MILLSTONE .- J. A. P. asks "why his new run of millstones will not do more work?" The fact is that the way his stones are dressed brings the grinding circle similar to that of a thirty inch run of stone. A run of 30 inch stones, revolving at the same speed at which he runs his four foot stones, will give the same results. The best way for him to get ont of his trouble, is to take the dress entirely out of both stones, and put in the dress used by the best mills in the United States, namely: Begin every land, at the skirt of the stone, from two to three inches wide, and run every land to a point at the pitch or draft line, being sure to give the lands a true wedge taper from skirt to draft line. Tals, he will notice, gives the furrows about an equal width from skirt to draft line. Crack the stone on line with the back of the land, which will let the cracking run out on a feather edge.-S.G.D., of Pa.

Drilling Glass.-If R. A. P., who asks how the holes in largeelectrical machine plates are drilled, wishes to drlll them for himself, he can do so by making an instrument like a fiddle, or bow drill, and using in place of the drill, a piece of brass tube of the required size, then fastening a thin board tightly over the glass, with a hole in it directly over the spot to be drilled, and large enough to let the tube turn freely in piece in the center, the size of the bore of the tube. A drill can be made of a piece of wood, an inch in diameter or smaller, turned smallest in the center, with another piece fastened to the top, with a screw, for a handle, and the tube driven into the bottom. A bow can be made of wood. -A

DRILLING GLASS.—I have had occasion for several years to drill holes in glass from the thickness of common plate to that of an inch, and of various sizes, and have always found satisfactory success with a common machinist's drill, lubricated during the process with oil of turpentine. With the drlll properly tempered and run at suitable speed, the cutting is done as rapidly as in drilling steel.—J. E.B.

PRESERVING FLOWERS.—Seeing in No. 21, of current volume, that a correspondent wishes to know how to preserve flowers, so as to keep their natural colors, I send the desired information. Take of white wax, paraffin, or any other waxy substance, any desired quantity; place it on the fire, and bring it almost to a boil. Then take the flowers singly, or in bouquets, and plunge them into the melted wax for a moment ake out and drain. I have also seen flowers preserved with their natural color, by immersing in a thin solution of gum arabic. A lady friend of mine has flowers which were preserved by the wax method three years ago, and they have the same natural appearance they had when they were gathered. H.W. B., of N. J.

MILLSTONE.—The trouble with J. A. P.'s millstone is too much draft, which keeps the face of the stones scant of wheat, and they be come smooth in a short time. Let him put in 13 quarters in the stone and 3 furrows to each quarter. This will equalize the draft, and his burrs will griud well.-J.F., of Mass.

MILL STONES.—To make a stone grind fast, make the furrows at least % of an inch wider at the eye than at the skirt of the stone, with the inclined plane uniform the entire length. The furrows should have, as nearly as possible, the same draft, which can be done by increasingthe number of quarters with a less number of furrows. Then crack the face very finely, and keep it sharp. After this, increase the motion of the stone.—H. T. S., of Pa.

H. W. G., of Mich.-We know of no American journal specially devoted to astronomy. The  $\it Journal$  of the Frankiin Institute publishes much interesting astronomical matter.

LEATHERS FOR VISE JAWS.—In your issue of May 27th, C. A. W asks what to use for securing leather to vise jaws. If he will use beeswax, he will have no difficulty whatever .- T. A., of N. Y.

DISSOLVING MICA.—"M." wishes to know how to dissolve, and hold in solution, mica. Mica, which is essentially a silicate of time, is, like most other native silicates, entirely insoluble in any menstruum whatever, excepting by decomposition, when of course it is no longer mica, and is not held in solution as such.—C. L. R. S., of D. C.

To KILL BEDBUGS.—Use a strong alcoholic solution of corrosive sublimate, carefully .- C.L.R.S., of D.C.

T. D. T., of ——.—By consulting catalogues of industrial books, you will find many excellent works on electroplating, which will give you a part of the information you desire. We insert your other question in our query column.

S. W. S. of Ohio,-There is no accepted standard for the threads of boits in this country. There ought to be, and we have often urged the adoption of such a standard, but our machine shops are each a law unto themselves in this matter as yet. The standard for gas pipes

Threads to   the inch.   27   18   18   14	Diameter inside.  1 114 114	Threads to the inch. 1134 1134 1134
77	-	
	the inch. 27 18	the inch. inside. 27 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

For all diameters above this, 8 threads per inch is the standard.

C., of Ala.—We do not believe copper was ever tempered to be as hard as good steel, although there are historical traditions of a lost art of this kind. To be able to harden copper like steel, might perhaps be of service to modern industry, but we do not see how copper could be advantageously substituted for steel in any of the purposes for which the lat-

B. H. B., of Miss.—Glass water pipes have been tried, but there are many practical difficulties in their use, for domestic service. Your article on the subject is declined with thanks.

S. G. S., of N. Y.—The thing for you to do, if your eyes are giving out, is to apply to a competent oculist for advice, and, if need be remedies.

Boils.-I have recently got rid of eleven or twelve troublesome boils by taking a teaspoonful, in water, of the following mixture, tassium, 2 ounces strup of sarsaparilla, 2 ounces water. The boils were gonc before I had taken half the medleine .- D.B., of N.Y.

## Recent American and Loreign Latents.

nder this heading we shall publish weekly notes of some of the more promi nent home and foreign patents.

HAY AND COTTON PRESS .- This improvement consists in a combination of T-shaped pawl plates, double racks, levers, etc., designed to inform an improved mechanism for actuating the followers of hay and cotton presses. It can be applied to all presses in which the follower bar works in slots. Invented by Engene Rock, of Greenvale, N.Y.

CULTIVATOR.-This invention presents a novelty in this class of agricultural implements, namely, that it makes the two outside plows or teeth adustable as to their distance from each other, the adjustment being made by the operator as desired for varying width of rows of plant, while the cultivator is in motion and use. This is done in the following manner: The two inside plows are attached to the front ends of beams, which are pivoted to the central and principal beam of the cultivator in such a way that they extend obliquely forward. A chain extends from the front eud of cach of these branch pivoted beams, at nearly a right angle to, and under, a pulley fixed to the central plow beam and thence to the front end of the plow

handle on the side next the beam. The plow handles are pivoted to upright supports near their middle. When the end of either of the plow handles is depressed by the hand, the other end is raised, pulling the chain and draw ing the plow attached to the chain inward toward the central and principal beams; or by depressing both handles at once, the operator may draw both these plows inward, narrowing the width of land cultivated whenever the plants on one or both sides of the cultivator are endangered. As soon as the handles are relieved of pressure, the position of the Pivoted beams branching forward and outward obliquely, causes the resistance of the earth to push them outward and take up the chains as fast as the latter are stackened. This ingenious device is the invention of Leauder Walker, of lctoria, Texas.

MEAT SAFE .- August Knoche, St. Louis, Mo .- This invention provides for constant circulation of air through meat safes, the ventilation secured enabling the meat to be longer kept in good condition. The safe is made preferably square in its horizontal section, and of any suitable hight. The air enters a perforated side of a lower chamber, protected from flies by gauze, and, passing out through a perforated side opposite the first, ascends a flue to the perforated side of an upper chamber, thence through this side, and across the upper chamber; and through another perforated side into a it. Then by putting emery and water in the hole, and after working the drill a little while, a hole will be ground through the glass, leaving a round into a chimney or funnel communicating with the external atmosphere. The flues are made the entire width of the safe.

> FOLDING SETTEE .- This is made with cross-legs, pivoted together, like the folding seats and chairs nowin use; but the inventors have added an improvement, consisting in hinging the back to the back rail, upon which the canvas, leather, or other flexible seat is nalled. Strap braces extend from the ends of the front seat rail to the tops of the side posts of the back, and when attached, hold the back at the proper angle with the scat for comfort; but when released, the back may be folded down, and the whole settee so folded together as to occupy, very little space, a great desideratum in settees used in public halls, churches, etc. Invented by William C.Adams and William B. Mahew, of West Tisbury, Mass.

> SPRING BED BOTTOM.—A rectangular frame supports a long spring bar on each side of the bed: to the middle of each of these bars is bolted a plate. under which the ends of two inclined spring bars are inserted, their inclination being adjusted by wedge-shaped blocks placed under them, near the lower ends, and resting on the first named bars. Cross bars connect these inclined bars at each end of the bod, and on them longitudinal spring slate are placed, to support the mattress. A slat frame is pivoted to the supporting upper frame thus formed, the frame extending from the pivots toward the head of the bed, and occupying a space somewhat more than one third that of the principal frame. This is inclined and held at any desired angle by braces, so as to raise the upper end of the bed higher than the foot. Invented by Manasseh W. Farber, of Mount Pleasant, Iowa.

> WASHING MACHINE. - This is the invention of William C. Marr and Joseph S. Maughlin, of Onawa City, Iowa. It consists in a hollow drum, made by joining two disks with cross bars, with spaces between them. Everyalternate bar projects inwardly. The drum has a door in the side for putting in and taking out the clothes, and on one of the disks is formed a rubbing surface to be used for hand rubbing when requisite. The drum is made for attachment to common washtubs, by means of suitable devices. It is turned by a crank, and the agitation of the water through the openings and through the clothing cleanses without rubbing the goods to be washed.

> APPARATUS FOR UNLOADING HAY .- Alexander Smith, Hoosick Four Corners, N.Y.—This invention consists essentially of a sling, of canvas or other material, which is to be spread over the wagon rack before the hay is loaded, to be hoisted by derricks. The sling is made of two triangular pieces of the material used, the lower bases of which triangles are joined to wood bars, so arranged that they can be hinged together, and unhinged when the load is raised so as to dump it on the mow or stack. The sling is patented by itself, and also in combination with other devices for carrying the load to the desired point where it is desired to dump it, etc.

> FLAX THRASHING AND SEPARATING MACHINE .- This is the invention of James Boyce, of Muncie, Ind. Two or more pairs of rollers. with spiral grooves, are employed to crush the bolls of the flax, one roller in each pair beingmade to travel faster than the other, by suitable gearing, so that a rubbing as well as crushing action is obtained; and each succeeding pair runs at higher speed than the preceding pair, so that the flax is drawn out and spread, in order to subject all the bolls to crushing and rubbing. The reersed spiral flutes also give a sortof shearing motion, which assists to crush and break the bolls to pieces. A supplementary roller for crushing such bolls as escape the action of the other rollers, and an attachment of shaking riddles and a fan blower, complete the combination.

> HYDROCARBON VAPOR BURNER.—This burner is designed for the consumption of naphtha. From a suitable cap, to attach the same to a lamp or a gas burner, rise metal tubes for wicks (the inventor prefers three of these tubes). The wicks lead to a cap at the top, provided with an apparatus for conducting the heat downward to the wicks, and generating the vapor. A peculiar arrangement of orifices is also claimed in the patent, by which, the inventor states, a better illuminating effect is obtained. Invented by William E. Bartlett, of Newburg, N.Y.

> HAY RAKE.—This improvements consists in a new method of raising the rake bead and rake frame, by a new combination of well known devices. J. George Lockwood, West Davenport, N.Y.

> Sharpening Horseshoe Cales.—A heavy pedestal supports a jointed frame, with a system of gesring belts and pulleys which, by the turning of a winch, drives a small emery wheel. The machine is set near a horse, whose foot being raised, the calks are held on the wheel and sharpened, while an assistant turns the winch. Patented by Geo. W. Lane, of Chichester, N. H.

> RIDING PLOW.-Bensiah C. Hoyt, Fort Atkinson, Wis.-This invention consists of improvements upon a former invention, patented by the same inventor, September 2, 1856. The plow is one upon which the operator rides. The action of the mold board is supplemented by a complementary concave disk, which formerly turned on a fixed pivot, but in this instance is attached to a shaft which revolves. The machine is easily adjusted for running on level ground, or when a wheel runs in the furrow, maintaining the plow in either case in its proper vertical position. Other improvements provide for ncreased durability in parts, which have hitherto been subjected to great

> FOLDER AND TUCKER.—Thomas Manchester Farrand, Skowhegan, Me. This is aneat, and apparently very efficient device for folding tucks in shirt bosoms and the like, which cannot be explained without diagrams. It is attached to the table of sewing machines by a clamp screw, in the ordinary way; it occupies but little space, and its design is very neat.

> CLOTHES CLAMP .-- This is a clasp of non-corrosive wire, bent something in the form of a twisted W, which, when sprung upon a clotbes line, gripes it with considerable force. It is a cheap substitute for other devices hitherto used for the same purpose. Invented by Christian L. Poorman, Bellaire,

> MACHINE OYSTER SHICKER. - George Holtzman, Baltimore, Md. - This in. vention relates to a machine that is provided with a socket and jaw for crusbing the points or jaws of oyster shells while still closed; and with a rest and spring holder to support the oyster after the point of theshell has been thus crushed, and a sliding knife for opening the shell while thus supported; and with a blade connected with a standard by a universal joint for cutting the oyster out of the shell after it has been thus opened.

> SPINNING HEAD.-John W. Chappell, Berlin, Mich.-The object of this in. vention is to dispense entirely with condensers and jacks, which is accomplished by combining the spinning head, carding cylinder and winding spool in a novel and peculiar manner.

SEWING MACHINE MOTOR .- D. A. Constable, and John F. Riggs, St. Joseph, Mo.—This invention has for its object to either accelerate or retard the speed of a sewing machine motor, by means of blades hinged to radial arms, which projectfrom a hubthat is driven by the motor, the retardation of the speed of the latter being effected by opening the blades so as to cause them to present more of their surface to the air, and thus produce a greater resistance, and the acceleration of speed being effected by closing the blades so as to diminish that part of their surface against which the air acts.

## Official List of Latents.

#### ISSUED BY THE U.S. PATENT OFFICE.

FOR THE WEEK ENDING MAY 30, 1871.

Reported Officially for the Scientific American.

SCHEDULE OF PATENT FEES:

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1	On filing each application for a Patent, (seventeen years)	\$15
	On appeal to Examiners in Chlef.	\$10
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	On application for Extension of Patent	χu
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•	On an application for Design (three and a balf years).	110
7	On an application for Design (seven years)	115
3	On an application for Design (lourteen years)	<b>3</b> 30
	For Conv. of Oleran at the Parent feet after the Olerans	
,	For Copy of Claim of any Patent issued within SI years	91
	A sketch from the model or drawing, relating to such portion of a machine as the Claim covers, from	81
В	upware, but usually at the price above named.	

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Official Copies of Drawings of any patient tested since 1836, we can supply at a reasonable cost, the Price depending upon the amount of labor involved and the number of views.

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MUNN & CO.,
                                                          Patent Solicitors, 37 Park Row, New York.
115,264.—BOBBINS.—J. Adams, W. A. Tolman, Richmond, Ind. 115,265.—Fireplace Fender.—C. C. Algeo, Pittsburgh, Pa. 115,266.—CAR STARTER.—Arthur Amory, New York city.
115,267.—NAIL MACHINE.—Daniel Armstrong, Chicago, Ill. 115,268.—SCALE.—S.C.Baker, Altoona, J.Root, J.Case, York, Pa. 115,269.—HAND STEREOSCOPE.—A. Beckers, New York city. 115,270.—HO'T AIR FURNACE.—J.M. Blackman, Decorah, Iowa. 115,271.—SPINNING MULE.—Wm. Bond, Windsorville, Conn. 115,272.—WASHING MOUNTS. Newborn Pacht Charling Conn.
   115,272.—WASHING MACHINE.—Nathan Booth, Cheshire, Ct. 115,273.—CLAMP FOR THILL COUPLING.—W.Boyd, Hartford, Ct. 115,274.—PULP MACHINE.—James Bridge, Augusta, Me.
115,275.—VISE.—H. V. Brown, Warren, Ill.
115,276.—Washing Machine.—J. Brown, W. Manchester, O.
115,276.—WASHINO MACHINE.—J. Brown, W. Manchester, O. 115,277.—GLOVE.—R. D. Burr, Kingsborough, N. Y. 115,278.—ENAMELEDMETAL.—G.A. Burrough, Providence, R.I. 115,279.—CONVERTER.—Henry Chisholm, Cleveland, Ohio. 115,280.—'I'RACTION ENGINE.—J.H.Clapham, New York city. 115,281.—BENDING METAL.—W. and H. Cooley, Toronto, Can. 115,282.—HEMMER.—D. H. Darby, Mendon, Ill. 115,283.—FLASK.—H. W. Dee, London, England. 115,284.—GRAIN BINDER.—C.G. Dickinson, Poughkeepsie, N.Y. 115,283.—SURGICAL INSTRUMENT.—E. Dithridge Pittsburgh
  115,285.—SURGICAL INSTRUMENT.—E. Dithridge, Pittsburgh. 115,286.—KEYED INSTRUMENT.—H. Downes, New York city. 115,287.—MATRICE.—R. E. Draper, Sacramento, Cal.
115,287.—MATRICE.—R. E. Draper, Sacramento, Cal. 115,288.—WORK HOLDER.—H. Eddy, N. Bridgewater, Mass. 115,289.—URN STAND.—W. J. Evans, New York city. 115,290.—LATHE SPINDLE.—L. R. Faught, Philadelphia, Pa. 115,291.—DIE STOCK.—L. R. Faught, Philadelphia, Pa. 115,292.—HOISTING APPARATUS.—R.L. Fitch, Sing Sing, N.Y. 115,293.—POLISHING ORE.—I. W. Forbes, La Porte, Ind. 115,294.—PULVERIZED ORE.—I. W. Forbes, La Porte, Ind. 115,295.—STAMP BATTERY.—I. W. Forbes, La Porte, Ind. 115,296.—VALVE.—I. W. Forbes, La Porte, Ind.
115,296.—VALVE.—I. W. Forbes, La Porte, Ind.
115,297.—VALVE.—I. W. Forbes, La Porte, Ind.
115,298.—VALVE.—I. W. Forbes, La Porte, Ind.
115,299.—VALVE.—I. W. Forbes, La Porte, Ind.
    115.300.—VALVE GEAR.—I. W. Forbes, La Porte, Ind.
115,300.—Valve Gear.—I. W. Forbes, La Porte, Ind.
115,301.—Steam Engine.—I. W. Forbes, La Porte, Ind.
115,302.—Coffee Roaster.—J. Galloway, Webster, Ill.
115,303.—Steam Trap.—I. E. Giddings, Springfield, Mass.
115,304.—Stanchion.—W. C. Gifford, Jamestown, N. Y.
115,305.—Blasting Furnace.—L. S. Goodrich, Waverly, Ten.
115,306.—Packing Box.—A. Gregg, Watertown, Mich.
115,307.—Wiifflettee.—A. J. Griggs, Pittsburgh, Pa.
115,308.—Soldering Apparatus.—J. Gulden, Keyport, N.J.
115,309.—Wire Rope.—A. S. Hallidie, San Francisco, Cal.
115,308.—Soldering Apparatus.—J. Guiden, Reyport, N.J.
115,309.—Wire Rope.—A. S. Hallidie, San Francisco, Cal.
115,310.—Vire Rope.—A. S. Hallidie, San Francisco, Cal.
115,311.—Horseshoe.—W. H. Halsey, Philadelphia, Pa.
115,312.—Creasing Leather.—B. R. Hamilton, South Deerfield, and S. Swan, Cogway, Mass.
115,313.—Turpentine Box.—V. B. Hamilton, N. Orleans, La.
115,314.—TELEGRAPH REPEATER.—C.H.Haskins, Chieago, III.
115,315.—LAMP BURNER.—H. W. Hayden, Waterbury, Conn.
115,316.—Hub.—P. Heoter, R. Vietor, Grand Rapids, Mich.
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115,317.—WAGON AXLE.—J.H.and P. Hermann, Tell City, Ind. 115,318.—TRIGONOMETRICAL APPARATUS.—E. A. Hickman, Independence, Mo. 115,319.—ANIMAL POKE.—James Hopkins, Akron, Ohio. 115,320.—Wash Boiler.—M. L. Horton, Windsor, Vt. 115,321.—Dumping Cart.—J. B. Hulbert, Hermon, N. Y.

115,322.—Stove Leg.—H. A. Humphrey, Milwaukee, Wis, 115,323.—Churn Dasher.—W. F. Jones, Easton, Kansas. 115,324.—CHUCK.—Wm. Kerr, Jr., Boston, Mass. 115,325.—WASHING MACHINE.—B. Kinne, Syracuse, N. Y. 115,326.—GLASS JAR.—W. M. Kirchner, Pittsburgh, Pa. 115,327.—Digester.—W. F. Ladd, New York city. 115,328.—HAND SAW.—O. H. Langdon, Homer, N. Y. 115,328.—HAND SAW.—O. H. Langdon, Homer, N. Y.

115,329.—LAMP.—H. H. Laughlin, Philadelphia Pa

115,330.—CATCH.—G. C. Lawton, Algona, Iowa. 115,331.—FLOUR BOLT.—F. B. Lewis, Tiffin, Ohio. 115,332.—MUSIC STOOL.—J. R. Lomas, New Haven, Conn. 115,333.—SLIDING DOOR.—T. M. Lyons, New York city. 115,334.—EXHAUST.—P. W. Mackenzie, Blauveltville, N. Y.

115,335.—ELEVATOR.—John Macomb, Chicago, Ill. 115,336.—BAG TIE.—C.P. and W.H.Markham, Rogersville, N.Y. 115,337.—CENTERING MACHINE.—E. McNiel, Groton, N. Y. 115,338.—Boiler.—F. Meyer, New York city. 115,339.—Ventilator.—B. F. Miller, New York city. 115,340.—Eaves Trough.—R. B. Miller, Utica, N. Y.

115,341.—LOCK FOR SASHES.—W. Miller, Boston, Mass. 115,342.—LUBRICATOR.—A. Millochau, New York city. 115,343.—CAR TRUCK.—G. F. Morse, Portland, Me. 115.344.—Drainer.—P. W. Neefus, New York city 115,345.—Door Mat.—P. W. Neefus, New York city.

115,346.—HORSE COLLAR.—James Nellis, Ypsilanti, Mich. 115,347.—TASSEL.—James Norman, Brooklyn, N. Y. 115,348.—GROOVING MACHINE.—H. J. Noyes, Ashtabula, O 115,349.—LETTER BOARD.—J. H. Palm, Mansfield, Ohio.

115,350.—VAPOR BURNER.—G. T. Parry, Philadelphia, Pa. 115,351.—WATCH.—E. H. Perry, Boston, Mass. 115,352.—GARDEN IMPLEMENT.—A. A. Porter, Griffin, Ga. 115,353.—WASH BOILER.—C. W. Powell, Yalesville, Conn. 115,354.—WIREFASTENING.—H. W. Putnam, Bennington, Vt. 115,255.

115,355.—WASHING MACHINE.—L. Putnam, Worcester, Mass. 115,356.—'I'ELEGRAPH RELAY.—C. Rathbone, Albany, N. Sy. 115,357.—BAGATELLE.—M. Redgrave, Cincinnati, ●hio. 115,358.—PINCH BAR.—Abram Reese, Pittsburgh, Pa. 115,359.—STOVE.—H. R. Remsen, Newtonville, N. Y.

115,360.—BOAT DETACHING.—I. A. Richards, Middletown, Ct. 115,361.—Freezer.—Moritz Rosenstein, Boston, Mass. 115,362.—WATER WHEEL.—R. R. Royer, Ephratah, Pa. 115,363.—TOBACCO PIPE.—W. G. Ruge, Holstein, Mo.

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115,364.—Fastening.—A. P. Seymour, Hecla Works, N. Y. 115,365.—Hydraulic Disk.—T. Shaw, Philadelphia, Pa. 115,366.—Wagon Gearing.—J. Shoulder, Scottsville, N. Y. 115,367.—Removing Sediment.—A. J. Simmons, Indianapo-
 115,367.—REMOVING SEDIMENT.—A. J. Simmons, Indianapolis, Ind.
115,368.—GAGE.—D. W. Simmons, Lynn, Mass.
115,369.—CARBURETING.—Byron Sloper, St. Louis, Mo.
115,370.—Shot Gun.—Dexter Smith, Springfield, Ill.
115,371.—BEDSTEAD.—George Smith, Stratford, Canada.
115,372.—WRINGER.—H. E. Smith, New York city.
115,373.—IGNITING GAS.—W. H. Smith, New York city.
115,374.—FLY NET.—William Sohier, Boston, Mass.
115,375.—DRYING PAPER.—W. H. Soley, Philadelphia, Pa.
115,376.—HARVESTER.—J. Souder and E. Miller, Litiz, Pa.
115,377.—MOLD.—Carl Stadelmann, Pittsburgh, Pa.
115,378.—EXTRACTING 'TAR.—J. D. Stanley, Baltimore, Md.
115,379.—SEWING MACHINE.—D. E. Stearps, Berea, Ohio.
115,380.—PADDLE WHEEL.—J. M. Story, Cincinnati, Ohio.
115,381.—Envelope Machine.—H. D. and D. W. Swift, Wor-
       115,381.—Envelope Machine.—H. D. and D. W. Swift, Wor-
     cester, Mass. 115,382.—ENVELOPE MACHINE.—H. D. and D. W. Swift, Wor-
cester, Mass.

115,382.—ENVELOPE MACHINE.—H. D. and D. W. Swift, Worcester, Mass.

115,383.—Desk.—L. and W. F. Sylla, Elgin, Ill.

115,384.—POLISHING STICK.—G. C. Taft, Worcester, Mass.

115,385.—LANTERN.—A. E, Taylor, New Britain, Conn.

115,386.—LIFE PRESERVER.—B. W. Taylor, Henderson, Ky.

115,387.—BREAKING HEMP.—T. Tebow, Lexington, Ky.

115,388.—BAGGING.—Theodore Tebow, Lexington, Ky.

115,389.—WATER WHEEL.—W. J. Thompson, Springfield, Mo.

115,390.—STIRRING MALT.—W. Toepfer, Milwaukee, Wis.

115,391.—PRINTING PRESS.—W. H. R. Toye, Philadelphia, Pa.

115,392.—STEAM HEATER.—C. W. Trotter, Rochester, N. Y.

115,393.—BOBBIN WINDER.—J. W. Vaughan, New York city.

115,394.—CAR COUPLING.—J. B. Vedder, Gloversville, N. Y.

115,395.—BOILING SUGAR, ETC.—I. Vest, New Iberia, La.

115,396.—WAGON JACK.—J. Waguer, Lancaster Co., Pa.

115,397.—SMUT MACHINE.—T. Wallace, Chicago, G. W. Hyde,

Joilet, Ill.

115,398.—VAPOR BURNER.—T. Ward, Columbus, O., H. C.

Hant, Chicago, Ill.

115,399.—CARPET SWEEPER.—O. H. Weed, Boston, Mass.

115,400.—STEAM ENGINE.—P. L. Weimer, Lebanon, Pa.
  115,399.—CARPET SWEEPER.—O. H. Weed, Boston, Mass. 115,400.—STEAM ENGINE.—P. L. Weimer, Lebanon, Pa. 115,401.—PLANING MACHINE.—S. Whitesides, De Pere, Wis. 115,402.—CURTAIN FIXTURE.—W. C. Wilcox, Waltham, Ms. 115,403.—STOP MOTION. P. Wilson, J. Hunter, Manchester, N. H. 115,404.—FURNITURE.—W. H. Windsor, Little Rock, Ark. 115,405.—HORSESHOE CALKS.—E. D. Withers, Parkton, Md. 115,406.—MOVEMENT.—Jacob Woolf, Burr Oak, Mich. 115,407.—WORM REMEDY.—A. E. Wright, Hamlin, N. Y. 115,408.—TABLE SINK.—John Wylie, Bethel, Conn. 115,409.—ICE.—Albert Albertson, Jersey City, N. J. 115,410.—ADJUSTER.—S. A. Alexander, Sunbury, Pa. 115,411.—HARVESTER. A. Anderson, L. Johnston, London, Can.
     115,411.—HARVESTER. A. Anderson, L. Johnston, London, Can.
    115,412.—FLOUR BOLT.—E. D. Auchey, Manheim, Pa. 115,413.—SPIRAL SPRING.—T. Baggott, Baltimore, Md.
  115,413.—SPIRAL SPIRING.—T. Baggott, Baltimore, Md. 115,414.—SAND PAPERING.—J. Barker, Chicago. III. 115,415.—PRUNING SHEARS.—A. Barling, West Chester, Pa. 115,416.—WASH BOARD.—H. H. Bellows, Brooklyn, N. Y. 115,417.—REFINING SUGAR.—R. W. Bender, Boston, Mass. 115,418.—BALANCE.—G. W. Bishop, Saratoga Springs, N. Y. 115,419.—SCALE.—William Black, Baltimore, Md. 115,420.—GAGE.—R. C. Blake, Cincinnati, Ohio. 115,421.—SPIKE EXTRACTOR.—J. A. Bogert, Jersey City, N.J. 115,422.—BOOTS.—A. O. Bourn, Providence, R. I. 115,423.—STEAM HEATER.—Noah Bowen, Columbus, Ohio. 115,424.—AYLE.—A. J. Bower, Albion, III.
    115,424.—AXLE.—A. J. Bower, Albion, III.
115,425.—Profeller.—R. B. Boyman, London, England.
115,426.—Sinker Wheel.—H. C. Bradford, Providence, R. I.
 115,426.—SINKER WHEEL.—H. C. Bradford, Providence, R. I. 115,427.— JORN CULTIVATOR.—G. D. Brown, Lebanon, III 115,428.—TRANSPOSING BOARD.—J.M.Bruner, Roanoke, Ohio. 115,429.—TURPENTINE.—C. J. T. Burcey, Black Rock, Conn. 115,430.—MATCE BOX.—D. Burhans, Burlington, Iowa. 115,431.—TRAIN DRYER.—J. Burns, New York city. 115,432.—RIVET.—W. Butterfield, Boston, Mass. 115,433.—CAR COUPLING.—W. Callow, J., Baltimore, Md. 115,434.—PROPELLER.—W. D. Chapman, Theresa, N. Y. 115,435.—SPINNING HEAD.—J. W. Chappell, Berlin, Mich. 115,436.—MOTOR.—D. A. Constable, J.F. Riggs, St. Joseph, Mo. 115,437.—COOKING APPARATUS.—J. G. Cooey, St. John, Canada, 115,439.—DRAWHEAD.—D.P.Cory, J. Crane, Jr., Crawford, N. J. 115,440.—RENOVATCR.—B. F. Cramer, Tyrone, Pa. 115,441.—SAW.—T. C. Craven, Philadelphia, Pa. 115,442.—DROP Lights.—J. Cunningham. W. Meriden, Conn. 115,443.—ROLLING LEATHER.—J. G. Curtis, Warren, Pa.
 115,442.—DROP LIGHTS.—J. Cunningham. W. Meriden, Conn. 115,443.—ROLLING LEATHER.—J. G. Curtis, Warren, Pa. 115,444.—FURNACE.—M. A. Cushing, Aurora, III. 115,445.—Lock.—G. L. Damon, Cambridge, Mass. 115,446.—SEASONING WOOD.—E. Davee, Marshall, III. 115,447.—GAS JOINT.—C. Deavs, New York city. 115,448.—LATCH.—J. L. Devol, Parkersburg, West Va. 115,449.—AXLE BOX.—D. H. Dotterer, Philadelphia, Pa. 115,450.—TACKLE BLOCK.—E. Doty, Janesville, Wis. 115,451.—TAPPING NCTS.—J. N. Durrell, Dunkirk, N. Y. 115,452.—DRIVEN WELL.—J. Edson, Boston, Mass. 115,453.—WAGON COUPLING.—A. Fassett, Sterling, III. 115,454.—WAGON SEAT.—A. Fassett, Sterling, III. 115,455.—WATCH CASE.—W. Fenimore, Philadelphia, Pa. 115,456.—SHOW STAND.—W. Fisher, New York city. 115,457.—WOOD PAVEMENT.—M. Flanigan, Detroit, Mich. 11.5,459.—CULTIVATOR.—C. Furst, Chicago, III. 115,460.—MEDICAL COMPOUND.—G. H. Goltry, F. W. Hogarth, Port Allegheny, Pa. 115,461.—DRYER.—F. W. Goodale, J. J. Brennan, Danbury, Conn. 115,463.—PACKING.—A. H. Hall, T. Locher, Sacramento, Cal. 115,464.—ALARM BATON.—J. F. Haskins, Fitchburg, Mass. 115,465.—REELING MACHINE.—W. P.Hatch, Lincoln Center, Me. 115,466.—LAMP BURNER.—H. W. Hayden, Waterbury, Conn. 115,467.—COFFEEPOT.—J. Heberling, Mt. Pleasant, Ohio. 115,468.—Cooling Beer.—J M. Heiss, Baltimore, Md.
       115,443.—ROLLING LEATHER.—J. G. Curtis, Warren, Pa.
                                                             -Coffeepot.—J. Heberling, Mt. Pleasant, Ohio.
        115,468.—Cooling Beer.—J. M. Heiss, Baltimore, Md.
       115,469.—THREAD CUTTER.—J. J. Henry, Baltimore, Md. 115,470.—RAILWAY SWITCH.—B. linkley, Troy, N. Y. 115,471.—ROOF.—I. Hodgson, W. H. Brown, Indianapolis, Ind. 115,472.—CELLING.—I. Hodgson, W. H. Brown, Indianapolis.
          115,473.—Leather.—J. Hodskinson, Salem, Mass.
        115,474.—OYSTER SHUCKER.—G. Holtzmann, Baltimore, Md. 115.475.—PAVEMENT.—VV. W. Hubbell, Philadelphia, Pa.
         115,476.—STOVE.—J. G. Hunt, Cincinnati, Ohio.
115,477.—STEAM HEATER.—A. L. Ide, Springfield, Ill.
115,478.—VALVE MOTION.—S. Ingersoll, Brooklyn, N. Y.
    115,479.—SAFE.—G. H. Ireland, Somerville, Mass.
115,480.—CUTTING NAILS.—C. F. Johnson, Jr., Owego, N. Y.
115,481.—CLOCK.—G. A. Jones, New York, H. H. Warner,
115,482.—GRATE BAR.—J. Jones, Rochester, N. Y.
115,483.—FIREARM.—B. F. Joslyn, New York city.
115,484.—STAINING WOOD.—J. M. Keller, Evansville, Ind.
115,485.—BEDSTEAD.—M. Lally, East Palestine, Ohio.
115,486.—WASHING COAL.—G. Lander, New York city.
115,487.—SKATE.—B. M. Lank, Oswego, Kan.
115,488.—COMB AND BRUSH.—T. Lanston, Washington, D. C.
115,489.—Photograph.—W. A. Leggo, Montreal, Canada.
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115,490.-Mold.-W. A. Leggo, Montreal, Canada 115,491.—WRINGER.—J. Makechney, Trenton, N. J. 115,492.—HEAD BLOCK.—H. R. Martin, Hillsborough, N. H. 115,492.—HEAD BLOCK.—H. R. Martin, Hillsborough, N. H. 115,493.— BOOTS.—W. May, Binghamton, N. Y. 115,494.—CABINET.—H. W. McAllister, Chicago, Ill. 115,495.—FIRE PLUG.—J. McClelland, Washington, D. C. 115,496.—CHURN DASHER.—J. W. McClure, St. Louis, Mo. 115,497.—WHEEL.—J. McCree y, Springfield, Ill. 115,498.—CARTRIDGE.—I. M. illbank, Greenfield Hill, Conn. 115,499.—SAW FRAME.—H. S. Miller, Philadelphia, Pa. 115,500.—SAW FRAME.—H. S. Miller, Philadelphia, Pa. 115,501.—INDICATOR.—F. Millward, Cincinnati, Ohio. 115,502.—ORDNANCE.—A. Moncrieff, Culfargie, Scotland. 115,503.—ROCK DRILL.—D. Morrison. Portland. Me. 113,502.—URDNANCE.—A. Moncrieff, Culfargie, Scotland. 115,503.—ROCK DRILL.—D. Morrison, Portland, Me. 115,504.—FELLY PLATE.—F. B. Morse, Plantsville, Conn. 115,505.—DISTRIBUTER.—J. A. Morton, New Orleans, La. 115,506.—GAS BURNER.—H. B. Meyer, Philadelphia, Pa. 115,507.—CAR COUPLING.—W. Nichols, Centralia, Ill. 115,508.—LOOM.—A. Nimmo, Philadelphia, Pa. 115,508.—HOME.—E. D. Norton, Cubb. N. V. 115,509.—HINGE.—E. D. Norton, Cuba, N. Y. 115,510.—CAR CHAIR.—W. Palmer, New York city. 115,511.—NAPKIN.—E. Parrish, Philadelphia, Pa. 115,511.—NAPKIN.—E. Parrish, Philadelphia, Pa.
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115,515.—Grate.—J. F. Phelps, Huntsville, Ind.
115,516.—Sewing Machine.—D. T. Pittenger, Trenton, N. J.
115,517.—Car Coupling.—A. Porter, Irving, Ill.
115,518.—Electromagnetic Machine.—J. W. Powell, New York City. 115,519.—ELECTROMAGNETIC MACHINE.—J. W. Powell, New York city.
115,519.—GALVANIC BATTERY.—J. W.Powell, New York city.
115,520.—HORSHOE MACHINE.—D. L. Pruner, Bellefonte, Pa.
115,521.—INSCLATOR.—H. Read, Jersey City, N. J. 115,521.—INSCLATOR.—H. Read, Jersey City, N. J.
115,522.—CAR COUPLING.—W. Rickards, Jr., Franklin, Pa.
115,523.—GRAIN DRILL.—J. L. Riter, Brownsville, Ind.
115,524.—LAMP WICK.—H. T. Robbins, Hyde Park, Mass.
115,525.—HARROW.—Wm. E. Robbins and George Enderton,
Sterling, Ill.
115,526.—CULTIVATOR.—C. F. Ruggles, Henderson, Ky.
115,527.—LAMP SHADE.—Edward Russell, Waterbury, Conn.
115,528.—LAMP —Marks Samuels, San Francisco, Cal. 115,529.—LAMP—Marks Samueis, San Francisco, Cal.
115,529.—Needle Wrapper.—C.Schleicher, Scheenthal, Prus.
115,530.—PITCHING CASKS, ETC.—L. Schulze, Baltimore, Md.
115,531.—Tree Box.—E. O. Schwagerl, St. Louis, Mo.
115,532.—Ax Handle.—J. M. Sears, Vandalia, Ill.
115,533.—CAR HEATER.—Joseph Shackleton, Rahway, N. J.
115,534.—Shade Roller.—C. D. Shrieves, Philadelphia, Pa.
115,534.—Shade Roller.—C. D. Shrieves, Philadelphia, Pa.
115,534.—Shade Roller.—R. D. Smith, Watchburg, Con. 115,534.—Shade Roller.—C. D. Shrieves, Philadelphia, Pa. 115,535.—BUCKLE.—E. A. Smith, D.L.Smith, Waterbury, Conn. 115,536.—BURIAL CASE.—E.T.Smith, J.S. Winston, New York. 115,537.—PLOW.—G. M. Smith, Pittsburgh, Ind. 115,538.—GANG SAW MILL.—H. F. Snyder, Williamsport, Pa. 115,539.—CAR SEAT. C.Stevenbanks, J. Quinn, Wilmington, Del. 115,540.—Stove Leg.—D. Stuart, L. Bridge, Philadelphia, Pa. 115,541.—AUGER.—James Swan, Seymour, Conn. 115,542.—DOCUMENT CASE.—C. S. Trevitt, Washington, D. C. 115,543.—SUBSOIL PLOW.—R. Themar, Brand Brothers, Sheboygan, Wis. 115,544.—CLOTHES LINE HOUSING.A. Turnbull, NewBritain, Ct. 115,544.—CLOTHES LINE HOUSING.A. Turnbull, NewBritain, Ct. 115,544.—WEATHER STRIP.—A. M. Illmer. Philadelphia. Pa. 115,545.—Weather Strip.—A. M. Ulmer, Philadelphia, Pa. 115,546.—Firearm.—F. Von Martini, Frauenfeld, Switzerland. 115,547.—Diarrhea Medicine R. A. Walton, Shawneetown, Ill. 115,548.—DIARRHEAMEDICINE.R.A. Wakon, Shawheetown, III. 115,548.—Cartridge.—C. S. Wells, Springfield, Mass. 115,549.—AxleGage.—D.C. Wetsell, Carrolltown, Pa. 115,550.—Bracket.—J. M. Whiting, Providence, R. I. 115,551.—Water Wheel.—T. Whitmore, Waterloo, Iowa. 115,552.—Churn.—J. B. Williams, Glastenbury, Conn. 115,553.—Seed Drill.—G. W. Millner, Charlottetown, P.E.I. 115,554.—Photograph Paper.—J.L. Winner, Elizabeth N.C.

## REISSUES.

REISSUES.

4,399.—EVAPORATING BRINE.—S. D. Gilson, Syracuse, N.Y.—
Patent No. 108,701, dated Oct. 25, 1870.

4,400.—PRINTING PRESS.—R. M. Hoe, S. D. Tucker, New York city.—Patent No. 84,627, dated Dec. 1, 1878.

4,401.—RADIATOR.—Wm. Steffe, Philadelphia, Pa.—Patent No. 80,683, dated Aug. 11, 1888.

4,402.—STENCIL PLATE.—E. L. Tarbox, New York city.—
Patent No. 8,622, dated Aug. 11, 1888.

4,403.—Division A.—TAP FOR OIL PACKAGES.—A. Warth, Stapleton, N.Y.—Patent No. 110,612, dated Dec. 27, 1870.

4,404.—Division B.—TAP FOR OIL PACKAGES.—A. Warth, Stapleton, N.Y.—Patent No. 110,612, dated Dec. 27, 1870.

4,405.—CRIB FOR HORSES.—Henry Eddy, North Bridgewater, Mass.—Patent No. 86,237, dated Aug. 26, 1862.

4,406.—WASHER.—J. H. Gridley, Washington, D. C.—Patent No. 62,483, dated reb.28, 1867; reissue No.4,854, dated Apr. 25,1871.

4,407.—CHANNELIN® ROCIC.—E. G. Lamson, Shelburne Falls, Mass.—Patent No. 58,435, dated Oct. 2, 1866; reissue No.3,386, dated April 13, 1869.

4,408.—ADJUSTABLE DASHER FOR VEHICLES.—G. M. Peters, Columbus, Onio.—Patent No. 102,315, dated April 26, 1870.

4,409.—CIRCULAR SAW MULL.—S. R. Smith Cincipanti O.—

4,409.—Circular Saw Mill.—S. R. Smith, Cincinnati, O.—Patent No. 102.315, dated April 26, 1870.

4,409.—Circular Saw Mill.—S. R. Smith, Cincinnati, O.—Patent No. 16,454, dated Jan. 20, 1857; extended 7 vears.

4,410.—Railroad Turn Table.—A. J. Wight. W. J. Meeker, Newark, N.J.—Patent No. 104,388. dated June 14,1870.

#### DESIGNS. 4,942.—Clock Front.—John A. Batchelor, New York city.

4,942.—CLOCK FRONT.—John A. Batchelor, New York city.
4,943.—CARPET PATTERN.—R. Charlton, Liversedge, Eng.
4,944.—CARPET PATTERN.—John Fisher, Enfield, Conn.
4,945.—CHAIN PUMP.—Henry L. Fry, Cincinnati, Ohio.
4,946.—SHOWCASE.—W. H. Grove, Philadelphia, Pa.
4,947.—STOVE.—L. W. Harwood, Troy, N. Y.
4,948.—CLOCK CASE SASII.—Elias Ingraham, Bristol, Conn.
4,949.—BELLOWS.—Alfred F. Jones, New York city.
4,950 to 4,952.—CARPET PATTERN.—W. Kerr, Philadelphia, Pa.
4,953.—OVEN SHOVEL.—The mas Lyons, Hartford, Conn.
4,954.—FRUIT CAN.—John F. Merrill, Cincinnati, Ohio.
4,955.—BED QUILT.—John U. Nef, Housatonic, Mass.
4,956.—CARPET PATTERN.—John H. Smith. Enfield. Conn. 4,956.—CARPET PATTERN.—John H. Smith, Enfield, Conn. 4,957.—CELLULAR FABRIC.—Thomas Dolan, Philadelphia, Pa 4,958 to 4,961.—IRON MANTEL.—C. B. Evans, J. Carlisle, G. H. Burrows, Cincinnati, Ohio.
4,962.—Bracket.—H. Gilson, C. F. Southwick, Nashua, N.H. 4,963.—CENTER PIECE IN CEILINGS.—E. Goutink, Detroit, Mich. 4,964.—Weatherboarding.—Jacob Jacoby, Johnstown, Pa. 4,965,4,966.—CENTER PIECE.—S. Kellett, San Francisco, Cal. 4,967.—CLAW BAR.—John McMahon, Wooster, Ohio. 4,968.—FLOOR CLOTH PATTERN. V. E. Meyer, Lansingburg, N. Y. 4,969.—SPADE, —Harrison Parkman, Philadelphia, Pa.

## TRADE-MARKS

290.—FLOUR.—S. H. Anderson & Co., Palmyra, Mo.

#### Inventions Patented In England by Americans,

May 9 to May 15, 1871, inclusive [Compiled from the Commissioners of Patents' Journal, CLEANSING FABRICS .- E. Bacon, New York city. COFFERDAM. J. E. Walsh, New York city. CULTIVATOR .- M. Johnson, Three Rivers, Mich. FARE COLLECTER .- J. B. Slawson, New York city. FERTILIZER.-G. T. Lewis, Philadelphia, Pa. GOVERNOR .- R. K. Huntoon, Mass. MIRROR.-Florence Manufacturing Co., Florence, Mass. SELF-RAISING FLOUR.-G. Gray, Boston, Mass. TRACTION ENGINE .- A. Campbell, R. Clark, Sacramento, Cal. WEIGHING MACHINE.-F. A. & C. H. Allen, Mansfield, Pa.

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