to build an electric lighting plant for that town.

The municipality of Philippopolis, Bulgaria, will receive proposals for erecting an electric plant for lighting the city and furnishing power for running a tramway line.

The city of Wellington, N.Z., will extend its electric tramway system to Island Bay, Ohiro, and Kilbirnie, N.Z.

The Government of Roumania will install an electric lighting plant in the town of Caracol.

The Electrical Owtschar and Kablar in Tschatschak, Kingdom of Servia, is open for bids to furnish turbines and generators, with requisite hydro-electrical material and cables for transmitting power to a distance of about 44 miles.

FUEL.

For names of fuel dealers see "Coal and Coke" in Classified Index.

The fuel supply question is a most important one to Canadian manufacturers. The information published in this department will keep the readers posted on sources of production.

A despatch from Shamokin, Pa., states that the fire in the Enterprise mine near there has assumed such alarming proportions that fears are entertained that part of the village of Excelsior, underneath which the mine runs, may be swallowed up by cave ins if the fire is not checked. The Pennsylvania and Reading Railroads are also in peril. They run over part of the danger zone. The mine fire has raged so fiercely that all the timber in the slope has been consumed, and it is thought the flames rushed their way to the mammoth vein and ignited it. This vein is the thickest and the best in the coal field, and if it becomes ignited thoroughly it may take years to conquer the blaze.

The Nova Scotia Coal Co. are contemplating outside markets for their superfluous product. Two or three years ago, the experiment was made of a trial shipment for use on the Swedish Government railways, that proving successful, between 25,000 and 30,000 tons annually has been exported to Sweden for general consumption in that country. New Mexico is to be tried also Ontario, and seeing that the markets in the last named province are now practically dominated by coal from the States, Nova Scotia fuel will probably in time become an important factor in Eastern Ontario districts. Even Canada's two great railroad companies make the bulk of their coal purchases in America, and they, no doubt, will readily take the other, particularly if, in course of time, a regular coal traffic is assured them to various points.

The control of the Cape Breton Coal, Iron & Railway Co. has been taken over by an English syndicate, headed by Mr. Horace Mayhew and Messrs. Coates Sons & Co., London. Mr. Thos. Lancaster, to whom the credit is due of carrying negotiations to a successful issue, went to London twice last fall to meet Messrs. Coates Sons & Co., and has been conducting negotiations with them ever since. The spring of this year he invited Mr. Horace Mayhew to join. Messrs. Mayhew and Leech are large coal owners and operators in England, and control collieries there having an output exceeding 2,000,000 tons a year. The new directors are, H. Mayhew, president; T. Lancaster, vice-president, and Wm. Hanson (Hanson Bros., Montreal), treasurer; E. W. Molsley, secretary; and Messrs. Gladstone, Thompson, C. H. Hanson of London N. Ferguson and Crowe, of Sydney. Plans are now being prepared in England at the office of Messrs. Mayhew and Leech for extensions and the equipment will be ordered as soon as the plans are completed. It is expected to have air compressors, screens, boilers, etc. erected, a short railway siding between the Sydney & Louisburg Railway, and the mines under rapid development by the first of the year.

George H. Mills has been appointed Buffalo sales agent of the Bessemer Coal & Coke Co., Cleveland, Ohio, and has opened an office in the Prudential Building.

The entire coal output of the United States, from the earliest times to the close of 1902, has been estimated to amount to 4,860,000,000 short tons to December 31, 1902. The cubical dimensions of a ton of coal will vary from 33 to 40 cubic feet. Taking 37 cubic feet as an average for the total product of the United States, we find that this mass of 4,860,000,000 tons would contain, approximately, 160,000,000,000 cubic feet. A pyramid built of this material as high as Pikes Peak (14,108 feet) would have for its base a rectangle, 1 14 miles square. A cube constructed of it would cover an area of 2.4 square miles.

A new fuel called radiant, to be used in connection with gas and other fires, has been invented by two engineers of Southend, England, and if it be proved that it can do all that is claimed for it it will cause as great a revolution in the present system of gas heating as did the introduction of the Welsbach mantle in gas lighting. The inventors claim for radiant, (1) That it gives treble the heat with the same gas consumption as an ordinary gas fire; (2) That it takes up the carbonic oxide from the air and purifies the atmosphere; (3) That it does away with the unpleasant smell given off by gas fires; (4) That it burns brightly like a coal fire; (5) That it is as cheap as fire clay and is inexhaustible. The two young inventors are connected with one of the largest firms of gas engineers in England, and have been experimenting for years with a view to producing a fuel such as radiant. Radiant will take the place of the asbestos or fire clay balls, and will, it is said, give out an intense heat. It is made from materials that are now waste products of chemical works. The new fuel captures the blue flame, which at present is lost, and converts it into intense heat and also possesses the power of retaining heat to a very great extent.

Owing to the inability of the railroads to handle the increasing coal tonnage, the Pittsburg & Buffalo Co. have bought a freight locomotive which is being used to shift cars at the Hazel mine at Canonsburg. The company own railway cars, and with the assistance of the extra engine are now able to load 100 cars a day at this mine. They also expect to increase their motive power and make extensive additions to their rolling stock.

The coal supply for the new Canadian Pacific Railway line from Toronto to North Bay will be taken from Byng Inlet instead of Owen Sound, Ont. There is a line of boats already running from Buffalo to that inlet.

A large seam of coal has been discovered near East Kootenay, B.C., on property owned by the Western Oil & Coal Co., a concern composed largely of Vancouver capitalists. The district where the deposit was found is on the route of the Great Northern's new line to Fernie, B.C.

W. H. Aldridge, who is connected with the company that is developing the coal resources at Banff, N.W.T., says that about 200 tons of nut and the larger sizes of anthracite are being produced daily, and 100 tons of the small sizes. Between 400 and 500 men are employed, the majority on construction and development work, and another year will be required to bring the mines up to their full capacity. Plans are being matured for developing the soft coal seams at Banff, but it will be some time before actual mining operations will commence. The bulk of the anthracite shipments go to points west of Banff, some of the coal reaching the Pacific coast at Vancouver, B.C.

The Dominion Railway Commission have given judgment providing that the rate for coal from the Detroit and Michigan frontier shipping points to Almonte, Ont., must not be more than 20 cents above the rate to Carleton Place Junction, Ont. The Almonte Knitting Co., Almonte, Ont., showed that the Canadian Pacific Railway Co. was charging 40 cents over the rate to Carleton Junction, although only seven miles distant.

The total output of the Crow's Nest Pass Coal Co., during the year ended June 30, 1904, was 769,419 tons, of which 360,462 tons were converted into coke. The shipments of coke to the United States during the year amounted to 62,478 tons, valued at $252,992, and the shipments of coal to 156,727 tons, valued at $315,096.

The three coal companies operating at Frank, Blairmore, and Coleman, N.W.T., have been producing an average of 600 tons a day during the year. The entire product has been used in Canada.

New coal fields are being opened up on the Elk River about 50 miles north of Fernie, B.C., but it will be necessary to construct about 35 miles of railway to place these fields in touch with the market.

In order that some idea of the bulk represented by the coal production of the United States in 1903 may be obtained, it might be stated that, if the entire production were loaded on freight cars with a capacity of 30 tons each, the trains would occupy one-quarter of the entire railway trackage of the United States. Taking an average of 30 cars to a train, it would require 16 times as many freight locomotives as there are in the United States to move this tonnage in one day. If spread over the surface of Manhattan island, which has an area of 22 square miles, the entire island would be covered to a depth of nearly 25 feet.