to meet the extra demand that will most probably arise. In conclusion, he believed that the coal trade would not be materially lessened, as fortunately our vast manufacturing interests were expanding from day to day, and the demand for coal would be consequently on the increase.

In connection with this very important branch of Canadian commerce it may be said for the benefit of all concerned that quite an agitation has developed itself of late, relative to the proposed imposition of a duty on soft coal screenings, which are sold more extensively than ever, and according to dealers here have become an important branch of the trade. This article is now used largely for steam coal, and it is held that the same duty shall be paid as on round coal.—*Empire.*

W. P. McNeil, of New Glasgow, has sold his coal mine, near that town, to the iron company for the handsome sum of $50,000.

Origin of the Diamond.—It is known that the diamond is coal in its purest state, but to become diamond this coal must melt Should it be by the action of subterranean heat alone, the coal would burn to ashes; should there be the assistance of hydrogeneous or condensed gaseous substances, this could well account for its melting, but not for its hardening to such a degree, that it surpasses every other substance, and the black coal becomes the whitest and purest object in the whole of nature. Other gems were liquid stones in nature's cauldron, and adopted some coloring matter from various extraneous sources; but the diamond, instead of adopting color, had to lose its natural black, and to distill itself into the purest white. It is therefore a most hidden problem, and many men of modern science and geologists are of opinion that electricity, that occult natural power, must have a share in its formation, and it appears that anything may be expected from this mysterious, and yet unexplained force of nature.

Prof. Simmler says the basis of diamond formation is liquid or liquefied carbonic acid. Indeed, facts tend to show the presence of this agent in the coating of valuable gems. Upon the bursting of such crystals there are often found to occur two liquids in the cavities, the one behaving like water, the other like liquid carbonic acid. On one occasion it was observed that the liquid in a quarts crystal which was dashed to pieces, scattered its contents around with great noise, burning holes in the handkerchief wound around the hands of the experimenter. The acid contents itself had disappeared. Under these circumstances, M. Simmler argues that if carbon be soluble in liquid acid, it would then only be necessary to subject the solvent to slow evaporation. The carbon would thereby be deposited, and, by taking proper care, assume crystalline forms, and in evaporating quickly the so-called black diamond, which, in the state of powder, is much used for polishing, the colorless diamond might be produced. Though the liquid in question has never been subjected to a chemical analysis, the formation of liquid carbonic acid in the interior of the globe may be considered as probable.

Port Arthur District, Beaver Mine.—As this property has been worked constantly and vigorously from the start in 1884 to the present, it merits extended notice as a good type of the district, group, and period. The main vein averages 4 feet thick, though almost pinched out in places, and has the usual contents, yellow and dark colored blende with some iron pyrites and a little galena, in a gangue, chiefly of calcite, with some white and amethystine quartz and a little flourite, generally green, but sometimes purple. The silver occurs chiefly as argentite, in nugget, sheet and leaf form, with some native silver. The mountain tallow is very abundant in places. Two seams have been worked on, the main one cuts N. W. across a range 200 feet high, and is intersected 300 feet in by a vein running N. E. Up to March, 1889, some 1280 feet of sinking in shafts and winzes, 3,510 feet of drifting and 600 feet of crosscutting had been done in this mine A large amount of work has been done on this property, entailing equal expenditure probably $350,000, but it is stated that there was taken from it in 2½ months of 1887, over $93,000 of silver, and in the fall of that year the ore body in sight was estimated at about one million dollars. The property is evidently being developed upon a permanent footing, and is excellently managed so far as a visitor can judge. Some 75 men are employed, and the village contains about 40 families or 200 people. The mine buildings comprise boiler house, machine shop, air compressor house, hoist house, blacksmith and carpenter shops, pump house, stables, etc. The laboratory is very complete and the stamp mill also; the air compressor runs 7 drills, 2 hoists, and the pumps. The daily production now is 60 tons of ore, and about 30 cords of wood are consumed for power and general purposes. The mine is owned by Col. Frank S Hecker and Ex-Governor Alger, of Detroit, United States, and is managed by Capt. Williams in charge of underground work, W. C. Romer assayer and accountant, and Capt. White in charge of machinery. Since starting, this mine has cleared and consumed the timber of 500 acres of its land, and requires daily to clear and use nearly one acre for its furnaces, etc. The monthly expenses are about $5,000, a school is maintained with some 40 scholars, and a general store with about $7,000 of varied goods in stock, and there is also a good hotel, costing $10,000, and accommodating a large number of guests. A resident physician is here, and religious services are held regularly twice monthly by a visiting minister. The mine is 28 miles S. W. from Port Arthur, and work goes on day and night, except Sunday, in two shifts of 10 hours each.

Transmission of Power.—Certain Basle and Zurich capitalists are endeavoring to float a scheme for utilising the waters of the Rhine, by means of a canal some 2½ miles long, the water-power obtained being estimated at 3,500 horse-power. It is proposed to electrically transmit the power to consumers, and it is calculated that a profit of 8 to 9 per cent. would be realised on an original outlay of some £400,000.—*Electrical Review.*