## METAL IMPORTS FROM GREAT BRITAIN.

The following are the values in pounds sterling of shipments of metals, etc., from Great Britain to Canada, as shown by the British Board of Trade returns for March and for the three months ended March, compared with the same periods of last year:

1	Month of March.		March.	
	1893.	1894.	·*93.	1894.
Hardware and Cutlery	8,281	£ 5,958	£19.135	£17.172
Pig iron	1,802	274	4,100	2,366
Bar, etc	2,420	1,276	4.995	4,333
Railroad	1,648	1,520	11,620	8,537
Hoops, sheets, etc	975	636	4.526	4,986
Galvanized shects	3.313	1,797	5,059	6,007
Tin plates	7,388	8,454	24,449	38,781
Casi, wrought, etc., iron	7.075	4.254	15.445	I 2.74 I
Old (for re-manufacture)	9.725	282	13,609	1,380
Steel	11,579	3,886	27,084	17,204
Lead	195	255	459	588
Tin, unwrought	1,033	1,628	1,665	4,495

THE Yarmouth, N S., Woolen Company have recently rebuilt their dye-house and waching and fulling mills, and re-laid with brick the foundation of the extractor. They added last summer a Stillman wool and waste duster, a 6/4 Paragon steam press. At present they have under contract a new boiler, which will be delivered carly in May. This boiler will have a capacity nearly double the one now in use, and will give the company additional power, which they much need. It is built by the Burrell-Johnson Iron Co.

It is stated in the *Metallarbeiter* that iron can be coppered by dipping it into melted copper, the surface of which is protected by a melted layer of cryolite and phosphoric acid, the articles to be thus treated being heated to the same temperature as the melted copper. Another process consists in dipping the articles into a melted mixture of one part of chloride or fluorine of copper, five or six parts of cryolite, and a little chloride of barium. If the article, when immersed, is connected with the negative pole of a battery, the process is hastened. A third method consists in dipping the articles in a solution of oxalate of copper and bi-carbonate of soda, dissolved in 10 or 15 parts of water, acid ified with organic acid.

By last mail we received a copy of THE CANADIAN ENGINEER, a monthly journal published at Toronto and devoted to the interests of the mechanical, electrical, marine, locomotive, stationary and sanitary engineer; the manufacturer, the contractor and the merchant in the metal trade. It is a well-written, well-printed and most instructive and entertaining paper, and, we think, should find,many readers in St. John's. Prominent among the articles in this month's issue is one from the pen of E. C. Willis on "The Asbestos Fields of Port au-Port." As the subject of asbestos mining has lately been claiming the attention of the public here, we gladly give it a place on the third page of this issue, feeling confident that it will be read with pleasure by those interested. Any one wishing to see a copy of the tnagazine can do so by calling at the Herald office. —Evening Herald, St. John's, Nfd.

A METHOD is described in La Semaine des Constructeurs for preserving cast-iron from liability to rust, at the same time insuring a pleasing surface. In accomplishing this, the casting is first thoroughly cleaned, washed in dilute acid, and, when dry, the surface is well rubbed with a metallic brush or a file, and then painted several coats with raw petroleum, care being taken that each coat be thoroughly dried before the next is applied. On the last coat becoming dry, it is to be well rubbed with a stiff hair brush, the result being an attractive dull polish, capable of resisting a high degree of heat and not susceptible to any attack by rust. This condition may be indefinitely preserved and improved by the occasional application of a single coat of petroleum, followed by brushing.

H. A. Rovce has described an interesting adaptation of electric welding to the filling in of "blow holes" in steel. The placing of a plug of steel into the blow hole so as to secure a union between the plug and the mass—a plan formerly oractised—was often found to be attended by great uncertainty. The next idea was to place small steel scrap or filings in the hole and to melt them by the electric current; but the chilling effect of the walls was too great, and the metals would not weld. The difficulty was at last conquered by heating the mass in an oil or gas furnace, and then utilizing the electric arc for melting steel filings introduced into the hole. In this way, in a few minutes, so perfect a union is established between the plug and the walls of the existing metal that no line of demarcation was apparent when the piece was planed down. The Northey Manufacturing Co. of Toronto are preparing to open a branch in Montreal for the sale of their well-known pumping machinery. The office and warerooms will be situated in St. James' street, nearly opposite the *Star* office, where skilled attendants will be on hand to set forth the details and working of their machinery. A stock will be kept on hand for immediate delivery. They will also be prepared to quote on entire plants, including pumping, piping, valves, etc.

THERE are 24 salt manufactories in Canada in the following places: Goderich, Clinton, Seaforth, Kin cardine, Blyth, Wingham Brussels, Park Hill, Courtwright, Exeter, Hensall, Sarnia and Port Frank. The total consumption of salt in Canada is about 900,007 brls. The total cales of Canadian salt are about one-third of this, or 300,000 brls., the balance being imported from England and the United States. The Goderich *Star* estimates the output of Coderich salt in 1892 at 80,000 barrels, leaving only 220,000 barrels for the other twelve towns, or an average of about 18,000 each.



44.598 Aaron H. Sensenig, Hummelstown, Pa., axle box.

- 44,601 Alfonso L. Jaynes, Buffalo, N.Y., time recorder. 44,602 and 44,603, Orville H. Lawrence, Waverly, N.Y., pipe elbow, also pipe-bending machine.
- 44,606 Bell Telephone Co., Montreal, Que., telephone.
- 44,607 Peter St Mary, Portland, Ore., damper regulator for steam furnaces.
- 44.611 Rudolf Diesel, Berlin, Prussia, German Empire, gas and petroleum engine.
- 44,614 Ole H J. Krag, Kongsberg, Norway, magazine firearm.
- 44,615 Max A. T. Boehncke, Centineala, Cal., brick kiln.
- 44 617 Wm. T. Mackey, Vancouver, B. C., device for tightening wheel tires.
- 44,618 Lester B. Kenney, Dansville, N.Y., car coupler.
- 44.621 John S. MacArthur, Glasgow, Scotland, process of extracting-gold and silver from ores and the like.
- 44,622 Wm. Brooks, Liverpool, N.S., dredging machine.
- -44,625 James V. Burke, Chicago, Ill., smokeless furnace.
- 44,626 Geo B. Hussey, Providence, R. I., life raft.
- 44,630 John D. Bi'lings, New York, N.Y., machine for forming horse-shoe blanks.
- 44,631 William R. Funk, Lexington, Neb., spike.
- 44,632 Albert C. Seibold, Mount Vernon, N.Y., electrodes for arc lamps.

.44,638 Robert H. Martin, New York, N.Y., non-conducting covering

- 44,641 Wm. F. A. Kolle, Stuttgart, Germany, gas stove for cooking.
- 44,643 Carl Mohring, Pankow, Prussia, Germany, firebar.
- 44.650 Herbert W. Kincaid, Athens, Ont., metallic shingle.
- 44.652 George Lunge, Zurich, Switzerland, process for producing basic lead salts and obtaining certain lye products.
- 44,658 Cyrus F. Noble, Baldwin, Maine, chain coupler.
- 44,662 John H. Carson, New York, N. Y., hose coupling.
- 44,663 Hugh Williams, Victoria, B. C., generator for gas.
- 44,665 Alexander D. Hall, San Francisco, Cal, screw propeller.
- 44,666 Henry F. Braum, Denison, Texas, car brake.
- 44,668 Jasper Finney, Goulding, Fla., means for guiding logs down
- streams and rivers.
- 44.670 William Yound, Peebles, Scotland, illuminating gas.
- 44 671 James Roots, High Holborn, London, Eng., petroleum or liquid hydro-carbon engine.
- 44.675 Louis E Howard, Plainfield, N.J., electric arc lamp.
- 44,677 James Hargreaves, Farnworth-in-Widnes, England, electrolysis of salts
- 44,682 Patrick Fitzgibbon, Oswego, N.Y., generator for steam.
- 44,689 Carl Hoffman, Charlottenburg, Germany, rock drill.
- 44,693 George C. Young, Washington, N.J., signal for railways.
- 44,694 John Clingman, Dayton, Ohio, carburator.
- 44,696 Alonzo B. Sce, Brooklyn, N.Y., electric elevator.
- 44,697 Thomas Craney, Bay City, Mich., electrolytic apparatus,
- also 44,698 for electrolysis of metallic salts. 44,700 Joseph H. Brady, Kansas City, Mo., heating, cooling, and
- ventilating system.
- 44,702 William Peter Bettendorf, Davenport, Iowa, metallic wagon ••• frame.
- 44,705 Christian Erdbrink, Paderorn, Westphalia, Prussia, blastpipe for locomotives.
- 44.706 Thomas C. MacAdam, Ferndale, Pa., snow plough.
- 44,714 Frank P. Ziegler, Milwaukee, Wis., gas heater.
- 44,715 Beniah M. Dunson, Kenton, Ohio, heating apparatus.