HAND DRILLING MACHINE.—James E. Hunter, North Adams, Mass.—This invention relates to a new and useful improvement in hand drilling machines, whereby the same are adapted to all the various purposes for which hand drills are used; and it consists in so constructing and arranging the parts that the drill may be used as a ratchet drill, with an intermittent motion, or with a continuous crank motion, and so that the drill head may adjusted to drill holes at any angle.

STRAW CUTTER.-John S. Jones, Covington, Ind.-This invention has for ts object to improve the construction of straw cutters, so as to make them more convenient and effective in use, enabling them to cut the straw or nay entirely off, and to feed the said straw or hay forward automatically.

SHOVEL HANDLE.-George C. Choate, Wyoming Station, Wyoming Territory.—'This invention has for its object to furnish an improved shovel handle, which shall be so constructed and arranged that its end may be used as a tamping iron, or rammer, in leveling and raising railroad ties, in setting fence posts and telegraph poles, and for other purposes where a shovel and rammer are both required.

MOPS, MATS, WIPING CUSHIONS, ETC.-Hamilton ErastusSmith, Newark, N. J.-This invention has for its object to make sponge applicable to the rough usage which mops, mats, wiping pads, or cushions, or similar articles are subjected. The extreme porosity of the sponge makes the same particularly useful for the purposes of absorbing moisture the weakness, however, has thus far disqualified it for the rough usage, as thereby it would be too rapidly destroyed. The invention consists in strengthening the sponge by inclosing it in porous fabric whereby it will become durable without losing its porous quality.

CLOTHES WRINGER.-Allen Magowan, Trenton, N. J.-This invention re lates to improvements in clothes wringers, and consists in an improved arrangement of the pressure springs in connection with the sliding rollers Also in an improved arrangement of the support for the brackets holding the set screws by which the wringer is attached to the tube, or other support.

BELT SHIFTER.-W. E. Leighton, Pembroke, Ill.-This invention relates to improvements in belt-shifting apparatus, and consists in the application to the belt of a pair of clamping pulleys or rollers capable of clamping the belt between them, and of being turned obliquely to the line perpendicular to that of the belt either way, whereby the belt will be caused to move laterally, either to the right or left, as the said clamping pulleys are

TYPE FOR PRINTING "TYPE RIBBON."-Henry Stephenson, William Thompson, and Wm. G. Blake, Sheffield, England.-This invention relates to a new and improved arrangement of type, whereby "type ribbon," so called, may be printed in various forms by type set up in forms the same as The invention consists in a set of type of peculiar construction, which, when arranged together in a form, and with a thick and a thin brass or other metal rule, will represent the reverse of a design of "type ribbon," that is, a ribbon arranged in space and folded back and orth so as to present two or more rows of plain surfaces, with intervals between, one above another, with diagonal parts between the rows and terminating with waving ends, on which plane surfaces advertisements may be printed by ordinary printing type set up the forms with these improved type.

STREET CAR.-James A. Morrison, Brady's Bend, Pa.-This invention relates to improvements in street cars, and consists in an improved as rangement of means for applying hand-power for propelling them; also in animproved application of track-sweeping or clearing apparatus.

TUBE WELLS .- William R. Hamilton, Oakland, Pa.-This invention consists of semi-elliptic springs attached lengthwise, by means of sliding rings to the tubings of an artesian well, for the double purpose of steadying the tubing in the well, and sustaining, by their pressure against the sides of the pore, part of the weight of the tubing; and further in combining with the tubing, a pipe passing vertically downward for the purpose of conveying hot water to the bottom of the well in order to melt the thick oleaginous matter which always collects there and obstructs the lower orifices of the

MANUFACTURE OF ICE AND THE REFRIGERATION OF AIR AND SUB STANCES .- D. L. Holden. New Orleans, La .- This invention relates to the manufacture of ice, and refrigeration of air by means of cold produced by the vaporization of chimogene, or other volatile hydrocarbon. in a vacuum the vapor drawn off in the production of the vacuum being returned to the receptacleagain in a liquified form.

SAW-FILING CLAMP.-Platt Merrill, Port Sanilac, Mich.-This invention elates to a new and useful device for helding saws in the process of filing them, whereby files as well as much time and annoyance is saved.

WASHING MACHINE.-Hamilton Erastus Smith, Newark, N. J .- The ob ect of this invention is to provide a rotary machine for washing large quantities of clothes by the employment of a washing cylinder within which the clothes are contained.

CORN PLOW .- M. C. Buffington, La Harpe, Ill. - This invention consists of certain improvements in the construction and management of parts of

CONTINUOUS SELF-FEEDING COTTON GIN .- Jules Alfred Chaufourier, New York city.—This invention relates to improvements in machinery for ginning cotton, by means of which a continuous and self-acting feed is obtained. The machine is of simple construction, and is arranged so as to prevent breakage of the fibers of cotton, and does not require and particular attention; one man may easily manage several machines at one time.

UNITED STATES SUPREME COURT.

The United States ex rel. A. O. Bourn vs. Charles Goodyear, Executor.—
Appeal from the Circuit Court for the Southern District of New York.
'nissuit is commenced in the name of the United States for the purpose
of setting aside the Goodyear patent on the ground offraud in the procurement of its ext-n-sion; and the question presented is, whether the alleged
fraud in the procure-ment of the extension can be investigated and the
patent canceled and declared void, in a proceeding instituted in the name
of the United States, at the relation of one of its citizens directly for that
purpose.

purpose.
It has been decided in other branches of the Goodyear patent litigation that a patent or the extension of a patent cannot be attacked in any collateral proceedings, except in certain cases provided for by the act of 1886, A semurer was interposed below in this case, on the grounds of want of equity in the relation, want of jurisdiction of the subject matter, the Statute of Limitations, and the expiration of the term of the patent before commencement of suit.

nte of Limitations, and the expiration of the term of the patent before commencement of suit.

The demurrer was sustained pro forma without argument, and an appeal taken to this Court.

If The appetite insists, that as the appellant consented to the making of the discree appealed from, he is precluded from questioning it, or reviewing it by appeal. After presenting at length the points of the demurrer, it is submitted that the law makes the Commissioner of Patents the judge of the merits of the application for the extension. The relator concedes that the Commissioner is judge, except in cases of fraud, and contends that in such a class the Courts have jurisdiction to set aside the patent so obtained. It is urged that as the action is brought to declare void the patent, and not be review the action of the Commissioner, in any manner, the Statute of Limitations does not apply.

Injury in his business, suffered by the relator, it is submitted, sufficiently qualifies him as a party complainant in the suit. As to the expiration of the patent, it is alleged it has not expired in point of fact; but, if it had, the argument is, if the extension was fraudulent, it was void ab initio, and is as though it had not issued. All that can grow out of it, or come from ti, is tainted with fraud.

The expination of the term cannot prevent the patentee from recovering

is as though it had not issued. All that can grow out of its of come from it, is tainted with fraud.

The expitation of the term cannot prevent the patentee from recovering unpaid bounties and tariffs, or damages for infringement. Yet if the extension was obtained transdutently, all these claims of the patentee are wholly unfounded, and his right to recover anything absolutely gone.

J. H. Parsons, A. Payne, and Caleb Cushing for appellant; E. W. Stoughton and Wm. E. Curtis for appellee.

James C. Stimpson vs. Charles T. Woodman.—Error to the Circuit Court r the District of Massachusetts.

This was an action to recover for the intrigement of a patent to Wood man for an improvement in ornamenting leather. The description files was an action to recover for the intrigement of a patent to Wood man for an improvement in ornamenting leather. The description files was a naction to recover for the intrigement of a patent to Wood man for an improvement in ornamenting leather. The description files were the state when the pebbled impression is made. The other consists in combining a short metallic roller, having the required figure engrave appoints purification on which the pebbled impression is made. The other consists in the roller at the end of the radial arm is brought in contact with the table of a curvature corresponding to the src described by the roller in its vibrations on which the leather is placed for pebbling, and is rolled over the leather is placed for pebbling, and is rolled over the roller with suitable pressure to produce the required impression.

The defense was, that long print to Woodman's invention the pebbling roller was a well-known currier's tool, effectively used in hand devices.

101,752.—BAILWAY.—E. G. Markley, Sunbury, Pa.
101,753.—BAILROAD CAR STOVE.—Samuel Meredith (assignor to be inself, John Wood, and C. B. Dodd), West Philadelphia, Pa.
101,753.—BAILROAD CAR STOVE.—Samuel Meredith (assignor to be inself, John Wood, and C. B. Dodd), West Philadelphia, Pa.
101,754.—SAW CLAMP.—Platt Merrill, Port Sanilac, Mich.
101,838.—Wheat Drill.—Joseph Dillier, Greensburg, Ind.
101,838.—Wheat Drill.—Joseph Dillier, Greensburg, Ind.
101,838.—Apple Corer and Slicer.—R. J. Dodd, Orth,Ind.

and leather-finishing machines, interchangeably with other figuring tools; that Woodman's machine was fully anticipated by the machine of one Green, which had been used to operate not only non-rotating figured cylindrical tools, but a rotating cylindrical tool differing from the pebbling roller only in having a smooth instead of a figured surface; that the introduction of the pebbling roller into the Green machine was not a matter of invention, but of common knowledge and skill, and that the machine of Stimpson is substantially the same as the Green machine.

Under the charge of the Court the verdict was for Woodman, and the plaintiff in error brings the case here, contending that the introduction of an old mechanical device into an old machine, in the same mode, and for the same purpose that had been previously introduced into an analogous machine, is not a patentable novelty; and that, viewed as a combination of old elements, it is not new within the meaning of the patent law, and that viewed as a process or mode of operation, it is only what is known in law as a double use of the device on the one hand, and of the machine on the other, and therefore not the subject of a valid patent. It is contended, therefore, that the Court should have submitted to the jury the questions whether the pebbling roller itself was old, and had been used in prior matherefore, that the Court should have submitted to the jury the questions whether the pebbling roller itself was old, and had been used in prior machines; whether the other machinery, apart from the pebbling roller, was not old, and whether the mode of introducing the pebbling roller was not substantially the same as in prior machines, and was within the common knowledge and skill of mechanics; and it is claimed that had these questions been found in the affirmative, then under the rulings of the Court, as matter of law, the claim of the patent must have talled.

B. R. Curtis and George L. Itouerts for the plaintiff in error; T. L. Wakefield, forthe defendant.

Official List of Latents. Issued by the United States Patent Office

FOR THE WEEK ENDING April 12, 1870.

Reported Officially for the Scientific American.

| SCHEDULE OF PATENT OFFICE FEES: On each caveat. | R 1 |
|--|------------|
| On filing each application for a Patent (seventeenyears) | ř |
| On appeal to Commissioner of Patents | 2 |
| On appeal to Commissioner of Patents. On application for Reissue. | 18 |
| On application for Extension of Patent On granting the Extension On tiling a Disclating On an application for Design (three and a half years). | 10 85 |
| On tiling a Disclaimer | ķį |
| On an application for Design (seven years) | - 1 |
| On an application for Design (fourteen years) | 33 |
| For carry of Claim of any Patent issued within 30 years | R |

101,698.—KNIFE SCOURER.—J. Q. Adams and S. R. Goodsell,

Brooklyn, N. Y.

101,699.—Door Bell.—Wm. Allport, New Britain, Conn.

101,700.—Street Sprinkler.—J. A. Bancroft, Worcester, Mass, assignor to L. F. Bancroft and Andrew B. Yetter, New York city.

101,701.—CUTTER HEAD FOR PLANING MACHINE.—B. J. Barber, Ballston Spa, N.Y.
101,702.—TRUCK FOR MOVING BUILDINGS.—Jesse Barlow

Van Meter, Iowa. 101,703.—INKING APPARATUS. — Henry Barth, Cincinnati, 101,704.—FIRE KINDLER.—Charles Batcheller, Des Moines,

101,705.—HAY LOADER.—J. M. Boorman, Scarborough, N. Y. 101,706.—CORN PLOW.—M. C. Buffington, La Harpe, Ill. 101,707.—TIN CAN.—J. J. Burkert, New York city.

101,703.—APPARATUS FOR SEALING PIPE JOINTS.—William Cassidy, New Beaford, Mass.
101,709.—Self Feeding Cotton Gin.—J. A. Chaufourier,

Paris, France. 101,710.—ROTARY SPADER.—James Chenoweth, Shelbyville,

101.711.—Shovel Handle.—G. C. Choate, Wyoming Station, Wyoming Territory.
101,712.—CLOTHES DRYER.—J. V. Clark, Camden, N. J.
101,713.—Fanning Mill.—Barnard Cortrite, Norwalk, Ohio.
101,714.—Washing Machine.—W. H. Cox, Knox county,

101.715.—Sabh Holder.—T. H. Davis, St. Joseph, Mo. Ante-

101,715.—SABH HOLDER.—1. H. Davis, St. Joseph, Mo. Alacdaded April 6, 1870.
101,716.—Mor Head.—Hezekiah Dodge, Albany, N. Y. Antedated April 4, 1870.
101,717.—Earth Closet.—J. A. Drake and W. R. C. Clark, New Orleans, La.
101,718.—B ASE BURNING STOVE FOR A STEAM HEATING

Boiler.-W. B. Dunning, Geneva, N. Y. 101,719.—HARVESTER.—Rudolf Eickemeyer, Yonkers, N. Y.

101,720.—SULKY CULTIVATOR.—Frank Farnsworth, Frankfort, 101.721.—Corn Harvester.—Henry Flesher, Springfield,

111. 101,722.—HAIR MEDICINE.—A. J. Fletcher, Red Bluff, Cal.

101,723.—LAMP.—S. W. Fowler, Brooklyn, N. Y. 101,724.—CAR SPRING.—Carlos French. Seymour, Conn. 101,725.—WATER WHEEL.—J. L. Frisbie, Hillsdale, Mich. 101,726.—Swivel for Temper Screws.—Thomas Graham 8 amburg, Pa. 101,727.—WASHING MACHINE.—John A. Hall, Newburg,

Canada. 101,728.—Photographic Printing Apparatus.—James H.

101,728.—PHOTOGRAPHIC PRINTING APPARATUS.—James H. Hamilton, Sioux City, Iowa.
101,729.—DITCHING PLOW AND HEDGE GRADER.—Daniel Harmon, Coles County Ill.
101,730.—CORK.-CUTTING MACHINE.—E. F. Harrington, Boston, assignor to himself and John I. Munroe, Woburn, Mass.
101,731.—POTATO SEPARATOR.—Richard Haviland (assignor to himself and Charles Ware). North Branch, Md.
101,732.—MACHINE FOR COLORING PAPER HANGINGS.—John Heist (assignor to himself, C. Zink, and H. Spoehrer), New York city.
101,733.—HEATING STOVE.—M. C. Hull, New York city.
101,734.—PICKER FOR LOOMS.—Joshua Hunt and Albert Stockwell, Providence, R. I.

101,734.—PICKER FOR LOOMS.—Joshua Hunt and Albert:
Stockwell, Providence, R. I.
101,735.—APPARATUS FOR EXTRACTING MADDER.—James
Hunter, Philadelphia, Pa.
101,736.—MACHINE FOR SEPARATING FLOUR FROM BRAN.—
W. W. Huntley and Alpheus Babcock (assignor to W. W. Huntley and
Frank Swift), Silver Creek, N. Y. Antedated February 22, 1870.
101,737.—MANUFACTURE OF GLASS.—C. H. Jenkins, Boston,

Mass. 101,738.—Tug-Fastening for Whiffletree.—L. A. John-

son Candor, N. Y.

101,739.—VIBRATING COLTER FOR PLOWS.—J. S. Johnston, Rockford, Ill. Antedated April 1, 1870. 101,740.—FAN ROCKING-CHAIR.—Geo. R. G. Jones, Memphis,

Tenn. 101.741.—STRAW CUTTER.—J. S. Jones, Covington, Ind. 101,742.—TREMOLO ATTACHMENT FOR REED OR PIPE ORGANS.
—Michael J. Kerigan, Boston, Mass.
101,743.—Splint for Fractured Limbs.—George S. King,

101.743.—SPLINT FOR FRACTURED LIMBS.—George S. Aing, Washington, D. C.
101.744.—S NK APPARATUS FOR DRAINING CELLARS.—Adam Knacker, Meadville, Pa.
101.745.—Belt Shiffer.—W. E. Leighton, Pembroke, Me.
101.746.—ROCK DRILL.—Samuel Lewis, Williamsburg, N. Y.
101.747.—STEAM ENGINE.—G. E. Long, Harrisburg, Pa. 101,748.—LAMP.—E. E. Lyon, Worcester, Mass.

101,749.—CLOTHES WRINGER. — Allan Magowan, Trenton,

101,756.—FEED-WATER REGULATOR AND LOW-WATER ALARM. -A. W. Morrell, Niles, wich.

101,757.—TRACK CLEARER FOR STREET CARS.—J. A. Morrison, Brady's Bend, Pa.

101,758.—TABLE FOR CHANGING GAGE OF RAILWAY CAR

TRUCRS.-G. F. Morse. Portland, Me. 101,759.—GRAIN DRYER.—I. Y. Munn, Chicago, Ill. 101,760.—CIRCULAR SAW MILL.—Peter Neeb, Buffalo, N. Y Antedated April 5, 1870. 101,761.—TANK FOR STORING OIL.—Person Noves, Lowell,

Mass.
101,762.—BOILER FEEDER.—S. J. Parker, Williamsport, Pa. 101,763.—Machine for Burring and Cleaning Wool, etc —Ziba Parkhurst, Milford. Mass. 101,764.—Easy Chair.—W. C. Poppendieche, New York

city.
101,765.—GATE.—Fitch Raymond, Cleveland, Ohio.
101,766.—PLOW FEEDER.—Joseph Richardson, Ballston Spa, 101,767.—STEAM GENERATOR.—Michael Ritchey, Patterson,

101,768.—Washing Machine.—J. D. Royse, and John Royse,

101,768.—Washing Machine.—J. D. Royse, and John Royse, Cane Valley, Ky.
101,769.—Street Lamp.—W. G. Schmidlin and J. W. Driscoll, New York city.
101,770.—Money Safe.—Philipp Schreyer, New York city.
101,771.—Regulating Device for Gas Burners.—Henry Schultz), assignor to himself and Henry C. Bentley), Milwaukee, Wis.
101,772.—Store and Household Grapple.—John Seltzer, Philadelphia, Pa. Antedated March 23, 1870.
101,773.—IMPLEMENT.—W. A. Sharp, Tama City, Iowa. Antedated April 7, 1870.
101,774.—Tubular Well.—J. Shaw, Bridgeport, Conn. Antedated April 4, 1870.
101,775.—Roofing Tile.—George Shove, Yarmouth Port, Mass.

101,776.—MULTIPLE SPONGE.—Hamilton E. Smith, Newark, 101,777.—Mop, Mat, and Wiping Cushion.—H. E. Smith,

Newark, N. J.

101,778.—WASHING MACHINE.—H. E. Smith (assignor to Mrs. Mary Jane Smith). Newark, N. J.

101,779.—MECHANISM FOR OPERATING THE FEEDING WHEEL

IN SEWING MACHINES.—Friedrich Spoehr, Philadelphia, Pa. 101,780.—APPARATUS FOR MOVING THE CARS.—E. Springer, Davis, Ill. 101,781.—PICTURE NAIL.—J. H. Squier and E. J. Warner,

Newark, N. J. 101.782.—VENEER CUTTER. — William Steele, Sistersville, W. Va. 101,783.—MANUFACTURE OF SUGAR AND ALCOHOL FROM LICH-

ENS.—Sten Stenberg. Stockholm, Sweden. 101,784.—MILK CAN.—A. Sunderland, Madison, Ohio.

101,785.—WOOD PULP MACHINE.—Stephen C. Taft, Mendon, 101,786.—Paper for Checks, Drafts, Notes, etc.—G. F. Thomae, Jr., Brooklyn, N.Y.

101,787.—Dust Arrester for Railroad Cars.—W. M. K.

Thornton, Rolla, Mo. 101,788.—Scroll-sawing Machine.—E. A. Tripp, Newark, N. J. 101,789.—FRUIT AND EXTENSION LADDER.—Melzer Tuell (assignor to himself, Lewis D. Young, and B. F. Fenner), Penn Yan, N. Y. Antedated April 9, 1870.

-Counter and Show Case.-L. F. Vienot, New York 101,791.—RAILWAY CAR BRAKE.—Edward P. Vining, Grand Rapids, Mich.
101,792.—Piston Packing. — Ellery A. Walker, Hyannis

Mass. 101.793.—COAL DIGGING APPARATUS. — William Ward Pittsburgh. Pa. 101,794.—SHIRT BOSOM AND WRISTBAND COMBINED.—E. H N. Warner, New York city. 101.795.—GRATE BARS FOR STEAM GENERATORS.—Marshall

101,795.—GRATE BARS FOR STEAM GENERATORS.—Marshan D. Wellman, Allegheny county, Pa.
101,796.—Countersink.—Asa Wheeler (assignor to Geo. B. Wheeler), Brattleborough, Vt.
101,797.—D181C STAND.—H. C. Wilcox. West Meriden, Conn., assignor to Woods, Sherwood & Co., Lowell, Mass.
101,798.—Slate Frame.—W. A. Wilde, Malden, Mass.
101,799.—Stovepipe Shelf.—Joseph W. Wilder, Leominster

101,800.—Machine for Twisting and Curling Hair.—P

Wisdom, Brooklyn, and J. H. Wilcox, New York city. 101,801.—Chas. B. Withington.—Suspended.

101,801.—Chas. B. Withington.—Suspended.
101,802.—ROCKER FOR CHAIRS.—Wilhelmina J. Zakrzewska Berlin, Prussia.
101,803.—PADLOCK.—A. M. Adams, Washington, D. C.
101,804.—WOODEN BOX.—Olif Abell, Wolcott, Vt.
101,805.—WOODEN BOX.—Olif Abell, Wolcott, Vt.
101,806.—APPARATUS FOR LIGHTING AND EXTINGUISHING GAS.—A. N. Allen and R. H. Dewey, Pittsfield, Mass.
101,807.—OIL CUP.—A. C. Ancona, Evansville, Ind.
101,808.—ATTACHING KNOB TO SPINDLES.—M. Andrew, Mel bourne. Colony of Victoria.

bourne, Colony of Victoria.
101,809.—CORN HUSKER.—L. Augustus Aspinwall, Albany, 101.810.—Churn.—Mahlon B. Atkinson, Georgetown, D. C.

101.811.—CLOTH-STRETCHING MACHINE.—Solomon H. Austin, Providence, assignor to W. J. Austin, smithfield, R I.
101.812.—APPARATUS FOR TANNING BY INFILTRATION.—J. G. Baker, Wilmington, Del.
101.813.—STAND FOR TEA AND COFFEE

Worcester, Mass.
101,814.—AUTOMATIC RELIEF VALVE.—A. M. Black, Provi dence, R. I.

101,815.—Tubular Shaft for Clocks.—G. H. Blakesley,

Bristol, Conn.

101,816.—WIRE WORK FOR RAILINGS, ETC.—W. R. Boerner, (assignor to himself and C. R. Boerner), Chicago, Ill.

101,817.—MECHANISM FOR STOPPING THE SHUTTLE IN LOOMS.

-S. Boorn. Lowell, Mass.
101,818.—BRAKE BLOCK FOR WAGONS.—Wm. H. Bradt, New Scotland, N. Y.
101,819.—HORSE COLLAR BLOCK.—E. L. Brazenor (assignor to

101,819.—HORSE COLLAR BLOCK.—E. L. Brazenor (assignor to Richard Brazenor), Birmingham, Great Britain.
101,820.—SPECTACLE FRAME.—Chauncey Buckley (assignor to Charles Parker), Meriden, Conn.
101,821.—SPOKE SOCKET FOR CARRIAGE WHEELS.—A. J. Carleton, springfield, Mass.
101,822.—COTTON AND TOBACCO PRESS.—Nash Cheek, Chapel Hill. N. C.
101,823.—INDIARUBBER CARPETING AND EMBOSSED MATTING.—John H. Cheever, New York city.

-John H. Chever, New York city.

101,824.—Combined Pulley and Clamp.—Milton W. Clark

Worcester. Mass. 101,825.—SEAT AND CAP FOR TIE AND SILL PLATE.—P. S

101,825.—SEAT AND CAP FOR TIE AND SILL PLATE.—P. S Clinger, Conestoga Cent., Pa. 101,826.—BREECH-LOADING FIRE-ARM.—J. J. Cloes (assignor to E. De Beaumont). Liege, Belgium.
101,827.—RAILROAD TANK VALVE.—M. Cowing (assignor to himself, John P. Cowing, Philo Cowing, and George Cowing), New York City.
101,828.—MANUFACTURE OF ARTIFICIAL FUEL.—J. F. Crans ton, J. H. Banks, and J. M. Inversoil, Springfield, Mass.
101,829.—MACHINE FOR ARRANGING NEEDLES.—C.O. Crosby New Haven, Conn.

101.830.—Bronze-collecting Attachment to Bronzing MACHINES.—Samuel Crump, New York city.

101.831.—Toe Calk for Horseshoes.—George Custer, Mon-

roe, Mich. 101.832.—PRESSURE GAGE.—Herman Chwatal, New York city, assignor to W. Staehlen and L. Portong. Antedated April 2, 1870. 101,833.—COAL BOX.—Benjamin Richard Deacon, Montreal,