

contracts entered into are estimated to amount to 400,000,000 units a year, with an ultimate requirement of 500,000,000 units, making this the largest electrical installation in the world. The Kalgoorlie Electric Company supplies many of the Kalgoorlie mines with power, also the Tramway Company and the Townships of Boulder and Kalgoorlie, and only requires 10,000,000 units annually. In comparison the magnitude of the Rand's requirements is fifty times as great. The price at which the contracts have been taken allows a substantial profit to the Power Company, even on the basis of the smaller supply now being generated, but with the enormous increase to be provided by the end

of 1910, the reduction of costs should allow a larger margin of profit, and still effect a considerable reduction in power costs to the mines. Seeing that many of the contracts involve the scrapping of large steam plants now at work on the largest mines, it is certain that such would not have been done if a considerable advantage were not assured through the change, but it will mean much more to such mines as the City Deep and all new mines, as it will save them the large expenditure for motive power in all their operations. New mines will, therefore, require to provide much less working capital than when they had to provide huge steam engines.

EXCHANGES.

The South African Mining Journal, August 21, 1909.

—The S. A. Mining Journal pleads for concerted effort on the part of syndicates in prospecting for petroleum. It urges also upon the Geological Survey Commission the propriety of bestirring themselves in the same cause. In the same article our contemporary expatiates upon the origin of oil, referring to the distillation of petroleum from coal as the result of the intrusion of basaltic dykes as an established fact. We commend to the writer of the article Mr. Coste's paper on the origin of coal and petroleum.

The Colliery Guardian, September 10, 1909.—Refer-

ring to the renewed crisis in the collieries of South Wales, the Guardian reminds its readers that it, the Guardian, stood alone in taking a less sanguine view of the Cardiff settlement, June 30th, which was heralded as a triumph of conciliation. Mention is made of the circular letter, recently issued by the Coal Owners' Association. Continuing, the Guardian wisely points out that "there can be no useful purpose served by attempting to discount the gravity of the situation. The fact is that the [Eight Hours] Act is practically unworkable in South Wales, and the position of the collieries has been rendered quite unworkable by the unreasonable and fractious obstruction of the workmen and their representatives. Everybody connected with the trade . . . is becoming unnerved by the uncertainty and insecurity of the market."

The Mining Magazine, Volume 1, No. 1, September, 1909, (London, England.)—Many features of interest call for attention in this first number. The Review of Mining occupies the first eight pages. Here are discussed the current mining affairs of South Africa, West Africa, Australia, Mexico, and other countries. Fourteen editorial pages follow. It may be noted that the last editorial, "The Price of Copper," indicates that The Mining Magazine believes that "production appears fully to keep pace with any anticipated consumption;

therefore, there is no reason to expect an increase in the price of copper, although there is no immediate fear of a further decline." Next comes the section assigned to "Special Correspondence." The letters from Johannesburg, Mexico, San Francisco, Denver, New York, and Redruth are good stuff. They are not merely a record of work done; they give one a bird's-eye view of general commercial, technical, and political conditions. "Metal Markets" and "Discussion" are followed by 28 pages of technical and general articles. Then, after five pages of summarized company reports, we find the same amount of space devoted to a "Précis of Technology," in which are numerous digests of current monographs, and bulletins. Three minor departments, "Current Literature," "Books Reviewed," and "New Publications," complete the magazine.

The Engineering and Mining Journal, September 18, 1909.—The relation of mine explosions to earthquakes is a topic that generated a certain degree of heat between the Engineering and Mining Journal and that most respectable monthly, Mines and Minerals. Their exchange of editorial grape-shot was noted in these columns. The E. and M. J. held that the hypothesis that there is connection between the two phenomena is not unreasonable, and is supported by substantial arguments. Mines and Minerals laughed the laugh of scorn. Seemingly that laugh was premature. In the current number of the E. and M. J., Mr. W. A. Spalding develops a strong case for the existence of a connection between mine explosions and seismic disturbances.

A mine explosion, says Mr. Spalding, is not a natural phenomenon. It arises from a natural condition plus an artificial condition plus an accident. Now, although earthquakes are localized by the region of least resistance or of greatest pressure, seismographs inform us that minor tremors pass entirely round the earth, and are recorded thousands of miles away from the centre. . . . "A mine is an artificial pocket in the earth. At a time when gases are driven forward by compression—