

a finer mesh than 30 or 40-inch, and fusions should be made in triplicate, abnormally high results being rejected.

The Mines Branch of the Dominion Department of Mines has issued a bulletin giving a list of all Canadian coal mines. The tabulated information includes the names of the operator, the head office address, the colliery designation, the location of the colliery, the mine office address, and the name of the manager. This will be of great service to many engineers, machinery men and investors. Incidentally, we note that our old friend, "Dr." Hugo von Hagen is named as manager of three coal companies in New Brunswick. How this same von Hagen has eluded so long the clutch of the law is a mystery to us.

The amount of time and labour being expended upon the volumes under preparation for the International Geological Congress is astonishing. The Coal Atlas itself includes more than 70 maps, many of which are printed in four colours. The text of the three volumes, which are now in press, is three-quarters English and one-quarter French and German. The coal resources of every country in the world are dealt with. Proof reading alone is a task of considerable magnitude.

THE GOLD OF THE KLONDIKE

By J. B. Tyrrell, F.G.S.*

The Klondike gold-bearing district, in which placer deposits were discovered in the summer of 1896, is situated near the extreme north western part of the Dominion of Canada, between north latitudes 63° and 64°, and about fifty miles east of longitude 141° west, which forms the boundary between Canada and the United States territory of Alaska. Its area is not clearly defined, but for the purpose of this paper it may be considered as being about eight hundred square miles, with a width in a north and south direction of 28 miles and a length in an east and west direction of 36 miles.

In general character, the Klondike may be considered as being a small and nearly isolated mountainous region lying to the east of the great valley of the Yukon river, to the south of the smaller valley of the Klondike river, and to the west of the still greater valley which runs to the south-west of the Rocky Mountains. On its southern side it is more or less closely connected with irregular mountainous ridges to the south of it, but the valley of the Indian river separates it more or less completely from them, except in the extreme south-eastern portion.

The lowest point in all this region is the bed of the Yukon river, where the Klondike river joins it at the City of Dawson, with an approximate elevation of 1,200 feet above the sea.

The highest point is situated about the middle of the area, twenty-nine miles south-east of Dawson, and is known as the "Dome." This is a hill or mountain with an approximate elevation of 4,250 feet above the sea, or 3,050 feet above the Yukon river at Dawson.

*Abstract of paper read before the Royal Society of Canada.

CORRESPONDENCE

CORE DRILLS

Toronto, March 25, 1913.

Editor Canadian Mining Journal, Toronto, Ont.

Sir,—In pursuance of your request of this date, I beg to state that the illustrated lecture given by me before the Canadian Mining Institute on March 7th consisted of an exhaustive series of notes taken on shot drill operations in various parts of this continent and Europe. It had to do particularly with core drill work where cores are being recovered from 3 inches in diameter to 29-inches in diameter. 70 lantern slide pictures accompanied the article along with many data as to costs, speed of drilling, cost of drilling outfits, etc., under different conditions. An interesting picture was shown on "Core Drilling in China" before the Christian era. In connection with this picture it may be noted that many of the drilling terms used by the Chinese are still in use to-day.

I find it generally true that mining engineers, as a whole, know but little of core drill work where cores have to be recovered of over 3-inches in diameter. Notwithstanding this, there is a large amount of core drill work going on where cores are being recovered 16½ and even 29 inches in diameter. Pictures were shown of this work.

P. H. MOORE,

Mining Engineer for the Canada Foundry Co.

From the Dome the country declines gently in all directions towards the valleys above enumerated, the drainage being carried off by short streams which radiate west, north, east and south, and flow into these larger streams.

The smaller streams are fairly mature in character. Many of them beginning in cirque-like depressions in the vicinity of the Dome, continue outwards with gradually decreasing grades without falls or other sudden interruptions, until they reach their mouths, while the smaller tributaries which join them on both sides flow quietly into them without any sudden changes of grade or without any waterfalls tumbling down from hanging valleys.

The area is completely isolated from any other drainage. No streams cross the district from any mountains or high lands outside of it, and there is no evidence that any streams have ever so crossed the district.

As, therefore, no glaciers have ever reached the country from any of the country to the north, or from the surrounding or adjoining mountains, and as no streams have crossed it, the problems of denudation and transportation which it presents are entirely confined within its own boundaries.

All the loose material which is found on its hills and ridges is derived from the immediate vicinity, and all the sand, gravel, or other detritus which is found in its valleys, was derived from the sides or bottoms of those valleys themselves, and none of it was brought from a distance.