by a river at either side to a width of only 27 miles, and there a survey for a canal has been made ; the maxi­mum height of the section is 250 feet, the mean 130; the amount of excavation is estimated at 84 million cubic feet, mostly through hard rock, and the cost at £20,000,000. But the approaches by the river-mouths on both sides are intricate and bad. This has latterly been the chief route across the peninsula ; but there are other breaks in the range which forms the backbone of the peninsula, and the Buddhist propaganda is said to have crossed by the isthmus of Ligor. Here, however— perhaps, properly speaking, in Junk Ceylon Island—is the real termination of the great range which comes down unbroken from Yun-nan, separating the Salwín and the Me-nam valleys.

East from the plain of the Me-nam, and separating it from the Me-kong valley, a plateau rises with very gradual ascent, clothed to a width of from 30 to 50 miles with forest. From its east side several large and partly navi­gable rivers flow towards the Me-kong through a sandy and for the most part arid plain, with stunted growth of resinous trees and bamboos, brushwood and grass ; but on the lower courses of some of these streams are rich irrigated tracts, producing rice, bananas, sugar, maize, and the usual tropical vegetables. The whole region is very unhealthy, especially in the wet season. Travelling would hardly be possible without elephants, of which some are kept in every village. The rocks are mostly calcareous or sandstone, and at the south edge of the plateau corals and recent shells at a slight depth show the former limits of the land. Farther north the mountains of Pechaboun and Lorn are rich in magnetic iron ore, argentiferous copper, antimony, and tin. Only the first- named is worked to any extent ; and, though by very primitive methods, a large quantity of tools and weapons are manufactured. From the south of the plateau a range sweeps round to the south-east into Cambodia, outliers from which are the two peaks north and east from Chanta- boun, the latter noted for its emeralds, topazes, and sapphires. Isolated hills, apparently volcanic, occur, as the sacred Mount Phrabat, to the north-east of Ayuthia, where there are hot springs and a famous footprint of the Buddha, and the conical hills at Pechaburi in the south­west, consisting of lavas, scoriøe, and trachytic rocks, abounding in caverns elaborately fitted as temples.

Tin is extensively distributed, especially throughout the Malay peninsula, where it is worked at Bang-ta-phang in the province of Chumphon, at Chaija and Chaliang, also on the Me-klong, at Kan- buri, and at Rapri. Gold is found pretty extensively in Tringanu and Pahang ; there are mines at Bang-ta-phang ; and it is extracted in the Me-kong valley by washing or with mercury. Most of it is consumed in trinkets and presents given by the king,—gold leaf being imported from China for gilding pagodas, &c. Iron abounds in the east, as at Loin and Mulu Prey, antimony at Rapri, lead at Pak-phrek and Suphan, silver in the Me-pik valley. Both the lead and copper ores are often argentiferous.

Much of the natural rainfall in Siam is intercepted by the high lands of the Malacca peninsula and by the mountains on the north­west and north, while the proximity of the Gulf of Siam tempers the heat. The rainfall at Bangkok on an average of ten years is 67·04 inches, of which 50·59 inches fall from May to October in­clusive. @@1 The mean annual temperature is 80°·1, varying from 74°·8 in December to 83°·4 in April ; the lowest recorded absolute minimum was 57° in December 1866, the highest recorded absolute maximum 97°·5 in May 1867. The north-east monsoon begins to blow early in November, preceded by a month of variable weather. It has lost half its force in January, and by March strong south and south-south-west winds have set in, the south-west monsoon blowing then steadily and strongly till September. Thus there are three seasons of four months each, —the hot, rainy, and cold.

As to general features, the fauna of Siam is identical with that of Burmah and of southern China, and is one of the richest in the. world. Elephants are very numerous in the south and east, but

are not found so far north as in India. They are as intelligent as the Indian, but usually less highly trained. White (albino) mon­keys are sacred, as are the elephant, an iguana which lives in the house and kills rats and other vermin, and the crow ; white ants’ nests are respected as resembling pagodas, so that libraries arc often kept in tanks to escape the ants’ ravages.

The flora is very similar in character to that of Burmah and has much in common with the Chinese, the transition to which is almost insensible. The coast region is characterized by mangroves, pandanus, rattans, and similar palms with long flexible stems, and the middle region by the great rice-fields, the cocoa-nut and areca palms, and the usual tropical plants of culture. In the temperate uplands of the interior, as about Luang Prabang, Hima­layan and Japanese species occur,—oaks, pines, chestnuts, peach and great apple trees, raspberries, honeysuckle, vines, saxifrages, *Cichoraceæ,* anemones, and *Violaceae* ; there are many valuable tim­ber trees,—teak, sappan, eagle-wood, wood-oil *(Hopea),* and other *Biptcrocarpaccæ, Cedrelaceæ, Pterocarpaccæ, Xylia,* iron-wood, and other dye-woods and resinous trees, these last forming in many dis­tricts a large proportion of the more open forests, with an under­growth of bamboo.

Numerous caravans of cattle, horses, mules, and porters pass annually from Yun-nan (south-west China) to the northern (Siamese) Shan states, whence many of them proceed *via* Chieng-mai to Moul- main (Maulmain). They bring from China silk goods, tea, opium, and brass wares, and take back raw cotton, deer and rhinoceros horns, ivory, and saltpetre. The northern states, which are a great breed­ing-ground for cattle and ponies—elephants too are exported into Burmah—send down teak and other produce. The proposed rail­way from Moulmain *via* Myawaddi to Raheng, and thence to Kiang- sen, 190 miles from the Chinese frontier, is intended to stimulate not only the traffic with China but the local resources (see address by Mr Holt Hallett, C.E., in *London Chamber of Commerce Journal,* 5th May 1885). The eastern states, comprising nearly half the area and a considerable part of the wealth of the kingdom, send much produce *via* Korat to Bangkok. They produce chiefly China grass *(Bœhmeria nivea),* sugar, indigo, silk, cardamoms, cotton, tobacco, sisiet (a substitute for betel), beeswax, benzoin, lac, iron, lime, sul­phur, salt, coarse pottery, mats, hides, tigers, and bones, horns, and tusks of elephants, rhinoceroses, and boars. European cottons and hardware and Chinese goods penetrate everywhere, the chief entre­pôts being Nangkoi in the east and Chieng-mai in the west. The eastern plains produce alternate crops of rice and salt. The rains dissolve the salt in the soil and wash it down, making cultivation possible. In the dry season the salt comes up again and is swept up from the surface. Much alcohol is distilled and consumed. Vast quantities (6900 to 7900 tons) of dried fish are prepared at Lake Tonle-sap, and at fisheries on the coast. @@2 Although silk has been known from remote antiquity, it is produced exclusively by the Lao communities settled throughout the country,—the chief centres being Korat and Battampong. The export in 1884 was 325 cwts., valued at £19,890 ; but the best quality hardly reaches the Bangkok market, its natural bright yellow colour making it difficult to dye. There is, however, not much of it, the demand for the better kinds being supplied from Cambodia. But for the apathy and indolence of the people the production might be largely increased ; the spinning and reeling apparatus too are very primitive, though some beautiful cloths are woven at Chieng-mai. Much of the trade in teak and cattle is worked by Burmese ; otherwise almost all the trade of the country is in Chinese hands. In some of the remoter districts barter is resorted to, beeswax, salt, lac, and bars of iron being mediums of ex­change ; but generally silver is used, and sometimes Indian rupees. Civilization increases in the eastern districts as the frontier of China is approached. In 1884 419 vessels cleared from Bangkok with cargoes valued at £27,170; of these 240 (tonnage, 151,984) were British. In addition, there were 143 junks (tonnage, 3350). The total value of the exports was £2,262,240, rice being the prin­cipal item, £1,444,200. The imports were valued at £1,044,255, the chief items being—grey and white shirtings, £161,997 ; opium (704 chests), £81,410 ; chowls, *i.e.,* shawls, a cotton cloth from Bombay, £105,264. In 1885 the exports were valued at £1,907,006 and the imports at £1,380,233. The exports being in excess of the imports, the difference is paid in Mexican dollars, which are melted down and re-coined,—the silver coinage being the standard of weight.

The money and weights seem to be the same as the Old Cam­bodian. A copper coinage has replaced the cowries, and there is also a silver coinage, viz., the fuang = 7 1/2 cents, the salung= 15 cents, the bat or tikal = 60 cents or half a crown, 5 tikals=3 Mexican dollars. From the tikal upwards these coins are also used as measures of weight. Thus 1 tikal weighs 15 grammes or 231 grains, 4 tikals=l tamlung, 20 tamlungs=l chang or catty, or two Chinese catties, = 3·2 lb. There are a few gold coins, but not

@@@1 But on the neighbouring ranges the fall is, at Moulmain 244 inches, at Tavoy 202, at Mergui 185.

@@@2 During the floods vast quantities of fish swarm into the rice- grounds and are caught when the water recedes, furnishing a valuable and abundant food-supply.