

C. H. S. asks: How can a piece of iron, 1/2 inch thick, be hardened on one side? A. Probably it can be done with potash.

M. R. B. asks: How can common cast iron be plated with tin? A. Clean the iron, cover it with muriate of zinc, and dip into melted tin.

T. S. says: My house burnt down, and some \$20 gold pieces were tarnished by scooping them up, carrying them in an iron pot, and cooling by pouring cold water on them. Has the said gold been injured, and should the banks require a discount on such gold? How can I remove the brown color to give them the same appearance as before? A. Your gold has not been injured. You can remove the tarnished appearance by rubbing with jeweller's rouge, until there is a silk polish.

P. T. S. asks: The cast iron water back in my range, which has been in use about six months, continues to rust the water badly. The manufacturers of the range state that they never knew such a case. Can you suggest any remedy? The water used is soft water, rain water from a lead cistern. Would it be practicable to galvanize or nickel plate a new water back? Would not such treatment effectually prevent rust? A. If the water back is in constant use, it seems likely that the trouble arises from some outside connection. It would not cost much to galvanize the water back. Probably any good plumber could have it done for you.

C. F. M. asks: What is the best solvent for India rubber, and what (if any) for tanned leather? A. There are various solvents for rubber. One of the best and cheapest is bisulphide of carbon. We are not aware that tanned leather has ever been reduced to solution by any chemical solvent.

N. R. asks: How much water would a wooden pipe discharge per minute, under a head of 30 or 40 feet, the pipe being from 4 to 10 miles long? A. See our article on "Friction of Water in Pipes" on p. 48, vol. 29, for formula applicable to all cases.

A. H. asks: Where do fleas breed? A. Chiefly in dust, the fine of textile fabrics, oldrags, etc. Cleanliness in the household and fresh air will hinder their multiplication. Oil of pennyroyal will drive them from any particular locality.

R. F. asks: What is infusorial earth? A. It is earth which contains the remains of minute animals.

J. W. asks: What power can I obtain by using an undershot water wheel, 10 feet wide, with 3 1/2 inches fall? What are the most economical proportions for such a wheel, namely: diameter, number of buckets, and depth of shrouding? A. You should consult a water wheel manufacturer.

M. M. asks: Will the applying of brakes to driving wheels of engines have greater tendency to check the speed of a single engine than if applied to the trucks of the tender? If the power now applied to the trucks of the tender be applied to the driving wheels, will the speed of the engine be checked any quicker? A. We think it would be better to apply the brake to the trucks of the tender.

W. H. asks: 1. Of what is non-explosive gunpowder composed? 2. Can you tell me of a good renovating mixture for cloth clothing? 3. What is meant by a saturated tincture? 4. What does this mean: "Add water three ozs., and ammonia till slightly in excess?" A. 1. A process of rendering gunpowder temporarily in explosive has been tried in England. It consisted in mixing fine glass dust with the powder. What you refer to may be something similar. 2. A little curd soap dissolved in water and mixed with a little clarified ox gall is a good cleaning mixture for clothes. 3. A tincture in which the alcohol will dissolve no more of the solid or liquid in solution. 4. In chemistry, generally, a body is said to be in excess when more has been added than is necessary for a given reaction, solution, or decomposition.

COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges, with much pleasure, the receipt of original papers and contributions upon the following subjects:

- On Nail Biting and Finger Sucking. By C. M.
On Steam on the Canals. By A. and by W. M.
On Creeping Rails. By H. H. P.
On Magic Squares. By E. W.
On Machinists in the Navy. By J. Q. A.
On Devil Fish. By J. T. N.

Also enquiries from the following: J. C. V.—A. N. P.—C. L. Z.—W. T.—J. R. D. W.—T. J. McC.—G. G. P.—J. W.—W. S. S.—R. M. P.—R. U. S.—N. W. Y.—J. N. P.

Correspondents in different parts of the country ask: Who makes machines for molding candles? Who makes roadometers? Who makes machines for cutting tobacco? Whose is the best coal heating apparatus? Who makes milliard table cushions, that can be attached to a common table? Who makes shoe peg making machines? Who makes a wheel for grinding bayonet grooves? Who sells a family flour sifter? Makers of the above articles will probably promote their interests by advertising, in reply, in the SCIENTIFIC AMERICAN.

Correspondents who write to ask the address of certain manufacturers, or where specified articles are to be had, also those having goods for sale, or who want to find partners, should send with their communications an amount sufficient to cover the cost of publication under the head of "Business and Personal" which is specially devoted to such enquiries.

[OFFICIAL.]

Index of Inventions

FOR WHICH

Letters Patent of the United States WERE GRANTED IN THE WEEK ENDING

December 30, 1873,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

Table with 2 columns: Invention name and Patent number. Includes items like Air, compressing, J. Ericsson (146,055), Alarm, burglar, J. J. Kane (146,006), Balette, cotton, L. Well (146,037), Barrels, forcing hoops on, J. Greenwood (145,942).

Table with 2 columns: Invention name and Patent number. Includes items like Bed bottom, spring, H. A. Hight, Sr. (146,072), Bevel rest, J. E. Seavey (146,027), Bit stock, L. Feely (146,056), Blade for agricultural implements, W. Scott (146,026), Boiler connection, sectional, J. B. Root (146,097), Boiler steam, O. W. Allison (146,089), Boiler, wash, H. Ross (146,022), Boot spring shank, W. J. Neill (145,963), Boot uppers, crimping, C. Glantz (145,940), Boots, lasting, A. C. Carey (146,043), Bottles, holding glass, T. B. Hewitt (145,945), Bottles, valvular stopper for, C. Patterson (146,018), Bridge, J. Valley (146,034), Button or stud, shirt, T. J. Holmes (145,948), Can for transporting oil, etc., J. E. Pimley (146,020), Can, oil, W. R. Hallock (145,999), Cane, F. Eckstein (146,054), Car axle box, Whitaker & Cook (146,116), Car coupling, T. R. Land (146,008), Car starter, Wallace & Andrews (146,112), Car ticket box, railroad, G. C. Thomas (146,103), Car wheels, casting, J. K. Sax, (r) (5,716), Car window screen, J. E. Earle (146,053), Car window shield, H. S. Hale (146,066), Carbueteer, J. B. Lyman (146,082), Carpet sweeper, Palmer & Spencer (146,016), Carriage iron, H. K. Porter (146,093), Carriage top prop, W. P. Elam (145,935), Chair, H. S. Hale (136,055), Churn dasher, D. Boyd (145,985), Clamp, broom handle, etc., C. L. W. Baker (146,041), Clothes frame, J. C. Miller (146,087), Cock, safety plug, P. A. Chambeau (146,045), Collars, etc., cutting, S. S. Gray (146,041), Collar fastening, shirt, G. Strager (145,974), Cooker, steam, J. Bentz (145,981), Cooler, beer and wine, F. Loesch (145,955), Cooler, milk, R. P. Maln (146,084), Cooler, water, W. F. Rutter (146,099), Copper, etc., reduction of, H. Stull (146,031), Cotton chopper, J. M. Garrett (146,061), Cradle, portable, W. S. Harris (146,069), Cuff, E. E. Mack (145,957), Cultivator, wheel, W. H. Strong (146,030), Cultivator insect destroyer, C. T. Hurd (145,949), Cutter, candy, J. W. Kaskel (146,076), Cutter, sausage, J. Knopp (146,007), Decks, seat for school, J. Cooley (145,930), Drop light and hanger, W. Staehlen (146,104), Earth closet, J. L. Young (146,119), Eaves trough support, T. F. Morrison (146,014), Egg carrier, W. Weis (146,038), Elevator and dumper, W. H. Herriott (146,002), Elevator, steam water, W. E. Prall, (r) (5,715), Elevator, water, D. J. McMillen (146,096), Engine, rotary, W. R. Manley (146,010), Equalizer, draft, E. H. Blake (145,983), Equalizer, draft, W. McClelland (146,011), Fats, treating animal, H. Mege (146,012), Fence machine, J. H. Evans (145,996), Ferrule, S. E. Jerald (145,960), Fifth wheel to vehicles, J. R. McGuire (145,959), Fire arm, breech loading, G. Gundersen (145,998), Fire arm, breech loading, A. Henry (145,944), Fire arm, repeating, Smith & Wesson, (r) (5,710), Fire bar, etc., tubular, R. J. Ellis (145,995), Flour packer, S. Taggart (146,107), Furnace, hot air, D. B. Morris (146,089), Furnace, portable, H. J. Lingenfelter (145,954), Gage, joiner's, Jennings & Arnold (146,075), Garden implement, J. M. Lunguest (146,088), Gate, farm, D. A. Neldig (146,015), Gloveturning machine, F. Vanderpool (146,111), Gold leaf, making, R. E. Hastings (146,001), Grain cradle, D. Duesler (145,933), Harvester, J. Pine (r) (5,714), Hats, machine for ironing, R. Eickemeyer (145,934), Heater, feed water, W. Sambrook (146,024), Heels, etc., burnishing, G. C. Hawkins (145,943), Hinge for safe doors, etc., W. F. Stevens (145,973), Hoisting apparatus, C. R. Otis (146,090), Hoop lock cutter, Loggins & Wilkins (145,956), Illuminating apparatus, J. A. Thompson (146,109), Injector, S. Rue (145,969), Iron, etc., working scrap, D. D. Parmelee (146,082), Jewellers' catches, G. H. Fuller (145,938), Jewelry pin, J. P. Courtney (145,990), Journal box, lubricating, J. Morin (146,013), Ladder, A. P. Smith (146,029), Lamp, C. A. Kleeman (r) (5,708), Lantern, J. Kintz (146,079), Leather, preserving, J. Lamplugh (146,080), Leather, trimming, W. F. Foley (145,937), Leather washer, annular, P. L. Gibbs (146,082), Lid lifter, W. Van Gaasbeek (146,035), Loom for piled fabrics, H. Skinner (146,101), Loom shuttle guide, J. B. Bancroft (145,925), Malt dryer, J. G. Schiffer (146,025), Marble, etc., cleaning, J. Sawyer (145,971), Mill spindle, J. A. Hafner (146,063), Mop head, Marston & Skinner (145,958), Mortising tool, H. K. Forbis (146,055), Motion, converting, W. M. Cox (145,931), Mug, beer, W. C. King (146,078), Nail extractor, G. C. Taft (145,975), Needle threading hook, H. Wells (145,978), Nubia and vell combined, J. W. Tuttle (146,077), Nut lock, L. Leeds (146,081), Nut lock, A. C. Smith (146,102), Nut lock, J. B. Sweetland (146,106), Nut lock, C. R. Watrous (146,113), Oakum with tar, etc., coating, J. F. Stairs (146,105), Oils for paints, etc., D. D. Cattasach (146,044), Paste, broom corn for, J. W. Tallmadge (146,082), Pavement, wood, E. W. Perrin (146,019), Photographic monocular glass, Dallemagne et al. (146,052), Piano pedal stool, T. Springer (146,108), Picker, cranberry, J. Weston (145,979), Picture frames, wooden mat for, H. S. Hale (146,087), Pipe tongs, J. R. Brown (145,929), Piping, steam and water, J. H. Mills (145,962), Pittman, Holly & Robertson (145,947), Plane, combination, A. Johnson (146,004), Planing machine suction tube, G. C. Westover (146,115), Planter, corn, E. C. Gage (146,060), Planter, corn, J. Klar (145,952), Plow, J. J. Mitchell (146,088), Press, baling, J. B. Root (146,096), Press, wagon hay, H. Brocksmitth (145,986), Printing press delivery, T. J. Mayall (146,085), Propulsion of vessels, C. P. Macowitsky (146,009), Pump, Barker & Mack (145,926), Pump, steam vacuum, Prall & Burr (146,095), Purifier, middlings, E. N. Lacroix (r) (5,711), Radiator, indirect steam, J. H. Mills (145,961), Railway rail chair, S. Ferris (145,986), Railway tie, H. L. De Zeng (145,991), Refrigerator, H. A. Roberts (145,968), Roof truss, P. L. Welmer (146,114), Rubber, hand, W. H. Blye (145,927), Sacks, etc., emptying and filling, S. Wilkerson, Jr. (146,117), Safe and vault, J. Crump (146,047)

Table with 2 columns: Invention name and Patent number. Includes items like Safe and vault, J. Crump (146,048), Sash fastener, J. D. Shewell (145,972), Sash holder, S. Chard (145,988), Saw filing machine, W. W. Parsons (146,017), Saw, scroll, J. B. Wright (146,118), Sawing machine, D. R. Pratt (146,021), Sawing machine, scroll, T. W. Dowling (145,993), Screw, wood, I. S. Russell (146,023), Sewing machine button holer, J. F. Haskins (146,000), Sewing machine gatherer, etc., A. Johnston (146,005), Sewing machine tuck creaser, E. Powell (146,094), Sewing machines, frame for, E. M. Turner (146,110), Sharpening machine, J. H. Curran (146,050), Sharpening machine, H. H. Rorke (146,093), Shutter fastener, P. Keffer (145,951), Shutterfastening, H. A. Skinner (146,023), Shuttle and needle, tatting, E. P. Kellogg (144,077), Sickle sections, tempering, F. Meyer (145,960), Sole edge trimmer, W. Webster (146,036), Spinning whirl, M. A. Furbush (146,059), Spoon, J. Hart (146,070), Spring, vehicle, C. W. Saladee (146,100), Spring for vehicle seats, C. Duecker (145,994), Stock feeder, U. Borel (145,984), Stone tool, I. Curtner (146,051), Stove, E. Smith (r) (5,709), Stove damper, E. F. Cook (145,969), Stove, design for heating, E. Mingay (r) (5,712), Stoveleg, W. Doyle (145,982), Stump extractor, F. Plant (145,966), Sugar manufacture, M. H. Aschenbrenner (146,040), Teeth, filling for decayed, C. E. Blake (145,982), Telegraph insulator, Fox & Heston (145,997), Tool, compound, J. Dillon (145,992), Tramway plate, S. D. Tillman (146,032), Trap, mole, R. I. Huggins (146,008), Truck, Pratt & Munhall (145,967), Valve, B. Fitts (146,057), Valve, J. A. Nichols (145,964), Valve for steam pipes, J. W. Hodges (146,073), Vault cover, illuminating, J. K. Ingalls (146,074), Vehicle, Farmer & Bradley (145,965), Vehicle holdback, Burdick & Flanders (146,042), Washing machine, P. Hibbs (146,071), Washing machine, L. Holderman (145,946), Washing machine, S. N. Page (146,091), Watch barrel, F. A. Gies (145,939), Water wheel, M. Chandler (145,987), Water wheel, J. B. Hamilton (146,068), Whipsocket clamp, C. B. Morehouse (r) (5,713), Windmill, E. Crump (146,049), Windmill, E. Sanderson (145,970), Wines, medicated, V. Brosseau (145,928), Winnower, rotary, J. H. Adamson (145,980), Wire stretcher, Congdon & House (146,046), Work holding device, F. E. Hahn (146,064), Wrench, J. Lee (145,953), Zinc, etc., condensing white, C. W. Trotter (145,976)

APPLICATIONS FOR EXTENSIONS.

Applications have been duly filed, and are now pending for the extension of the following Letters Patent. Hearings upon the respective applications are appointed for the days hereinafter mentioned: 27,678.—FASTENING ARTIFICIAL TEETH.—A. M. & J. L. Asay. March 18. 27,736.—HAT VENTILATOR.—J. Pollock. March 18. 27,809.—WASHING MACHINE.—J. Johnson. March 25. 28,027.—CUTTING SHEET METAL.—J. Waugh. April 8.

EXTENSIONS GRANTED.

26,874.—CLOTHES DRYER.—E. B. Hawse. 26,679.—DOUBLE SEAMING MACHINE.—L. T. Hurbert. 26,689.—PIVOT BEARINGS.—F. C. Lowthorp.

TRADE MARKS REGISTERED.

1,588.—CIGARS.—Gilmor & Gibson, Baltimore, Md. 1,589.—SADDLE TREES.—S. E. Tompkins, Sing Sing, N. Y. 1,590.—COFFEE.—Hawley & Co., San Francisco, Cal.

DESIGNS PATENTED.

7,077.—RUFFLING.—S. E. Barney, New Haven, Conn. 7,078.—CUTLERY HANDLE.—J. D. Frary, New Britain, Ct. 7,079.—FIGURES.—J. D. Smith, Washington, D. C. 7,080.—PRINTING TYPES.—J. M. Conner, Greenville, N.Y. 7,081.—PINCUSHIONS.—A. Merriam et al., West Meriden, Ct. 7,082.—LABEL.—A. M. Thomson et al., Chicago, Ill.

SCHEDULE OF PATENT FEES.

Table with 2 columns: Fee description and Amount. Includes: On each Caveat (\$10), On each Trade Mark (\$25), On filing each application for a Patent (17 years) (\$15), On issuing each original Patent (\$20), On appeal to Examiners-in-Chief (\$10), On appeal to Commissioner of Patents (\$20), On application for Reissue (\$30), On application for Extension of Patent (\$50), On granting the Extension (\$50), On filing a Disclaimer (\$10), On an application for Design (3 1/2 years) (\$10), On application for Design (7 years) (\$15), On application for Design (14 years) (\$30).

[Specially reported for the Scientific American.]

CANADIAN PATENTS.

LIST OF PATENTS GRANTED IN CANADA JANUARY 5 TO JANUARY 9, 1873.

Table with 2 columns: Patent number and Invention name. Includes: 2,967.—F. H. Whitman, Harrison, Cumberland county, Me., U. S., assignee of E. H. Woodsum, South Boston, Mass., U. S. Improved gain cutting machine, called "Woodsum's Gain Cutting Machine." Jan. 5, 1874. 2,968.—J. McLarty, Strathroy, Middlesex, Ontario. Improvements in ladders, called "The Improved Flexible Ladder." Jan. 5, 1874. 2,969.—F. R. Butcher, St. John, New Brunswick. Improvement in spring bed bottoms, called "Butcher's Improved Hinged Slat Spring Bed Bottom." Jan. 5, 1874. 2,970.—W. T. Rand, Fitch Bay, Stanstead county, P. Q., and T. B. Rider, Magog, Stanstead county, P. Q. Improvements on saw arbors, called "Rand's Improved Saw Arbor." Jan. 5, 1874. 2,971.—J. T. Poole, J. S. Allen, C. M. N. Allen, J. Williamson, G. N. Clark, D. B. Jones and E. Moore, all of Canterbury, York county, New Brunswick. Improvements on life preserving dresses and air buoys combined, called "Poole's Life Dress and Buoys." Jan. 5, 1874. 2,992.—C. H. Billings, Cleveland, Cuyahoga county, O., U. S., and J. T. Rapley, Montreal, P. Q. Improvements on self-acting car couplers for railway cars, called "Billings' Automatic Car Coupler." Jan. 5, 1874. 2,978.—H. L. Lowman, Birmingham, New Haven county, Conn., U. S., and R. M. Bassett, of same place. Improvements on manufacture of shovels, spades, hoes, grocers' scoops and other like articles, called "Lowman's Swaged Shanks." Jan. 5, 1874.

2,974.—W. O. Grover, Boston, Suffolk county, Mass., U. S. Improvement on bird cages, called "Grover's Improved Bird Cage." Jan. 5, 1874. 2,975.—G. Calcott, Thorold, Welland county, Ontario. Improvement on stoves for heating apartments, called "Calcott's Improved Base Burner Stove." Jan. 5, 1874. 2,976.—N. P. Slade, Rockford, Winnebago county, Ill., U. S. Improvement on anti-freezing writing fluid, called "Slade's Non Corrosive Anti-Freezing Writing Fluid." Jan. 5, 1874. 2,977.—V. C. Meyerhoffer, Rutland, Rutland county, Vt., U. S. Improvements in mail bags, called "Meyerhoffer's Improved Mail Bag." Jan. 8, 1874. 2,978.—I. A. Welch, Hamilton, Ontario. Improvements on flat brushes, called "I. A. Welch's Improved Flat Brush." Jan. 8, 1874. 2,979.—W. H. Porter, Bradford, Simcoe county, Ontario. Improvements on dental plates, called "Porter's Dental Plate." Jan. 8, 1874. 2,980.—W. Ferris, Pleasant Plain, Warren county, O., U. S. Improvements on knife and pitman connection for reapers and mowers, called "Ferris' Improvement in Pitman Connection for Harvesters." Jan. 8, 1874. 2,981.—I. O. Jones, Boston, Mass., U. S. Improvements on rakes, called "Jones' Reversible Rake." Jan. 8, 1874. 2,982.—J. B. Gully, Montreal, P. Q. Art or method of preparing steel belts for alleviating and curing rheumatism, called "Gully's Anti-Rheumatism Belt." Jan. 8, 1874. 2,983.—W. Dunlop, Toronto, Ontario. Improvements on stretch traps, for sewer and waste water drains, called "Dunlop's Improved Drain Trap." Jan. 8, 1874. 2,984.—J. Richards, G. W. Waitt, E. C. Shapley and C. F. Jones, all of Philadelphia, Pa., U. S. Improvements in locomotive chimneys, called "Richard's and Meehl's Locomotive Chimney." Jan. 8, 1874. 2,985.—A. S. McDouell, Osgood, Carleton county, Ontario. Improvements in cultivators, called "McDouell's Cylinder Cultivator." Jan. 9, 1874. 2,986.—B. T. Nichols, Rassel, Union county, N. J., U. S. Improvements on nails and spikes, called "Nichols' Improved Nail and Spike." Jan. 9, 1874. 2,987.—R. S. Jarvis, Toronto, Ontario. Improvements on quilting frame, called "Jarvis' Adjustable Quilting Frame." Jan. 9, 1874. 2,988.—P. Cope, Perryopolis, Fayette county, Pa., U. S. Improvements on brackets for fence bars, called "Cope's Fence Bar Bracket." Jan. 9, 1874. 2,989.—W. T. Doremus, New York, U. S. Improvements on springs for furniture and other purposes, called "Doremus' Springs for Furniture and Other Purposes." 2,990.—F. E. Dixon, Toronto, Ontario. New window fastener and support, called "Dixon's Improved Sash Fastener." Jan. 9, 1874. 2,991.—I. I. Lahaye, Reading, Berks county, Pa., U. S. Improvements on car coupling, called "Lahaye's Improved Car Coupling." Jan. 9, 1874. 2,992.—E. F. Austin, Rochester, Monroe county, N. Y., U. S. Improvements on ottomans, called "Austin's Combined Ottoman and Ladies' Companion." Jan. 9, 1874. 2,993.—C. W. Saladee, Pittsburg, Pa., U. S. Improvement in bolsters, springs and standards for wagons, called "Saladee's Bolster, Spring and Standard for Wagons." Jan. 9, 1874. 2,994.—E. Chanteloup, Montreal, P. Q. Improvements in self feeding hot water furnaces, called "Chanteloup's Improved Self Feeding Hot Water Furnace." Jan. 9, 1874. 2,995.—E. Mathieu, Montreal, P. Q. Remede a guerir les hemorrhoides, called "Onguent pour Hemorroïdes, du Dr. Mathieu." Remedy for piles. Jan. 9, 1874. 2,996.—T. A. Lundy & E. Walker, Guelph, Wellington county, Ontario. Machine for suspending window blinds, called "Lundy & Walker's Independent Blind Roller." Jan. 9, 1874.

HOW TO OBTAIN Patents and Caveats IN CANADA.

PATENTS are now granted to inventors in Canada, without distinction as to the nationality of the applicant. The proceedings to obtain patents in Canada are nearly the same as in the United States. The applicant is required to furnish a model, with specification and drawings in duplicate. It is also necessary for him to sign and make affidavit to the originality of the invention. The total expense, in ordinary cases, to apply for a Canadian patent, is \$75, U. S. currency. This includes the government fees for the first five years, and also our (Munn & Co.'s) charges for preparing drawings, specifications and papers, and attending to the entire business. The holder of the patent is entitled to two extensions of the patent, each for five years, making fifteen years in all. If the inventor assigns the patent, the assignee enjoys all the rights of the inventor. A small working model must be furnished, made to any convenient scale. The dimensions of the model should not exceed twelve inches. If the invention consists of a composition of matter, samples of the composition, and also of the several ingredients, must be furnished. Persons who desire to apply for patents in Canada are requested to send to us (MUNN & CO.), by express, a model with a description, in their own language, showing the merits and operation of the invention, remitting also the fees as above for such term for the patent as they may elect. We will then immediately prepare the drawings and specification, and send the latter to the applicant for his examination, signature, and affidavit. It requires from four to twelve weeks' time, after completion of the papers, to obtain the decision of the Canadian Patent Office. Remit the fees by check, draft, or Postal order. Do not send the money in the box with model. Give us your name in full, middle name included. Inventions that have already been patented in the United States for not more than one year may also be patented in Canada. On filing an application for a Canadian patent, the Commissioner causes an examination as to the novelty and utility of the invention. If found lacking in either of these particulars, the application will be rejected, in which case no portion of the fees paid will be returned to the applicant. Inventors may temporarily secure their improvements in Canada by filing caveats; expense thereof, \$35 in full. For further information about Canadian patents, assignments, etc., address MUNN & CO., 37 Park Row, New York