

21st YEAR OF PUBLICATION.

The CANADIAN MINING REVIEW

Established 1882

THE OLDEST AND ONLY OFFICIAL MINING AND ENGINEERING JOURNAL PUBLISHED IN THE DOMINION OF CANADA.

B. T. A. BELL, Editor and Proprietor.
Secretary, Canadian Mining Institute, etc.

Published Monthly.

OFFICES (Orme's Building, Ottawa;
Windsor Hotel, Montreal.)

VOL. XXII., No. 2.

FEBRUARY, 1903.

VOL. XXII., No. 2.

The Walker Graphite Deal.

In its last issue the REVIEW noted the re-incorporation of the Walker Mining Company under the laws of New Jersey, and intimated that there might be more to say concerning this promotion. As this property has earned a somewhat notorious reputation during the last twenty years, it is quite worth while to examine the prospectus of the new Company in order to ascertain what, if any, new uses or new markets have been found to justify the printed estimate of a 25 p. c. per annum dividend on a capital of \$1,125,000 with fixed charges amounting to \$64,000 a year. And in reciting some of the facts concerning the past history of this enterprise, it is not proposed to draw conclusions, but only to point out to our readers some of the facts which were obtained during an exhaustive examination of this property some years ago by two eminent Mining Engineers both of whom are well known to the Canadian public.

The new company which has been organized under the laws of New Jersey has a share capital of \$1,125,000.00 and a bond issue of \$400,000 bearing 5 p. c. interest, payable in ten years at 110.

The original Walker Mining Company acquired its property from the "Dominion of Canada Plumbago Company," prior to the year 1888. Difficulties, not alone due to concentration problems, caused this mine to remain idle until the early nineties, and closed it in 1896, and the prospectus now under consideration informs us that during these earlier years over \$400,000 were locked up in lands, works, and mining expenditures, and, we might add, in personal expenses.

As early as 1866 Sir Wm. Logan, in the reports of the Geological Survey of Canada, described the occurrence of graphite on the same lots and ranges that are now included in the property of the Walker Mining Co. Some of these occurrences are as lenses in crystalline limestone, others are reticulating small veins of columnar graphite, with widths averaging from 2 to 4 inches in thickness, but by far the larger part of the deposits occur as flakes of graphite disseminated in the country rock, which is usually gneiss. The graphite of the small veins is columnar, or fibrous, in structure, the veins vary from a fraction of an inch to six inches in width, and they generally occur in the same gneissic rock which contains the disseminated ore, although the veins rarely and occasionally cut into the granites and gabbros of the region. The graphite of these small veins is very pure, being almost free from impurity, but is of course exceedingly limited in quantity. The prominent feature, and the great reservoir, of graphite is the graphitic gneiss, or "Sillimanite" gneiss as it has been called. In these gneissic bodies the graphitic enrichment usually occurs in

streaks where an igneous rock has come into contact, or close proximity, with the gneiss and in many places the proximity of this eruptive is presumably responsible for the introduction of a quantity of pyritic which on weathering, gives the rusty coating by which these gneisses are discovered in prospecting the country.

The percentage of graphite contained in such gneissic bodies is very variable, ranging from 4 p.c. or 5 p.c. to as high as 30 p.c., but the average, as determined by one of the engineers above referred to, approximates 15 p.c.; it would be possible so to direct mining operations as to obtain an average of about 20 p.c. of graphite in the rock going to the mill, and this is the fundamental point in any consideration as to the market value of the property and as to the amount and quality of the material which can be put upon the market. As the former company suspended operations in the winter of 1896-1897 the \$400,000 which has been expended is represented at the present time only in the deposit itself, since the works, mills, etc., etc., which were condemned at that time can have little, if any, value seven years later. The principal mill building was three stories high and covered an area of between 8,000 and 9,000 square feet. The lower floor contained the crushing and washing apparatus, and the two upper stories carried a conglomeration of bolting screens, cleaners, accessories for finishing the product, some of which may be used in a rearrangement of the plant, but the lower floor was fitted with an antiquated stamp battery that at the most was only scrap iron, and the engine for operating the mill would not be commended for its pattern or its consumption of steam; the six dressing buddles on the floor were warped and out of repair, and by this time are probably of value only for the scrap heap; the rest of the plant which was made up of driers, small runs of stones for grinding, with blowers, mixers, etc., etc., will probably be estimated as of little or no value by a disinterested person. The saw mill is a thing of the past, as also the barrel shop, and most of the additional outlying plant and buildings.

The actual condition of affairs at the close down in 1896 was, that but a very small portion of the flake or amorphous graphite, recovered from the gneiss was in the form of good flake graphite suitable for pencils; lubricants, or stove polish. Fully 80 p.c. of the graphite recovered was so earthy and badly cleaned that it was available only for paints, or, the better grades for foundry facings and adulterants for rubber packing. The engineer's estimate of possible recovery (then made) was as follows:—

1 ton, containing 20 p.c. C. = 400 lbs. graphite recoverable as follows:
20 p.c., or 80 lbs., as No. 1 Flake Graphite.
20 p.c., or 80 lbs., as No. 2 Graphite.
50 p.c., or 200 lbs., as Grits, fit only for paints and adulterants at low prices.