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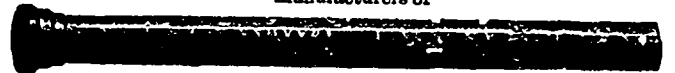
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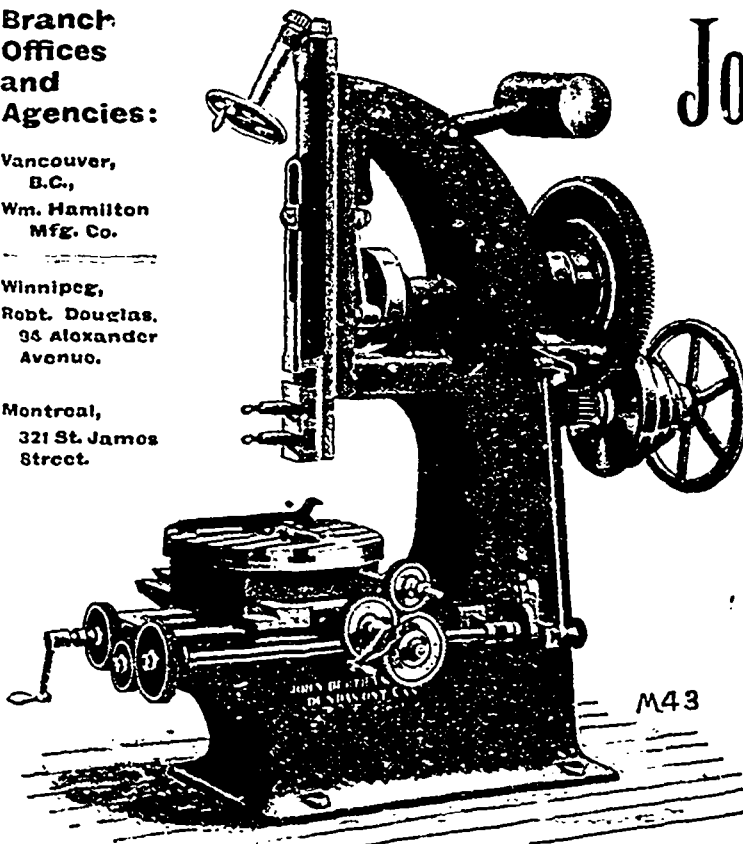
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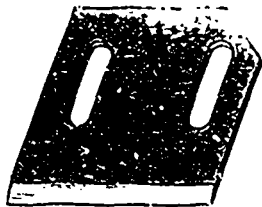


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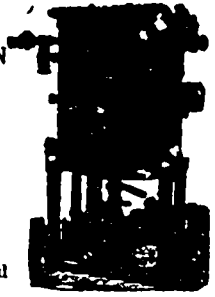
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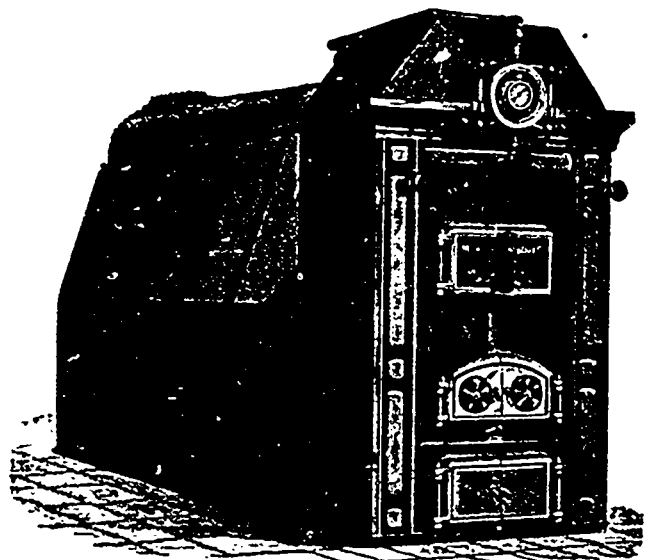
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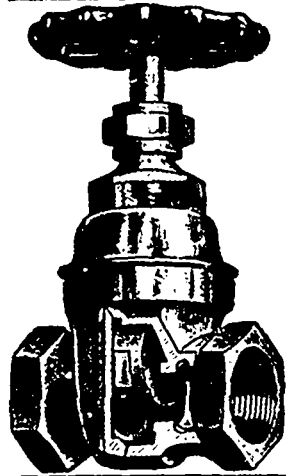
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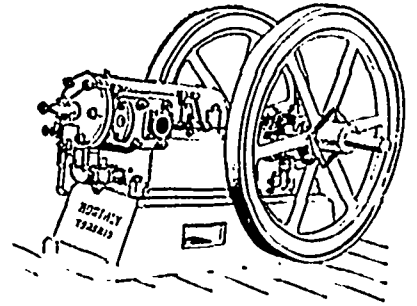
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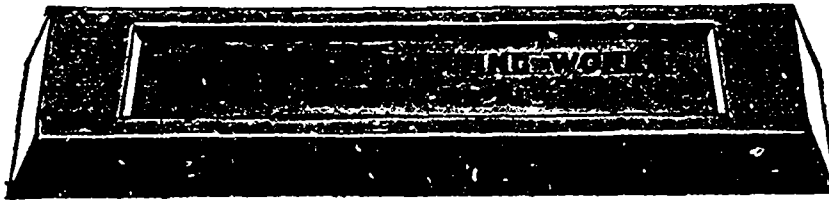


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*Official Organ of the Canadian Manufacturers' Association.***SUBSCRIPTIONS:**

CANADA AND UNITED STATES, - - - \$1.00 PER YEAR.
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**C. A. G. BROWNE, 145 Fleet St., London, E.C., Eng., Sole Agent
 in Great Britain.**

THE NATIONAL POLICY AND THE GROWING TIME.

"The Captains of Industry" department has always been a prominent and important feature of THE CANADIAN MANUFACTURER, for in it is recorded such incidents as the erection of new and the enlargement of old industrial establishments, the output of special products of our factories, the improvement of methods, the shipment of goods to domestic and foreign markets, etc.; and in other pages as occasion requires we have shown that whatever prosperity attends our manufacturing industries is the result, generally, of observing that policy that gives tariff protection to them. Under that policy Canada has grown and prospered, and our manufacturers have not only arrived at a point where they virtually control and supply the home market, but have become exporters to foreign markets. Whatever other political views our manufacturers may entertain regarding other matters, they stand and have stood solidly together in their advocacy of tariff protection, and it is not at all probable that they will ever do otherwise; and any political party that counts upon the votes and influence of the manufacturers can only hope to win them by loyalty to the principle of tariff protection. In Canadian politics of very recent years, aside from the question of tariff protection, the issues presented for consideration have been, as a general thing, of too inconsequential a character to influence any great change in the popular vote; and as long as the main issue presented at our general elections was the maintenance of protection or a radical departure from it, just so long did the advocates of it receive the support of the manufacturers and thus maintain their control of the Government. Unfortunately for the party then in power—for that party, we say—previous to the last election they allowed other issues to become uppermost and of greater importance than that of protection, and, as might have been expected, having become neglectful of the vital interests of the manufacturers, they were retired to the cold shades of the vanquished. Having through their own unwise act forfeited the support of the manufacturers and the control of the Government, and observing that the party now in power

fully recognize the imperative necessity of maintaining the policy that so strongly attracts the manufacturers, they are unhappy, and seek to regain their lost prestige by shouting that their tariff clothes have been stolen and are worn by the other fellows. It won't do. The other fellows could never have captured the clothes if they had not been unwisely laid off. As long as those in power maintain the policy of protection, and as long as the "Growing Time" continues, the manufacturers will ask for no change. The existing status is quite satisfactory.

THE PHILADELPHIA COMMERCIAL MUSEUM.

In the August 4th issue of this journal reference was made to the National Export Exposition which opened at Philadelphia September 14th, to remain open till November 30th. It was shown that every line of American manufactured products was to be exhibited; that delegates from commercial organizations all over the world would be present; that the exhibits would include samples and specimens of a large variety of goods sold in foreign markets such as could to advantage be manufactured in the United States, and that there would be a department in which would be shown how goods should be packed, labelled and shipped in order to meet the requirements of foreign trade. It was also shown that on October 10th an International Commercial Congress would convene in the Exposition Auditorium in connection with the meeting of the International Advisory Board of the Commercial Museum.

A year ago the United States Congress appropriated \$50,000 for the purpose of collecting samples of the principal goods which the countries of the world import from other nations. The object of this appropriation was to give American manufacturers an exact idea of the goods they were called upon to produce in competition with other countries. The appropriation was intrusted to Mr. William Harper, chief of the Bureau of Information of the Museum, who has recently visited almost every capital of the globe, from St. Petersburg to Johannesburg, and Melbourne to Honolulu. As a result of these journeys Mr. Harper has shipped to the United States for exhibition before the International Congress which will convene at Philadelphia in October one of the most varied cargoes of samples ever handled by a commercial trader.

The Canadian Manufacturers' Association is in receipt of a letter from Dr. W. P. Wilson, Director of the Museum, informing it that as a prospective member of its International Advisory Board of the International Commercial Congress to assemble in October, the Association was requested to make such arrangements as will admit of the attendance of a good delegation from it. Dr. Wilson explains the scope of the Congress as follows:—

The Congress will be of world-wide importance. It will comprise delegates from commercial organizations in nearly every country of the world, and also special government delegates appointed by all nations on invitation of the United States Government. The Congress will be in daily session, and each country represented will be expected to choose the subjects for discussion and to treat of them in papers prepared beforehand. There will be given every opportunity for free and fair discussion of all matters of interest between the United States and all other nations. The meeting being unchecked by any government control, is certain to arouse world-wide interest, and its recommendations are bound to

have their effect in shaping the legislation of the United States. The importance of the Congress is such that its opening session will be presided over by the President of the United States, and the whole Diplomatic Corps stationed at Washington will be in attendance. All the leading Chambers of Commerce and Boards of Trade in the United States will be represented, and the leading business men of all countries will be invited to attend the Congress as auditors. The delegates accredited from foreign governments and Chambers of Commerce will have an official character, and will be entitled to a vote in all the proceedings.

In a brochure sent by Dr. Wilson, in alluding to the organization of the museum and to the officers thereof, it is stated that the Advisory Board shall be composed of official delegates appointed either directly by the various governments or by the representative commercial bodies of the countries therein named, in which Canada is included, and that "the Advisory Board shall exercise a general supervision over the administration of the museum in order to promote its development and foster the efficiency of its service for the interest of commerce." It is also shown that the work of the Bureau of Information is directed towards securing complete and practical information concerning all the principal trade centres of the world, the character of the business houses located in each centre, and the local demand for commodities of every description.

At a meeting of the Executive Committee held the present week, Mr. John F. Ellis, President of the Association, was requested to attend the International Congress at Philadelphia at the head of a delegation of members to be named by him, and also to name a member of the Advisory Board to represent the Association.

HISTORY OF THE AMERICAN IRON AND STEEL ASSOCIATION.

Mr. James M. Swank, the General Manager, publishes in *The Bulletin* an exceedingly interesting history of the American Iron and Steel Association, from which we glean the following facts:

The American Iron Association was organized at Philadelphia in March, 1855, at a large meeting of iron manufacturers. Hon. George N. Eckert, of Reading, Pa., was chosen President. The office of the Association was established at Philadelphia, and a constitution was adopted from which we quote the first article: "The general objects of this Association shall be to procure, regularly, the statistics of the trade both at home and abroad; to provide for the mutual interchange of information and experience, both scientific and practical; to collect and preserve all works relating to iron and steel, . . . and, generally, to take all proper measures for advancing the interests of the trade in all its branches." The Association thus organized continued in active existence until 1859, during which time much valuable work was done by it. The *Iron Manufacturers' Guide to the Iron Works and Iron Ore Mines of the United States*, compiled by the Secretary, Professor Lesley, was a work of which the American iron trade stood in great need and of which it had and still has just reason to be proud. It was published in 1859 and contained about 800 pages.

Five years later, in November, 1864, the Association was reorganized, and its name enlarged to the American Iron and Steel Association. The office of the Association was estab-

lished at Philadelphia, and the following permanent officers were elected: President, Captain E. B. Ward of Detroit; Vice-Presidents, Samuel J. Reeves, Abram S. Hewitt, James M. Cooper, Chas. S. Wood, and Joseph H. Scranton; Treasurer, Charles Wheeler; Secretary, Robert H. Lamborn. Captain Ward remained President until February 18, 1869, when he declined a re-election and was succeeded by Samuel J. Reeves. Mr. Reeves continued to be the President of the Association until December, 1878, when his career was terminated by death. He was succeeded by the Hon. Daniel J. Morrell, who was elected in March, 1879, and who died in 1885. Mr. Morrell resigned in 1884, and was succeeded as President by Hon. B. F. Jones, of Pittsburgh, who was elected in January, 1885, and is the present head of the Association.

From 1864 to 1899, a period of thirty-five years, the Association has had only four presidents, and during the same period the Hon. Abram S. Hewitt has continuously served as one of its vice-presidents. Another vice-president, Mr. Wharton, has served since 1875. Still another vice-president, William Metcalf, has served since 1884. In the same period of thirty-five years the Association has had only four secretaries, its present secretary, who has also been general manager since 1885, having entered upon his duties on January 1, 1873. It has had only two treasurers, Charles Wheeler serving from 1864 to 1883, and Andrew Wheeler from 1883 to the present time.

Professor Lesley's *Iron Manufacturers' Guide*, published in 1859, was the only compilation of information concerning the location, ownership, etc., of the furnaces, rolling mills, forges, and steel works of the United States until 1873, in which year the first edition of the *Directory to the Iron and Steel Works of the United States* was published by the American Iron and Steel Association. The *Directory* has since appeared regularly every two years, fourteen editions in all having been published, each edition being more complete than its predecessor. The *Directory* fully describes and freely advertises all the iron and steel works in the United States, Canada and Mexico, and in addition contains long lists of leading consumers of iron and steel.

The Annual Statistical Report of the Association appears, as its name indicates, every year. It gives complete returns for the whole country of the production, imports and exports, prices, etc., of iron and steel and iron ore during the year preceding its appearance. It is now the settled policy of the management of the Association to print in its *Bulletin* the statistics of the production of pig iron, Bessemer steel, open-hearth steel, steel rails, wire rods, etc., as promptly as they are obtained, thus anticipating in part the comprehensive and complete summary of statistics that appears later in the Annual Report.

The *Bulletin* appears semi-monthly and is sent regularly to every manufacturer of iron and steel in the country, to the editors of leading newspapers, and usually to Senators and representatives in Congress. In addition to the statistical features of the *Bulletin* that are above referred to, its columns are devoted (1) to a condensed review of the iron and steel markets, (2) to a summary of the most important trade news, (3) to the preservation of historical facts of value relating to the iron trade, and (4) to the discussion of revenue and other questions of public policy as they arise and which immediately

or remotely affect the prosperity of American iron and steel industries.

The tariff interests of the American iron trade have always received the careful attention of the Association. They have never been neglected. As a result of this attention the Association has never lost a tariff battle. Duties on iron and steel have usually been fairly protective and all that were asked for. Without the attention that has been given to the tariff interests of American iron and steel manufacturers by the Association there would have been many failures to protect these interests in the last thirty years, and the full measure of their existing prosperity would not have been attained. These tariff interests may not require the same amount of attention in the future as in the past, but when prices fall on the other side of the Atlantic, as they are certain to do some time, many of the present rates will be essential for protection and an effort may be necessary to retain them. Furthermore, the Association has always contended for a tariff policy that will adequately protect all the industries of the country, for the iron trade can not be prosperous if other industries are not; hence the necessity for a continuance of the general tariff work of the Association.

Any review of the work of the Association would be incomplete which did not mention the history of the pioneers in the American iron industry which is to be found in *Iron in all Ages*, a volume of 554 pages published in 1892, and the history of tariff legislation in Great Britain and the United States, which is to be found in *Notes and Comments*, a volume of 228 pages, published in 1897, both works having been prepared by Mr. Swank. The tariff tracts of the Association, prepared also by the same hand, fill several volumes and have been distributed by millions of copies.

In addition to the work above specified the office of the Association in Philadelphia (at which four clerks in addition to the Secretary and General Manager will always be found busily employed, occupying two floors of the building), constitutes a bureau of general information for the American iron trade. A large technical and reference library has been provided. Scarcely a day passes in which letters asking for information that is contained in this library or in the Association's own statistical publications are not received and promptly answered. These letters come from members of Congress, editors, purchasers of iron and steel products, manufacturers of iron and steel, and statistical bureaus at home and abroad, including bureaus of the American Government. Customs officials often consult the Association concerning the application of tariff provisions to imports of iron and steel.

The organization during the past year of so many large corporations for the manufacture of iron and steel has created a demand for a complete list of these corporations and of the numerous iron and steel properties that have been absorbed by them. This list is now in course of preparation by the Association.

The great value of the work of the Association consists in the fact that it is not spasmodic but is continued from year to year. It was commenced many years ago, as has been shown. It should be continued in the future with unabated energy. Men may come and men may go, but the American iron trade must always need an organization that will know how to do and will do those things that manufacturers can not themselves do individually. To maintain the American Iron and

Steel Association as the representative of all branches of the American iron trade can not involve any hardship to anybody if its expenses are equitably borne by those who are especially benefited by its work. These expenses, including rent, printing, postage, salaries, etc., average about \$1,000 monthly. Only one contribution is requested annually. Assessments upon the members of the Association are always made as equitably as possible. The Association employs no agents at high commissions to annoy manufacturers with applications for contributions to its treasury.

AS TO ACETYLENE GAS.

In our July number was published as a part of the proceedings of the Convention of the Canadian Electrical Association, a tabulated statement, showing the number of acetylene gas plants installed and the degree of success which had attended their operation. In another column will be found a letter from a manufacturer of acetylene apparatus declaring the data given in the above mentioned statements to be entirely inaccurate. **THE CANADIAN MANUFACTURER** also expresses doubt as to the accuracy of the published data, and calls upon *The Electrical News* to explain why it should have published what it could not prove to be true. A little investigation would have shown the editor of **THE MANUFACTURER** that the data was compiled, as stated in print, from reports submitted to the Canadian Electrical Association, and was, as already stated, presented to the members by the President at the recent annual convention. Its subsequent publication as part of the proceedings followed as a matter of course. Under these circumstances *The Electrical News* is under no obligation to prove the correctness or otherwise of the figures. On the other hand, **THE MANUFACTURER** has not published any evidence to support its contention that the data is unreliable.—*Canadian Electrical News*

Our esteemed contemporary gives itself away, for in the very letter that it alludes to from a manufacturer of acetylene gas machinery, data is given that disproves the assertion that there are only 155 machines in use in Canada. If *The Electrical News* desires to verify its unverified statement we will have pleasure in giving it the names of a few Canadian concerns whose annual output each is in excess of the gross number mentioned in the statement alluded to.

EDITORIAL NOTE.

With the telegrams pouring in from all parts of this fair Canada of ours, telling how the harvesting of our immense grain crops is progressing, and of the abundant reward our farmers are reaping for their labors, it is quite evident that Mr. John N. Hilliard, who writes the following in the September Home Journal, has been giving his experience in our own Manitoba. He says:—

With the first touch of gold on the beards a feverish activity begins. The farmer gets his binder and reaper ready and arranges with his neighbor to trade off work. Daily the thresher creeps nearer, now East, now West, but always farther North. At length the men of the family ride away in a wagon to help a neighbor, returning at night with the news that "the machine may be here any time now." The women are thrown into a flutter of excitement, and the next day, while the men are gone, the oven is filled with loaves, then with pies and cakes. The great kettle is hung on the crane in the yard and hams are boiled. All the buttermilk is saved to be sent to the men in the field, and root beer is brewed. The chickens are dressed and vegetables gathered in anticipation of the harvest supper.

At last the threshing, drawn by four horses, pulls to the field, and other wagons follow, loaded with singing, shouting men and boys, most of them neighbors, only a few travelling with the machine. The last wagon will contain women and girl neighbors, who have come to help get supper and wait on them. They come on to the house, bringing with them many dishes, knives and forks and table linen to help out the ordinary family outfit. Such shouting and laughing and joking and exchange of good news and bad news!

In the windless September air the booming of the separator's cylinder rises above the steam voice of the traction engine. Six teams are in the field hauling the wheat to the machine, and the feeder, with easy, majestic movement, gathers the sheaves under his arms and feeds them into the insatiable maw. All the afternoon the golden straw climbs and falls over in the smoky air; the chaff flies in a blinding cloud; and the grain flows like a stream of sun-flecked water into the two bushel measures, which are tipped into a wagon

LITERARY NOTES.

September is the month for fishing and outdoor sports, and is the beginning of the hunting season in Canada. Scribner's for September has a number of articles with an outdoor flavor to them. It opens with an account by Frederic Irland of what he calls "the finest canoeing country in the world." He made a five hundred mile journey from Mattawa to the headwaters of the Ottawa and Gatineau Rivers, through a region abounding in fish and moose. It has been for centuries and is now the home of the Algonquin Indian. The region through which Mr. Irland travelled with Algonquins for guides is the best sportsman's haunt left in America. Much of the wilderness is as yet uncharted. The illustrations are made from the author's abundant photographs. There is also a story of life and adventure in the Arctic regions by Albert White Vorse. It is entitled "The Education of Præd" (illustrated by Henry McCarter), and tells how a Western college professor learned something of value from the Esquimaux.

Messrs. Warwick Bros. & Rutter, stationers, manufacturers of blank books, etc., Toronto, have sent us a beautiful brochure entitled "On the Making of Blank Books," in which, as the title indicates, is a description of some of the materials which enter into the production of such books, and the methods of production. Of course all business men have use for blank books of different descriptions, but few of them outside that trade have any adequate idea of the details, and we are sure that the concern alluded to would have much pleasure in sending their interesting little book on request.

Dye Stuffs, their Properties and Applications—A Vest Pocket Book for Dyers and Colorists, compiled and published by Wm. J. Matheson & Co., Limited, 182 Front Street, New York. Messrs. Matheson offer this compendium of dye stuffs and dyeing methods with the hope that it may prove a handy guide to the proper discrimination in the choosing of colors and their applications: that its use may increase the value of the results of the dyehouse, and its contents simplify the many complications that have necessarily arisen with the rapid advance in the art of dyeing. The book, which is beautifully bound in flexible morocco cover with gilt edges, and of size convenient to be carried in the pocket, makes reference in detail to dyeing of cotton, wool, silk, wool and cotton (mixed) dyeing wool and silk (mixed) dyeing cotton and silk (mixed) dyeing miscellaneous dyeings, cotton, wool, silk, wool and silk and cotton and silk printing, etc. There are also numerous tables containing information of great value not only to colorists but to the trade generally.

Mather and Crowther, Limited, advertising agents and contractors, 10, 11, and 12 New Bridge street, London, England, have sent us an artistic booklet which contains some interesting references to colonial trade, with sound advice on the best methods of promoting it. Among other things the pamphlet points out that evidences are not wanting to prove that if British exportation is to maintain its supremacy in the colonies, British merchants must without delay adopt methods more consistent with the spirit of the times, as foreign competition with Britain in the export market has of recent years become too stern a reality to be ignored. One of the most direct and most economical approaches to the more promising of the colonial markets, the booklet says, is unquestionably through the advertising columns of the colonial press. The booklet, printed on a beautiful rough grained paper, with a cover of sackcloth, to which is attached a green ribbon and seal, is most artistic and speaks volumes for the

enterprise and business methods of the firm by which it has been issued.

A well illustrated article on Holland and its people, in the *Methodist Magazine and Review* for September, is of special interest at a time when the world's attention is focused on the Hague. The remarkable secret history of Prince Bismarck, with engravings, is concluded. "In the Balearics" is a well illustrated account of Spain's last island possessions, save the Canaries. "Lowell and His Friends" has exquisite portraits of the poet and his accomplished wife. Three articles are devoted to Ruskin and his message to our age, with copious quotation and excellent portrait. An illustrated story of the days of Wesley, the *World's Progress*, and other articles make up a notable number. Eight articles are illustrated.

Mr. R. P. Rothwell, editor of *The Mineral Industry* (annual) has, with great labor and care, and much expense, collected the complete statistics of the mineral and metal production of the United States in 1898, an advance sheet of which he has sent us. These statistics have been collected for the seventh annual volume of *The Mineral Industry, its Statistics, Technology and Trade*, which will shortly appear, and which, it is probable, will be the most comprehensive and accurate statistics of the mineral productions of the United States yet published. The economic details published in this volume show that the United States is rapidly attaining the point when it will be the greatest exporter of minerals and metals of all the commercial nations. This book will be issued by the Scientific Publishing Co., 233 Broadway, New York.

The B. F. Sturtevant Co., Boston, Mass., have sent us their new illustrated catalogue of the Sturtevant engines for electric light plants and general high grade work. Regarding this subject they say:—"Modern steam engineering practice demands an engine capable of sustained operation at high speed, possessing the utmost refinement in the matter of speed regulation and developing the maximum horse-power with the minimum of weight and floor space. For many years we have devoted ourselves exclusively to the most careful design and development of an extensive line of simple, compact and absolutely high-grade engines to fulfil these requirements. That we have succeeded is best evidenced by a record of over six thousand engines of the various type built and sold since we entered this field. These engines are unique in many features, are especially adapted for, and fulfil the requirements of, dynamo driving and similar refined and continuous work in which they have been most extensively employed and for which they were distinctly designed. They are manufactured in large lots by special tools, their parts are interchangeable and duplicates are always carried in stock, so that repairs can be made without delay." The many different styles of engines alluded to in the catalogue are fully illustrated and described, including tables of dimensions, horsepower, etc. It will be sent on application.

Outing for September is a delightful number, which carries a pleasant variety of outdoor sketches and beautiful illustrations. The contents include: "Sea Rivals for America's Cup," by Captain A. J. Kenealy; "Sport with Sharp-tail Grouse," by Dr. H. A. Scott; "A Bear Hunt in New Brunswick," by Frank H. Risteen; "The Golf Clubs of Long Island," by Charles Turner; "Ten Days' Outing in Indian Territory," by E. H. Hudson; "The Cruise of the Catboat Elsie;" "Trolling," by H. G. Daniels; "A Gentleman Rider," by Kent Warfield; "Wheeling Through the San Joaquin," by Chas. Howard Shinn; "Fishin' for Fiddlers," by Geo. V. Tripiett; "Rail Shooting on the Maurice River Marshes," by B. W. Mitchell; "Paddle, Camp and Baby," by R. W. Wing; "Shooting in the Field," by Ed. W. Sandys; "Lost in the Australian Bush," by Hy. Virstow, and the usual editorials, poems, records, etc.

The many women who take pleasure and oftentimes find profit in doing fancy work will be pleased to learn that the Corticelli Silk Co., St. Johns, Que., have issued the third or July edition of their artistic and instructive needlework magazine. It is replete with numerous designs of silk embroidery of marvellous beauty, and contains handsome colored plates, fashion articles up-to-date and cleverly written, and photo-gravures showing the latest patterns in needlework and innumerable other designs so dear to the heart of cultured womanhood. In this number the publishers begin a series of articles by Mrs. L. Barton Wilson, entitled "Lessons in Embroidery." To novices these illustrated lessons will be almost as valuable as a regular teacher. The publishers announce a new department for October under the caption of "Modern Lace Making" which will be in charge of Mrs. Sarah Hadley, of New York. The same issue will likewise contain ideas for simple Christmas needle work, besides new patterns for centerpieces, doilies, picture frames, tea cloths, silk purses, etc.

CANADIAN MANUFACTURERS' ASSOCIATION.

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*The Executive Committee meet on the
Second Tuesday of each month.*

OFFICES

McKinnon Building,
TORONTO.
Tel. 1274.

J. J. CASSIDY, - SECRETARY.

THE OBJECTS OF THIS ASSOCIATION ARE:

To secure by all legitimate means the aid of both Public Opinion and Governmental Policy in favor of the development of home industry and the promotion of Canadian manufacturing enterprises.
To enable those in all branches of manufacturing enterprises to act in concert, as a united body, whenever action in behalf of any particular industry, or of the whole body, is necessary.
To maintain Canada for Canadians.
Any person directly interested in any Canadian manufacturing industry is eligible for membership.

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CANADA'S COMMERCIAL AGENTS.

The following Canadian Commercial Agents (whose addresses are given) will answer correspondence relative to commercial and trade matters, and give information to those interested as to local trade requirements in the districts they represent.

- J. S. Larke,** Sydney, N.S.W., agent for Australasia.
- G. Eustace Burko,** Kingston, Jamaica, agent for Jamaica.
- Robert Bryson,** St. John, Antigua, agent for Antigua, Montserrat and Dominica.
- S. L. Horsford,** St. Kitts, agent for St. Kitts, Nevis and Virgin Islands.
- Edgar Tripp,** Port of Spain, Trinidad, agent for Trinidad and Tobago.
- C. E. Sontum,** Christiania, Norway, agent for Sweden and Denmark.
- D. W. Ronnie,** Buenos Ayres, Argentine Republic, agent for Argentine Republic and Uruguay.

In addition to their other duties, the undermentioned will answer inquiries relative to trade matters, and their services are available in furthering the interests of Canadian traders.

- J. G. Colmer,** 17 Victoria Street, London, S.W., England.
- Thomas Moffat,** 16 Church Street, Cape Town, South Africa.
- G. H. Mitchell,** 15 Water Street, Liverpool, England.
- H. M. Murray,** 10 St. Enoch Square, Glasgow, Scotland.
- Harrison Watson,** Curator Imperial Institute, London, England.

IMPORTANT.—An enquiry addressed to **J. J. Cassidy, Secretary Canadian Manufacturers' Association, Toronto, Canada,** will place you in communication with the leading Canadian Manufacturers of the articles you mention. Merchants and Importers in all parts of the world are invited to make free and full use of the facilities afforded by this Association when they desire information about anything produced in Canada. No charge whatever for answering inquiries.

TRADE IN SOUTH AMERICA.

Recent British Blue Books contain reports by Mr. Worthington, special commissioner of the Board of Trade to investigate the conditions of British trade in certain South American countries from which the following extracts are made:

- Speaking of the trade of Valparaiso, Chili:**
- Alkali.**—The import of caustic soda (for native soap boilers) from England has increased largely, whilst that from Germany has fallen off.
- Apparel and slops.**—In made clothing England has increased largely, whilst Germany and France have fallen off heavily.
- Bags, empty.**—There is practically no foreign competition with gunnies from India, either direct, via England, or via Hamburg, whether for wheat, nitrate, or ores; but flour sacks are almost all made in the country from United States cotton osnaburgs, which consequently have a large sale.
- Beer and ale.**—This trade is now practically in the hands of the native breweries, of which there are four fine large ones which send their wares up and down the coast, besides numberless small ones. The imports are comparatively trifling, and those from Germany have come down to a tenth of what they were five years ago.
- Railway carriages and wagons.**—The railways in southern Chili almost all belong to the State, and the trade in rolling stock is chiefly by tender. Of late years, the United States has been most successful. Much, however, is done locally, as at present tenders for rolling stock from local makers are preferred, if not more than 15 per cent. higher than those from importers or than maximum prices fixed for the foreign article. Cotton manufactures are all imported.

- White shirtings, drills, etc.**—English goods hold the market, but there is also a comparatively insignificant importation from the United States and apparently also from the Continent.
- Domestic, gray drills, etc.**—The same remarks apply to these as to white shirtings, except that United States competition is becoming felt.
- In cotton prints and common qualities of trousering**—1.625d, to 3d. (3.2 to 6 cents) per yard—upon which the demand chiefly runs, the English goods practically hold the market. The trade in better qualities of printed trouserings is comparatively small.
- In printed flannelettes** also the great bulk of the business is in English goods. A certain amount (perhaps 20 per cent. of the whole) of continental goods do, however, find a market.
- In wove colored goods** the great bulk of the trade in Oxfords, tickings, etc., is English, but in trouserings German goods prevail.
- Woolen and worsted manufactures—plain cloths.**—In plain common woolen and worsted (and mixed) cloths for men's clothing, English goods now have the largest share of the trade; but the import of German goods is large nevertheless. In better quality goods and worsted suitings, the demand is comparatively limited. Tailors import enough for two suits of a pattern. This trade is done through travelers for London and Paris houses; mostly Frenchmen, I am informed.
- Dress goods.**—In woolen (and mixed) dress goods for women, continental goods are rather more used than English goods, and their import has increased in a larger proportion.
- Flannels** are not separated in the statistics from cotton flannelettes, so that it is impossible to judge of the position held by English pure flannel; but continental goods seem to

come in very cheap. The old-fashioned "baizes" are going out gradually.

Blankets are made to some extent in the country; otherwise the consumption seems to be about evenly divided between England and the Continent. The old-fashioned "poncho" is slowly becoming less in vogue.

Carpets and druggets.—The trade is mainly in English tapestry carpets of qualities about 11d. to 1s. 2d. (22.2 to 28.3 cents) per yard. There is some continental competition, but no American. Thick woolen saddle felt comes from Germany.

Hardware and cutlery—Hollow ware.—In cast-iron goods, the tinned ware is practically obsolete. In the enameled articles—pots, fry pans, stew pans, etc.—the British article is now almost entirely superseded by the German make, owing solely to the much lower cost of the latter, as, in quality, the German is very inferior to the British.

Wrought-iron enameled hollow ware has generally taken the place of the cast-iron enameled ware; it is also taking the place of the commoner class of earthenware. The German wrought-iron enameled ware has far outstripped the British, and now the United States manufacture is also competing.

Locks of commoner sorts are mostly from the Continent. A German iron chest lock, 2-inch depth, sells at \$1.75 (63.8 cents) per dozen; German iron till lock, 1-inch depth, at \$1.25 (45.6 cents) per dozen; 1½-inch depth, at \$1.50 (54.7 cents) per dozen; 1¾-inch depth, at \$1.75 (63.8 cents) per dozen; 2-inch depth, at \$2 (73 cents) per dozen; 2½-inch depth, at \$2.25 (82 cents) per dozen; 3-inch depth, at \$2.50 (91 cents) per dozen.

Implements and tools of industry—Plows—A small American plow, weighing eighteen kilograms (39.6 pounds), and sold at \$8 (\$2.85), has cut out the old "Concepcion" and "Valparaiso" hoes for vineyard work. Supplies of spare points are brought out for sale at 55 cents (20 cents) each point.

Shovels and spades come chiefly from England, but United States competition is keenly felt.

Adzes are less wanted than formerly, owing to the timber in the south being now wrought chiefly by circular saws, which come mostly from the United States.

Chisels and screw drivers of third quality are now coming from England to hold the market at low prices, but where wood work bulks largely in any tool, the United States seem to have an advantage. Joiners' tools generally are less wanted in proportion, than formerly, owing to doors and windows for houses being made by machinery.

Brush ware.—German brush ware is fast cutting out the English, American and French in common and medium qualities, which have, of course, by far the larger sale. A small German scrubbing brush, used in the country for washing cloths, sells at \$2 (\$1.09) per dozen; a German horse brush, at \$7.50 (\$2.73) per dozen; a German whisk dandy, at \$6.50 (\$2.37) per dozen; German shoe brush, at \$1.50 (54 cents) per dozen; German sash tools, at \$1.40 (51 cents) per dozen; German paint brushes (French pattern), at \$6.50 (\$2.37) per dozen.

Leather—The import of tanned hides from England has increased, whilst that from the Continent has fallen off. There are extensive tanneries in the country which tan all the native hides. Native hides are exported largely, almost exclusively to Germany, a large portion of the hides being of a coarse quality, destined chiefly, I am informed, for the Russian market.

The manufacture of boots and shoes is an extensive native industry. The work is largely done by farming out, and a good deal is done in jails. The import of boots and shoes has increased largely, and in a much larger proportion from England than from Germany; but now, the increase in duty to more than double what it was on patent leather and to more than three times on ordinary leather, is expected to very greatly curtail this trade.

Leather belting is now largely made in this country; but, in spite of this fact and the import duty now imposed (5 per cent), there is still a very considerable quantity of English make consumed, although the quality has had to be reduced in order to get the goods in at a price possible to obtain.

Saddlery and harness is also largely made in the country; in fact beyond a comparatively small quantity of English saddles, hardly anything is imported. The native manufacture is now further protected by increased duties. Much of that manufacture is of a very common kind, but it serves the purpose and is cheap. The advent of the railway from Buenos Ayres to Mendoza killed this and other Chilean trade with the east side of the Cordilleras.

Machinery.—English steam engines for agricultural purposes hold the market. Some good gas engines come from Germany; they have not a preference over the English, but tend to keep the prices of the latter down.

The market for mining machinery is, like the industry itself, in a very depressed condition. German mining machinery is reported better liked than English, and has also the advantage of there being more English mine managers than there used to be, but English winding engines hold their own.

Mining fuse, which was formerly exclusively of English manufacture, is now largely imported from Germany, being very much cheaper, whilst the quality is satisfactory.

In agricultural machinery, the United States seems to have gained the ascendancy. The threshing machines, for example, are reported lighter and quicker than English; and, although they do not separate so well, and will not last as long, they sell far more readily on account of their cheapness.

Nails, screws and rivets.—In cut-iron nails, the United States manufactures seem to have most acceptance; the nails are considered better proportioned, less likely to turn over or split the wood in driving. The nails are imported in neat little kegs, which form much more handy and attractive packages than the big iron drums in which English nails come.

Wrought iron "deck" nails come largely from Germany the English are considered too thin for ship-repair work, for which deck nails are chiefly wanted here. Common English deck nails are used for building purposes. Belgian bright horseshoe nails, which sell at about \$25.50 (\$9.30) per keg of 100 pounds, are fast pushing all others out of the market, being cheap and showy.

Tacks of American make prevail, and German G. C. nails are suitable. A packet containing 500 of the latter sells at sixty cents (21.7 cents).

Of wire nails, the consumption is large, the supplies coming exclusively from Germany.

Screws.—England practically holds the market in screws, but American coach screws, square headed, two inches by three-eighths, which sell at \$4 (\$1.42) a gross, are pretty certain to oust the English article, being cheaper.

Iron bedsteads of English make hold the market, but the duty is now so heavy—viz, something like 10s. 6d. (\$2.55) on a bedstead costing 12s. 6d. (\$3.04)—that imports are likely to fall away; moreover, the demand is reported to be now running upon a native-made bedstead, instead of upon the imported one.

Spring wire mattresses, generally of English make, are being, to a large extent, superseded by the country-made article.

Iron buckets come principally from England.

Cast-iron boilers, which were formerly imported from Great Britain in considerable quantities, are no longer used, the boiling of fat being now done by steam in the municipal slaughterhouse.

Wrought-iron hinges.—England was until lately the supplier of these goods, but the American-made article has entirely superseded the English one. American iron hinges (two inches, which sell at sixty five cents per dozen) have very superior make and finish (for a cheap article), and are put up in an especially neat manner.

STOVES IN URUGUAY.

United States Consul Swalen, writing from Montevideo, says:

Heating stoves.—It is very safe to say that ninety-five per cent. of the houses in Uruguay have no heating arrangements whatever especially designed for the purpose. It is claimed by many of the inhabitants that heat is at no time required in the houses; that heat in the house is not healthy, but conduces to maladies of throat and lungs. Yet, during the winter season from April to October, the dampness in the houses is far more unpleasant than crisp and snappy cold. With the frequent and heavy rains, the walls become very damp, and clothing or books must not touch them or a mold will form. Such a condition has for one of its results an enlarged percentage of pulmonary troubles, and a death rate out of all proportion to the general salubrity of the climate. There are no chimneys for either fireplaces or stoves. A \$14,000 residence, built this season, has for its only chimney a stovepipe let through the kitchen roof for the cook stove.

The American style of heating stove is about the only one seen in the market; the smaller and simpler forms being used. They are popular with those who have their homes reasonably heated; but the demand is small, and only one house in Montevideo keeps a stock. The American oil stove has found a good market here, and the sole competitor is one of Belgian make, with first-class blue flame combustion. The Belgian stove sells at about one-half the price asked for the American, on account of the fact that the United States article is usually a combination of lamp and stove and so comes under a different and higher customs classification.

Cooking stoves.—The native cooking stove is a very substantial affair of heavy wrought iron, made in local factories from imported plates. The stoves are good cookers and roasters, but do not bake so well. They are made with or without water reservoirs, and are very durable—something like the wrought iron range. About fifty per cent. more fuel is used by these than by American stoves of the same capacity. They cost from \$20 to \$70, according to style of finish and completeness of the water outfit.

Cook stoves have been imported for some years from the United States, and are gradually winning their way, especially in the European households. The fact that they save fuel tells in their favor, as coal costs from \$10 to \$14 per ton. The coal is all imported from Wales or the United States. Wood is even higher in price than coal, considering results.

The duty is a serious drawback to trade in this line. It amounts to eight cents per kilogram (2.2046 pounds), including the package. As the stoves must be well packed, the additional weight adds heavily to the cost, and a heating stove that could be bought at from \$7 to \$8 retail in any city in the United States must sell here for at least three times that amount, and then leave only a fair margin for profit to the dealer. The United States cook stove sells at about the same rate as the one made in Uruguay, but the wrought iron article, with its power to withstand hard usage, has been so widely employed that only when the better methods, greater economy, and generally superior character of the United States stove become known, will our manufactures win the market to any extent.

SHOES IN FRANCE.

United States Consul Van Buren, at Nice, France, writes.

I have not been able to find any men's shoes of American manufacture on sale in this city or in its neighborhood, and I have every reason for believing that none are sold at any point of the French or Italian rivieras. I am convinced, from my knowledge of the degree of excellence as to materials, workmanship, and shapes, that a good trade might be built up in men's shoes, and I am further convinced that merchants and dealers, once conversant with the advantages of the American articles, would receive them well.

A moderate number of men's shoes are brought here from Germany and Austria, and these are sold at retail at from fourteen to eighteen francs (\$2.70 to \$3.84) a pair. There are

several Parisian manufacturers who send their goods here, and their shoes are sold at about the same price as the German and Austrian articles. The very common article made here for workmen costs from six to twelve francs (\$1.16 to \$2.32), but it hardly deserves the name of shoe. As to the details of shoes sold here, they would cover everything in the shoe line as regards materials, shapes, and colors. Those made here come from the usual custom boot and shoe makers, from several bootmakers in the town who work in shops for the cheaper trade, and, as mentioned above, from Paris and abroad.

I do not know of any organized shoe manufactory anywhere in this vicinity, but there is a shop which furnishes custom shoemakers with uppers for high and low shoes of good quality at from four to nine francs (77.2 cents to \$1.74) per pair, and for common qualities at from two to five francs (38.6 to 96.5 cents) per pair. Some years ago, a company was organized in Paris called "L'Incrovable" for the manufacture of various styles of men's shoes, which has opened shops in various towns in France, Nice included. This company sells its high and low shoes, buttoned or laced, in black, tan, or patent leathers, at a uniform price of 8.50 francs (\$1.64) per pair. I am informed that the company distributed a ten per cent. dividend on its shares last year. I have heard that these shoes, which would come the nearest to competing with American factory-made shoes, leave much to be desired as to material, shape and durability. So far as the latter objection is concerned, it should be remembered that the climate of this region is such that the wear and tear ought to be much less than in our own Northern States.

DRIED FRUIT IN GERMANY.

Vice-Consul General Hanauer writes from Frankfort, in part as follows:

"The import duty of thirty marks per 220 pounds on canned fruits or preserves is an obstacle to the sale of United States fruits prepared in this way. Dried and evaporated fruit, however, can be sold at a profit. Up to this time, only dried plums have reached this market from Oregon. Large plums, packed in boxes holding twenty-five pounds, bring an average price, f.o.b. Portland, of from four to five cents in United States currency. The boxes should be lined with good paper and be artistically labelled. Apricots, pears, and nectarines should be packed also in boxes containing twenty-five pounds each. Evaporated apple rings should come in fifty pound boxes. Dried pears and apples are packed in hogsheads. Care should be taken that the fruit be dried or steamed on wooden frames, not on zinc, nor should they be bleached by the aid of metallic substances, as the law prohibits these methods."

FURNITURE IN GERMANY.

United States Vice-Consul-General Hanauer writes from Frankfort:

"There are no factories in Germany where cheap furniture is produced, it is made in small quantities at the workshops of individual joiners, who are supplied by wood-working establishments with the different parts in an unfinished state. These joiners work at a very cheap rate. It may pay American manufacturers to export high-class articles of wooden furniture to Germany, provided these are tasteful in design and superior in finish to those made in Germany. They should be of superior workmanship and solidity, and, if anything, somewhat cheaper in price than similar articles of German make. It must be taken into account that such American furniture will have its original cost price increased by about twenty per cent. of the selling valuation here, owing to the cost of packing, freight, insurance, and the German import duties. The usual terms for selling furniture in Germany are three months' credit; if payment is made on delivery of goods, a discount of three per cent. is customary. Frankfort is a large market for the sale of furniture, and many houses here are engaged in this line.

OPENINGS FOR TRADE IN JAPAN

Mr. Hiraga, President of the Commercial Museum, at Osaka, Japan, is desirous of obtaining samples of manufactured articles to be exhibited in his Museum with a view of the introduction of such goods in his country. Canadian manufacturers who may be desirous of extending their trade in that direction may address enquiries to Messrs. Nutsui & Co., 445 Broome Street, New York.

The list of samples desired embraces the following:

- Iron, wrought and cast.
- Steel in all forms.
- Nails, needles and wire.
- Galvanized iron.
- Aluminum and its manufactures.
- American timber and lumber.
- Celluloid and its manufactures.
- Leather manufactures.
- Bichromate tanning.
- Paraffine and wax.
- Typewriters.
- India rubber, crude, refined and manufactured.
- Novelties of every kind suitable for sale in Japan.
- Catalogues of any goods saleable in Japan.

A RUSSIAN PIPE CONTRACT.

The city of Nicolaiev, Russia, is about to instal a complete system of water supply. The water is to be taken from a depth of sixty to ninety feet by a series of wells, a collecting basin, and a standpipe. The plant is to be based upon a supply of about 2,000,000 gallons per day of eighteen hours. The pipe will amount to about sixty miles, dimensions not stated, with all necessary connections and fireplugs. Two pumping engines are specified, with Babcock & Wilcox boilers. Tenders for the plant as a whole or in part will be received for about four months. Interested parties should communicate with Mr. V. A. Datsenko, Mayor of Nicolaiev, Cherson, Russia.

GERMAN TRADE WITH URUGUAY.

Consul Monaghan, of Chemnitz, writes:

"The German press announces that Uruguay and Germany have agreed to go on trading on the basis of the commercial and shipping treaty of June 20th, 1892, under which each is guaranteed the same rights as the most favored nation. Germany, however, yields all claim to participation in the special concessions to citizens and goods of the United States of Brazil, Argentine and Paraguay. In 1897, Germany took from Uruguay imports worth \$2,570,000. Of these, \$1,569,134 were for extracts of meat, on which there are no tariff concessions. Skins and sheep's wool imports amounted to \$688,296. Germany's exports to Uruguay were valued at \$1,321,852. They did not suffer from deferential duties, Uruguay having no tariff treaties with other countries. Up to date Uruguay has done nothing to speak of in the way of manufactures. Only agriculture has been developed. Textiles are among the most important classes of imports. The people that can send wares cheap, good, and suitable to Uruguay's needs will win her markets."

AMERICAN MANUFACTURES IN SPAIN.

United States Consular Agent Mertens, at Valencia, Spain, writes that Spain's sugar factories with a yearly production of 60,000 tons have been unable to satisfy the home demand, amounting to about 100,000 tons per annum. The British Consul at Barcelona also points out that the war with the United States caused Spain's trade to fall considerably below that of previous years. Trade in general in machinery suffered the same as the whole of the import trade, the Spanish manufacturers being loth to order any machinery excepting that which was absolutely necessary. Manufacturers seem now to have made up their minds to the inevitable, and to be seeking to open up new markets, and, in many cases,

with striking success. There is, therefore, more animation; and the machinery trade promises to revive shortly, and be better than it has for some years. The machine-tool trade, the British consul states, remains much in the same state as before. First class tools come from England and from the United States, but low class tools come from the continent, or are supplied by local makers, who copy English models as to design, but leave very much to be desired as to finish and accuracy of workmanship. Some of this machinery is actually sold as of American origin, a higher price being asked for it than that of home production.

THE GERMAN VS. AMERICAN POUND WEIGHT

United States Consul Brodowski transmits the following explanation regarding the continued use of the pound as a weight measure in Germany and the relative values of the German and American pound:

"The metric system of weights and measures was introduced into Germany shortly after the Franco-German war, but the Germans in general in their everyday dealings continue the use of the pound almost exclusively, especially older people, who in their young days were accustomed to this expression. All my bills here for meat, groceries, etc., are made out in pounds: and a scale of the newest construction, which I purchased to verify the weights of goods delivered, indicates both kilograms and pounds. One kilogram is exactly two former German pounds, and such German pound therefore equals 1.1023 American pounds. If a German firm, especially a smaller one, which cannot afford to employ an English-speaking clerk, writes its letter to the United States in German and orders its goods in pounds, meaning German pounds, and the American firm makes its estimate in American pounds, the result will be trouble and misunderstanding. It is well, therefore, for our people in their correspondence with German firms to make a note of the difference between the German and the American pound."

BRITISH TRADE REPORT.

The statement of the British Board of Trade for the month of August shows an increase of £3,489,200 in imports and £2,072,500 in exports.

The imports from Canada consisted of 12,854 cattle, valued at £231,882; 11,663 sheep and lambs, valued at £18,897; 779,700 cwt. of wheat, valued at £258,905; 564,700 cwt., of wheat, meal and flour, valued at £269,100; 39,800 cwt., of peas, valued at £10,516; 68,532 cwt., of bacon, valued at £119,797; 22,108 cwt. of ham, valued at 47,808, 60,957 cwt. of butter, valued at £263,973; 257,638 cwt. of cheese, valued at £546,390; 12,253 great hundred eggs, valued at £3,902; 845 horses, valued at £24,269. The imports of cattle, bacon and hams compared with August, 1898, show a decrease. In cheese there is a slight decrease, but in eggs the decrease is very large. Compared with last year, the imports in sheep and butter show a very large increase. The total value of imports for the month is £3,119,680, and of exports, £4,119,303.

The chief increases in British exports to Canada were: Cotton piece goods, £46,000; linen piece goods, £19,000; woolen goods, £12,500; iron hoops, £32,000; tin plates, £22,000; railway steel, £51,500; seed oil, £19,000. The decreases in exports were: Wool, £14,000; apparel and slops, £45,000; earthenware, £27,500.

THE FURNITURE MANUFACTURERS.

The regular annual meeting of the Canadian Furniture Manufacturers' Association was held in Toronto, September 5th, Mr. George McLagan, of Stratford, Ont., presiding. After the transaction of routine business, an address by Mr. J. C. Siemen, and the reading of a paper by Secretary Shaw, the following gentlemen were elected as officers for the ensuing year: President, Simon Snyder, Waterloo; vice-president, Thomas Bell, Wingham; treasurer, Jos. Baird, Plattsville, Secretary, J. R. Shaw, Toronto.

AXES AND EDGE TOOLS IN DEMAND.

The present export demand for American axes and edged tools is the greatest ever experienced and this, with the unprecedented domestic demand has set American manufacturers and exporters at their wits' end to turn out sufficient goods to meet even such orders as have been accepted, while in innumerable instances orders, any of which would have been regarded as profitable a year ago, have been turned down.—The American Artisan.

BUTCHERS' SKEWERS AND BROOM HANDLES IN GREAT BRITAIN.

Mr. Harrison Watson, Curator for Canadian Section, Imperial Institute, London, England, writing to Department of Trade and Commerce, re butchers' skewers, says:—

"Upon behalf of certain of your correspondents I last autumn made some general inquiries as to the possibility of Canadian manufacturers of butchers' wooden skewers obtaining a share of the very considerable trade done in the United Kingdom.

"As was then pointed out, the supply here is mainly controlled by the American Skewer Trust which deals through resident agents. Prices are much cut up owing to severe competitions, and it is a question of small profits on large shipments. Many English houses are not satisfied with Trust methods and are prepared to welcome Canadian skewers if they can compete with American. It may be of interest to quote the following letter written on 21st instant by a large dealer in skewers who has since I saw him last autumn followed up the matter:—

"We have received several small consignments of Canadian skewers. Up to the present they have been very good in quality and have met a ready sale. The only disadvantage is they are rather irregular in forwarding their consignments. We consider they are as good or better value than any wooden skewers at present brought before our notice.

"This is to a certain extent encouraging, but this irregularity of delivery is a defect which is absolutely fatal to so many Canadian goods which might otherwise do well here.

"Many of the large merchants are connected with the American Trust, but there are others who would be prepared to go into the matter with any Canadian manufacturer possessing adequate means of regular production.

"The future of this trade appears worthy of the attention of Canadian skewer producers."

Broom handles. Mr. Watson also writes the Department re broom handles as follows:—

"As previously stated I gave the names of the Canadian manufacturers to my inquirers, and have since had a long interview with one of the partners. They claim to do a large trade, have a New York branch, and one of the partners visits the States constantly. They know Canada and would like to form a connection there if they can find the right people. They must, however, have some one capable of a large and constant out-put in broom handles, and state that they are at the moment ready to place an order for 3,000 gross, but would require that any Canadian mill doing business with them should give them their whole output. Any firm going into the export trade should, they think, hold spruce limits. *Perhaps you can suggest likely people.*

"The same firm would also like to obtain Canadian mouldings. Several Canadian manufacturers are already represented here, but possibly you know others who would like to work up an export trade.

"I have heard from several Canadian producers of chair parts, in reference to a previous inquiry.

"This wooden ware and turnery trade is one of which Canada should be destined to obtain a large share in the course of time.

"It is essentially a trade of large turn-overs and small profits, and would only be advantageous to persons holding large and well equipped mills. Regular delivery is important, and it is essential that a connection be formed with a large

importer and merchant who would assume the financial risk. Direct trade might be possible with the consumer in a few instances, but as a rule large transactions are carried on by the merchants. As an instance I might cite that large people like the Army and Navy Stores buy turnery entirely through merchant importers."

WINDMILLS IN ALGERIA.

A correspondent of The Manufacturer, writing from Algiers about the agricultural exposition recently established there, has this to say about the opportunities for the sale of American windmills in that country:

"One poor little model of a windmill was exhibited, accompanied by a placard setting forth most extravagant pretensions as to its cheapness and efficiency. It was a most clumsy-looking scarecrow, and in the gentle breeze was so jerky in its movements as to suggest the probability of its tearing itself to pieces in a moderately high wind. This was the only sign of a windmill in the grounds which came under my notice, although it appears to me that Algeria is a country where they might be introduced to great advantage. In many parts of the country there is a scarcity of rainfall, but, as in California, splendid crops can be secured by irrigation. Accordingly artesian wells are being sunk in various districts, and good, sweet water is often found at moderate depth. Many of them, however, require pumping to secure large quantities of water, and fuel is expensive, as no coal is found in Algeria. With ordinary wells, the noria, or elevator bucket system, is largely in use, requiring animal power to raise the water, and a man or boy to keep the animals moving. Can not the American manufacturers of windmills here find an outlet for their wares, which at the same time would introduce a decided improvement in Algeria? Recently I inquired of a well-known land-owner what chance there would be for American windmills here, and his answer was about as follows. 'There is certainly a large field for windmills in the country, and to sell them two conditions are necessary—to make them known to the planters and to persuade prospective buyers of their worth.'—The Manufacturer, Philadelphia.

AMERICAN IMPORTS AND EXPORTS OF IRON AND STEEL.

The following table, compiled from the monthly summary of the Bureau of Statistics of the United States Treasury Department, gives the quantities and values of leading articles of iron and steel and iron ore imported into that country in the fiscal year ending June 30, 1899; also the quantities of iron and steel and iron ore imported in the fiscal year ending June 30, 1898.

Importe—Gross tons Fiscal years.	1898.		Values.
	Gross tons.	Gross tons.	
Pig iron, spiegel and ferro.....	25,640	23,316	\$711,088
Scrap iron and scrap steel.....	1,502	4,642	65,185
Bar iron.....	15,177	19,975	907,495
Iron and steel rails.....	529	624	20,353
Hoop, band, or scroll.....	31	9	3,929
Steel ingots, billets, blooms....	13,759	10,625	1,088,847
Sheet, slat, and tagers.....	2,634	1,893	178,892
Tinplates.....	76,635	48,431	2,613,564
Wire rods, iron or steel.....	17,679	15,451	730,958
Wire and wire rope.....	2,374	2,356	348,080
Anvils.....	347	233	32,325
Chains.....	79	162	21,006
Cutlery, machinery, etc.....	5,376,517
Total.....	156,386	127,717	\$12,098,239
Iron ore.....	352,455	269,113	\$403,298

The total value of American imports of iron and steel in the fiscal year ending June 30th, 1899, amounted to \$12,098,239, against \$12,626,431 in the year ending June 30th, 1898, a decrease of \$528,192.

The following table compiled from the same summary of

the Bureau of Statistics gives the quantities and values of American exports of leading articles of iron and steel and iron ore in the fiscal year 1899; also the quantities exported in the fiscal year 1898.

Exports—Gross tons. Fiscal years.	1898		1899.	
	Gross tons.	Value.	Gross tons.	Value.
Ferro-manganese.....	8,403	495	495	\$20,607
All other pig iron.....	228,465	299,271	299,271	3,290,628
Scrap and old.....	60,195	91,985	91,985	1,041,229
Bar iron.....	4,770	10,520	10,520	365,144
Band, hoop or scroll iron....	1,552	3,015	3,015	107,703
Bars, or rods of steel.....	16,864	32,974	32,974	944,874
Steel wire rods.....	14,469	25,220	25,220	580,490
Billets, ingots and blooms...	16,100	43,242	43,242	882,790
Cut nails and spikes.....	14,424	14,647	14,647	604,215
Wire nails.....	10,221	22,872	22,872	973,434
All other nails, tacks.....	1,923	2,107	2,107	286,947
Iron plates and sheets.....	4,057	6,744	6,744	324,747
Steel plates and sheets ..	12,215	50,308	50,308	1,634,866
Tinplates and torn plates....	9	91	91	10,045
Structural iron and steel . . .	30,586	49,069	49,069	1,759,988
Iron rails.....	2,769	11,776	11,776	141,706
Steel rails.....	229,783	266,089	266,089	5,298,125
Wire.....	61,185	96,069	96,069	3,891,180
Locomotive engines.....				4,728,748
Agricultural implements.....				12,432,197
Builders' hardware.....				4,898,752
Saws and tools.....				2,943,620
Other iron and steel mfs.....				58,986,053
Total.....	717,990	1,026,494	1,026,494	\$106,148,148
Iron ore.....	11,537	31,412	31,412	\$66,400

The total value of American exports of iron and steel in the fiscal year ending on June 30th, 1899, amounted to \$106,148,148, against \$78,016,617 in the year ending on June 30th, 1898, an increase of \$28,131,531.

WINDOWS AND DOORS IN MARSEILLES.

A series of questions having been put to me concerning the possibility of introducing factory-made window sashes and doors in France, I wish to say first that the method of interior construction in this country does not resemble our own, and any manufacturer desiring to do business here should visit the country and study the local peculiarities. All building is done to stay, and the light pine doors and sashes often used in America would not do here at all. Furthermore, there are no window frames in France that slide up and down as they do in the United States. The sashes are as long as doors, a double sash being made for each window, opening inward, clamped with a special fastening, and provided with interior and exterior blinds. In this southern country, where winds are severe, the outside shutters have immovable slats and are very heavy. Taking up the questions in detail, I have to say:

There is no existing demand for factory-made doors. The notion prevails that ready-made doors are inferior to the handmade article, and a demand would have to be created.

As to shapes and styles in use, they are many. Sliding doors are unusual. As a rule, even large double doors swing on hinges. The dimensions of single doors of the ordinary type are: height, 2.20 to 2.25 meters (7.22 to 7.38 feet); width, 80 to 90 centimeters (2.6 to 2.8 feet); thickness, 3½ centimeters (1.4 inches). Doors generally are hung on simple hinges. As no factory-made doors are sold, prices can not be quoted. For handmade doors of the ordinary variety, the ruling price is 7 francs (\$1.35) per square meter (10.76 square feet), or for double doors, 10 francs (\$1.93) per square meter.

One builder ventures to say that from three to five thousand doors are used annually in Marseilles. No dependence can be placed on the guess. The consumption obviously depends on the amount of building.

Doors used here are of local manufacture, the lumber generally coming from Sweden and Norway. There are no special door factories in this city.—United States Consul Skinner, at Marseilles, France.

CANADIAN STEEL RAIL PURCHASES.

United States Consul Hulstead, at Birmingham, England, writing of recent Canadian steel rail purchases, quotes a British trade journal as follows:

The past two years have witnessed a revival in railway construction in Canada. Most of the rails required were formerly purchased in the United Kingdom, but now they are obtained largely in the United States. In 1896, the export of rails to Canada was so small as not to be separately mentioned in the United States export statistics. In the first nine months of 1897, however, 36,839 tons were sent across the border; and in 1898, in the same period, 86,349 tons, of the value of \$1,483,388. The total export of rails from the United States from January to September, 1896, was 53,841 tons; in 1897, it had increased to 88,573 tons, and in 1898 to 222,973 tons. This shows that the Americans must be finding markets for rails in other countries besides Canada. Japan, for instance, up to the end of September, 1898, took 42,417 tons, as compared with 27,466 in 1897. In Canada, there is no duty on steel rails above forty-five pounds weight to the yard for use on the regular railways. Consequently, the question of the preferential tariff does not come into consideration. Most of the rolling mills are on the Great Lakes, and the cost of shipment is probably less than from the United Kingdom. At the same time, however, there must be some other reason to account for the diversion in the trade which has taken place. Canada imported 10,906 tons of rails from Great Britain in the first ten months of 1897, but in the same period this year, the quantity had fallen to 5,858 tons. It may be mentioned that, in addition to steel rails, there are being brought into the Dominion from the United States large quantities of other railway material for use in bridge construction and in making rolling stock. The matter is one which seems to demand the careful attention of manufacturers in the United Kingdom.

MACHINERY FOR SCANDINAVIA.

A. Lowener, an engineer and partner in the machinery importing firm of V. Lowener of Copenhagen, Stockholm, Christiania and Malmo, who has just sailed for Copenhagen, left a number of substantial orders in this market. Among them are mentioned eight locomotives, 165 various sized lathes and two electric traveling cranes. This concern is the sole sales agent in the various cities mentioned for a number of American machinery firms. During Mr. Lowener's visit in New York he appointed F. Brotherhood as their local representative. Offices have been opened by this gentleman at No. 95 Liberty street. Since Mr. Brotherhood opened his new quarters orders have been received from Copenhagen for several carloads of hoists. In addition to the locomotives above mentioned a cable order has just been received calling for eight other engines, which are to be purchased from the same makers. This is only one instance showing to what extent American machinery and tools are being called for from foreign countries. It is argued that the proper introduction of all such goods only depends upon proper representation. Even from Southern Europe, Italy and Spain there are constant communications arriving here showing that an extensive field exists for machinery and all sorts of manufactured iron and steel. The transactions in these wares are of such magnitude that the manufacturers must deal direct with the importers.—New York Journal of Commerce.

STANDARD CASE FOR APPLES.

The Dominion Department of Agriculture has adopted a standard case for apples intended for export. A wooden box ten by eighteen by twelve inches deep is fitted with four sliding drawers, made of cardboard, each being divided into twenty-four squares. This ensures uniformity of size and immunity from bruising—two requisites to good prices for apples in the English market. Each case will contain twelve dozen apples.

NORWEGIAN WOOD-PULP INDUSTRY.

H.M. Consul-General at Christiania reports that, on the whole, the year 1898 cannot be considered a favorable one for the producers of wood-pulp. Notwithstanding that the exportation from Norway was heavier in 1898 than in any preceding year, amounting to 22,877 tons dry and 246,338 tons wet, compared with 24,743 tons of the former and 230,575 tons of the latter in 1897, the increasing competition from Canada, who has shown herself a more powerful rival to Scandinavia than she has ever done hitherto, diminished the demand for the Norwegian article, and forced prices down. In consequence, mill owners in Norway failed to reap the earnings they anticipated at the beginning of the year.

The attention of the Scandinavian Wood-Pulp and Cellulose Association having been directed to the increasing competition from Canada, two experts were sent out—one mercantile and one technical—last autumn, to study the state of affairs. They appear to have reported that in their opinion the Canadian competition had for the present reached its maximum, and questioned whether the prices obtained were very profitable.

The pulp has been sent to the same markets as in former years. Great Britain is the principal consumer, though, owing to the supplies from Canada, she did not consume quite so much of the Norwegian article as in the year before. For the rest, France, Spain, Belgium, and Denmark were good purchasers, while comparatively little went to Germany. Those manufacturers who had made contracts in advance made the best profits; but this branch of industry generally paid considerably less than in 1897. The quantity exported from Christiania was 38,883 tons, being 2,363 tons more than in 1897.

The number of wood-pulp mills is now sixty-four, three of which are connected with cardboard factories and ten with papermills.

The export trade in cellulose is of great importance to the city of Christiania, from which is drawn the greater part of the capital employed in its production, which is costly. Better profits were earned in this article than in wood-pulp, though, as in the case of the latter, the year was not such a satisfactory one for manufacturers as 1897, owing to the downward tendency of prices for the manufactured article, and the increased cost of the necessary raw materials. The quantity exported from Norway during the year amounted to 71,050 tons dry and 8,420 tons wet, being 3,391 tons less of the former and 2,914 tons more of the latter than in the year before. The bulk, as usual, went to Great Britain; the rest to France, Holland, and other countries. In this article, as in wood-pulp, Canadian competition has militated against Scandinavian cellulose manufacturers; and the rise in the price of coal was also another item against them.

The experts sent out in connection with the manufacture of wood-pulp in Canada, included cellulose in their investi-

gations, and arrived at conclusions favorable to the Scandinavian industry, at least for the present.

No new factories were started during the year, but others have been enlarged, and the total production was several thousand tons more than in 1897, and it is estimated that this increase will be further considerably augmented in 1899. A new sulphite factory, calculated to produce on a large scale, is expected shortly to commence working.—(British Foreign Office Report.)

SOUVENIR POSTAL CARDS.

The British Consul-General in Frankfurt-on-the-Main gives these interesting particulars about the great business that has been developed in Germany in the manufacture of souvenir postal cards. A trade paper estimates the number of workmen who find employment solely by the manufacture of the postal souvenir cards at 12,000—quite a remarkable industry in view of the article in question. It is computed that at present about 100 new postcards are published in Germany daily. If one calculates for each card but an issue of 1,000, which is if anything too small, this gives a total of 100,000 per day, or 600,000 per week—per annum, therefore, over 30,000,000. Since the introduction of the souvenir postal card the number of postal cards despatched in Germany has risen by 12,000,000. The majority of cards which are made in Germany are exported to Austria, Italy, Great Britain, France, Sweden, Russia, South America and Australia. The make-up of the souvenir postal cards has been considerably perfected and is now more refined. The latest are so-called "artists" postal cards, partially etchings, others in chromolithography, for the manufacture of which a number of renowned artists and representatives of the graphic trades have combined.

There is no reason of which we are aware why Canadian manufacturers and publishers should not enjoy a part of this souvenir post card business. It is a thriving industry in other countries and all the circumstances favor it in Canada.

AGRICULTURAL MACHINERY FOR PERU.

In a report from Cuzco, Peru, the German consul there mentions that there exists in Peru a good demand for agricultural machinery suitable for small concerns in the interior of that country. These machines, he says, have to be arranged in small sections in order to enable them to be made up in packages not over seventy-five kilograms (165 pounds English) for transportation on mule's backs. Manufacturers should say in their lists whether the respective machines are suitable for mule transportation or not, and give exact weights of the different sections. This is a point of great importance, and can not be sufficiently impressed upon manufacturers' minds.

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CAPTAINS OF INDUSTRY.

The following items of information, which are classified under the title "Captains of Industry," relate to matters that are of special interest to every advertiser on these pages, and to every concern in Canada interested in any manufacturing industry whatever, this interest extending to supply houses also.

If a new manufacturing enterprise of any kind is being started, or an electric lighting plant instituted, or an electric railroad, or a telephone, or a telegraph line is being constructed; or a saw mill, a woolen, cotton, or knitting mill; or if any industrial establishment has been destroyed by fire with a probability of its being rebuilt, our friends should understand that possibly there may be something in the event for them. Do you catch on to the idea?

The starting of any such concern means a demand for some sort of machines, machinery, or supplies, such as steam engines and boilers, shafting, pulleys, bottling, lubricants, machinery supplies, wood or iron working machinery, ventilating and drying apparatus; pumps, valves, packing, dynamos, motors, wire, arc and incandescent lamps, and an infinite variety of electrical supplies, chemicals, acids, alkalies, etc. It is well worth the while of every reader of the Canadian Manufacturer to closely inspect all items under the head of Captains of Industry.

The Laprairie Brick Co., Montreal, has been incorporated with a capital stock of \$150,000, to manufacture brick, etc.

The Louiseville Shirt Mfg. Co., with head office at Louiseville, Que., has been incorporated with a capital stock of \$25,000 to manufacture shirts, blouses, etc.

The Oxol Fluid Beef Co., with headquarters at Montreal, has been incorporated with a capital stock of \$50,000 to manufacture concentrated meat foods, etc.

The Harriston Pork Packing Company, Harriston, Ont., has just completed the erection of one of the largest, best-equipped pork packing establishments in Canada. The building is 140 feet long by eighty-two feet wide, four stories high, with a capacity for killing 2,000 hogs per week. Mr. William Walker, who has had twenty years' experience in this business, is the manager.

The name of the Empire Soap Co., Toronto, has been changed to the Imperial Soap Co.

The Dominion Cotton Mills Co., of Montreal are installing in their mill a 200 k.w S.K.C. synchronous motor. This is in addition to a number already placed.

The following jobs are at present under construction by Babcock & Wilcox Limited, in Canada. B.C. Sugar Refining Co., Vancouver, B.C., 500 h.p.; London Electric Co., Limited, London, Ont., 800 h.p.; Toronto Street Railway, Toronto, 300 h.p.; City of Winnipeg, Winnipeg, Man., 650 h.p.; Hoerens Freres' Chocolate Works, Montreal, 20 h.p.; Granby Rubber Co., Granby, Que., 250 h.p.; Standard Light & Power Co.,

Montreal, 1,450 h.p.; Ontario Rolling Mill Co., Limited, Hamilton, Ont., 128 h.p.; Henry Morgan & Co., Montreal (second order), 138 h.p.; Imperial Paper Mills of Canada, Sturgeon Falls, Ont., 500 h.p.; Dominion Steel Co., Sydney, C.B., 8,000 h.p.

The Ottawa Electric Railway Company has let a contract to Heney & Smith, of Ottawa, for the construction of an electric radial line from Ottawa to Britannia, on Lake Dechene, seven miles. The road is to be completed by November 1st. This will be the second electric suburban line out of Ottawa, the other being the Hull & Aylmer line.

A deputation of the Thorold, Ont., Town Council was in Toronto a few days ago to interview the directors of the Durham Rubber Company in an endeavor to induce that company to remove its factory, which is now situated at Bowmanville, to Thorold. This town claims to possess exceptional advantages for manufacturing concerns on account of its excellent waterpower and its fine railway accommodation. Not long ago a by-law was passed offering a bonus of \$15,000 to a silverplating company, but a neighboring town made a still better offer and captured the concern. The people of Thorold have determined to bring in manufacturing concerns, and intend to spare no pains to secure that end.

From the States and Canadian cities comes the complaint of a scarcity of steel and iron for structural work. In Toronto several large buildings are at a standstill. In Hamilton the pinch has not yet been badly

felt. Mr. Hobson, of the smelting works, says that there is undoubtedly a great shortage in ore. The works here, he says, are filling all orders and turning out about 175 tons of iron a day. At the rolling mills there is no difficulty in filling orders. The company has a large supply of both bar iron and bar steel. At the bridge works things are somewhat behind, as the company is dependent on American works for a portion of its supply. It is filling orders, however, but some will be several months behind.—Hamilton Spectator.

American capital to the extent of \$100,000 is being invested in a mill in course of erection at Grenville, Que., for the preparation of crude plumbago for the market. The mill is being built by the Keystone Graphite Co., of Wilkesbarre, Pa., which since the first of the year has been conducting mining operations near Grenville. Mr. H. P. H. Brunell, who is connected with the company states that his company expected to have the mill completed in about eight months. It will have an output of twenty-five tons per day and will give employment to about 125 men. As the crude mica goes through seventeen processes before it is placed on the market, the plant is necessarily an expensive one, so much so that but few are in operation. This company holds options on plumbago properties nearly a square mile in extent. The company has shipped none of the crude ore as yet, but has 1,000 tons on the dump, and about 100,000 tons in sight. The ore is at present very valuable and has a splendid market in all parts of the world.—Ottawa Citizen.

One of the features of the advent of electrically driven machinery has been the development of the electric fan. Originally the pulley driven fan appeared to fulfil the requirements of the purchaser; soon however the steam fan with direct connected engine displayed its utility, but to-day the fan driven by an attached motor has shown its general superiority and is rapidly supplanting the steam fan. Progress along this line has been largely due to the energy and foresight of the Sturtevant Co., of Boston. For the past ten years they have been gradually but surely perfecting designs and keeping abreast of the times in this important branch of engineering. Recent publications such as their Bulletins H., I. and M. display the features of their electric fans.

The Ragged Rapids, Orillia, Electric Power Transmission scheme is now fully

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under way. The Electric Maintenance and Construction Co., of Toronto, are the contractors in charge of the work. The entire electrical machinery, consisting of a 2,300 k.w., S.K.C. two-phase generators with 600 k.w. in step-up and 600 k.w. in step-down transformers, as well as the necessary switchboards and station apparatus and one 50 h.p. induction motor to drive the waterworks pumps and one 50 h.p. induction motor to operate the arc machine, all this is being furnished by the Royal Electric Co. Rapid progress is being made and it is expected that light and power from Ragged Rapids will be in Orillia between Nov. 15th and Dec. 1st.

The United Electric Co., Toronto, inform us that they have been so rushed with orders recently as to necessitate operating their factory thirteen hours per day for the last two months. Following are some of their recent sales: R. E. T. Pringle, Montreal, two 6 h.p., two 8 h.p., and one 2 h.p. motors; J. & G. H. Young, Montreal, one 6 h.p. motor; Miller Bros. & Torin, Montreal, two 8 h.p. motors; Dominion Bridge Co., Montreal, two 10 h.p. motors and one 25 arc light dynamo; Darling Bros., Montreal, one 6 h.p. and one 8 h.p. motors; Kootenay Electric & Construction Co., Nelson, B.C., 10 k.w. generator connected to waterwheel; McEachron Heating & Ventilating Co., Galt, Ont., one 5 h.p. motor; McGregor & McIntire, Toronto, one 8 h.p. motor; John Turner & Sons, Toronto, one 10 h.p. motor; Royal Mfg. Co., Toronto, one 10 h.p. motor; Crompton Corset Co., Toronto, one 6 h.p. motor; Northey Mfg. Co., Toronto, one 4 h.p. motor; Toronto Lithographing Co., Toronto, one 8 h.p. slow speed motor; B. V. Naylor, Naylor, Que., 5 k.w. dynamo; Bourgue & Poulin, Ottawa, one 12 h.p. motor; Auburn Power Co., Peterborough, one 4 h.p. motor; E. S. Stephenson, St. John, N.B., one 2 h.p., one 5 h.p. and one 4 h.p. motors; Rat Portage Lumber Co., Rat Portage, Ont., one 15 k.w. dynamo; Alex. Dobson, Beaverton, Ont., one 4 h.p. motor; J. W. Skinner, Mitchell, Ont., 60 light dynamo; Goderich Organ Co., Goderich, Ont., 100 light dynamo; C. T. Young, Beaverton, Ont., one 2 h.p. motor.

W. C. Caldwell's saw mill at Wilbur, Ont., near Kingston, was destroyed by fire August 19th.

One of the most important problems presented in the equipment of the United States repair ship Vulcan, described in a recent issue of the Engineering Magazine, was that of maintaining an endurable atmosphere in the forge shop and foundry, which were located between decks. The problem was solved by introducing a large steam fan and system of piping. This installation, like that in connection with the foundry equipment,

was made by the B. F. Sturtevant Co., of Boston. The fan was applied to exhaust the smoke from the forge hoods, and coincidentally the hot air from the forge shop. It was stated by the officers in charge that "this arrangement proved ofestimable value."

Messrs. Robert Henderson & Mathias Koek, of Montreal, P. E. Hayes, of Pawtucket, R. I. Emil Hig, of New York, and associates have been incorporated as The Montreal Quilting Company with a capital stock of \$50,000, with headquarters at Montreal, to manufacture quilted and other goods.

Fire at Merrickville, Ont., on Sept. 5th, destroyed the flour and shingle mill of Messrs. Mills Bros., loss about \$6,000. The flour mill of Hiram Easton was also destroyed, and the woolen mill of Messrs. Watchorn & Co., badly damaged.

The Hoepfner Refining Company has elected the following officers: Hon. J. M. Gibson, president; J. V. Teetzel, vice-president; John Patterson, secretary; John Moodie, treasurer. The other directors are A. T. Wood, M.P., W. F. Fuerst, New York, and Carl Hoepfner, Frankfort. Mr. Hoepfner will likely become president when he takes up his residence here. The company has a capital stock of \$600,000. It has procured twenty acres of land for the premises to be erected on, and has made arrangements with the Grand Trunk for the building of a switch.—Hamilton Spectator.

The Tudhope Carriage Co., of Orillia, Ont., inform us that their sales this far in 1899 aggregate fifty per cent. more than during all of 1898.

For a third of a century the name "Sturtevant" has called to mind visions of fan blowers, heating, ventilating and drying systems and the like. To-day however, the name has added significance, for it is also suggestive of high grade steam engines, electric motors and generating sets. For years the Sturtevant engine has been gradually developed and perfected, while the past decade has witnessed the rapid growth of the electrical department of the B. F. Sturtevant Co. At the present rate of development it bids fair to overtop all other lines of manufacture in this well known establishment.

Mr. T. D. Wardlaw, manager of the Safety Light & Heat Co., Dundas, Ont., manufacturers of the Safety Acetylene Gas machine, informs us that the foreign trade of his company is now quite large. In March last he shipped a trial order of three machines to Calcutta, India, of ten, fifteen, and twenty-five lights capacity, which gave so much satisfaction that the same party has just placed an order for a 300 light machine, which will now go forward. This latter

machine is claimed to be of greater capacity than any other ever built in Canada. The display of this company at the recent Toronto Exhibition was exceedingly attractive.

The electric power house of the Niagara Falls Power and River Railway, at Niagara Falls, Ont., was destroyed by fire Sept. 5th. In the destroyed building were 500 Kilowatt Westinghouse generators and three 300 Kilowatt Canadian General generators, which, with the shafting and other apparatus, were also destroyed. The loss on machines is \$75,000; on building, \$10,000, the stone walls of the structure being the only thing left.

Mr. Frank Darling, a Toronto architect, has just completed plans for a large hotel to be built at one of Muskoka's popular resorts. The building will contain 200 rooms and will be thoroughly first-class and up to date in every particular. A number of Hamilton capitalists are interested. Building operations will commence as soon as the purchase of the site is accomplished.

The town of Shelburne, Ont., wants a modern electric lighting plant, and to obtain it will enter into a ten-years' contract for lighting the streets, town hall, etc. H. C. Dunbar is Town Clerk.

One of the greatest obstacles in the way of positively ventilating small apartments has been the difficulty of operating the fan introduced for the purpose. The B. F. Sturtevant Co., of Boston, has made a careful study of this problem, has reduced the apparatus to its simplest form, and presents in its Bulletin M. illustration and descriptions of its electrically driven propeller fans. The motor is directly attached to the fan shaft. The fan is of the most efficient type, and the entire arrangement is readily portable. It may be instantly started and stopped by the mere operation of a switch.

Almost incredible as it may seem, the largest weight which the British Government assayer employs in making an analysis of gold bullion is the infinitesimal French one-half gram, or about seven and three-fourths grains Troy; and the balances used in this work are so sensitive that a weight of one-twentieth of a milligram, which is less than one-thousandth part of a single grain, will cause the indicator needle to deflect a very appreciable distance from the zero point on the graduated scale marking the equilibrium. These minute balances are, of course, enclosed in glass cases provided with sliding windows to exclude any draught of air. The beam is usually made of aluminium, and the knife edges rest on jewels; the weights are made of gold, silver, and aluminium, and are graduated from the one-half gram, which is arbitrarily denominated "one thousand" down to the ten-thousandth degree.

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A new Canadian highway which is destined to call into being a vast amount of industry is the Great Northern Railway of Quebec. Hives of industry are starting at various points along that new line, which will soon be completed throughout its course, the eighty-eight miles of the last link having been contracted for some time ago. As to the nature of the industries, that, of course, is determined by the natural resources which the road opens into. The resource which above all others attracts attention in the Great Northern Railway district is the superabundance of spruce. This joined to the various magnificent water powers scattered along the route select it as a natural paper manufacturing country. Of the plants already in existence or projected in that country it is unnecessary to make mention again, as these have become sufficiently known through references to them in former letters and otherwise. But, according to the Ottawa Free Press, a new party has come on the scene with manufacturing intentions. At the head of this party is a Mr. Haggin, of New York. Mr. Haggin and his associates have just completed an inspection of the water powers and other natural facilities of manufacturing on the Great Northern line, and appear to be highly pleased with the result. The Free Press states that it is said on good authority that they mean to form a company at once for the manufacture both of calcium carbide and of pulp on a very large scale.

Electricity is much in evidence at the

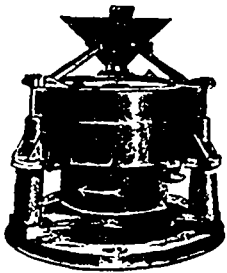
Industrial Exhibition in Toronto. The experiments with wireless telegraphy and telephony and X rays conducted by Mr. W. J. Clarke, of New York, and the exhibit of electric carriages are prominent features, and have attracted much attention. For lighting and decorative purposes there are required in connection with this Exhibition 500 arc and 1,000 incandescent lamps—a plant requisite for the lighting of a medium size city. The majority of these lights must be nowly installed each year to suit the constantly changing conditions. The larger proportion of these lamps are employed for signs and to light side-shows and refreshment booths, the location and requirements of which cannot be ascertained until the opening day, when there is an immediate demand from the lessees upon the Toronto Electric Light Co. for the installation of the necessary lamps. It will be seen that the task which is thus suddenly imposed upon the company is a most difficult one, and it is indeed surprising that work done under these advantages have given such satisfactory results.—Electrical News.

A plant for the manufacture of calcium carbide employed at Meran Tyrol, is driven by water-power. The turbines drive five three-phase alternators of 1,200 horse-power. Theoretically it requires 1,900lb. of lime and 1,230lb. of carbon to produce a ton of the carbide; in practice, however, 2,050lb. and 1,420lb. respectively are required. The cost of a ton of lime at this factory is about 16s., and of the carbon about 32s. One electrode

will be sufficient for 10 tons of the carbide, and it costs £6 12s., or about 13s. per ton. The electrical energy per ton of the carbide is 6,400 horse-power hours, which at £2 per electrical horse-power year is equal to a little over £1 16s. per ton. The accessory machinery, the loss in the lines, etc., correspond to about 200 horse-power, or about 4s. per ton, the production being about 6.5 tons per day. Labour, at 3s. to 3s. 4d. per day, amounts to about 15s. per ton. Amortisation amounts to about £1 per ton, and the general expenses to about £1 per ton; the maintenance of the plant is given at 6s. per ton. The total cost at the factory is £7 5s. per ton.—Invention.

A telegram from Montreal states that consumers of the better class of both cotton and woolen goods in Canada will have to pay more for their clothing this winter. Prices have gone up, in some lines to a considerable extent. The increase will mostly affect the superior lines of goods. In fancy cottons there has been an advance of from 2½ to 7½ per cent. made by the mills in consequence of the advance in the price of raw cotton. This increase will affect quite a number of lines of manufacture. Cotton goods, dress cottons, etc. Worsted have gone up all the way from five to fifteen per cent. in price consequent upon the prevailing scarcity in the wool market. This will increase the cost of all lines of underclothing, socks, and other woolen goods. Those engaged in the trade expect that these advances will continue for some months.

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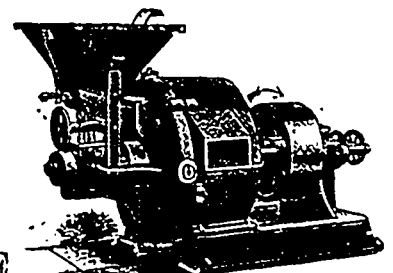
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In anticipation of an extraordinarily large grain crop in the Northwest and Manitoba, the Canadian Pacific Railway have this season made arrangements for rolling stock with a capacity of some two hundred thousand bushels greater than the rolling stock used last season to carry grain from the west. Last season the company used something like 4,500 box cars in carrying east the grain crop of that year. This season they have added to their equipment for this purpose two thousand new thirty-ton cars, which were constructed in the car shops at Perth during the past summer. These cars have a capacity of something like one thousand bushels of grain each. Of this complement of 6,500 cars which it is proposed to use in moving this year's crop, some 5,500 empty cars have already been transferred to the western division of the road, and are ready for immediate use. The locomotive power for this additional rolling stock will be taken from the other divisions of the road, with the exception of a few new locomotives, which have been built in anticipation of the extraordinarily large traffic expected in handling the crop this season.

THE JONES & MOORE ELECTRIC CO.

The Jones & Moore Electric Co., Toronto, report the following recent sales:—The Social Tea Co., one slow speed motor; the Monsoon Tea Co., one slow speed motor; Gadsby & McCann, 20 horse motor; McFarland, Gray & Southgate, 8 horse motor; Geo. Reid & Co., 6 horse motor; Massey-Harris Co., 20 horse motor; Smith & Co., Cannington, 20 horse motor; F. B. Gullett & Sons, 15 horse power; M. Quinn, S. Gilbert, G. A. Rudd & Co., J. H. Ware, Wilson, Lytle &

Badgerow, W. S. Fielder, Murray Printing Co., The Carswell Co., A. R. Williams Co., J. E. Howes, H. G. Carll, Standard Cap Co., making the third motor; A. Prizer, D. Wilson, J. H. Hall, S. King, W. E. Colwell, Jas. E. Bailie, Globe Paper Box Co., H. Tolchard, F. Crapper, W. Moss, T. H. Mullen, E. & S. Curry, of Toronto; H. E. Hook & Co., Rat Portage; E. J. Brown, Brantford. Two motors and one dynamo for Montreal, and three machines to Guelph and two machines to Winnipeg.

F. J. Weston & Sons, Toronto, have closed down their steam plant, and are now operating their entire shoe factory by electric motors of The Jones & Moore Electric Co.'s manufacture.

D. S. Perrin & Co., London, Ont., have placed an order with The Jones & Moore Electric Co., Toronto, for one 400 light automatic multipolar dynamo, and also fourteen sets of telephones to connect to different departments of their establishment.

OWEN SOUND, ONT.

Owen Sound is now enjoying a period of industrial activity and development, consequent upon the general prosperity which the country is experiencing, unequalled in its history.

The past two years have been years of steady growth, and every merchant in the town is sharing in the good times. The activity in business circles is evidenced in the fact that there are but two empty stores, both of which are small, on Poulett street, the main commercial centre of the town.

The North American Bent Chair Company, whose factory was destroyed by fire last

winter, have rebuilt on a more elaborate scale, and commenced the manufacture of chairs last week. The firm have recently become a limited stock company, and will still further extend their premises. Another large factory is now being built, which will double the former output of the firm and necessitate an increase of two hundred employees. When the new factory is completed and operations are again fully under way the company expect to increase their present staff of 225 employees to 500. At a conservative calculation the increase in wages will amount to between \$5,000 and \$6,000.

The Georgian Bay Portland Cement Company, Limited, is a new industry established this year. Buildings are now practically completed, and manufacturing operations will commence next month. Seventy five men will be given employment, and the wages will amount to between \$2,500 and \$3,000 per month. The output will be 400 barrels per day, and it is expected this will be doubled in the next two years and the staff correspondingly increased.

The William Kennedy & Sons, Limited, are also building a large extension to their foundry. The addition, which will be used for the manufacture of steel castings, will give employment to between twenty-five and thirty men. The labor will be principally skilled, and the extension means an increase of between \$1,500 and \$2,000 a month on the firm's pay roll. During the last three years the business of the firm has increased fully twenty per cent.

The Owen Sound Iron Works Company, Limited, have revived the business of the old Corbett Foundry firm, which closed up during the hard times of a few years ago.

They commenced operations last January, and give employment to twenty-five men. The company contemplate enlarging their foundry, increasing their staff and going extensively into the manufacture of propeller wheels.

Jas. McLachlan & Sons, biscuit manufacturers and confectioners, were never so busy as at present. During the last two or three years large additions have been made to their premises, and their output has largely increased. The number of their employees is now ninety, an increase of twenty per cent compared with former years.

The Owen Sound Portland Cement Company have increased the capacity of their works at Shallow Lake and added to the number of their employees.

The lumber business, which is one of the most important industries in this section is especially active, and this year's cut promises to be a record breaker.

The John Harrison firm are building a large extension to their planing mill, which will be completed next month. The staff is now over seventy, an increase of fifty per cent over former years, and the new factory will require an additional twenty employees with a corresponding increase in wages. The firm estimate their cut this year at three million feet, an increase of half a million over last year. During the last three years their business has trebled. At present the planing mill is running night and day to fill orders.

Maitland, Rixon & Company are rafting down millions of feet of pine and cedar logs. They estimate their cut this year at between four and five million feet, whereas in former years it averaged two and two and one-half millions. The number of men employed on the tugs, rafts and in the mill is over sixty;

in former years it was about forty. The greater part of this firm's output is for domestic use, and its increase evidences activity in building operations.

Pickard & Rowan will double their former cut, which this year will amount to over two million feet.

Mr. J. S. Findloy has announced his intention of enlarging the capacity of his mill and laying in sufficient stock to increase his average cut of one and a half millions to three million feet.

Mr. H. Y. Pedwell, whose cut in past years averaged between 500,000 and 800,000 feet, will cut this year over a million and a half feet.

Mr. George McQuay, tanner and dealer in hides and foreign and domestic leather, has increased his staff 100 per cent, and doubled his output and turnover, which has been \$60,000 a year during the last two years.

Taylor & Pringle, manufacturers of ginger ale, cider, vinegar and pickles, have increased their output in the last three years fully fifty per cent.

Wages of laboring men have increased from \$1.00 to \$1.25 and \$1.50 a day.

The traffic through this port this season, especially in package freight, has shown a large development. The American freight over the Gladstone-Owen Sound route has enormously increased, and even at this early date the tonnage exceeds that of former years. About 200 porters have been kept steadily employed in the C.P.R. freight sheds.

The passenger traffic both on the C.P.R. steamers and on the Northern Navigation Line has been exceptionally heavy. The latter line has been taxed to its utmost capacity to accommodate the thousands of tourists. In the large number who are able

to afford an outing on the lakes is seen an evidence of the country's prosperity.

The implement agencies report an increase of from thirty to forty per cent. in business, indicative of the prosperity of the farmers in this vicinity.—The Globe.

TORONTO JUNCTION, ONT.

Messrs. Heintzman & Co., the long established manufacturers of pianos, employ more men in their Toronto Junction factory now than ever before, there being about 200 on the pay roll. Even with this large staff and the factory operated overtime, the firm are behind with their orders. Not only has the export trade with Great Britain, Australia and Newfoundland increased, but larger orders than ever before are coming in from all over Canada, indicating that the Canadian people are prosperous and better able than ever to buy pianos.

The Queen City flour mills, with a capacity of 700 barrels daily, have never been shut down night or day for fifteen months, except on Sundays and public holidays, and yet for the past month the output of the mills has been far short of the orders received. Mr. A. Campbell, M.P., the proprietor, contemplates increasing the capacity of the mills to 1,000 barrels per day. As flour is one of the necessities of life which people consume in dull times as well as in times of commercial activity, Mr. Campbell attributes the increased demand for his goods to the growth of population all over Canada. He sells the most of his flour in Toronto and the Maritime Provinces.

The Manager of the Wilkinson Plough Company says that he has had to apologize to friends all over the country for not getting any show goods ready this summer.



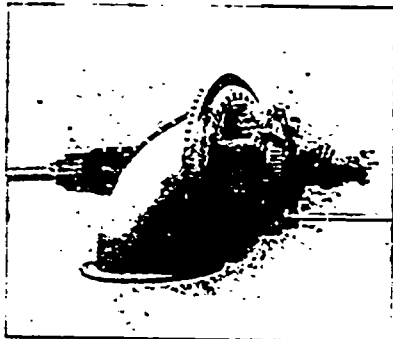
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Requires, where the supply of water is limited, that every available foot pound of energy contained in it be properly set to work. On the other hand, if the source of power is abundant your interests suggest that the plant be made as compact and powerful as possible, to reduce the space occupied and the first cost.

The Crocker Patent Turbine....

Is peculiarly adapted for service under any of these conditions, as it possesses great efficiency under varying degrees of gate opening, and the ratio of power developed to diameter of wheel is remarkably large. To those interested we will supply catalogues and particulars of leading plants, together with a copy of latest official Holyoke test, 1892. Water powers reported upon, and estimates prepared. Correspondence invited.

Horizontal Setting, with Quarter Turn Elbow.
CROCKER PATENT COMPANY.

The JENCKES MACHINE CO.,
42 Lansdowne St., Sherbrooke, Que.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

so busy has been the factory in the effort to fill the accumulated orders. Every man for whom there is room in the factory is working, and there are sufficient orders on the books to keep the same large staff busy till next April.

The Dodge Manufacturing Company turn out 200 pulleys a day, and with a staff of nearly 100 men they experience some difficulty in filling orders. Their machine shop has been running night and day. The billiard table department of this factory is very busy with a good six months' work ahead in the order books.

The Gasoline Engine Company is a new concern that commenced operations last May. The demand for their gas and gasoline engines is already beyond their power to supply, and the capacity of the works will have to be enlarged at once.

Messrs. H. A. Lozier & Co.'s bicycle factory, which was greatly enlarged for the present season, has turned out more bicycles than ever this year, and now the manufacture of automobiles has still further increased the activity of the concern. Under the proposed consolidation of five large bicycle manufactories as the Canada Cycle and Motor Company, this will be one of the company's large factories. It is anticipated

that the buildings will be greatly enlarged, and that the employees will number 600. Already capitalists are arranging for the erection of houses to accommodate the probable influx of workmen.

The factories of the Laces and Braid Company and of Comfort Soap are unusually busy, while in the C.P.R. yards and workshops more men are employed than ever before.

Four years ago everybody was deploring the apparent over-supply of houses in the town. To-day the demand exceeds the supply by several hundreds.—The Globe.

BELLEVILLE, ONT.

Belleville is experiencing an activity among her local industries such as has not been known here for many years. The Ontario has been interviewing the local manufacturers, all of whom report steadily increasing business, and in the majority of cases the manufacturers say that the demand for their goods is unprecedented.

W. W. Chown & Co., tin manufacturers, this year went into much larger and better equipped premises. They have required a large number of hands to supply the immense orders received, some from British Columbia.

They contemplate building another addition to their establishment next year.

Brown's Foundry (Marsh & Henthorn) have enough orders still ahead to keep them busy till late in the autumn. More hands are employed than ever before in the foundry's history, and the firm is delighted with the prospects for the future.

The Mac Machine Company's concern has been running every day for fourteen hours and has enough orders ahead to keep it busy until January 1st, 1900. This concern has not been so busy since the works were started.

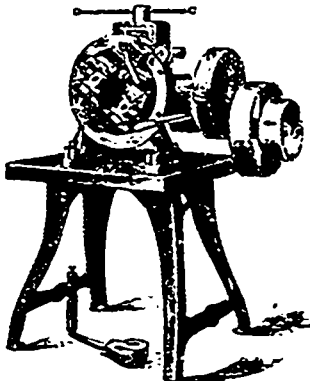
The Walker Foundry Company is working full time with a large staff.

Although handicapped slightly by the drought, the Belleville Canning Company say that prices are higher and the demand greater than for many years. They are putting in improved and expensive machinery, and they are putting up immense quantities of raspberry pulp for the English market. The firm is delighted with the improved trade conditions.

Orr & Duckworth, carriage builders, find times better this year than ever before.

The Ashley Carriage Works are enjoying a greatly increased trade, and more hands are being employed than last year.

THE BEST PIPE THREADING and CUTTING-OFF MACHINES



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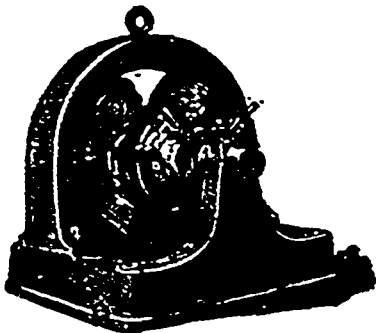
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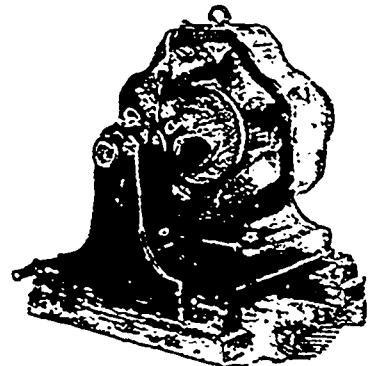
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And Direct Connected Plants
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Repair Work a Specialty.

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G. S. Tickell & Son have had a great demand for their furniture. Owing to the revived prospects they say they will go extensively into the manufacture of caskets.

Flint & Holton say this has been the best year in the history of their saw mill. Pringle's Planing Mill is employing more hands than for many years.

James St. Charles & Son, omnibus and carriage builders, report that this season has outlasted any in years. They intend enlarging their plant and will go more extensively into the manufacture of omnibusses.

Alford & Lear's sash, door and blind factory has been particularly busy all this winter.

William Lott's woollen mills have been pressed with orders, and the prospects for greater business, he says, were never so bright.

William Finnegan, carriage manufacturer, is turning out waggons and carriages as fast as facilities will allow. He has a large number of orders ahead.

It. J. Graham & Co. say their evaporators will do a larger business than ever the coming season.

Hart Bros. & Lazier, potters, say they never experienced such a demand for their wares.

Walton's sash and blind factory is very busy and rushed with orders.

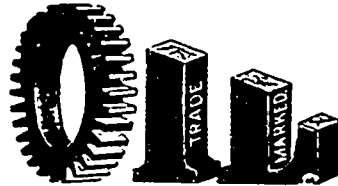
A. E. Fish, manufacturer of the King shirt, has just moved into larger premises to meet the increase in trade. Double the number of hands are employed compared with last year.

Commenting upon this gratifying state of affairs, The Ontario says:—"The dissatisfaction that was plainly to be noted a few years ago has given way to a marked spirit of enterprise and a confident belief in the future. Many firms are employing more hands than formerly, new and improved machinery is being introduced, and working room that was all too sufficient a few years ago is being extended to meet the growing trade of the present and to provide for a greater increase next year."—The Globe.

"Capitol" Cylinder

"RENOUN"
ENGINE

"ATLANTIC" RED



RELIABLE WELL-KNOWN BRANDS.

ALL ORDERS PROMPTLY FILLED

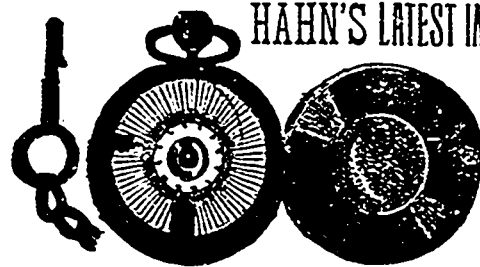
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LIMITED,

SAMUEL ROGERS, President.

TORONTO, CANADA.



HAIN'S LATEST IMPROVED WATCHMAN'S TIME DETECTOR

This Clock is adapted for six or twelve stations, and the keys are all different, ranging from 1 to 6, and 1 to 12, instead of as in the old style Time Detectors, which mark either by holes or an impression on the dial, being the same for all stations.

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This Clock received the First Prize at World's Fair

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OF MACHINERY

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Each number contains valuable statistics as to the imports and exports of the United States, and all the news relating to the allied industries.

It carries the advertisements of the leading firms in the business, and is regarded as a most valuable medium for reaching the entire trade of the country.

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For Canada and the United States.

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102 South Twelfth Street,

PHILADELPHIA, PENN.

fifty-five feet by sixty feet, and are just completing six large dry kilns. When these are completed they consider their plant will have just about double the capacity it had one year ago.

They have made an advance in wages in some departments, but the bulk of their men work piecework. In making the improvements and changes in their plant they have studied very carefully the improvements and have equipped the new buildings with the very latest improved machinery, so that their men are enabled to turn out more work and therefore can earn more money for themselves.

The Office Specialty Company of Newmarket also have felt an increase in their business and are enlarging their works this year very considerably. They have been running thirteen hours per day and have hardly been able to keep pace with their orders. They are building an addition to their works fifty feet wide by 250 feet long. Part of this is two-story and part one-story. This will at least double their present output.

While two years ago there were large numbers of men in this town seeking work who were unable to find employment, to-day scarcely an idle man can be found. Every man who wants work can find employment without any special effort.—The Globe.

PETERBOROUGH, ONT.

The past year the industries of Peterborough have enjoyed, many of them in an increased degree, the gratifying prosperity of the two previous years.

The Peter Hamilton Manufacturing Company, agricultural implements, have manufactured more machines and implements, employed more hands and disposed of more machines than ever before.

The William Hamilton Manufacturing Company, sawmill and mining machinery, have been and are still exceedingly busy; and, though they have had less overtime work than last year, improved premises and increased mechanical appliances have helped the completion of more work in a given time.

The Canadian General Electric works have had a very active year in all departments,

giving constant employment to a large staff. To show that there is a general demand for labor, the throngs that two or three years ago daily were at the gates soliciting work are absent, having found employment elsewhere.

The Peterborough Lock Works have had the best year in their history, and a larger output than ever before. The increased staff of employees have had constant employment, instead of the half-time, alternating with close-downs, of a few years ago.

The Auburn Woolen Mills Company have paid a tremendous bill for electric light the past three years. The mills have practically been running continuously day and night.

The Matthews Pork Packing Company are having a prosperous year; their premises have been largely increased within the year, their facilities for production trebled, their employees largely increased, yet the demand is difficult to meet.

The Ackerman Harness Factory have had to increase their buildings trebly and add proportionately to their staff, and still orders keep them busy.

Green's Pump and Windmills Works the past year have had an increase in employees and output. They have not had the boom of last year due to the Yukon fever, yet furnish no exception to the hum that marks the more important establishments mentioned, as well as the numerous minor industries.—The Globe.

LONDON, ONT.

These are busy days in London. Almost without exception the various factories here are operating with increased forces, or else their employees are working extra time. Indeed in some cases both these conditions prevail.

At E. Leonard & Sons' Boiler and Engine Works all the men have been put on that there is room for, and employees get more overtime than they wish. This firm have many large orders ahead. About 400 hands are employed.

The Bennet Manufacturing Company, who send their church and school furnishings to every quarter of the globe, employ about 125 hands, having this year increased their force

by forty or forty-five, besides making a large addition to their factory and machinery.

The Columbia Handle Factory have increased their staff from forty to about sixty. The men are working overtime and the night force is likely to be increased.

The Dennis Wire Works establishment now employ twenty seven instead of nineteen operatives, who work 12½ hours a day.

The McClary Manufacturing Company are running at their fullest capacity, employing over 400 hands. They could do more business if they had more room. In the stove department wages have been advanced ten per cent.

Hobbs & Company's stained glass works are packed with men, so that there is barely room for them to operate.

The Hobbs Hardware Company have increased the number of their employees ten per cent., and their business during the past year has been from fifteen per cent. to twenty per cent. larger than any other year in their history. The wages of the employees and the capacity of the factories have also been increased, and several thousand dollars expended on the latest and most improved machinery.

The Stevens Iron and Brass Works are running full time. They have increased their force by fifty men, employing 175 in all. Wages have been increased ten per cent.

The Globe Casket Works employ eighty hands. They are running full time.

The Yates Machine Tool Company have increased their force by ten, and their men's wages in some departments have been increased five and ten per cent.

Geo. White & Sons, manufacturers of traction and other engines, have increased their capacity, number of hands and wages.

There are nineteen cigar factories in London, employing nearly 600 people. Two new factories started this year. The output from July, 1897, to July, 1898, was 23,000,000 cigars; from July, 1898, to July, 1899, 25,000,000; increase in number of men employed, fifty.

The London Pants & Overall Company have increased their staff of employees twenty per cent., and their wages ten per cent. They employ about sixty hands.

THE CUMMER DRYERS.

FOR Mechanically Drying Everything

THE F. D. CUMMER & SON CO.,

HUNDREDS IN OPERATION.

CLEVELAND, OHIO.

When were
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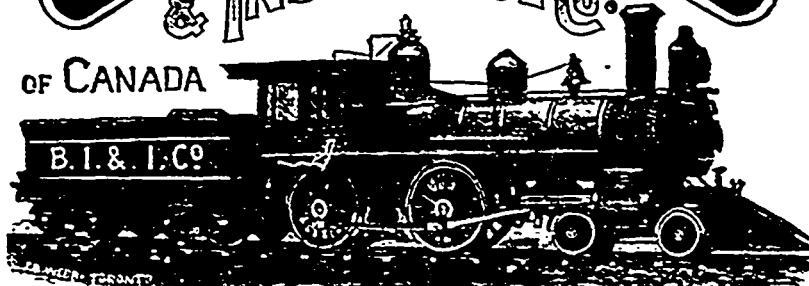
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Are You
sure they
are **SAFE**
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dition?

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

This list could be largely extended, but enough is given to show that the "growing time" has not given London the go-by. —The Globe.

LINDSAY, ONT.

Without exception business is far in excess of previous years, and many firms are running to their utmost capacity to catch up on orders. Especially is this the case amongst the lumber mills. The output in lumber, shingles and ties alone will be enormous. One of our lumber dealers said that "this is the first year that a mill man can really be independent."

The town itself is active in putting down sewers and granolithic walks, giving employment to a large number of men.

John Carow's lumber mill employs to-day over 100 hands, fifty of an increase over last year. The mill is running night and day, with a capacity double that of previous year; \$50,000 worth of material has already been placed this season.

The Kennedy-Davis Company, lumber dealers of Bobcaygeon and Lindsay, have been running their new barrel and stave factory for the past month and report more work in that line than they are able to turn out.

Horn Brothers' woollen mills are running night and day, with an increase of seven

hands. A new engine house, two stories, solid brick, 36x28, is being erected and fitted with a 70 horsepower Corliss engine. This firm cannot keep up with orders.

P. J. Harlow has just completed a new grain elevator of 45,000 bushels capacity, costing \$4,000.

The Rathbun Company also reports increased business this spring.

The town is looking forward to the two new institutions just located here with much interest. R. M. Beal is erecting a tannery 186 feet by 44 feet, and the Rider & Kitchener firm have their buildings almost completed for the manufacture of veneer and excelsior. Both of these industries will be running by October 1st. —The Globe.

LISTOWEL, ONT.

In the manufacturing line the town takes great pride in the success of its piano factory, (Morris, Field & Rogers). This is a local organization, the capital stock being all subscribed by citizens of the town, the building for which is a fine four-storey white brick structure, with complete equipment of modern labor-saving machinery. The appointments of the factory and the order and cleanliness which extend to every corner of the premises have drawn the highest praise from factory inspectors and underwriters

who have examined it, and who all say that it is one of the model factories of the country. The rooms are well lighted, and heated by the Sturtevant system; the motive power is from two immense boilers and a seventy-five horsepower Wheelock engine, and the yards are stored with large supplies of seasoned lumber for use in the industry. The reputation of the pianos manufactured is so firmly established with the musical public that the staff have been all this year busy working overtime in order to keep up with their work. From eighty to one hundred men are steadily employed, and hundreds of pianos are constantly in process of manufacture, as well as piano parts, in which the company does a large trade for export to Europe.

Among the other industries of the town may be mentioned the Gillies & Martin foundry and agricultural works, where an extensive trade is done in the manufacture of agricultural implements, the woollen mills, operated by Mr. B. F. Brook; the tannery, owned by Messrs. Breithaupt of Berlin, and managed for them by Mr. Chas. Anderson; and the flour mill owned by Messrs. A. Moyer & Co., which were recently rebuilt with a large elevator and an entirely new and modern outfit of machinery. Messrs. Moyer & Co. do an extensive interprovincial and export trade, as well as a large local business. Messrs. Hay Bros., grain merchants, own and operate a large number of grain elevators in different parts of the country, and are extensive dealers in grain. Besides these there are a considerable number of smaller industries engaged in manufacture and trade, outside of the large dry goods and grocery firms, which do a flourishing business. —The Globe.

WOODSTOCK, ONT.

Good wages have all along been the rule in most of the old-established manufacturing concerns of Woodstock.

Last spring a 10 per cent. raise all round was made by the James Stewart Stove Manufacturing Company. This firm are employing from sixty-five to eighty-five men, and are doing an increasing business.

The Anderson Furniture Company, which have on their pay list about 435 men, raised the wages of some mechanics and bench hands from ten to twenty-five cents a day. —The Globe.

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A RELIABLE TIME RECORDER MUST POSSESS THESE THREE QUALIFICATIONS:

1.—It must be an accurate Timepiece.

We use the famous SETH THOMAS CLOCK.

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The "CHICAGO" has less complicated mechanism than any other Recorder made, and by the simple manner of operating employees can register two-fold more rapidly than on any other.

If you have none you pay for it in lost time every year.

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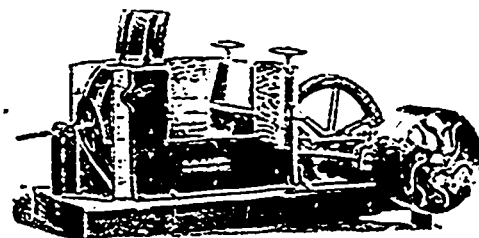
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Numerical (or Key) Recorder

A sight opening feature the record appears each time you register.



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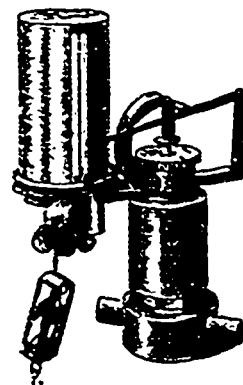
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With Vulcanite Sheathing for all Speeds and Pressures. Adopted by the British Admiralty.

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For Gas and Explosive Engines, Ammonia Compression Machines, Torpedo Boats, Launches and Locomotives.

Patent Flexible-Non-stretchable Wire Cord for Indicator Leads.

Catalogue on application.

SOLE MARRKIS

T. S. McINNES & Co., Limited

42 CLYDE PLACE,

GLASGOW, - Scotland.

HAMILTON, ONT.

This city can gladly join in the mean of thanksgiving that is going up from all over Canada for the unusual prosperity that has come to the country the past year or two.

There has never been a time in Hamilton's history when such a feeling of hopefulness prevailed, and never has there been such faith in the city's future as at the present time.

This pleasing state of affairs may be noticed in all lines of business, but more particularly in the line of the manufactories.

Every factory in Hamilton is busy, many of them running overtime, and in consequence everybody appears to be cheerful. The talk of hard times has ceased.

Not only are new factories being established in the city, notably those of the Hoepfner Refining Company and the Volta Storage Battery Company, both of which are arranging to build right away, but many of the old-established enterprises have either increased the number of their employees or their wages.

All the stove founders advanced the wages of their moulders and mounters last April or May ten per cent, the increase applying to about 150 men in the Gurney-Tilden foundry alone, besides several hundred in the other foundries.

The stove manufacturers, Copp Bros., Gurney-Tilden Company, Bowes, Jamieson & Company, the D. Moore Company, and Burrow, Stewart & Milne are all exceedingly

busy, and they never had a better year than the past twelve months. The last-named firm, whose enterprises was superior to the serious results of the recent fire, and whose foundry was closed but two weeks, owing to the western portion of the establishment having been burned down, has 250 men at work trying to catch up to the orders.

The Sawyer-Massey Company's establishment bears testimony to the fact that this is the "growing time." What with the company's handsome new office, their big addition to the works in the foundry and patent shop that are yet uncompleted, and the busy hum of machinery there early and late, it certainly shows that the times are good. The wages of about 250 employees were increased by ten per cent. last spring, and when the improvements that are being made now, and others that are in contemplation, are finished, there will be a considerable addition to the pay roll. The good crops in Manitoba and the North-West have caused a big demand for threshers and engines and the Sawyer-Massey Company cannot fill all the orders they are receiving.

The Hamilton and Toronto Sewer Pipe Company, whose factory rose last spring from the ashes of a disastrous fire, are very well satisfied with the condition of things. The company not only rebuilt, but did so on

ESTABLISHED 1849.

CHARLES F. CLARK, President.

JARED CHITTENDEN, Treasurer.

BRADSTREET'S

Capital and Surplus, \$1,500,000.

Executive Offices: OFFICES THROUGHOUT THE CIVILIZED WORLD.
346 and 348 BROADWAY, New York City, U.S.A.

THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying, and promulgating information no effort is spared, and no reasonable expense considered too great that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world.

Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns and by responsible and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the Company at any of its offices.

CORRESPONDENCE INVITED.

The Bradstreet Company, Toronto Office:—Cor. Jordan & Melinda Sts.

THOS. C. IRVING, Superintendent.



The Diamond Machine & Tool Co.
TORONTO, ONT.
Manufacturers of....
Machine Screws
OF EVERY DESCRIPTION.

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Bar Iron, Steel,
Boiler Plate, Rivets, Tube
Expanders,
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Cor. King and Victoria Sts.

TORONTO.

MR. C. B. THISTLETHWAYTE
OF SYDNEY, NEW SOUTH WALES,

Will be in Canada about November 1st, to arrange for Australian agencies. If you have no agents in that country please write, stating lines of goods you make suitable for that trade.

Best of references. Address
THE CANADIAN MANUFACTURER,
McKinnon Building, Toronto.

THOMPSON & CO.,
Manufacturers of
BOBBINS and SPOOLS

FROM SELECTED STOCK.
Correspondence Solicited ...
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Phone 374.

a largely increased scale, increased the number of employees by twelve per cent, and advanced their wages by nearly sixteen per cent. Fifty-five hands are now employed by the company, whose trade is brisk, with sales considerably over those of a year ago and excellent prospects of a still better trade this coming fall.

Both the Ontario Rolling Mill Company and the Hamilton Blast Furnace Company concerns have made ten per cent. advance in wages. These two manufactories are in the amalgamated concern known as the Hamilton Steel and Iron Company, Limited, and together they give employment to about 600 men.

The Hamilton Wheel and Foundry Company, which manufactures wheels for Grand Trunk trains, have felt the force of the good times, and the moulders' wages have been increased fifty cents a day. There are

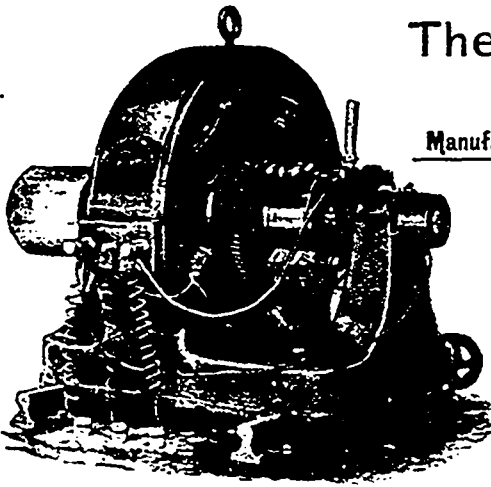
twenty-five moulders. Over 100 men are employed by the company, and they are busier to-day than they were a year ago. They all receive high wages, and are well satisfied therewith.

The Ontario Tack Company, which keep sixty or seventy employees as busy as possible filling orders, pay more wages at present than ever before, and a similar condition of things prevails at the Canada Screw Company's works.

The Geo. E. Tuckett & Son Company, the noted tobacco and cigar manufacturers, never had a better business than they are doing now, and they pay the highest wages to 350 employees in the tobacco factory, and seventy-five employees in the cigar factory. In the latter the orders are piling in so rapidly that it is simply impossible for the Tuckett firm to fill them as fast as the wholesale customers would like.

Messrs. Kerr & Coombes, the iron founders, have felt the force of the good time, and they are calculating on a considerably increased business in the near future. From comparatively small beginnings they have been steadily progressing, till now they run the old Skimin foundry on Peter street in addition to their Queen street foundry. Besides this, they have recently built an addition to their foundry, and their increasing business makes it imperative that they shall soon extend their buildings. Their moulders wages were increased about fifteen per cent. a short time ago, and the other employees wages were also advanced, there being thirty-eight men affected by this recognition of the "growing time." The two shops are running full time and have been for many months.

The B. Greening Wire Company have also felt the good times. In order that there should be more room for machinery and better facilities for conducting their big business, the company have built a large brick addition to their factory, which is an exceedingly busy scene. The business is better than it ever was before and the number of employees was recently increased by about twenty per cent. There are now 160 employees and they all work by the piece. All make good money and get steady work. --The Globe.



The Jones & Moore Electric Co.,

Manufacturers and Contractors

All Work Fully Guaranteed

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A Few Second-Hand A 1 Machines For Sale Cheap

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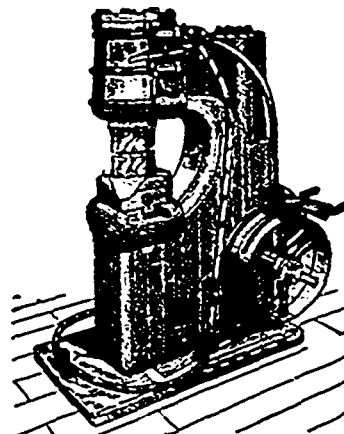
The Yeakley Vacuum Hammer.

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Is now Manufactured and for Sale by the undersigned Sole Proprietors of the Canadian Patent:

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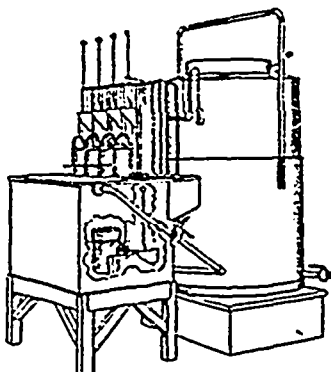
Ideal Generator the only machine that submerges the carbide.

- No Opening of generator.
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- No Bad Odor through house
- No Danger.

Recognized by all EXPERTS as the PROPER PRINCIPLE

Town Lighting and Large Plants a Specialty

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Sizes—25 light to 2,000 lights.

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SEAFORTH, ONT.

The Broadfoot & Box Furniture Company conduct the principal manufacturing industry here. They employ over 100 hands, this being an increase of about forty over what they employed one year ago. Their force is working full time, and a larger number of men could be employed did the facilities of the factory permit.

Times generally have very much improved here within the past two years. Instead of men now looking for work it is difficult to get a workman, all being constantly employed. The building trades are particularly busy this season. All our contractors have more work than they can get men to do

it with. A great deal of this building is in the country among the farmers, who are erecting new houses and barns and adding to and improving old ones.

This is the first year that the improvement has been materially felt here, but this year it is evident and unmistakable.—The Globe.

DANISH EXPORT ASSOCIATION.

The Danish Export Association has during 1898 extended its operations by sending travellers to foreign countries to promote the sale of Danish articles. This association sends out two distinct classes of travellers; firstly, those who examine carefully foreign markets, and ascertain whether it would be

possible to transact business in a profitable manner, and, if satisfactory, establish a connection—in such case the association (all members) pay expenses; secondly, those who are competent to do business in those places which have been stated to be open to a profitable trade, and in such cases the expenses are paid by such members, who are enabled to open up a trade. H.M. Consul at Copenhagen reports that during the month of November last twenty three members of this association paid all expenses for a traveller in Finland, who was well posted up in addresses, introductions, and all necessary and valuable information, and it is stated that the business done was most favorable. The expense to each member was only 57 kr. (£3 3s.). It is intended—and, in fact, preliminary steps have been taken—to establish a direct route for steamers between Copenhagen and La Plata, and the association is about to send a representative to the east coast of South America, and eventually, it is said, to Mexico and the West Indian Islands, to form some opinion as to eventual openings for Danish exports. The president of the association in October visited Moscow, and established connections for about thirty members, especially in the iron and machinery trade, and it is his intention to send a representative to the World's Exhibition at Paris, to push the Danish export trade.—British Foreign Office Report.

**The Envelope Loudly Proclaims
The Business Standing of
The Concern it Represents**

If the envelope is of superfine quality, and in perfect harmony with the letter paper, the prima facie evidence is in favor of securing a verdict of acquiescence in a business proposal.

No. 8 and No. 8½ Envelopes

Are now most in demand for commercial use. If your stationer does not handle our unequalled goods, write for samples.

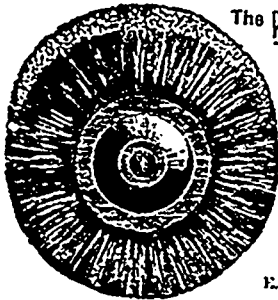
The Barber & Ellis Co., Limited Nos. 43, 45, 47, 49 Bay St., Toronto, Ont.

FRICITION PULLEY BOARD

If you are not yet using it, send for sample.

The Dominion Leather Board Co., MONTREAL, QUE.

Please mention CANADIAN MANUFACTURER.



The **PRESTON BRUSH FACTORY**
Manufacturers of ALL KINDS OF BRUSHES.
ORDERED MACHINE BRUSHES } specially
Mail Orders Promptly Filled.
E.H. Salpeter, Prop., MONTREAL, ONT.

THE SMART-EBY MACHINE CO., LIMITED

Steam and Gas Engines,
Pumping Machinery,
General Machinery.



193 BARTON STREET EAST
HAMILTON, ONT.

CITY AGENTS WANTED.

WRITE US BEFORE PLACING YOUR ORDER.

TO FOUNDRYMEN

To the Superintendent of the Foundry Department: DURANGO, MEXICO, July 31, 1899.

DEAR SIR,—We are desirous to establish an agency in Toronto, Canada, and it will give us pleasure and you satisfaction to allow us to express to you a sample keg of hundred kilos of our new Ferro-Nickel Manganese Calcium Fluoride for trial in cupola and ladle use.

This alloy, like yeast, not an expensive article, gives new life to the metal in purity, ductility and softness.

Upon receipt of this, please telegraph at once to our exclusive Sole Agents, Messrs. Stahknecht y Cia., Bankers, Durango, Mexico, for a trial sample keg alloy, which we will be pleased to forward to you immediately by Wells, Fargo y Co.'s Express direct to your foundry. Twenty-four page catalogue free.

Awaiting your immediate reply, we are, your faithful servants,

The National Ore and Reduction Co.

DURANGO, MEXICO,
P. O. BOX 83.

Howard Chemical Works, Howard Station, St. Louis, Mo., Agents for U.S.

ONTARIO GOLD MINING DISTRICT:

- Sultana Mine.
- Foley Mine.
- Mikado Mine.
- Olive Gold Mine.
- Cameron Island Mine.
- Hammond Reef Mine.

A Few Mines



WHO USE

BRITISH COLUMBIA:

- Le Roi Mine.
- War Eagle Mine.
- Old Ironsides Mine.
- Centre Star Mine.
- Crown Point Mine.
- Knob Hill Mine.

CANADIAN RAND DRILL COMPANY, Montreal

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AS TO FORCED DRAFT.

The argument is sometimes advanced against the use of forced draft instead of induced draft that it burns out the grates, seriously injures the boiler, and blows gas and smoke from the fire doors. The basis of this opinion lies in the experience of some engineers with plants equipped with fans operated at far above the proper speed. This is usually the result of installing, (through ignorance), a fan too small for the work, and then forcing it above the normal speed in order to secure the required air volume. As a consequence, instead of creating an ash pit pressure of $\frac{3}{4}$ to 1 $\frac{1}{2}$ inches, which is all that is ordinarily required, the pressure is forced up to even 5 or 10 inches, with the attending objectionable results:—

In a recent instance the engineer complained of gas discharged from the fire doors with incidental effects, and condemned forced draft in toto, although he was favorably disposed towards induced mechanical draft. Investigation showed that the fan was being operated at about twelve inches water pressure, which at once accounted for all the trouble.

When forced draft is used, the air as it passes from the ash pits to the combustion chamber is greatly reduced in pressure, owing to the resistances of the grates and the fuel. Coincidentally, the stack, even if a short one, tends to produce a partial vacuum in the furnace. As a result it is practically impossible to create under proper conditions more than a slight excess of pressure in the combustion chamber, and this should not be enough to force the gases out at the fire doors.

Accurate knowledge regarding the proper application of the fan blower for this purpose will readily dissipate any false impressions regarding forced draft.

THE MEYERCORD DECALCOMANIA TRANSFERS.

One of the most attractive exhibits at the recent Toronto Fair was that made by the Meyercord Co., of Chicago, in the space occupied by the Guelph Carriage Top Hardware Co. in the Carriage Building, and in the charge of C. H. Jagger, of the Buffalo branch of the Meyercord Co. The display consisted of a large banner upon which was transferred a large variety of beautiful decalcomania ornaments, and also packages of the ornaments ready to be transferred to articles requiring such ornamentation. These ornaments are largely used upon carriages, sleighs, wagons, agricultural implements, bicycles, pianos and other musical instruments, furniture, and innumerable other objects where beautiful pictures, designs,

trade marks, etc., are desirable. The Meyercord Co. not only keep immense varieties of these decalcomania transfer ornaments in stock, but they are prepared to produce them according to any design whatever that may be submitted to them, and at very short notice. Some of these transfers were in evidence on the Fair Grounds upon the threshing machines shown by the John Abell Manufacturing Co., the wagons of the Chatham Wagon Co., the sleighs and carriages of the Tudhope Carriage Co., and elsewhere.

Mr. Jagger informs us that the Meyercord Co. are running their Chicago factory over time filling orders for these beautiful ornaments, employing more than a hundred artists and skilled workmen. Since the first appearance of their business announcement in THE CANADIAN MANUFACTURER their trade in this country has grown to a gratifyingly large extent. They manufacture their own paints, colors, varnishes, leaf paper, and everything else that enters into the production of their goods, every article of which they guarantee to be as represented.

The Guelph Carriage Top and Hardware Co., Guelph, Ont., are the Canadian jobbers of the Meyercord transfers.

LABOR'S GOOD YEAR.

The Toronto Globe prints a despatch from its correspondent in Brantford in which details are given of the increases in wages that have recently been voluntarily extended to employees in the various manufacturing industries in that city. The list is a formidable one, and indicates that there is a praiseworthy disposition on the part of the manufacturers to share with the men the advantages they are deriving from the prosperous conditions now existing in Canada. Than this nothing could show a more hopeful outlook for the future. It means that in Brantford at least, and it is to be hoped in all other centres of manufacturing in Canada, there is harmony between capital and labor. Wherever that is the case there is not the least likelihood of the excellent prospect for another good commercial year being altered by strikes and lockouts, which, even in those cases where they are justifiable, invariably result in an economic loss which ultimately reacts upon the whole community.

The importance of the upward movement of wages is easily understood after a glance at the list sent from Brantford, which is as follows:

Massoy-Harris Company, 700 hands, increase ten per cent. all over.

Cockshutt Plough Co., 350 hands, ten per cent. all over.

Verity Plough Works, 350 hands, moulding department ten per cent., other departments five per cent.

Waterous Engine Works Co., 390 hands, moulding five to ten per cent., according to departments.

Goold, Shapley & Muir Co., 150 hands, from five to ten per cent.

Knowles, Ham & Nott Co., ten per cent.

Buck Foundry Co., Limited, 250 hands, from five to ten per cent.

Moulders generally in all factories in the city have received ten per cent. of an increase.

The increase in smaller factories has run from five to ten per cent.

There are only a few factories of any im-



IMPORTANT ANNOUNCEMENT.

Recognizing the importance to the manufacturing industries of Canada of all matters touching Export Trade we have decided to open a Bureau of Information embracing every point of interest connected with this subject, and which Bureau is available to all our many patrons.

The very great experience of this house in this and in all commercial affairs—an experience extending over one hundred years, and our connection with the British consuls throughout the world, enables us to extend to our patrons information both valuable and reliable—for instance:

To give them the names and addresses of ACTUAL BUYERS in any line of trade, and in any country in the world.

To answer special inquiries of every character relating to trade interests.

To give PRIVATE information of a Commercial nature.

To quote Tariffs, Imports and Exports of any country, and leading industry of any City in the World.

To give Rates of Freight and Marine Insurance, and to advise as to the manner of shipping goods and collecting accounts, etc., and we cordially invite our Patrons to make use of this Bureau of Information free of charge, and also to make full use of our offices in Toronto and abroad, and all other reasonable information and services to promote the export of Canadian manufactures.

KELLY'S DIRECTORIES, Limited

28 Victoria St., Toronto, Ont.

Reduce Your Fuel Bills

Increase Your Output...

NO ASHES. NO SMOKE. NO TROUBLE. NO MONEY REQUIRED IF GUARANTEES ARE NOT FULFILLED

The First and Only Successful Underfeed Stoker.

No Underfeed Stoker is successful without infringing our Patents, and the public are warned against importing or using infringing devices.

N.B.—Have you seen our Underfeed as applied to Houses, Schools, Churches, etc.? (Send for Circular).

For Estimates and other Information write

The General Engineering Co. Limited

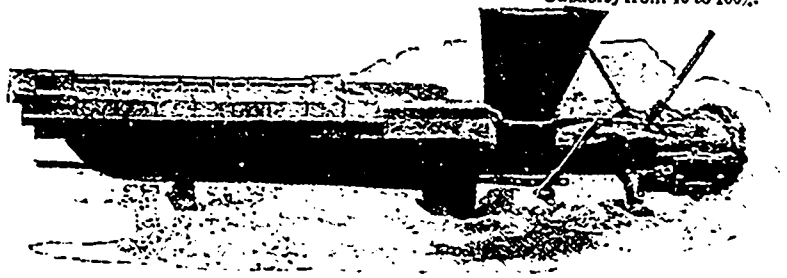
SOLE MANUFACTURERS FOR CANADA,

Head Office.... 80 CANADA LIFE BUILDING, - TORONTO.

BY USING

The IMPROVED JONES UNDERFEED STOKER

Guaranteed Increased Economy, from 15 to 50%. | Guaranteed Increased Boiler Capacity from 40 to 100%.



Montreal—A. TREVETHICK, - Box 1123.

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portance in which increases have not been given this summer.

If this proves to be typical of the condition of things all over the Dominion, and it is to be hoped that such is the case, the augury for a continued healthful development is of the brightest. We have no such trusts in this country as our neighbors have, and capital does not take with the left hand what it gives with the right.—Montreal Herald.

THE EDGERTON STORAGE BATTERY COMPANY.

The Hamilton Spectator has the following to say about an important industry about being started in that city:

Contracts have been let for the construction work on the building to be temporarily occupied by the Edgerton Storage Battery Company. The structure, which is 125x75, one story high, will be located outside of the city limits, at the corner of Lottridge street and the Grand Trunk railway, and will cost in the neighborhood of \$6,500. Its floor is to be of asphalt and vitrified brick, and the contracts give but one month for the finishing of the work.

The Edgerton Company will occupy these new premises only temporarily. As soon as the business is in running shape another building will be erected for a main factory, and this one will then be used as a storehouse. The company will shortly be capitalized at about half a million dollars, and has work now ahead sufficient to guarantee its success. It will employ a large number of hands.

It is the intention of the company, which has a large factory in Philadelphia, to use the Hamilton factory for its export business. Already orders are in hand for \$50,000 worth of storage batteries for the Argentine Republic, and these will be made here. The location of the Canadian factory in this city was caused by Hamilton's superior advantages over other Canadian cities, notably in the matter of electric power. Ottawa was favorably considered for a time, but Hamilton's advantages were too powerful for the capital city.

Zinc is an article which figures extensively

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COLORED COTTON
MILLS COMPANY.**

- Cottonades, Tickings, Denims,
- Awnings, Shirtings,
- Flannelettes, Gingham,
- Zephyrs, Skirtings,
- Dress Goods, Lawns,
- Cotton Blankets,
- Angolas, Yarns, etc.

Only Wholesale Trade Supplied.

D. MORRICE, SONS & CO.
AGENTS
MONTREAL and TORONTO.

in the manufacture of the storage battery, and the Edgerton company will be supplied with this metal by the Hoepfner Zinc Refining company, which will be in operation in a very short time, Dr. Hoepfner being expected in the city to-morrow. The Hoepfner factory, which will refine zinc, lead and silver ores, will be located near the Edgerton works. In connection with the zinc question, the following information is interesting: "The discovery of immense zinc mines in Northern Ontario gives point to the statement that America leads the world in the supply of the two metals that are foremost in the electric field, copper being the

positive metal and zinc the negative. For zinc no substitute has hitherto been found. The smelting of zinc is expensive, a large amount of coal being usually required to smelt it, this being done by vaporizing the ore and then condensing, and there are few ores so volatile. The world's production of this remarkable article is estimated at about 400,000 tons of the ore, of which this continent produces 265,000 tons each year. The production this year will, it is thought, reach 270,000 tons."

The Edgerton company is at present occupying premises on Bay street north, turning out rush orders.

THE "SAFETY" Acetylene Gas Machine

Manufactured by

THE SAFETY LIGHT AND HEAT CO.,

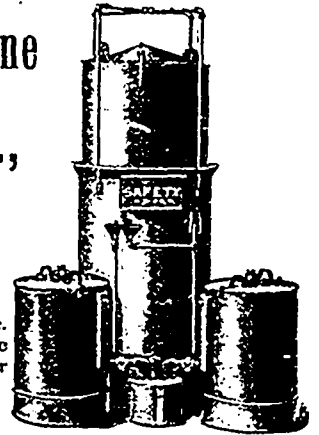
DUNDAS, ONT.

WHAT SOME OF OUR FRIENDS
SAY OF US:

GENTLEMEN.—We have been using your machine for some time. It works like a charm. It is everything you claim it to be. We will recommend it to all merchants in British Columbia, as it is far superior to other machines which we have seen.

NORTH BEND, B.C.

J. & E. LYONS.



Felts for Pulp Mills

20 years in the business —the first to make Felts in Canada; capacity 1,000 lbs. per day. All our Felts are woven endless, without a splice. Our Felts will last longer and make dryer Pulp. All up-to-date mills use our Felts. New mills, when in need, write for samples and prices.

HAMELIN & AYERS, Lachute Mills, P.Q.

The London Machine Tool Co., LONDON, ONT.

Toronto Office. (PHONE) 42 York Street. (293) MANUFACTURERS OF GENERAL MACHINERY....

Having recently sold our patterns and plant to the A. H. Williams Co., of Toronto, retaining only such machines as are useful in our business, we beg to say that we are rapidly putting in New Machinery, from new and improved designs, and are now in a position to receive orders for all Standard Tools for Metal Working in all branches. It will be our aim, by personal supervision of the product of works, with expert men of large experience at the head of each department, to turn out nothing but first-class work at moderate prices. And as we intend to deal directly with the manufacturers, they will be enabled to get their machinery at first cost.

As we shall not be able to personally visit each manufacturer, it is for this purpose that we publish this advertisement. This is our agent who is going about to solicit a share of your patronage. We are thankful for the patronage extended to us in the past, and hope that we may secure an extension of the favors for the future.

All correspondence relating to the following Tools will be promptly answered, viz:

- LATHES—Engine, Gap, Break, Turret, Fox, Spinning, Etc.
- PLANERS—Standard, Crank, Plate, Etc.
- DRILLS—Standard, Sensitive, Multiple, Radial, Etc.
- MILLING MACHINES—Lincoln, Plain, Universal, Etc.
- SHAPING MACHINES—Whitworth, G. & E. Rack-Driven, Etc.
- HAMMERS—Steam, Sandago, Drop, Stiles Drop.
- BULL-DOZERS for all purposes.
- PUNCHES AND SHEARS for Plate, Angles, Channels, Gauges, Etc.

And we would call special attention to our PRESSES for Cutting, Stamping, Drawing, Wiring, Riveting, Etc. We shall also esteem it a pleasure to give quotations on Special and General Machinery in our line.

ALEX. GARTSHORE, President. J. G. ALLAN, Sec.-Treas. JAS. THOMSON, Vice-Pres. and Gen. Mngr.

THE **GARTSHORE-THOMSON PIPE & FOUNDRY CO.**

Limited



3 in. to 60 in. diameter.

For Water, Gas, Culverts and Sewers

Special Castings and all kinds of FLEXIBLE AND FLANGE PIPE.
WATER WORKS SUPPLIES HAMILTON, ONT.

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CANADIAN TIMBER EXHIBIT AT PARIS.

Mr. James Macoun, of the Canadian Geological Survey, who has been intrusted with the task of preparing the forestry display of the Dominion of Canada at the Paris Exposition of 1900, has been consulting with Mr. Thomas Southworth, clerk of forestry for Ontario.

Mr. Macoun states that since a special Forestry building had been provided by the Exposition commissioners, the display of Canadian woods would necessarily be separate from the main body of Canada's exhibit. In the Forestry building Canada had been originally allotted a very small space, but on its being represented to the French Government that Canada was one of the two or

three great timber-producing countries of the world, the space was increased to 1,000 square feet, which Mr. Macoun regards as still inadequate for a full representation of Canada's forest wealth. The spaces allotted to the other nations are not known; the Canadian exhibit will adjoin that of Great Britain, which will naturally be much smaller, as Great Britain has but nine native trees of commercial value, whereas Canada has upwards of eighty. Canada is to be represented as a nation by itself, and not as an adjunct to Great Britain.

An important feature of Canada's display will be separate photographs of eighty native trees of commercial value as timber. This, of course, does not include domestic fruit trees, but the wild cherry, the wood of which is perhaps the most valuable sylvan product Canada possesses, will be represented. To

supplement these photographs specimens of commercial timber in every form, from the section of a saw log to semi-manufactured products, such as hubs, spokes, and deals, will be on view. Square timber will be an especially important feature.

It is expected that the Canadian display will be greater in range than that of any other nation, with the exception of the United States. The latter can show even a greater variety on account of her tropical possessions. The only other country which approaches the nations of the North American continent in the variety of commercial timbers is Japan. Norway and Sweden, which are big timber-producers, are limited to such soft woods as pine and spruce.

The end in view throughout the Canadian display will be that of extending the export trade in timber in this country.

JOHN J. KELLER & CO.

104 and 106 MURRAY ST.
NEW YORK

220 Church St., Philadelphia.
135 Pearl St., Boston.
18 Pryor St., Atlanta, Ga.

**Aniline Colors,
Dyewood Extracts,
Sumac and
Nutmeg Extracts.**

FAST COLORS for Wool Dyeing,
One Dip Cotton Colors, Novelties
and Specialties for Calico
Printing.

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JOHN R. GEIGY & CO.
BASLE, SWITZERLAND

**LIGHT YOUR
FACTORY WITH**

LUXFER PRISMS



The latest device for

LIGHTING

dark rooms and
offices

By Daylight

For catalogue
and estimates
write to

**Luxfer Prism
Co'y, Limited.**

58 Yonge Street, - TORONTO.

**You
Are
Thinking**

of putting in New Shafting,
Pulleys, Hangers, Tube Cut-
ters, Pipe Cutting Machines,
Swing Saws, Wood Lathes,
Dough Mixers, or Paper Box
Machinery.

We

Make all these lines, and can
quote you as good, if not bet-
ter prices than other people.

G. T. PENDRITH & CO.,

73 to 81 Adelaide St. West,
TORONTO.

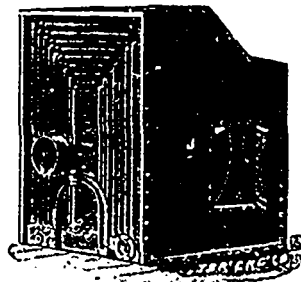
HEATING . . .

The Fan System of Steam Heating for Heating
of Factories and all Classes of Buildings.

DRYING . . .

Appliances for Drying

**Lumber, Brick, Wool, Cloth,
Hair, Soap, Glue, etc.**

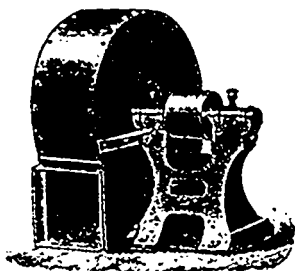


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VENTILATING . . .

Ventilating Fans for removal of Dust, Foul Air, etc.

WRITE FOR CATALOGUE AND PRICES.



Fan.

**McEachren Heating and
Ventilating Co., GALT, ONT.**

F. E. ATTEAUX & CO.

53 Colborne Street,
Toronto.

15 Lemoine Street, Montreal.

Boston, New York,
Philadelphia, Chicago, and
Gloversville, N.Y.

**Dyewood Extracts,
One Dip Alizarines,
Aniline Colors,
Dyestuffs and
Chemicals.**

ELECTRIC FANS WITH ADJUSTABLE OUTLET.

A novel type of electric fan designed by the B. F. Sturtevant Co., of Boston, Mass., for use on certain vessels in the U. S. Navy is shown in the accompanying illustration. The fan throughout is of steel plate, and is provided with an inlet casing or connection on the back. This casing is provided with two inlets, and the fan proper with two outlets, each corresponding with the former, but from which they are separated by diaphragms, not appearing in the illustrations.

In these combined outlet and inlet connections are dampers arranged to be operated by the locking lever and connecting bevel gears, so that if for instance air is to be discharged through the outlet which appears on the right hand side of the fan, the inlet upon that side will be closed, the outlet in the inclined opening to the left will be closed, and the inlet in the same opening will be opened. A change in the position of the lever will exactly reverse this relation.

By this arrangement it is possible to draw air from out of doors and force it into a given apartment, or by the manipulation of dampers to draw it from the given apartment and force it out of doors.

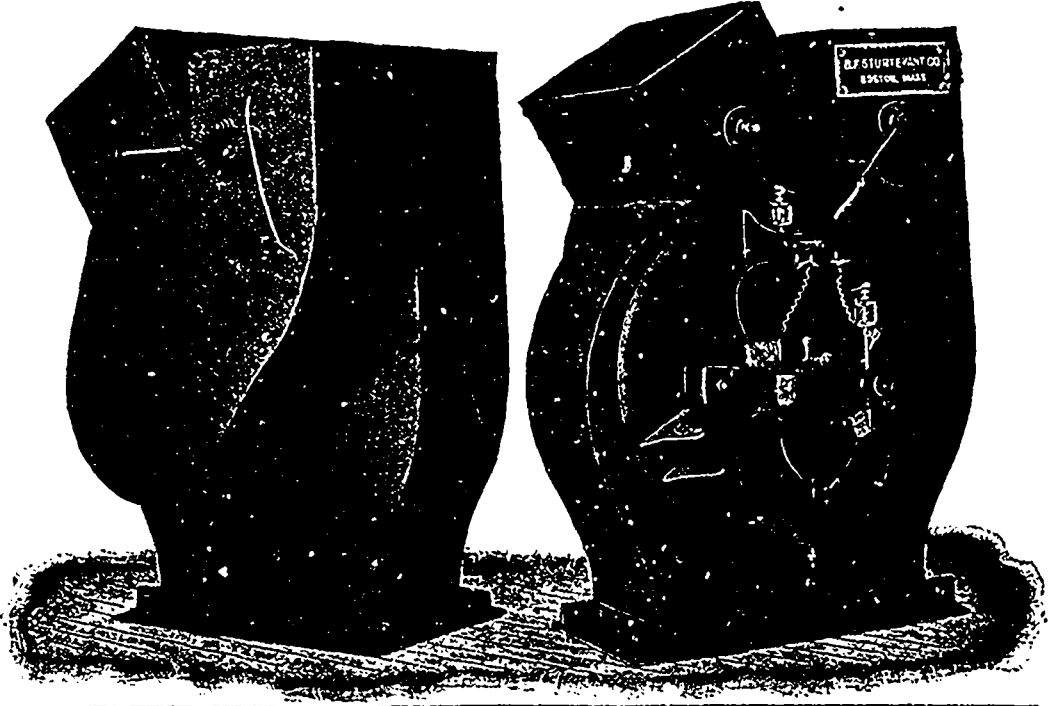
The motor which drives this fan is of the bi polar type with

wrought iron magnet ring, which is attached to and supported by lugs projecting from a plate, which in turn is attached to the fan side. A very rigid support is thus provided.

The field winding on the two pole pieces is of such design as to utilize the space to the greatest advantage. The armature is of the drum wound type. Carbon brushes carried in reaction brush-holders are employed. Thorough attention is given to the

oilings of the bearings. These are formed in yokes projecting from both sides of the magnet ring, and are provided with ring oilers.

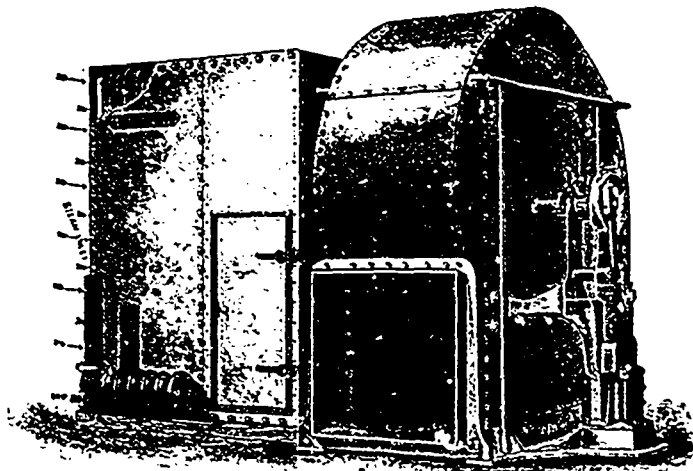
All overflow oil is conducted by a tube to a receiving tank below. The entire arrangement is compact and portable, there being no external support for the motor. Evidently the steel plate construction makes possible almost any arrangement of inlets and outlets.



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Heating and Ventilating



The Sturtevant Steam Heating and Drying Apparatus

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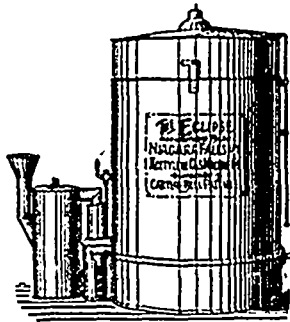
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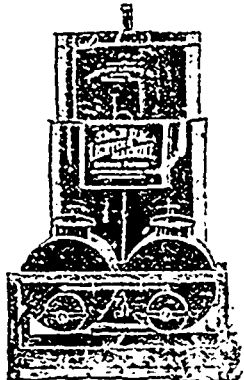
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A VALUABLE SHIPBUILDING INDUSTRY.

Speaking of the new Quebec, Hamilton and Fort William Navigation Company, who has just issued its prospectus, the Hamilton Spectator says —

"The prospectus explains that the company is being formed for "the purpose of constructing, acquiring and navigating steam and other vessels for the conveyance of passengers, goods and merchandise between the ports of Canada and any port of any other company, and of carrying on the business of common carriers of passengers and goods, and of forwarders, wharfingers and warehousemen, and of dealing in goods, wares and merchandise." These are the objects of the company as set forth in its charter, which is sufficient to cover any possible extension of the business. As a matter of fact, a beginning will be made by constructing and running freight boats of the largest size which can pass through the Canadian canals. The opening of the new St. Lawrence canals will create a revolution in the carrying trade of this country, and there will be plenty of carrying for all the boats which can be built in Canada for some time. The new company will have the advantage of the monopoly of carrying ore for the Hamilton Steel and Iron Company (the directorates of the two companies being practically the same), and that alone will give freights one way—from

Lake Superior to Hamilton—for six boats of the size which it is proposed to build. It is expected that the ore to be used in the blast furnace here will be taken from the Canadian mines of the Lake Superior region; but even in the unlikely contingency that the proper ore is not there in sufficient quantities, there will still be employment for the company's fleet, for the ore will have to come from the American side of the lake. Added to this assured trade the company's boats will have a share in the trade between Fort William and Montreal or Quebec, in the carrying of the grain of the Northwest to the ocean steamers. That this trade will be very large will be quite understood by those who have studied the situation.

It is fully expected that the company's arrangements will be sufficiently completed to admit of the building, at this city during the coming winter, of at least two large steamers.

PARRY SOUND, ONTARIO.

The North Star says "Parry Sound is a lively place this year. Activity is very pronounced in every line of business from the greengrocer to the large saw mill. All are receiving a share of the renewed prosperity, and our people are very hopeful. Four saw mills are cutting lumber, lath and shingles and shipping them to American and Canadian ports as fast as the machinery can be handled. Messrs. Kor & Harcourt, of the

McLachlan Electric & Gasoline Motor Co., LIMITED. 94 ADELAIDE ST. WEST. TORONTO

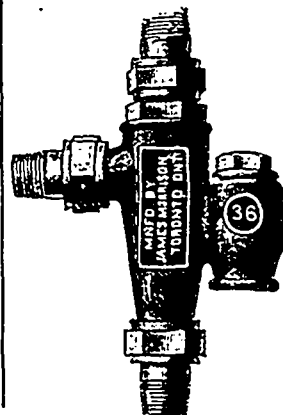
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Simple—Durable—Efficient

Combining all the best features required in a high-grade boiler feeder.

Manufactured by.....

THE JAMES MORRISON BRASS MFG. CO., Limited, For Sale by the Trade. TORONTO.

spool and bobbin factory, say August is usually their quiet month, but they are over run with orders this year. Never have they been as busy, and they are delighted with the move to Parry Sound. It is their intention to increase the capacity of their factory in the near future. The Patent Clothboard Factory have orders ahead for the remainder of the year, and are rushing things to the utmost. The McKinley Wood Lumber Company are far behind with their orders, and will have to enlarge this fall to keep pace with their trade. Although only built this spring, the mill has been largely patronized from the first day. Every merchant is enjoying good times, especially in the provision line, as the large number of men at work in Depot Harbor and at various mining camps, besides scores of prospectors and a half dozen lumber camps, are daily after supplies. Flour and meal are having a big run, and it is a wonder a grist mill has not been erected before this, but some enterprising man will at last get his eyes open and move here. A mill with 100 barrel capacity can dispose of the entire output in this district. Our mines are becoming something enormous, and a year from now we firmly believe Canadians will pay \$50 for what they can buy to-day for \$1. In tourists Muskoka reports 13,441 arrivals up to the 5th of August. This is an increase of 6,311 over last year. While the exact figures for the islands of the Georgian Bay are not available we are safe in saying there has

been an increase of fully 100 per cent. More hotels must be built, as when this place becomes known the number of visitors will rapidly increase. This year gives but a small idea of what we may expect in 1900."

CUMMER MECHANICAL DRYERS.

The F. D. Cummer & Son Co., Cleveland, Ohio, manufacturers of the well-known Cummer Mechanical Dryers, report the following sales and shipments for the past two months:—

Sales:—Lafin & Rand Powder Co., one special dryer to dry 1½ tons of nitrate of soda per hour.

United States Navy, one special dryer to dry one ton of nitrate of soda per hour.

Trent Valley Peat Fuel Co., one No. 00 size "Salamander" dryer, to evaporate 2½ tons of water per hour from peat fuel.

Warren-Burnham Portland Cement Co., one No. 8 style "F" dryer to dry 2½ tons of slack coal per hour.

Peerless Portland Cement Co., one No. 00 "Salamander" dryer, to evaporate two tons of water per hour from marl.

Shipments:—John McGillen, Chicago, one Cummer portable railroad asphalt paving plant, guaranteed to lay 2,000 yards of two-inch topping per day of ten hours.

Societe Anonyme de Ciments de Vise, Brussels, Belgium, one No. 000 size "Salamander" dryer, to dry fifteen tons of chalk per hour, and one No. 2 size "Salamander" dryer, to dry four tons of clay per hour.

T. Herbert Wymonde, Vancouver, B.C., one No. 00 style "F" dryer, to dry fifty tons of fish scrap per day.

Bring customers to your customers, by advertising to the consumer. Plans and rates will be cheerfully prepared and submitted by the E. DESBARATS ADVERTISING AGENCY, Montreal.

Pennsylvania Salt Manufacturing Company, Natrona, Pa., one three tunnel, six track tunnel system complete for drying iron ore briquettes.

Vulcanite Portland Cement Co., Phillipsburg, N.J., one No. 0 style "F" dryer for drying seventy-five tons of slack coal per day.

Wm. Krause & Sons Cement Co., Martins Creek, Pa., one No. 8 style "F" dryer for drying 2½ tons of coal per hour.

Premier Tripolite Company, North Sydney, N.S., one special dryer for drying tripoli.

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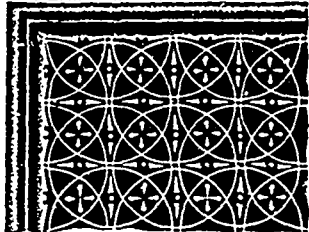
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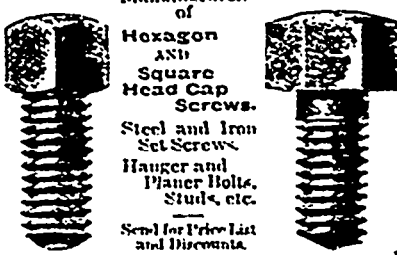
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brittle; a floating stone, which can be readily carded, spun and woven into tissue. In Germany it is known as steinslachs (stone flax), and the miners of Quebec gave it quite an expressive name—pierra coton (cotton stone). The asbestos mines of Quebec are the most famous in the world, yielding eighty-five per cent. of the entire output, Italy being the only competing country, and there the industry is declining. Although Charlemagne is said to have had a tablecloth of asbestos, which he cleansed by throwing into the fire, it was practically unknown until 1850.

The Italian mineral was then experimented with, and some years later put on the market. In 1878 the first Canadian mine was opened and the product steadily increased until 1890, when 9,860 tons, worth \$1,260,000, were mined. There has since been a decline in value, the amount for 1896 being 4,000 tons, worth only \$430,000. Asbestos is flexible, non-combustible and a non-conductor of heat and electricity, and on these properties its increasing use depends. It is spun into yarn, from which cloth is woven for drop curtains in theatres, clothing for firemen, acid workers, etc. It is made into lamp wicks and gloves for stokers, and ropes for fire escapes. It is felted into millboard, to be used as an insulator in dynamos and as a fireproof lining for floors. It is used to insulate electric wires, and as a covering to prevent loss of heat from steam pipes. Mixed with rubber, it is used to pack steam joints.

PROSPERITY OF THE MARITIME PROVINCES.

At a meeting of the Maritime Board of Trade held in St. John, N.B., a few days ago, Mr. W. N. Jarvis, the president, sketched the history of the Maritime Provinces, tracing up the growth of their trade in shipping, manufacturing and agriculture. He drew a roscato picture of the progress the Provinces are now making in the way of manufacturing and in the development of our mineral and other resources. He referred especially to the large pulp mills now being established, sugar refineries, stamping mills, steel and iron works, gold and coal mines of Nova Scotia, also to the growing of apples and small fruits. Last year, the speaker said, Nova Scotia exported 300,000 barrels of apples, and this year she would export 400,000 barrels. He gave credit to the Federal Government for subsidizing steamships to come to the Maritime Provinces, and predicted that the day would come when no subsidies would be required, and the trade of Canada would follow the regular course of finding an outlet through a Canadian port. The speaker also referred to the building of elevators for the handling of grain and of wharves for the accommodation of steamships, which go to show that when true preferential trade is established Canada's products will not find outlet through Portland and Boston. The board, he said, had much yet to do in making the Maritime Provinces known; for it was impossible to pay a visit to the upper Provinces without noticing how little the people there knew of our resources or the kind of country there is down by the sea. The address dealt with many features of trade and commerce.

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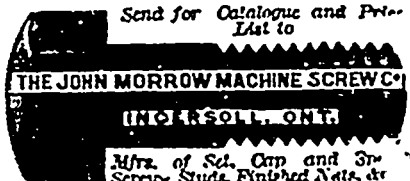
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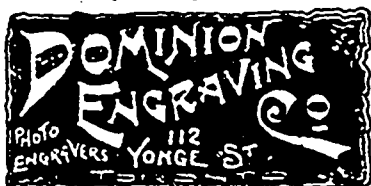
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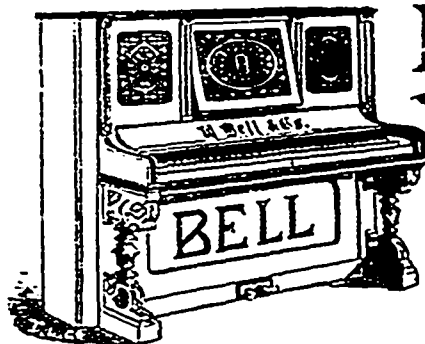
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All Kinds of Pressure and Vacuum Gages used in the Various Arts

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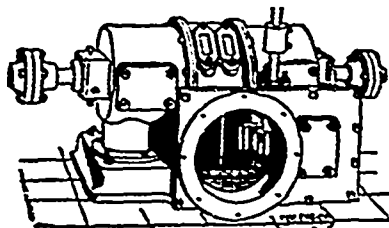
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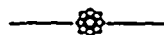
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INTERLOCKING SWITCH and SIGNAL PLANTS,

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