospital, in which bad cases are treated by a qualified practitioner, while in trifling cases the European overseer dispenses drugs,

quite a small rush to the country, as the Dutch Government, I hear, is not popular in Sumatra, and land available for tobacco there is becoming scarcer."

My anticipations have been verified, and the rush is already taking place.

The localities at present in favour with tobacco planters are Marudu Bay and Banguey Island in the North, Labuk Bay and Darvel Bay in the neighbourhood of the Silam Station, and the Kinabatangan River on the East

The firstcomers obtained their land on very easy terms, some of them at 30 cents an acre, but the Court has now issued an order that in future no planting land is to be disposed of for a less sum than $1* per acre, free of quit-rent and on a lease for 999 years, with clauses providing that a certain proportion be brought under cultivation.

At present no export duty is levied on tobacco shipped from North Borneo, and the Company has engaged that no such duty shall be imposed before the 1st January, 1892, after which date it will be optional with them to levy an export royalty at the rate of one dollar cent, or a halfpenny, per lb., which rate, they promise, shall not be exceeded during the succeeding twenty years.

The tobacco cultivated in Sumatra and British North Borneo is used chiefly for wrappers for cigars, for which purpose a very fine, thin, elastic leaf is required and one that has a good colour and will burn well and evenly, with a fine white ash. This quality of leaf commands a much higher price than ordidary kinds, and, as stated, Count GELOES' trial crop, from the Ranan Estate in Marudu Bay, averaged 1.83 guilders, or about $1 (3/2) per lb. It is said that 2 lbs. or 2½ lbs. weight of Bornean tobacco will cover 1,000 cigars.

Tobacco is not a new culture in Borneo, as some of the hill natives on the West Coast of North Borneo have grown it in a rough and ready way for years past, supplying the population of Brunai and surrounding districts with a sun-dried article, which used to be preferred to that produced in Java. The Malay name for tobacco is *tambako*, a corruption of the

* Raised in 1890 to $6 an acre.

Spanish and Portuguese term, but the Brunai people also know it as *sigup*.

It was probably introduced into Malay countries by the Portuguese, who conquered Malacca in 1511, and by the Spanish, who settled in the Philippines in 1565. Its use has become universal with men, women and children, of all tribes and of all ranks. The native mode of using tobacco has been referred to in my description of Brunai.

Fibre-yielding plants are also now attracting attention in North Borneo, especially the Manila hemp (*Musa textilis*) a species of banana, and pine-apples, both of which grow freely. The British Borneo Trading and Planting Company have acquired the patent for Borneo of DEATH'S fibre-cleaning machines, and are experimenting with these products on a considerable scale and, apparently, with good prospects of success.* For a long time past, beautiful cloths have been manufactured of pine-apple fibre in the Philippines, and as it is said that orders have been received from France for Borneo pine-apple fibre, we shall perhaps soon see it used in England under the name of French *silk*.

In the Government Experimental Garden at Silam, in Darvel Bay, cocoa, cinnamon and Liberian coffee have been found to do remarkably well. Sappan-wood and *kapok* or cotton flock also grow freely.

CHAPTER X.

Many people have a very erroneous idea of the objects and intentions of the British North Borneo Company. Some, with a dim recollection of untold wealth having been extracted from the natives of India in the early days of the Honourable East India Company, conceive that the Company can have no other object than that of fleecing our natives in order to pay dividends; but the old saying, that it is a difficult matter to steal a Highlander's pantaloons, is applicable to North Borneo, for only a magician could extract anything much worth having in the shape of loot from the easy going natives

* The anticipated success has not been achieved as yet.

of the country, who, in a far more practical sense than the Christians of Europe, are ready to say "sufficient for the day is the evil thereof," and who do not look forward and provide for the future, or heap up riches to leave to their posterity.

Some years ago, a correspondent of an English paper displayed his ignorance on the matter by maintaining that the Company coerced the natives and forced them to buy Manchester goods at extortionate prices. An Oxford Don, when I first received my appointment as Governor, imagined that I was going out as a sort of slave-driver, to compel the poor natives to work, without wages, on the Company's plantations. But, as a matter of fact, though entitled to do so by the Royal Charter, the Company has elected to engage neither in trade nor in planting, deeming that their desire to attract capital and population to their territory will be best advanced by their leaving the field entirely open to others, for otherwise there would always have been a suspicion that rival traders and planters were handicapped in the race with a Company which had the making and the administration of laws and the imposition of taxation in its hands.

It will be asked, then, if the Company do not make a profit out of trading, or planting, or mining, what could have induced them to undertake the Government of a tropical country, some 10,000 miles or more distant from London, for Englishmen, as a rule, do not invest hundreds of thousands of pounds with the philanthropic desire only of benefitting an Eastern race?

The answer to this question is not very plainly put in the Company's prospectus, which states that its object "is the carrying on of the work begun by the Provisional Association" (said in the previous paragraphs of the prospectus to have been the successful accomplishment of the *completion* of the pioneer work) "and the further improvement and full utilization of the vast natural resources of the country, by the introduction of new capital and labour, which they intend shall be stimulated, aided and protected by a just, humane and enlightened Government. The benefits likely to flow from the accomplishment of this object, in the opening up of new fields of tropical agriculture, new channels of enterprise, and new

markets for the world's manufactures, are great and incontestable." I quite agree with the framer of the prospectus that these benefits are great and incontestable, but then they would be benefits conferred on the world at large at the expense of the shareholders of the Company, and I presume that the source from which the shareholders are to be recouped is the surplus revenues which a wisely administered Government would ensure, by judiciously fostering colonisation, principally by Chinese, by the sale of the vast acreages of "waste" or Government lands, by leasing the right to work the valuable timber forests and such minerals as may be found to exist in workable quantities, by customs duties and the "farming out" of the exclusive right to sell opium, spirits, tobacco, etc., and by other methods of raising revenue in vogue in the Eastern Colonies of the Crown. In fact, the sum invested by the shareholders is to be considered in the light of a loan to the Colony—its public debt—to be repaid with interest as the resources of the country are developed. Without encroaching on land worked, or owned by the natives, the Company has a large area of unoccupied land which it can dispose of for the highest price obtainable. That this must be the case is evident from a comparison with the Island of Ceylon, where Government land sales are still held. The area of North Borneo, it has been seen, is larger than that of Ceylon, but its population is only about 160,000, while that of Ceylon is returned as 2,825,000; furthermore, notwithstanding this comparatively large population, it is said that the land under cultivation in Ceylon forms only about one-fifth of its total area. From what I have said of the prospects of tobacco-planting in British North Borneo, it will be understood that land is being rapidly taken up, and the Company will soon be in a position to increase its selling price. Town and station lands are sold under different conditions to that for planting purposes, and are restricted as a rule to lots of the size of 66 feet by 33 feet. The lease is for 999 years, but there is an annual quit-rent at the rate of $6 per lot, which is redeemable at fifteen years' purchase. At Sandakan, lots of this size have at auction realized a premium of $350. In all cases, coal, minerals, precious stones, edible nests and guano

are reserved to the Government, and, in order to protect the native proprietors, it is provided that any foreigner desirous of purchasing land from a native must do so through the Government.

Titles and mutations of titles to land are carefully registered and recorded in the Land Office, under the provisions of the Hongkong Registration of Documents Ordinance, which has been adopted in the State.

The local Government is administered by a Governor, selected by the Court of Directors subject to the approval of the Secretary of State for the Colonies. He is empowered to enact laws, which require confirmation by the Court, and is assisted in his executive functions by a Government Secretary, Residents, Assistant Residents, a Treasurer-General, a Commissioner of Lands, a Superintendent of Public Works, Commandant, Postmaster-General and other Heads of Departments usually to be found in Crown Colonies, and the British Colonial Regulations are adhered to as closely as circumstances admit. The title of Resident is borrowed from the Dutch Colonies, and the duties of the post are analogous to those of the Resident Councillors of Penang or Malacca, under the Governor of Singapore, or of the Government Agents in Ceylon. The Governor can also call to assist him in his deliberations a Council of Advice, composed of some of the Heads of Departments and of natives of position nominated to seats therein.

The laws are in the form of "Proclamations" issued by the Governor under the seal of the Territory. Most of the laws are adaptations, in whole or in part, of Ordinances enacted in Eastern Colonies, such as the Straits Settlements, Hongkong, Labuan and Fiji.

The Indian Penal Code, the Indian Codes of Civil and Criminal Procedure and the Indian Evidence and Contract Acts have been adopted in their entirety, "so far as the same shall be applicable to the circumstances of this Territory."

The Proclamation making these and other Acts the law in North Borneo was the first formal one issued, and bears date the 23rd December, 1881.

The law relating to the protection of estate coolies and labourers has been already referred to.

The question of domestic slavery was one of the first with which the Company had to grapple, the Royal Charter having ordained that "the Company shall to the best of its power discourage and, as far as may be practicable, abolish by degrees, any system of domestic servitude existing among the tribes of the Coast or interior of Borneo; and no foreigners whether European, Chinese or other, shall be allowed to own slaves of any kind in the Company's territories." Slavery and kidnapping were rampant in North Borneo under native regime and were one of the chief obstacles to the unanimous acceptance of the Company's rule by the Chiefs. At first the Residents and other officers confined their efforts to prohibiting the importation of slaves for sale, and in assisting slaves who were ill-treated to purchase their liberty. In 1883, a Proclamation was issued which will have the effect of gradually abolishing the system, as required by the Charter. Its chief provisions are as follows:—No foreigners are allowed to hold slaves, and no slaves can be imported for sale, nor can the natives buy slaves in a foreign country and introduce them into Borneo *as slaves*, even should there be no intention of selling them as such. Slaves taking refuge in the country from abroad will not be surrendered, but slaves belonging to natives of the country will be given up to their owners unless they can prove ill-treatment, or that they have been brought into the territory subsequently to the 1st November, 1883, and it is optional for any slave to purchase his or her freedom by payment of a sum, the amount of which is to be fixed, from time to time, by the Government.

A woman also becomes free if she can prove that she has cohabited with her master, or with any person other than her husband, with the connivance of her master or mistress; and finally "all children born of slave parents after the first day of November, 1883, and who would by ancient custom be deemed to be slaves, are hereby proclaimed to be free, and any person treating or attempting to treat any such children as slaves shall be guilty of an offence under this Proclamation." The punishment for offences against the provisions

of this Proclamation extends to imprisonment for ten years and to a fine up to five thousand dollars.

The late Mr. WITTI, one of the first officers of the Association, at my request, drew up, in 1881, an interesting report on the system of Slavery in force in the Tampassuk District, on the West Coast, of which the following is a brief summary. Slaves in this district are divided into two classes—those who are slaves in a strict and rigorous sense, and those whose servitude is of a light description. The latter are known as *anak mas*, and are the children of a slave mother by a free man other than her master. If a female, she is the slave or *anak mas* of her mother's master, but cannot be sold by him; if a boy, he is practically free, cannot be sold and, if he does not care to stay with his master, can move about and earn his own living, not sharing his earnings with his master, as is the case in some other districts. In case of actual need, however, his master can call upon him for his services.

If an an*anak mas* girl marries a freeman, she at once becomes a free woman, but a *brihan*, or marriage gift, of from two to two and a half pikuls of brass gun—valued at $20 to $25 a pikul—is payable by the bridegroom to the master.

If she marry a slave, she remains an *anak mas*, but such cases are very rare and only take place when the husband is in a condition to pay a suitable *brihan* to the owner.

If an ordinary slave woman becomes *enceinte* by her owner, she and her offspring are henceforth free and, she may remain as one of her late master's wives. But the jealousy of the inmates of the harem often causes abortion to be procured.

The slaves, as a rule, have quite an easy time of it, living with and, as their masters, sharing the food of the family and being supplied with tobacco, betel-nut and other native luxuries. There is no difference between them and free men in the matter of dress, and in the arms which all carry, and the mere fact that they are allowed to wear arms is pretty conclusive evidence of their not being bullied or oppressed.

They assist in domestic duties and in the operations of harvest and trading and so forth, but there is no such institution as a slave-gang, working under task masters, a picture which

is generally present to the Englishman's mind when he hears of the existence of slavery. The slave gang was an institution of the white slave-owner. Slave couples, provided they support themselves, are allowed to set up house and cultivate a patch of land.

For such minor offences as laziness and attempting to escape, the master can punish his slaves with strokes of the rattan, but if an owner receives grave provocation and kills his slave, the matter will probably not be taken notice of by the elders of the village.

An incorrigble slave is sometimes punished by being sold out of the district.

If a slave is badly treated and insufficiently provided with food, his offence in endeavouring to escape is generally condoned by public opinion. If a slave is, without sufficient cause, maltreated by a freeman, his master can demand compensation from the agressor. Slaves of one master can, with their owner's consent, marry, and no *brihan* is demanded, but if they belong to different masters, the woman's master is entitled to a *brihan* of one pikul, equal to $20 or $25. They continue to be the slaves of their respective masters, but are allowed to live together, and in case of a subsequent separation they return to the houses of their masters. Should a freeman, other than her master, wish to marry a slave, he practically buys her from her owner with a *brihan* of $60 or $75.

Sometimes a favourite slave is raised to a position intermediate between that of an ordinary slave and an *anak mas*, and is regarded as a brother, or sister, father, mother, or child; but if he or she attempt to escape, a reversion to the condition of an ordinary slave is the result. Occasionally, slaves are given their freedom in fulfilment of a vow to that effect made by the master in circumstances of extreme danger, experienced in company with the slave.

A slave once declared free can never be claimed again by his former master.

Debts contracted by a slave, either in his own name, or in that of his master, are not recoverable.

By their own extra work, after performing their service to their owners, slaves can acquire private property and even themselves purchase and own slaves.

Infidel slaves, of both sexes, are compulsorily converted to Muhammadanism and circumcized and, even though they should recover their freedom, they seldom relapse.

There are, or rather were, a large number of debt slaves in North Borneo. For a debt of three pikuls—$60 to $75—a man might be enslaved if his friends could not raise the requisite sum, and he would continue to be a slave until the debt was paid, but, as a most usurious interest was charged, it was almost always a hopeless task to attempt it.

Sometimes an inveterate gambler would sell himself to pay off his debts of honour, keeping the balance if any.

The natives, regardless of the precepts of the Koran, would purchase any slaves that were offered for sale, whether infidel or Muhammadan. The importers were usually the Illanun and Sulu kidnappers, who would bring in slaves of all tribes—Bajaus, Illanuns, Sulus, Brunais, Manilamen, natives of Palawan and natives of the interior of Magindanau—all was fish that came into their net. The selling price was as follows :—A boy, about 2 pikuls, a man 3 pikuls. A girl, 3 to 4 pikuls, a young woman, 3 to 5 pikuls. A person past middle age about 1½ pikuls. A young couple, 7 to 8 pikuls, an old couple, about 5 pikuls. The pikul was then equivalent to $20 or $25. Mr. WITTI further stated that in Tampassuk the proportion of free men to slaves was only one in three, and in Marudu Bay only one in five. In Tampassuk there were more female than male slaves.

Mr. A. H. EVERETT reported that, in his district of Pappar-Kimanis, there was no slave *trade*, and that the condition of the domestic slaves was not one of hardship.

Mr. W. B. PRYER, speaking for the East Coast, informed me that there were only a few slaves in the interior, mostly Sulus who had been kidnapped and sold up the rivers. Among the Sulus of the coast, the relation was rather that of follower and lord than of slave and master. When he first settled at Sandakan, he could not get men to work for him for wages, they deemed it *degrading* to do so, but they said they

would work for him if he would *buy* them! Sulu, under Spanish influence, and Bulungan, in Dutch Borneo, were the chief slave markets, but the Spanish and Dutch are gradually suppressing this traffic.

There was a colony of Illanuns and Balinini settled at Tunku and Teribas on the East Coast, who did a considerable business in kidnapping, but in 1879 Commander E. EDWARDS, in H. M. S. *Kestrel*, attacked and burnt their village, capturing and burning several piratical boats and prahus.

Slavery, though not yet extinct in Borneo, has received a severe check in British North Borneo and in Sarawak, and is rapidly dying out in both countries; in fact it is a losing business to be a slave-owner now.

Apart from the institution of slavery, which is sanctioned by the Muhammadan religion, the religious customs and laws of the various tribes "especially with respect to the holding, "possession, transfer and disposition of lands and goods, and "testate or intestate succession thereto, and marriage, divorce "and legitimacy, and the rights of property and personal "rights" are carefully regarded by the Company's Government, as in duty bound, according to the terms of Articles 8 and 9 of the Royal Charter. The services of native headmen are utilised as much as possible, and Courts composed of Native Magistrates have been established, but at the same time efforts are made to carry the people with the Government in ameliorating and advancing their social position, and thus involves an amendment of some of the old customs and laws.

Moreover, customs which are altogether repugnant to modern ideas are checked or prohibited by the new Government; as, for example, the time-honoured custom of a tribe periodically balancing the account of the number of heads taken or lost by it from or to another tribe, an audit which, it is strange to say, almost invariably results in the discovery on the part of the stronger tribe that they are on the wrong side of the account and have a balance to get from the others. These hitherto interminable feuds, though not altogether pua stop to in the interior, have been in many districts effectt ually brought to an end, Government officers having been asked by the natives themselves to undertake the examina-

tion of the accounts and the tribe who was found to be on the debtor side paying, not human heads, but compensation in goods at a fixed rate per head due. Another custom which the Company found it impossible to recognize was that of *summungap*, which was, in reality, nothing but a form of human sacrifice, the victim being a slave bought for the purpose, and the object being to send a message to a deceased relative. With this object in view, the slave used to be bound and wrapped in cloth, when the relatives would dance round him and each thrust a spear a short way into his body, repeating, as he did so, the message which he wished conveyed. This operation was performed till the slave succumbed.

The Muhammadan practice of cutting off the hair of a woman convicted of adultery, or of men flogging her with a rattan, and that of cutting off the head of a thief, have also not received the recognition of the Company's Government.

It has been shewn that the native population of North Borneo is very small, only about five to the square mile, and as the country is fertile and well-watered and possesses, for the tropics, a healthy climate, there must be some exceptional cause for the scantiness of the population. This is to be found chiefly in the absence, already referred to, of any strong central Government in former days, and to the consequent presence of all forms of lawlessness, piracy, slave-trading, kidnapping and head-hunting.

In more recent years, too, cholera and small-pox have made frightful ravages amongst the natives, almost annihilating some of the tribes, for the people knew of no remedies and, on the approach of the scourge, deserted their homes and their sick and fled to the jungle, where exposure and privation rendered them more than ever liable to the disease. Since the Company's advent, efforts are being successfully made to introduce vaccination, in which most of the people now have confidence.

This fact of a scanty native population has, in some ways, rendered the introduction of the Company's Government a less arduous undertaking than it might otherwise have proved, and has been a fortunate circumstance for the shareholders, who have the more unowned and virgin land to dispose of.

In British North Borneo, luckily for the Company, there is not, as there is in Sarawak, any one large, powerful tribe, whose presence might have been a source of trouble, or even of danger to the young Government, but the aborigines are split up into a number of petty tribes, speaking very distinct dialects and, generally, at enmity amongst themselves, so that a general coalition of the bad elements amongst them is impossible.

The institution and amusement of head-hunting appears never to have been taken up and followed with so much energy and zeal in North Borneo as among the Dyaks of Sarawak. I do not think that it was as a rule deemed absolutely essential with any of our tribes that a young man should have taken at least a head or two before he could venture to aspire to the hand of the maiden who had led captive his heart. The heads of slain enemies were originally taken by the conquerors as a substantial proof and trophy of their successful prowess, which could not be gainsaid, and it came, in time, to be considered the proper thing to be able to boast of the possession of a large number of these ghastly tokens; and so an ambitious youth, in his desire for applause, would not be particularly careful from whom, or in what manner he obtained a head, and the victim might be, not only a person with whom he had no quarrel, but even a member of a friendly tribe, and the mode of acquisition might be, not by a fair stand-up fight, a test of skill and courage, but by treachery and ambush. Nor did it make very much difference whether the head obtained was that of a man, a woman or a child, and in their petty wars it was even conceived to be an honourable distinction to bring in the heads of women and children, the reasoning being that the men of the attacked tribe must have fought their best to defend their wives and children.

The following incident, which occurred some years ago at the Colony of Labuan, serves to shew how immaterial it was whether a friend, or foe, or utter stranger was the victim. A Murut chief of the Trusan, a river on the mainland over against Labuan, was desirous of obtaining some fresh heads on the occasion of a marriage feast, and put to sea to a district inhabited by a hostile tribe. Meeting with adverse

winds, his canoes were blown over to the British Colony; the Muruts landed, held apparently friendly intercourse with some of the Kadaian (Muhammadan) population and, after a visit of two or three days, made preparations to sail; but meeting a Kadaian returning to his home alone, they shot him and went off with his head—though the man was an entire stranger to them, and they had no quarrel with any of his tribe.

With the assistance of the Brunai authorities, the chief and several of his accomplices were subsequently secured and sent for trial to Labuan. The chief died in prison, while awaiting trial, but one or two of his associates paid the penalty of their wanton crime.

A short time afterwards, Mr. COOK and I visited the Lawas River for sport, and took up our abode in a Murut long house, where, I remember, a large basket of skulls was placed as an ornament at the head of my sleeping place. One night, when all our men, with the exception of my Chinese servant, were away in the jungle, trying to trap the then newly discovered "Bulwer pheasant," some Muruts from the Trusan came over and informed our hosts of the fate of their chief. On the receipt of this intelligence, all the men of our house left it and repaired to one adjoining, where a great "drink" was held, while the women indulged in a loud, low, monotonous, heart-breaking wail, which they kept up for several hours. Mr. COOK and myself agreed that things looked almost as bad for us as they well could, and when, towards morning, the men returned to our house, my Chinese boy clung to me in terror and—nothing happened! But certainly I do not think I have ever passed such an uncomfortable period of suspense.

Writing to the Court of Directors of the East India Company a hundred and thirteen years ago, Mr. YESSE, who concluded the pepper monopoly agreement with the Brunai Government, referring to the Murut predilection for head-hunting says:—"With respect to the Idaan, or Muruts, as they are called here, I cannot give any account of their disposition; but from what I have heard from the Borneyans, they are a set of abandoned idolaters; one of their tenets, so strangely inhuman, I cannot pass unnoticed, which is, that their future in-

terest depends upon the number of their fellow creatures they have killed in any engagement, or common disputes, and count their degrees of happiness to depend on the number of human skulls in their possession; from which, and the wild, disorderly life they lead, unrestrained by any bond of civil society, we ought not to be surprised if they are of a cruel and vindictive disposition." I think this is rather a case of giving a dog a bad name.

I heard read once at a meeting of the Royal Geographical Society, an eloquent paper on the Natives of the Andaman Islands, in which the lecturer, after shewing that the Andamanese were suspicious, treacherous, blood-thirsty, ungrateful and untruthful, concluded by giving it as his opinion that they were very good fellows and in many ways superior to white man.

I do not go quite so far as he does, but I must say that many of the aborigines are very pleasant good-natured creatures, and have a lot of good qualities in them, which, with care and discriminating legislation on the part of their new rulers, might be gradually developed, while the evil qualities which they possess in common with all races of men, might be *pari passu* not extinguished, but reduced to a minimum. But this result can only be secured by officers who are naturally of a sympathetic disposition and ready to take the trouble of studying the natives and entering into their thoughts and aspirations.

In many instances, the Company has been fortunate in its choice of officials, whose work has brought them into intimate connection with the aborigines.

A besetting sin of young officers is to expect too much—they are conscious that their only aim is to advance the best interests of the natives, and they are surprised and hurt at, what they consider, the want of gratitude and backwardness in seconding their efforts evinced by them. They forget that the people are as yet in the schoolboy stage, and should try and remember how, in their own schoolboy days, they offered opposition to the efforts of their masters for *their* improvement, and how little gratitude they felt, at the time, for all that was done for them. Patience and sympathy are the two

qualifications especially requisite in officers selected for the management of native affairs.

In addition to the indigenous population, there are, settled along the coast and at the mouths of the principal rivers, large numbers of the more highly civilized tribes of Malays, of whose presence in Borneo an explanation has been attempted on a previous page. They are known as Brunais—called by the Natives, for some unexplained reason, *orang abai*—Sulus, Bajows, Illanuns and Balininis; there are also a few Bugis, or natives of Celebes.

These are the people who, before the Company's arrival, lorded it over the more ignorant interior tribes, and prevented their having direct dealings with traders and foreigners, and to whom, consequently, the advent of a still more civilized race than themselves was very distasteful.

The habits of the Brunai people have already been sufficiently described.

The Sulus are, next to the Brunais, the most civilized race and, without any exception, the most warlike and powerful. For nearly three centuries, they have been more or less in a state of war with the Spaniards of the Philippine Islands, and even now, though the Spaniards have established a fortified port in their principal island, their subjugation is by no means complete.

The Spanish officials dare not go beyond the walls of their settlement, unless armed and in force, and it is no rare thing for fanatical Sulus, singly or in small parties, to make their way into the Spanish town, under the guise of unarmed and friendly peasants, and then suddenly draw their concealed krises and rush with fury on officers, soldiers and civilians, generally managing to kill several before they are themselves cut down.

They are a much bolder and more independent race than the Brunais, who have always stood in fear of them, and it was in consideration of its undertaking to defend them against their attacks that the Brunai Government conceded the exclusive trade in pepper to the East India Company. Their religion—Muhammadanism—sits even more lightly on the Sulus than on the Brunais, and their women, who are fairer and better looking than their Brunai sisters, are never secluded

or veiled, but often take part in public deliberations and, in matters of business, are even sharper than the men.

The Sulus are a bloodthirsty and hard-hearted race, and, when an opportunity occurs, are not always averse to kidnapping even their own countrymen and selling them into slavery. They entertain a high notion of their own importance, and are ever ready to resent with their krises the slightest affront which they may conceive has been put upon them.

In Borneo, they are found principally on the North-East Coast, and a good many have settled in British North Borneo under the Company's Government. They occasionally take contracts for felling jungle and other work of similar character, but are less disposed than the Brunai men to perform work for Europeans on regular wages. Among their good qualities, it may be mentioned that they are faithful and trustworthy followers of any European to whom they may become attached. Their language is distinct from ordinary Malay, and is akin to that of the Bisaias, one of the principal tribes of the Philippines, and is written in the Arabic character; but many Malay terms have been adopted into the language, and most of the trading and seafaring Sulus know enough Malay to conclude a bargain.

The most numerous Muhammadan race in British North Borneo is that of the Bajows, who are found on both coasts, but, on the West Coast, not South of the Pappar River. These are the *orang-laut* (men of the sea) or sea-gipsies of the old writers, and are the worst class that we have to deal with, being of a treacherous and thievish disposition, and confirmed gamblers and cattle-lifters.

They also form a large proportion of the population of the Sulu Islands, where they are, or used to be, noted kidnappers and pirates, though also distinguished for their skill in pearl fisheries. Their religion is that of Mahomet and their language Malay mixed, it is said, with Chinese and Japanese elements; their women are not secluded, and it is a rare thing for a Borneo Bajow to take the trouble of making the pilgrimage to Mecca. They are found along the coasts of nearly all the Malay Islands and, apparently, in former days lived entirely in their boats. In British North Borneo, a large major-

ity have taken to building houses and residing on the shore, but when Mr. PRYER first settled at Sandakan, there was a considerable community of them in the Bay, who had no houses at all, but were born, bred, married and died in their small canoes.

On the West Coast, the Bajows, who have for a long time been settled ashore, appear to be of smaller build and darker colour than the other Malays, with small sparkling black eyes, but on the East Coast, where their condition is more primitive, Mr. PRYER thinks they are much larger in stature and stronger and more swarthy than ordinary Malays.

On the East Coast, there are no buffaloes or horned cattle, so that the Bajows there have, or I should say *had*, to be content with kidnapping only, and as an example of their daring I may relate that in, I think, the year 1875, the Austrian Frigate *Friederich*, Captain Baron OESTERREICHER, was surveying to the South of Darvel Bay, and, running short of coal, sent an armed party ashore to cut firewood. The Bajows watched their opportunity and, when the frigate was out of sight, seized the cutter, notwithstanding the fire of the party on the shore, who expended all their ammunition in vain, and carried off the two boat-keepers, whose heads were subsequently shewn round in triumph in the neighbouring islands. Baron OESTERREICHER was unable to discover the retreat of these Bajows, and they remain unpunished to this day, and are at present numbered among the subjects of the British North Borneo Company. I have been since told that I have more than once unwittingly shaken hands and had friendly intercourse with some of them. In fairness to them I should add that it is more than probable that they mistook the *Friederich* for a vessel belonging to Spain, with whom their sovereign, the Sultan of Sulu, was at that time at war. After this incident, and by order of his Government, Baron OESTERREICHER visited Sandakan Bay and, I believe, reported that he could discover no population there other than monkeys. Altogether, he could not have carried away with him a very favourable impression of Northern Borneo. On the West Coast, gambling and cattle-lifting are the main pursuits of the gentlemanly Bajow, pursuits which soon brought him into close and

very uncomfortable relations with the new Government, for which he entertains anything but feelings of affection. One of the principal independent rivers on the West Coast—*i. e.*, rivers which have not yet been ceded to the Company—is the Mengkabong, the majority of the inhabitants of which are Bajows, so that it has become a sort of river of refuge for the bad characters on the coast, as well as an entrepôt for the smuggling of gunpowder for sale to the head-hunting tribes of the interior. The existence of these independent and intermediate rivers on their West Coast is a serious difficulty for the Company in its efforts to establish good government and put down lawlessness, and every one having at heart the true interests of the natives of Borneo must hope that the Company will soon be successful in the negotiations which they have opened for the acquisition of these rivers. The Kawang was an important river, inhabited by a small number of Bajows, acquired by the Company in 1884, and the conduct of these people on one occasion affords a good idea of their treachery and their hostility towards good government. An interior tribe had made itself famous for its head-hunting proclivities, and the Kawang was selected as the best route by which to reach their district and inflict punishment upon them. The selection of this route was not a politic one, seeing that the inhabitants *were* Bajows, and that they had but recently come under the Company's rule. The expedition was detained a day or two at the Bajow village, as the full number of Dusun baggage-carriers had not arrived, and the Bajows were called upon to make up the deficiency, but did not do so. Matters were further complicated by the Dusuns recognising some noted cattle-lifters in the village, and demanding a buffalo which had been stolen from them. It being impossible to obtain the required luggage carriers, it was proposed to postpone the expedition, the stores were deposited in some of the houses of the village and the Constabulary were "dismissed" and, piling their arms, laid down under the shelter of some trees. Without any warning one of two Bajows, with whom Dr. FRASER was having an apparently friendly chat, discharged his musket point blank at the Doctor, killing him on the spot, and seven others rushed among the unarmed

Constables and speared the Sikh Jemmadhar and the Sergeant-Major and a private and then made off for the jungle. Captain DE FONTAINE gallantly, but rashly started off in pursuit, before any one could support him. He tripped and fell and was so severely wounded by the Bajows, after killing three of them with his revolver, that he died a few days afterwards at Sandakan. By this time the Sikhs had got their rifles and firing on the retreating party killed three and wounded two. Assistant Resident LITTLE, who had received a spear in his arm, shot his opponent dead with his revolver. None of the other villagers took any active part, and consequently were only punished by the imposition of a fine. They subsequently all cleared out of the Company's territory. It was a sad day for the little Colony at Sandakan when Mr. WHITEHEAD, a naturalist who happened to be travelling in the neighbourhood at the time, brought us the news of the melancholy affray, and the wounded Captain DE FONTAINE and several Sikhs, to whose comfort and relief he had, at much personal inconvenience, attended on the tedious voyage in a small steam-launch from the Kawang to the Capital. On the East Coast, also , their slave-dealing and kidnapping propensities brought the Bajows into unfriendly relations with the Government, and their lawlessness culminated in their kidnapping several Eraan birds' nest collectors, whom they refused to surrender, and making preparations for resisting any measures which might be taken to coerce them. As these same people had, a short time previously, captured at sea some five Dutch subjects, it was deemed that their offences brought them within the cognizance of the Naval authorities, and Captain A. K. HOPE, R.N., at my request, visited the district, in 1886, in H. M. S. *Zephyr* and, finding that the people of two of the Bajow villages refused to hold communication with us, but prepared their boats for action, he opened fire on them, under the protection of which a party of the North Borneo Constabulary landed and destroyed the villages, which were quickly deserted, and many of the boats which had been used on piratical excursions. Happily, there was no loss of life on either side, and a very wholesome and useful lesson was given to the pirates without the shedding

of blood, thanks to the good arrangements and tact of Captain HOPE. In order that the good results of this lesson should not be wasted, I revisited the scene of the little engagement in the *Zepyhyr* a few weeks subsequently, and not long afterwards the British flag was again shewn in the district, by Captain A. H. ALINGTON in H. M. S. *Satellite*, who interviewed the offending chiefs and gave them sound advice as to their conduct in future.

Akin to the Bajows are the Illanuns and Balinini, Muhammadan peoples, famous in former days as the most enterprising pirates of the Malayan seas. The Balinini, Balignini or Balanguini—as their name is variously written—originally came from a small island to the north of Sulu, and the Illanuns from the south coast of the island of Mindanao—one of the Philippines, but by the action of the Spanish and British cruisers their power has been broken and they are found scattered in small numbers throughout the Sulu Islands and on the seaboard of Northern Borneo, on the West Coast of which they founded little independent settlements, arrogating to their petty chiefs such high sounding titles as Sultan, Maharajah and so forth.

The Illanuns are a proud race and distinguished by wearing a much larger sword than the other tribes, with a straight blade about 28 inches in length. This sword is called a *kampilan*, and is used in conjunction with a long, narrow, wooden shield, known by the name of *klassap*, and in the use of these weapons the Illanuns are very expert and often boast that, were it not for their gunpowder, no Europeans could stand up to them, face to face. I believe, that it is these people who in former days manufactured the chain armour of which I have seen several specimens, but the use of which has now gone out of fashion. Those I have are made of small brass rings linked together, and with plates of brass or buffalo horn in front. The headpiece is of similar construction.

There are no Negritos in Borneo, although they exist in the Malay Peninsula and the Philippines, and our explorers have failed to obtain any specimens of the "tailed" people in whose existence many of the Brunai people believe. The late Sul-

tan of Brunai gravely assured me that there was such a tribe, and that the individuals composing it were in the habit of carrying about chairs with them, in the seat of each of which there was a little hole, in which the lady or gentleman carefully inserted her or his tail before settling down to a comfortable chat. This belief in the existence of a tailed race appears to be widespread, and in his "Pioneering in New Guinea" Mr. CHALMERS gives an amusing account of a detailed description of such a tribe by a man who vowed *he had lived with them*, and related how they were provided with long sticks, with which to make holes in the ground before squatting down, for the reception of their short stumpy tails! I think it is Mr. H. F. ROMILLY who, in his interesting little work on the Western Pacific and New Guinea, accounts for the prevalence of "yarns" of this class by explaining that the natives regard Europeans as being vastly superior to them in general knowledge and, when they find them asking such questions as, for instance, whether there are tailed-people in the interior, jump to the conclusion that the white men must have good grounds for believing that they do exist, and then they gradually come to believe in their existence themselves. There is, however, I think, some excuse for the Brunai people's belief, for I have seen one tribe of Muruts who, in addition to the usual small loin cloth, wear on their backs only a skin of a long-tailed monkey, the tail of which hangs down behind in such a manner as, when the men are a little distance off, to give one at first glance the impression that it is part and parcel of the biped.

In Labuan it used to be a very common occurrence for the graves of the Europeans, of which unfortunately, owing to its bad climate when first settled, there are a goodly number, to be found desecrated and the bones scattered about. The perpetrators of these outrages have never been discovered, notwithstanding the most stringent enquiries. It was once thought that they were broken open by head-hunting tribes from the mainland, but this theory was disproved by the fact that the skulls were never carried away. As we know of no Borneo tribe which is in the habit of breaking open graves, the only conclusion that can be come to is that the

graves were rifled under the supposition that the Europeans buried treasure with their dead, though it is strange that their experiences of failure never seemed to teach them that such was not the case.

The Muhammadan natives are buried in the customary Muhammadan manner in regular graveyards kept for the purpose.

The aborigines generally bury their dead near their houses, erecting over the graves little sheds adorned, in the case of chiefs, with bright coloured clothes, umbrellas, etc. I once went to see the lying in state of a deceased Datoh, who had been dead nine days. On entering the house I looked about for the corpse in vain, till my attention was drawn to an old earthen jar, tilted slightly forward, on the top of the old Chief's goods—his sword, spear, gun and clothing.

In this jar were the Datoh's remains, the poor old fellow having been doubled up, head and heels together, and forced through the mouth of the vessel, which was about two feet in diameter. The jar itself was about four feet high. Over the corpse was thickly sprinkled the native camphor, and the jar was closed with a piece of buffalo hide, well sealed over with gum dammar. They told us the Datoh was dressed in his best clothes and had his pipe with him, but nothing else. He was to be buried that day in a small grave excavated near the house, just large enough to contain the jar, and a buffalo was being killed and intoxicating drink prepared for the numerous friends and followers who were flocking in for the wake. Over his grave cannon would be fired to arouse the spirits who were to lead him to Kinabalu, the people shouting out "Turn neither to the right nor to the left, but proceed straight to Kinabalu"—the sacred mountain where are collected the spirits of all good Dusuns under, I believe, the presidency of a great spirit known as Kinaringan.

CHAPTER XI.

The population of North Borneo, as has been shewn, is very scanty, and the great object of the new Government should be

preface to the second edition of his "Life in the Forests of the Far East," lays great stress on the suitability of North Borneo for the immigration of Chinese on a very large scale, and prophesied that "should the immigration once commence, it would doubtless assume great proportions and continue until every acre of useless jungle is cleared away, to give place to rice, pepper, gambier, sugar-cane, cotton, coffee, indigo and those other products which flourish on its fertile soil." No doubt a considerable impetus would be given to the immigration of Chinese and the introduction of Chinese as well as of European capital, were the British Government to proclaim* formally a Protectorate over the country, meanwhile the Company should try the effect of the offer of free passages from China and from Singapore and of liberal allotments of suitable land to *bonâ fide* agriculturists.

The sources of the Company's revenues have been referred to on a previous page, and may be summarised here under the following principal heads:—The "Farms" of Opium, Tobacco, Spirits, and of Pawnbroking, the Rent of the edible birds'-nest caves, Market Dues, Duties on Imports and Exports, Court Fines and Fees, Poll Tax on aborigines, House and Store Rents, profit accruing from the introduction of the Company's copper or bronze token coinage—a considerable item—Interest and Commission resulting from the Banking business carried on by the Treasury pending the establishment of a Banking Company, Land Sales and Quit-rents on land alienated, and Postal Receipts.

The Poll Tax is a source of revenue well-known in the East and not objected to by most of our natives, with whom it takes the place of the land rent which the Government of India imposes. To our aborigines a land rent would be most distasteful at present, and they infinitely prefer the Poll Tax and to be allowed to own and farm what land they like without paying premium or rent. The more civilized tribes, especially on the West coast, recognize private property in land, the boundaries of their gardens and fields being carefully

* Now accomplished.

marked and defined, and the property descending from fathers to children. The rate of the Poll Tax is usually $2 for married couples and $1 for adult bachelors per annum, and I believe this is about the same rate as that collected by the British Governm ent in Burma. At first sight it has the appearance of a tax on marriage, but in the East generally women do a great deal of the out-door as well as of the indoor work, so that a married man is in a much better position than a bachelor for acquiring wealth, as he can be engaged in collecting jungle produce, or in trading, or in making money in other ways, while his womenkind are planting out or gathering in the harvest.

The amounts *received* by the Company for the sale of their waste lands has been as follows :—

1882,	... $ 16,340	1885,	... $ 2,860
1883,	... $ 25,449	1886,	... $12,035
1884,	... $ 15,460	1887,*	... $14,505

The receipts for 1888, owing to the rush for tobacco lands already alluded to, and to the fact that the balances of the premia on lands taken up in 1887 becomes due in that year, will be considerably larger than those of any previous period.

The most productive, and the most elastic source of revenue is that derived from the Excise on the retail of opium and, with the comparatively small number of Chinese at present in the country, this amounted in 1887 to $19,980, having been only $4,537 in 1882.† The next most substantial and promising item is the Customs Duties on Import and Export, which from about $8,300 in 1882 have increased to $19,980 in 1887.‡

The local expenditure in Borneo is chiefly for salaries of the officials, the armed Constabulary and for Gaols and Public Works, the annual "rental" payable to the Sultans of Brunai and Sulu and others, the subsidizing of steamers, Medical

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* In 1888, $246,457.

† In 1888, $22,755 were realized, and the Estimate for 1890 is $70,000 for the Opium Farm.

‡ In 1888, $22,755.

Services, Printing, Stationery, Prospecting, Experimental Gardens and Harbour and Postal Services. The designations of the principal officials employed by the Company in Borneo have been given on a previous page; the salaries allowed them, as a rule, can scarcely be called too liberal, and unfortunately the Court of Directors does not at present feel that it is justified in sanctioning any pension scheme. Those of my readers who are conversant with the working of Public Offices will recognize that this decision of the Directors deprives the service of one great incentive to hard and continuous work and of a powerful factor in the maintenance of an effective discipline, and it speaks volumes for the quality of the officials, whose services the Company has been so fortunate as to secure without this attraction, that it is served as faithfully, energetically and zealously as any Government in the world. If I may be allowed to say so here, I can never adequately express my sense of the valuable assistance and support I received from the officers, with scarcely any exception, during my six years' tenure of the appointment of Governor. An excellent spirit pervades the service and, when the occasions have arisen, there have never been wanting officers ready to risk their lives in performing their duties, without hope of rewards or distinctions, Victoria Crosses or medals.

The figures below speak for the advance which the country is making, not very rapidly, perhaps the shareholders may think, but certainly, though slowly, surely and steadily :—

Revenue in 1883, $51,654, with the addition of Land Sales, $25,449, a total of $77,103.

Revenue in 1887, $142,687, with the addition of Land Sales, $14,505, a total of $ 157,192.

Expenditure in 1883, including expenditure on Capital Account, $391,547.

Expendiure in 1887, including expenditure on Capital Account, $209,862.

For reasons already mentioned, the revenue for 1888 is expected to considerably exceed that of any previous year,

while the expenditure will probably not be more and may be less than that of 1887.*

The expenses of the London office average, I believe, about £3,000 a year.

As Sir RUTHERFORD ALCOCK, their able and conscientious Chairman, explained to the shareholders at a recent meeting, "with reference to the important question of expenditure, the position of the Company was that of a man coming into possession of a large estate which had been long neglected, and which was little better than a wilderness. If any rent roll was to be derived from such a property there must be, in the first place, a large outlay in many ways before the land could be made profitable, or indeed tenantable. That was what the Company had had to do and what they had been doing; *and that had been the history of all our Colonies.*" I trust that the few observations I have offered will have shewn my readers that, though British North Borneo might be described as a wilderness so far as regards the absence of development when the Company took possession of it, such a description is by no means applicable to it when regard is had to its great and undoubted natural resources.

British North Borneo not being a Crown Colony, it has to provide itself for the maintenance of order, both ashore and afloat, without assistance from the Imperial Army or Navy, except such temporary assistance as has been on two occasions accorded by Her Majesty's vessels, under circumstances which have been detailed. There are no Imperial Troops stationed either in Labuan or in any portion of Borneo, and the Company has organized an armed Police Force to act both in a military and in a civil capacity.

The numbers of their Force do not much exceed two hundred of all ranks, and are composed principally of Sikhs from the Punjaub and a few Dyaks from Sarawak—an excellent mixture for fighting purposes, the Dyaks being sufficiently

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* Revenue in 1888, $148,286, with addition of Land Sales, $246,457, a total of $394,743.

Expenditure in 1888, including Padas war expenses, $210,985, and expenditure on Capital Account, $25,283—total $236,268.

courageous and expert in all the arts of jungle warfare, while the pluck and cool steadiness under fire of the Sikhs is too well-known to need comment here. The services of any number of Sikhs can, it appears, be easily obtained for this sort of work, and some years ago a party of them even took service with the native Sultan of Sulu, who, however, proved a very indifferent paymaster and was soon deserted by his mercenaries, who are the most money-grabbing lot of warriors I have ever heard of. Large bodies of Sikhs are employed and drilled as Armed Constables in Hongkong, in the Straits Settlements and in the Protected Native States of the Malay Peninsula, who, after a fixed time of service, return to their country, their places being at once taken by their compatriots, and one cannot help thinking what effect this might have in case of future disturbances in our Indian Empire, should the Sikh natives make common cause with the malcontents.

Fault has been found with the Company for not following the example of Sarawak and raising an army and police from among its own people. This certainly would have been the best policy had it only been feasible; but the attempt was made and failed.

As I have pointed out, British North Borneo is fortunate in not possessing any powerful aboriginal tribe of pronounced warlike instincts, such as the Dyaks of Sarawak.

The Muhammadan Bajows might in time make good soldiers, but my description of them will have shewn that the Company could not at present place reliance in them.

While on the subject of "fault finding," I may say that the Company has also been blamed for its expenditure on public works and on subsidies for steam communication with the outer world.

But our critics may rest assured that, had not the Company proved its faith in the country by expending some of its money on public works and in providing facilities for the conveyance of intending colonists, neither European capital nor Chinese population, so indispensable to the success of their scheme, would have been attracted to their Territory as is now being done—for the country and its new Government lacked the prestige which attaches to a Colony opened by

the Imperial Government. The strange experiment, in the present day, of a London Company inaugurating a Government in a tropical Colony, perhaps not unnaturally caused a certain feeling of pique and uncharitableness in the breasts of that class of people who cannot help being pleased at the non-success of their neighbours' most cherished schemes, and who are always ready with their "I told you so." The measure of success attained by British North Borneo caused it to come in for its full share of this feeling, and I am not sure that it was not increased and aggravated by the keen interest which all the officers took in the performance of their novel duties—an interest which, quite unintentionally, manifested itself, perhaps, in a too enthusiastic and somewhat exaggerated estimate of the beauties and resources of their adopted country and of the grandeur of its future destiny and of its rapid progress, and which, so to speak, brought about a reaction towards the opposite extreme in the minds of the class to whom I refer. This enthusiasm was, to say the least, pardonable under the circumstances, for all men are prone to think that objects which intensely engross their whole attention are of more importance than the world at large is pleased to admit. Every man worth his salt thinks his own geese are swans.

A notable exception to this narrow-mindedness was, however, displayed by the Government of Singapore, especially by its present Governor, Sir CECIL CLEMENTI SMITH, who let no opportunity pass of encouraging the efforts of the infant Government by practical assistance and unprejudiced counsel.

Lord BRASSEY, whose visit to Borneo in the *Sunbeam* I have mentioned, showed a kindly appreciation of the efforts of the Company's officers, and practically evinced his faith in the future of the country by joining the Court of Directors on his return to England.

In the number of the "Nineteenth Century" for August, 1887, is a sketch of the then position of the portion of Borneo which is under the British influence, from his pen.

As the country is developed and land taken up by European planters and Chinese, the Company will be called upon

for further expenditure on public works, in the shape of roads, for at present, in the interior, there exist only rough native tracks, made use of by the natives when there does not happen to be a river handy for the transport of themselves and their goods. Though well watered enough, British North Borneo possesses no rivers navigable for European vessels of any size, except perhaps the Sibuku River, the possession of which is at the present moment a subject of dispute with the the Dutch. This is due to the natural configuration of the country. Borneo, towards the North, becoming comparatively narrow and of roughly triangular shape, with the apex to the North. The only other river of any size and navigable for vessels drawing about nine feet over the bar, is the Kinabatangan, which, like the Sibuku, is on the East side, the coast range of mountains, of which Kinabalu forms a part, being at no great distance from the West coast and so preventing the occurrence of any large rivers on that side. From data already to hand, it is calculated that the proceeds of Land Sales for 1887 and 1888 will equal the total revenue from all other sources, and a portion of this will doubtless be set aside for road making and other requisite public works.

The question may be asked what has the Company done for North Borneo?

A brief reply to this question would include the following points. The Company has paved the way to the ultimate extinction of the practice of slavery; it has dealt the final blow to the piracy and kidnapping which still lingered on its coasts; it has substituted one strong and just Government for numerous weak, cruel and unjust ones; it has opened Courts of Justice which know no distinction between races and creeds, between rich and poor, between master and slave; it is rapidly adjusting ancient blood feuds between the tribes and putting a stop to the old custom of head-hunting; it has broken down the barrier erected by the coast Malays to prevent the aborigines having access to the outer world and is thus enabling trade and its accompanying civilisation to reach the interior races; and it is attracting European and Chinese capital to the country and opening a market for British traders.

These are some, and not inconsiderable ones, of the achievements of the British North Borneo Company, which, in its humble way, affords another example of the fact that the "expansion of Britain" has been in the main due not to the exertions of its Government so much as to the energy and enterprise of individual citizens, and Sir ALFRED DENT, the the founder, and Sir RUTHERFORD ALCOCK, the guide and supporter of the British North Borneo Company, cannot but feel a proud satisfaction in the reflection that their energy and patient perseverance have resulted in conferring upon so considerable a portion of the island of Borneo the benefits above enumerated and in adding another Colony to the long list of the Dependencies of the British Crown.

In the matter of geographical exploration, too, the Company and its officers have not been idle, as the map brought out by the Company sufficiently shews, for previous maps of North Borneo will be found very barren and uninteresting, the interior being almost a complete blank, though possessing one natural feature which is conspicuous by its absence in the more recent and trustworthy one, and that is the large lake of Kinabalu, which the explorations of the late Mr. F. K. WITTI have proved to be non-existent. Two explanations are given of the origin of the myth of the Kinabalu Lake—one is that in the district, where it was supposed to exist, extensive floods do take place in very wet seasons, giving it the appearance of a lake, and, I believe there are many similar instances in Dutch Borneo, where a tract of country liable to be heavily flooded has been dignified with the name of *Danau*, which is Malay for *lake*, so that the mistake of the European cartographers is a pardonable one. The other explanation is that the district in question is known to the aboriginal inhabitants as *Danau*, a word which, in their language, has no particular meaning, but which, as above stated, signifies, in Malay, a lake. The first European visitors would have gained all their information from the Malay coast tribes, and the reason for their mistaken supposition of the existence of a large lake can be readily understood. The two principal pioneer explorers of British North Borneo were WITTI and FRANK HATTON, both of whom met with violent deaths. WITTI'S

services as one of the first officers stationed in the country, before the British North Borneo Company was formed, have already been referred to, and I have drawn on his able report for a short account of the slave system which formerly prevailed. He had served in the Austrian Navy and was a very energetic, courageous and accomplished man. Besides minor journeys, he had traversed the country from West to East and from North to South, and it was on his last journey from Pappar, on the West Coast, inland to the headwaters of the Kinabatangan and Sambakong Rivers, that he was murdered by a tribe, whose language none of his party understood, but whose confidence he had endeavoured to win by reposing confidence in them, to the extent even of letting them carry his carbine. He and his men had slept in the village one night, and on the following day some of the tribe joined the party as guides, but led them into the ambuscade, where the gallant WITTI and many of his men were killed by *sumpitans*.* So far as we have been able to ascertain the sole reason for the attack was the fact that WITTI had come to the district from a tribe with whom these people were at war, and he was, therefore, according to native custom, deemed also to be an enemy. FRANK HATTON joined the Company's service with the object of investigating the mineral resources of the country and in the course of his work travelled over a great portion of the Territory, prosecuting his journeys from both the West and the East coasts, and undergoing the hardships incidental to travel in a roadless, tropical country with such ability, pluck and success as surprised me in one so young and slight and previously untrained and inexperienced in rough pioneering work.

He more than once found himself in critical positions with inland tribes, who had never seen or heard of a white man, but his calmness and intrepidity carried him safely through

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* The *sumpitan*, or native blow-pipe, has been frequently described by writers on Borneo. It is a tube 6½ feet long, carefully perforated lengthwise and through which is fired a poisoned dart, which has an extreme range of about 80 to 90 yards, but is effective at about 20 to 30 yards. It takes the place in Borneo of the bow and arrow of savage tribes, and is used only by the aborigines and not by the Muhammadan natives.

such difficulties, and with several chiefs he became a sworn brother, going through the peculiar ceremonies customary on such occasions. In 1883, he was ascending the Segama River to endeavour to verify the native reports of the existence of gold in the district when, landing on the bank, he shot at and wounded an elephant, and while following it up through the jungle, his repeating rifle caught in a rattan and went off, the bullet passing through his chest, causing almost immediate death. HATTON, before leaving England, had given promise of a distinguished scientific career, and his untimely fate was deeply mourned by his brother officers and a large circle of friends. An interesting memoir of him has been published by his father, Mr. JOSEPH HATTON, and a summary of his journeys and those of WITTI, and other explorers in British North Borneo, appeared in the "Proceedings of the Royal Geographical Society and Monthly Record of Geography" for March, 1888, being the substance of a paper read before the Society by Admiral R. C. MAYNE, C.B., M.P. A memorial cross has been erected at Sandakan, by their brother officers, to the memory of WITTI, HATTON, DE FONTAINE and Sikh officers and privates who have lost their lives in the service of the Government.

To return for a moment to the matter of fault-finding, it would be ridiculous to maintain that no mistakes have been made in launching British North Borneo on its career as a British Dependency, but then I do not suppose that any single Colony of the Crown has been, or will be inaugurated without similar mistakes occurring, such, for instance, as the withholding money where money was needed and could have been profitably expended, and a too lavish expenditure in other and less important directions. Examples will occur to every reader who has studied our Colonial history. If we take the case of the Colony of the Straits Settlements, now one of our most prosperous Crown Colonies and which was founded by the East India Company, it will be seen that in 1826-7 the "mistakes" of the administration were on such a scale that there was an annual deficit of £100,000, and the presence of the Governor-General of India was called for to abolish useless offices and effect retrenchments throughout the service.

The British North Borneo Company possesses a valuable property, and one which is daily increasing in value, and if they continue to manage it with the care hitherto exhibited, and if, remembering that they are not yet quite out of the wood, they are careful to avoid, on the one hand, a too lavish expenditure and, on the other, an unwise parsimony, there cannot, I should say, be a doubt that a fair return will, at no very distant date, be made to them on the capital they have expended.

As for the country *per se*, I consider that its success is now assured, whether it remains under the rule of the Company or is received into the fellowship of *bonâ fide* Colonies of the Empire.

In bringing to a conclusion my brief account of the Territory, some notice of its suitability as a residence for Europeans may not be out of place, as bearing on the question of "what are we to do with our boys?"

I have my own experience of seventeen years' service in Northern Borneo, and the authority of Dr. WALKER, the able Medical Officer of the Government, for saying that in its general effect on the health of Europeans, the climate of British North Borneo, as a whole, compares not unfavourably with that of other tropical countries.

There is no particular "unhealthy season," and Europeans who lead a temperate and active life have little to complain of, except the total absence of any cold season, to relieve the monotony of eternal summer. On the hills of the interior, no doubt, an almost perfect climate could be obtained.

One great drawback to life for Europeans in all tropical places is the fact that it is unwise to keep children out after they have attained the age of seven or eight years, but up to that age the climate appears to agree very well with them and they enjoy an immunity from measles, whooping cough and other infantile diseases. This enforced separation from wife and family is one of the greatest disadvantages in a career in the tropics.

We have not, unfortunately, had much experience as to how the climate of British North Borneo affects English ladies, but, judging from surrounding Colonies, I fear it will be found

that they cannot stand it quite so well as the men, owing, no doubt, to their not being able to lead such an active life and to their not having official and business matter to occupy their attention during the greater part of the day, as is the case with their husbands.

Of course, if sufficient care is taken to select a swampy spot, charged with all the elements of fever and miasma, splendidly unhealthy localities can be found in North Borneo, a residence in which would prove fatal to the strongest constitution, and I have also pointed out that on clearing new ground for plantations fever almost inevitably occurs, but, as Dr. WALKER has remarked, the sickness of the newly opened clearings does not last long when ordinary sanitary precautions are duly observed.

At present the only employers of Europeans are the Governing Company, who have a long list of applicants for appointments, the Tobacco Companies, and two Timber Companies. Nearly all the Tobacco Companies at present at work are of foreign nationality and, doubtless, would give the preference to Dutch and German managers and assistants. Until more English Companies are formed, I fear there will be no opening in British North Borneo for many young Englishmen not possessed of capital sufficient to start planting on their own account. It will be remembered that the trade in the natural products of the country is practically in the hands of the Chinese.

Among the other advantages of North Borneo is its entire freedom from the presence of the larger carnivora—the tiger or the panther. Ashore, with the exception of a few poisonous snakes—and during seventeen years' residence I have never heard of a fatal result from a bite—there is no animal which will attack man, but this is far from being the case with the rivers and seas, which, in many places, abound in crocodiles and sharks. The crocodiles are the most dreaded animals, and are found in both fresh and salt water. Cases are not unknown of whole villages being compelled to remove to a distance, owing to the presence of a number of man-eating crocodiles in a particular bend of a river; this happened

to the village of Sebongan on the Kinabatangan River, which has been quite abandoned.

Crocodiles in time become very bold and will carry off people bathing on the steps of their houses over the water, and even take them bodily out of their canoes.

At an estate on the island of Daat, I had two men thus carried off out of their boats, at sea, after sunset, in both cases the mutilated bodies being subsequently recovered. The largest crocodile I have seen was one which was washed ashore on an island, dead, and which I found to measure within an inch of twenty feet.

Some natives entertain the theory that a crocodile will not touch you if you are swimming or floating in the water and not holding on to any thing, but this is a theory which I should not care to put practically to the test myself.

There is a native superstition in some parts of the West Coast, to the effect that the washing of a mosquito curtain in a stream is sure to excite the anger of the crocodiles and cause them to become dangerous. So implicit was the belief in this superstition, that the Brunai Government proclaimed it a punishable crime for any person to wash a mosquito curtain in a running stream.

When that Government was succeeded by the Company, this proclamation fell into abeyance, but it unfortunately happened that a woman at Mempakul, availing herself of the laxity of the law in this matter, did actually wash her curtain in a creek, and that very night her husband was seized and carried off by a crocodile while on the steps of his house. Fortunately, an alarm was raised in time, and his friends managed to rescue him, though badly wounded; but the belief in the superstition cannot but have been strengthened by the incident.

Some of the aboriginal natives on the West Coast are keen sportsmen and, in the pursuit of deer and wild pig, employ a curious small dog, which they call *asu*, not making use of the Malay word for dog—*anjing*. The term *asu* is that generally employed by the Javanese, from whose country possibly the dog may have been introduced into Borneo. In Brunai, dogs

are called *kuyok*, a term said to be of Sumatran origin.

On the North and East there are large herds of wild cattle said to belong to two species, *Bos Banteng* and *Bos Gaurus* or *Bos Sondaicus*. In the vicinity of Kudat they afford excellent sport, a description of which has been given, in a number of the "Borneo Herald," by Resident G. L. DAVIES, who, in addition to being a skilful manager of the aborigines, is a keen sportsman. The native name for them on the East Coast is *Lissang* or *Seladang*, and on the North, *Tambadau*. In some districts the water buffalo, *Bubalus Buffelus*, has run wild and affords sport.

The deer are of three kinds—the *Rusa* or *Sambur* (*Rusa Aristotelis*,), the *Kijang* or roe, and the *Plandok*, or mousedeer, the latter a delicately shaped little animal, smaller and lighter than the European hare. With the natives it is an emblem of cunning, and there are many short stories illustrating its supposed more than human intelligence. Wild pig, the *Sus barbatus*, a kind distinct from the Indian animal, and, I should say, less ferocious, is a pest all over Borneo, breaking down fences and destroying crops. The jungle is too universal and too thick to allow of pig-sticking from horseback, but good sport can be had, with a spear, on foot, if a good pack of native dogs is got together.

It is on the East Coast only that elephants and rhinoceros, called *Gajah* and *Badak* respectively, are found. The elephant is the same as the Indian one and is fairly abundant; the rhinoceros is *Rhinoceros sumatranus*, and is not so frequently met with.

The elephant in Borneo is a timid animal and, therefore, difficult to come up with in the thick jungle. None have been shot by Europeans so far, but the natives, who can walk through the forest so much more quietly, sometimes shoot them, and dead tusks are also often brought in for sale.

The natives in the East Coast are very few in numbers and on neither coast is there any tribe of professional hunters, or *shikaris*, as in India and Ceylon, so that, although game abounds, there are not, at present, such facilities for Euro-

peans desirous of engaging in sport as in the countries named.*

A little] Malay bear occurs in Borneo, but is not often met with, and is not a formidable animal.

My readers all know that Borneo is the home of the *Orang-utan* or *Mias*, as it is called by the natives. N better description of the animal could be desired than that given by WALLACE in his "Malay Archipelago." There is an excellent picture of a young one in the second volume of Dr. GUILLEMARD'S "Cruise of the Marchesa." Another curious monkey, common in mangrove swamps, is the long-nosed ape, or *Pakatan*, which possesses a fleshy probosis some three inches long. It is difficult to tame, and does not live long in captivity.

As in Sumatra, which Borneo much resembles in its fauna and flora, the peacock is absent, and its place taken by the *Argus* pheasant. Other handsome pheasants are the *Fireback* and the *Bulwer* pheasants, the latter so named after Governor Sir HENRY BULWER, who took the first specimen home in 1874. These pheasants do not rise in the jungle and are, therefore, uninteresting to the Borneo sportsman. They are frequently trapped by the natives. There are many kinds of pigeons, which afford good sport. Snipe occur, but not plentifully. Curlew are numerous in some localities, but very wild. The small China quail are abundant on cleared spaces, as also is the painted plover, but cleared spaces in Borneo are somewhat few and far between. So much for sport in the new Colony.

Let me conclude my paper by quoting the motto of the British North Borneo Company—*Pergo et perago*—I under-

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* Dr. GUILLEMARD in his fascinating book, "The Cruise of the Marchesa," states, that two Eng'ish officers, both of them well-known sportsmen, devoted four months to big game shooting in British North Borneo and returned to Hongkong entirely unsuccessful. Dr. GUILLEMARD was misinformed. The officers were not more than a week in the country on their way to Hongkong from Singapore and Sarawak, and did not devote their time to sport. Some other of the author's remarks concerning British North Borneo are somewhat incorrect and appear to have been based on information derived from a prejudiced source.

take a thing and go through with it. Dogged persistence has, so far, given the Territory a fair start on its way to prosperity, and the same perseverance will, in time, be assuredly rewarded by complete success.*

W. H. TREACHER.

P.S.—I cannot close this article without expressing my great obligations to Mr. C. V. CREAGH, the present Governor of North Borneo, and to Mr. KINDERSLEY, the Secretary to the Company in London, for information which has been incorporated in these notes.

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* In 1889, the Company declared their first Dividend.

JOURNAL OF A COLLECTING EXPEDITION TO THE MOUNTAIN OF BATANG PADANG, PERAK.

BY

L. WRAY, JR.

ON Monday, the 6th of June, 1888, in accordance with instructions received, I left Taiping and proceeded to Telok Anson in the S.S. *Kinta*, and after seeing the baggage put on board a river-boat, and paying a visit to the Superintendent, Lower Perak, started at about 10 A.M. on the 7th for Tapa. At the half-way Resthouse I was met by a pony, and rode the rest of the way, reaching Tapa at 6.30 P.M.

The first four or five miles of road from Durian Sabatang passes through a nearly level country, which, judging from appearances, is eminently suited to the growth of padi or sugar-cane. The surface soil is rich and black, and, from what can be seen of it by inspecting the ditches, is of considerable depth. The upper part of the road near Tapa also passes through some fine land, but it is of quite a different character, being hilly and with a reddish yellow soil, light and quite sandy in places. Its quality is shown by the luxuriant growth of the various products which have been already planted, such as bananas, pepper, coco-nuts, Indian corn, &c. The latter can be planted many times in succession on the same land without manure. The rule in other parts of the State is that only one crop of this plant can be taken off even virgin forest land. So that it is evident there must be in the soil near Tapa considerable quantities of some inorganic substance which is essential to the growth of maize, and which is present in the soil of other parts of Perak only in minute quantities. The rock from which much of this soil is derived is a paleozoic schistose formation. There is also, of necessity, in

the soil a considerable admixture of the detritus of the granitic formations of which the higher hills in Batang Padang, as in other parts of the State, are exclusively composed.

My party consisted of Mr. JELLAH, the Collector and Taxidermist of the Museum, a Kling called HARISON, whom I engaged to help in the collection of botanical specimens—he having had three or four years' experience in the same work with the late Mr. KUNSTLER—a Malay called MAHRASIT, and a Malay "boy" who accompanied the late Mr. CAMERON on many of his explorations. The two former came up in the boat to Tapa with the baggage, and the two latter overland with me.

The boat arrived on the evening of the 11th, having been five days and-a-half coming a distance of about 20 miles as the crow flies; and on the 12th the baggage was moved into an empty shop in the village.

The great amount of impedimenta which it is necessary to take about with one on a collecting expedition, is a most serious drawback, when once the roads are left; but without it nothing can be done, and one might just as well stay at home. The worst part of it is, that the longer the trip lasts the more the baggage increases, instead of decreasing as it does on an ordinary occasion.

Toh BIAS, the Penghulu of Tapa, having a few days before I arrived married a new wife, could not be induced to leave his bride and go to Kuala Woh to look for Sakais to carry up the baggage to Gunong Batu Puteh, till the 12th, and then he went very unwillingly, and it was six days more before they began to arrive at Tapa, and then only ten men came. My brother, Mr. CECIL WRAY, then sent to Chendariang for some, but without success. The difficulty at that time in obtaining Sakais was that they were all felling and burning the jungle to plant rice for the next season's crop.

During this enforced stay at Tapa, we went out every day collecting, and got 32 species of plants, 27 bird skins, and 3 mammals, besides many insects. I also took some photographs of some of the most typical of the Sakais.

On the 25th we were able to leave Tapa. We then had 22 Sakais, and the heavy baggage had to be put into two boats

and poled up the river to Kuala Woh, which place we reached after a walk of two and-a-half hours, the track crossing the Batang Padang River twice. The whole way, wherever there was an opening in the jungle, we met with swarms of yellow butterflies. There must have been millions of them spread over the country. In places they were settled so thickly that the ground could not be seen. Some of these patches were two and three feet in diameter, and after driving away the butterflies the ground was quite yellow from pieces of their wings and dead ones. I have never seen such a sight before, almost any sweep of a butterfly net would catch a dozen or more. In the afternoon it came on to blow, just before a shower of rain, and all the butterflies at once took up positions on the undersides of the leaves of trees and plants and on the lee sides of the stems and roots. They were all of one species of Terias *(Terias hecabe)*, and the Malays said that they had appeared about a week before we saw them. The whole of the next day's march they were quite as numerous, though we rose to an altitude of 1,130 feet above sea level, and they were also fairly common as high as the camp on Gunong Batu Puteh, which we reached on the day after.

Almost the whole of the land passed through, lying between Tapa and Kuala Woh, is of most excellent quality, a great deal of it being covered with bamboo forest. The bamboo seemed to belong to one species only, and is known by the Malay name of *buluh telor*.

The track passes through several Sakai clearings, one of which was in a most creditable state of cultivation. In another there was a typical Sakai house on very tall posts and with a considerable sized raised platform on a level with the *lanti* floor. There were also two Sakai graves near the track. They were raised like the Malay ones, and well taken care of. On them were the remains of fruit, flowers, Indian corn, coco-nut shells, bottle-gourds, roots, &c., which had been placed there probably as offerings to the dead.

One of the boats containing the baggage arrived at Kuala Woh at 5 P. M., having been eight hours on the way, and the other did not arrive till about 6 A. M. on the morning of the 26th, and at 9 A. M. on that day we started up the valley of the

Woh with 21 Sakais as baggage carriers, but as they could take only a small part of it, I was forced to leave a great quantity at Kuala Woh in charge of JELLAH and HARISON.

For the first few miles after leaving Kuala Woh, the jungle is almost exclusively bamboo. This land is undulating and of fine quality, but it ends at Changkat Berchilding, and then the track passes over some considerable hills and down into some valleys of which the soil is apparently good, but the slopes are steep and the Sakais have spoiled large portions of it by making *ladangs*.

It is as well to mention that there is no reason why the track should go over all these hills, except that native tracks always do go over the extreme tops of all hills which are anywhere near the line of route.

We reached the foot of Gunong Batu Putch at 12.50 P. M., and camped for the night on the banks of the Woh. This place is 1,030 feet above sea level. The thermometer showed the following temperatures:—at 3 P. M. 70° F., and at 9 P. M. 72°, and at another visit on August 7th it showed at 2.15 P. M. 78°, at 5 P. M. 72°, and the next morning at 6 A. M. 68°.

At the foot of Batu Puteh, bamboo jungle again appears, and as this is at an elevation of 1,030 feet, it would be most valuable tea land if of sufficient extent, and looked at from the top of the rocky spur on Gunong Batu Puteh it seems to be of considerable area. In fact a track of bamboo jungle appears to run right up the valley of the Woh from its kuala to the camp, and possibly much farther.

At 7.40 A. M. on the 27th we left the camp on the Woh and reached the south-west spur of Gunong Batu Puteh at 12.50 P. M. This spot is 4,300 feet above sea level by aneroid, and is the place on which the previous expedition camped.

Having set all hands to work re-making the old huts, we climbed the rock on the top of the spur, but the driving clouds hid almost everything, and we had several sharp showers of rain while there. There were firs, myrtles and other mountain plants on the top and sides of the rock, and we found a few pretty ground orchids, one in particular with a bunch of large yellow flowers on a stalk two or three feet high, and a

white flowered species which is common on the summit of Gunong Hijau in Larut.

It rained the greater part of the night, and as the hut was not weather-tight we got very wet, cold and miserable. The next morning, the 28th, was cloudy and cold, with frequent showers of rain, so that not much could be done in any direction. Eleven of the Sakais ran away early in the morning, leaving us with only 10 men. Four of these men, and a Malay I engaged at Tapa, were sent down to Kuala Woh to bring up some more baggage and the remaining six with the Malays began putting the house in order and trying to make it waterproof.

I went out into the jungle, but only saw a few birds, which were all of the same species as those I previously collected on the Larut hills. In the afternoon, as it seemed to be clearing up, we ascended the rock again, which by the bye is a very stiff climb, and got a fleeting sight between the masses of drifting cloud of the real top of the mountain, which I estimated to be at least 2,000 feet higher than the top of the rock, which is 400 feet above the camp.

From the rocky point, a splendid view is to be had, comprising almost the whole district of Batang Padang, and further in the distance Lower Perak, the Dindings and the Larut hills, Bujang Malaka and the hills to the north end off Kinta, and the summit of Batu Puteh itself hides the northern continuation of the main range.

Looking down from this rock, there appears to be a nice piece of planting land at about 2,000 or 2,500 feet elevation. It does not seem steep, and there is a fine stream near it. It is situated in the valley formed by the spur on which I then was, on the one side, and the spur extending out in the direction of Gunong Brapit on the other. Most of the higher lands on Batu Puteh are very steep, although of fine quality as far as soil goes.

On the rocks near the summit, a quantity of a plant called *chimbuai* grows. This plant is much valued by the Malays, as it is supposed to act as a love-philter. It probably belongs to the *Ophioglossaceæ*, and is a delicate rush-like plant about three inches high, having its spores in little tassels on the tops of the leaves.

The next day, the 29th, I took a photograph of the camp and Sakais, and took the measures of the latter, and at about noon Mr. C. WRAY and all the Sakais left. The former had gone up with the intention of trying to make the ascent of the real summit of Batu Puteh, but the running away of the Sakais and the bad weather rendered this impossible.

MAHRASIT and the "boy" went on with the house, but as there were only small palm leaves to be had at that elevation, it was not easy to make a weather-tight house, and if it had not been for the waterproof sheets kindly lent by the Commissioner, Perak Sikhs, I do not know how we should have got on, as the preservation of botanical and other specimens would have been almost impossible.

On the 30th six Sakais came up with more things, and on the 1st July, JELLAH, HARISON and 9 Sakais arrived. From this day to the 7th I have nothing particular to record. During that time the remainder of the baggage arrived, and I had drying stages put up for sunning plants, cut a track in a northerly direction across to another ridge, and collected birds, plants and insects. I had one of the Malay ground bird-traps set, first in one place, and then in another, but without any result.

I had hopes that there might have been some representatives of the Indian hill pheasants, partridges and other ground birds on the Perak mountains, but if there are any we failed to catch them. The trap that I used consists of a small hedge made of branches and leaves with openings every few yards. On the ground aross the openings are placed light wicker-work frames, which being trodden on, release bent sticks, which are attached to nooses laid on the frames and which the bent sticks draw up, so as to catch the legs of any birds which may tread on the frames. I also had an English trap, the "Rutland," but it also caught nothing.

I was fortunate enough, on the 6th, to shoot a fine example of the Black Eagle *(Neopus malayensis)* not far from camp.

A pair of them were circling round the tops of some tall trees in the jungle, and I brought down the female. It measured 5 feet 10 inches across the wings, and its plumage was far darker than that of the two specimens I obtained last year on the Larut hills, but it is evidently of the same species. In its

stomach I found two eggs and the half digested remains of a rat. The presence of the eggs shows it to have the same habit of robbing the nests of other birds as its Indian congener.

On the 8th I started at 8 A. M. with MAHRASIT, HARISON and a Sakai along the track to the North, which I have already mentioned, and then struck up the spur until we reached the top of the ridge joining the western peak with the main hill, and then followed that ridge, which runs in an easterly direction up and down hills until we came to the Batu Puteh itself, after which it was nearly all steady up-hill work. We had to cut a track the whole way through a particularly thick and thorny undergrowth, and it was 2 P. M. before we reached the extreme summit, which the aneroid made 6,700 feet above sea level.

I took up my gun in the hopes of getting some new birds, but only saw a few of one species, one specimen of which I shot. It is a *Mesia* of a species I have not seen before. Although I was disappointed in the matter of birds, still had I not taken the gun we should not, on that occasion, have reached the top of the hill, for a tiger had preceded us by a few hours, from the ridge right up to the very summit of the mountain, and as may be imagined, there was not any anxiety amongst my companions to follow up the tracks, and they would most certainly have refused to do so if there had been no fire arms amongst the party, though for that matter, as I had no ball cartridges, it would have been no earthly use, but for obvious reasons I kept this fact to myself. Only two days before a tiger, probably the same one, was seen by HARISON not 200 yards from the camp in the middle of the day.

It seems strange to find tigers in such a place, for there appeared to be absolutely no game, not a single track of a pig, deer or any other animal having been seen by us during our stay on Gunong Batu Puteh.

The forest near the top of the mountain is most curious, consisting of twisted, stunted, wind-blown trees covered all over with a dense shaggy coating of moss, the ground, rocks, roots and dead trees being all hidden in the same manner. The moss is of all tints of greens, greenish-yellow, browns, red-browns and pinks, and is of many kinds. Some of them

being extremely elegant, both in form and colouring. Such a luxuriant and beautiful growth of moss I had never seen before. In the scrub near the summit, *Rhododendrons* of many species are common, one of them growing into quite a large tree, but unfortunately no flowers of this plant could be found. Another species has the petals of the flower yellow and the tube orange-red, another white, and a pretty little round-leaved one has crimson flowers.

An orchid of considerable beauty grows not far from the top, and seems to be a very free flowerer. It is a purplish flowered *Dendrobium*. I also collected some plants of a very pretty *Anæctochilus;* it resembles *A. setaceus* very closely, but the leaves instead of being dark red-brown veined with yellow, are rather pale velvety green, with pure white veining. Unfortunately it was not in flower, so I had to take the plants, which when planted in baskets may, if they live, yield flowers, and the species may ultimately be determined. In all we collected over 50 botanical specimens, and had there been time and some more men to carry them we might have got many more.

It was a beautifully fine day, but the distance, as is so often the case in dry, hot weather, was rather hazy. The view, however, from the summit was splendid, but it is quite impossible to describe it, and owing to want of time, I could not make any sketches. To the East, looking down into Pahang, there is nothing to be seen in the way of mountains, as far as the eye could reach. The country seems to consist of large broad valleys, with a few ranges of small hills. On these hills we could see many Sakai clearings as well as clearings in the valleys, which are probably Malay. The thickness of the range at this point is very little. I should not think it can be more than eight miles. To the South no large hills are visible for many miles, but to the North the hill country expands and broadens out, and peak upon peak can be made out stretching away into the far distance.

Gunong Batu Puteh is, therefore, the end of the range of higher hills going southwards, though the range again rises into some lofty peaks in Slim.

Having collected all the plants we could carry, we returned, reached the camp again at 6 P.M., having been 10 hours on the tramp.

The next day, the 9th, I spent in putting the previous day's collection of plants into paper, and on the 10th I took three photographs from the rocky ridge connecting the spur with the main mountains—one of the rocks which form the top of the spur, one of the summit of Batu Puteh, and one of the hills looking over in the direction of Gunong Bujang Malaka.

The next day I looked over the dried plants and put all those which were dry into Chinese paper, and sent them down to Tapa on the 12th. Up to that time I had collected 241 species of plants and 61 specimens of birds. One serious drawback to the place was the great quantity of blow-flies, which, unless great care was taken, spoiled all the bird-skins, as well as woollen clothes, blankets, food, &c. The strange thing about these flies is the question where they can be bred in the jungle, for, as I have already noticed, there is such a great scarcity of animal life, and consequently there can be but little decomposing matter for them to breed in.

Woollen things are evidently taken by them for the fur of animals, hence dead animals are clearly the natural food of the larvæ of these flies. Last year, near the Resident's Cottage, I shot a *krekah* monkey, and hung it up to a tree till I returned, which was in about one hour's time, when it was flecked all over with white eggs; but the blow-flies are not anything like so numerous on the Larut hills as they are on those of Batang Padang, probably because they are lower. The lowest altitude at which they are met with seem to be 3,600 feet, but they are not abundant till 4,000 feet is reached.

On the 15th I went down the hill (900 feet by aneroid) and fixed on a site for a new camp, and set the men to work felling the jungle. This place seemed to be more frequented by birds than the higher and bleaker camp, which was not at all a good collecting station for birds, and by that time I had about exhausted all the plants that were in fruit or flower near it. A good number of the trees felled were either in fruit or flower and I was able to add them to my collection.

On the top of one tree was a rather pretty *Vanda* with red flowers spotted with a darker shade of the same colour; and on another was a wild raspberry in full fruit. A tree top is certainly one of the last places on which one would have looked for raspberries.

On the 17th sixteen Sakais came up to carry my things down to Tapa, and I arranged with them to get attaps and finish felling the jungle on the new site on the 18th, on the morning of which day I went down with them, and then up again to the camp and from there to the rock on the top of the spur and afterwards to the gorge to the North of the camp to collect orchids and ferns to take down for the Resident. Then packed them up in baskets and also packed up the bird-skins and put the day's collection of botanical specimens in paper, cleaned guns, and made other preparations for leaving on the morrow.

Up to that time 77 birds and 320 species of plants had been collected, and the object of going down to Tapa was to properly dry and pack away this large collection, and free the pressing paper, so as to be able to use it again.

I had been away from Tapa about a month, and I must say it had been anything but a pleasant time; for the hut was of the leakiest, draughtiest and most uncomfortable description for the bleak climate at that altitude, it being made of rattan and small palm leaves—the only material available within a distance of three or four miles. The temperature ranged from 56° to 68° in the house, and the wind, rain and mist drifted right through it.

Most of my party were out of sorts, and I rather hesitated as to leaving, but transport is so difficult to get that I decided to risk it. JELLAH had ague, MAHRASIT nettle-rash and swollen legs and feet, HARISON bad legs, and the "boy" a very much inflamed and swollen eye. I gave a supply of medicine to JELLAH, and the boy and HARISON were doctored at Tapa.

While at the upper camp I had an attack of what is known as hill diarrhœa, a disease often met with at the Himalayan hill stations of Simla and Nynee Tal, but I do not think that it has been recorded in the Malay Peninsula before.

At about 8 A. M. on the 19th I left the camp with HARISON, the "boy" and 18 Sakais, and reached Kuala Woh at 2 P. M. The Sakais were too tired to go on any farther that day, and so I forded the Woh and went with the "boy" only to Breumen, and after much trouble got a boat and reached Tapa at 7 P. M.

The exposures of rock along the banks of the Batang Padang River from Kuala Woh to Tapa are all, as far as I saw, of the ancient stratified series. The beds are much twisted, contorted and upheaved, in places the strata being nearly vertical.

Overlying these rocks are usually thick beds of river sands, similar to that on which the village of Tapa stands. In places these beds rise to 30 feet above the level of the river.

The rock exposures on the Woh are all apparently granitic. The granite there and on Gunong Batu Puteh from base to extreme summit is a coarse grained rock, with large white felspar crystals and largely mixed with dull blue quartz. The sand in the streams derived from this rock is very characteristic, being quite blueish in appearance. The subsoil formed by its decomposition is also much redder than that formed by the granite of the Larut hills. The surface soil both there and in other parts of Perak seems to depend, in a great measure, as regards its vegetable constituents or humus, on the presence or absence of white ants (*termites*). When the height at which these insects cease to thrive is passed on the hills, a very marked difference in the colour and depth of the surface soil is noticeable, and the same thing is to be seen in the low country in swampy land which is unsuited to their existence.

That the soil is really any poorer for its loss of vegetable matter is not at all certain, for the inorganic constituents of the humus are still present, though they have been altered by passing through an animal organism. This may account for the fertility of some of the apparently very poor soils to be seen in some parts of the State.

Nothing particular happened during the walk down from Gunong Batu Puteh beyond the usual experiences of a long jungle tramp, except that near Kuala Woh I saw in the middle of the track just in front of me the head of a black cobra looking out from under a root; a knock on the neck with my walking stick rendering it powerless. I got it out of its hole, and

while the "boy" way looking for a piece of jungle root to carry it by, another smaller one glided out of the same hole, passed me and took to the river before I had time to stop it.

The first one being a fine large specimen and quite uninjured, I took it to Tapa and put it into spirits. These black cobras are fairly common in Batang Padang, but are very scarce in other parts of Perak, so scarce that I had never seen any till I went there.

I have called it a cobra, but it is not quite certain that it is referable to the genus *Naga*. Possibly it may be a black variety of the *Hamadryad*, but if so it must either not attain a large size, or it must quite change its livery as it grows older; for I was informed that it is unknown of a larger size than between 5 and 6 feet.

The next day, the 20th, the Sakais brought on the baggage from Kuala Woh, and I had the plants unpacked and put out into the sun to dry as soon as possible. They seemed in good condition, and there was no sign of their having heated, as half-dried botanical specimens have a very unpleasant way of doing, when packed up for long in this climate. I then went to work on the live plants, which I brought down with me, and by the next day they, together with a quantity more that Mr. C. WRAY had collected, were all planted and packed up and sent down the river in a boat to Telok Anson.

Mr. C. WRAY and I went on the 22nd to see the new mine at Chendariang. We left at between 7 and 8 A. M., and reached Naga Bbaru at 11 A. M., and from there went to the Sri Muka mines. There are two very distinct varieties of tin-sand obtained from these mines. The one being black, fine-grained and bright-looking; while the other is reddish, brown, or white and very coarse-grained, varying from pieces the size of the tip of the little finger to masses 100 or so pounds in weight.

I think it may safely be predicted that when *lampan* workings are carried on, on the hills near Sri Muka, that some lodes of considerable size and richness will be discovered; for undoubtedly these large blocks of tin ore must have come from such lodes, and probably at no very great distance from their present resting place. The fine-grained black tin-sand, I imagine, has been derived either from another formation, or,

more probably, it may have been disseminated through the body of the rock, and the pale-coloured coarse-grained sand and blocks of ore from lodes running through the same formation.

I bought one fine large lump of tin ore besides some smaller ones for the Museum, and engaged a Chinese cooly to carry them to Tapa.

The mine which is turning out so well, is that which formerly belonged to the Shanghai Company, and is within a hundred yards of the Manager's old house. We saw a large quantity of tin-sand and also a good many slabs of tin, and we were informed that the owners estimated the sand then raised would yield 70 bharas of tin.

There seems every reason to suppose that there is a very large extent of land equally as good as this piece has turned out to be, and that this valley will take many years to work out, the area being quite as large as the Larut tin mining districts of Tupai, Taiping and Kamunting.

The only drawback to the place is the transport. At the time I was there, the river was so low that boats could not go up it, and the road to Tapa was little more than begun.

In consequence of this, the shops were all shut up, as they had nothing left to sell, and the chief Towkay told us he only had 30 bags of rice left, and that he had 300 coolies to feed, and in a few days if the drought continued he would have to begin carrying rice from Tapa, a distance of between 8 and 9 miles over about as vile a track as can well be imagined. The usual price of rice is from 3½ to 4 *gantangs* per dollar, but at the time I am speaking of, it was not to be had cheaper than 3 *gantangs*.

The opening up of this district depends entirely on the completion of the cart-road from Tapa, for at all times the Chendariang River is very difficult to navigate, and in times of drought it is shut up altogether. It usually takes a cargo boat 20 days to go from Telok Anson to Chendariang, a distance by road (when made) of only twenty-nine miles. The high price of provisions, consequent on this expensive transport, is a serious tax on the miners, and it speaks a great deal for the extreme richness of the land, that any mining can be carried

on with profit. Though at the same time it is evident that only the best of the land can be now worked, and that therefore the State is the loser of a great deal of revenue, as land which has had all the best parts of it worked out will not pay to re-open and will probably be unworked for many years to come.

With the exception of the first two miles, which has in great part a laterite subsoil, lithologically identical with the exposure on the road to Kamunting near Drummond's house, the land the whole way along the track from Tapa to Chendariang is of splendid quality and admirably suited for any low country cultivation. A great part of this land is covered with forest *(rimba)*, and only a small part with *bluka*. The Chendariang valley above Naga Bharu is well suited to wet padi cultivation, and there are now in existence some considerable *bendangs*, which as there is an abundant supply of water and level land, may be enlarged to a great extent without much trouble.

Before leaving the mines, I looked over the heaps of mining metal, and found a few interesting mineralogical specimens, and on returning collected a good many botanical specimens. At one place along the road the telegraph line was hanging near the ground and touching a small sapling and at about 60 feet distance it was attached to an insulator fastened to the trunk of a tree. Running up the sapling and along the wire to the distant tree, were hundreds of red-ants *(keringa)* carrying green caterpillars each about one inch long; six or eight ants to one caterpillar. The caterpillars were very numerous, and all of one species.

On the 23rd I was all day shifting plants that were dry into Chinese paper and tying them up ready to pack up in boxes.

I did not collect any more plants, as my object was to get as large a stock of empty paper to take up the hill again as possible, because the hill plants are more likely to be unknown than those of the plains.

From this date to the 2nd of August, I continued drying botanical specimens and transferring them into Chinese paper when dry enough, and dried and packed up the bird-skins.

On the 3rd August I sent off the baggage up the river from Tapa in a boat, and then followed overland to Kuala Woh. On the road near Breumen I collected flowering specimens of the bamboo which forms the greater part of the bamboo forests. It goes by the native name of *buluh telor*, and has a stem usually striped with pale greenish white of 2½ inches or so in diameter, and forty to sixty feet long.

I reached Woh at about 4 P.M., and the boat half-an-hour afterwards. On arrival I was greatly disappointed to find that though Toh BIAS had assured me there were Sakais at Kuala Woh awaiting me, not one man was to be found. I was told that Toh BIAS had neither been there himself to collect them, nor had he sent any one else to do so. It was not till Sunday, the 7th, that enough Sakais were got together to carry up the baggage. During these three days I collected plants and visited some of the Sakai *ladangs* near Woh.

The parcelling out of the baggage to the Sakais is always a work of time. They all, of course, look out for the lightest packages, and you find them going off and leaving a good half of it behind. Then comes a re-arrangement and perhaps a second and even a third before it is equally divided, but afterwards there is no more trouble, each man keeping to his own load. I had one little box of shot which took some of the men in in a most ridiculous manner. They all thought it a charming little package until they came to try its weight. At 9.45 on the morning of the 7th, having distributed the baggage, we left Kuala Woh and reached the camp at Ulu Woh at 12.30 P.M., and on the following morning at 7.30 A.M. started again and passed the new camp on Batu Puteh at 10 A.M., and reached the higher one at noon.

On the morning of the 9th we found that eleven of the fifteen Sakais had left during the night, so that we only had four left to help carrying the baggage up to the top of the hill. We left the camp at 8 A.M., and halted at noon at a cave I had noticed on my first visit, and which seemed likely to form a shelter from the rain. It was not exactly a cave, but a cavity formed by one huge rock lying on and supported on either side by two other masses of rock. The space beneath it was about 30 feet long by 10 feet wide, and from

5 feet high on one side to about one foot on the other. Having set the men to work to cut wood to make a *lanti* floor and a wall of sticks and leaves to keep out some of the wind, we went on up to the summit, but it was so thick and cloudy that nothing could be seen. However, we collected a quantity of plants and returned to the cave at a quarter past three and shortly afterwards it began to rain, and continued raining nearly the whole of the time we were up there.

I have before mentioned that the fresh tracks of a tiger were seen on the first ascent of this hill and on the second they were again seen. In fact the tiger had been right through the cave in which we camped. The presence of fresh marks on two occasions with an interval of a month between them seems to show that the higher hills of Perak are regularly inhabited by tigers. I have previously often seen tracks on the Larut hills, but then they are more than two thousand feet lower. The last time I was at the Resident's Cottage I noticed that the same habit which is common amongst domestic cats, of eating grass as an emetic, is also in vogue amongst the larger felidæ; but as grass was not at hand, rattan leaves had been eaten instead, and apparently with equally satisfactory results as regards the patient.

A fact which does not seem to be in conformity with the generally received ideas of the habits of the gibbons, is that on both of my ascents of the summit of Gunong Batu Puteh I heard the cries of *siamangs* at between 6 and 7,000 feet altitude. One would have thought that the climate was too cold and bleak for such delicate animals, but it appears that they can and do voluntarily stand a considerable degree of cold without any inconvenience. It is, therefore, probable that want of exercise and proper food has been the real difficulty in the way of sending them to Europe, and not the climate.

At the higher camp they were to be heard nearly every day, and on one occasion they were making a great noise in the middle of the night, which, by the bye, was a moonless one. On the other hand the whole time I afterwards stayed at the lower camp I never heard them once.

In the evening the wind rose and howled through the cave, making us all shiver again with the cold.

The Sakais made a large fire in the end of the cave opposite to that from which the wind came, and they and the Kling sat shivering and groaning round it all night and the rest of us had very little sleep, for besides the cold and wet, the *lanti* floor was slanting and made of the most crooked, windblown and uncomfortable pieces of wood that could be well imagined.

When it began to get light on the morning of the 10th the wind and mist were still drifting through the cave, everything inside it was glistening with dew-like drops of water, and the rain was still falling outside. Then that most trying of all trying jungle operations had to be gone through—that is, getting out of bed and into one's cold sopping wet clothes of the day before.

At about 8 A. M. we again went to the summit and stayed there about an hour and-a-half, but instead of clearing, the fog got thicker and the rain heavier and so we returned to the cave and packed up the plants and the other things and then as the rice was all finished proceeded down the hill to the camp, the rain continuing heavily the whole way.

The summit, looked at from Tapa, gives the impression that it is rounded in outline and of considerable area, but in reality it is a sharp, thin ridge running in a N. N. E. & S. S. Westerly direction and if viewed from either of these directions it would probably present a pointed, conical appearance.

The following temperatures were taken at the cave :—12.30 P. M. 58°, 3.15 P. M. 57°, 6 P. M. 56°, 7 A. M. 55°, 9.30 A. M. 56°. I am sorry I had no minimum thermometer with me, as it must have gone down in the night several degrees lower than the reading here recorded. I should think that on the grass on the summit, during clear, calm, starlight nights, the freezing point must sometimes be reached.

On our arrival at the camp we found letters containing the sad news of Mr. EVANS' death from cholera at Tapa on the 7th and in consequence Mr. C. WRAY, who had joined me at Kuala Woh on the 6th and made the ascent of Batu Puteh in the hopes of getting a view, went straight on down the hill to the camp on the Woh. Mr. EVANS arrived in Tapa on the day I left, and I saw him for a few minutes at the Rest House. Almost all those who have been engaged in the work I have been

doing, have died within the last nine months. That is, Messrs. SCORTECHINI, KUNSTLER, CAMERON, and now Mr. EVANS.

I found when I came to put the collection of plants into paper, that they numbered 34 species, so that although owing to the state of the weather we were not able to make any topographical notes, the number of plants compensated, in a measure, for the discomforts of the trip.

In the evening HARISON was taken ill with diarrhœa, and was writhing and groaning with violent pains in the stomach, which we thought might be the beginning of an attack of cholera, but it fortunately passed off after one dose of chlorodyne and brandy, which quieted him and sent him off to sleep.

Six Sakais had come up in the afternoon with the remainder of the things, which they left at the lower camp, and on the 11th they carried down the baggage from the upper camp, and we all moved down in the afternoon. Unfortunately JELLAH had an attack of fever, and MAHRASIT was laid up with swollen feet and legs, thus reducing the workers by two. Quite close to the house was a tall tree which had been partly cut through, but had not fallen, so I got the Sakais to go on cutting it, as the cut had been begun so high up the stem that my remaining Malay would not attempt it, for it required the agility of a monkey to climb down from the stage to get clear of the tree when falling. The wood was very tough and hard and it was not till about 8 o'clock that it came crashing down. For about an hour or so the Sakais had to work by the light of *dammars*. Next morning (12th) I found it was a species of oak, and obtained fruiting specimens of it and of three other trees knocked down by it. I also collected 21 other species of plants, and caught a butterfly, a new species of the genus *Loxura*, besides several other insects. That rare and beautiful butterfly *Clerome fannula* seemed to be quite common, and also a *Delias* nearly allied to *D. parthenope*. The latter extends up to the summit and was the only butterfly I noticed there. *Clerome fannula* I find to be a very variable species, the variation being present in both sexes. The extremes of variation I took at first to be distinct species, but a larger series of specimens showed that there were intermediate, connecting links, joining the two.

I found that a considerable portion of the flora of the higher mountains was continued down to quite moderate altitudes, but whereas on the summits of the hills it grows in the ground, lower down it grows on the tops of tall trees. In felling the jungle for the lower camp many rhododendrons, nepenthes, myrtles and other plants which occur on the extreme summits of the hills were found. This seems to show that temperature is not so essential to their growth as free exposure to the sunlight and air, and that epiphytism may be only an acquired habit in many and perhaps in all plants.

On the 13th and 14th the house and drying stages for sunning the botanical specimens were finished, and collecting was carried on. I obtained a snake that I have not seen before, in the attaps of the house, with a sharp dorsal ridge and light red eyes; also a tree frog of the same species as the one I collected on the Larut hills last year *(Phrynella pulchra, Blgr.)*. These little creatures live in holes in trees, and at night make the whole jungle of the hills resound with their pretty flute-like notes. They are in appearance something like little brown bladders with four legs, the head forming only a slight projection between the front legs. They are very difficult to collect, as they refuse to quit their holes, which by the way are usually high up in the trees, and it was not till I hit on a method of expelling them that I was certain as to what produced the nightly chorus of musical notes. This method is to climb up the tree and fill the hole with water, then drop in some salt. In a minute or two out hops the little frog, and if it is well washed in fresh water it is none the worse for its saline bath, as I have proved by keeping several of them alive for some weeks afterwards to watch their habits. At the higher camp on Batu Puteh they are very scarce, apparently it is the top of the zone inhabited by them and the bottom seems to be reached at a little below 3,000 feet, so that it may be said that their range is from slightly below 3,000 feet to a little above 4,000 feet. Higher up the hills their place is taken by a species with a loud, deep, low-pitched booming but musical note, and lower down by a species with a note resembling that of the common crow, repeated twice. The lower limits of this

species I have not ascertained but I cannot recall hearing it below 2,000 feet. These heights hold good both here and on the Larut Hills, and, therefore, I presume generally in this part of the Peninsula, and as these zones seem to be much more constant than those formed by various plants, in the absence of an aneroid, the "frog barometer" may be very advantageously employed in the rough estimation of altitudes.

I captured an extremely beautiful leaf-like grasshopper. It was pale emerald green with claret edging to the wings and claret legs and cheeks. On the body and wings were rows of dark centred blue spots and the feet were bright yellow. It measured 4½ inches in length and had black and white banded antennæ, 8 inches long. It was one of the most elegantly coloured insects that could be imagined, but the colouring is almost certain to fade in drying, as it unfortunately nearly always does in this class of insect.

I caught a specimen of a rare *Mycalesis* and a very handsome *Elymnias;* an almost perfect mimic of the common *Euplæa midamus.* I watched it for some time flying about, but fancying it a common insect left it alone. Afterwards when it was settled I examined it more closely thinking it might be the rarer *E. mulciber* which is distinguished by having no marginal row of white spots on the posterior wings, but the row of spots was there; then I noticed that the margins of these wings were serrated, which being a character absent in the *Daniædæ*, I at once caught it and found it to be an *Elymnias.* Two other rare butterflies were also obtained, a *Stiboges nymphidia* and a species of the genus *Prioneris.* The latter being almost certainly a new insect.

From the 15th to the 22nd we continued collecting as well as possible, but owing to the rain we could not go out much, and the rain also caused much trouble in our attempts to dry the botanical specimens. All hands being continually at work putting them out in the sun and bringing them in again to escape the frequent showers of rain.

Amongst other plants that were collected during this time was a singular anonaceous, tree, which had long, flexible, leafless branches on the lower part of the stem.

These branches reached down to the earth and, for a great part of their length, were buried and out of sight, but the extreme ends stood up nearly vertically from the ground at perhaps 6 or 7 feet from the tree and bore pretty sweet scented, cream coloured flowers and bunches of dark velvety brown coloured fruit. The object of such an arrangement and the causes which have led to it form a scientific puzzle well worthy of solution.

On the 21st I went up to the higher camp, and from there to the rock on the top of the spur, and found a very handsome *Rhododendron* in flower; it was quite a small bush and was growing on a piece of moss-covered rock. The flowers, which were nearly two inches across, were borne in large bunches and were of a colour resembling the yellow *Allamanda* commonly grown in the gardens in the Straits. I brought down the root and planted it in a basket and I also brought down young plants of 5 or 6 other species, some of which I had previously planted in baskets while living at the higher camp. Near the place where the *Rhododendron* was growing were three roots of a large and pretty fern, the fronds were about sixteen feet long and the stem was covered with a blueish bloom. The spores were contained in small oval capsules, which opened by a single slit along their greater diameter. These were the only three plants of this beautiful fern I had then seen, though on the hills near Ulu Batang Padang I afterwards saw others. On the way down while going after a monkey I came upon a large fir tree of a different species to that which is so common on the summit. It had light, graceful, feathery branches and the leaves were extremely minute. In appearance it is much like the *Casuarina* that is so much grown in Penang. Unfortunately it was not in fruit, nor did a prolonged search beneath it reward us with any old cones.

I had the bird trap set again, but without success. Among other birds shot during this time was a large and handsome red-headed trogon. This may be *Harpactes erythrocephalus*, Gould., which is recorded from the hills of Eastern Bengal, the Himalayas and the hills of Tenasserim, but has not been met with in the Malay Peninsula as yet. Another was a broad-bill, closely allied to, but apparently distinct from, *Corydon*

sumatranus, Kaffl., also a blue-backed flycatcher, a red and a green-backed, yellow-crested woodpecker. Most of these will, I hope, turn out to be either new or at least new to the Peninsula. I also succeeded in catching two more of the little tree frogs I have already mentioned, and three of a much larger frog which, however, has nearly the same habits and vocal powers. It is of a very rugged appearance and of a chocolate colour with cherry red hands and feet and beneath it is mottled with black and white.

It has been identified provisionally by Dr. A. GÜNTHER as *Polypedates leprosus*. When on the trunk of a tree it is quite invisible, from its exact resemblance both in colour and texture to a piece of reddish brown bark, and is a very good example of mimicry of an inanimate object. This frog was spawning, and last year near the Resident's Cottage on the Larut Hills, in the month of September, I found a quantity of its tadpoles. The spawn is a jelly-like mass deposited just above the water line on the wooden sides of the hole.

There is on Batu Puteh a rather pretty snail. The shell is light brown with a white stripe running round it, bordered on each side by a band of green. It appears to belong to the *Helicidæ* and in a full grown specimen, measures nearly 2 inches in diameter. It is evidently nearly allied to the large *Helix* which occurs on the higher parts of the Larut Hills. Near the extreme summit of Batu Puteh I found a snail of a species I have not seen before.

At this time I suffered a good deal from the bites of a minute mite, probably a *Tetranychus*, which produced inflamed lumps all over me, each lump lasting for several days and itching and smarting intolerably, particularly at nights. This insect has much the same effect as the well known English "harvest bug" which is also a *Tetranychus*. Ticks of both the large and small variety were unpleasantly abundant in the jungle near the camp, but fortunately leeches were seldom met with.

On the 22nd in climbing up out of a steep rocky ravine, with a gun in one hand and some fungi I had just been collecting in the other, I slipped and fell, giving my back a strain which kept me in for the next two days and hurt more or less for over a month afterwards.

The 23rd and 24th were both very wet days, and on the latter it hardly stopped raining at all, so that not much could be done; but I had some trees cut down to get a specimen of the gigantic rattan known by the Malay name of *rotan kumbah*.

It was about 200 feet in length and at the thickest part of the cane, which is near the top it measured 5 inches in diameter. Near the root, however, the cane only measured ¾ of an inch. The leaves were 24 feet in length and armed with most formidable hooked thorns. The fruit is borne on the terminal shoot and forms a tassell-shaped bunch some 8 or 10 feet in length. From what I have seen of this rattan I believe it only fruits once and then dies. Four of the trees that were felled were either in fruit or flower so that the work was not thrown away. We also collected a rather handsome bird, with a bright orange-vermilion bill. It appears to be a species of the genus *Rhinocichla*. In the evening of the 24th we got a second specimen of the large red-headed trogon.

The weather from the 25th to the 31st continued very wet and cold, with the exception of one day, the 26th; on the preceding evening the thermometer went down to 62° in the house at about 8 P. M., the coldest I saw at the lower camp. The highest temperature I noticed while there was 78°. The climate, therefore, corresponds very closely with that of Maxwell's Hill in Larut.

I had a great many trees felled during this period and preserved specimens of all that were either in fruit or flower. By this means I secured specimens of some of the larger trees, which, of course, it is hopeless to get in any other way. Had I had a telescope or a binocular this work would have been much easier. As it was many of the trees when felled were found to have neither fruit nor flower. However on some of these I found epiphytes, parasites and creepers of interest. Among the parasites were two plants closely allied to the English mistletoe, one being an almost exact resemblance of it but slightly smaller, the other had rather rounder leaves.

In the jungle near the camp I found a fine fir tree. It was fully one hundred feet in height and had a trunk of between 4 and 5 feet in diameter. From what I could see of it I fancy it is a different variety to that I mentioned a short time ago, but

again a careful search under it gave no results in the shape of cones.

I found 4 or 5 species of *Burmanniaceæ* on Batu Puteh, at different elevations. They are small, mostly leafless plants, often parasitical on the roots of other plants. *Burmannia longifolia* is very plentiful with pretty pale bluish flowers. This species is also found on the mountains of Borneo, Amboina, New Guinea and on Mount Ophir in Malacca. The other species are very much smaller and require diligent searching amongst the dead leaves before they are discoverable. The flower of one was primrose yellow, another dull crimson, one purple and another pale straw colour. All these latter are delicate, fragile, semitransparent little plants.

On the 27th I sent down two men loaded with bundles of dried plants and I sent letters asking for coolies to take all the baggage down to Tapa on the 3rd or 4th of September. By which time I considered we ought to have about exhausted the place. Early on the mornings of the 26th and 27th a tiger was heard quite close to the camp making that peculiar noise which cannot be properly described as growling. I must say it would have been far pleasanter if the tigers had not kept hanging round our camps in the way they did.

Some way below the camp I caught three specimens of a very handsome butterfly. It was a species of the genus *Thaumantis*. Above, it is various shades of rich brown with a diagonal band of azure blue on each fore wing. This lovely insect only frequents the forest of the higher hills as far as my observation goes, and like all the members of the genus is very difficult to catch, because the undersides of the wings are, although when examined closely of singular beauty, still when seen from a little distance so like the tints of a dead leaf that it is usually not seen till with a flash of brilliant blue light it flies off perhaps from almost under your feet. There is no doubt that insects are well aware of the colour on which they will be least exposed to the observation and attacks of enemies. This *Thaumantis* always settles on dead leaves or in a position when it may be mistaken for one. There is a moth, very common in the jungle near the lower camp on Batu Puteh, which is of a pale fawn colour and it is perfectly astonishing

how it always alights on a leaf of its exact shade of colour. Although so plentiful I had great difficulty in capturing a few specimens from this habit of rendering itself invisible.

On the 1st and 2nd of September tree felling was continued, and I obtained 41 varieties of plants, a considerable portion of them being large trees. Growing as a creeper on one of the trees was a very pretty fruited *Chilocarpus*. The fruit of which was of a bright orange colour. The effect of the brilliantly coloured fruit amongst the shiny dark green foliage was very striking, and was increased by the yellow flowers and bright red terminal buds to the shoots. These terminal buds are very curious. The colour is caused by the buds being encased in a semitransparent cap of bright red resin. These caps may be detached and are found to be slightly flexible, but at the same time so brittle as to be easily crushed up into powder. They take the form, in a great measure, of the enclosed buds, which the flexibility of the material under continued pressure renders possible.

A plant which deserves to be grown is a small tree with large velvety green leaves, bright crimson beneath. I saw one tree here and several more afterwards in the valley of the Telum. The flowers though inconspicuous are very sweet scented, smelling like sandal-wood. This tree if it would grow in the lowlands would be a great addition to the ornamental trees now grown in the Straits and though more brilliant, would have much the same effect as the copper-beach has in a group of ornamental trees in an English garden.

Of other plants that I met with on Batu Puteh which would repay cultivation I may mention six or seven species of *Didymocarpus* and allied genera, with flowers ranging in colour from white to primrose yellow, and from that to shades of violet and deep claret. Some of the leaves being also very ornamental, both in colour and form. The various species of *Æschynanthus* with their rich red flowers and almost equally beautiful bell-like calyxes deserve far more attention than they receive in the Straits; and some of the *Sonerilas* with quaintly white spotted leaves, from the lower hills, are also worth cultivation.

Of birds we got a specimen of a fine large green woodpecker and another woodpecker of large size that I have not seen before, a handsome-plumaged, yellow-breasted trogon *(Harpactes oreskios)* and a species I do not know, besides three specimens of the pretty little yellow-crested sultan tit. This bird does not seem to differ from that met with in the low country. While hunting in the undergrowth for one of these birds I was stung on the face and hand by one of those handsomely coloured hairy caterpillars. The effect is like receiving several stings from a wasp, and for a few hours is extremely painful. The stinging is apparently produced in the same way as in the common stinging nettle, that is to say, the hairs are hollow and have near their bases enlargements containing a poisonous fluid which is expelled from the points, when the hairs enter the flesh. Other caterpillars have stinging powers, but then the irritation is mechanical and is produced by the hair being barbed and breaking off into the flesh. The large scarlet caterpillar met with in the jungle of the low country and much dreaded by the natives is of this latter class. The Malayan stinging nettle known as *jelatang*, I have examined under the microscope, and it stings in the same way as its English representative.

While writing this I was interrupted by JELLAH, who had just found a large dark metallic green scorpion *(Buthus spiniger)* in his bed. A chase ensued with the aid of lanterns, but the disagreeable bed fellow escaped through the *lanti* floor of the house.

On the third we got one new bird, and on the fourth I shot two small brown barbets which I have not seen up so high on the hills before. On the 5th another new bird was shot besides a male yellow trogon and several others.

Some more trees were felled, among them being a fine oak with very large acorns. I shot down a specimen of the fir tree I have previously mentioned and found it to be, as I thought, another species. There are, therefore, three species on Batu Puteh and a fourth on the Larut Hills *(Dammara alba)*, but this latter has large broad leaves unlike those on the main range.

Seven Sakais from Cheroh came up to carry down baggage, so I packed up things that were not wanted, as it seemed un-

certain when the remainder of the men were coming up. In the afternoon I measured them and tested their eyesight. I have now tested the sight of between thirty and forty of both sexes, and there seems to be no doubt that they have very good sight as a race. Of those tested in Batang Padang, the shortest distance that the Army test spots could be seen was 32 feet, and the longest 91 feet. In testing recruits for the British Army 20 feet is considered an average distance for these spots to be read, and a man reading at over that distance is classed as long-sighted, and under as short-sighted. In measuring the women there was great difficulty, as they did not know Malay and could not count. This same difficulty has been met with by observers of other savages, but I got over it by giving the subject a handful of matches and explaining by signs that I wanted a match for each spot on the card held up.

Early on the 5th these Sakais went down the hill and reached Tapa on the next evening.

All the botanical pressing paper was finished by this time, so I had to stop collecting plants.

On the evening of the 6th I shot a very handsome bird, with a snow white head, yellow breast and brown back, wings and tail, the latter being white tipped. The eyes were bright yellow and the bill pale flesh colour. It appears to be closely allied to the white-headed shrike-thrush of Burma and the mountains of India (*Gampsorhynchus rufulus, Bl.*). This bird gave us a great deal of trouble, for every night and early each morning a small party of them used to pass the camp, sometimes on one side and sometimes on the other. They made a loud, shrill noise something like the *krekah* monkey, and flew quickly from tree to tree. Day after day we went out into the jungle to watch for them, but as there was no certainty which side of the camp they would take, and as they always passed when it was so dark in the forest that neither they nor the sight of the gun could be distinguished, we were never successful until this night in shooting one, although we fired at them on five different occasions. The strange thing was that we never saw these birds in the day time. They passed up the hill to roost at nightfall and down again the

first thing in the morning. Their note is so loud and distinctive and they are so noisy that they could not be mistaken for any other bird, or overlooked.

From the 7th to the 10th we continued collecting, but got nothing of special interest. I had some trees felled so as to get a view of two fine *dudok* palms, and then took a photograph of them and afterwards had one cut down to get specimens as it happened to be in flower.

On the 7th and 8th I saw the fresh marks of a bear on the trunks of two trees, one above the camp and one below. These are the only animal marks, excepting those of tigers, which I saw on Batu Puteh.

At about 10 A. M. on the 10th some Sakais and Malays began to arrive, and so we all set to work packing up the collections and other things, and at 7.30 on the 11th we started for Tapa. On the way I stopped at the camp on the banks of the Woh at the foot of the hill and took a photograph looking down the stream, with some Sakais crossing the tree trunk which forms a natural bridge over the river at this point. I reached Kuala Woh at about 1 P. M., but the men with the baggage did not begin to arrive till about 4 P. M., and it was not till nearly 5 that I set off down the river in the smaller of the two boats, a dug-out, which had been sent to meet us, with MAHRASIT, my Malay boy and a Sakai to pole. I was just preparing to have something to eat when the boat shot down a small rapid, then across a pool so deep that the poles could not touch the bottom and alter her course and the next instant she ran on to a rock and turned right over and we and all the baggage went floating down the stream. I made for the photographic apparatus and shouted to one of the men to catch the gun cases as being the most valuable things. After a delay of about half-an-hour, occupied in collecting the various floating things, catching, turning over and bailing out the canoe we made a fresh start, and, with the exception of grounding several times, reached Tapa without further mishap at about 7 P. M. The river the whole way is a succession of small rapids with here and there deep pools. I heard that the place where our canoe capsized has been the scene of many a similar misfortune.

The next day, the 12th, the rest of my party and the remain-

der of the baggage arrived, and I was busy in cleaning and drying the photographic instruments, guns and other things which had been wetted in the river, and in the evening, when I opened the dark slides I was sorry to find that the water had got into them all and spoiled the plates.

On the 13th I had a quantity of Chinese paper cut to size and began shifting dried plants from the pressing paper into it, and early the next day, the 14th, some men were sent with my boy to dive for the things which had been lost when the dug-out upset. They recovered some of them, but a good many still remained at the bottom of the river, though, fortunately, they were of no great value.

Shortly after seven the same morning, I accompanied Mr. STALLARD and my brother to the valley of the Sungei Klian Mas. We struck the stream near its junction with the Batang Padang River and waded up it for three or four miles. We made several trials of the earth forming the banks, and in nearly all obtained good shows of not only tin-sand but also of gold. Some fifteen years ago or so there was a Malay *kampong* on the banks of this stream, and the inhabitants subsisted principally by mining, but as they refused to pay blackmail to Sheik MAHOMED of Lower Perak, he came up with some fighting men, and burned the houses down and drove away the inhabitants.

We saw many of the old workings in our progress up the river, which we followed to near its source, and then ascended a low range of hills which forms the watershed between the streams flowing into the Batang Padang above the River Tapa and the streams flowing into the Bidor River. We then followed along on the top of this ridge until we came to another river, and from there we went to a place on a tributary of it called the Sungei Chuchu, where some Malays were going to begin mining. We washed some of the earth of the banks of the stream, and obtained samples of very good coarse grained tin-sand containing gold. The tin was found to occur from the surface of the ground down to the bed rock, which, both here and in the valley of the Sungei Klian Mas, consists of beds of slates and clay slates with frequent veins of quartz intersecting them. No trace of granite is to be found

either on the range of low hills from which these streams take their rise or in beds of the streams themselves, so that it seems clear that the minerals found in the "wash" in these valleys must have been derived from these stratified formations. The more I see of this district, the more I feel convinced that all the gold has come from these rocks and that if any auriferous lodes are hereafter discovered, they will be found intersecting these ancient stratified beds. I have seen specimens from the gold mining district of Patani, which could not be differentiated from the rocks of the gold mining districts of Batang Padang, and I have no doubt that the same formations will be found in the Pahang gold fields as well.

The grains of gold are not much waterworn, and some of them have adherent fragments of quartz. The tin-sand is coarse grained, blackish, dull and considerably rounded, and would give from 65 to 70 per cent. of metallic tin, according to to the care taken in cleaning the sample.

After having well examined the wash and also the bed rock and its contained veins of quartz, and obtaining sufficient tin-sand to make a good sample, we returned to Tapa, reaching that town in one and three-quarter hours. The track is extremely crooked and much longer than there is any necessity for it to be, and I do not think that this newly found tin and gold land can be more than 3 or 4 miles from Tapa.

There seems to be every reason to suppose that on both sides of the Batang Padang, between Tapa and Kuala Woh, auriferous tin mining land will be found to extend, for, as I have already mentioned, the geological exposures along the river between these two places are all of one formation and of that formation from which it may be with certainty said that the gold, at least, has been derived.

Some time ago I made a series of experiments on some quartz specimens from Klian Mas, and in every case, except one, gold was obtained, though in unremunerative quantities (one to two pennyweights per ton).

From the 16th September to the 4th of October, I remained at Tapa and, as many trees and plants were in flower, did a large amount of botanical collecting. I also looked over and

dried all the collections from the hills and packed them up, and made preparations for the trip to Ulu Batang Padang and Gunong Brumbum.

JELLAH had an attack of ague and then dysentery and was unfit for work most of the time, so that not many birds or animals were collected. MAHRASIT was also in the hands of the Apothecary most of the time, and MAHMOT was so ill with fever that I paid him off and engaged another man in his place. I paid another visit to Chendariang and also to Klian Mas and Sungei Chuchu, to which a new track had been traced, suitable for a cart-road, and was found to measure only two and-a-half miles from Tapa.

On the 5th October we left Tapa and proceeded to Kuala Woh and put up for the night in an empty house at that place, and at 8.15 A. M. on the morning of the 6th continued our way up the valley of the Batang Padang. The party consisted of 60 in all and even then we had to leave a quantity of rice and other things at Kuala Woh for want of transport. The difficulty on these expeditions is that the rice, fish and other necessaries for the transport coolies, employ more than half of their number and so leave only a few men available for the baggage of the rest of the party.

Both branches of the river having risen about 4 feet during the heavy rain of the preceding night, the Batang Padang was not fordable, and so we all had to cross it in boats, which was safely accomplished with the exception that one Sakai with his load tumbled head over heels into the river. There was great excitement amongst our Malays, as it was thought that his load consisted of the salt and sugar, but an investigation showed it to be only rice.

We then followed a N. E. and subsequently a N. W. course keeping close to the river all the way. The river is practicable for boats only for about half a mile above Kuala Woh, beyond that there are many small waterfalls and boiling rapids through which no boat could pass. At Lubo Tiang, where we camped for the night, the angle at which a long reach of the river is falling is 1.10′ or about 1 in 45.

After leaving Kuala Woh we passed over many exposures of stratified rocks and it was only in the latter part of the

day's march that we met with granite, and then only in patches. The granite is very like that of the Larut hills and quite distinct from that of Gunong Batu Puteh and the Woh valley, but there are in the river rolled pieces of granite with the bluish quartz in them. These are probably derived from tributaries flowing into the river from the South-East, which have their sources near Batu Puteh and Brapit. At the camp we made a washing of some of the surface soil, and got a very fair show of tin-sand.

On the 7th, we reached Rantau Tipus and camped on the banks of the river after a six hours' march. The height of this place was 1,520 feet above sea level.

During the day we saw a quantity of that most graceful of all bamboos, known by the native name of *buluh arker,* as well as an abundance of *buluh telor*, and several clumps of *buluh bersumpit*. This latter is the bamboo which is used by the Sakais to make the long straight tubes of their national weapon—the blow-pipe. During the latter part of the day we came on the gigantic bamboo, *buluh betom,* with stems six to eight inches in diameter and sixty to eighty feet high.

The young shoots of this plant are edible, but not very nice to an European palate, though both the Malays and Sakais greedily devoured them, cooked and uncooked. Many of our Sakais made boxes of these bamboos and crammed into them all their clothes, and thenceforth appeared clad only in a two-inch wide strip of bark cloth.

The next day's march (the 8th) took us to the Kuala of the Sengum, where we camped. With the exception of a few patches of stratified rock, all that we passed over during the previous day's march was granitic, and granite again was the most plentiful rock met with between Rantau Tipus and Kuala Sengum, with here and there a patch of gneiss. Several large quartz lodes were seen, but they contained no indications of being metalliferous. One washing was made during the day in a ravine, and a fair show of tin-sand obtained.

A great part of the track lay in the bed of the river, and wading through the cold water, and climbing over the slippery stones and rocks was anything but pleasant when continued for hours at a time.

The flora of this part of the valley of the Batang Padang seems very different to anything I have yet seen on the hills of Perak. The height of this part of the valley is about 2,000 feet. One noticeable plant was a very handsome member of the *Melastomaceæ* with large bunches of coral pink flowers, succeeded by equally handsome bunches of bright red or purple fruits. I collected 30 plants during the day, and could have got many more, but considerations of transport and preservation deterred me. In an evil moment we were induced by assurances and example of some of the Sakais to eat some pretty apple-like fruit with which a tree, growing by the side of the river, was laden. The fruit, though pleasant at first, left a very disagreeable aftertaste, and we suffered for the remainder of the day with sore mouths and lips. It was a species of the genus *Garcinia*, of which the *buah gluga* is a well-known and closely allied example.

On the 9th we did not break up the camp, as we had decided to await the arrival of KALANA and the Sakais with him.

I sent JELLAH out shooting, and then we went up Gunong Chunam Prah, and reached a height of 3,350 feet. I saw a considerable number of new plants, and collected 18 species—some horse tails *(Equisetum)* an *Arundina (A. bambusifolia)* (?), a large cream-coloured *Dendrobium*, &c. I then saw for the first time a blackberry, which grows amongst the *bluka* on the old Sakai *ladangs*. The berry is red and long and has something of the same flavour as its English ally. The leaf and method of growth is also very similar. Raspberries were also common in the same situations, but the fruit was small and nearly tasteless. Fan palms of a size exceeding a coco-nut tree were very plentiful, and formed quite a feature in the jungle of the surrounding hills and valleys. The leaves are used by the Sakais to thatch their houses, and, owing to the extreme hardness of the stems, they are not in the habit of cutting the palms down when felling the jungle for their *ladangs*, which probably accounts for their great abundance.

A great part of the tops of the ridges running up to G. Chunam Prah are bare of trees and covered with ferns, grass and the handsome *Arundina* I have already mentioned.

On returning to the camp I found that JELLAH had not seen

any new birds, and all those I had seen during the day were of the same species as those we had previously collected on Gunong Batu Puteh. Later on in the afternoon, KALANA and 14 Sakais arrived with more rice and stores.

Early on the morning of the 10th we sent back KAREM and 16 Sakais to Kuala Woh to bring on more baggage and stores, and then started on again up the river. MAHROPE having a bad foot we had to leave him and a Kling, who came up with KALANA the day before at Kuala Sengum, until he was well enough to follow us. We passed a pretty waterfall during the day, formed by a tributary falling into the Batang Padang from the right, as you go up stream. There was a fine rainbow formed by the spray, which the Malays would have it was a *hantu*.

We camped again on the banks of the river, and on the 11th followed it up for some hours. The track taking us over some places which were anything but easy walking, or rather climbing. We then left the river, shortly after passing a fine waterfall, or more properly succession of falls, and ascended Gunong Ulu Batang Padang, and camped on its N. E. face at a height of 4,170 feet above the sea.

On the 12th we went up to the summit of the mountain, and from the "Crow's Nests" on the top of the trees, that were made some six months before by KALANA during the first expedition to these mountains; and were so fortunate as to obtain fine views of the Kinta Hills and the intervening country. I took two photographs, from one of these unsteady and perilous perches, of the hills and valleys which constitute what is so inaccurately described as "Cameron's Plateau."

We decided that the route taken by the late Mr. CAMERON must have been through the valley next to that of the Batang Padang, and divided from it only by the Laut Tingal ridge, and not more than four miles distant, as the crow flies, from the mountain we were then on.

On the 13th we again went up to the "Crow's Nests" to make sure of some of the hills which we could not make out on the previous day, and to settle on the course to take to reach Gunong Brumbum. This day we distinctly saw Batu Gaja in Kinta, bearing 283.30. This sight removed all doubt as to the

course taken by Mr. CAMERON in his journey from the Sungei Ryah to Pahang. Gunong Brumbun was exactly E. S. E. from us, but there was a valley and then a mountain, rather higher than the one we were then on which was 5,270 feet high, and then another deep valley to be traversed before the real ascent of it could be commenced.

On our return in the afternoon to the camp, we found MAHROPE had arrived. His foot was nearly well again, we were glad to see. With him were the Sakais who were sent back on the 12th to bring on the baggage left at Kuala Sergum.

On the 14th we moved to a new camp which had been prepared during the two preceding days on a better site than that occupied by the old one and with a small clearing round it, so as to allow of the sun drying off the numerous botanical specimens we had been collecting.

Early on the morning of the 15th we, that is, 3 Malays, 2 Klings, 16 Sakais and ourselves, left the new camp in charge of JELLAH and a Malay, after having discharged all the other Sakais, and ascended nearly to the summit of Gunong Ulu Batang Padang, then struck down the S. E. face of it, passing the old camp made by the previous expedition, and skirted round the hill till we came to the Gunong Ulu Sekum, round the eastern face of which, we also went, then crossed two long projecting spurs of it, and descended by a gully to the valley of a tributary of the River Jalai, on the banks of which we camped, at an elevation of 4,590 feet. This stream takes the drainage of the N. W. slopes of Brumbun and the S. E. slopes of Gunong Ulu Sekum and flows down in an E. N. E. direction to join the Jillah, as the upper part of the Pahang River is called.

Near our camp I again saw the same handsome yellow-flowered *Rhododendron* that I previously met with on Batu Puteh, but this time it was growing as an epiphyte high up on a huge tree.

I captured in the evening a particularly handsome member of the *Glomeridæ* family, probably belonging to the genus *Zephronia*. It was one of those creatures much like a large woodlouse, but really nearly related to the *Julidæ* (*Millepedes*). It was black striped transversely with pale blue-green and

orange. Each pale blue-green stripe having three spots of a deeper shade of the same colour on it.

During the night the rain came down in torrents, and as the roof leaked badly we had a very disturbed and uncomfortable night.

On the 16th we ascended a ridge near the camp, and after many hours of climbing, through a singularly dense and thorny undergrowth, we came to a sort of saddle where there were some small pools of water, at a height of 5,890 feet, where all decided to camp.

While the huts were building we went on up the hill and reached the lower of the three points of the mountain, as seen from Tapa, but everything was wrapped in thick drifting fog, so we could see nothing of the view.

Again we had a miserable night, as the hut leaked worse than that at the last night's camp, and there was nothing for it but to roll up our bedding, place it so as to escape the worst leaks, and sit on it, while the rain lasted, which, unfortunately, was a good many hours. Next morning, the 17th, we again ascended the hill, and reached the highest point, and left a bottle there with a record of the ascent. We had our bedding and other things brought up, and laid out to dry, but it soon began raining and after waiting till between 11 and 12 o'clock and seeing no indication of the clouds either lifting or drifting away, we reluctantly returned to the camp and packed up, and started down to the permanent camp on Ulu Batang Padang, which we reached at a little before 6 p.m.

On making this ascent I fully expected to see a great change in the flora as the summit was reached, and was much disappointed to find it nearly the same as that on Gunong Batu Puteh.

There was one very handsome *Rhododendron*, with large white flowers delicately tinged with apple-blossom pink, growing freely and plentifully on the extreme bush covered summits. Another member of the same family had tiny bright yellow, bell-shaped flowers and small roundish, shiny, dark green leaves. One very marked difference between the flora of Batu Puteh and Brumbun is the total absence of fir trees on the latter mountain. The small bamboo called by

the Malays *buluh perindu* is, on the other hand, extremely plentiful on Brumbun and comparatively scarce on the other hill. I was fortunate in being able to collect flowering specimens of this elegant little bamboo, which is credited with mystic properties by the natives, and is in much request by love lorn swains, whose mistresses are cold and irresponsive. In all I added 47 species of plants to my collection, but this number fell far short of what I had expected.

The height of the highest point of Brumbun as shown by the aneroid was only 6,860 feet, but I think that there must be some mistakes about this, but whether arising from any fault in the instrument or from the disturbed state of the weather at the time of the ascent, I am unable to say. Unfortunately we could not see Batu Puteh, and on neither of my two ascents of that mountain was I able to get a sight of Brumbun, but undoubtedly the latter is much the loftier of the two. One thing is certain, that within a radius of 20 miles, there is no other mountain higher than Brumbun, with the possible exception of Yang Yop. Mr. SWETTENHAM, some few years back published a note in the Straits Royal Asiatic Society's Journal on a new mountain seen in Perak from Gunong Arang Para, and from that description and the bearing he gives (102°) Brumbun is most probably the peak he then saw. This mountain is in Pahang, as the water from all faces of it flows either into the Sungei Inchi or the Jillah, and subsequently into the Pahang River. The valleys at the base of the mountain contain much excellent planting land, at about a mean elevation of 4,000 feet. There is also good land on the lower slopes of the mountain itself, but the higher portions of it are very steep, though the soil appears to be of exceptional richness.

The 18th was occupied in drying clothes and bedding, and packing up everything ready for a start the next day, as we had decided to try and cut across into the valley of the Telum, and follow up that river to its source, and then cross the hills and descend into Kinta, so as to settle beyond dispute the situation of the planting land explored by Mr. CAMERON.

Accordingly on the 19th we left the camp on Gunong Ulu Batang Padang and directed our course so as to reach the head

of the Batang Padang valley, to ascertain the height of the pass or watershed dividing the waters flowing into Perak on the one side, and Pahang on the other, which we found to be 3,800 feet above sea level.

Our party consisted of 16 Sakais, two Malay boys, KALANA the Malay *krani,* one Kling coolie and ourselves. We only took provisions sufficient for 5 days, besides our clothes; all the collecting things, guns, &c., we left at the camp in charge of JELLAH and my other two men.

The course taken to find the top of the pass was about North-East and the consequence was that we went a long way out of our proper direction, which ought to have been W. N. W. Our progress was very slow, as we had, as on the ascent of Gunong Brumbun, to cut a track the whole way. We camped by the side of a small stream, and while the banana leaf huts were being built, Mr. C. WRAY and I went up a hill near by in the hopes of getting a sight of some hills whose outlines we know, but beyond catching a glimpse of Brumbun we saw nothing that could be recognised.

The next day, the 20th, we took a westerly course which led us diagonally across the Batang Padang valley, and eventually on to the ridge dividing it from the valley of the Telum. On the top of this ridge there was a good Sakai track, which we followed for some time until it began to take a S. W. course, when we left it and struck down a spur in a northerly direction into what we hoped was the Telum Valley, and at about 4 P. M. came to that river, which was about 60 feet broad at the place we first saw it, at an elevation of 3,200 feet. We here camped on the site of one of Mr. CAMERON'S old camps, and by the side of the river was a track which was undoubtedly his track. The elephant marks being still distinctly visible. MAHROPE, who was with Mr. CAMERON on his journey through this valley, told us that two days' march further down the stream would take us to a place where the river was navigable for *rakets.*

Growing along the banks of the river, we found quantities of violets with pale coloured, but sweet-scented flowers, which have been identified by Dr. KING as *Viola Thomsoni,* and are said by him to be common to the mountains of India, Java, and Sumatra. There were also a considerable number of species

of *Compositæ*. It was quite a surprise to us to find these temperate forms of plants in a valley at quite a low elevation when the mountain tops had been found to be covered with distinctly tropical vegetation. The birds I saw here were all hill forms, but I saw nothing that I had not previously met with, either on the Larut Hills or on Batu Puteh; though it is probable that a stay of a month or two would be rewarded by many new species.

This valley and those adjoining it contain some of the finest planting land which I suppose is to be found anywhere on the mountains of the Peninsula, particularly when it is remembered that when the railway is constructed to Tapa and the cart-road from there up the valley of the Batang Padang it will be within a day's journey of a fine port. Such combined advantages of elevation, exposure, easy transport and good soil, are, I believe, not to be met with either in Ceylon or in the hill districts of India.

Mr. CAMERON'S original description of this hill country is fairly accurate if the Malay word "*pamor*," is translated correctly as "valley" instead of "plateau" land. The lofty mountains range closing in the hill country to the East that is montioned by him and estimated to be over 8,000 feet high is Gunong Brumbun, and another large hill mass to the East of it. To the North it is closed in by the Yang Yop range. Two large tributaries having their source on Yang Yop itself and one of them seems to be the largest of the many streams which, flowing down from the North, West and South, eventually form the Pahang River.

On the 21st we followed the elephant track up the valley, but after going some way lost it amongst some half-grown up Sakai ladangs. We then sometimes cut through the jungle and at others followed any Sakai tracks which went in the direction we wished to take. At about one o'clock we came to a place where the river divided, and we followed up the northern branch to near its source and on the top of a hill came on a Sakai house and decided to put up in it for the night.

The owners fled at our approach, so we sent some of our Sakais after them, and about an hour or so afterwards three

some stream and there is thus nothing to guide any one in attempting to follow one. This, we were informed, is intentional and, in times past, was a necessary measure to prevent their being followed and hunted out of their mountain homes by the Malays.

The last crossing of the Kampar was made on a huge tree trunk, by the bare-footed portion of the party and then we took a track leading to Gopeng, which we reached at about 6 p.m., after a march of nearly 12 hours. The ragged and travel stained appearance of the whole party seemed to afford much amusement to the Chinese in the streets of Gopeng, and we were received with shouts of derisive laughter by the crowd round the gambling farm. We put up in the Rest-house, and thoroughly enjoyed sleeping on the plank floor (the beds being engaged) after a three weeks' spell of beds made of jungle sticks.

After buying knives and *sarongs* for the guides, on the morning of the 24th we proceeded to Kota Bharu and on the 25th continued our way, following the Kuala Dipang Road. When about four miles had been traversed MAHROPE was taken ill with fever and became light-headed, and could not walk any further, so he had to be carried to Kampong Plikat and left there in a Malay house, with two of the Sakais to look after him. On reaching Kuala Dipang we sent KALANA and five men, who had arrived by another road from Gopeng, back to Kampong Plikat, to bring him on the next morning. On the 26th KALANA arrived bringing MAHROPE, and we then started, leaving the Kling to look after him, and reached Tapa in 7 hours including stoppages.

The wet weather had by this time set in in earnest, so that I decided not to go up to the camp on Ulu Batang Padang again, but only to send up some Sakais to bring down all the collections left there.

On the 2nd November, KAREM and 15 Sakais therefore left Tapa, and on the 10th the whole of the party returned, and on the 16th we went down the river in two boats to Telok Anson, and reached Larut on the 19th in the S. S. *Mena*.

The botanical specimens collected during the trip numbered 1,200 species, and the birds 187 skins. The plants have all

been sent to the Royal Botanic Gardens, Calcutta, to be worked out, and the birds to the British Museum. I am informed by Mr. BOWDLER SHARPE that there are 9 or 10 new species amongst the collection, thus bringing up the number of new species from the mountains of Perak to 16.

Mammals were very scarce, and did not number more than a dozen specimens.

Of insects and other natural history objects, I made fairly good collections, and added much to the series of Sakai objects in the Museum as well as collecting others to send to the British Museum.

L. WRAY, Jr.,
Curator, Perak Museum.

June, 1888.

GEMENCHEH

(DISTRICT DE JOHOL)
NEGRI SEMBILAN.

PAR MONSR. L. C. ISNARD,

Ingénieur Civil des Mines.

TRÈS-PEU de personnes connaissent même de nom le pays de "Gemencheh." Ses ressources, son rapprochement avec Malacca, ses facilités de communication pour l'explorateur comme pour l'exploiteur, sa richesse en un mot, sont absolument ignorés du publique. Et cependant ce pays est situé à 48 heures à peine de Singapore.

Gemencheh est un des états de la Confédération du Negri Sembilan, par consequent englobé dans le groupe des petits états actuellement sous le protectorat britannique qui a pour ville de résidence Kwala Pilah.

Ce district est borné au Nord et à l'Ouest par Johol, à l'Est par Johor, et au Sud par la colonie de Malacca. Il est traversé sur sa plus grande longueur par un affluent du Muar, le Gemencheh, qui a donné son nom au pays. Plusieurs tributaires de cette rivière arrosant ce pays en tous sens en ferait une contrée d'une grande fertilité, si le nombre d'habitants était en rapport avec ces immensités de terrain. Ses limites de frontière avec Malacca lui permettent de se servir des routes de cette colonie jusqu'à Malacca même, soit 30 milles. Une autre route carrossable de Batang Malacca le met également en rapport avec Tampin, ville frontière du Negri Sembilan. Et de Batang Malacca on peut se rendre au village de Gemencheh par un chemin pratiqué pour faciliter la sortie

des plantations, soit 6 milles. Il suffirait d'une somme relativement infime pour faire de ce chemin une route de grand voie.

Maintenant dans l'intérieure une foule de sentiers vous mettent à même de vous rendre dans les différents endroits de cette contrée sans trop de détours, avantage considerable pour l'explorateur prospecteur. Il est certain que devant le développement que ce pays commence à prendre et la très-grande place qu'il occupera sous peu, non seulement dans le Negri Sembilan mais encore dans la presqu'île de Malacca, le Gouvernement fera le sacrifice immédiat d'une grosse somme pour créer des voies de communication afin de faciliter l'entrée et la sortie des denrées et produits des exploitations minières et agricoles.

Ce pays de Gemencheh est essentiellement minier. Point d'étain, mais de l'or. Il est situé dans les derniers contreforts de la grande chaine séparative de la péninsule. Ces collines quoique peu élevées sont trés abruptes et en forme de cône pour le plus grand nombre. Couvertes de forêt de bois de premier choix elles seront dans l'exploitation minière un puissant auxiliaire. Comme bois de chauffage leur calorique est suffisant pour servir aux machines à vapeur, et comme bois de constructions, menuiserie, traverses de chemin de fer, poteaux telegraphiques leur rôle est tout tracé.

Un même soulèvement aurifère traverse Gemencheh dans toute sa longueur comme dans toute sa largeur. Ce soulèvement, que j'ai à maintes reprises observé, a une direction générale de N.N.W. et S.S.E. Il part de la colonie de Malacca où je l'ai relevé, traverse tout le Gemencheh, coupe le Muar et le Serting, enrichit leurs affluents au passage atteint Tasoh, continue sa marche à travers Pahang, où je le laisse. Ce soulèvement, que j'ai observé dans toute sa marche, n'est point le fait d'un hasard ou d'un excès d'imagination mais bien un effet des observations consciencieusement prises et nettement établies.

1°. La formation aurifère commence très-avant dans la colonie de Malacca. Sur une grande partie du parcours de la route reliant Malacca à Tampin elle n'échappera pas à l'œil d'un observateur. En laissant ce chemin (au 10eme mille

de Malacca par exemple) et en en pénétrant un peu à l'Est dans l'intérieur des terres à 2 ou 3 milles, vous vous trouvez en face des travaux de lavage d'alluvions aurifères executés avec tant de poursuite q'uil ne laissent aucun doute sur la valeur primitive de ces gisements. Il est à présumer que les filons qui ont enrichi ces cours d'eau ne sont pas loin, car le peu d'eau et le peu de pente de ces ruisseaux ne permettent pas un grand entraînement de ce metal si lourd. De ce point en prenant une direction N. S. vous arrivez dans le Gemencheh.

2°. Le premier endroit et aussi le plus important qui s'offre est Chendras. On peut dire que presque de tout temps les Malais ont travaillé à Chendras. Leurs travaux quoique peu considérables n'en denotent pas moins une certaine habilité dans le travail des mines, surtout si l'on considère dans quelles conditions déplorables ces travaux ont été executés. Sans outils, sans pompe, sans poudre, ils ont foncé des puits qui ont 150 pieds de profondeur. Une compagnie europeenne s'est formée dans la suite, mais ses affaires n'ont pas repondu aux grandes espérances que l'on avait conçues; elle liquida. Le même reef d'abord travaillé par les Malais fut continué par la nouvelle compagnie. Ce reef appartient au réseau E.-W. dont la largeur est très considerable à en juger par les travaux légers faits jusqu'à ce jour; quant à la longueur elle est encore à determiner, on n'en peut rien dire encore. Ce soulèvement de E.-W. est de formation antérieure au soulèvement N.-S.

Les filons dans cette dernière formation sont, je pense, aussi nombreux que dans la première. Ils croisent les filons E.-W. à peu près à angle droit, ce qui donne lieu à de nombreux tronçons E.-W. qui rendront l'exploitation de ces filons difficile, mais aussi très-riche à cause des nombreuses points de contact. Quant à la richesse de ces filons N.-S. elle semble jusqu'à présent être très inférieure à celle des filons E.-O. Leur puissance est plus grande et leur quartz d'aspect salin est fort dur même à l'affleurement. Les filons E.-W. étant plus décomposés à la surface et donnant l'or visible à l'œil nu on peut conclure que la richesse des alluvions proviennent de la désagregation de ces filons.

Les alluvions de ce district de Chendras ont été en grande partie travaillées.

Si l'ancienne compagnie de Chendras, pour des raisons dans lesquelles je n'ai pas entrer, n'a pas réussi, ce n'est pas à dire que celle qui se créront à l'avenir auront le même sort, d'autant plus qu'il n'est pas prouvé qu'elle ait travaillé le filon le plus riche de ce district, ce que nous sommes appelés peut être à constater avant long temps.

Des études sérieuses de recherches mettront à jour, j'en ai la conviction, des richesses comme la péninsule n'en a pas encore vues et qui recompenseront largement l'energie et la tenacité de ceux qui ont su vouloir.

3°. En continuant toujours ce voyage à travers le Gemencheh et en suivant toujours ce soulèvement aurifère dans la direction W., j'arrive à Ulu Gedoh.

Cette concession appartient aujourd'hui à un syndicat, aussi je ne m'appesantirai pas. Deux reefs sont découverts; le premier d'une direction E.-O., et le second N.-S. Ce que je viens de dire plus haut, quant à la formation des filons, peut s'appliquer ici, c'est le même soulèvement. Le premier filon E.-O. donne de grandes espérances, je suis persuadé qu'il les tiendra. Dès la surface, l'or est visible à l'œil nu, les travaux en profondeur montreront que la richesse va toujours "crescendo." Dans les travaux superficiels faits par ce syndicat j'ai vu la richesse aller en augmentant au fur et à mesure que les fouilles descendaient.

Je continue mon voyage à travers le Gemencheh dans une direction N.N.E. et j'arrive au Muar après avoir traversé ses affluents, tels que "Kendong," Jelei, Klebang, &c., &c., tous travaillés en tant qu'alluvions, et j'arrive au Serting et delà en traversant le Cheras et le Sebaling, affluents du Serting, j'arrive à la frontière de Pahang.

Quant à la direction générale on peut s'en rendre compte en la suivant sur la carte, et en relevant les points que je viens d'indiquer, on tombera en plein dans le territoire de la colonie de Malacca apres avoir traversé tout le pays de Gemencheh.

Si maintenant le voyageur placé sur la frontière de Pahang jette ses regards vers le pays de Pahang dans la direction de

découvertes d'or de cette contrée, tel que Raub, il verra que tous ces points se trouvent dans le même soulèvement que je vien d'indiquer.

Si j'ai pu par ces quelques lignes interesser le lecteur au point de lui croire par ma demonstration que l'or dans la péninsule Malaise n'en pas seulement tributaire d'un pays mais bien de *trois*, qui sont la colonie de Malacca, le Gemencheh (Negri Sembilan), et Pahang, je serai entièrement satisfait; mon but sera atteint.