

earnest hope that that horrible word "Yorkian" may disappear from the literature. From the county aspect, owing to the very large number of geological formations there occurring, it is pointless, while the city of York does not stand on Coal-measures.]

PEGMATITES, APLITES AND TIN VEINS.

SIR,—I was much interested in Dr. Derry's article on the "Genetic Relationships of the Pegmatites, Aplites and Tin Veins" in the October's number of the Magazine.

My own observations on such veins in Cornwall tend to support Dr. Derry's conclusions, but there are mineral associations in this area which he does not mention and some differences of vein relations which may be worth noting.¹

In the first place Cornish pegmatites contain molybdenite, arsenopyrite and wolframite in addition to cassiterite: they are also rich in lithia-mica, fluor-mica and fluor-apatite, while the aplites are often rich in topaz. Fluorite is a frequent constituent in small proportions and occasionally in large amount.

There are also instances of mineral veins with pegmatite-like structure composed of large crystals of wolframite with arsenopyrite, stannite, quartz, and interstitial pink aplitic material.

Again many of the Cornish pegmatite veins show banded structure resulting from alternate layers of aplite and pegmatite. This type does not seem to have been observed by Dr. Derry.

The Manitoba pegmatites are a most interesting series of veins and I think that Dr. Derry's conclusion that the existence of stanniferous pegmatites is no reliable indication of the existence of tin veins in the same area is quite justified.

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44 MOUNT PLEASANT ROAD,
CAMBORNE,
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ANNOUNCEMENTS AND INQUIRIES.

GEOLOGICAL CONFERENCE AT KIGOMA, TANGANYIKA TERRITORY.

FROM 7th to 20th July, representatives of the Geological Surveys of Southern Equatorial Africa met at Kigoma to discuss the compilation of a geological map of this part of the Continent. The Conference constituted the first meeting of the Sub-Commission of African Geological Surveys formed at the XVth International Geological Congress at Pretoria in 1929, and the countries represented at Kigoma were as follows: French Equatorial Africa, Northern

¹ *Handbook of Cornish Geol.*, pp. 46, 47. *Rep. Tin and Tungsten Research Board*, 1922. *Rep. Brit. Assn.*, 1927.

Rhodesia, Belgian Congo, Ruanda Urundi, Uganda, Tanganyika Territory, and Nyasaland.

In the various countries named provisional geological maps already exist, but great difficulty has hitherto been found in establishing the relation between the geological formations of any one country with those of neighbouring or more distant countries, and this difficulty has been greatest in the case of the ancient unfossiliferous formations. In the course of the recent discussions, however, assisted by a comparison of rock specimens and maps from the different countries, considerable progress has been made, and as a result of this the Sub-Commission has drafted a geological map of Southern Equatorial Africa which it is proposed to publish at an early date. A great advance has been made in the mapping of the Katanga System, within which lie the great copper deposits of Northern Rhodesia and the Belgian Congo, and the tin-bearing formations of Uganda can be followed through Tanganyika and Ruanda Urundi to the Belgian Congo. Moreover, the Karroo System, bearing many coal deposits in this part of Africa, was discussed in some detail.

Since the only sound basis for the development of mineral resources is a thorough knowledge of the geological formations and of their relations to one another, the discussions at the Conference and the conclusions arrived at, as summarized in the new geological map, should prove to be of considerable economic value as well as of scientific interest.

The Conference recognized the following three important systems of pre-Karroo age :—

(a) The Basement Complex, comprising sedimentary and igneous groups showing wide variations in degree of metamorphism; this system is roughly comparable with the Swaziland System of South Africa.

(b) The Muva-Ankole System, consisting principally of quartzite and shales, with acid volcanic rocks locally, and, more rarely, basic rocks. In some areas the shales are represented by phyllites or schists, and the quartzites show a similar range of metamorphism. The System can be traced from Northern Rhodesia to Uganda, and includes, for example, the Muva, Mafingi, Ukinga, and Karagwe-Ankolean groups. It is separated from the Systems below and above by vast unconformities, and it is considered as probably equivalent in part to the Witwatersrand and the Ventersdorp Systems.

(c) The Katanga System, ranging from the *Série des Mines* to the Upper Kundelungu, and equivalent to the Transvaal-Nama and Waterberg Systems. At the base of the Lower Kundelungu is the great tillite of the Katanga, so that in this area at least one important glacial epoch of pre-Karroo age is recognized. It may be added that over a wide area in this part of Africa glacial deposits are believed to exist at the base of the Karroo, although their correlation with the Dwyka has not yet been established.