

There are important openings for the discovery of some method, or some material in combination, which whilst not injuring the transparency of glass, would render it less brittle, or capable of being bent like mica, or, possibly, under certain conditions, might make it even malleable. Similar openings occur for the discovery of some process under which china and other valuable earthenware will be rendered less liable to breakage. We should also be able to find suitable clays in Canada and the necessary process for making the hard German porcelain for domestic use and for the special qualities required for laboratory purposes.

The large demand and the high prices for the by-products of the coke ovens and the gas works make experiments with the screenings and the dump refuse of the coal pits, of great importance. If we cannot, as yet, make coal briquettes which will stand the wear due to transportation and the atmosphere, at a cost which will be profitable when coal prices are normal, cannot some economical method be found for utilizing this waste material, on the spot at the mines, in the production of heat, power, gas and some of the numerous and valuable derivatives of coal tar? In any reference to coal, attention cannot be too often drawn to the relatively small percentage we, in actual experience, obtain of the heat dormant in the coal and lignite beds. It suggests not only the utilization of all waste at the pit head, but research into the methods of burning the coal and lignite in our factories and dwellings where, under present methods, so much of the heat goes, unutilized, up the chimneys, which also are, almost invariably, placed in the outer wall, where in our severe climate, they afford but trifling heat to the building. The recent claim that with the Saskatchewan lignites, power can be produced at \$8 per horse-power, suggests great economy, and practical investigations on a larger scale, as this price is cheaper than Niagara power.

Among our metalliferous ores, there are enormous possibilities. We have great areas of high percentage

magnetic iron ores in the vast Laurentian back country of Ontario and Quebec—some in advantageous positions for shipment—and the problem of eliminating and utilizing their sulphur, titanium and other associated minerals is still, from a commercial point of view, unsolved. For the finished iron, some more effective preservatives against rust, the acids of the soil, and electrolysis are needed. Especially in recent years, we have found how important in so many products, like tool steel, drawn wire, railway rails, steel for rifles and artillery, steel forgings, and structural steel, degrees of hardness, varying in the different products, are necessary for effective work. Thus, the finding in Canada, and the successful extracting from their associated minerals, of molybdenum, chromium, tungsten, nickel and vanadium offer valuable fields for investigation as alloys. The present war has forcibly illustrated that from the great and costly modern guns, the number of rounds that can be fired is limited, and that whatever will further diminish the wear in the bore of the gun is very important. Again, our low-grade copper, lead, zinc, antimony and other ores have offered a tempting field for discovery of some commercially successful process for the extraction of the metal, and, presently, the electrolytic and oil flotation processes are under practical test as to their value.

In order to avoid what might be somewhat technical, it will be sufficient here to point generally to the discoveries which electrical developments and synthetic chemistry have in the past afforded, as suggesting abundant opportunities for further research in directions of great importance to the needs and conveniences of civilized life. It can also be said generally that researches in pure science, although probably uninteresting to the average man, are constantly giving rise to principles, combinations and methods which afterwards find their practical applications in industrial work. So frequently, the original discoverer does not receive his due share of the credit when subsequent advantage is taken of his work.

BANK BRANCHES OPENED AND CLOSED

The following are the bank branches opened and closed during November, 1916, as compiled by Houston's Standard Publications, Toronto. The amalgamation of the Quebec and Royal Banks took place on December 31st, 1916.

Branches Opened—24.

*Adamsville, Que.	Banque d'Hochelaga.
*Birch Hills, Sask.	Canadian Bank of Commerce.
*Bonfield, Ont.	Banque d'Hochelaga.
Brant, Alta.	Bank of Hamilton.
Bulyea, Sask.	Union Bank of Canada.
Burdette, Alta.	Standard Bank of Canada.
Burgeo, Nfld.	Bank of Nova Scotia.
*Dysart, Sask.	Royal Bank of Canada.
Hatton, Sask., (P.O. Forres)	Union Bank of Canada.
Hazenmore, Sask.	Union Bank of Canada.
*Keewatin, Ont.	Royal Bank of Canada.
Marystown, Nfld.	Royal Bank of Canada.
*Millicent, Alta.	Merchants Bank of Canada.
Montreal, Que., Notre Dame de Grace	Merchants Bank of Canada.
*Mount Pleasant, Ont.	Merchants Bank of Canada.
Niagara Falls, Ont.	Merchants Bank of Canada.
Palma Soriano, Cuba	Royal Bank of Canada.
Prelate, Sask.	Merchants Bank of Canada.
Renfrew, Ont.	Bank of Montreal.
*Richard, Sask.	Canadian Bank of Commerce.
*St. Isidore, Que.	Banque d'Hochelaga.
Sibbald, Alta.	Bank of Toronto.
Toronto, Ont., Church St. ...	Royal Bank of Canada.
Toronto, Ont., Exhibition Camp	Bank of Montreal.

Branches Closed—23.

Calgary, Alta.	Quebec Bank.
Camp Hughes, Man.	Bank of Hamilton.
Edmonton, Alta.	Quebec Bank.
Hamilton, Ont.	Quebec Bank.
Iroquois Falls, Ont.	Bank of Ottawa.
Medicine Hat, Alta.	Quebec Bank.
Keewatin, Ont.	Bank of Ottawa.
Ottawa, Ont., Wellington St.	Quebec Bank.
Ottawa, Ont., Dalhousie and York Streets	Quebec Bank.
Pembroke, Ont.	Quebec Bank.
Quebec, Que., Lower Town	Quebec Bank.
Regina, Sask.	Quebec Bank.
St. John, N.B.	Quebec Bank.
Saskatoon, Sask.	Quebec Bank.
Sherbrooke, Que.	Quebec Bank.
Sturgeon Falls, Ont.	Quebec Bank.
Swift Current, Sask.	Quebec Bank.
Thorold, Ont.	Quebec Bank.
Toronto, Ont., King St. W.	Quebec Bank.
Vancouver, B.C.	Quebec Bank.
Victoria, B.C.	Quebec Bank.
Winnipeg, Man.	Quebec Bank.
Westmount, Que., Green Ave.	Quebec Bank.

*Sub-branches.

A company has been formed at St. John, N.B., to manufacture Larvacide, an insect destroyer. A factory site has been secured.