

POWDER FLASK.—Andrew Diezel, Omaha, Neb.—This invention relates to a new and useful improvement in a self charging apparatus to be applied to powder flasks, and used for similar purposes; and it consists in the construction and arrangement of parts by which to accurately measure the powder and charge the gun by simply pressing the flask into the muzzle and withdrawing it, two motions only being necessary.

LATHE CHUCK.—Charles E. Albro, Fulton, N. Y.—Ashank enters the spindle of the lathe by which the chuck is revolved. Upon this shank is formed a chuck bar. Two movable jaws are supported and moved by screws, having each a right hand thread on one end and a left hand thread on the other, and passing through the chuck bar. These screw threads engage with corresponding threads cut in the jaws. Each screw has a cog wheel upon it, and an intervening wheel, by which the motion is conveyed from one screw to the other; but the intervening wheel may be dispensed with, if desired, and the two wheels be made to engage directly with each other, or be used independently of each other. These gear wheels work in a slot or mortise in the chuck bar. By this arrangement the screws have no longitudinal movement, and, by virtue of the right and left hand threads in the jaws, the rotation of the screws will carry the jaws toward or from the center, according as the screws are turned, thus bringing a drill or other tool or article to a true center by simply turning a wrench on either of the ends of the screws. In the ends of each of the jaws there is a V shaped recess for receiving the shank of a drill or other tool, a screw tap or nut, a bolt for cutting screw threads, or articles for being drilled, bored, or turned by stationary drills or turning tools. The main object in using two screws is to move the jaws parallel with each other to and from the center. A single screw with the right and left hand threads will move the jaws, and some device other than the second screw and the gearing may be employed for keeping the jaws parallel.

BALS TIE.—John Spraguen Davis, Louisville, Ky.—The body of this tie consists of two short curved side bars connected at their ends by two cross bars. The inner edges of the middle parts of the side bars project inward to form lips, which, in connection with the side bars, form seats for keys. The outer sides of the keys have an edge or acute angle formed upon them to fit into the seat formed for them between the side bars and the lips of the end bars. The ties are applied by bending the ends of the bale bands into loops which are passed down through the tie, and through which the keys are passed. When strain comes upon the band the curvature of the side bars forces the keys close against the lips of the end or cross bars, clamping the ends of the bands between the said keys and lips with a force proportioned to the strain upon the bands. The rounded form of the keys prevents the ends of the bands from being bent so sharply as to make said bands liable to break under the action of cold or when bent cold.

ANIMAL GAG.—W. H. Harrison Hallock, Mattituck, N. Y.—A ring, of metal or other suitable material, is of sufficient size to permit the arm of the attendant to pass through after the ring has been inserted in an animal's mouth for the purpose of administering medicine or extracting any substance which may be lodged in the animal's throat. Projecting from the sides of the ring are two ears, and pivoted to the latter is a curved cross bar provided with a handle. The said cross bar is also provided with an aperture at one end, which permits it to pass over the extremity of one of the ears, upon which is a screw thread, the cross bar being held upon the ear by a nut, as shown. The opposite end of the cross bar is flattened and fits within a slot in the other ear, being secured therein by a screw pivot, which passes through the ear and through the cross bar. When it is desired to change the space between the ring and cross bar the pivot is removed, and the bar moved in the slot until the pivot can be passed through another aperture in the ear. This adjustability of the cross bar adapts the instrument to the varying sizes of the jaws of different animals. In some cases, when the animal is unruly or vicious, and it is desirable to hold the head of the animal firmly to prevent lateral movement thereof, adjustable side bearers are pivoted at their lower ends to the ears. The bearers press on the sides of the animal's mouth. The various parts of the instrument that come in contact with the animal's mouth are to be covered with rubber, or other suitable material, to protect the animal from injury.

PRIVY SEAT COVER.—William Street, New York city.—This invention has for its object to improve the construction of privy seat covers, so that, when open, they may have the upper side of the seat cover turned forward, so that any dampness or frost that may collect upon the lower side of said seat cover may be turned away from the person using the seat; and it consists in the construction and combination of the various parts of the seat cover. By this construction, when the covers are turned back, they are raised and moved back, their rear edges being raised the highest, so that they will take a position with their upper sides forward, the lower or damp side of the cover being thus turned back.

REVOLVING FLOWER STAND.—Thomas Leslie, Brooklyn, N. Y.—The object of this invention is to furnish a convenient apparatus for supporting flower pots and watering the same, and which may be used for various other purposes. The pots are sustained on limbs from a revolving column, which revolving brings the pot under a rose sprinkler, the water flowing from a suitable reservoir. Cups in which the pots stand collect the surplus water, and it is conducted through the hollow limbs or branches into a suitable reservoir. The apparatus is modified in various ways that do not affect the general plan.

FIRE ALARM.—Henry L. Brower, New York city.—The present invention is designed to render more useful a fire alarm for which letters patent were granted November 15, 1870; and for this purpose an alarm movement, connected with a delicately constructed thermostat and mechanism, is placed on each floor of the building (preferably in the halls of the different stories), and connected together by this apparatus now devised, so that when, by reason of the raising of the temperature from a fire in any one hall or story, the alarm will be given in each hall at one and the same time. To accomplish this the inventor employs an alarm movement and thermostat spring, with a dial plate and finger, which may be adjusted to indicate any degree of temperature, which will enable the spring to liberate the movement and give the alarm. With this alarm on each floor of a dwelling, arranged as described, a fire cannot occur on any floor, or get under way sufficiently to raise the temperature of the atmosphere two or three degrees without notice to the inmates throughout the house, thus allowing them time to make their escape, if not to extinguish the fire.

SAWING MACHINE.—James Anthony Elston, Elston Station, Mo.—The principal feature of this invention, is the attachment, to a reciprocating saw, of a jointed saw frame, of horseshoe form, to either arm of which the saw may be attached, the two arms being connected at the extremities by a vertical arc bar, the whole being designed to adapt the saw for cutting large or small timber. Also, a frame or table, combined with wheels and braces, arranged on the outside of the table, to give it firm support, constitutes a part of the invention. By means of the horse shoe formed jointed saw frame, the machine may be used for cutting down trees as well as for cutting logs.

PRINTING PRESS.—Robert J. Coons, Greensburg, Pa.—We would be glad to give our readers some idea of the details of this invention, but it is of such a nature that it would be useless to attempt it in such a notice. The press is designed for job work, and is undoubtedly a good one. It is very compact, entirely automatic in its performance, and its parts are such as will enable it to be made in a strong and substantial manner.

PERMUTATION LOCK.—Daniel L. Tower, of New York city.—This appears to be a substantial and reliable lock, capable of a great variety of combinations, through the agency of devices which cannot be described without diagrams. Lockmakers will be able, however, to refer it to its proper class by the enumeration of its parts, which are a jointed bolt, rack bar, two pinions, a bar having an arm and finger attached, a disk with a cam groove, a grooved disk shaft, and a spring staple, together with other parts upon which no claim is based.

ALARM LOCK.—Jackson T. Taylor, Newnan, Ga.—This is an improvement in door locks, whereby an alarm bell is struck whenever burglars attempt to unlock it. The hammers which strike the bell are worked by spring levers, and the lock is permutable, so that it can be set upon a great variety of combinations. Provision is made for unlocking the lock in the dark, by the sounding of the bell, which indicates when the knob has been turned properly in either direction to correspond with the combination, the strokes of the bell being counted by the operator.

CASTER FOR SEWING MACHINE.—George K. Proctor, Salem, Mass.—This is an application of casters to the legs or frames of sewing machines, tables, stands, and the like, by means of levers, in such a manner that by pushing a lever downward by the foot, the support of the table or machine will be quickly shifted from the feet or legs to the casters to admit of moving the said machine or table about the room readily. The invention consists in the arrangement of these levers, the largest being pivoted to one of the end frames, carrying a fulcrum caster, and journaled at the other end in the two shorter levers, which are placed or pivoted perpendicular thereto. When the foot piece is so forced down, it springs under a catch, which holds it until disconnected by hand to lift the casters off the floor and let the table down upon its legs again.

HARVESTER.—Harry H. Bridenthall, Jr., New Derry, Pa.—This invention has for its object to improve the construction of harvesters and mowers, so as to make them more convenient in use and more effective in operation, causing the cut grain to be deposited in gavels at such a distance from the standing grain as to be out of the way of the machine in its next round. It consists in the construction and combination of various parts, to explain which diagrams would be necessary, but which are well adapted to accomplish the end sought.

DEVICE FOR CUTTING STENCIL PLATES.—This stencil cutter is made of brass or other suitable material, cast of rectangular or other form and suitable size. The cutter is made of cast steel, and so formed as to produce the aperture for the desired letter or mark when applied to the material to be cut. The cutter is affixed to the plate by fitting its upper part into the mold wherein the plate is cast, so that eventually the two will be firmly united by casting. In this manner the cutter is cheaply made of best material, it being unnecessary and too expensive to use steel for the body, while the blade must be made of the hard substance. From the plate projects a tenon of cylindrical or other form, into a corresponding socket of the handle. Within the handle is, at the side of the socket, a clamping spring, which serves to retain the block in place. The block is also perforated over each mark or letter, in order to facilitate the removal of the cut out pieces. In using the cutter the block is secured in the handle, placed upon the article to be cut, and forced down by a hammer blow. The next cutter to be used is then readily substituted in the handle for the first, placed in position, and applied by hammering. The cutting blades for every set of type are of equal length and height, in order to produce uniform letters. The width of the several blocks is preferably such that, when the material is ruled into equal spaces and one block applied to the middle of each space, the letters will all be equally far apart. Mr. Henry Bolthoff, of Central City, Colorado Territory, is the inventor of this improvement.

SPIKE EXTRACTOR.—William H. Ives, of Luzerne, N. Y.—The ordinary spike drawing claw bar has a round heel, which serves for the fulcrum when the head of the spike is low down; but, after the spike has been drawn a short distance, the bar has to be mounted on a stick, stone, or other object to make it high enough, sometimes having to be blocked two or more times. This is very objectionable, as the blocks are not always at hand, unless carried for the purpose, and they are apt to slip away, and difficult to manage. The inventor therefore applies an adjustable block to the said bar, having two or more points or heels, which may be employed to support the end, having the claws at different heights, said block being made adjustable to bring the lower heel under the heel of the claw bar, and the height of the two together, or move it away to use the heel of the claw bar alone; also, to move the upper heel towards or from the claws, as may be found desirable. The adjustable block has an aperture shaped to correspond with the form of bar, but slightly larger, so as to allow it to slide freely thereon, by its own gravity, when the bar is placed in a vertical position. A set screw may be employed to prevent the fulcrum block from being dropped off the bar when the tool is not in use.

BALING PRESS.—Thomas E. Marable, Petersburg, Va.—This invention relates to a baling press in which the followers are pivoted to their beams in such a manner that, when the side doors are opened and the follows brought opposite them, the followers may be turned crosswise of the press so as to cause the ends of the bale to protrude at either side, thus enabling the bale to be capped at the ends before running it from the press. The invention also relates to a novel form of ratchet for turning the screws that work the followers.

HORSE COLLAR FASTENING.—Caleb Wheeler, Warsaw, Ohio.—This invention relates to a pair of folding curved metal plates, hinged at their ends to the extremities of a collar open at the top, the upper of said plates having one or more transverse slots, and the lower plate being provided with lugs, springing from its upper side, which enter one of the aforesaid slots when both plates are folded down, thus fastening the two branches of the collar together: said lower plate being also provided with a double spring plate which both assists in raising the upper plate when released from the lower, and also eases the downward pressure of the hames on the horse's neck.

PRINTING PRESS.—John B. Adt, Baltimore, Md.—This invention consists in the means of making the cylinder of a printing press adjustable, so that it may follow the flattened surface in the periphery of the revolving drum to which the form of type, or the stone in lithographic printing, is attached, and produce an uniform pressure thereupon.

BROOM NEEDLE.—Collin M. Cowardin, Gardner Station, Tenn.—The needle may be of any approved size or form. The eye is formed near the center of the needle lengthwise. It passes through the needle from one side obliquely toward the heel, and has a socket or cavity surrounding it large enough to receive and hold a knob that does not project above the surface. A groove on the other side leads from the eye to the heel, to receive the thread while the remainder of the needle is passing through the stock, to protect it from wear and avoid the friction that occurs when the thread lies on the surface of the needle from the eye to the heel.

HOOF PAREE.—Isaac Baker, of Long Branch, Mo.—This invention has for its object to furnish an improved instrument for paring horses' hoofs preparatory to setting shoes, simple and convenient in use, enabling the hoof to be pared quickly and accurately. In using the instrument it is applied to the hoof with the clawed bar downward, and the instrument and hoof are both held with the left hand while the blade is operated with the right hand. By placing the instrument upon the front side of the hoof, the frog may be conveniently pared or trimmed. The knife is so arranged that the forward part or toe of the hoof may be pared easier than the rear part or heel, thus enabling the hoof to be pared level and as it should be for properly shoeing a horse, the main art in horse shoeing being to let the heel stand, pare down the toe, and leave the bottom of the hoof level.

HORSE POWER.—Starns S. Ammons, of Winona, Miss.—In this invention the power of the levers is applied through draft rods and push rods. A spring bar equalizes the power applied in this manner to the wheel. The power is applied directly to the wheel instead of to the shaft in the usual manner. The consequence is that the apparatus is much more strong and durable than it would otherwise be, and the wring and twist on the shaft is avoided, as well as the springing of the arms of the wheel. In applying the power to the shaft in the ordinary way, the inventor claims that a large percentage of the force applied is absorbed in keeping the arms sprung to the required tension to convey the necessary power from the wheel. By his arrangement, he claims, this difficulty is obviated and a large amount of power is saved.

HARROW.—James Wigle, of West Point, Ill.—This invention relates to improvement in the class of harrows composed of sections hinged together in such a manner as to operate more or less independently of each other. The improvement consists in the construction and arrangement of a device for coupling the several harrows, whereby each harrow may rise and fall to accommodate itself to variations or undulations in the surface of the ground entirely independent of the others—that is, without affecting the position or operation of them.

SLATE FRAME.—Henry M. Clay, of Easton, Pa.—This invention consists in a new way of constructing corner pieces for slate frames. The slate frame is grooved on both sides and provided with loops for the purpose of receiving pencils. Elastic corner pieces, made of annular form, with central holes and with projecting wings, are secured against the edges of the frame by glue or in any suitable manner. The advantage of these corner pieces is that they may be firmly applied to the frame and can be hung upon a hook or nail. They may be strengthened by springs imbedded therein.

WELL AUGER.—Hillery R. King, of Poplar Bluff, Ark.—This is a hollow auger for boring in the earth. It consists in providing the lower or cutting end of an auger with a short web or a section of a spiral flange in addition to the continuous spiral, whereby clogging is prevented and a suitable support for two cutters is formed.

CULTIVATOR.—Philip R. Jenkins, of Cottonville, Iowa.—This invention has for its object to furnish an improved cultivator, which shall be so constructed that it may be easily adjusted for use as a riding or walking cultivator, as may be desired. It consists in the construction and combination of various mechanical devices (which cannot be explained in a mere verbal description) forming a light, durable, and evidently effective machine.

HARNESS.—Jonas C. Spooner, of Houlton, Me.—This is a new and useful improvement in breast yoke attachment for harness, which holds the tongue steady while passing over rough ground. To the ends of the breast yoke are attached rings to receive the straps that connect it with the hames or breast collar of the harness. The martingale is passed around and secured to the middle of the breast yoke. To the middle of the breast yoke is also attached a snap ring or hook, which is sprung into the ring attached to the end of the neck or pole yoke; or, if desired, the snap hook may be attached to the end of the pole yoke and snapped into a ring attached to the breast yoke. By this device the tongue will be held steady, even when passing over rough ground, and it will give the horses much better control over the carriage than when they are connected with the tongue in the ordinary manner.

MUSIC LEAF TURNER.—George C. A. Class, of Chicago, Ill.—The object of this invention is to provide a simple and effective attachment to pianos, music desks, and instruments, whereby the leaves of music can be easily turned to either side by a slight treadle motion. The invention consists in a new arrangement of vibrating levers or arms, which are, by cords connected with the treadles, and provided with elastic end pieces for taking hold of and turning the paper by friction, and also consists in the use of a new self adjusting paper holder. The apparatus can be applied to pianos organs, music and reading desks, and similar devices.

ROCK DRILL.—John Chapman, Amsterdam, N. Y.—This invention relates to a new machine for revolving and striking the shank of a rock drill, with the object of obtaining an equal amount of effective power to a suitable depth. It consists in the improvement of mechanism for elevating the shaft of a rock drill. The upper portion of the drill shaft, made prismatic, is fitted loose through a disk and cog wheel. The latter receives rotary motion by another toothed wheel from the driving shaft. By this shaft the drill shaft is constantly rotated. From the face of the disk project ears which support pivoted pawls. These pawls have friction rollers at their outer ends, while their inner ends are pointed. The friction rollers rest on a circular stationary track, and revolve thereon around the axis of the shaft, as the disk is being revolved by the same. Above the rollers is suspended from a plate another ring or track, of about the same diameter as that first mentioned. In this track are two pendent cams, and the first named track carries two projecting cams. Whenever the rollers are in contact with the edges of the cams, the outer ends of the pawls are depressed, and their inner ends raised against shoulders of the drill shaft. The latter is thereby slightly elevated, so as to clear the drill from the rock, and then, as the rollers are in contact with the cams, dropped again, having been turned while thus elevated. In this manner the changes of position are effected without undue friction of machinery. The strokes are imparted to the drill shaft by means of a weight, and are subsequent to every slight elevation or the same by pawls, and rather independent of the same; that is to say, the drill shaft is loosened by being slightly raised and lowered, and is then struck by the drop. The machine can be used to drill to a suitable depth by attaching sections to the lower end of the drill shaft, as may be found necessary.

Official List of Patents.

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FOR THE WEEK ENDING OCTOBER 31, 1871.

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- 120,361.—FURNACE, ETC.—E. R. Austin, Norwalk, Conn.
- 120,362.—ATTACHING KNOBS.—M. W. Barse, Olean, N. Y.
- 120,363.—BOTTLE FASTENING.—W. S. M. Beal, Baltimore, Md.
- 120,364.—DRAWING STAND.—W. Bell, Buffalo, N. Y.
- 120,365.—HAY ELEVATOR.—J. Bolles, Jackson, Ohio.
- 120,366.—GOVERNOR.—C. P. Bowen, Silver City, Idaho Ter.
- 120,367.—EARTH CLOSET.—W. J. Bradshaw, Cleveland, Ohio.
- 120,368.—COMPOSITION.—G. L. Burnham, Providence, R. I.
- 120,369.—ARTIFICIAL STONE.—I. Coleman, New York city.
- 120,370.—WARDROBE.—A. Davis, Reno, Nev.
- 120,371.—CANAL BOAT.—N. T. Edson, New Orleans, La.
- 120,372.—SHAFT COUPLING.—J. Eisele, Philadelphia, Pa.
- 120,373.—WASHER.—F. A. Farley, Pine Meadow, Conn.
- 120,374.—BEDSTEAD.—W. Farson, Philadelphia, Pa.
- 120,375.—ANIMAL TRAP.—H. S. Frost, Watertown, Conn.
- 120,376.—REGULATOR.—W. L. Gebby, New Richland, Ohio.
- 120,377.—PRINTING PRESS.—G. P. Gordon, Rahway, N. J.
- 120,378.—LIME KILN.—M. Groh, J. V. Weitz, Cleveland, Ohio.
- 120,379.—MOTOR.—P. Guzman, Paris, France.
- 120,380.—UTILIZING WASTE.—D. W. Hanna, Pittsburgh, Pa.
- 120,381.—WHITE SOCKET.—J. Heberling, Mt. Pleasant, Ohio.
- 120,382.—CHAIR.—L. Heywood, Gardiner, Mass.
- 120,383.—LAMP BURNER.—T. Hipwell, Camden, N. J.
- 120,384.—PLOW.—J. M. Huie, E. Card, San Francisco, Cal.
- 120,385.—PENDULUM.—H. B. James, Trenton, N. J.
- 120,386.—SNAP HOOK.—E. M. Kinne, Cuba, N. Y.
- 120,387.—PITCHER.—G. Ph. Lang, P. Lauster, Allegheny City, Pa.
- 120,388.—GUN LOCK.—T. J. Massie, Arrington, Va.
- 120,389.—REIN HOLDER.—C. A. Messenger, Syracuse, N. Y.
- 120,390.—LATHER BRUSH.—W. H. Miles, Jr., New York city.
- 120,392.—MADDER.—A. Paraf, New York city.
- 120,393.—MADDER.—A. Paraf, New York city.
- 120,394.—DOUGH BOARD.—N. B. Petterson, McGregor, Iowa.
- 120,395.—FIRE ALARM, ETC.—W. J. Philips, Philadelphia, Pa.
- 120,396.—LOCK.—O. E. Pillard, New Britain, Conn.
- 120,397.—COMPOSITION.—J. B. Rand, Concord, N. H.
- 120,398.—TYPE SETTER, ETC.—D. B. Ray, New York city.