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#### A NEW PATENT LAW IN CANADA.

We have the pleasure of announcing that the Parliament of the Dominion has just passed a new patent law, which, among other judicious provisions, grants to American citizens the privilege of obtaining patents in Canada on very favorable terms.

We hail the passage of this law as an indication of real progress on the part of the people of Canada. Its practical operations can hardly fail to prove advantageous to the material interests of the Dominion.

A valued correspondent in Canada furnishes the following resumé of the provisions of the new law, which goes into effect on the first day of September next:

The law provides that all inventors, or their assigns, may receive patents, provided a foreign patent for the inventionhas not been in existence for more than one year prior to the application being made for the Canadian patent. Improve ments on existing patents may also be patented.

The applicant shall, for the purposes of the act, elect his domicile in some known place in Canada—this being a mere formality.

The patent will be issued for five, ten, or fifteen years, at the option of the applicant; but, at the expiration of the first five or ten years, the patent may be extended for another term of five years; there is no provision for extension after the fifteenth year.

In case of error or defective description, the patent may be reissued, as is the case in the United States.

In case of an assignment of a patent, such assignment must be registered in the Patent Office.

The law provides for remedy in case of infringement of patents—and also for the impeachment of patents before the

Every patent will be subject to the condition that the pat. entee shall manufacture the invention in Canada within one year from the date of the patent; and the patent is to be void if, after the expiration of one year from its date, the patentee or owner causes the importation in Canada of the invention for which the patent is granted.

The fees payable to the Patent Office for each patent are at the rate of \$20 for each period of five years. When the few malcontents among their number and intimidated by patent is refused, half the fees may be returned to the applicant. This rule is always acted upon.

Inventors may file caveats, to be kept secret and of record for one year.

Patents may be refused when the alleged invention is not patentable in law, or when it is already in the possession of the public, or when there is no novelty or utility in the invention, or when it has been described in a book or printed publication, or when it has already been patented in Canada, or elsewhere by the inventor for more than one year previous to the application.

When a patent has been refused, appeal lies to the Governor in council within six months after notice of such refusal.

In case of interfering applications, the case may be referred to three arbitrators, one to be appointed by each applicant and the third by the Commissioner of Patents-their decision to be final. The fees of arbitrators to be a matter of agreement, except those of the arbitrator appointed by the Commissioner, which are to be paid equally by both parties.

Patented articles are to be stamped as such, and a fine of \$200 is imposed for false marking.

that Messrs. Munn & Co. are now ready to receive applications for patents in Canada.

#### PROGRESS OF THE EIGHT HOUR STRIKE.

The many acts of violence, to which the workmen supporting the eight hour movement in this city have taken recourse, seem to have culminated in the shooting of James Brownlee, a carpenter and non-society man, who was quietly at work in a shop on Forty-first street, near First avenue. It appears that two of the strikers threatened him with personal assault if he did not at once quit work and join them in the strike. Fearing that they would carry out their threats, Brownlee left the shop and passed into the street, when one of the men who had followed him drew a revolver and shot him through the cheek, saying at the same time "That's the way we treat such as you are." This atrocity, although promptly disavowed and condemned by many of the organizations, has produced a powerful effect on the community at large, and has resulted in a marked diminution of public sympathy for the cause. The threats of abandonment of the material to be pressed, as if two tuns weight were placed work, on the part of the men employed at the gas works, have caused, during the past few days, considerable apprehension | These conceptions of the latter require other elements, as we throughout the city lest the streets at night should be left in shall soon see. darkness, but the danger has been happily averted by the gas companies acceding to the terms demanded.

The small number participating in the procession, which was intended to exemplify the great strength of the movement, has been a source of disappointment to its advocates. The working men for some reason viewed the idea with disfavor, so that, instead of an army of thirty thousand men, barely twenty five hundred paraded through the streets. There simply a lack of enthusiasm which fell like a pall on the sanguine expectations of the strikers. During the remainder of the past week, the desertion and returning to work of a large number of employees of Singer's sewing machine factory has rendered the movement still weaker; and al though a considerable number of men still hold out, it is the general belief that it must eventually fail.

Advices from out of the city inform us that the strike is but little felt, and that its effect has been rather beneficial to manufacturers in other States. The reason is that the better class of workmen who have no sympathy with the movement find themselves compelled by the action of their trades' unions to leave the city and obtain labor elsewhere, while the malcontents throughout the country flock to New York in hopes of getting increased wages.

On the part of the manufacturers, the position adopted in the beginning has been steadfastly maintained. The piano forte makers publish a series of resolutions which clearly and forcibly define the stand they have taken. They state that, in case they are forced to raise the price of the goods thirtythree per cent, they cannot compete with the makers in other parts of the country, in whose productions there has been no corresponding advance. Nor, since the trade in the smaller sizes of pianos is mainly local, can they afford to raise the price of their instruments, as the cost of an ordinary piano would then be so great as to be without the reach of a large majority. As far as this branch of manufacture is concerned, it is claimed to be evident that concess sion to the terms demanded by the working men is absolutely impossible; and we have been assured by the leading firms in the city that if they did yield to the exactions of the strike, the result then would be no worse than if they abandoned their business and sought investment for their capital elsewhere

The carriage makers, although forming no combinations among themselves, agree in substance with the views of the pianoforte men. The proceedings of the workmen from the establishment of Brewster & Co., of Broome street, are the most incomprehensible of the many vagaries to which the strike has given rise. This manufactory has been carried on on a cooperative principle: that is, the employees owned an interest in the profits of the business. They were fully represented in the management of the internal economy of the concern, had a voice in the regulation of their own pay and hours of labor, and received dividends pro portioned to the amount of wages paid them. Three days before the strike they declared themselves satisfied with the existing arrangement, and actually, as we are informed, refused to vote themselves eight hours as a day's work. In spite of all this, suddenly, at the instigation of a to leaving their work, deliberately forfeited a dividend of several thousand dollars, which was shortly to fall due

As to the final result of the movement, we consider that there is but little doubt. Want of support from other cities, the firm front presented by employers, together with the convictions, which are evidently being brought home to the minds of the more intelligent workmen, of the impracticability of the scheme, will end in its abandonment.

It is our belief that cooperation is the most efficient means by which the laboring classes can hope to secure the privileges which they now claim as rights.

## WEIGHT, PRESSURE, FORCE, POWER, WORK.

The fact that the above words are often confounded together, for the simple reason that their true meaning is not well understood, has been the cause of many fruitless attempts at mechanical inventions and improvements. Most searchers for perpetual motion make no distinction between pressure and force, and are under the delusion that mere pressure By reference to a card in another column, it will be seen can produce work, and we have seen writers on mechanics the drabs, can be made as desired. A company under the

and we have even heard lecturers on scientific subjects speak of a force of, say, two tuns weight. Weight alone is not force, neither is pressure equivalent to work; and it may therefore be useful to attempt some clear definitions of the above terms, in order to protect inventive minds against mistakes in mechanical reasoning.

Weight is simply the measure of an amount of matter referred to a certain standard accepted as a unit. This unit may be a gramme, a pound, a tun, or our whole earth, which the astronomers use; but, in either case, it conveys to the mind nothing but the conception of an inert mass, or a certain amount of matter, for the determination of which gravitation gives us the means of measuring and comparing. Therefore we may say: To have "a mass of two tuns," but not " a force of two tuns."

Pressure is a result of this gravitation, and a mass of two tuns will exert a pressure of two tuns: in this way, we may estimate the effect of a spring, hydraulic press, or other similar contrivance, by saying its pressure (not its power) is equal to two tuns, meaning thereby that it has the effect, on upon it: but we have in pressure neither force nor power.

Force is matter in motion, nothing more, nothing less; the abstract idea of force without matter is a nonentity. All the modern discoveries in science tend to prove this more and more plainly. Without matter, force would have no existence, but it may be hidden in matter as molecular invisible motion in the form of heat, electricity, etc. The steam engine, electromagnetic engine, etc., are there to prove how this molecular motion, or hidden force, may be was no disturbance along the route, nor any cheering, but changed into visible force or motion of matter. Inversely, the caloric friction machine changes motion into heat; the ordinary and also the Holtz electric machine change motion into electricity. In any case, we are driven to the conclusion that all force proceeds from motion of matter, and is finally resolved into motion of matter, either of masses, or into molecular motion, generating one of the so-called imponderable forces.

> Chemistry has proved since the last century that the amount of matter in the Universe is a constant invariable quantity, and that we cannot create or destroy a single material atom, but can only change its form from solid to liquid or gaseous, or vice versa. So the modern philosophy of me chanics proves that the amount of force (that is, motion of matter) in the Universe is a constant quantity, and that we cannot create or destroy the slightest amount of this force, but can only change it from mass motion to molecular motion, that is, heat, electricity, etc., or nice versa.

The measure of force is thus the product of the mass with the distance through which it moves; and as the unit of measure of ordinary masses is the pound, and of distances, the foot, we have adopted the foot-pound as the standard unit of force, meaning "one pound lifted sgainst gravitation one foot," not "one pound moved one foot," as we have seen and heard it stated, which of course gave rise to the most absurd calculations in regard to the immense power obtained to drive a steamship or railroad train.

If one pound weight is raised one foot, one unit of force is expended; if, inversely, we cause one pound to descend one foot, we obtain a unit of force back, and may transform this into other mass motion, or into molecular motion. We may cause this mass of one pound to be raised slowly if we have little power to apply, or rapidly if we have greater power; and, inversely, we may cause it to descend slowly, as is done in the weight of a clock, and spend itself gradually during a long period of time, producing slight effects throughout that time; or we may cause it to descend quickly, as is the case with the blow of a hammer, and spend itself during a very short period of time, almost instantaneous, producing a powerful effect for that short time. So the driving in of a nail, which often the pressure of a tun weight would not accomplish, the blow of a hammer of one pound, lasting a small fraction of a second, will accomplish easily. This remark points out forcibly the difference between the weight of masses at rest and of masses in motion, in other words, the immense difference between mere pressure and force.

## RUBBER GRAPHITE PAINT.

A waterproof paint, for metal roofs, fences, bridges, ships, and every kind of wood structure, which, at the same time, could be relied upon to reduce the corrosive influences of exposure to the atmosphere, is an article for which the demand would appear to be almost without limit. A patent has just been issued, through the Scientific American Patent Agency, to Mr. Samuel F. Mathews, of Harrisburg, Pa., on an invention intended to meet the wants of the community in this respect; and from the ingredients he uses, we think his paint will answer a good purpose.

The rubber graphite paint is a solution of pure india rubber in linseed oil, which is ground with graphite into a thick, elastic, smoothly flowing paint. Compositions of which india rubber forms a part possess in the most eminent degree the quality of resisting the action of moisture and of corrosive gases carried in the air. In the graphite, we have a pure form of carbon; and it appears to be well known that paints containing carbon in any form last longer than other kinds not having it as an ingredient-holding their body and color when the other paints are totally destroyed. We do not see why this compound, combining as it does these two valuable elements, should not form a paint of great durability and highly protective qualities,

All shades of color from black to gray, or cream color and

formed, and has commenced the manufacture of the article at Harrisburg, Pa.

Facts for the Ladies.-Miss S. A. Davis, Berlin, N. Y., has used Wheeler & Wilson's Lock-Stitch Sewing Machine 17 years in collar making supported herself and an invalid mother, whom she also tended, and has saved over \$2,000; she has been a constant worker by foot power and not sick a day. See the new improvements and Woods' Lock-Stitch Ripper.

Whitcomb's Remedy for Asthma is one of the best medicines in use

Facts Worth Knowing .- The New Wilson Under-Feed Shuttle Sew ing Machine is to-day the simplest, most perfect, most easy operating, bes made, most durable, and, in every way, most valuable Sewing Machine in existence, and it is sold fifteen dollars less than all other first-class machines, on easy terms. Salesroom, 707 Broadway, New York; also for sale in all other cities in the United States.



I We present nerewith a series of inquiries embracing a purious of sources of greater or less general interest. The questions are simple, it is true, but we prefer to elicit practical answers from our readers.

1.—OCEAN CABLES.—I would like to know if the Atlantic cable lays on the bottom of the ocean? Or if it is only part of the down, what keeps it there?-H. F. H.

2.-LARD IN TIN CANS.-Is lard injured by being stored in bright tin cans? If so, what is the chemical action which causes the injury?

3.—Plaster Casts from Dead Bodies.—I wish to know how to take a plaster of Paris cast of a tumor on a face, so as to represen the face and the tumor? What will give to the plaster a glossy finish? I can take a very good cast, but fail to get as good a finish as I have seen. J. A. D. Jr.

4.—PAINT FOR IRON.—Can any one inform me if there is any substance that can be applied easily, say with a brush or otherwise, in a thin coat to iron, that will stand heat to redness without melting, peeling off, or cracking ?-E. J.

5.—CEMENT FOR LETTERS ON GLASS.—How are the gilt letters put on glass signs, so as to have the polished appearance that all such gilt letters do? The painters here do not know how to do it, although one of them is a subscriber to the SCIENTIFIC AMERICAN.-J. F.

6.—Separation of Oils.—By mistake one bairel raw linseedolland one barrel West Virginia lubricating oil got mixed in our oil tank. Is there any means of separating the two oils?--R. K.

7.—DIMENSIONS OF BELT.—Can any one of your readers inform me what width of belt I require to convey one, two, or three horse power?-W. J. S.

8.-WEEVIL.-What will prevent the weevil getting into Indian corn? What will exterminate it from a lot of corn, shelied and in bags? How long will the corn keep safe from getting musty, when stored in open casks or common grain bags in piles, the bags standing on end on

9.—GOLD SOLUTION.—Will the gold solution to be applied by brush, mentioned in SCIENTIFIC AMERICAN, Vol. XXVI. page 280, adhere on the plating of buggy dash rims or harness mounting, as on iron or steel not so plated? If so, how long will it retain its brilliancy? Will it not soon come off? How are the mountings of harness plated with gold or silver? Must a battery be necessarily used in such plating, whether white or golden? -J. B.

10.—Test for Zinc.—What is the best test for zinc in wells where galvanized pipes are used? What per cent or how many grains in a gallon of water is sufficient to injure health?-J. B.

11.—SLACK COAL AND SAW DUST.—At our saw mill, coal is used under the boiler; and upon exposure to weather, it slacks and, unavoidably, we have much coal dust, and of course we have much saw dust to spare. Is there any way to utilize them, and so reduce the cost of our fuel? A way that would not be very expensive-all the machinery and parts of the process being of home manufacture-is needed .- J. F. T

12.—METAL LINING IN CAST IRON VESSELS.—How can I prevent the lining metal in cast iron boxes from becoming loose? After they have run some time, the lining becomes loose, and I have to refill them. Would tinning the boxes prevent the metal from getting loose? It so, what would be the best process to tin boxes that are cast on the frame so that they cannot be removed. The lining metal used is Babbitt's metal, minus the antimony. -W. A.

#### *<u>Eusiness</u>* and Lersonal.

The Charge for Insertion under this head is One Dollar a Line. If the Notices exceed Four Lines, One Dollar and a Half per Line will be charged

The paper that meets the eye of manufacturers throughout the United States-Boston Bulletin. \$4 (9) a year. Advertisements 17c. a line.

For the most beautiful Site, Building, and Water Power for manufacturing pu. poses, address Harris Brothers, Newport, N. Y.

Sewing machines of any shape and adapted to any special purpose. Models, patterns, and experimental machinery made from crude description on paper or word of mouth. References as to integrity and capacity to any extent furnished when required. Koch & brass, 59 Scholes Street, Williamsburgh, N. Y.

Wanted-Descriptive price list and catalogue of new and second hand fire engines, hose carts, and hose. Ad. Trost, Neb. City, Neb.

For Machinists' Tools and Supplies of every description, address Kelly, Howell & Ludwig, 917 Market Street, Philadelphia, Pa.

Stencil Tools, full set, \$5. Circulars free. J. T. Lee, War-

Safety Boiler-Wanted party with manufacturing facilities to take interest. G. Morgan Eldridge, 703 Walnut St., Philadelphia, Pa.

Wanted—A man who thoroughly understands how to Finish Harness and Roller Buckles and to make the Dies which form the Tongues. Good wages and steady employment. For further particulars, address

with name and residence to B.K. Murphy, cor. 28th St. & 7th Av., New York, Three fourths saving of fuel, by the Ellis Vapor Engine (Bisulphide of Carbon) in running the Haskins Machine Co's Works, Fitchburg, Mass. To whom apply.

State Patents for Sale-Black's Improved Fertilizer, made on the farm at comparatively small outlay of cost and labor. For circular terms, &c., address G.R. Black & Co., Box D., Donaldsville, G. & C R.R., s. C.

Wanted-Situation as Mechanical Draftsman. One in the West preferred. Specimen work shown and references given. Address Box 299, Yellow Springs, Green Co., Ohio,

title of the Rubber Graphite Paint Company has been Old Furniture Factory for Sale. A. B., care Jones Scale Millstone Dressing Diamond Machine—Simple, effective, du Works, Binghamton, N. Y.

The Patent Vertical Portable Engine—Safer than the Safest-

A Great Curiosity. See advertisement on page 421.

Wear and Tear, none. Power Plenty. Light on Fuel. Griffith & Wedge, Zanesville, Ohio.

The Best Saw Mill in the Market—with Cut Gear Lever Head Blocks and Handshy's Patent Roller Set-makes more and truer Lumber, with less hands to the M.II, than any other Circular Saw Mill in the country. Griffith & Wedge, Zanesville, Ohio.

Stationary Engines—25 Horse Power—for Saw or Grist  $\label{eq:mills_problem} \textbf{Mills}, \textbf{ready} \, to \, \textbf{ship}. \quad \textbf{Address} \, \textbf{Griffith} \, \textbf{\&} \, \textbf{W} \, \textbf{edge}, \textbf{Zanesville}, \, \textbf{Ohio.}$ 

Wood Cutting by Electricity—Communications on this subject can be addressed to the patentee, G. Robinson, Box 2622, Post Office, New York

Write for Chemicals, Crude Materials, and Drugs for Manufacturers' use, to L. & J. W. Feuchtwanger, 55 Cedar Street, New York. Steel Castings to pattern, strong and tough. Can be forged and tempered. Address Collins & Co., 212 Wat., a treat, New York.

The Waters Perfect Steam Engine Governor is manufactured by he Haskins Machine Co., Fitchburgh, Mass.

Wanted-A first class Sewing Machine Repairer. T. Shanks, Baltimore, Md.

Calvanized Slating Nails, Stove Reservoirs, and Hollow Ware. Address Cleveland Galvanizing Works, Cleveland, Ohio.

Second hand Iron Planer, to plane 9 feet long, 33 inches wide-good as new and cheap. Chas. Place & Co., 60 Vesey St., New York

Wanted—A partner in the Machinist and Foundry business, well established at Minneapolis, Minn. Address Chas. M. Hardenbergh.

Portable Baths. Address Portable Bath Co., Sag Harbor, N.Y. Standard Twist Drills, every size, in lots from one drill to 10,000, at % manufacturer's price. Sample and circular mailed for 25c. Hamilton E. Towle, 30 Cortlandt st., New York.

The Shive Steam Engine Covernor - Quaranteed to be the best in the world. Circulars sent free. Shive Governor Company, 12th and Buttonwood Streets, Philadelphia, Pa.

For the best Foot Power Jig Saw, address Goodnow & Wightman, 23 Cornhill, Boston, Mass.

For hand fire engines, address Rumsey & Co., Seneca Falls, N.Y. T. Shaw's Steam Cauges, Ridge av. & Wood st., Phila., Pa. If you want a perfect motor, buy the Baxter Steam Engine.

drown's Coalyard Quarry & Contractors' Apparatus for hoisting and conveying material by iron cable. W.D. Andrews & Bro.414 Water st., N.Y. Mining, Wrecking, Pumping, Drainage, or language Machin. ery, for sale or rent. See advertisement, Angrew's Patent, inside page.

For Tri-nitroglycerin, insulated wire, exploders, with pamphlet, as used in the Hoosac Tunnel, send to Geo. M. Mowbray, North Adams, Mass.

All kinds of Presses and Dies. Bliss & Williams, successors to Mays & Bliss, 118 to 122 Plymouth St., Brooklyn. Send for Catalogue For Steam Fire Engines, address R. J. Gould, Newark, N. J.

Gresses, Dieg, and Tinners' Pools. Conor & Mays, late where & 9188.41.08 Water st., opposite Fullma Ferry, the player  $\Sigma_{\rm s}\Sigma_{\rm s}$ 

In the Wakefield Earth Closet are combined Health, Cleanliness and Comfort. Send to 36 Dey St., New York, for descriptive pamphlet.

If you want to know all about the Baxter Engine, address Wm. D. Russell, office of the Baxter Steam Engine Co., 18 Park Place, N.Y. T. Shaw's Blast Cauges, Ridge av. & Wood st., Phila., Pa.

Presses, Dies & all cantools. Ferracute MchWks. Bridgeton, N.J. Also 2-Spindle axial Drills, for Castors, Screw and Trunk Pulleys, &c.

The Patna Brand of Page's Patent Lacing is the best. Orders promptly filled by the Page Belting Co., No. 1 Federal St., Boston. Absolutely the best protection against Fire—Babcock Extinguisher. F. W. Farwell, Secretary, 407 Broadway, New York.

For the best Galvanized Iron Cornice Machines in the United States, address Calvin Carr & Co., Cleveland, Ohio.

Tested Machinery Oils—Kelley's Patent Sperm Oil, \$1 gallon; Engine Oil, 75 cts.; Filtered Rock Lubricating Oil, 75 cts. Send for certificates. 116 Maiden Lane, New York.

Kelley's Chemical Metallic Paints, \$1, \$1.50, \$2 per gallon, mixed ready for use. Send for cards of colors, &c., 116 Maiden Lane, N. Y. Kelley's Pat. Petroleum Linseed Oil, 50c.gal., 116 Maiden Lane.

Peck's Patent Drop Press. Milo Peck & Co., New Haven, Ct.

The "Bellis Patent Governor," made by Sinker Davis & Co., of Indianapolis, Ind., is acknowledged to be the most perfect engine regulator now in use.

Persons in want of Portable or Stationary Steam Engines, or Circular Saw Mills combining the latest improvements, should correspond with Sinker Davis & Co., of Indianapolis, Ind.

For 2, 4, 6 & 8 H.P. Engines, address Twiss Bro., New Haven, Ct. Derricks built by R. H. Allen & Co., New York and Brooklyn.

"Anti Lamina" will clean and keep clean Steam Boilers. No injury to iron. Five years' use. J. J. Atlen, Philadelphia, Pa. Williamson's Road Steamer and Steam Plow, with Rubber

Tires. Address D. D. Williamson, 32 Broadway, N. Y., or Sox 1809. For the best Recording Steam and Indicating Gauges, address

The Recording Steam Gauge Co., 91 Liberty Street, New York. For Solid Wrought-from Seams, Stc., see savertissment. Ac dress Union Iron Mills, Pittsburgh. Pa., for lithograph, etc.

Belting as is Belting-Best Philadelphia Oak Tanned. C. W Arny, 361 and 303 Cherry Street, Philadelphia, Pa.

Boyntom's Lightning Saws. The genuine \$500 challenge. Will cut five times as fast as an ax. A 6 foot cross out and buck saw, \$6. E. M. Boynton, 80 Beckman Street, New York, Sole Proprietor,

The Baxter Steam Engine is safe, and pays no extra Insurance. An inducement.-Free Rent for three months to tenants with

good business, in commodious factory just built for encouragement manufacturing. Very light rooms, with steam, gas, and water pipes, Manufacturers' Corporate Association, Westfield, Mass. Plans of Building, Room 22, Twenty One Park Row, N. Y.

To Ascertain where there will be a demand for new Machinery, mechanics, or manuscruters' supplies, see Manufacturing News of United States in Boston Commercial Bulletin. Terms \$4.00 a year.

rable. For description of the above see Scientific American, Nov. 27th 1869. Also, Glazier's Diamonds John Dickinson, 64 Nassau st., N. Y.

T. Shaw's Hydraulic Cauges, Ridge av. & Wood st., Phila, Pa. Better than the Best-Davis' Patent Recording Steam Cauge Simple and Cheap. New York Steam Gauge Co., 46 Cortlandt St., N. Y.

Rights for Sale-Of the only Patent out on Stove Pipe Fitters. Address Wm. Volk, 32 Staats Street, Buffalo, N. Y.

What I know about Machinery, especially Engines, Pumps, and Machinists' Tools, which I sell at 93 Liberty Street, New York. S. N. Hartwell, late agent for L. W. Pond.

The most economical Engine, from 2 to 10 H.P., is the Baxter Over 800 different style Pumps for Tanners, Paper Makers, Fire Purposes, etc. Send for Catalogue. Rumsey & Co., Seneca Falls, N.Y. Alb. Lovie, 729 N. 3rd St., Philadelphia, Pa., Electro Plater.

Partner wanted for an Invention of most importance and profit. Address: A. D., No. 2141 North 4th St., Philadelphia, Pa.

Platina Plating a Specialty.

## Accent American and Loreign Latents.

Urage this heading was shall publish weekly notes of some of the more prominent home and foreign patents.

MEDICAL COMPOUND.-John Frechette, of Chicago, Ill.-This invention furnishes an improved medical compound or tonic bitters for invigorating the system when reduced or weakened by sickness. In preparing the compound are taken one pound of orange peel, three quarters of a pound of calamus, one quarter of a pound of ginger, one quarter of a pound of bayberry bark, and four lemons. These ingredients are ground and put into two rallons of pure spirits, diluted to not less than seventy-five per cent of spirits. The compound is allowed to stand for thirty-six hours in a warm place, and is then reduced to forty per cent of spirits, sweetened to taste with crushed sugar sirup, and filtered. It is then ready for bottling for use or formarket.

VELVET REEL. -- Peder Jürgens, of St. Paul, Minn, -This invention consists of a pair of oval or cylindrical blocks of wood and another block, of square or other form, placed between them, with a wide board attached to each end of the blocks so as to form a reel. On this reel, velvet ribbon is wound by fastening one end to a pin in the central block and whirling the reel on a pivot at the lower side which may be placed on the counter. The reel is whirled by ahandle or key affixed to the upper side, and the pin isso placed in the central block that it will not penetrate the layers of ribbon as they are wound on.

ROTARY PUDDLING FURNACE.-Joseph Davies, of Knoxville, Tenn.-In this invention, the revolving puddling furnace is mounted on rollers and rotated in the ordinary manner: it has a large central opening at one side to eccive the fire from the combustion chamber, to which it is closely fitted, and another opening on the other side discharging into the flue which leads to the chimney. A flat puddling table is placed upon one part of the interior wall of this puddling furnace, with a hole through the side of the cylinder, arranged in such relation to the table as to allow of balling the metal onit in small balls adapted to be worked into blooms in the squeezer at one operation, the same as it is balled in the stationary furnace. A passage through the flue provides for removing the bails.

Dog for Saw Mill.-Denison Chase, of Orange, Mass.-This invention relates to apparatus used in saw mills for holding logsto be sawed. The dog consists of a bed plate fixed to a head block, to which is attached a slotted upright, against which the log rests when partly sawed. In rear of the upright is a stand or round bar which carries the dog proper stand is attached rigidly to the bed plate, and the dog is fitted to it so that it will slide up and down on it. In either direction from the central sleeve of the dog are two arms, each furnished with a claw or flager for entering The dog slides up and down in the slot of the upright, and when not in use is raised above the upright and turned round out of the way.

HYDROSTATIC SAFETY LAMP.—Hampton S. Whitfield, of Tuscaloosa, Ala. -This invention relates to that class of well known lamps where the oil is forced up by another liquid. The body of the lamp consists of an upper reservoir, a lower reservoir, and a connecting neck or partition. The neck has two holes formed through it, one to receive a pipe which extends nearly to the bottom of the lower reservoir, and the other to receive a flattened tube which extends up to the top of the upper reservoir, and which is designed to receive the elongated flattened wick tube attached to an ordinary burner. The lower end of the tube projects a little below the bottom of the neck or partition that separates the upper and lower reservoirs, so that there will always be a stratum of air in the upper part of the lower reservoir which cannot escape, and which keeps the oil from penetrating the partition.

Spring Bed Bottom.-Donald McMurchy, of Jeffersonville, Ind.-This nvention furnishes an improved spring bed bottom, simple in construction. effective in operation, and durable. The posts, siderails, and end rails of the bedstead are as ordinarily constructed. To the inner sides of the end rails are attached bars in which are formed notches or sockets to receive the ends of spring slats. Each spring slat is placed between and connected with two slide slats which should also be elastic. The side slats are made of such a length that when pressed downward their ends come in contact with and rest upon the bars. Various appliances, which cannot be explainedin detail, are added to keep the slats in position. With this construction, should the central spring slats become permanently bent or set they may be removed and reversed, making the bed bottom again as good as new: light weights will be supported by the elasticity of the central slats. but heavy weights will bring the ends of the side slats into contact with the bars, so that the weight will be supported by the elasticity of the three slats, the bed bottom being thus equally easy and elastic, whether supporting light or heavy weights.

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