for dairy purposes, especially for the manufacture of ghee. The revenue of Sagar district in 1883-84 amounted to £68,376, of which the land-tax contributed £44,429.

By a treaty concluded with Baji Rao in 1818, the greater part of the present district was made over to the British. During the mutiny of 1857 the whole district was in the possession of the rebels, excepting the town and fort, in which the Europeans were shut up for eight months, till relieved early in the following year by Sir Hugh Rose. The rebels were totally defeated and order was again restored by March 1858. Sagar was formed into a separate district of the Central Provinces in 1861.

SAGAR, principal town and headquarters of the above district, situated in 23° 50' N. lat. and 78° 49' E. long., is well built with wide streets and stands on the borders of a small but beautiful lake, and has military canton­ments. Ságar is the entrepôt of the salt trade with Rajputána, and carries on a large trade with Mírzápur district in the North-Western Provinces, importing sugar and other grocery, besides English cloth. The population of the town in 1881 was 44,416 (males 22,556, females 21,860).

SAGE, Le. See Le Sage.

SAGHALIN, or Sakhalin, is the name improperly given to a large elongated island in the North Pacific, lying between 45° 57' and 54° 24' N. lat. and 141° 30' and 144° 50' E. long., off the coast of Russian Manchuria. Its proper name is *Karaftu,* or *Karafuto.* It is separated from the mainland by the narrow and shallow Strait of Tartary, which often freezes in winter in its narrower part, and from Yezo (Japan) by the Strait of La Pérouse. This island (670 miles long, 20 to 150 broad, with an area of 24,560 square miles), about equal in size to Belgium and Holland together, must be considered as a continua­tion of the mountains bordering the Manchurian littoral. Its orography is still imperfectly known. The present maps represent it as formed of two parallel ridges, running north and south and reaching from 2000 to 4000 or 5000 feet (Mounts Berniget and Ktöus-pal) high, with two or more wide depressions, not exceeding 600 feet above the sea. The general configuration of the littoral and the island, however, renders it more probable that there are three chains running south-west to north-east, forming continuations of those of the mainland. The geological structure of the island is also imperfectly known. A few crystalline rocks are found at several capes ; Cretaceous limestones containing a rich and specific fauna of gigantic ammonites occur at Dui; and Tertiary conglomerates, sandstones, marls, and clays, folded by subsequent up­heavals, are widely spread. The clays, which contain layers of good coal and a rich fossil vegetation, show that during the Miocene period Saghalin was part of a continent which comprised both north Asia, Alaska, and Japan, and enjoyed a much warmer climate than now. The Pliocene deposits contain a mollusc fauna more arctic than the present, and probably indicating that the connexion be­tween the Pacific and Arctic Oceans was broader than now. Only two rivers, the Tym and the Poronai, are worthy of mention. The former, 250 miles long, and navigable by rafts and light boats for 50 miles from its mouth, flows north and north-east with numerous (about 100) rapids and shallows, in a wild valley suitable only for fishing or hunting settlements, and enters the Sea of Okhotsk at the Bay of Nyi. The Poronai flows north and then south to the Gulf of Patience, a wide bay on the south-east coast. Three other small streams enter the wide semicircular Gulf of Aniva at the southern extremity of the island.

Owing to the cooling influence of the Sea of Okhotsk, the climate is very cold. At Dui the average yearly tem­perature is only 33°·0 Fahr. (January, 3°·4 ; July, 61°·0), 35o·0 at Kusunai, and 37°·6 at Aniva (January, 9°·5; July, 60°·2). A dense covering of clouds for the most

part shuts out the rays of the sun ; while the cold current issuing from the Sea of Okhotsk, aided by north-east winds, in summer brings immense ice-floes to the east coast. The whole of the island is covered with dense forests (mostly coniferous). The Ayan fir *(Abies ayanensis),* the Saghalin pichta, and the Daurian larch are the chief trees ; and the upper parts of the mountains have the Siberian rampant cedar *(Cembra pumila)* and the Curilian bamboo *(Arundinaria kurilense),* 4 feet high and half an inch thick. Birch, both European and Kamchatkan *(B. alba* and *B. Ermani),* elder, poplar, elm, wild cherry *(Prunus padus), Taxus baceata,* and several willows are mixed with the Conifers ; while farther south the maple, the ash, and the oak, as also the Japanese *Panax ricinifolium* and the Amur cork *(Philodendron amurense),* make their appear­ance. The number of phanerogamous species known reaches 590 and may reach 700, of which only 20 are peculiar to Saghalin, the remainder belonging to the Amur and partly to the Japanese flora. The fauna of Saghalin closely resembles that of the Amur region, and in fact the Siberian. Bears, foxes, and sables are still numerous, as also the reindeer in the north and the antelope ; and tigers are occasionally met with in the south. The avi­fauna is the common Siberian ; and the rivers are exceedingly rich in fish, especially species of salmon *(Oncorhynchus),* which make their way up the rivers in vast numbers to spawn. The lower marine fauna, explored by Schrenck, is also rich, while numerous whales, not in high esteem with whalers, are met with on the sea-coast. Otarias, seals, and dolphins are a source of profit.

Saghalin has been inhabited since at least the Neolithic Stone Age. Flint implements, exactly like those of Siberia and Russia, have been found at Dui and Kusunai in great numbers, as well as polished hatchets (of trap, diorite, and argillaceous schists)—also like the European ones—primitive pottery with decorations like those of Olonetz, and stone weights for nets. Afterwards came a population to whom bronze was known ; they have left their traces in earthen walls and kitchen-middens (in the Bay of Aniva). The present inhabitants consist of some 2000 Gilyaks, 2500 Ainos, 500 Oroks, as many Japanese, and about 6000 Russians. The Gilyaks, who do not differ from those of the Amur, inhabit the northern part of the island. They support themselves by fishing and partly by hunting, but suffer from competition with the Japanese, who take possession of the best fishing-grounds. The Oroks, of Tungus origin, resemble the Orotchons of the Amur ; they live by hunting. The Ainos, who are still the subject of so much discussion among ethno­logists, are the aborigines of the island ; they are closely akin to the Curilians, and, like these, differ from all other Mongolian races by their luxuriance of hair and beard. They now inhabit only the south part of the island, and have been brought into a condition of slavery by the Japanese, by whom they have been driven out of Yezo and Nippon, in both of which they were the aborigines. The Japanese have several colonies on Saghalin and force the Ainos to fish and to collect seaweed for exportation. They send their ships to the south part of the island and have colonies there, and also on the east coast, at the mouth of the Tym. The Russians began to settle permanently on Saghalin in 1857 ; and, though next year posts were established in the southern part of the island, it still continued to belong to Japan, which definitely ceded it to Russia in 1875. A scheme having been lately formed for colonizing the island with convicts, several thousands have been transported thither, especially to Dui (Alexandrovsk), where they are employed in coal-mining (annual output from 3000 to 30,000 cwts.), or make some attempt at agriculture ; they are either kept in the Alex­androvsk prison, or permitted to build houses and to settle with their families. These efforts towards colonization, however, en­counter great difficulties from the quality of the soil, the cultivable patches occurring here and there in the marshy valley of the Duika river, on the upper course of the Tym, and in the bays of Patience and Aniva. The only crops that thrive are various kinds of kitchen produce. The Russian settlements are at Dui on the west coast, Malo-Tymovsk and Rykovsk on the upper Tym, Korsakoff and Muravieff on the Bay of Aniva.

*History.—*Saghalin, which was under Chinese dominion until the present century, became known to Europeans from the travels of Martin Gerrits in the 17th century, and still better from those of La Pérouse (1787) and Krusenstern (1805), who described large parts of its coasts. Both, however, regarded it as a mere appendage of the continent, and were unaware of the existence of the Strait of