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# The Patent Review.

A MONTHLY INTERNATIONAL PATENT JOURNAL.

Editor and Prop., A. HARVEY, C.E.  
VOL. II.—No. 9. Whole No. 21.

OTTAWA, CANADA, SEPTEMBER, 1889.

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## PATENTS FOR SALE.

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THE PATENT REVIEW,

OTTAWA, CAN.

**1588. Combined Ledger and Bill Book.** Can. Patent No. 30444, dated November 7th, 1888. Model. For description see page 104.

**1585. Electric Water Level Indicator for Steam Boiler.** Can. Patent No. 27548, dated Aug. 19th, 1887. Model. Cir. For illustrated description see page 104.

**1565. Rotary Engine.** Canadian Patent Number 29,839, dated September 11th, 1888. For illustrated description see page 104.

**1539. Hall Rack.** Can. Patent No. 23588, dated March 11th, 1886. Model. For illustrated description see page 117.

**1500. Washing Machine.** Canadian Patent No. 29852 dated Sept. 15th, 1888. Circular. Model. For illustrated description see page 104.

**1448. Horse Powering Device.** Can. Patent No. 30,990. Dated March 22, 1889. Same as U. S. Patent No. 379,644. For illustrated description see page 68.

**1437. Fence Wire Stretcher.** Can. Patent No. 30,815, dated April 9th, 1889. Same as U. S. Patent No. 399,272. For description see next number.

**1424. Mechanical Movement.** Can. Patent No. 29,247, dated May 30th, 1888. Same as U. S. Patent No. 360,104. For description see page 83.

**1394. Combined Letter Sheet and Envelope.** Can. Patent No. 30751 dated Feb. 11, 1889. For illustrated description see page 72.

**1338. Dish Washer.** Can. Patent No. 26915, dated Oct. 3, 1888. Model. For illustrated description see page 72.

**1225. Filter.** Can. Patent No. 27630, dated Sept. 9, 1887. Same as U. S. Patent No. 363,668. Circular. For illustrated description see page 85.

**1230. Adjustable Wood Measuring Rack.** Can. Patent No. 28185 dated Dec. 17, 1887. Same as U. S. Patent No. 351,917. For illustrated description see page 71.

**1228. Device for Preventing Water Pipes from Freezing.** Can. Patent No. 29031 dated April 17, 1888. Model. For description see page 46.

**1172. Toaster.** Can. Patent No. 28,135, dated December 9th, 1887. Same as U. S. Patent No. 372,276. Circular. Model. For illustrated description see page 41.

**1144. Fan Attachment.** Can. Patent No. 27166, dated July 14, 1887. Model. Circular. For illustrated description see page 71.

**1143. Hasp Lock.** Can. Patent No. 26923 dated April 27, 1888. Same as U. S. Patent No. 365,613. Model. For illustrated description see page 71.

**1092. Gate Latch and Hinge.** Canada Patents Nos. 23522 and 25228 dated March 2nd and October 26th, 1886. Extended for Manufacture. Model. For illustrated description see page 40.

**1083. Oil Can and Lamp Filler.** Can. Patent No. 26264 dated March 16, 1887. Extended for Importation. Model. For illustrated description see page 41.

BIBLIOTHEQUE NATIONALE

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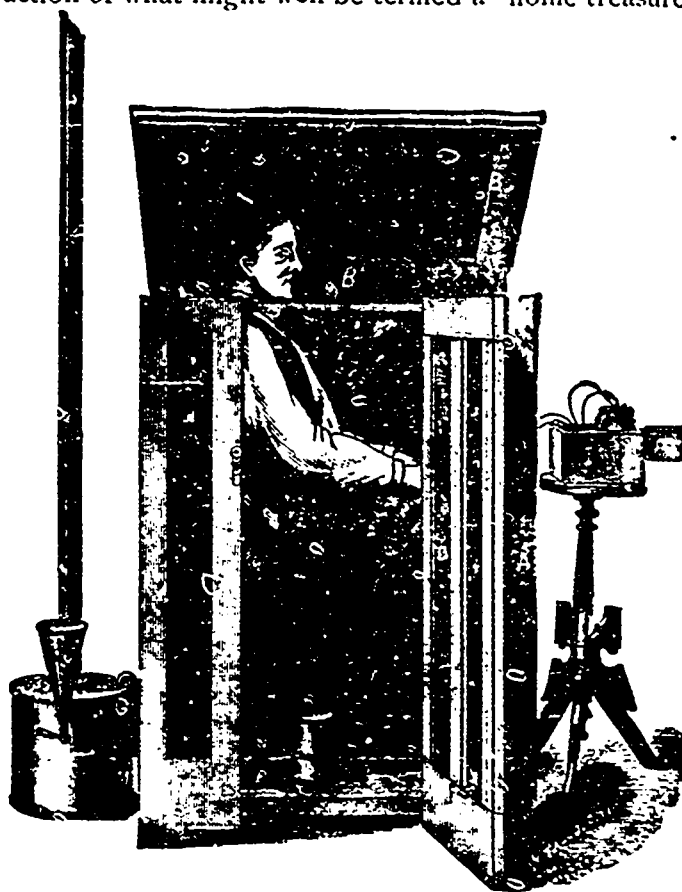
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## DR. DOUGLASS' COMBINED PORTABLE TURKISH-RUSSIAN, ELECTRO-VAPOR, AND SULPHUR BATH APPARATUS.

To Bath Manufacturers, Hardware Merchants, etc.

Bath manufacturers and others who deal in such articles, will find in the vapor bath illustrated below, an invention that will enable them to supply a luxury for the home, of great value, at a trifling expense. Those who appreciate a Turkish or vapor bath, and there are very many, would hail with pleasure the introduction of what might well be termed a "home treasure." It would command a ready and quick sale, and yield the manufacturer a handsome return.

The invention relates to portable vapor baths, and the novelty consists in the arrangement and adaption of a peculiar vapor generator in its relation to the bath closet. The letter "A" designates the body of the closet, having a foot rest "E," a side door "C," a hinged top "B," and a sectional top "B," adapted to closely embrace the neck of the person being treated. Sponges are so arranged within the closet that electricity can be applied to any part of the body. A lamp "R" is employed to produce chemical or medicinal fumes or hot air. The generator "F" is used to inject into interior of closet a proper quantity of steam and any quantity desired. This is essentially a copper



vessel of oval shape, 12 inches high and 12x9, having a fire chamber, a water chamber connected with the exterior by a passage—"F." The water chamber entirely surrounds the heat-flues, which pass up through the water, and double seamed top and bottom. The generator holds about one pailful of water, and can get up steam in eight minutes. The rising products of combustion meet the deflector in their passage to the exit and are thrown toward the sides and along the top of the chamber; the reverberations of the heat products thus caused by the deflector allows the maximum of heat to be given off to the surrounding water. The pipe—"G" connects the interior of generator above the water level with the interior of the closet through pipe "M."

Medicated baths are prepared by introducing the desired quantity of fluid extracts with the water before lighting the apparatus.

The Canadian Patent is for Sale (No. 25,065) dated September 30th, 1886.

OFFERS FOR THE WHOLE DOMINION OR FOR ANY PART OF IT ARE INVITED.

Further particulars as to terms, &c. may be had by applying to Dr. Douglass, Sioux City, Iowa, or to

THE PATENT REVIEW,  
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COMPLIMENTARY NOTICES.

The Patent Review, published at Ottawa, has been enlarged to 16 pages, and contains, as usual, much information valuable to inventors and a good deal interesting to the general reader.—The Globe.

The Patent Review, published in Ottawa by Mr. A. Harvey, has lately been enlarged to sixteen pages, with a substantial cover. The paper is filled with matter of great interest to inventors and mechanics.—Ottawa Free Press.

The Patent Review, published monthly at Ottawa by A. Harvey, C. E., comes to hand for August in a neat sixteen-page form. The Review will be of very great value to all who are in any way interested in patents.—Hastings Sentinel Review.

The Patent Review—This journal has recently been enlarged by the addition of a good substantial cover. It contains a great deal of interesting matter to inventors. Price one dollar per year. Address, The Patent Review, Ottawa. Streetford Advertiser.

"The Patent Review" published in Ottawa, has just been enlarged to 16 pages, with handsome cover. This journal should be in the hands of every manufacturer, for it records all new inventions for which patents are granted at Ottawa, and gives illustrations of the more valuable and novel ones. The price is only a dollar a year.—Valparaiso Telegraph.

The Patent Review for August is to hand, and contains some interesting articles relative to patents, inventions, etc. It has recently been enlarged to 16 pages and is also improved, making it even more so than it was before—an indispensable journal to patentees, inventors, manufacturers, etc. Its subscription price is \$1 per year, and is published monthly by A. Harvey, C. E., Ottawa.—Toronto Merchant.

It is the fashion with a good many patriotic people now-a-days, to contend that anything "Canadian" is in theory and practice better than anything else of the kind which is foreign. The article in The Patent Review, on "Patent Office Practice," would be apt to modify this sentiment which may be carried too far. At any rate the editor of The Patent Review, who ought to know something on the subject, has on this occasion to criticize the present management. The Review has lately been enlarged to 16 pages. It is published by A. Harvey, C. E., Ottawa—as compared with the States, the "patent" business of the Dominion is small, at present; but will probably grow with an increase of population.—The Kennebec Mercury.

LIST OF FALL FAIRS.

Following is a list of the dates of fall fairs so far as at present obtainable.

Table with columns: NAME, PLACE, DATE. Lists various fall fairs across Canada with their respective locations and dates.

There is now a "Dynamodermic Institute of Paris" where the professors offer to smooth out wrinkles by "Electrolysis." The electricity revivifies the skin and makes it young again.

A process has been invented, by means of which photographs can be printed almost as fast as newspapers, and without dependence on sun or light. They are said to be of the first quality. That, of course, would make photographs much cheaper.

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The Patent Review, Ottawa, Can.

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The object of THE PATENT REVIEW is to represent the large and important interest vested in patents of inventions, trade-marks, trademarks, designs and copyrights in the same manner as the leading trades, callings, and interests are represented by their respective trade or class paper.

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#### SMALL INVENTIONS.

That a large number of useful inventions are being lost to the general public as well as to their originators, because they are considered insignificant, is a well known fact. An invention is of no value nowadays unless it is patented. It is because many small inventions remain unpatented that they are lost. Many little useful improvements are made by farmers and mechanics, and by other people, in the humbler walks of life, or by people who are not of a mechanical turn of mind and who have no perception of the working of the patent system—that is now exerting such powerful influences upon the commercial and social world and is assuming such gigantic proportions—that are passed over without notice and for which nobody is the wiser, the better, or poorer or richer. It is of course equally true that every patent issued is not for a valuable or useful invention, and not every patent yields a return to its owner. This, however, is quite in the nature of things—although the cause or many sneers—just as much as every individual human being is not good or useful, but often enough the contrary, to his neighbor or the community at large. Equally true it is also that small inventions have been the source of more wealth and have raised a larger number of men from poverty and drudgery to comfort and independence than the important ones that have astonished the world from time to time. The greater the invention and the more difficult is its introduction—the converse must of course be true also. Reader, do not despise the small inventions, especially your own. You may ere this have had some idea of a new tool or implement or small utensil, or even only some improvement on one, or you

may have made one or had one made and never thought any more about it. You did wrong. Wrong to yourself and wrong to your fellow men. It may be lost now, perhaps you can resurrect it. Perhaps you have such a thing in present use, perhaps one will occur to you sooner or later. Stop to think whether it is better than anything of the kind you saw or used or knew of before. Stop to consider whether there is a likelihood of anyone else requiring the same thing. If it is something that is more convenient, does more or better work, saves trouble or labor, or time, or can be produced cheaper or last longer than similar known articles, you know of, you have got a useful invention that will make you money and do good to others. If you have such an invention do not pass it by, but patent it, you may not only make money out of it—even if you do not make a fortune by it—but you will also benefit your fellow men, and it is every one's duty to be useful to others. About \$45.00 will secure you the monopoly. You have not got the money? Well, perhaps your neighbor or acquaintance has and will lend it to you, or join you in the enterprise at his own risk; it is a thing that is done very often with good results. Once a patentee, you have something at stake which you are bound to follow up, which will stimulate you to effort, and guide you to ultimate success. The most unpretentious, unmechanical humble, and lowliest individual man or woman, lady or gentleman, may become an inventor and patentee. Become readers of THE PATENT REVIEW and you will have done the first step towards its realization.

Longfellow surely must have been desirous to encourage invention when he wrote:

In the World's broad field of Battl.  
In the bivouac of life,  
Be not like dunn, driven cattle  
Be a hero in the stridel

Lives of great men all remind us,  
We can make our lives sul line,  
And, departing, leave behind us  
Footprints on the sand of time

I et us, then, be up and going,  
With a heart for any fate:  
Still achieving, still pursuing,  
Learn to let it and to wait.

#### PATENTEES BEWARE!

A patent attorney received from one of his clients recently—in August)—a postal card, of which the following is a copy, name and address being omitted for obnoxious reasons. The card is printed in two colors, the top part being in red; the words on the upper left hand corner are printed from a cut in imitation of a circular stamp and the signature in facsimile, in imitation of the cards well known to issue from our own office.

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DEAR SIR:—You are hereby notified, that by a recent Amendment to the "Patent Act," a further extension of time for the commencement of the manufacture of the invention for which Letters Patent for Canada were issued to you in September, 1886, may be secured if applied for now. If you have not already commenced to manufacture said invention in Canada, it is *important* that you secure this extension *without delay*, otherwise, the Patent becomes *void and of no value* September next.

Should you desire to *save* the Patent, send the *number* and *date* of the same with \$3. cost in full, to this office, and in due course you will receive the necessary extension papers. Respectfully,

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This is a barefaced attempt at swindling and we print this in order to warn our readers against it. The patent to which this notice relates is dated September, 1886, as stated in the card, an extension of time for manufacturing should therefore have been applied for not later than September last year, but no such extension was granted. This being the case a further extension could not have been granted at the time when the card was received by the patentee. The senders of the card know of course full well that the patent in question could not be extended, unless it had been once extended already. The whole "get up" of the card stamps it with fraudulent intention, such as "Official Notice," and "by a recent Amendment to

the Patent Act," "Resident Agent," etc. The object being of course to obtain the fee, keep it and do not: for it. If these gentry "wake up the wrong passenger" as it happens sometimes, they change address, or name, or both; in fact we are more than half inclined to think that this is the same party that has operated under several names and in different places already. Many patentees will no doubt be taken in by this move, but the reader of THE PATENT REVIEW has it now in his power to avoid it.

#### EDITORIAL NOTES.

**PATENT OFFICE IN ARREAR.**—The work of the Ottawa Patent Office is evidently badly in arrear. Cases that used to pass through in less than three weeks seem now to take as many months. Certainly nothing is heard of them inside more than two months. The office steadily approaches the perfection which the Circumlocution Office was in Dickens' time and if Daniel Doyce had lived to-day he would have been no worse treated.

**THE PATENT REVIEW EDITORIALS.**—That the editorial articles which appear in these columns are read with interest and appreciation is evidenced by the following extract from a letter received from a patent agent in London, Eng. He says: "I have also read with much interest in the same number of your REVIEW the first article 'Will it pay?.' I can heartily endorse your own remarks. So also your very important article relative to the Importation and Manufacturing clauses of the Canadian Patent Act."

**BRITISH PATENTS.**—The Annual Report of the Comptroller General of the Patent Office in London, Eng., for 1888, shows a steady increase of the business of the Office in all branches. In 1885 the number of applications for patents was 16,101, 17,176 in 1886, 18,051 in '87, and 19,104 in '89. Designs and Trade-Marks show a similar increase, being respectively in 1888, 25,823 single designs, 316 sets, and 13,244 trade-marks. Thus it will be seen that the number of patents

averaged a fraction over 367 per week, being close to the number issued in the United States for the corresponding period viz: 20,420, averaging 392 per week.

A patent for a men's suspender has just been issued at Ottawa to Mrs. J.E. Atwood. Mrs. Atwood has now only to invent an improved shaving mug to establish enduring fame.—*Ottawa Evening Journal.*

Come, brother Ross, you are generally a sensible good fellow, why such sneers? If you want to be "suspended" by Mrs. Atwood's excellent little invention, we will beg a pair for you. We wear a pair ourselves and assure you they are the thing. As for a shaving mug, we don't want one, we're too lazy to use one ourselves, but take pleasure sometimes to do it for an editor who sneers at things he knows nothing about, and then we prefer an ink pot, and would not object to a tar barrel.

The Patent Office is following the practice of dispensing with models in difficult cases upon condition that an extra set of drawings on tracing cloth be filed.—*The Empire*, August 30th, Ottawa correspondence.

Thus the Ottawa correspondent of the government organ *telegraphs* to head quarters what he *copies* literally from THE PATENT REVIEW twelve days after publication. Of course under such circumstances it would hardly do to give credit. Of course, we feel that it is something for THE PATENT REVIEW to furnish official news to the government paper! But we would be better pleased if the correspondent would tell his paper something about the maladministration of the Patent Office of which we have been writing so much, and in which inventors are so very, very much, interested and the government too!

**SPECIAL INVITATION.**—Visitors at the capital are specially invited to call at the Patent Review Building and examine the collection of models, samples and other particulars of patents held for sale or royalty. Between 40 and 50 patents for inventions of various descriptions, both large and small, seek purchasers or manufacturers, and the business manager of this journal will be pleased to show and give particulars relating to

them. There are always good opportunities for those in search of profitable specialities. The occasion of the Canada Central Fair presents special opportunities for a call, but those unable to be present personally are invited to examine our front and back page and write for circulars and particulars relating to any invention there named to which they may take a special fancy.

**IMPORTATION AND MANUFACTURE.**—In an other column we publish the letter of a correspondent arising out of our article in the July issue. We answered our correspondent by mail, but as others may be in similar doubt, we thought it well to publish it as well. Two things are demonstrated. One is the importance of the article itself and the benefit that our subscribers derive from the use of THE PATENT REVIEW at a trifling cost and how important it is that patentees should be subscribers. The other illustrates what we said in the article itself "that the simplest statement expressed in the plainest" is often misunderstood. This correspondent is or was evidently under the impression that sub-section 3 of section 37 of the Patent Act enabled him to get a further extension of time for importing after getting time for manufacturing extended.

**THE NEW MODEL ROOM.**—The removal of the models to the new home of the Patent Office has been completed, but a large portion of them still stand about packed up in cases and waiting to be unpacked and set up. Even the cases to hold them are not all placed yet. They occupy the top floor (or rather mansard storey) of the entire new building, and as far as we have been able to ascertain from a cursory visit to the place is pretty well adapted to the purpose. The floor space too is large and probably ample for present requirements. The examiners are located on the same floor and take of course part of the space. When complete we shall refer to this subject again and for the present will simply express a hope that a proper system of classification will be not only adopted but also carried out.

**THE "FAMOUS" PIPE HANGER.**

The "Famous" pipe hanger is an excellent device for the purpose for which it is designed—simple and effective. Fitters of steam and water heating apparatus will readily appreciate its advantages and comprehend its construction at a glance from the accompanying engraving. The pipe lies in a cast iron hinged stirrup, the upper ends of which are slotted or pierced to engage and hang on a nabbed double hook. In the hook screws a rod, the upper end of which is screwed into or otherwise secured to a joist beam or other object, and which may be of a desired length. The points of the hook are engaged and covered by a wide mouthed nut or ferrule, which also covers the upper ends of the stirrup, and thus prevents the lat-



THE "FAMOUS" PIPE HANGER.

ter from slipping off the hook, keeping them perfectly secure. One of the illustrations shows all the parts apart, while the other shows the hanger connected and complete. It will be noticed that this construction admits of easy adjustment of level, and also of ready removal and replacement in any position, as the stirrup can be readily opened. It also allows a good deal of play for the extension and contraction of the pipes.

This hanger can be made to suit any size of pipe. It is patented in Canada by MR. G. C. BLACKMORE of Newark, N. J., who also manufactures the same for the U. S., at present only for 1, 1 1/2, 1 1/2,

and 2 inch pipes, but he expects shortly to have larger sizes, up to six inches in the market.

**LABOR SAVING PAY-DEVICES.**

Mr. D. W. Bundy of 211 Lippincott St., Toronto, is the patentee and manufacturer of a number of labor saving devices, a couple of which we illustrate in the accompanying illustrations. One of them is his Pay-Device illustrated in figs 1 and 2, the former showing the same open ready for use, and the other closed for transportation. It is principally intended for paying wages and consists of a cabinet with a series of pockets each adapted to hold a money box and each containing the name of an employer and a number. This device is finding great favor with employers of labor who testify to its usefulness. The other illustration shows Bundy's improved Time and Pay Roll. As these illustrations speak pretty well for themselves, there is no need to add much in explanation. These devices are protected, of course, by letters patent.

**THE VESSOT CAR-AXLE LUBRICATOR.**

The necessity of securing a better system of lubricating car-axles is one of the most important subjects now occupying the attention of railroad men; the annual saving to their roads which would result therefrom being simply enormous. The doing away with waste and the economy in oil saves of course, considerable; but the main savings arise from the greatly extended duration of bearings and axles and also the material decrease of hauling power and fuel required.

During the past fifteen or twenty years, numerous attempts have been made to contrive some better method of lubrication than that now in use, none of which however has proved satisfactory. The cause of this failure we attribute not to a want of mechanical ability expended on this object but to the fact that most of these devices have been studied out with a view to conformity to the Journal Box now in use.

At the recent convention of Master Mechanics at Alexandria Bay the committee on Journal Lubrication reported that the Journal-Box now in use is, with regard to lubrication, not properly constructed, that the present "waste-packing" system of oiling is not at all satisfactory, while a better Dust-Guard is imperative.

The Journal-Box here illustrated is the same as the M.C.B. Standard with the exception that the front of the box is somewhat enlarged and made circular. This system, however, may be applied to any car axle now in use.

The lubricating apparatus consists simply of an open disk keyed to the end of the axle, and locked by means of a pliable washer, one side of which is folded over the



THE "FAMOUS" PIPE HANGER.

square head of the bolt, and the other over a square elevation cast on the disk. Supported against the journal by a pair of double flat steel springs—which bear side-blocks, and rest loosely in the bottom of the box, and kept in place by a track cast in the bottom of the box—is the lubricator proper. This consists of two curved channeled frames with front and rear scrapers. These frames slide one into the other and adjust themselves to the length of the journal by a fixed, double convex spring. The only action that these springs have is that required as the bearing or

journal wears. Hence their durability is certain.

As the revolving disk brings up the oil from the box, the front scraper takes it off, passes it through the canals and upon the journal throughout the greater part of its length, when it falls into the box. Any superfluous oil thrown up on the shoulder is taken off by the rear scraper and returned to the box. There is also a small groove around the axle at about half an inch behind the shoulder into which collects any oil that may be thrown upon the axle by the longitudinal motion of the brass and is thrown off into the box by centrifugal force. Thus the journal is kept submerged in oil whenever the car is in motion and not a drop escapes, as has been proved by actual test of over ten months.

This lubricator is now being subjected to a rigorous test on the Grand Trunk road and on the Chateauguay road on both of which it was placed over four months ago and has thus far given good satisfaction.

There is also a dust guard, which though similar to the piece of board now in general use, and costing very little more, is so constructed as to always fit the axle closely and which will wear as long as the ordinary car wheel. This alone is considered a valuable improvement.

Messrs S. Vessot & Co. of Joliette, Q., are the patentees.

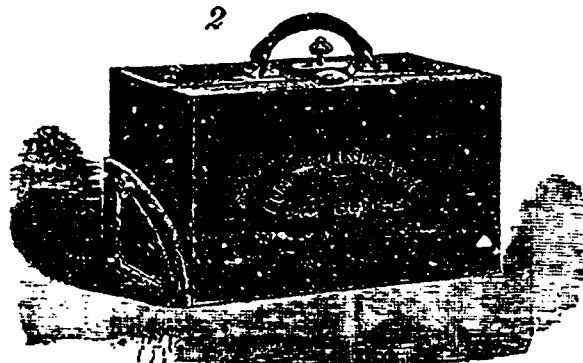
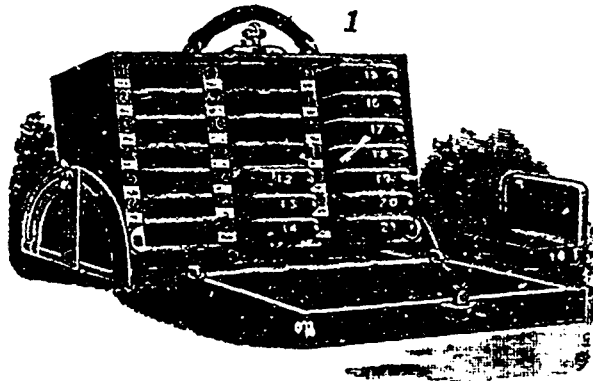
LITERARY NOTES.

THE CRANK.—Students of mechanical engineering will find much interesting reading in a

little book, "The Crank: Its Motion and True Value in Practical Engineering," by F. LENGGENHAGER, Ph. D., published in New York by G. F. Nesbitt & Co. This little work is profusely illustrated with wood cut diagrams and contains

them if we had leisure and inclination to study the matter carefully. We are prepared to admit broadly that a crank wastes power. But it is against all that we have earned at school and in the engine room that a fly wheel

is not acting as an equalizer or reservoir of power, nor could we be made to believe without actual test that a crankless engine would only use 25 per cent. of the steam that a crank engine would use under similar conditions. This to whet the readers appetite merely; we have no ambition to rank among those in the list referred to in the author's quotation from a contemporary, that "There are many cranks besides the crank that turns the grindstone; but the worst crank is the crank who is going to improve the crank."



BUNDY'S PAY DEVICE.

TIME AND PAY ROLL, WEEK ENDING FRIDAY <i>Jan 4 1889</i>												
NO	NAME	DAYS							TIME	RATE	NO	DATE
		S	M	T	W	T	F	S				
1	<i>John Vessot</i>								4 1/2	1 1/2	1	1/1/89
2											2	
3											3	
4											4	
5											5	
6											6	

BUNDY'S TIME AND PAY ROLL.

much interesting reading. To many of the statements made we cannot subscribe, but do not mean to say that we might not become convinced of the correctness of

The J. C. Ayer Co. of Lowell, Mass., Patent Medicine manufacturers, have registered four Trade-Marks in Canada viz. "Hair Vigor," "Sarsaparilla Ague Cure" and "Cherry Pectoral."

It is the second-hand book-seller who comes oftenest in contact with men's hobbies. Second-hand book dealers are in the way of picking up secrets, too. They know where the majority of presentation copies go, and they know where a great many men and women who live by their pens find the bulk of their material. "I have a woman customer," said one dealer to me, "who has orders for articles on certain subjects and who buys books of me on those subjects which she simply rewrites and sends out over her own name. I suppose she sees no harm in doing this, because what she gets from the books is much better than anything she could originate."



### PATENT REVIEW BUILDING.

Patent Review Building has been the home of THE PATENT REVIEW since August 1887, and though not its birth-place, has really been its true home and not a mere lodging or temporary abode. Sparks Street, on the north side of which Patent Review Building is situated, is the principal business street in the city of Ottawa, traversed by the (at present only) street car track which connects the extreme easterly point with the extreme westerly point of the city, and containing, or being adjacent to, the principal public offices, institutions, and hotels. Patent Review Building has a handsome cut stone front, and consists of three lofty storeys, besides cellarage, the ground floor having a plate glass front. The dimensions are 14 feet wide (front) by 62 feet deep. The rear is well lighted from an enclosed court yard.

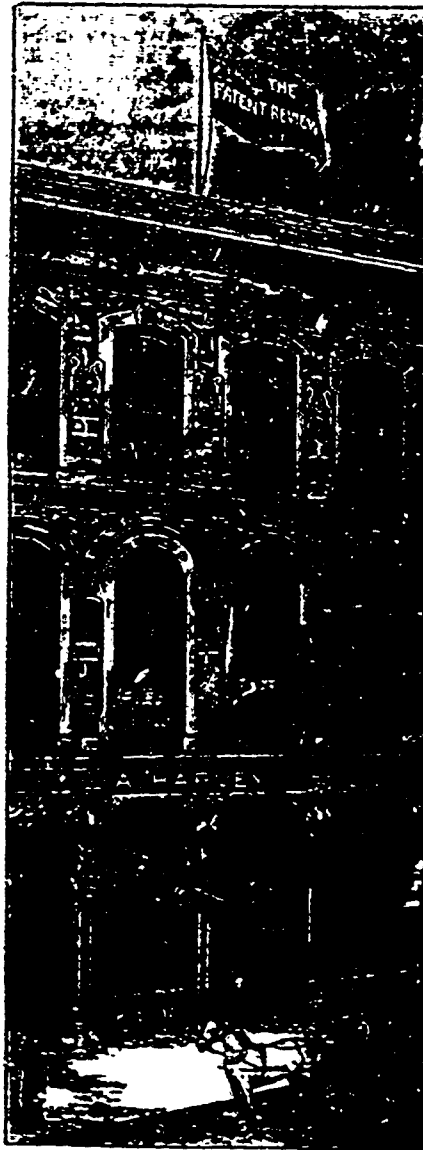
The office of the Business Manager of THE PATENT REVIEW is located in the rear part of the ground floor. On the same floor is also kept the collections of models and samples of patents for sale and on royalty, as advertised on the front and back pages of the journal. The other part of this floor is stocked with an extensive assortment of stationery and books, blank forms, etc., known as The Patent Review Stationery Store.

The printing office is located on the top floor, the rear portion of which is partitioned off and fitted up and furnished for photo-engraving. Here THE PATENT REVIEW is composed, printed and bound, being furnished with a large Gordon press, a 30-inch paper cutter, tableting press, 36x60 imposing stone and an extensive and select assortment of body and job type, all on the point system, together with all the other necessities used in a printing office. Everything is of the best description and by the best makers, the 6, 8 and 10 point body type being by Marder Luse & Co. of Chicago, the other and fancy fonts by Farmer, Little & Co. of New York, galleys etc by Golding & Co. of Boston, Mass., cases by the Morgan & Wilcox Co., Middletown, N.Y., and the press, cutter and iron stands by Westman and Baker of Toronto.

The office is well adapted and fitted for executing first class job work, and is kept exceptionally clean neat and orderly, forming in this respect an agreeable exception to most other printing offices; there being also good light, an ample provision of gas lights and water. Two to three hands are usually employed here under the supervision of the business manager, MR. C. A. McLEAN, himself a thoroughly practical printer.

The first or middle floor is the Patent and General Office, the rear portion being separated by a glazed partition and forms a comfortably furnished private office. On this floor, which is also fitted with gas and water and with electric bells, and telephones, ample accommodation is provided for the book-keeper, draftsmen, type writer and clerks. The office is provided with works of reference and there are all conveniences for carrying on extensive operations in a quiet systematic

manner, without confusion or bustle. System and method has been, and is still being, made a special study, with a view to insure despatch and accuracy in the work. Half a dozen or more persons are usually employed in this office under MR. HARVEY'S, the principal's, personal supervision, the routine work being conducted by BRUNO HARVEY, his son, as book-keeper and the drawings by MR. CHAS. RALEY as chief draftsman.



MR. HARVEY concentrates his attention exclusively upon the preparation of all the documents connected with patents, trade-marks, designs etc., the official correspondence and attendances connected therewith and the editorial work of THE PATENT REVIEW. His politechnic education in Germany and subsequent practice as civil engineer there and in England, chiefly among machinery, formed an excellent ground work and fitted him peculiarly for the

patent practice he subsequently and concurrently engaged in and has now carried on for a great number of years with marked success. In March last he was placed on the commission of the peace for the county of Carleton and, as he never shirks a duty, rather more of his time than is altogether agreeable to him is now taken up by the discharge of his magisterial functions.

### LETTERS TO THE EDITOR.

New York, Aug. 16th, 1889.

To the Editor of THE PATENT REVIEW.

Dear Sir: I enclose the recent decision of Hon. W. J. Wallace, Circuit Judge of this Circuit, upon the vexed question of the United States' patents for inventions previously patented in foreign countries.

This decision is the most important that has been rendered since that of the United States Supreme Court in *Bate Refrigerating Co. vs. Hammond*, which is referred to in the opinion.

In view of the decision it would seem important that solicitors should arrange to have patents simultaneously granted where the United States rights are of conceded value or importance. To this end the application in the United States should be made first, provision being made for speedy communication between the agents employed in the United States and abroad. In any event fees should always be paid for the longest term possible, thus avoiding mistakes in time of payment and forfeiture thereby; also possible change of foreign law.

Yours truly,

FRANCIS FORBES.

UNITED STATES CIRCUIT COURT,  
SOUTHERN DISTRICT OF NEW YORK.

*Pohl, et al. vs. The Anchor Brewing Co.*  
WALLACE, J.

The Bill of Complaint alleges infringement by the defendant of Letters Patent of the United States, dated March 18th, 1870, for improvement in Barrel and Cask Scrubbing Machines, granted to Carl Pohl of Dresden, Germany, upon an application filed January 3rd, 1870, "subject to the limitation prescribed by section 4,887 of the Revised Statutes, by reason of German patent dated September 6th 1877," and French Patent dated Sept. 3rd, 1877." The defendant has interposed a plea averring in substance that both the German and the French patents were issued to Pohl for the same invention described in and prior to his application for the United States patent; and that the German patent lapsed and the French patent became forfeited prior to the commencement of the present suit by reason of the failure of the patentee to pay the annuities and work the invention as required by the laws of Germany and France in force when the foreign patents were granted. The plea alleges that the original term of each of the foreign patents was for fifteen years. The plea has been set down for argument, and the question for determination is whether by section 4,887, Revised Statutes, the United States patent expired when

the foreign patent having the shortest term terminated by lapse of forfeiture, or whether it does not expire until the original term of such foreign patent expires.

By the section in question the patent in suit is to be limited "to expire at the same time with the foreign patent, or if there be more than one, at the same time with the one having the shortest term." Until the decision of the Supreme Court in *Bate Refrigerating Co. vs. Hammond* (129 U. S. 151), it was generally supposed that the time of expiration of this section was the time of expiration of the original term of the foreign patent, and that the duration of the United States patent was independent of the contingency that the foreign patent might cease to be an operative grant prior to the time specified on its face by the breach of a condition subsequent. This was so decided in several adjudged cases. *Paillard vs. Bruno*, (29 Fed. Rep. 864), *Bate Refrigerating Co. vs. Gillet*, (31 Fed. Rep. 809), *Holmes Electric Protective Co. vs. Metropolitan Burglar Alarm Co.* (21 Fed. Rep. 488). These decisions interpreted the statute upon consideration of public policy and convenience so imperative that it was thought they could not have been disregarded by Congress, and emphasized the effect to be given to the "term" as used in the section.

It was supposed that when Congress referred to the patent having the "shortest term" to define the time of expiration of United States patents in case there should be two foreign patents the time of expiration in all cases was the end of the term of the foreign patent; that the term of a patent meant the period of duration expressed in the patent; that in a legal sense a patent does not "expire" until its term expires; and that a construction of the section by which the duration of the United States patent should be fixed when the patent issues, by applying the rule *id certum est quod certum reddi potest*, was the more reasonable one and the one intended by Congress. And it had been pointed out that unless this was the true construction of the section, neither the owner of the patent nor the public would know the duration of the grant, and that the United States patent might expire, if there were two foreign patents, at the same time the one having the longest term, notwithstanding the language of the section that is to expire with the one having the shortest term. The decisions of the Circuit Courts, which have been cited, were not referred to in the opinion of the Supreme Court in *Bate Refrigerating Co. vs. Hammond*; but other adjudications of Circuit Courts in construction of the section, which proceeded upon the same considerations, were distinctly disapproved. These were *Henry vs. Providence Tool Co.* (3 Ban. and A. 501); *Reisner vs. Sharp*, (16 Blatchf. 383), *Bate Refrigerating Co. vs. Gillet* (3 Fed. Rep. 553), where it had been held that the time of expiration of the United States patent was the end of the term expressed in the foreign patent notwithstanding the prolongation of the

original term was a matter of right to patentee and had actually been obtained by him. It is now urged for the complainants that the decision of the Supreme Court does not overrule or discredit the decisions of the Circuit Court which were not referred to and distinctly considered in the opinion, and is to be read as merely deciding the precise question in the case, which was whether an extension of the terms of a foreign law was a matter of right to the patentee upon complying with certain conditions, prolonged the duration of U. S. patent. The opinion does not discuss the reasons for the construction given to the section, but it states that the point in controversy is whether the United States patent expires "at the same time with the term to which the foreign patent was in fact limited when the United States patent was granted" or expires "when the foreign patent expires without reference to the limitation of the term of such foreign patent in actual force at the time the United States patent was granted;" and it declares that the statute means "that the U. S. patent shall not expire so long as the foreign patent continues to exist" and "is to be so limited by the courts, as a matter to be adjudicated on evidence *in pais*, as to expire at the same time with the foreign patent," and "is to be in force so long as the foreign patent is in force." The contention for the complainants would be justified if the opinion had suggested that the term of a foreign patent, within the meaning of the section may be deemed either the original term expressed in the patent or a period of duration to which its life may be prolonged as a matter of right and law in the country of its origin; or that, although a patent expires when its term expires, Congress did not mean to limit the life of a U. S. patent to the original term of the foreign patent. But in the absence of any such suggestion, and by the extracts which have been given, it seems plain that the Supreme Court has not acceded to the interpretation adopted in the previous adjudications, as well as those not referred to in the opinion as those that were. The opinion cannot be reconciled with the view that the Statute intends that the United States patent shall have a fixed term, ascertainable when it issues, by reference to the terms of a foreign patent. It does not attach any significance to the word "term" as defining the period of duration of the foreign patent or of expiration of the United States patent, but treats that period as one to be ascertained dehors the foreign patent, by evidence *in pais*, and without reference to any supposed inconvenience or uncertainty to the public or the patentee which may ensue in consequence of their ignorance, whether the patent is or is not in life. The statute is capable of the meaning that the exclusive right to the invention here is to cease with the exclusive right of the patentee in any foreign country, or of the meaning that it shall continue to exist for such period, not exceeding 17 years as coincides with the shortest term of any foreign patent. The Su-

preme Court means to have adopted the first of these meanings. This is the view of the decision expressed in the recent case of *Huber vs. N. C. Nelson Manufacturing Co.* (38 Fed. Rep. 830), and is the construction of the statute adopted by the Commissioner of patents shortly after passage of the Act of July 8th, 1870, in which the section first appears, in case of *Musket*, 2 Com. Dec. 106.

The conclusion thus reached is contrary to the impressions entertained at the argument of the plea; but a careful reading of the opinion of the Supreme Court constrains the conclusion that the plea must be held to be good.

Filed Aug. 8th, 1889.

#### IMPORTATION AND MANUFACTURE.

London, Ont., Aug. 30th, 1889.

The Editor of THE PATENT REVIEW,

Dear Sir:—Referring to your article in the July number of your REVIEW on "Importation and Manufacture" I would like an explanation of the apparent discrepancy between an assertion in that article commencing "It should be borne in mind etc. etc." and the Rev. Stat. Canada, 4th July 1885, Chap. 57, Section 37, Clause 3. Your article distinctly states that a patentee cannot import after one year although he may have the time extended for manufacturing, while the statute above quoted seems as distinctly to give permission to import. An early reply will much oblige,

Yours truly,

[There is no discrepancy. R. S. C. ch. 61 (not 57) sect. 37 subs. 3 has nothing to do with manufacture, but refers exclusively to importation. Read it carefully. Patented articles may be imported for two years at most if time is extended, no matter whether time for manufacturing is, or has been, extended or not. Extending time for manufacture does not affect importation in the least.—Ed. P. R.]

#### A CORRECTION.

Montreal, Aug. 20th, 1889.

To the Editor of THE PATENT REVIEW.  
Sir:—

In the August number of THE PATENT REVIEW you have an item referring to the running of the St. Catharines News presses by an electric motor, and stating that this is the first newspaper office in Canada run by this method.

Permit me to state that the credit here claimed belongs to the Vancouver News Advertiser, which for the past two years has been run by an electric motor supplied with current from the central station plant I furnished to the Vancouver Electric Illuminating Co.

Yours truly,

A. J. Lawson.

### A POOR MAN'S TALE OF A PATENT.

(By Charles Dickens)

I am not used to writing for print. What working man that never labors less (some Mondays, and Christmas time and Easter time excepted) than twelve or fourteen hours a day, is? But I have been asked to put down, plain, what I have got to say; and so I take pen and ink, and do it to the best of my power, hoping defects will find excuse.

I was born, nigh London, but have worked in a shop at Birmingham (what you would call Manufactories, we call shops) almost ever since I was out of my time. I served my apprenticeship at Deptford, nigh where I was born, and I am a smith by trade. My name is John. I have been called "Old John" ever since I was nineteen year of age, on account of not having much hair. I am fiftysix year of age at the present time, and I dont find myself with more hair, nor yet with less, to signify, than at nineteen year of age aforesaid.

I have been married five-and-thirty year, come next April. I was married on All Fools' Day. Let them laugh that win. I won a good wife that day, and it was as sensible a day to me as ever I had.

We have had a matter of ten children, six whereof are living. My eldest son is engineer in the Italian steam packet "Meezo Giorno, plying between Mir-silles and Naples, and calling at Genoa, Leghorn, and Civita Vecchia." He was a good workman. He invented a many useful little things that brought him in nothing. I have two sons doing well at Sydney, New South Wales, single, when last heard from. One of my sons (James) went wild and for a soldier, where he was shot in India, living six weeks in a hospital with a musket ball lodged in his shoulder-blade, which he wrote with his own hand. He was the best looking. One of my two daughters (Mary) is comfortable in her circumstances, but water on the chest. The other (Charlotte), her husband run away from her in the basest manner, and she and her three children live with us. The youngest, six year old, has a turn for mechanics.

I am not a Chartist, and I never was. I dont mean to say but what I see a good many public points to complain of, still I don't think that's the way to set them right. If I did think so, I should be a Chartist. I read the paper and hear discussion, at what we call "a parlour" in Birmingham, and I know many good men and workmen who are Chartists. Note. Not Physical force.

It won't be took as boastful in me, if I make the remark (for I can't put down what I have got to say, without putting that down before going any further) that I have always been of an ingenious turn. I once got twenty pound for a screw, and it's in use now. I have been twenty year off and on, completing an Invention and perfecting it. I perfected it last Christmas Eve at ten o'clock at night. Me and my wife stood and let some tears fall over the Model when it was done and I

brought her in to take a look at it.

A friend of mine, by the name of William Butcher, is a Chartist. Moderate. He is a good speaker. He is very animated. I have often heard him deliver that what is, at every turn, in the way of us working men, is, that too many places have been made, in the course of time, to provide for people that never ought to have been provided for; and that we have to obey forms and to pay fees to support those places when we shouldn't ought. "True" (deivers William Butcher), "all the public has to do this, but it falls heaviest on the workingman, because he has least to spare; and likewise because impediments shouldn't be put in his way, when he wants redress of wrong, or furtherance of right." Note. I have wrote down these words from William Butcher's own mouth. W. B. delivering them fresh for the aforesaid purpose.

Now, to my Model again. There it was, perfected of, on Christmas Eve, gone nigh a year, at ten o'clock at night. All the money I could spare I had laid out upon the Models; and when time was bad, my daughter Charlotte's sickly children, or both, it had stood still, months at a spell. I had pulled it to pieces, and made it over again with improvements, I dont know how often. There it stood, at last, a perfected Model, as aforesaid.

William Butcher and me had a long talk, Christmas Day, respecting the Model. William is very sensible. But sometimes cranky. William said, "What will you do with it, John?" I said, "Patent it." William said, "How patent it, John?" I said, "By taking out a patent."

William then delivered that the law of Patent was a cruel wrong. William said, "John, if you make your invention public, before you get a patent, anyone may rob you of the fruits of your hard work. You are put in a cleft stick, John. Either you must drive a bargain very much against yourself, by getting a party to come forward beforehand with the great expenses of the patent; or, you must be put about, from post to pillar, among so many parties, trying to make a better bargain for yourself, and showing your invention, that your invention will be took from over your head." I said, "William Butcher, are you cranky? You are sometimes cranky." William said, "No, John, I tell you the truth;" which he then delivered more at length. I said to W. B. I would Patent the invention myself.

My wif's brother, George Bury, of West Bromwich (his wife unfortunately took to drinking, made away with everything, and seventeen times committed to Birmingham Jail before happy release in every point of view), left my wife, his sister, when he died, a legacy of one hundred and twenty-eight pound ten, Bank of England Stocks. Me and my wife had never broke into that money yet. Note. We might come to be old, and past our work. We now agreed to patent the invention. We said we would make a hole in it— I mean in the aforesaid money— and Patent the invention.

William Butcher wrote me a letter to Thomas Joy, in London. T. J. is a carpenter, six foot four in height, and plays quoits well. He lives in Chelsea, London, by the church. I got leave from the shop, to be took on again when I come back. I am a good workman. Not a Teetotler; but never drunk. When the Christmas holidays were over, I went up to London by the Parliamentary train, and hired a lodging for a week with Thomas Joy. He is married. He has one son gone to sea.

Thomas Joy delivered (from a book he had) that the first step to be took, in Patenting the invention, was to prepare a petition unto Queen Victoria. William Butcher had delivered similar, and drawn it up. Note. William is ready writer. A declaration before a Master in Chancery was to be added to it. That was likewise drew up. After a deal of trouble I found out a Master, in Southampton Buildings, Chancery Lane, nigh Temple Bar, where I made the declaration, and paid eightencepence. I was told to take the declaration and petition to the Home Office, in Whitehall, where I left it to be signed by the Home Secretary (after I had found the office out) and where I paid two pound two and sixpence. In six days he signed it, and I was told to take it to the Attorney-General's chambers, and leave it there for a report. I did so and paid four pound four. Note. No body all through, ever thankful for their money, but all uncivil.

My lodging at Thomas Joy's was now hired for another week, whereof five days were gone. The Attorney-General made what they called a Report-of-course (my invention being, as William Butcher had delivered before starting, unopposed), and I was sent back with it to the Home Office. They made a Copy of it, which was called a Warrant. For this warrant I paid seven pound thirteen and six. It was sent to the Queen to sign. The Queen sent it back signed. The Home Secretary signed it again. The gentleman throwed it at me when I called, and said, "Now take it to the Patent Office in Lincoln's Inn." I was then in my third week at Thomas Joy's, living very sparing, on account of fees. I found myself losing heart.

At the Patent Office in Lincoln's Inn, they made "a draft of the Queen's Bill." of my invention, and a "docket of the bill." I paid five pound ten and six for this. They "engrossed two copies of the bill; one for the Signet Office, and one for the Privy-Seal Office." I paid one pound seven and six for this. Stamp duty over and above, three pound. The Engrossing Clerk of the same office engrossed the Queen's Bill for signature. I paid him one pound one. Stamp-duty, again, one pound ten. I was next to take the Queen's bill to the Attorney-General again, and get it signed again. I took it and paid five pound more. I fetched it away, and took it to the Home Secretary again. He sent it to the Queen again. She signed it again. I paid seven pound thirteen and six more, for this. I had been over a month at Thomas Joy's. I

was quite wore out, patience and pocket.

Thomas Joy delivered all this, as it went on, to William Butcher. William Butcher delivered it again to three Birmingham Parlours, from which it got to all the other Parlours, and was took, as I have been told since, right through all the shops in the North of England. Note. William Butcher delivered, at his Parlour, in a speech, that it was a Patent way of making Chartists.

But I hadn't done yet. The Queen's bill was to be took to the Signet Office in Somerset House, Strand—where the stamp shop is. The Clerk of the Signet made "a Signet bill for the Lord Keeper of the Privy Seal." I paid four pound seven. The Clerk of the Lord Keeper of the Privy Seal made "a Privy Seal bill for the Lord Chancellor." I paid him four pound two. The Privy Seal bill was handed over to the Clerk of the Patents, who engrossed the aforesaid. I paid him five pound seventeen and eight; at the same time I paid stamp duty for the Patent, in one lump, thirty pound. I next paid for "boxes for the Patent," nine and sixpence. Note. Thomas Joy would have made the same at a profit for eightpence. I next paid "fees to the Deputy, the Lord Chancellor's Purse bearer," two pound two. I next paid "fees to the Clerk of the Hanaper," seven pound thirteen. I next paid fees to the Deputy Clerk of the Hanaper," ten shillings. I next paid to the Lord Chancellor again, one pound eleven and six. Last of all, I paid "fees to the Deputy Sealer, and Deputy Chaff-wax," ten shillings and sixpence. I had lodged at Thomas Joy's over six weeks, and the unopposed Patent for my invention, for England only, had cost me ninety-six pound seven and eightpence. If I had taken it out for the United Kingdom, it would have cost me more than three hundred pound.

Now, teaching had not come up but very limited when I was young. So much the worse for me you'll say. I say the same. William Butcher is twenty years younger than me. He knows a hundred year more. If William Butcher had wanted to Patent an invention, he might have been sharper than myself when hustled backwards and forwards among all those offices, though I doubt if so patient. Note. William being sometimes cranky, and consider porters, messengers, and clerks.

Thereby I say nothing of my being tired of my life, while I was Patenting my invention. But I put this: Is it reasonable to make a man feel as if, in inventing an ingenious improvement meant to do good, he had done something wrong? How else can a man feel, when he is met by such difficulties at every turn? All inventors taking out a Patent *must* feel so. And look at the expense. How hard on me, and how hard on the country if there's any merit in me (and my invention is took up now, I am thankful to say, and doing well), to put me to all that expense before I can move a finger! Make the addition yourself, and it'll come to ninety-six pound seven

and eightpence. No more, and no less.

What can I say against William Butcher, about places? Look at the Home Secretary, and the Attorney-General, the Patent Office, the Engrossing Clerk, the Lord Chancellor, the Privy Seal, the Clerk of the Patents, the Lord Chancellor's purse-bearer, the Clerk of the Hanaper, the Deputy Clerk of the Hanaper, the Deputy Sealer, and the Deputy Chaff-wax. No man in England could get a patent for an India-rubber band, or an iron hoop, without seeing all of them, some of them over and over again. I went through thirty-five stages. I began with the Queen upon the throne. I ended with the Deputy Chaff-wax. Note. I should like to see the Deputy Chaff-wax. Is it a man, or what is it?

What I had to tell, I have told. I have wrote it down. I hope it's plain. Not so much in the handwriting (though nothing to boast of there), as in the sense of it. I will now conclude with Thomas Joy. Thomas said to me, when we parted, "John, if the laws of this country were as honest as they ought to be, you would have come to London—registered an exact description and drawing of your invention—paid half-a-crown or so for doing of it—and therein and thereby have got your Patent."

My opinion is the same as Thomas Joy. Further. In William Butcher's delivering "that the whole gang of Hanapers and Chaff-waxes must be done away with, and that England has been chaffed and waxed sufficient." I agree.

#### A 'CUTE YANKEE INVENTOR.

It is stated that a self-styled inventor at Chicago some time ago got up a new mode of making files. A bit of hot steel went into his machine and the file was made at a single blow and fell into a tank of mineral water to cool. Then a workman felt around and brought it up for inspection. The files thus made were a little imperfect, but were good ones, and he explained that the machine was experimental, and could not of course do perfect work as a large and powerful machine would. Capitalists went around and examined the machine and saw him heat the steel, put it into the machine, and saw the red hot file come out and drop into the water, and they tried the file with their own hands and found it excellent. The only secret was the chemical water into which the files dropped, and which gave them edge. A company was formed and money was paid in to enable the inventor to make a set of large machines, but he soon disappeared. It was a fraud. He had bought good files and defaced them a little and stocked his tank with them. His machine stamped the bit of steel into file shape, and it dropped into the water with the files, and his workman, who was in collusion, felt around and brought up a file instead of the steel.

A Chicago reporter claims to have discovered a man who makes shoes from human skin, and a pair is being produced for the enterprising newsgatherer.

#### THE PARIS EXHIBITION'

Bolivia has one of the most interesting exhibits at Paris. It is a practical and natural size model of a lead mine—a famous one—out of which many large fortunes have been made.

One of the curiosities at the Paris Exposition is the Venus of Milo in chocolate—a copper-colored Venus. The statue is the work of an Italian confectioner, who does not have that reverence for a work of art, in the opinion of its French possessors, that they think he should have in view of his nationality.

An apparatus is now on exhibition at the Paris Exposition in which a person's photograph is taken automatically upon the insertion of the requisite coin in the slot. It is constructed so as to execute all the photographic processes necessary in order to obtain a photograph upon the insertion of the required coin. The whole mechanism is operated by electricity through the medium of storage batteries and electric motors, as the action of electro-magnets which are temporarily energized at the proper time.

Crossing over to find an easy way out, writes a correspondent from the Paris Exposition. I alighted on an exhibit in the French Crystal Department which merits a word or two. It is an enormous glass bubble perched on a stand like the world on the back of Atlas. Its diameter is one metre 55 centimetres, and its volume 1,950 imperial quarts. It weighs 25 kilogrammes. For the information of the general public, who prefer to understand things from a material point of view, we are informed that it is capable of holding nine casks of wine. It is said it has never been equalled in the history of glass blowing. The bubble is pure as crystal and without the slightest blemish.

Taking out a pencil and paper at the French Exhibition appears to be as risky as it used to be at the South Kensington "Inventories." We recorded at the time how an artist attached to an illustrated paper was "run in" and detained two hours for making a sketch of a portion of the grounds, and it would appear that similar regulation are in force at Paris. The correspondent of the *Scientific American* relates how, while taking notes of some of the exhibits of the French Industrial Schools, he was interrupted by the attendant of the exhibits of the *École Nationale d'Arts et Metiers*, of Chalons-sur-Mer, who fetched a sergeant, and caused the correspondent to be hauled before the *Commissionaire de Police*. The latter happened, fortunately, to be a sensible man, and, when he heard the object of the sketching, he decided that it was for the public advantage. "But," said the discomfited attendant, "he was all day yesterday and again this morning examining every machine, and moving some of the handles to try their working." This, instead of convincing the commissionaire of the heinousness of the crime, only made him determined, and, observing that the police had exceeded their orders, he released the correspondent. *Photographic News*.

### EDISON PROPHESYING

THOMAS A. Edison said in an interview with a reporter of *The Pittsburg Dispatch*:—"You ask me about the future of electricity. It is the coming motive power. It will be used on all the railroads some day, but the point is to get an economical engine. My theory is to have immense dynamos located all along the line of the road, and have the electricity conveyed from these stationary engines to the locomotives by wires through the rails. For example, I would put two big engines between New York and Philadelphia, and enough power could be furnished to whisk the limited at the rate of 100 miles per hour.

"But this is the point I have been working on for years to convert heat directly into electricity without the intervention of boilers, steam and all that. What an enormous amount of expense could be saved if this could be done. Think of putting something into the heat of that natural gas fire and making electricity out of it. It can be done. I feel it in my bones, and just now I have a suspicion that I am on the right track, but it is a pesky problem, one that can be worked out only in time.

"I have been experimenting with an electric road in New Jersey. I had rails laid as they put them down on railroads, but the machine would run off the track in going round the curves. I then raised the curve to an angle of 40 deg. and the motor went around all right. It looked as if the engine would topple over, but didn't. You know in a centrifugal machine you can make a car go clear around a circle in the air without leaving the track."

### A New Fuel.

A St. Petersburg journal states that a Russian civil engineer, M. de Nicaloff, has succeeded in producing a fuel from peat greatly resembling anthracite coal. The inventor has obtained a patent for his process, which is said to be accomplished by the aid of certain chemicals, and lately an imperial commission has been engaged in experimenting with the fuel, the result having been very favorable. The peat was found to give a little less heat than ordinary coal, but more than fir or birch wood, which is largely used on railways, steamers, and factories in Russia. In other respects, however, the peat is superior to coal, being cheaper, containing but a very small percentage of sulphur, and being much smaller in bulk. The artificial fuel throws off no dirt, and emits no smell, whilst burning with a clear white flame. It is believed that the new fuel has a great future before it, the Russian government being much interested in the invention.

When the Austrian Emperor saw the review at Spandau he learned for the first time that the smokeless powder which was used with such effect had been invented by an Austrian apothecary and offered to the Austrian Government, but had been declined.

### VARIORUM.

A special envoy of King Humbert of Italy presented Thomas A. Edison with the insignia of a grand officer of the crown of Italy. Mr. Edison thus becomes a Count and his wife a Countess.

A novel way has been discovered in some of the carpet mills in Connecticut and Pennsylvania, whereby carpets can be greatly cheapened and yet done so nicely that it would require an expert to tell the difference. This is brought about by using cow hair, making a thread and using it in the centre of the carpet. The question will then be, which will last the longest—carpets all wool, or carpets of wool and cow's hair?

A detacher for checks, &c., has been patented by an American genius. This is an implement for facilitating the detection of forgeries by providing for the detaching of checks, tickets, certificates, and other papers ordinarily torn from stubs, the tearer having an irregularly serrated edge, the line of tear produced by the implement varying with each particular use, so that the ticket or other paper separated from the stub can be fitted only to its own particular stub.

A paper made in Germany, will resist the action of both fire and water. The manufacture is accomplished by the mixing twenty-five parts to thirty parts of asbestos fiber with from twenty-five to thirty parts of aluminum sulphate, moistening the mixture with chloride of zinc, and thoroughly washing it in water. It is then treated with a solution of one part of rosin soap in eight to ten parts of a solution of pure aluminum sulphate, after which it is manufactured into paper like ordinary pulp.

An amusing iron toy has been placed on the market in Buffalo. It is a "trick dog" savings bank, is made wholly of iron, and highly finished in brilliant colours. The coin is placed in the dog's mouth. When the thumb piece is pressed down, the dog jumps through the hoop held by the clown, and deposits the coin in the barrel. A trap door in the top of the barrel prevents the coin from being shaken out. This novelty is seven and one-half inches high, and eight and one-half inches long and seems an amusing piece of mechanism.

A patent has been issued to Mr. Thomas A. Edison for the construction of incandescent lamps, wherein the transportation of carbon particles from the filament to the glass will be entirely prevented. This is accomplished by coating the inner surface of the globe with a conducting material, that is, a thin transparent, adhesive, semi-liquid conducting-film. This patent is a very valuable one, and entirely new. Ten new patents granted to Mr. Edison were, by the way, announced in the United States *Patent-office Gazette* of July 9.

There is a man in Biddeford, Me., who has whittled so industriously and skilfully for eleven years as to bring himself into notice. Among the products of his jack-knife are a violin case made of 2,937

pieces of wood of 106 different kinds; a yoke of oxen and a cart, put together in a glass jar with a small neck, and a great number of really well-made animals that would sell readily as toys. But this Maine genius will not part with any of his creations for love or money, and as he does nothing but whittle he is getting together a large and interesting collection.

A London shoemaker has invented a boot to make small people appear tall. The invention is an odd ingenious one. Instead of tacking six inches on to a person's heel, a pair of entirely false feet made of cork is put into the shoes. When the wearer gets into them he or she is raised according to the inches of cork. Of course in this invention the original foot is made to combine with the cork one under the leather in such a manner that the line of demarkation is not perceptible. The size of the foot is sacrificed, it is true, and a larger boot is necessary with the cork "elevator" than would be the case naturally.

In the investigation into the question whether electricity will certainly kill, Thomas A. Edison was a witness the other day. He said:—"I believe that an artificial current can be produced to kill instantaneously and painlessly in every case. I think the best way is to put the criminal's hands in a solution of caustic potash, and then I feel sure that 1,000 volts of an alternating current, or of a frequently interrupted continuous current would be certainly fatal. I have found that the alternating current is the more effective of the two, as some persons cannot stand eight volts of it, while they hardly feel the same amount of a continuous current.

A new process of art decoration in wood which is said to produce very beautiful effects, is described in the *London Times*. It is a German invention, and is known as the Dalura process. It consists in impressing upon wood, any kind of art designs, which stand out in relief. "The impression is produced by a small machine having two horizontal steel rollers which are heated internally. The pattern is formed around the top roller, and can be changed for a different design whenever desired; the bottom roller is quite plain. In operation the rollers are slowly revolved, and the wood to be ornamented is passed between them under pressure. The surface of the wood is compressed, and the design transferred to it in various degrees of relief, according to the requirements of the case. By regulating the heat and speed of working, a rich brown tint of any shade can be imparted to the wood as a background, the design standing out in the natural color of the wood, but slightly toned here and there. The natural grain of the wood is also brought out, and any kind of wood can be used. It is claimed for the decorated wood that it is waterproof, and that the pattern is not distorted nor its sharpness destroyed by moisture. This was shown by some samples of wood treated by the process, which, it is stated, had been in the water for some days."

A Pennsylvania Academy has adopted the phonograph in the teaching of elocution. It magnifies defects of enunciation and at a recent test a pupil honestly tried to repudiate as not his own a speech it had recorded. He could not believe that he was so faulty.

It is announced that the Drawbaugh claims to the telephone are to be revised under the auspices or with the assistance of the United States Government. It will be remembered, on the original hearing, the judges of the Supreme Court were divided in their opinion as to the Drawbaugh's merits as to the invention. Chief Justice Wait and Judges Blatchford, Mathews, and Miller, a majority of one, decided in favor of Bell, while Judges Bradley, Field, and Harlan believed Drawbaugh had abundantly proved his case.

While our patent laws may be excellent in some respects, they are undoubtedly poor in others. Here is a case in point, furnished from Manistee, Mich.: "It seems that there ought to be some way of arranging patent right matters so that when a man has paid for a machine that ought to be the end of it. He should not be liable to be called on at any time for a large amount of royalty in addition. In the log turner matter the mill men have all been called on to pay \$200 as a

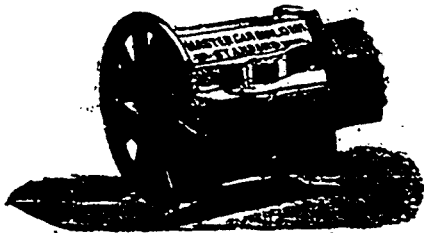
#### NEW INVENTIONS.

**A Heating Attachment for Lamps** has been patented in Canada by MR. JOHN ZINN of Hawthorne, Fla., on the 2nd of August, (No. 31,911). This attachment consists of a suitable base or band of metal, in the form of a ring to which three arms are hinged through slots left for the purpose near the lower edge of the base or ring. The ends of the arms are slit, and one finger turned upwards to hook on the top of a lamp-chimney and the other, slightly longer, is used to support the vessel to be heated. Springs are made by cutting a portion of the arms and curling it so as to catch the upper edge of the base when in a vertical position. The arms when not in use can be folded within the base or ring; this makes a compact and useful article.

**A Shoulder Brace and Skirt Support** has been patented in Canada by MR. J. STEWART, of Pittsburgh, Pa., on the 22nd of December, 1887, (No. 28,219). This brace consists of shoulder straps or loops connected by a broad elastic back band, a belt or waist band secured to the shoulder loops by straps which can be raised or lowered by means of a buckle; to this belt the skirts are secured by means of safety pins or buttons. By add-

**A Wheel Barrow** has been patented in Canada by MR. JOHN P. ENDERES, of Pimento, Ind., on the 13th of December, 1887, (No. 28,173). This barrow is a great improvement over the old style, the wheel is journalled immediately under the front end of the body of the barrow and the body is raised to a level of the wheel's hands so that the force instead of being directed to a great extent downwards it is all exerted horizontally, thus the centre of gravity of the load rests nearly over the axle. The sides are secured as usual, at their rear end, on standards which fit into sockets secured to the main arms. This barrow enables a greater load to be wheeled and with less energy expended than the ordinary style.

**A Dumping Car** has been patented in Canada by MR. JAS. W. ALFRED of Walls, Pa. on the 26th July, 1889, (No. 31,837). The frame work of this truck is secured together by a system truss rods so arranged as to cause the parts to be drawn more closely together by the loading of the car. The bearing of the weight is directly over the center of the truck at which point the body is pivotally connected to the truck so as to permit of the contents being dumped either at the end or side of the cart. The cart is well adapted to stand the rough usage to which it is put.



THE VESSOT CAR-AXLE LUBRICATOR.



royalty, and now along comes a man who thinks he ought to have pay for all the haul up-chains that have come into use the last ten years, and on which he claims a royalty."—*The Wood Worker*.

An association has been organized in Boston to assist Dr. A. DeBaussett to construct a steel air-ship upon the vacuum principle. The ship is to be constructed entirely of thin steel plates of the strongest possible tensile strength and thoroughly braced inside to resist the pressure of the atmosphere when a partial vacuum is obtained. It is expected to lift 200 passengers and 50 tons of mail or other matter, and also carry all the machinery and apparatus with electrical power sufficient to give the ship a speed of 70 miles an hour. A national subscription is being made to secure the necessary funds—\$250,000. DeBaussett claims his plans are approved by eminent scientists and engineering experts. An attempt was made to get him an appropriation from Congress last year, but failed.

ing pieces of elastic to the belt stocking supporters can readily be applied. This brace takes all the weight of the underwear from the waist and places it on the shoulders. The weight of the brace itself is less than three ounces.

**An Adjustable Chair, Step Ladder and Hand Trunk** has been patented in Canada by MR. ANTHONY BURKE of Toronto, Ont., on the 27th of December, 1888, (No. 30,190). This chair when folded makes a very presentable article of furniture; when open as a step ladder, the seat folds over, the back legs have secured on them the top step of the ladder. The chair back makes an additional support; the folded chair seat makes the middle step and a step is placed both above and below it which in the chair is mid way between the seat and the floor. The wheels are hidden from sight in the chair just above the board on which the hind feet stand on. This is a very useful and handy piece of furniture and can be readily manufactured.

**An Electric Call and Alarm apparatus** has been patented in Canada by MR. JAS. A. WRIGHT, of Montreal, Que., on the 28th of December, 1887, (No. 28,252). This invention consists of combining with a district call-box and its main circuit an alarm system consisting of an electro magnet with its armature, and a locking device by means of which clockwork in the box may be securely locked at any desired point, wires from the electro-magnet connect with ordinary burglar or fire alarm attachments at places to be protected.

**A Road Cart** has been patented in Canada by Messrs GEO. H. and CHAS. W. JEWETT of Jackson, Mich., on the 15th March 1889 (No. 28,708). This invention consists in the peculiar construction and arrangement, whereby the cart is made more easy to ride in, the spring is carried on swinging support close to the axle, the support acting as a swivel to compensate for the motion of the seat bars and spring in riding.

## NOTABLE INVENTIONS.

**The Artificial Production of Ice.** A patent has been obtained in Canada for the above by MR. JOSEPH MAJOR of Valleyfield, Que., on the 22nd of May, 1888, (No. 29,199). This composition consists of broken or granulated ice, chloride of sodium and a little powdered allum, into this mixture the vessel is put with the water or material to be frozen. It is claimed that 45° below zero can be obtained with this mixture.

**A Steam Engine** has been patented by MR. ROBERT McNAUGHTON, of Truro, Coldcheste Co., N.S., on the 2nd of July, 1889. In this engine two steam chests are employed, one placed at each end of the cylinder, and with their valves is operated and constructed that as the live steam is entering the steam port at one end of the cylinder the exhaust is leaving through the exhaust part at the opposite end whereby a great saving of steam, consequently of fuel, is effected.

**A Railway Track Cleaner** has been patented in Canada by MR. THOMAS TEMPLE of Fredericton, N.B., on the 26th of May, 1888, [No. 29,207]. This invention consists of an arm attached to a locomotive having at its lower edge a series of plates with serrated edges adapted to clear the inside of the track from an accumulation of ice and snow, and is so constructed that in case any of the plates meet with an obstruction too strong to overcome it, will break off and may be replaced by a new one.

**A Railway Switch** has been patented in Canada by MR. SIMON CAMERON of Portage La Prairie, Man., on the 17th of June, 1889, [No. 31,605]. This invention consists principally of a short moving rail which turns on a pivot by means of connecting rods operated from the switch stand and turning the rail in the reverse direction, thereby doing away with a frog or the necessity of the guard rails and effecting a great saving in cost, as everything now in use on the ordinary frog may be used.

**A Steam Engine** has been patented in Canada by MR. WILLIAM A. PITT, of Stamford, Conn., on the 22nd of June, 1888. The improvement consists of a novel arrangement of cranks and connections calculated to successfully overcome the objectionable features in the construction of steam motors and thereby economize motive power and assuring more efficient work. There are two cylinders with pistons, rods and crossheads, steam chests, slide valves and rods, cylinder heads, glands and stuffing boxes placed horizontally upon a bed plate to which the crankshaft, journal bearings and other parts of the machine are secured. The cranks are opposite or in a straight line and there are intermediate duplex cranks oscillating in a direction parallel with the travel of the piston cross heads. There are so many novel features worthy of notice and claimed to be of great economic value that it would be useless to attempt to convey an accurate idea of the construction without drawings.

**A Measuring Tank** has been patented in Canada by MR. J. H. LINCK, of Williamsport, Pa., on the 1st of May, 1888, (No. 29,041). The interior of this tank is fitted with a pump and measures, and the pump is worked on the outside of the tank and pumps the liquid into the measures, which are provided with faucets at different heights for different quantities, and all emptying into one tube. A gauge is also fixed on the outside of the tank and shows the amount in the tank.

**A Burglar Alarm** has been patented in Canada by MESSRS. WM. McINTOSH and F. H. WYMAN of Keene, N. H., on the 3rd of July, 1888 (No. 29,417). This alarm is designed to be secured to the knob or key of a door, the slightest turn of which sets off the alarm. It may also be hung by a window and connected thereto by a cord; the main body has a chamber in the upper part having a concave floor, below this chamber is the striking mechanism. This alarm is very cheaply made and gives a very loud alarm.

**A Roller Mandrel** has been patented in Canada by MR. P. M. TASKER of Philadelphia, Pa., on the 22nd of July 1889, (No. 31,783). The principal object of this invention is to provide means for driving the rolls positively, so as to render them no longer idler rolls driven by the tube upon them, but positively driven rolls which move under the trust or impulse of similarly actuated devices, with a positively rotating motion, and consists of the provision in connection with the rolls of a roller mandrel of driving gearing of any preferred character.

**A Whiffletree** has been patented in Canada by MR. J. H. WILLEY of Manchester, N. H., on the 23rd of June, (No. 31,795). It consists of a relief spring which is a flat straight plate, secured to the front of the whiffle tree by a clip. Yokes are pivoted to the end of the relief plate and carry hooks to which harness is attached; rubber cushions may also be put in to supplement the spring. These springs relieve the animal as well as the occupants of the rig from shock at starting, and encountering obstruction. A modification of the above is used for buggies and light rigs.

**A Folding Bed, Stretcher or Dooley**, for invalids, camp or military use, has been patented in Canada by MR. A. A. VERNON, of Hamilton, Ont., on the 24th of July, 1889, (No. 31,812). In the invalids bed the main frame has an internal frame provided on its surface with a series of headed bins for the attachment of canvas thereto, in order that the patient may be elevated to different positions. In camp beds the outer and inner frames are provided with attachable upright studs and cross braces and frames, for the attachment of a covering. When used for a military or hospital stretcher carrying-handles are provided under the ends or the outer or principal frame, and for shoulder carrying a pole is passed through the angled frame which supports the covering.

**A Tension Joint for School Seats** has been patented in Canada by MR. F. R. BEAL of Northville, Mich., on the 22nd of December, 1887 (No. 28,229). This invention overcomes the noise caused in the stopping of the seat when adjusting it, and the liability of the seat to fall forward when turned in a vertical position. The joint is so constructed that as the seat is turned up the joint tightens and also as it assumes a horizontal position. The tension is such that the seat will remain in any position in which it is placed.

**A Nail** has been patented in Canada by MR. J. W. HIGGS of Sharon, Pa., on the 19th April, 1888, (No 28,968). This nail is made in the ordinary manner



except the head which has a counter sink or depression to prevent a punch slipping when applied to the head and injuring the contiguous wood work. The accompanying cut will more fully explain this invention.

**A Mowing Machine** has been patented in Canada by MR. EDWARD BARTLETT of Bancroft, Ont., on the 3rd, of July, 1888, (No 28,283). The improvements in this machine consist in the pitman being worked by bevelled gear off the main axle and the motion made parallel to the axle by means of a triangle and spring. There is also a chain and lever, with a foot lever so that when the bar is raised parallel with the ground, it may be applying downward pressure with the foot be folded perpendicularly or at any angle.

**A Piano Forte** has been patented in Canada by MR. EMIL REICH of Toronto, Ont., on the 26th, of November, 1887, (No 28,084). In this piano the plate has a step formed on its inner edge on which a row of plate pins are arranged alternately with the pins on the plate, so that the strings may be arranged in alternate pairs below the level of the bridge; a bar is provided to hold down the strings,—which are secured on the top of the plate—to the bridge. This makes the strain on the strings at right angles to the plane of the sounding board, thereby greatly improving the tone.

**A Horse Detacher for Vehicles** has been patented in Canada by MR. A. T. TEAKLES of Walton, Hants Co., N. S., on the 14th of April, 1888 (No. 28,903). To the ends of the trace-sockets pieces are rivetted, in which a vertical longitudinal slot is formed, and fitted to work in a slide provided with a flange, to which a cord is attached and placed within easy reaching distance of the driver, etc. These detachers can be attached to any traces and in case of a runaway or unmanageable horse the driver can, by simply pulling the cord, detach the horse from the rig. It can be adapted to heavy as well as light harness and can be placed on the market at a low figure.

**A Furnace Grate** has been patented in Canada by MR. W. HEESON, of Baltimore, Md., on the 1st of March, 1838, (No. 28,579). The bar in this grate is formed of two parallel longitudinal pieces, having an open space between them, decreasing in width from the bottom to the top; integrally with these central pieces are formed laterally extending ribs alternating with each other, and having the upper edges cut off slantingly to each side; these pieces are braced by an outside longitudinal rib. Each bar has a trunnion fitting into bearings at ends of furnace, and a central bearing is also provided for the bars all at the lower part so that they will not become injured or warped by the heat.

**A Cash Register** has been patented in Canada by MR. W. C. MCGILL of Washington, D. C., on the 7th of February, 1888, (No. 28,487). This is an extremely simple and efficient cash register; the numbers are placed one behind the other opposite two opening dollars on one side and cents on the other. When any cash is deposited, the index hands are moved to the amounts and all numbers in front of the number fall to one side leaving exposed the desired number. The figures are operated by drums, worked by the index hands—one movement of either index hand cancels the indication of the previous sale, unlocks the money drawer rings the bell and indicates the amount of new sale, adds the last deposited amount to the previous deposits and registers the total deposits.

**A Metallic Crest Tile and Lightning Rod** has been patented in Canada by MR. CLARK B. NELSON, and assigned to MR. ALBERT MÜHLEISEN, of Crawfordville, Ind., dated the 16th of July, 1889, (No. 31,737). This cresting which protects the whole roof of the building is at the same time an ornament. The saddle or crest tiles are made of copper or other good conducting metal and are provided with a series of points to attract the lightning and render the tile ornamental; two strips of copper are used to connect the tiling with the ground one down the pitch of the roof and a vertical strip which is attached at the upper end to the lowest end of the first strip and inserted in the ground thus giving complete protection.

**A Gate** has been patented in Canada by MR. ARTHUR J. MERCER of Islington, Ont., on the 4th of June, 1889, (No. 31,489). This gate which opens by being lifted up by means of levers and resting when upon its end. The gate is provided with a diagonal brace rod, to prevent sagging. At the front of the gate is a locking post, and a spring rod or locking bolt is forced into a hole in the post when the gate is shut; to the rear end of this bolt is attached a chain which withdraws the bolt and raises the gate which is hung by a cross-piece or foot secured to the bottom of hanging style. This cross-piece is journalled in two posts one on either side of the gate, which are braced underground so as not to be lifted by the frost; these posts support the operating levers which lift the gate up on end clear of the

roadway; a balancing weight is provided to ease the strain on the levers, Cords or chains may be attached to the levers and the gate operated from a house at a distance from the gate.

**A Fire Arrester, Heating Drum or Fuel Economiser** has been patented in Canada by MR. P. WILLIAMS, of Huntsville, Muskoka, Ont., on the 14th of May 1888 (No. 29,164). And consists of an upright drum having an internal cylinder which is connected by a bevelled diaphragm to the outer drum. A damper is placed in the center of the interior cylinder for the purpose of regulating the draught the large drum is also provided with a damper slightly larger than the diameter of the interior cylinder which deflects the heat into the space between the two cylinders, a deflector is also placed at the bottom of the internal cylinder. This is a good article and does not require to be taken off to be cleaned on account of the bevelled diaphragm which allows the soot to fall down the stove pipe.

**An Imperishable Fuel Cartridge** has been patented in Canada by MR. W. H. E. WHITING of London, Ont., on the 16th of May, 1888, (No. 29,189). This cartridge consists of a cylinder of wire gauze or other perforated metal having caps at either end, also of perforated metal: the caps are held in position by a bolt running through the centre. This cylinder is filled with asbestos and silicate one or both, but preferably the silicate near the centre and asbestos near the gauze, the silicate being better absorbent and the asbestos indestructible. This cartridge is placed in a tank of oil or other combustible liquid, some of which is absorbed, it is then placed in a grate and lighted and may be used either for heating or cooking, and it will burn with a steady heat for a considerable time. An extinguisher is provided so that the fire can be lighted or put out immediately. A smaller sized cartridge may be used for a fire lighter.

**A Mail Bag Rack and Distributing Table** has been patented in Canada by MR. S. STRANGE, of 384 East First Street, Boyle Heights, Los Angeles, Cal., on the 26th July 1889 (No. 31,841). This which is lighter and cheaper than the ordinary rack, is constructed of bents sustaining horizontal rods, consisting of pipe sections secured together by T and cross pipes fitting to form a horizontally united series of perpendicular rectangular forms, a series of pipe sections of equal lengths screwed into the fittings on the lower side of the frames and projecting downwards therefrom to form legs of the bent and pipe sections of relatively increasing lengths, secured in the fittings on the upper side of the frame, and projecting upwards therefrom to form supports for the horizontal rods of the rack, and provided with fittings into which such rods may be secured. The legs of the bents are screwed into cast iron bases which are secured to the floor.

Keep good men company and you shall be of the number.

### THE BROADHEAD PATENT LOOM.

Mr. Lowe, the deputy minister of agriculture, with Mr. Richard Pope, the deputy commissioner of patents, in attendance, was engaged on the 4th inst. in hearing an application for the cancellation of a patent on the ground of non-compliance by the patentees with the manufacture clause of the Patent Act.

The patent attacked is known as the "Broadhead Loom," and the petitioner is Mr. Joseph Brook, a manufacturer of Simcoe, Ont. The petitioner alleged and attempted to prove that for a certain portion of the patent term there was no manufacture of the patented article in Canada; that after the present holder, Mrs. Elizabeth Broadhead, of Cornwall, N. Y., became possessed of the patent, she leased some of the machines in question to a Canadian manufacturer, entering into a covenant which prohibited her from selling or leasing others, and finally that the petitioner had applied to the patentee for some of the machines and had been met by a refusal to sell.

All the cases, with the exception of one, that have hitherto come before the commissioner for adjudication have been upon the question of importation after the prescribed period rather than upon the question of manufacture. The one case in which the latter point was involved was that of Barter vs. Smith, and the judgment rendered therein in 1877 by the then deputy minister of agriculture (the late Mr. Tache) has, ever since, been regarded as the ruling decision upon the interpretation to be put upon Sec. 37 of the act as to what constituted "construction or manufacture." The main interest of the present case for the manufacturing public will be in the decision arrived at by the commissioner disputing Deputy Minister Tache's interpretation in Barter vs. Smith, which they claimed to be inconsistent with both the spirit and letter. Mr. A. W. Grundy and Mr. F. C. Powell of Ottawa represented Mr. Brook, the disputant, while Mr. F. C. Moffatt, of Toronto, and Mr. J. P. Eisher, of Ottawa, appeared for the patentee.

### WISE SAYINGS.

Who never climb never fall.

On a good bargain think twice.

Buy at a market sell at home.

Bashfulness is an enemy to poverty.

Who looks not before finds himself behind.

Duty is the path that all may tread.—*Morris.*

Be slow of giving advice, ready to do a service.

Knowledge is the hill which few may hope climb.

For what thou canst do rely not on another.

In a case where an invention is put in as part of the capital stock of a partnership, a patent granted on the invention becomes partnership property, according to the decision of the Supreme Court of California in the case of Hill vs. Miller.



**CENTRAL CANADA EXHIBITION.**

The Central Canada Exhibition at Ottawa was formally opened on Monday the 9th inst., at 3 p.m., by the Hon. JOHN CARLING, Minister of Agriculture, under favorable auspices. The president of the Exhibition Association, MR. CHAS. MAGEE, assisted by several directors, did the honors of the occasion. The hon. Mr. Carling spoke with good effect of the great agricultural resources of Canada and referred to the highly useful work which is now being carried on at the Central Experimental Farm near Ottawa, under the direction of PROF. SAUNDERS, in settling by practical experiment the most suitable varieties of grain, fruit and other produce that can be profitably grown in the Dominion. In reference to barley there was reason to expect with considerable confidence that the two-row barley grown in England, which yielded for brewing purposes a result 30 per cent. higher than the six-row Canadian barley and brought a correspondingly higher price, could be successfully grown here. The cheese industry was in a flourishing condition and the exports of cheese to England had increased at an extraordinary rate, until at the present rate it formed one third of the entire cheese importation into Great Britain. Ensilage was referred to in very eulogistic terms and the attention of farmers was earnestly invited to the subject. Butter had not yet received the attention it deserved at the hands of Canadian farmers, and considering the large export demand for this article it was to be hoped that its production would receive the very closest attention. He advocated that the rudiments of agriculture ought to be made a subject in our public schools.

MR. CARLING by virtue of his portfolio as Minister of Agriculture, is also the Commissioner of Patents. He might very appropriately have added a few words drawing attention to the fact that a fair patent law is a most powerful stimulus to the industrial and agricultural development of the resources of a country.

This is the second exhibition held by the association and the present is promising to be a still greater success than last year's, which already exceeded the most sanguine expectations.

The arrangements of the grounds have been very greatly improved since last year, the machinery hall has been more than doubled in size and all other accommodations have been greatly extended and improved.

The Canadian Granite Co. have a very fine and extensive collection of exhibits. Mr. Geo. Burroughs exhibits his new patent well boring auger which is a great success. Mr. Jacob Erratt also has a fine collection of cabinet furniture, including the Gale Spring Mattress.

Those who have had some opportunities of observing the methods of some of the prominent inventors of our time, will be able to appreciate the following extract from Henry Clay Carleton, published in *The World*:

"Most of the daring and original inventions we are going to push are little ideas of my own, dashed off at odd moments while coming down town every morning on the horse car after reading the morning papers. After getting the idea, I jot down the title of the invention in a small sealskin book I carry for that purpose, and then try to forget it, so as not to weary my brain. Most inventors sit up late at night and fret themselves into a low fever trying to find a way to make the invention work. I do not. I limit myself to conceiving the scheme. Thus, yesterday I thought of the 'Automatic Seidlitz Powder and Boot-Blackening Machine,' so constructed that, if a nickle is dropped into the slot, the customer gets a seidlitz powder inwardly and an elaborate polish outwardly without delay. The new idea, so strikingly simple and ingenious that it is almost a miracle that no one ever thought of it before, I turned over to our corps of German mechanics and our patent lawyer, who attend to the few mechanical details incident to getting up the machine. I never bother with wheels, levers, pinions, springs, trunnions or ratchets. A good German mechanic, costing \$4 a day, is capable of solving the simple problem of making a machine to do a given class of work, and when he has done it the patent lawyer files an application in my name. It will thus be seen that I follow in the path of the most prominent inventors of the day. My fertility is amazing even now, when I only have six German mechanics and one lawyer; but after February, when I shall have twentytwo German mechanics and three lawyers, I expect to quadruple my fertility."

**IMPORTATION OF PATENTED GOODS INTO CANADA.**

The Patent Act, R. S. C. Chapter 61, Sec. 37, enacts that the importation into Canada of goods protected by a Canadian Patent, after the expiration of one year from its date, shall void the patent. The Commissioner of Patents, however, has power, under Sub-Section 3, to grant, upon petition filed before the expiration of the year, further time, not exceeding one year, within which to import the goods.

A delay of one year has been granted in the case of the following patents:—

Pat't No.	Date.	Title and Grantee.
20,971	8-10-88	W. I. Donald, Crutch
20,985	12, 88	G. McCann, Pump plunger.

**MANUFACTURE OF PATENTED INVENTIONS IN CANADA.**

The Patent Act, R. S. C. Chapter 61, Sec. 37, requires Canadian patents put in operation within two years of their date, on pain of voiding the grant. Sub-Section 2 empowers the Commissioner of Patents to extend the time upon petition filed before the expiration of the two years.

A delay of one year has been granted in the case of the following patents:—

Pat't No.	Date.	Title and Grantee.
27,528	18-10-7	O. Smith, Motor.
24,416	7-9-5	L. Johnson, Loco. engine.
25,065	30-9-6	G. Douglass, Vapor bath generator.
27,895	27-10-7	J. Lewis, Valve.
27,495	18-8-7	J. Quinn, Whiting.
27,815	13-10-7	J. H. Earles, Fire alarm.

**CERTIFICATES OF PAYMENT OF FURTHER FEES.**

HAVE BEEN ISSUED AS FOLLOWS:

No. of Pat.	Patente and title.	No of cert.
20,220	J. P. Wickersham, Ejector.	1533
20,229	S. Baker, Whip.	1515
10,937	W. S. Buist, Ry. Snow Plow.	1504

**SOME ASSIGNMENTS OF CANADIAN PATENTS IN AUGUST.**

No. of Pat.	Assignee and Title.	Interest or Terr.	Con-sideration.
30,353	J.S. Hyland, Lamp.	1/2	390
20,109	J. Clark, Bed spring.	All	600
31,352	P.B. Wachtel, Punch.	1/2	1,000
31,026	B.S. VanFuyle, Thrash'g mach.	1/2	1,000
29,094	N.W. Phillips, Fence machine.	1/2	500
20,054	Ontario Patent Spindle Banding Co., Mole of driving spinning and twisting spindles	All	5,000
27,051	J. Sharpe, Milling bucket.	All	5,000
31,821	J. McKeown, Conveyors.	1/2	500
16,183	Ont. Hedge and Wire Fence Co., Plashed hedges and staple driver	Can.	120,000
20,561	Ont. Hedge and Wire Fence Co., Hedge and wire fence.	"	115,000

**CANADIAN PATENTS ISSUED.**

AUGUST, 1889.

No. Sept.	Patente and Title.
31,744	A. N. Ford, Roofing composition.
31,845	G.N. Dunham, Nut machine.
31,846	W.D. Best, Harvester binder.
31,847	C.G. Saalfrank, Loom.
31,848	W.T. Messinger, Pipe coupler etc.
31,849	E. Thompson, Current regulator.
31,850	J.P. Hoff, Combined anvil and vice.
31,851	F.L. Downend, Combination tool.
31,852	D.B. Long, Hydraulic excavator.
31,853	N.E. Springs'een, Horse shield.
31,854	M.E. Burk, Holdback for vehicle thill.
31,855	J.W. Millet, Lasting machine.
31,856	A.A. Strom, Lifting jack.
31,857	W.H. Turner, Reversible ratchet clutch.
31,858	F.I. Waterous, Upright boiler.
31,859	E. Towison, Rotary motor.
31,860	W.P. Bettendorf, Machinery for securing
31,861	W.M. Lucas, Floor bolt. [spokes in wheel.
31,862	H.P. Hearcock, Saw mill feed work.
31,863	Sven Jonsson, Centrifugal apparatus.
31,864	A.M. Vereker et al., Car brake and starter.
31,865	W.W. Green et al., Railway car.
31,866	G.H. Phillips, Range.
31,867	S.P.M. Lasker, Rolling mill.
31,868	H.A. Goatz, Beam end protector.
30,969	I.C. Ross, Carriage bow.
31,870	W. H. Donaldson, Metallic railway tie.
31,871	T.G. Perkins, Rail cutting machine.
31,872	J.T. Mead, Fuel cleaner.
31,873	S.F. Fish, Cash delivering device.
31,874	E.L. Hilderbrand, et al Draft spring.
31,875	S. Penberton, Life saving apparatus.
31,876	D.A. Shaw, Combination lock.
31,877	A.F. Old, Folding chair joint
31,878	J.T. Smith, Wax end needle.
31,879	A. Smith, Fifth wheel and friction plate.
31,880	T. Beilair, Harrow.
31,881	W.P. Williams, Street or station indicator.
31,882	F. Lanzler, Liquor measure.
31,883	O. Williams, Snow plow.
31,884	W.J. Horton, Window screen.
31,885	H. Graepel, Grain sifter.

31886 W. Thompson, Railway signal.  
 31887 G.M. Pullman, Railroad car.  
 31888 J. Vincent, Snow plow.  
 31889 H.W. Pell, Spring vehicle.  
 31890 G.B. Haines, Valve lock.  
 31891 E. Gurney, Hot water heater.  
 31892 W. Kneen, door lock and latch.  
 31893 T.W. Lemieux, Transmitter.  
 31894 do. Cable grip.  
 31895 M.A. Cutter, Lock-hinge.  
 31896 F.A. DeLand, Lawn mower attachment.  
 31897 do. do.  
 31898 O. Leifert, Rotary pump.  
 31899 D.G. Wyeth, Sleigh runner and wheel at.  
 31900 H.G. Portman, Spring for carriage [tach't.  
 31901 A.H. Wilson, Brake.  
 31902 A.B. Castle, Thill coupling.  
 31903 H.E. Kelley, Swivel.  
 31904 J. Hodgkinson, Hot air drum.  
 31905 J.J. Rogers *et al.*, Seeder for disc harrow.  
 31906 W.W. Williams, Appl. for skidding logs.  
 31907 A.G. McLeod, Haine lock or fastener.  
 31908 B.R. Patten, Steam pump valve.  
 31909 T. Rafferty, Boom.  
 31910 C.D. Kinsey, Transmitter.  
 31911 J.W. Zinn, Lamp heater.  
 31912 H.H. McLane, Drilling tool.  
 31913 K. Bogae, Stove.  
 31914 F.B. Denham, Game.  
 31915 G. Roberts, Coal oil stove.  
 31916 S.E. Haskin, Method of vulcanizing wood.  
 31917 E.H. Bauer, Gate.  
 31918 W.J. Kelly, Railway switch.  
 31919 A.W. Burke, Washing machine.  
 31920 S.H. Garst, Manure distributor.  
 31921 J. Diehl, Vehicle spring.  
 31922 A. Schmitt, Smoothing iron heater.  
 31923 W.B. Wright, Fluid feeder.  
 31924 J. Ross, Wood planing machine.  
 31925 W.T. Wilson, Saw.  
 31926 A. Kleinstiver, Threshing machine.  
 31927 J.F. Durham, Hot air furnace.  
 31928 J.F. Sears, Swivel.  
 31929 J.G. Smith, Sectional hot water furnace.  
 31930 J.F. Wood, Extensible car steps.  
 31931 H.A. Benedict, Fan-l.  
 31932 I.B. Foster, Wind mill.  
 31933 F.D. Taylor, Stove.  
 31934 J. Thompson, Suspended railway.  
 31935 J. Morrow, Self heating flat iron.  
 31936 C. Sullivan, Cutter head.  
 31937 G.E. Wright, Open gas fire place.  
 31938 J.P. Lee, Repeating fire arm.  
 31939 E.C. Johnson, Steam pump.  
 31940 J.W. Patterson, Opera glass renting appr.  
 31941 W. Lenderoth, Earthenware build'g mat.  
 31942 W.H.H. Childs, Composite fabric.  
 31943 D. Ormiston, Dog power ch. rn.  
 31944 G.A. Hynds, Vehicle thill.  
 31945 L.A. Bichards, Disc harrow.  
 31946 W. Martin, Pipe or tube coupling.  
 31947 G. Beacock, Heel counter and toe tip.  
 31948 C.H. Stratton, Jump seat vehicle.  
 31949 J.W. Roberts, Car coupling.  
 31950 C.D. Tysdale, Railway signal.  
 31951 A. Amron, Watch.  
 31952 F.T. Rogers, Car coupling.  
 31953 S.S. Lehman *et al.*, do.  
 31954 J.J. Kennedy, Radiator.  
 31955 J.A. Williams, Vending apparatus.  
 31956 T.W. Tetley, Book leaf tur. scr.  
 31957 R. Matheson, Car coupling.  
 31958 F.D. Clark, Check hooks.  
 31959 W.M. Grisham, Car coupler.  
 31960 J. Taylor, Steam boiler.  
 31961 T. Midgely, Hose or tubing.  
 31962 E.F. Bergman, Spring scales.  
 31963 O. Stoddart, Lock case attachment.  
 31964 E.D. Melcer, Steam generator.  
 31965 G.M. Pullman, Vestibule connection for  
 31966 T. Midgely, Wire body for hose. [cars.  
 31967 C.S. Long, Fence post base.  
 31968 W. Lenderoth, Earthen building material.  
 31969 R. Euler, Hammock.  
 31970 I. Henderson, Freight handling apparatus.  
 31971 W.H.H. Childs, Process for strengthening  
 31972 W.H. Hunt, Bottle case. [paper.  
 31973 G.A. Auth Portolito.  
 31974 C.U. Hoke, Electric belt.  
 31975 W.D. Butz, Bottle cleaner.  
 31976 J. Sharpe, Cash register.  
 31977 H. Malmberg, Two-wheeled vehicle.  
 31978 E. Andrews *et al.*, Saw pointer, etc.  
 31979 F.H. Snyder, Projectile or shell.  
 31980 W. Gibson, bag or bale tie.  
 31981 C.I. Penrose, Bolt locking device.  
 31982 S.B. Pittenhouse, Hand seeder.  
 31983 B. Hallett, Devices for contrai'g doors &c.  
 31984 S.M. Terry, Revolving shaft indicator.  
 31985 A. Anderson, Horse shoe.  
 31986 F.R. Lane, Horizontal sawing machine.  
 31987 John Knox, K-ttic lid.

31688-5 H. Wissemann, Time index marker.  
 31689 C.E. Ferrira, Food water heater &c.  
 31690 M.H. Day, Rope reeler and former.  
 31691 F.F. Landis, Thrashing machine.  
 31692 T.G. Palmer, Switch rail joint.  
 31693 J.M. Pollard, Split pulley.  
 31694 W.R. Allen, Cutter head.  
 31695 J.P. Kline, Safety pole and shaft  
 31696 J. Paterson, Engine crank shaft tester.  
 31697 S.H. Short, Electric railway.  
 31698 P. Doersom, Fifth wheel for vehicle.  
 31699 I.L. Ximenes, Musical instrument.  
 32000 G.B. Siccardi, Car brake and starter.  
 32001 F. Ecaubert, Watch case lid.  
 32002 G.P. Skilworth, Weighing machine.  
 32003 A.A. Watkins, Train car starter.  
 32004 T.P. Curry, Railway signal.  
 32005 C. Kinney, Metallic lathing.  
 32006 A.J. Wells, Suspensory.  
 32007 J.E. Hines, sr., Rotary engine.  
 32008 W.L. Saunders, Channelling machine.  
 32009 R.W. Smith, Spark arrester.  
 32010 G.G.F. Boswell, Drive chain.  
 32011 J.F. Bartlett, Trace buckle.  
 32012 C.E. Lipe, Broom sewing machine.  
 32013 H. Watkins, Fertilizer distributor.  
 32014 C.D. Rogers, Blank heading die.  
 32015 T.O. Gara, Snow guard.  
 32016 F. Armstrong, Device for cutt'g envelopes.  
 32017 W. Morrison, Electric battery.  
 32018 H.C. Condon, Ice cream freezer.  
 32019 C. Rose, Lamp.  
 32020 O. Stoddard, Door key.  
 32021 J.H. Anpandale, Pulping machine.  
 32022 A.D. Mason, Corset.  
 32023 H.M. Close, Liquid transferer.  
 32024 G. White, Grain scourer.  
 32025 J.E. Pittar, Weighing and price scales.  
 32026 F. Wynce, Application of electricity to Ry.  
 32027 L.G. Woolley, Electric motor.  
 32028 L. Portle, Fly catcher.  
 32029 D. Eylands, Bottle machine.  
 32030 A. Range, Scoop charger for gas retort.  
 32031 U. Cummings, Cement.  
 32032 F.D. Taylor *et al.*, Type writing machine.  
 32033 J.B. Moose, Cigar cutter.  
 32034 W.J. Purdy, Bucket elevator.  
 32035 A.W. Johnson, Button hole attachmen.  
 32036 J.M.B. Baker, Sand remover for rivers &c.  
 32037 A.S. Bolton, Machine for drawing wire.  
 32038 A. Stobzenwald, Casing printing type.  
 32039 W.P. Turner, Car coupl'g.  
 32040 G.E. Daimler, Motor engine.  
 32041 G.E. Briggs, Mathematical puzzle.  
 32042 W.C. Burch *et al.*, Secret nail driver.  
 32043 H.L. Easley, Lemon juice extractor.  
 32044 R.N. Ross, Brick machine.  
 32045 F.T. Taylor, Letter box.  
 32046 T.E. Bnton, Steam boiler.  
 32047 A.C. McCarthy, Railroad snow plow.  
 32048 L. Bisson, Purse.  
 32049-10 J.V. Smith, Churn vent.  
 32050 W. Thompson, Muffing attachment for  
 32051 J. Smith *et al.*, Gas burner. [violin.  
 32052 W. Bruce, Fire escape.  
 32053 W. Shedlock, Washing machine.  
 32054 M.E. West, Thread holder and cutter.  
 32055 J. Patten, Lasting boots and shoes.  
 32056 do. Machine do.  
 32057 W.B. Rankin, Ladies skirt protector.  
 32058 J.R. Jaques, Lasting and uphoistering tool.  
 32059 H.H. Fowler, Swing.  
 32060 T.I. Reid, Vehicle hub.  
 32061 R. Handel, Fluid stirrer.  
 32062 F.M. Tegarden, Saw table gage.  
 32063 E.E. Thorpe, Eye-glass polisher.  
 32064 H.L. Haskell, Boring machine.  
 32065 G. Williams, Composition for cleaning  
 32066 J.W. Kirkwood, S. ringer, [cloths metals &c.  
 32067-12 J. Mitfield, axle and hub attaching device.  
 32068 W. Aylesworth, sr., Wagon brake.  
 32069 H.S. Weish, Inhaler.  
 32070 J.A. Kaspar, Yarn reel.  
 32071 A.A. Benson, Water current motor.  
 32072 H.J. Davison, Button hole attachment.  
 32073 J. Drager, Barrel churn.  
 32074 G. VanCamp, Breast yoke.  
 32075 C.B. Stillwell, Paper bag.  
 32076 N.H. Adams, Anvil shears.  
 32077 F. Silliman, jr., Fork blank.  
 32078 E.S.T. Kennedy, Perforated plate for dry-  
 32079-14 F. Gross, Saddle, frame. [ing steam.  
 32080 G.W. Katherman *et al.*, Bureau.  
 32081 G. Campbell, Railway frog guard.  
 32082 J.R. McLaren, jr., Snow shovel.  
 32083 W.T. Ross, Thill coupling.  
 32084 J. Grime, Valve gear for engine.  
 32085 C.W. Courtney, Car coupler.  
 32086 C.M. Hardenburg, Dust catcher.  
 32087 R. Kymor, Whistle actuating mechanism.  
 32088 R.J. Wilson, Railway train heating appr.  
 32089 J. Richard, Land roller.

32090 F.C. Winbry, Fish ic stand chair for rails.  
 32091 C.H. Wakfield, Foo. guard for switch, etc.  
 32092 J.H. Sewall, Car heating apparatus.  
 32093 E. Gurney, Heater.  
 32094 T.G.G. Monat *et al.*, Water heater.  
 32095 E.F. Antonietti, Expansion pulley.  
 32096 J. Guy, Horizontal steam engine.  
 32097 H. Cortland, Thermostat.  
 32098-17 C.C. Henry, Carbonated beverage.  
 32099 J.K.T. Knade, Ruler.  
 32100 C.A. Cox *et al.*, Alarm system.  
 32101 H. Silver, Wood and paper veneer.  
 32102 R.J. Jones, Paddle wheel.  
 32103 F.B. Morse, Ore concentrator.  
 32104 F.B. Mayers, Hydro-carbon burner.  
 32105 W.H. Merritt, Bag fastener.  
 32106 C.S. Tainter, Graphophone.  
 32107 J. Skinner, Car coupler.  
 32108 C.O. White, Coin operated race course.  
 32109 J.R. Beynow, Grain separator.  
 32110 J.H. Jones, Mowing machine.  
 32111 J.C. Perry, Egg-beater.  
 32112 D.R. Atkinson, Rail joint.  
 32113 E.R. Morton, Tube for mosaic embroidery.  
 32114 H.W. Stebbins, Paper pulp digester.  
 32115 W.T. Sims, Reel support.  
 32116 F.Y. Wolsley, Apparatus for shearing  
 32117 W. Thompson, Microphones. [animals.  
 32118 A. Baird jr. *et al.*, Invalid bedstead.  
 32119 H.E. Macrea, Fence.  
 32120 R.W. Soper, Cash carrier.  
 32121 F.H. Plummer, Reclining chair.  
 32122 G.H. Clark, Last.  
 32123 E. Taylor, Saw set.  
 32124 W.L. Woodruff, Lawn mower.  
 32125 J.B. Babcock, Snow roller.  
 32126 R. Ohappell, Metal sheet.  
 32127 J.N. Holland, Grain measure.  
 32128 J.G. Fanyer, Printers type.  
 32129 J. Smith, Aut. cut off for gas burner.  
 32130 J.H. Craig, Sieve scalper.  
 32131 F. Stitzel *et al.*, Semaphore signal.  
 32132 A. Don *et al.*, Consumption of smoke, etc.  
 32133 E. Norton *et al.*, Can soldering machine.  
 32134 A. Stevensop, Car coupler.  
 32135 C. Desmarais, Mode of propelling ships.  
 32136 W.C. Sergeant, Channelling machine.  
 32137 J.W. Hitt, Process of tanning leather.  
 32138 E. Lockman, Axle thimble.  
 32139 E. Reynolds, Holding case.  
 32140 A.B. Campbell, Combination baking pan.  
 32141 T.J. Reid, Tire truing machine.  
 32142 J.A. Grant, Bottle stopper.  
 32143 W.T. Doremms, Pillows and pillow slips.  
 32144 T. Gregory, Ceeking machine.  
 32145 W.A. Connor *et al.*, Electric conductor.  
 32146 M.D. Cox, Car coupling.  
 32147 W. Heslop, Construction of boat.  
 32148 J.T. Lenver, Well curb attachment.  
 32149 I. Fitz William, Hemp spinning machine.  
 32150 W.S. Price, Appr. for snagging metal.  
 32151 J.W. Dalrymple, Photographic wash'g ap.  
 32152 W. Ayer, Scouring and polishing cereals.  
 32153 R. Potts, Registering gauges.  
 32154-30 E. Haves, Sheet metal machine.  
 32155 C. Hank, Cutter bar.  
 32156 H.W. Whiting, Refuse furnace.  
 32157 P.P. Onison, Knitting machine.  
 32158 J.B. Harris, Rotary engine.  
 32159 R. Thompson, Bank cutter.  
 32160 C.J. Donald, Grain drill.  
 32161 J.J. Friesider, Coal oil stove.  
 32162 J. Rulie, Car coupler.  
 32163 A. Drzondi, Pendulum.  
 32164 J.M. Brosius, Sewing machine.  
 32165 M. Mercier, Tension weights.  
 32166 J. Skinner, Railway water tank.  
 32167 J.E. Carpenter, Wood polishing machine.  
 32168 Judson St. Ry. Co. Mechanical movement.  
 32169 S.D. Evans, Solar bath.

**STATISTICS FOR AUGUST, 1889.**

UNITED STATES.	
No. of Patents of Inventions issued.....	1,936
Last Patent.....	410,139
Reissues.....	10
Last Reissue.....	11,027
Design Patents.....	45
Last Design Patent.....	19,391
Trade-Marks registered.....	74
Last Trade-Mark registration.....	16,663
Labels registered.....	16
Last Label registration.....	6,006
Total Issue.....	2,081
CANADA.	
No. of Patents of Inventions issued.....	327
Last Patent.....	32,170
Certificates of P. F. F. issued.....	40
Last Certificate.....	1,549
Assignments recorded.....	81
Last assignment.....	10,125

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**PATENTS FOR SALE.**  
Continued from Title Page.

**1055 Tool Holder.**

Can. Pat. No. 28,475, dated February 6th, 1888. Model. For illustrated description see page 42.

**988. Vapor Generator for Bath**

Apparatus. Can. Pat. No. 25,065, dated September 30th, 1886. Extended for importation. Model. For illustrated description see page 5.

**984. Electric Automatic Rail-**

way Signal. Can. Pat. No. 28,243, dated 27th December, 1887. For illustrated description see page 28. Model. Circular.

**963. Wrench Attachment.** Can.

Pat. No. 27,019, dated 22nd June, 1887. For description see page 5. Model. Circular.

**946. Adjustable Pool Rack**

Ball Spotter and Game Register Combined. Can. Pat. No. 24,206, dated June 1, 1886. Extended for importation. Model. For description see page 29.

**928. Cattle Pen.** Can. Pat. No.

52678, dated January 1st, 1886. Extended for Importation. For description see page 29.

**889. Stock Car.** Can. Pat. No.

25,552, dated 13th December, 1886. Extended for Importation. Model. Circular. For description see page 29.

**820. Book Rest.** Can. Pat. No.

23,583, dated 9th March, 1886. Extended for Importation. Model. For description see page 102, Vol. 1.

**791. Rheumatism Cure.** Can.

Pat. No. 25,942, dated Feb. 7th, 1887. Circular. For description see page 77, Vol. 1.

**731. Variable Nozzle.** Can. Pat.

No. 26,039, dated 17th February, 1887. Same as United States Patent No. 351,968. Sample. Circular. For description see page 66, Vol. 1.

**758. Cholera Remedy.** Can.

Pat. No. 26,056, February 24th, 1887. Same as United States Patent No. 354,975. For description see page 54, Vol. 1.

**753. Coffin Attachment.** Can.

Pat. No. 26,283, dated 18th March, 1887. Same as United States patent No. 337,420. Model. For description see page 54, Vol. 1.

**749. Wrought Iron Spiral Radiator**

Warm Air Furnace. Can. Pat. No. 25,085, dated 6th October, 1886. In successful operation in United States. Circular. For description see pages 52 and 53, Vol. 1.

**739. Tricycle.** Can. Pat. No. 24,

352, dated 19th June, 1886. Same as United States Pat. No. 340,340. For description see

**694. Music Leaf Turner.** Can.

Pat. No. 25,632, dated December 28th, 1886. Same as United States Pat. No. 331,030. Samples. For description see page 43, Vol. 1.

**687. Key Ring.** Can. Pat. No.

24,194, June 1st, 1886. For description see page 15, Vol. 1.

**675. Breech-loading Hammer-**

less Gun. Can. Pat. No. 20,344, 9th Oct. 1884. Extended for Manufacture. Very valuable and will be sold at a low price for cash, or partly cash and partly stock. Full sized model. Circular. For description see page 5, Vol. 1.

**647. Harvester.** Can. Pat. 23,084,

29th March, 1886, and 26,475, 19th April, 1887. Same as United States Patents 329,158 and 356,820. For description see pages 42 and 43, Vol. 1.

**586. Self-Tying Telegraph In-**

ulator. Can. Pat. 23,265, 25th Jan., 1886. Same as United States Pat. 332,001. Model. For description see page 5, Vol. 1.

**321. Machine for Bending**

Shanks of Sad Iron Handles. Can. Pat. 21,073, 11th Feb., 1885. Same as United States Pat. No. 276,445. Circular.

**213. Sand Drier.** Can. Pat. No

17,105, 2d July, 1883.

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