

the contemplation of the combined boring, drilling and tapping machine illustrated on another page. It bears out our contention, that machine tool designers are not inventing any new types, but having perfected existing standards, are directing their constructive skill towards combinations of several existing types: the objective being increased facilities and the saving of manual labor. It is this dearth of new ideas in machine design and construction that is giving technical journals, devoted almost exclusively to the description and illustration of machinery, the appearance of a mere catalogue. "The Canadian Engineer," perceiving this danger, has been giving prominence recently, to the newer and more progressive phases of engineering: Hydro-electric plants; electric furnace; suction gas-producers; steam turbine; concrete-steel construction; telephony; etc. At the same time, whenever anything new was heard of in the shape of labor-saving appliances, we have endeavored to be among the first to tell the advantages thereof to our readers. We had in view a series of special articles on the fixed types of machines, showing their latest improvements and application in modern machine shop practice.

The phenomenon of the gradual but constant displacement of labor, and substitution of automatic machinery in the domain of industry, is an appropriate study for the sociologist and philosophical historian.

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EDITORIAL NOTES.

A New Motive Power: Coming Events Cast Their Shadows. In the theoretical exposition of Radio-activity, Canada—in the person of Professor Ernest Rutherford, of McGill University,—stands in the front rank. Lord Kelvin's graceful allusion to the work of the Montreal Professor—in his recent controversy with Sir Oliver Lodge, proves our assertion. It would seem, however, that, in the practical application of radio-activity to the mechanic arts, England is likely to achieve in the twentieth century what James Watt did with his steam engine, and Henry Bessemer did with his Steel Converter in the nineteenth. Although it is at the present time only in the prophetic and hinting stage, even such a staid and conservative authority as "The Times" (London), in its Engineering Supplement, gives credence to the report. The announcement was made on October 27th, at the Manchester Association of Engineers, by Mr. W. H. Hunter, C.E., in his inaugural address. He said:—

Who could say that the stores of latent energy in regard to radio-active bodies demonstrating the transformability of elementary matter, and demonstrating further that stupendous stores of energy are latent in the radio-atoms themselves might not one day be converted into stores of motive power. In the meantime, I speak with some measure of confidence when I say that it is possible that at no distant date the engineering world will be startled by the revelation of a discovery relating to motive power of such sort and of such far-reaching consequences that if I were permitted to describe it to you to-night you would agree that it may of itself go far to establish the proposition I have submitted to you this evening.

This declaration reminds us of the tall Yankee, who, after listening to Henry Russell's famous song, "There's a good time coming, boys," got up and said, "Mester Russell, you've bin a singin 'There's a good time comin, boys,' and I guess we appreciate thet, but

would you kindly name the date!" The engineering world is eagerly expectant; for the "portentous announcement" was made not by an enthusiastic amateur, but by a trained engineer of first-class standing in his profession.

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Problem of Power For Small Municipalities.

We note that Brockville, Ont., is dissatisfied with the answer they have received from the Hydro-Electric Power Commission of Ontario, with regard to their application for electric power. "The Canadian Engineer" is not concerned about politics, nor the devious ways of politicians; but we are concerned with industrial economics, hence, advise the authorities of Brockville to send a deputation down to Wellington-on-the-lake, to investigate the new power plant there. We venture to predict they will find a solution of their troubles. "White coal" is not the only source of cheap electrical energy.

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Cheaper Coal For Canada. At midnight on October 31st, the new British law abolishing the export duty on coal came into force. Our newspaper exchanges report, that the next day hundreds of steamers sailed out of England for foreign ports, carrying with them heavy cargoes of Welsh and Durham coal. Some of these vessels have already discharged their valuable freight on Canadian docks. Had this event happened three months ago, the deplorable shutting down of the Sydney blast furnaces and steel rail mills, owing to disagreement about coal prices between the steelmasters and coal owners, would doubtless have been averted; for healthy competition works wonders.

We may expect in a short time, to see rich, steam-raising British coal delivered in Eastern Canada in surprising quantities, and at reasonable prices. This should mitigate somewhat the serious, but truthful allegation made recently by Mr. Ramsay MacDonald, the English Labor Member of Parliament; who declared, after a run across the Dominion and back, that "Canada is rapidly becoming the dearest country in the world to live in." One necessity of life should be cheaper this winter, namely, fuel, to warm the homes of the people. A spurt should also be seen in the new Suction Gas Producer business, which is becoming so popular just now: and should become increasingly so, in view of the facts set forth in our brief description on page 444 of the electric light and power plant at Wellington.

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BOOKS RECEIVED.

A Guide to Electric Lighting.—For the use of householders and amateurs. By S. R. Bottone. London: Whittaker and Co., 2 White Hart Street, Paternoster Square. Size 4 7/8 x 7 1/4.- pp. 226, illustrated. (Price 1s. net).

The Marine Steam Turbine.—A practical description of the Parsons Marine Turbine. By J. W. Sothorn, Mem. Inst. of Eng. and Shipbuilders in Scotland. London: Whittaker & Co. Size 5 3/4 x 8 1/2.- pp. 163. (Price 6s. net).

Elementary Principles of Continuous Current Dynamo Design.—By H. M. Hobart, B. Sc., M. I. E. E., Mem. A. I. E. E. Toronto: The MacMillan Co. of Canada, Limited, 27 Richmond Street West. Size 6 1/4 x 9 1/4.- pp. 220 106 illustrations. (Price \$2.00 net).