

Important to Inventors and Patentees.

REDUCTION IN THE COST OF FOREIGN PATENTS.

MESSRS. MUNN & CO. take pleasure in announcing that they have effected arrangements by which the cost of Patents, in all Foreign Countries, for American Inventions is Greatly Reduced, and they are now ready to receive applications for such patents at the annexed rates, which include both Government and Agency fees for all ordinary cases.

Some applications may require a number of drawings, and a specification of unusual length, for which an additional charge will be made. But the annexed very low prices will be adhered to, except in special cases, when the inventor will be notified of any additional cost before any expense is incurred.

CANADA.

The expense of applying for a Canadian Patent is reduced to \$50, currency.

A *Canadian Patent* is granted for 15 years, divided, if the applicant desires, into three terms of five years each. The expense of applying for the 5 year patent is \$50. Model and drawings required as in this country. American inventions already patented here can be patented in Canada if the application is filed within the one year from the date of the American patent. Caveats can be filed in Canada. Expenses, \$25 in full. Send for pamphlet giving all particulars.

ENGLAND.

The expense of applying for an English Patent, which covers England, Scotland, Wales, Ireland, and the Channel Islands, is \$75, currency, payable in advance, and an additional fee of \$175, payable within 3½ months, to complete the patent. Certain government taxes are required after 3 years. Patents granted to the first person who files in the complete specification and pays the fees, whether he is the original inventor or merely the introducer. For full particulars, send for pamphlet.

FRANCE.

The expense of applying for a French Patent is reduced to \$100, currency, payable \$75 on making the application, and \$25 on arrival of the Patent. A small annual tax is required after the first year. For amount of this tax and particulars about working the patent, see pamphlet. Sent free.

BELGIUM.

The cost of a Belgian Patent, and the conditions, are substantially the same as in France. For full particulars send for pamphlet.

GERMANY AND AUSTRIA.

The expense of applying for Patents in Germany and Austria is \$100 each, payable in advance. Send for pamphlet giving details.

MUNN & CO. obtain patents also in NORWAY, SWEDEN, RUSSIA, SPAIN, PORTUGAL, ITALY, all the British Australian Colonies, including VICTORIA, NEW SOUTH WALES, TASMANIA, QUEENSLAND, NEW ZEALAND, and BRITISH INDIA, on the most favorable terms, and at reduced rates from former charges.

GENERAL REMARKS.

No models required in any of the Foreign Countries except Canada; and sometimes in Prussia, the officials require a model when in doubt about the novelty of the invention, but it is seldom that one is demanded, and never till the application is secure.

All persons who desire to take out Foreign Patents are requested to communicate with the undersigned. They may depend that their cases will secure prompt and careful attention. We have had an experience of nearly *Thirty years* in the business of soliciting American and Foreign Patents; and as is well known, a very large proportion of all patents obtained by American citizens, both in this country and in foreign lands, are solicited through the Scientific American Patent Agency.

To secure a foreign patent, all that is necessary is to write to the undersigned, transmitting the fees and a copy of specifications and drawings. We can then at once proceed. The personal presence of the applicant is not necessary.

A pamphlet, giving full detailed information regarding each country, sent free. Address, MUNN & CO.,

Office of the SCIENTIFIC AMERICAN, New York.

Recent American and Foreign Patents.

Improved Horse Boot.

John B. Hall, St. Paul, Minn.—This invention relates to boots or wrappers for horses' feet, to aid in the cure of diseased feet, and consists in a boot or wrapper applied to the foot, having attached thereto a spring plate to press against sponge on the frog.

Improved Wrench.

Richard J. Welles, St. Joseph, Mo.—The handle is threaded and movable on a screw shank so as to form an adjustable jam nut to the revolving nut, through which the sliding jaw is moved.

Improved Corset.

Daniel H. Horne, New York city.—This corset has bosom-supporting cups of suitable wire gauze, which are connected by sockets with the stays. As the air passes readily through the wire gauze, the corsets are cool and healthy.

Improved Wagon Spring.

Lucien B. Devendorf, Utica, N. Y.—This spring is so constructed as to prevent the box from tipping when getting into and out of the wagon, and which may also serve as a reach in skeleton wagons. The springs are inclined or curved upward from the ends toward the middle, and bent inward so that their middle parts cross each other.

Improved Magazine Fire Arm.

Emil A. F. Toepperwein, Boerne, Tex.—This improved repeating fire arm is contrived with a sliding breech block, which is drawn back by a crank on the right hand side of the gun, connected with a pair of toggle levers, pivoted, respectively, to the breech closer and the breech frames. There is a cartridge lifter below the block, which is thrown up to present the cartridge to the barrel by an arm of the block just before it comes to rest in the backward movement. The shell is partly expelled by stops, against which the lower edge strikes at about the same time, and the new cartridge finishes the work, and it is held in position by a spring, when the lifter drops back, till the breech block pushes it in the barrel. The cartridges are put into the magazine through the opening made by sliding the breech block back, the block being moved not quite far enough to throw up the lifter.

Improved Tripod for Rock Drills.

Joseph C. Githens, New York city.—This is a tripod and clamp for holding the shield, in which the steam cylinder of a steam rock drill moves up and down. It is so constructed as to hold the cylinder securely while the drill is being used, and to enable the drill to be adjusted to work at any desired level and at any desired angle.

Improved Escapement for Watches.

Edouard Bourquin, La Heutte, Switzerland.—This invention is an improvement in the escapement whereby one pallet is made to serve the purpose of the two commonly used, and so arranged that it works with less friction, and is more certain in its action. There are two rows of reversely inclined teeth on the side of the scape-wheel, in combination of a single pallet in the lever. The teeth are arranged to receive and lock the pallet by their points, and give the impulse by their inclines.

Improved Plane Guide.

Walter S. Shippe, Minerva, O.—This invention improves the plane guide for which a patent has been granted to the same inventor under date of January 6, 1874, so that it will work more steadily and accurately, and be readily set to any desired angle. The invention consists, mainly, of a recessed handle extension of the yoke part in connection with a slotted arc piece of the guide strip-connecting plate, the arc piece being pivoted to the yoke and set by a clamp screw thereto. A wire key with bent end is inserted into a hole of the guide strip for being readily available for turning the clamping screw nuts.

Improved Crozing and Leveling Tool.

Samuel S. Steel, of Martin, and George W. Reel, of Woodville Ohio.—The stock of the lever or plane, which is made of segmental form, has a projection on its inner or concave edge, to which the crozing tool is attached by means of studs. The crozing plate has a projection to which the crozing cutter is attached. In using the tool, the thumb is placed on a piece, and spring pins are pressed through the stock, so that their ends bear upon the inner surface of the stave ends, and thereby prevent the crozing bit from cutting while the barrel is being leveled.

Improved Machine for Bending Wire Frames of Bottle Stoppers.

Charles de Quillfeldt, New York city.—This invention relates to a machine for bending rapidly and accurately the wire parts of bottle stoppers, being mainly designed to manufacture the wire lever frame and yoke of the bottle stopper, for which a patent has been granted to the same inventor under date of January 5, 1875. The invention consists of different mechanisms, to which the wire blanks are fed for being bent in consecutive order into the required shape, one wire lever frame or yoke being turned out at each revolution of the driving shaft.

Improved Combination Lock.

Alfred E. Peters, Moncton, Canada.—This invention consists of a spring-acted roller with interchangeable pins, that are acted upon by spring bars depressed by a pin inserted through perforations of the face plate. The springs are engaged by a sliding and toothed spring bar that releases the preceding spring, and secures thereby the return of the spring-acted roller, except when the correct combination is set in regular succession, which prevents the return of the roller and allows the throwing of the bolt.

Improved Colliery Plant.

Rufus A. Wilder, Cressona, Pa.—The coal is dumped into the chutes above the platform. When it is covered with dirt from the mines it is washed, by means of the attached hose, with water under pressure. The fine parts unfit for use, as well as the water, run off below the platform. In this state, the men employed on the platform to assort the coal can easily distinguish the pure from the impure, and cast the latter upon the conveyer, to the rear of the platform, which carries it to the dirt wagons or elevators for that purpose, while the former is separated, if desired, and the lump and such sizes as it is not desired to break are thrown upon the side conveyer, which takes it directly to the loading chutes, while the rest is thrown upon the conveyers in front of the platform and moved to the breakers. Over the breaker is a slotted pipe, which throws a thin stream of water into the breaker, to lay the dust produced by breaking the coal. As the coal falls from the breaker upon the next conveyer, which delivers it to the elevator, it is struck by a forcible stream of water, steam, or compressed air from the pipe under the breaker, to assist in spreading the coal over the surface of the conveyer, and partially separate it from the slate. Along each side of the conveyer, boys or men are seated to pick out impurities. At the end of the conveyer there is a thin opening under a separating plate, to take out small, thin pieces of slate not observed by the pickers, while the revolving rakes assist in moving the coal over this plate to the buckets of the elevator, which take the coal to the head of the chutes. A movable conveyer at the head of the elevator is used to convey and separate the coal, as conveyed from the main chutes to any number of platforms placed parallel to the tracks of the railroad.

Improved Journal Box.

John Schellkopf, Tidioute, Pa.—The object of this invention is to provide a simple form of adjustable journal box; and it consists in a journal box provided with diametrically opposite pivots, in combination with holders upon each side, one of which is provided with a socket or depression which receives and supports one of the pivots of the journal box, and the other of which holders is provided with an elongated depression or mortise, which receives the other pivot of the journal box; by means of which construction the said journal box is free to adjust itself upon its pivots as an axis, and has also an adjustment at right angles thereto, equal to the length of the mortise.

Combined Wheat Drill, Corn Planter, and Roller.

Samuel Brown, Lebanon, Mo.—The invention relates chiefly to hinging the frame that carries the hoppers, to the main frame, in which the revolving roller has its bearings, and providing the roller with cams which operate the seed slides through the medium of levers pivoted to the hinged frame.

Improved Heel for Boots and Shoes.

Robert Vint, Brooklyn, N. Y.—The outer surface of a casing forms an exact extension of the heel portion, while the inner is tapering toward the lower edge to form a rim that guides a conically tapering heel plate of rubber that is attached to cushioning band springs securely attached to the casing. A recess in the stiffening plate may also be used to secure the skates. The heel plate fits exactly into the tapering casing, and has shoulders which serve to form contact with the interior of the casing and give a perfectly level position to the heel plate when depressed by the foot. The under side of the heel plate is made grooved or channeled. When the heel plate is pressed up far enough to be within the extremity of the heel casing, the rim of the same is brought into use, and thereby the wearing out of the heel plate retarded.

Improved Cultivator.

Martin McNitt, Mound Station, Ill.—This invention is an improvement in the class of cultivators whose teeth are attached to pivoted bars, whereby their pitch may be adjusted at will. The improvement relates to the arrangement of the pivoted handles of the implement to act as pawls in conjunction with the ratchet bars, by which the rack bars are adjusted and held in any position.

Improved Cartridge Case for Blasting.

Paul A. Oliver, Wilkesbarre, Pa.—The invention consists of a cartridge shell provided with one or more tubular sections that telescope therein, for adjustment to the requisite length.

Improved Mining Machine.

J. J. Weirrel, Allegheny Township, Pa.—The invention relates to means whereby a coal drill may be conveniently adjusted and operated in the mine, and consists in novel combinations by which a person can drill more closely to, and more nearly with the walls of the mine, thus leaving nothing to be trimmed with the pick.

Improved Baling Press.

Christopher C. Campbell, East Chatham, N. Y.—This invention relates to certain improvements in perpetual baling presses, or presses in which the platen and follower are successively interchangeable, and the operations of pressing and tying are both conducted at the same time, the compressed bale being held in position for being tied, while the box is being filled and the succeeding bale pressed. It consists in the peculiar construction and arrangement of the stop devices for holding and retaining the follower in the rear of the bale, which has been forced into the slotted portion of the box ready for tying, so as to admit of the filling of the box in the rear for a new bale.

Improved Centrifugal Water Wheel.

J. H. Meacham, Petersburg, Va.—The invention relates to turbine wheels adapted to be run by the vertical or centrifugal action of a liquid, and consists in a wheel of conical form, with curved grooves running from apex to periphery of base.

Improved Hat-Brushing Machine.

Simon P. Siver and George H. Swords, Fishkill Landing, N. Y.—This consists of a conical hat-carrying roller and a conical revolving brush, arranged side by side to brush the hat between them, and contrived so that the brush can be swung away from the roller and back again readily, to facilitate the adjusting of the hat body.

Improved Balance Valve.

John F. Allen, New York city, assignor to George T. Hope, Bay Ridge, N. Y., and Charles T. Porter, New York city.—This valve is balanced so that it can be adjusted to any pressure at any time without opening the steam chest. It will lift when a locomotive engine is running after the steam has been shut off, and prevent the piston from pumping air into the boiler by allowing the air to escape from the front to the rear of the piston under the valve. It also acts as a relief valve to the engine in case the cylinder is filled with water.

Automatic Bale-Rolling Attachment for Compressors.

Henry Riesel, Galveston, Tex.—This device is designed especially for attachment to the press known as Tyler's cotton compress, but is applicable to other presses, for rolling the bale, when compressed and bound, from the press to the floor. It consists in a bar provided with two or more forwardly projecting prongs upon its upper end, the spring latch, and the inclined bar, in combination with the follower and the base of the press. When the follower is down in the position to receive the bale, the prongs of the bar rest in the grooves of the said follower, and the bale, when placed upon the follower, rests upon them. After the follower has been raised, the bale compressed, and its bands secured, it is again lowered. As the follower descends, the lower end of the bar strikes against the latch, which stops the said bar, and causes the prongs of said bar to rise against the rear part of the lower side of the bale, and roll or tumble it off the follower. As the follower continues to descend, an inclined bar strikes the latch and pushes it back from beneath the bar, allowing the said bar to drop into place, and the machine is ready to receive another bale.

Improved Sinker for Fishing Lines.

Edward Pitcher, Brooklyn, N. Y.—This sinker is cast with looped wires at each end. The inner extremities of the wires concealed in the body of the sinker are swiveled therein.

Improved Farm Fence.

Joseph E. Winters, Finca, Ohio.—This invention consists of posts which are set by feet, legs, or spikes, on a rock or block, and connected by slats in zigzag or worm shape, for supporting a light straight paling running intermediately between the posts placed in the front and rear of the same.

Improved Roller Bearing for Speeders, etc.

Samuel Dyer, Natick, R. I.—A bearing plate and a screw are used to attach and support the bearing, the said plate and the bearing being screwed on to a lug under a cup. The removable bearing plate is introduced, so that when worn, it can be easily and cheaply replaced.

Improved Clip for Fellys and Tires.

Robert Ray, Carrollton, Miss.—This invention consists of a metal clip to wrap around the joints of the felly of a wheel for splicing and holding it, and having flanges to clip the edges of the tire and hold the tire on the felly without bolts or screws.

Improved Heater.

Miffin W. Baily, Pottstown, Pa., assignor to himself and R. J. Baldwin, of same place.—A valve in the hot air passage is so balanced that when the registers in the room to be heated are closed, and but little air is passing up through the opening from the furnace on which the valve is seated, the valve will fall and close the register and open an air inlet above the fire, thus checking the same; but when more air passes by the increased draft caused by more open registers, the increased pressure on the valve will lift it and close a damper, and open an air inlet to increase the fire accordingly, thus automatically regulating the fire by the hot air delivered into the rooms.

Improved Machine for Cutting Roll Paper.

Louis P. Cohen and Ignatz Frank, New York city, N. Y.—This is an improved machine for cutting rolls of any width directly from the roll papers, for telegraph rolls and other purposes; and it consists mainly of movable roll-clamping standards provided with one or more revolving ring-shaped heads carrying the cutting knives that are fed forward simultaneously by suitable mechanisms.