



[Reported Officially for the Scientific American.] LIST OF PATENT CLAIMS Issued from the United States Patent Office FOR THE WEEK ENDING AUGUST 22, 1854.

Centrifugal Pump—W. D. Andrews, of New York City: I claim the construction of the pump, as described, viz. having a hub, in the shape of the base of a cone inverted, with arms attached to its periphery, of a gradually decreasing width as they approach its base, placed within a shell corresponding in shape to the outer circumference of the arms, and having induction passages of a spiral form gradually decreasing in pitch to their point of delivery and ejection passages, of a spiral form, of a gradually increasing pitch, until they attain a straight line: by which construction the water is made to pass without sudden change of direction or eddies, in an unbroken volume through the pump. And I do not limit myself to the precise mechanical construction, as shown, but may modify the different parts, only retaining the same general combination.

the fabric knit, so that by changing the surface of the face cam, and altering the relative proportions of the spur wheels to each other, the figure of the fabric may be altered indefinitely. Floating Drags or Anchors—Abel F. Lewis, of Shojiere, Wis.: I claim the arrangement described of the canting hawser, cable, and floating anchor, whereby a vessel may be held with more or less power, as circumstances require, when ground anchorage is unattainable. Balancing and Hoisting Sashes—Robert Marquis, of Xenia, Ohio: I lay no claim to making both sashes mutually operative by means of the same cords which serve to elevate and lower said sashes. I claim the single cord, which, passing around pulleys at the mid width of the sashes, is operated by a winch in the jamb, enabling the simultaneous or separate movement of each sash without liability of binding by the unequal expansion of different portions of the cord or impairing the strength of the sash by the removal of its substance, &c.

intending to claim the springs uncombined with the frame or some device equivalent thereto. Sewing Machines—Edward Shaw, of East Abington, Mass.: I claim, first, the combination of the rack bar, or wide harness saddle, constructed same shape and forming a clamp capable of receiving a vibrating motion from the diamond-shaped teeth of the pinion, and constituting a clamp for sewing the seams of boot legs in the manner described. Second, I claim feeding the clamp along and guiding it, so as to keep the leather to be sewed always in proper position with regard to the needle, and at the same distance from the same by means of the rack and gear with its diamond-shaped teeth and proper guides, as described. Carpenters' Gauge—Halcyon Skinner, and William Greenhalgh, of West Farms, N. Y.: We claim the combination of the frame with the adjustable sliding bars, adjustable fences, and set screws in the manner here-in described. Harness Saddle Trees—Robert Spencer, of Southport, Conn.: I do not claim constructing the frame and content of a harness saddle tree in separate pieces, nor the insertion of leather between them. But I claim as a new article of manufacture my improved harness saddle tree, constructed as described, of combined iron and leather (or the equivalent of leather) the iron serving the purpose of a skeleton, and giving it the proper rigidity, while by trimming the leather portions of the tree the exact conformation is attained. Catamenial Supporter—Alfred A. Starr, of New York City: I claim the combination of the elastic springs in the manner and for the purposes set forth. Fastenings of Plows—David Swartz and Samuel Swartz, of Tonis Brook, Va.: We do not claim constructing the point and outer in separate pieces so as to be attached and detached at pleasure. But we claim constructing the mold board and land side with slots as described, and the point and outer with the said point or cutter shall slide in horizontally or nearly so and form a fastening with the mold board and land side without the use of screws or bolts, as set forth. Harness Saddles—Robert Spencer, of New York City: I claim the described new article of manufacture, consisting of a properly shaped harness saddle seat, cast in one piece with the unfinished jockey-shaped side bars, the said seat requiring to be only smoothed and japanned to adapt it to use, and the said side bars requiring to be covered with patent leather or jockeys or kirks of sufficient thickness to make a smooth and harmonious finish with the japanned surface of the seat, as represented and described. Counting Machine—Paul Stillman, of New York City: I claim the employment and arrangement of the clutches having a spring sideways, so as to catch into the face notches and the styles outside the countwheels by which they are operated to move a series of countwheels, in the manner and for the purpose set forth. Ovens—Francis C. Treadwell, of New York City: I claim the use of the combination of the furnace, flues, and dampers, substantially as set forth, in combination with an endless band running through the oven, and over drums placed outside of it for the purpose of making a perpetual baking oven, as described. Track Clearers to Grass Harvesters—A. Whiteley, of Springfield, Ohio: I claim the rolling cone moving on the axis and furnished with a joint clearer for the purpose of clearing a track in the cut grass. Cheese Presses—Philander Wilbor, of Milan, Ohio: I claim the combination of the two rack slides with the respective attachments of the cam and friction roller, by which means, in connection with the slides and accompanying racks, the press is operated in the manner set forth. Sewing Machines—Melvin Shaw, (assignor to Melvin Shaw and Daniel G. Wheeler,) of East Abington, Mass.: I claim the combination of the sliding bar with the curved clamp and the rest, connected and operating together in the manner as set forth, by which means the work is fed through the machine, it is kept constantly up to the needle and the stitches are placed at a uniform and unvarying distance from the edges of the material without dependence upon the care or skill of the workman. Planing Lumber—Solomon S. Gray, (assignor to S. S. Gray and S. A. Woods,) of South Boston, Mass.: first, I claim the peculiar construction of cutter head described, the cutter head itself being made use of to turn and draw the lumber in the opening of a double iron plane and being further more made concave for the purpose of facilitating this operation. Second, I claim the clamp as described for the purpose of dogging the lumber to the bed of the machine, the body of the clamp being pivoted and forced up by the screw or its equivalent, the dogs being adjustable therein in the manner set forth. Third, I claim the described method of securing the dog to the bed of the machine, by means of the teeth or cogs and the mortises in the slide pieces, for the purpose set forth. Operating Dampers and Furnaces—Daniel Treadwell, of Cambridge Mass., (assignor to Herbert H. and Frederick H. Simpson, of Boston, Mass.): I claim using the expansion of the stove or furnace for closing the damper through the medium of the devices described, or any other combination of similar devices. Furnaces for Making Wrought Iron Directly from the Ore—Thos. W. Harvey's (now deceased, late of New York City,) administrators, (assignors to the Harvey Steel and Iron Company): I claim causing the deoxidizing and desulfurating flames and fumes generated in the furnace to act directly in contact with properly prepared ores of iron (and other metals) placed upon suitably arranged tables, while at the same time a high degree of heat is imparted to the under sides of said tables. Cog Gearing—James A. Bazin, of Canton, Mass., (assignor to Alfred B. Ely, of Boston, Mass.): I claim the described manner of manufacturing cog wheels, every alternate tooth being bent in opposite directions from the plane of the plate, as set forth. Tool Rest for Turning Lathe—M. H. Merriam, of Chelsea, and W. W. Nichols, of Boston, Mass., (assignors to W. W. Nichols & Co., of Boston, Mass.): We claim the combination of the elevating screw with the nut and tool post and slide, in which by turning the nut you can elevate the tool post and the elevating screw, at the same time the elevating screw is prevented from turning by the gibs, as described. We also claim the groove in the slide, by which the tool post, elevating screw, and nut, are prevented from rising by pins or their equivalent, fitted into the nut and running in the groove when the nut is not turned, but when the nut is turned the tool post can be lowered. We claim the gibs and the elevating screw as combined with and running in the channels of the slide by which a vertical movement of the elevating screw is produced and a rotary prevented as set forth. Tool for Boring Recesses for Casters, &c.—Benj. F. Graves, (assignor to Wm. C. Knowlton,) of Boston, Mass.: I do not claim the combining the throat of a chisel, with the discharging chip groove of the twist auger, or making the latter to enter directly into the former, whereby its chips are not only discharged through the said throat but by the pressure exerted on them by the spiral form of the groove of the auger they are made to aid in the discharge of the other chips from the throat, and thereby prevent the choking of the chips in the throat. But I claim the combination and arrangement of the twist auger, the two cutters or chisels and their throats, enable the key which it carries to operate, and simultaneously, and make a chamfer or recess in a piece of wood of the form as specified. Not meaning to claim a single cutter and a twist auger as applied to a shaft so as to merely bore two cylindrical recesses. Sewing Machines—Sidney S. Turner, of Westboro', Mass., (assignor to Elmer Townsend, of Boston, Mass.): I claim the arrangement of a hook or hook needle underneath and so as to work up through the feeding bar in combination with the arrangement of the presser or the feeding bar, and so as to press downwards towards it in the manner described, such enabling me to obtain an important advantage in operating by the single chain stitch sewing machine.

And I also claim in combination with the mechanism for giving the vertical movements to the needle, the slot, and the screw or pin. (Or the mechanical equivalents therefor) for producing reciprocating semi-rotative movements of the needle during the vertical movement of it, as described. Machines for Casting Metallic Eyes or Mail of Heddles for Looms—Jacob Sennet, of Philadelphia, Pa.: I do not mean to confine myself rigidly to the precise arrangement of parts shown and described, as they may doubtless be varied without departing from the present improvements. But I claim, first, the method described of casting the eyes or mails on the strands of yarn or other material, by inserting the yarns successively within a mold secured on a vibrating frame operated at the proper intervals of time by means of the eccentric cams, said mold being opened at times to disengage the mail therefrom and provided with a core forming the eye in the mail, and capable of being withdrawn therefrom before the mold opens, in the manner and for the purpose set forth. Second, I claim the manner of operating the core so as to enable it to be so withdrawn from the eye of the mail after the same is formed, and whilst it is firmly embraced within the mold by means of the springs and screws, operating as described. Third, I claim the core carrier resting in a notch formed in the top of the spring, and having pins on its face, which pass through slots in the mold plates, and spring for moving the core horizontally from the stationary half of the mold and keeping it mid way between the mold plates, when they are opened by the lever and preventing it being thrown violently either way, as set forth. Fourth, I claim the manner of operating the heddle frame holder, by means of the eccentric cams on the shaft capable of being moved longitudinally over the grooves in said shaft, right angled levers to which the heddle frame is secured and spiral springs for keeping the ends of the levers always in contact with the eccentric cams, and in combination therewith I claim the screw shaft and clamps, and the adjustable gearing at the ends of the screw and main driving shafts, the whole being constructed and operating as set forth. Rolling Shoulders on Axles—William Van Anden, of Fourknosepsic, N. Y.: I claim the arrangement of the cam rollers, having the reduced surfaces with the guide and feeding tube or box through the hollow space of which I am enabled to put in the blank rod of iron, and withdraw the finished axle without displacing the forming rollers, or cams, or feeding tube, or box, as set forth. Steam Valve—Robert Ross, of Philadelphia, Pa.: I claim in steam valves the mode set forth of constructing the valve, the same consisting in the loose or detached valve and stem or guide, and combined with the hollow valve rod in the manner set forth. BANK LOCKS—Augustus C. Harig, and David C. Story, of Louisville, Ky. Patented originally July 25, 1854: We claim connecting the series of male tumblers with the vibrating portion of the bolt in such a manner that all of said tumblers must vibrate with said portion of the bolt, and said portion of the bolt must vibrate with said series of tumblers, whilst any one of said tumblers may be moved endwise independently of said vibrating portion of the bolt, and vice versa, by which they are enabled to be operated in connection with a series of entirely independent stationary female tumblers, that can be adjusted in different positions, as set forth. Second, we also claim the series of female tumblers which are secured in such a manner to the lock case, that, while they admit of unhoisted adjustment to suit the different positions in which any key can be made to throw the series of male tumblers, they are so arranged as to be independent of the longitudinal movements of said male tumblers, or the bolt which is combined with them, and consequently are perfectly protected from injury or disarrangement by said movements and also from any violence that may be exerted upon the bolt. Third, in connection with the said series of male tumblers, and the vibrating portion of the bolt arranged and combined in such a manner that they must vibrate with each other, and can be moved lengthwise independently of each other, we also claim the fixed and strongly secured and arranged in such a position that the bolt cannot be shot out until the vibrating portion thereof is brought up to the highest point allowed by the matching of the series of male tumblers, with which it is combined, with the series of female tumblers that are combined with the lock case, by which, when the bolt is shot out, both series of tumblers are perfectly protected from injury by any violence exerted upon the bolt, as set forth. Fourth, we also claim the self-adjusting guard, arranged and operating in theasher in such a manner that the introduction of powder and picking instruments, in to the lock through the key hole is effectually prevented, as set forth. Fifth, we also claim the described arrangement of the inclined notch on the user, with the dog and the bolt moving cam, by which the act of turning the user to enable the key which it carries to operate, the tumblers will throw the dog into such a position as to prevent the said cam from being brought in contact with the vibrating portion of the bolt during the time said user is being moved, by which the possibility of laterally feeling the positions of the tumblers, while the key, (or a substitute therefor,) is in moving contact with them, is entirely prevented, as set forth. The Ohio State Fair. The Fifth Annual Fair of the Ohio State Board of Agriculture, which is to be held at Newark, Ohio, commencing on the 19th of September, is to be a grand affair. We have received a list of the prizes offered, and a fine colored lithograph of the Fair grounds. As we have already noticed, Joseph E. Holmes, so well known as Superintendent of the Crystal Palace, is to be the superintendent, and the Ohio mechanics, we believe, will make a show worthy of their great State. The grounds on which the fair is to be held was once an Indian fortification. It is enclosed in embankments made centuries ago. What a change in the destiny of races and nations.—What was Ohio one hundred years ago, and what was our whole country? Almost an unbroken wilderness. What a wave of emigrating conquest has spread over it in such a short time. It looks like a miracle. Those who talk of great periods of time being required to effect great changes in countries and peoples, have but to look to our country and sign themselves "mere sciolists."

An Old Printing House.

M. Barth, printer, of Breslau, (in Prussia,) celebrated last month, the 350th anniversary of the first book printed in his establishment. This book is a German legend of some rank, and appeared in 1504. M. Barth's printing office is the oldest in Europe, and has been for 350 years uninterruptedly in the hands of his ancestors and himself.