

# Gold Mining Supplies!

The best class of Goods at the Lowest Prices can be bought at

**H. H. FULLER & CO'S,**  
41 to 45 UPPER WATER STREET.

We make a specialty of everything needed in GOLD and COAL MINING, and RAILWAY CONSTRUCTION. As we always keep a large Stock on hand, we can guarantee prompt delivery of any orders entrusted to us. Enquiries by mail always receive our prompt and careful attention.

H. H. FULLER & CO.  
General Hardware Merchants,  
Halifax, N. S.

## FOR 28 YEARS The HALIFAX BUSINESS COLLEGE

Has been an institution of the country. We have made some changes in that time. Every change has been an improvement. We are now better prepared than ever before to do good work, and are doing it. Send for our Circulars and see if we cannot do you some good.

**Halifax Business College,**  
119 Hollis Street, - Halifax, N. S.  
J. C. P. FRAZEE, Principal.

Full Stock of  
**MINING SUPPLIES**  
AND  
**GENERAL HARDWARE.**  
At Lowest Wholesale Prices.

**P. WALSH,**  
MARKET SQUARE, - HALIFAX.

### THE DOMINION PAINT CO.

Are prepared to Supply the Trade with

#### MARINE PAINTS

AS BELOW

ATLANTIC ANTI-FOULING COMPOSITION  
for Iron Ships.

MOSELEY'S COPPER PAINT, for Wooden  
Ships.

LIQUID MARINE BLACK PAINT.  
GREEN

SEAM PAINT, a Perfect Substitute for Rosin.  
Also, - Black and Bright Varnish, Roofing Pitch,  
Tar, &c. Quality guaranteed equal to anything  
manufactured.

Office & Works, Dartmouth.  
TELEPHONE 920.

**GRIFFIN & KELTIE,**  
Monumental Designers and  
SCULPTORS.

Manufacturers and Importers of  
Monuments and Tablets, in Mar-  
ble, New Brunswick, Scotch  
and Quincy Granites.

Wood and Slate Mantels, Grates, Tile  
Hearths, Marble and Tile Floors a  
Specialty.

323 Barrington St., HALIFAX, N. S.

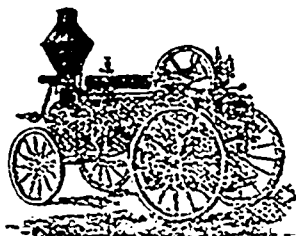
Lots of people don't know that they can buy  
American Express Co.'s Money Orders,  
payable in all parts of the United States,  
Canada and Europe, for about half the price  
of P. O. Money Orders or Bank Drafts.

And that they can also buy  
UNDERWOOD'S and STEPHEN'S INKS,  
All kinds of BLANK BOOKS,  
ENVELOPES, from 76c per Thousand up,  
1000 page LETTER BOOK, 3 Bound, for \$1.50,  
The Celebrated SHANNON FILE, &c., at  
**KNOWLES' BOOKSTORE,**  
Cor. George & Granville Streets.

**AARON SINFIELD,**  
MASON AND BUILDER, HALIFAX.

BOILERS, OVENS, & all kinds of FURNACE  
WORK a Specialty.

Jobbing promptly executed in best Mechanical  
Style in Country as well as City, at Lowest pos-  
sible Rates. ADDRESS—BRUNSWICK ST.



**E. LEONARD & SONS**  
BEFORE BUYING  
ENGINES, BOILERS,  
ROTARY SAW MILLS  
OR WOOD WORKING MACHINERY,  
Write **GEO. H. EVANS,**  
62 WATER STREET, ST. JOHN, N. B.  
For Catalogue C and prices.

Chemical Laboratory, Dalhousie College,  
Halifax, N. S., July 31st. 1891.

Within the last few months I have pur-  
chased promissively, at RETAIL GROC-  
ERY STORES in this City, packages of

**WOODILL'S**  
GERMAN BAKING POWDER,

and have subjected same to Chemical Analy-  
ses. The samples were found to consist of  
Fresh, Wholesome Materials, properly pro-  
portioned. This Baking Powder is well  
suited for family use, and has been employed,  
when required, in my own house for many  
years.

**GEORGE LAWSON, Ph. D., L. L. D.**  
Fellow of the Institute of Chemistry of  
Great Britain and Ireland.

## MINING.

BRIGHT PICTOU COUNTY.

GREAT FUTURE IN STORE.

THE PROSPECTS FOR A POSSIBLE EXTENSION OF THE CHARCOAL IRON  
INDUSTRY IN CANADA.

This is the heading of an article in a recent number of the *Canadian Mining Review*, and although the subject is here treated with special reference to the Province of Ontario, it is of interest to us as well to get an intelligent idea of the possibilities of this industry, the more as it has lately been conceded that the lower provinces possess even greater natural advantages for a large iron industry than are met with in Upper Canada—especially Pictou County, N. S., where ore, coal, fluxes and large hardwood forests are in close proximity with one another, and where the facilities for transportation by rail and water are exceptional.

The importation of pig iron for 1890 is here shown to be about 36,000 tons, including the charcoal iron imported from the United States, which is estimated to 10,000 tons.

"The importations of cast iron pipes, besides, amount to 4,000 tons yearly, and for car-wheels this country has to give occasional foreign orders. Altogether, it is safe to say that the country requires at least 10,000 tons a year of pig iron, of which about one-fourth is supplied by the home manufacturer."

The principal use for which charcoal iron has been imported is for car-wheel castings; but how far this class of iron also will meet the ordinary requirements of the foundries, the Ontario Mining Commission report may tell us, and is shown by quoting from it the opinion of the three leading founders of Ontario, among whom H. A. Massey, of the great agricultural implement concern, says: "I think that at Oshawa they use from 2,000 to 3,000 tons of charcoal iron for malleable castings. If Canadian charcoal iron could be produced for a little more than Scotch or Londonderry (the price of which he had given at \$18 to \$22.) no doubt we could use it for nearly every kind of iron we want to make. For machinery castings we want the best iron, and the expense is what has kept us from using charcoal iron. I would take charcoal iron at \$24 a ton rather than import (coke) iron at \$22. I would consider it to be \$4 a ton more valuable. The manufacturers of agricultural implements would use it; and if one used it and made better castings, competition would compel the others to do likewise." And all of them concur in the view that charcoal pig is a necessity, if high-class manufacture is required, as well for stoves as for malleable castings.

The demands of charcoal iron for car-wheel castings have not been overtaken by Canadian makers within several thousands of tons yearly, variously estimated at from 5,000 to 10,000 tons. The demand grows with the carrying trade and bids fair to assume such proportions that it should become a fixed industry, keeping in activity an additional 30 ton furnace. If to this demand is added the requirements of the stove and implement trade it will be easy to dispose of an additional output of 20 tons daily, thus accounting for the sale of 18,000 tons yearly. "Instead of importing pig," the author continues, "the better plan would be to erect a 50 ton charcoal furnace, taking from it about 20 tons a day of forge iron for the steel furnace." The establishment of a steel plant is recommended and a 15 ton Siemen furnace proposed, as well as the manufacture of crucible cast steel and cement steel, for all of which there would be an additional demand for charcoal iron.

While the manufacture of charcoal iron thus is recommended and agitated in upper Canada, it is of interest to note that the subject has been for some time under consideration among our own people to establish a charcoal iron industry in the lower provinces, and the prospects are that we soon will see a furnace of this kind established in Nova Scotia on the East River in Pictou Co.

For this purpose a meeting was called in the city a few days ago, and from the report written by E. A. Sjostedt, E. M., the following abstracts may be of general interest:

Mr. S., by the way, is a chemist and metallurgical engineer with large experience in the charcoal iron industry, is a graduate of the Stockholm school of mines and formerly chemist of the Bethlehem steel works in Pennsylvania, was for several years manager of blast furnaces in the south, and during the last five years superintendent of the Katahdin charcoal furnace in Maine—thus well qualified to speak with confidence on the subject in question.

He gives the grand total of manufactured cast and wrought iron consumed in the Dominion in 1889 to be about 250,000 tons, of which 117,212 tons of steel rails and about 50,000 tons of pig iron were imported. The estimated amount of charcoal iron imported is stated to be 15,000 tons, "the greater part of which was used in the manufacture of car-wheels, for which, as is known, only a specially strong and superior iron will be accepted; and owing to the extensive railroad systems now completed and under construction in this vast country (at present about 8,400 miles,) it is evident that the demand for this special grade of iron is on the increase, and no doubt will soon assume important proportions. Now the question naturally arises: Why cannot this deficiency be made up here and the iron manufactured at home? or, which is equivalent, is there here any place near lines of transportation where the three essential factors of an industry of this kind, rich and pure ores, suitable fluxes and plenty of hardwood are present in sufficiently large quantities to guarantee a successful and continuous business?" These questions are answered affirmatively and with enthusiasm; and the conditions shown to exist—by an exposé of the different kinds of ores (brown hematites and specular ores) and fluxes (lime