

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING March 8, 1870.

Reported Officially for the Scientific American.

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Table listing various patent fees such as 'On filing a caveat', 'On the first application for a Patent', etc., with corresponding dollar amounts.

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- 100,487.—BARBER'S CHAIR.—Anthony Abel (assignor to himself and Adam Schwab), New York city.
100,488.—TIRE-UPSETTING MACHINE.—P. J. Ayres, Lydon, N. Y.
100,489.—FAUCET.—F. M. Bachman and Samuel Ricker, Fredericksburg, Pa.
... (many more entries) ...

is prepared for drawing down by composing the upper or inner side of the bar of any good quality and any required thickness of homogeneous iron, to give strength and to admit punching of the nail holes of horseshoes. For the lower or entire portion of the bar a hard quality of iron is used, to render horseshoes more durable.

FAN BLOWER.—Patrick Clark and J. R. Shotwell, Rahway, N. J.—This invention is fully described and illustrated in another column of this issue. JOINT FOR RAILROAD RAIL.—Joseph Adams, Fairhaven, Vt.—In the neck of the ordinary T-rail a tongued or grooved joint is formed, and this joint extends entirely through the neck.

ESCAPE VALVE FOR STEAM BOILERS.—Jas. C. Cochrane, Rochester, N. Y.—This invention consists of a hollow metal cylinder, with a valve seat in the head thereof, communicating with a tube extending to the bottom of the boiler. A valve is placed in this cylinder, and consists of a metal spindle and piston—preferably made hollow—and on the spindle above the piston is a projecting bulb or cone.

LEVER ESCAPEMENT FOR WATCHES.—Julius Hietel, John W. Hietel, and John L. Geissler, Philadelphia, Pa.—This invention consists in constructing the lever of a watch escapement of two arms, which are connected at their outer ends by a spring, and fitting it around the staff, which has a groove formed in it for the reception of the short arm.

PUDDLING IRON.—Charles Hewitt, Trenton, N. J., assignor to A. S. Hewitt, New York city.—This process consists in mixing cast iron divided into coarse granules, varying from one-fifth of an inch in bulk, with oxide of iron, then melting, stirring, and boiling them together.

LIQUID METER.—James P. Smith, Cleveland, Ohio.—This invention consists in the combination of a conical and needle valve, and their adaptation to the ingress and egress pipes of a liquid meter. The liquid enters the body of the meter through a pipe projecting into the body of the meter, larger than the egress pipe, so that the body of the meter is kept full of liquid under pressure.

REVERSIBLE PARASOL.—Joseph E. Banks, New York city.—This invention consists in so arranging the ribs, stretchers, and cover of a parasol that when spread the ribs will project at right angles from the stalk, forming a flat top with central conical extension above or below the flat part.

DRILLING APPARATUS.—Samuel Lewis and William McFarland, Brooklyn, N. Y.—This invention is fully described and illustrated on page 385, Vol. XX., of the SCIENTIFIC AMERICAN.

ACTUATING SHIPS' PUMPS.—Almon Koff, Southport, Conn.—This invention was fully described and illustrated on page 20, Vol. XXI., of the SCIENTIFIC AMERICAN.

GUN LOCKS.—Randal D. Hay and James M. Hill, Crooked Creek, N. C.—A hollow case or guard is hinged to the side of the lock, so that when closed it projects against the side of the lock, the top will project over the nipple. This guard is moved out of the way of the hammer, in discharging the gun, by a lever, bell-crank, and link, actuated by the trigger, so as to throw the guard out of the way of the trigger.

FRICITION MATCHES, AND MATCH BOXES FOR HOLDING THE SAME.—Wm. H. Rogers, New York city.—These matches are made by combining any of the ordinary friction match compositions with gutta percha, or caoutchouc, which makes a flexible match cord.

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BARBERS' CHAIR.—Anthony Abel, New York city.—This invention relates to a new and useful improvement in the mode of raising and lowering the backs of barbers' and other chairs, whereby the adjustment as to height is made in the most gentle and perfect manner.

ROCKING-HORSE.—Jesse A. Cranall, Brooklyn, N. Y.—This invention relates to a new rocking-horse, which is operated by means of springs concealed within the body, and by levers connecting the said springs with the pivoted supporting standards, or legs.

SAW GRINDING MACHINE.—George Walker, Middletown, N. Y.—This invention relates to improvements in machines for grinding long saws, and consists in an improved arrangement of apparatus for holding the saws while grinding, from springing under the action of the stone and the pusher or feeder. It also consists in an improved arrangement of the presser, for adjusting the plates to grind thinner towards the back; and it also consists in an improved automatic belt shifting apparatus.

CHURNS.—Floyd Hamblin, Madrid Springs, N. Y.—This invention relates to improvements in churns, and consists in the arrangement on a horizontal shaft, within a suitable case, of two or more rows of scoops or cup-shaped paddles in spiral lines in opposite directions around the shaft, and in connection therewith, a series of parallel cream-breaking bars, around the space above the paddles, against which bars the cream taken up by the paddles, will be thrown with sufficient violence to break the small particles, whereby the formation of the butter will be accelerated.

MILL STONE DRESS.—G. W. Loy, Nacogdoches, Texas.—This invention relates to improvements in mill stone dress, and has for its object to provide an arrangement of the furrows calculated to give greater draft in the bed stone from the center, about one third the distance to the skirt where, in the dress as commonly arranged, it is less than in the remaining portion, in which latter part are arranged the long furrows tangential or nearly so, to the eye of the stone, the direction from the said eye being opposed to the direction of motion of the running stone.

FAUCET.—Francis M. Bachman and Samuel Ricker, Fredericksburg, Pa.—This invention has for its object to furnish an improved faucet, which shall be so constructed that it will entirely prevent leakage through it, and will enable the cask to be easily and quickly tapped without the loss of any of the liquid, however great may be its pressure.

PROCESS FOR BLEACHING PAPER STOCK AND OTHER SIMILAR SUBSTANCE S.—J. W. Goodwin, Petersburg, Va.—The nature of this invention relates to improvements in bleaching paper stock, the object of which is to provide a means for accomplishing the same more quickly, in a better manner, and at less expense than can be done by the means at present in use. It consists in first submitting the substance to be bleached to the action of dilute nitric acid, well heated; second, boiling it in alkali in an open vessel; and finally submitting it to a bath of chloride of lime and sulphuric acid.

FLUE FOR DRY HOUSES.—Wiley B. Hix, Rome, Ga.—This invention has for its object to furnish an improved flue for use in a dry house for drying fruits, vegetables, lumber, and other substances, which shall be simple in construction and effective in operation, allowing the heat to be regulated and controlled at will.

POLE-ASCENDING APPARATUS.—George Fleming, New York city.—This invention relates to improvements in apparatus for ascending telegraph and other poles, and consists in an arrangement of rigging for hoisting masts up by the side of the poles, on the top of which masts are carried pulleys and cords, the latter hanging to the ground by which cords with pulley blocks are swung over the arms of the poles, through which pulley blocks the cords of platform are rove by which a person may be drawn up.

TIRE UPSETTING MACHINE.—P. G. Ayres, Lindsay, Canada West.—This invention relates to improvements in machines for upsetting tire and metal bars, and has for its object to provide a simple and efficient apparatus, especially adapted for readily applying and removing the tires. The invention comprises a main bed of cast metal with a vertical fixed pillar, a sliding bed with another pillar, a pair of clamping dogs, a pair of supporting links for the pivots of the dogs, and an eccentric operating lever.

FLAT-IRON HEATER.—G. O. Honks, Addison, Vt.—This invention relates to a new and useful improvement in the mode of heating flat or smoothing irons for ironing clothes, and consists in a rectangular-shaped box open at the bottom side with apertures for the admission of the flat irons, and with shutters for each arranged in a convenient manner.

CAR COUPLING.—Wm. J. Evans, Homer, Iowa.—This invention relates to new and useful improvements in car couplings, whereby a simple and efficient device may be obtained by which the cars may be coupled self-actingly when the said device has been properly set. The invention consists in the arrangement, with a coupling pin, having a vertical guide, of a hinged setting lever, for holding the pin above the opening for the link and for being tripped by the link to let the pin fall when the link has passed in.

CAR WHEELS.—John N. Farrar, Pepperell, Mass.—This invention has for its object to furnish an improved wheel for steam and horse cars, engines, etc., which shall be strong and durable, and, at the same time, so constructed as to avoid the constant jarring and noise now attending railway traveling, and reducing the liability of accidents from breaking of wheels, etc., and also in a great degree preventing the battering of the ends of the rails by constant hammering of the car wheels.

BALANCED WATER ELEVATOR.—William L. Thomas, Wadsworth, Ohio.—This invention relates to a new and useful improvement in apparatus for elevating water, to be operated either by hand or other motive power, by means of which water may be elevated to any required height, while the action of the working piston will be balanced.

PROGRESS OF AMERICAN INVENTION IN EUROPE.

The following Patents for American Inventions have recently been obtained in England through the Scientific American Patent Agency.

WATER AND GAS METER.—Joshua Mason, Paterson, N. J.—This meter consists of a cylinder provided with a plunger, and having a chamber at one end in which there is a valve chamber, containing a sliding valve, which consists of a rod with two circular disks or heads upon it, and a circular plate at one end. This plate is perforated to open communication between the valve chamber and the small chamber. The valve chamber is open at both ends and provided with three ports, communicating respectively with the supply pipe, the water passage to rear end of the cylinder, and the discharge pipe.

MANUFACTURE OF BAR IRON, AND MACHINERY FOR ROLLING THE SAME INTO VARIOUS FORMS.—James Montgomery, New York city.—The material

