MACHINERY AND CONSTRUCTION NOTES.

Bankhead, Alberta.—The Pacific Coal Co., which has semi-anthracite coal mines known as the Bankhead colliery, situated near Banff, Western Alberta, has decided to install a briquetting plant with a nominal capacity of about 2,000 tons per diem. It is stated that the requisite machinery has been ordered from a Pennsylvania firm which makes a specialty of that class of plant, and that it will cost about $85,000. The first part, which is the grinding and mixing plant, will have a nominal capacity of about 4,000 tons per diem, but the remainder of the installation as now arranged for will only be equal to half that quantity.

Lille, Southwest Alberta.—The West Canadian Collieries, Ltd., recently completed the installation of a coal washery of the jig type, Luhrig pattern, having a capacity of 30 tons per hour, at its Lille colliery, near Frank, Southwest Alberta. Further additions to plant are contemplated, these to be made during the ensuing summer and including more power installation to operate high pressure compressor for locomotive haulage and low pressure for inside hoists, pumps and drills. Shops with modern equipment, to make provision at the mines for renewals and repairs, are also to be put in.

Coleman, Southwest Alberta.—It is announced that the International Coal and Coke Co., Ltd., has decided to build at its colliery at Coleman, Southwest Alberta, fifteen more beehive coke ovens, stone lamp house, oil house, powder magazine, and men's wash house, the last mentioned to accommodate about 165 men.

Phoenix, Boundary District.—The Dominion Copper Co., Ltd., of Phoenix, Boundary district, has ordered from the Canadian Rand Drill Co., of Sherbrooke, Quebec, a tandem compound electric-driven air compressor, to have a capacity at the altitude of Phoenix of about 2,300 cu. ft. per min. This machine will be rated at about 25 machine drills; it will be driven by a 400-h.p. electric motor. The same company has ordered from the Jenckes Machine Co., of Sherbrooke, Quebec, a 150-h.p. motor for operating the 150-h.p. hoist for use at the three-compartment shaft that is being sunk at the company's Idaho mine.

Bullion, Cariboo.—The Cariboo Hydraulic Mines is advertising for 100 mine labourers and axemen for its mines at Bullion, Quesnel Forks, Cariboo district, also for 500 labourers, accustomed to railway construction or excavation work. The latter lot of men will be wanted on and after July 1. The company's mines are reached from Ashcroft, on the Canadian Pacific railway, from which town they are 180 miles distant. Work during the open season of three years is promised to steady, industrious men.

BOOK REVIEWED.

The Nature of Ore Deposits.—By Richard Beck, professor of geology and economic geology, Freiberg Mining Academy. Translated and revised by Walter Harvey Weed, geologist United States Geological Survey. Pp. Vol. I, 340+XIV; Vol. II, 341-669, with index; illustrated with 272 figures and a map. 6 by 9 in.; cloth, $8. New York, 1905: *The Engineering and Mining Journal.*

This is an intelligent dissertation on Ore Deposition, written by an eminent expert on the subject and translated and thoroughly revised to date by Mr. Walter Harvey Weed, of the U. S. Geological Survey, from the original German of Dr. Richard Beck. Treating in an authoritative style the nature and methods of occurrence of ore deposits in all parts of the world, together with detailed descriptions and characteristic cross sections of veins, ore bodies and ores from many famous mines of ancient and modern times. The data embodied in this important manual distinctly applies to local conditions, and the almost inexhaustible amount of general and precise information scattered through its various pages essentially makes the work a splendid text-book for college classes in the study of economic geology.

Prof. James F. Kemp, professor of geology at Columbia University, New York, has contributed to *The Engineering and Mining Journal* the following review of this valuable work:

In translating and placing at the command of English-speaking readers Prof. Richard Beck's *Lehre von den Erzlagerstaetten,* Mr. Weed has done a notable service. The value of it to the American mining fraternity is increased by the additional notes (contributed by the translator himself) upon North American localities. The work is presented in clear and well-written English, and the book is certain to be studied by all who desire to acquire modern knowledge and conceptions of the formation, associations, and alterations of ores.

In preparing the original, Professor Beck attacked the subject with admirable preparation. Succeeding the lamented Stelzner in the historic chair at Freiberg, he found at hand a rich collection of illustrative material and an inheritance of theoretical results in good scientific form dating back over a century. Not only is the vein system of the Freiberg region complicated and instructive, but it has also been extensively developed and carefully studied by generations of acute observers. Professor Beck brought to his work the qualifications of petrographer, mineralogist and experienced geologist. His work is therefore thorough and authoritative.

The book is planned in its larger frame-work on much the same lines as was von Groddeck's work in 1879, which bears almost the same title. That is, in the large classification, ore deposits are regarded with respect to the wall rocks, as:

1. Those original and contemporaneous with the wall-rock —the *syngenetic* in the phraseology used by Beck.
2. Those subsequently introduced into the wall-rock, or the *epigenetic.*
3. Detrital deposits.

The same terms, syngenetic and epigenetic, appear also in the posthumous work of Professor Stelzner, issued under the editorship of Dr. Bergeat; and we may conclude that they have become current in German usage. Under the syngenetic we find discussed: Magmatic segregations and bedded ore deposits; under the epigenetic, mineral veins and epigenetic ore deposits in stratified rocks, exclusive of veins; finally the detrital deposits complete the series.

The larger groups are then subdued into types, first upon larger and more comprehensive characters, then upon smaller ones, until individual cases are reached.

Under veins, for example, in the narrow sense of the terms, 22 different kinds are described; based first on the leading metal; and, second, on the mineralogic associations afforded by ore and gangue. In the same way, under the other heads a similar line of treatment is followed, until we find the ore deposits of the world grouped so far as possible according to their mineralogical character. As a result there is afforded a comprehensive picture of the range of phenomena embraced under the subject.

Nevertheless one cannot but question sometimes if, in so widely applying the distinctions and characters which have attained such prominence in the work of earlier observers in the limited Saxon region, too great stress is not laid upon the fortuitous associations of minerals; and whether they should not be regarded as interested coincidences when we view the world at large rather than as involving any very profound relationship. The advantage in emphasizing associations, however, lies in the fact that they lead the student to group like with like, and to note the occasional recurrence of similar aggregates in new and remote localities. Being now set forth in English, they will at least make familiar to a wide circle the classic Saxon types.

The discussion of the structural features leading to the production of the epigenetic deposits is thorough and excellent, as is also the treatment of the method of introduction of the materials. Yet it seems to the reviewer that it would have been better not to attempt this general discussion at page 193 with the catalogue of the vein types and their detailed descriptions for 168 pages, but to have continued with the