Natal ; E. by the Libomba Mountains, separating it from Zululand and the Portuguese East African possessions.@@1 Transvaal thus forms a compact inland territory nearly as broad as long, not more than 45 or 50 miles from the Indian Ocean at Delagoa Bay, but otherwise lying com­pletely within the outer rim of the vast South African tableland. A line drawn from the south-west extremity, where it touches Griqualand West, north-eastwards to the Limpopo-Shasha confluence, gives an extreme length of 500 miles, the distance from the same confluence southwards to the Natal frontier being 425, and the greatest length east and west between the Zulu and Bechuana frontiers about 400 miles. In the absence of accurate surveys, the total area has been variously estimated at from 110,000 to 120,000 square miles, with a population (including aborigines) roughly calculated at from 750,000 to 800,000.

*Physical Features.—*Physically Transvaal forms a well- marked section of the great South African plateau, an elevated shallow basin with a mean altitude of over 3000 feet, whose conformation has been compared to that of a saucer. On the south and east this basin is separated from the coast by a lofty inner and less elevated outer rim, the former from 6000 to 10,000, the latter about 2000 feet high, sweeping round in curves concentric with that of the seaboard, from Cape Colony through Natal and the east side of Transvaal northwards to the equatorial regions. The inner rim, whose various sections in the extreme south are known as the Roggeveld, Nieuweveld, and Quathlamba ranges, takes in Natal and Transvaal the general name of the Drakenberg Mountains. From the Natal frontier to the Lipalule (Olifant) tributary of the Limpopo, the Drakenberg maintains the aspect of a more or less continuous range 5000 to 7000 feet high, culminating in the Mauchberg (8725), the highest point in Transvaal. A little to the east is the Spitskop (5637), and further south the Klipstad (6020) and Holnek (5600). This section, whose several ridges are known as the Verza- melberg, Randberg, Slangapiesberg, and Komatiberg, falls everywhere precipitously eastwards towards the Libomba range, or outer rim of the plateau, which maintains a mean elevation of 2000 feet along the eastern border of Trans­vaal. Beyond the Lipalule, the Drakenberg loses the character of a well-defined mountain system, broadening out into uplands moderately elevated above the surround­ing plateau, and breaking into ridges, such as the Murchi­son and Zoutpansberg ranges, which run east and west between the Lipalule and Limpopo. The whole system slopes gently westwards to the central tableland, which is itself intersected by several broken ranges, such as the Maquassieberg, Gat Rand, Witwater Rand, and Magalies- berg in the south, the Dwarsberg, Marikele, Hanglip, Waterberg, and Blauberg in the north, all mostly trending in the direction from east to west. But few of these ridges rise much above 4000 feet, and, as the plateau has a mean altitude of considerably over 3000 feet, they detract little from the aspect of a vast level or slightly rolling upland plain, almost everywhere presented by Transvaal west of the Drakenberg orographic system.

The numerous fossil remains of aquatic life, together with extensive sandy tracts and the presence in several places of water-worn shingle, give to the central tableland the appearance of an upheaved lacustrine basin, whose waters escaped at one time through the Limpopo to the Indian Ocean, at another through the Vaal to the Orange river, and thence to the Atlantic. The Vaal and Limpopo are still the two great fissures in the plateau, which carry off most of the surface waters to the surrounding marine

basins. The water-parting between these two river systems lies, not in the Drakenberg, itself pierced by the Lipalule and several of its affluents, but in the Witwater Rand towards the south-west of the state. From this point the Limpopo, or Crocodile, sweeps round first to the west, then to the north-east, describing a semicircle of about 1000 miles to the Limvuba (Pafuri) confluence, where it leaves Transvaal, flowing thence for nearly 340 miles through Portuguese territory south-east to the Indian Ocean. Captain G. A. Chaddock has shown (1884) that it is navigable for steamers to this confluence, above which it is obstructed by the Tolo Azime and other rapids. Throughout its whole course it receives numerous affluents on both sides, such as the Shasha and Nuanetsi from the north, the Marico, Nyl, Limvuba, Lipalule, and others from Transvaal, of which region it drains fully 95,000 square miles. With the exception of a few tracts watered by the headstreams of the Buffalo (Tugela), Mvolozi, Usutu, and Umcomati (King George), flowing in independent channels eastwards to the Indian Ocean, all the rest of Transvaal is drained by the Vaal westwards to the Orange and Atlantic. The Vaal has its easternmost sources in the Wakkerstroom district on the west slope of the Draken­berg, whence it flows for about 450 miles, partly within, but mainly along, the southern frontier of Transvaal, of which, with the Hart and other tributaries on its right bank, it drains about 20,000 square miles altogether. Besides these perennial streams, there are numerous shallow lagoons or saltpans scattered over the western and northern districts, as well as thermal and mineral waters, such as the Warmbad in the Nyl valley. But the only lake pro­perly so called is Lake Chrissie, a sheet of water nearly 40 miles round, and in parts very deep, which lies on the west side of the Drakenberg, 5755 feet above sea-level.

*Climate.—*Although lying on the border of and partly within the tropics, Transvaal, thanks to its great elevation above the sea, and to the absence of extensive marshy tracts, enjoys on the whole a healthy invigorating climate, well suited to the European consti­tution. Owing to the dryness of the air, due to the proximity of the Kalahari desert, the western and central districts are specially favourable to persons suffering from consumption and other chest complaints. But some of the low-lying moist tracts along the Limpopo and other river valleys, close to or within the torrid zone, are extremely insalubrious, fever of the general African type being here endemic, and its prevalence usually marked by the presence of the destructive tsetse fly. The route from Delagoa Bay to the interior also traverses a fever-stricken coast district between the sea and the Libomba escarpment, dangerous especially in the rainy summer season. The rains generally begin about October, some­times a little before or after, and last intermittently till April. But the rainfall is very unequally distributed, most of the moisture-bear­ing clouds from the Indian Ocean being arrested by the great barrier of the Drakenberg, or counteracted by the dry west winds from the Kalahari desert. Thus, while there is abundance of rain in the east, the country gradually becomes drier as it approaches Bechuana- land. During the dry winter season (April to September) keen frosty winds blow from the south, sweeping freely over the central plains and carrying the moisture to be precipitated as snow along the eastern highlands. Nevertheless, according to the careful meteorological observations made by Mr Lys at Pretoria between 1877 and 1880, the mean annual temperature is considerably over 68o F., falling to about 40o in June and rising to 90o and occasion­ally even 95o in January. The rainfall in the same central district seldom reaches 30 inches, which is probably a fair average for the whole of Transvaal, falling to 12 towards the western and rising to 60 on the eastern frontier.

*Mineral Resources.—*Transvaal yields to no other African region in the abundance of its mineral resources, while it is altogether un­rivalled in their extraordinary variety. These include, besides the precious metals and diamonds, iron, copper, lead, cobalt, sulphur, saltpetre, and coal, this last with gold, copper, and iron being probably the most abundant and widely distributed. Gold, largely diffused throughout the Drakenberg and in the northern Zoutpans­berg and Waterberg districts and in the Rustenburg and Marico districts in the extreme west, as well as in the highlands between Transvaal and the Zambesi, has hitherto been worked chiefly in the rich auriferous region of Lydenburg about Mount Mauchberg and Mount Spitskop in the central parts of the Drakenberg range, and farther south in the Johannesburg and Lower Kaap (Sheba)

@@@1 The boundaries of Transvaal, long a subject of dispute with Great Britain and the other conterminous states, were at last precisely defined by the convention of February 27, 1884.