Al. S. Patent Office.

How to Obtain Letters Patent

NEW INVENTIONS.

Information about Caveats, Extensions, Interferences Designs, Trade Marks; also, Foreign Patents.

For a period of nearly twenty-five years, MUNN & CO. have occupied the position of leading Solicitors of American and European Patents, and during this extended experience of nearly a quarter of a century, they have examined not less than fifty thousand alleged new inventions, and have prosecuted upward of thirty thousand applications for patents, and, in addition to this, they have made, at the Patent Office. over twenty thousand preliminary examinations into the novelty of inventions, with a careful re port on the same.

The important advantages of MUNN & CO.'S Agency are, that their practice has been ten-fold greater than that of any other Agency in existence with the additional advantage of having the assistance of the best profess ional skill in every department, and a Branch Office at Washington, which watches and supervises, when necessary, cases as they pass through official

CONSULTATIONS AND OPINIONS FREE.

Those who have made inventions and desire a consultation are cordially invited to advise with MUNN & CO. who will be happy to see them in perso at the office, or to advise them by letter. In all cases, they may expect an $\textbf{Honest} \ \, \bullet \textbf{Pinion.} \ \, \textbf{For such consultations, opinion, and advice, no charge}$ is made. A pen-and-ink sketch and a description of the invention should

TO APPLY FOR A PATENT,

A model must be furnished, not over a foot in any dimension. Send model to MUNN & CO., 37 Park Row, New York, by express, charges paid, also, a description of the improvement, and remit \$16 to cover first Government fee, and revenue and postage stamps.

The model should be neatly made, of any suitable materials, strongly fastened, without glue, and neatly painted. The name of the inventor should be engraved or painted upon it. When the invention consists of an improvement upon some other machine, a full working model of the whole machine will not be necessary. But the model must be sufficiently perfect to show with clearness the nature and operation of the improvement.

PRELIMINARY EXAMINATION

Is made into the patentability of an invention by persona search at the Patent Office, among the models of the patents pertaining to the class to which the improvement relates. For this special search, and are port in writing, a fee of \$5 is charged. This search is made by a corps of examiner of long experience.

Inventors who employ us are not required to incur the cost of a prelimination of the cost of th mary examination. But it is advised in doubtful cases.

reissues.

 Λ patent when discovered to be defective, may be reissued by the surrender of the original patent, and the filing of amended papers. This proceeding should be taken with great care.

DESIGNS, TRADE MARKS, AND COMPOSITIONS

Can be patented for a term of years, also, new medicines or medical compounds, and useful mixtures of all kinds. When the invention consists of a medicine or compound, or a new article of manufacture, or a new compo sition, samples of the article must be furnished, neatly put up. Also, send a full statement of the ingredients, proportions, mode of preparation, uses, and merits.

PATENTS CAN BE EXTENDED.

All patents issued prior to 1861, and now in force, may be extended for a period ofseven years upon the presentation of proper testimony. The extended term of a patent is frequently of much greater value than the first term; but an application for an extension, to be successful, must be carefully prepared. Munn & Co. have had a large experience in obtaining ex tensions, and are prepared to give reliable advice.

INTERFERENCES

Between pending applications before the Commissioners are managed and testimony taken; also, Assignments, Agreements, and Licenses prepared. In fact, there is no branch of the Patent Business which Murin & Co. are not fully prepared to undertake and manage with fidelity and dispatch.

FOREIGN PATENTS.

American inventors should bear in mind that five Patents-American, English, French, Belgian, and Prussian-will secure an inventor exclusive monopoly to his discovery among one hundred and thirty millions of the most intelligent people in the world. The facilities of business and steam communication are such, that patents can be obtained abroad by our citizensalmostas easily as athome. Munn & Co. have prepared and taken alarger number of European Patents than any other American Agency They have Agents of great experience in London, Paris, Berlin, and other

A Pamphlet, containing a synopsis of the Foreign Patent Laws, sent free MUNN & CO.. 37 Park Row. New York. Address

COST OF APPLICATIONS.

When the model is received, and first Governmentfee paid, the drawings and specification are carefully prepared and forwarded to the applicant for his signature and oath, at which time the agency fee is called for. This fee is generally not over C23. The cases are exceptionally complex if a higher fee than \$25 is called for, and, upon the return of the papers, they are filed at the Patent Office to await Official examination. If the case should be rejected for any cause, or objections made to a claim, the reasons are inquired into and communicated to the applicant, with sketches and explanations of the references; and should it appear that the reasons given are insufficient, the claims are prosecuted immediately, and the rejection set aside, and usually Without Extra Charge to the Applicant.

MUNN & Co. are determined to place within the reach of those who con fide to them their business, the best facilities and the highest professional skill and experience

The only cases of this character, in which MUNN & CO. expect an extra fee, are those wherein appeals are taken from the decision of the Examiner after a second rejection; and MUNN & CO. wish to state very distinctly, that they have but few cases which can not be settled without the necessity of an appeal; and before an appeal is taken, in any case, the applicant is fully advised of all facts and charges, and no proceedings are had without his sanction; so that all inventors who employ MUNN & CO. know in advance what their applications and patents are to cost.

MUNN & CO. make no charge for prosecuting the rejected claims of their own clients before the Examiners and when their patents are granted, the invention is noticed editorially in the Scientific American.

REJECTED CASES.

 $MUNN\ \&\ CO.$ give very special attention to the examination and prosecution of rejected cases filed by inventors and other attorneys. In such cases a fee of \$5 is required for special examination and report, and in ease of probable success by further prosecution, and the papers are found tolerably well prepared, Munn & Co. will take up the case and endeavorto get $it\,through\,for a\,reasonable\,fee, to\,b\,e\,agreed\,upon\,in\,a\,d\,vance\,o\,f\,prosecution$

CAVEATS

Are desirable if an inventor is not, fully prepared to apply for a Patent. Caveat affords protection, for one year, against the issue of a patent to another for the same invention. Caveat papers should be carefully prepared. The Government fee on filing a Caveat is \$10, and MUNN & Co.'s charges for preparing the necessary papers are usually from \$10 to \$12.

Official List of Latents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING FEB. 15, 1870.

Reported Officially for the Scientific American.

SCHEDULE OF PATENT OFFICE FEES:

99,744.—PIPE COUPLING.—Wm. D. Alford and J. H. Pitkin, 99,744.—PIPE COUPLING.—V.M. 2.

Cryahoga Falls, Ohio.

99,745.—Craar Machine.—William G. Ayres and Seth L.

Cole, Brooklyn, N. Y. Antedated February 9, 1870.

99,746.—CABINET.—Robert Bacon (assignor to himself and Joseph Lincoln, Jun., Boston. Mass.

99,747.—WASHING MACHINE.—Fortune L. Bailey, Freeport,

99.748.—FIRE-PLACE BACK.—J. I. Bard, New Orleans, La. 99,749.—GRIPPER AND GAGE FOR PRINTING PRESSES.—Henry Barth, Cincinnati, Ohio. 99,750.—FRAME FOR DYEING IN VARIOUS COLORS FOR MANU-

FACTURE OF SCOTCH PLAIDS, ETC.—Charles Barton, Paterson, N. J., assignor to Dexter, Lambert & Co.

99,751.—GOVERNORS FOR STEAM AND OTHER ENGINERY.—
Joseph Bell, Cincinnati, Ohio. Antedated January 29, 1870.

99,752.—BOILER FOR COOKING STOVES.—Frank S. Bissell,

99,752.—BOILER FOR COOKING STOVES.—Frank S. Bissell, Pittsburgh, Pa. 99,753.—WASH BOILER.—Charles D. Blinn, Port Huron, Mich. 99,754.—AIR PISTOL.—Reuben Brooks, Jun., Rockport, Mass. 99,755.—FOLDING BEDSTEAD.—W. H. Buell, Laughlintown,

99,756—Slate Frame.—Ebenezer Butler, Salina, N. Y. 99,757.—BANK NOTES, BONDS, REVENUE STAMPS, ETC.—
George W. Casilear, Washington, D. C.
99,758.—RULING MACHINE--George W. Casilear, Washing-

99,758.—RULING MACHINE—George W. Casilear, Washington, D. C.
99,759.—GAGE FOR PAPER-CUTTING MACHINES. — Cyril C. Child, Boston, Mass.
99,760.—WINDOW FRAME.—A. J. Cleveland, Baltimore, Md. Antedated January 31,1870.
99,761.—FRICTION CLUTCH MECHANISM.—Moses G. Crane, Newton, and A. M. Polsey, Boston, Mass., assignors to Wm. Smith Hall, Quincy, Mass.
99,762.—SAFETY VALVE.—George W. Cushing (assignor to himself and Horatio Anderson) Chicago III.

himself and Horatio Anderson), Chicago, III.

99,763.—FRUIT JAR.—Wm. H. Daniels, Bryan, Ohio.

99,764.—TOBACCO BOX.—Charles Doering, Charlestown, Mass.

99,765.—SPRING BED BOTTOM.—Charles H. Dunks, Detroit,

99,766.—HAY DRAG.—Daniel Eddelman and Amos Eddelman,

99,766.—HAY DRAG.—Daniel Eddelman and Amor Eddelman, Madison, Ind.
99,767.—STIRRUP AND SPUR FOR SADDLES.—Henry Fellows, Bloomington, Ind. Antedated December 20, 1868.
99,768.—CORN SHELLER.—Daniel E. Field, Leaksville, N. C., assignor to himself and Collett Leventhrope, New York city.
99,769.—GAS.CARBURETING APPARATUS.—John Gair, New York city, assignor to himself and Joseph J. Walton, Newark, N. J. 99,770.—SLEIGH KNEE.—John P. Garland, Newbury, Vt. 99,770.—SLEIGH KNEE.—John P. Garland, Newbury, Vt. 99,771.—WAGON SPRING.—Lewis L. Gordon, Detroit, Mich. 99,772.—MOP-WRINGER AND SCRUBBING BRUSH.—Lewis L. Gordon (assignor to Richard W. Hutchinson), Detroit, Mich. 99,773.—PROCESS AND MATERIAL FOR ORNAMENTING TEXTILE FABRICS.—Carl Gunther, assignor to Frederick Volkman, Berlin,

99,773.—PROCESS AND MATERIAL FOR ORNAMENTING TEXTILE FABRICS.—Carl Gunther, assignor to Frederick Volkman, Berlin, Prussia.
99,774.—CAR TRUCK.—Aaron Higley, Cleveland, Ohio.
99,775.—SHOVEL BLANK.—George W. Jope, Pittsburgh, Pa., assignor to himself and Wm. Buntan.
99,776.—ELLIPTIC SPRING.—Frank Keeler (assignor to Tomlinson Spring and Axle Company), Bridgeport, Coun.
99,777.—METALLIC HEARTH.—Oliver Kells, Steubenville,

99,778.—Sofa Lounge.—Charles Kurfiss, Louisville, Ky. 99,779.—Spring Bed.—Hermon W. Ladd and Geo. F. Ladd,

99,779.—SPRING BED.—Hermon W. Ladd and Geo. F. Ladd, Chelsea, Mass.
99,780.—MATCH MACHINE.—L. T. Luther, Oak Grove, Pa.
99,781.—SCREW DRIVER.—William H. Martyn, Boston, Mass.
99,782.—APPARATUS FOR FRIZZLING CLOTH.—Schamu Moritz
Moschcowitz, New York city, assignor to Wheeler & Wilson Manufacturing Company), Bridgeport, Conn.
99,783.—SEWING MACHINE.—Nicholas Meyers (assignor to Globe Sewing Machine Company), Buffalo, N. Y.
99,784.—GRINDING AX AND HOOK COMBINED.—Philetus W. Norris, Petroit, Mich.

Norris, Detroit, Mich. 99.785.—Fastening Handles to Cutlery.—Elias G. Ost, Shelburne Falls, Mass. 99,786.—MECHANISM FOR RELIEVING THE PRESSURE ON

SHUTTLE-BOX SWELL—Joseph Potter, Danielsonville, assignor to Geo.
L. Lyon, Brooklyn, Conn.
99,787.—COMPOUND RAILWAY RAILS.—Daniel R. Pratt, New 99,788.—BEADING MACHINE FOR SHEET METAL.—Charles H.

monton, Taylorsville, Ind. Antedated February 11, 1870.
99,793.—FURNACE FOR BURNING EDGINGS, SAWDUST, ETC.—

99,795.—Tool, FOR MAKING SPLINTS.—Charles F. Stewart, Corunna, Mich. 99,796.—FENCE.—M. Vanwormer, Troy, Ohio. 99,797.—HARVESTER KNIFE.—George J. Hardwell, Rutland, Vt. AntedatedFebruary 6, 1870.

99,798.—House Trimmings.—J. R. Webber, Morris, Ill. 99,799.—Scaffold.—George W. Wells, Lawton, Mich.

99,801.—Starfull.—George W. Weils, Lawbell, Mich. 99,801.—Lubricator for Bearings of Shafts.—Peregrine White, Dixmont Center, Me. Antedated February 11, 1870. 99,801.—STOVE FOR BURNING STUMPS.—Henderson Willard, Grand Rapids, Mich. Antedated January 23, 1870. 99,802.—ELEVATING APPARATUS.—George G. Winans, Scran-

ton, Pa. 99,803.—Drilling Machine.—Edward J. Worcester, Wor-

cester, Mass. 99,804.—FARE BOX FOR STREET CARS. — W. H. Young,

Chicago, Ill.

99,805.—PROCESS OF WELDING CAST OR BESSEMER STEEL.—
John Absterdam, New York city.

99,806.—MODE OF COVERING MOLDS AND OTHER ARTICLES
with a Metallic Surface.—Joseph Alexander Adams, Brooklyn,
N.Y. 99,807.—PADDLE-WHEEL. — David Anderson, Philadelphia,

99,808.—Planing Machine.—Moses L. Andrew, Cincinnati,

99,809.—CARRIAGE-WHEEL HUB.—Simeon Atha, West Liber-

99,812.—Globe Valve.—J. W. Baldwin, Laconia, N. H.

99,813.—Spring for Railway Cars.—C. M. Banks, Roxberough Philadelphia Pa

berough, Philadelphia, Pa. 99,814.—ROTARY WINDOW WASHER.—Gottleib M. Barth,

99,814.—ROTARY WINDOW WASHER.—Guttles R. Barth, Philadelphia, Pa. 99,815.—SASH HOLDER.—Charles Bean, North Providence, assignors for one-half to James Langley, Jun., Providence, R. I. 99,816.—UMBRELLA.—Charles Becker, New York city. 99,817.—CAR COUPLING.—W. W. Bell, Chicago, Ill. 91,818.—RAILWAY CAR COUPLING.—Charles W. Benson (assignor for one half to Richard C. Waters), Frederick City, Md. 99,819.—CHURN.—H. H. Bigard, E. H. Kellogg, and N. A Prentiss, Fowler, N. Y. Antedated February 14,1870.
99,820.—COMBINED REEL AND RAKE FOR HARVESTERS.—S'H. Bingman, Lauretton, Pa.

99,821.—Hoe.—L. L. Bond, Chicago, Ill. 99,322.—GATE.—C. S. Bonney, Syracuse, N. Y. 99,823.—Indigo Soap.—H. C. Borgner, Lebanon, Pa.

99,824.—Instrument for Dividing Circles.—M. Bowker and J. L. Stratton, Fitchburg, Mass.

99,825.—HANDLE FOR CROSS-CUT SAWS.— E. M. Boynton, Grand Rapies, Mich.
99,826.—CLAMP.—S. C. Bradley (assignor to C. E. Thompson & Co.), New Haven, Conn.

99,827.—Sash Holder.—E. K. Breckenridge, West Meriden,

99,828.—BOLT WORK FOR SAFE DOORS, ETC.—Martin Briggs, Rochester, N. Y. 99,529.—TABLE-LEAF SUPPORT.—W. R. Briggs (assignor to

M. G. Briggs), Boston, Mass.

199,830.—PLOW.—T. E. C. Brinly, Louisville, Ky.

199,831.—SEAL LOCK.—F. W. Brooks, New York city.

199,832.—SCHOOL DESK.—John David Browne, Madisonville,

99,833.—HAY TEDDER.—R. Bryson, Schenectady, N. Y.

99,834.—BRIDLE.—Mathew Hay Buchanan, Washington Co.,

99,835.—Grain Separator.—Hiram Burdick, Monroe, Wis. 99,836.—Washing Machine.—Oscar S. Burges, Sr., Battle

99,830.— WASHING MACHINE.—OSCAL S. CORRECT, Mich.
99,837.—CURTAIN FIXTURE.—T. Burgin, Rutland, Vt.
99,838.—HEAD BLOCK FOR SAW MILLS.—J. H. Burket, Findlay, and G. Burket, Blufton, Ohio.
99,839.—BOILER FURNACE AND FLUE.—W. H. Burns, Unionville, Mo.
99,840.—TEASLE-GRADING MACHINE.—G. A. Burrough, Providence P. I. Antenated Feb. 10, 1870.

denc, R. I. Antedated Feb. 10, 1870.

99,841.—SLATE FRAME.—S. B. Bushfield, Jr., Parkersburg,

W. Va. 99,842.—Washing Machine.—N. W. Calhoun, Upper Tract, 99,542.— WASHING MACHINE.—S. Campbell, Palmer, Mass., 99,543.—WARPING MACHINE.—S. Campbell, Palmer, Mass., and Duncan McFarlane, Troy, N. Y.
199,544.—BLIND HINGE.—C. B. Clark, Buffalo, N. Y. Antetedated Jan. 5, 1870.

99,845.—LATCH.—J. A. Clarke, New York city.
99,846.—PISTON PACKING.—John Clark, Harrisburg, Pa.
99,847.—FOLDING BEDSTEAD.—T. G. Clifford (assignor to himselfand W. B. Clifford), New York city.
99,848.—DIE AND PLUNGER.—J. H. Cole, Millbury, assignor S. P. Emerson and A. White, Worcester, Mass.
99,849.—FISH JOINT FOR RAILWAY RAILS.—Hiram Cook, Norwich, Conn.
99,850.—HARVESTER.—G. T. Coolman and Chs. M. Young, Corty, Pa.

Corry, Pa. 99,851.—Wheel for Carriages and other Vehicles.—

99,651.—WHEEL FOR CARRIAGES AND OTHER VEHICLES.—
A. F. Cooper, San Francisco, Cal., assignor to himself and J. G. Tappan, Beston, Mass.

99,852.—BRICKKILN.—R. D. Cox, Philadelphia, Pa.

99,853.—INSTRUMENT FOR DESCRIBING SPIRALS, ETC.—Ger mond Crandell, Washington, D. C.

99,854.—PICTURE FRAME FASTENING.—J. D. Crocker, Norwich, Conn.

99,855.—Paint.—T. H. Currey, Cincinnati, Ohio.

199,857.—DEVICE FOR ATTACHING SPITTOONS TO FLOORS OF RAILROAD CARS.—John S. Daggett, Hope, Me.
199,858.—DRIVE WELL TUBE.—Deloss A. Danforth, Elkhart,

99,859.—MACHINE FOR DIGGING SWEET POTATOES.—R. Darlington and E. L. Watson, Auburn, N. J.
99,860.—Apparatus for Generating Illuminating Gas.

99,861.—FLOUR BOLT.—A. J. Dibble, Franklin, N. Y. 99,862.—REFRIGERATOR.—Henry M. Diggins, Cincinnati,

99,863.—Tool, for Checking Timber.—A. W. Dorr, Lake Valley, Taho P. •, Cal.

99,864.—ATTACHMENT FOR HOT-AIR REGISTERS.—O. A. Ebert,
Baltimore, Md.

99,865.—SHIFTING BUGGY TOP. — David Eldridge, Salem,

99,866.—MACHINE FOR LAYING OUT DOORS AND SASH.—S. C.

99,868.—Machine for Rolling Railroad Chairs.—David

Eynon, Richmond, Va. Antedated Feb. 7, 1870.

99,869.—MACHINE FOR SLOTTING RAILROAD CHAIRS.—David Enon, Richmond, Va. Antedated Feb. 7, 1870. 99,870.—HAND CLOTHES WASHER.—P. Falardo, Newark, N.J.,

and G. H. Snow, New Haven, Conn. 99,871.—SKELETON CORSET. — D. H. Fanning, Worcester,

Mass. 99,872.—COMBINATION PADLOCK.—George K. Farrington, Al-catraz Island, Cal., assignor to himself and Frederick and Victor York city.

99,788.—BEADING MACHINE FOR SHEET METAL.—Charles H. Raymond, Southington. Conn.

99,789.—OIL CAN.—Patrick Scanlan, Indianapolis, Ind.

99,789.—OIL CAN.—Patrick Scanlan, Indianapolis, Ind.

99,790.—SPRING BED BOTTOM.—John L. Secomb, Detroit,

99,790.—SPRING BED BOTTOM.—John L. Secomb, Detroit,

99,791.—Compound Propeller Pump. — Thomas Shaw, 99,875.—Candlestick. — Samuel Gardiner, Jr., New York Philadelphia, Pa. city.
99,792.—Self-working Rotary Corn Planter.—John Si- 99,876.—Blowing Apparatus.—Rufus H. Gilbert, Washing.

ton, D. C. 99,877.—PUMP.—R. J. Gould, Newark, N. J. 99,878.—VAPOR BURNER.—B. D. Greene, Sturgis, Mich. Ira O. Smith, Muskegon, Mich.

99,878.—VAPOR BURNER.—B. D. Greene, Sturgis, Mich.

99,794.—ENGRAVING MACHINE.—J. Civilian Spencer, Phelps,
N.Y.

Finest Greenfeld, New York eith.

Ernest Greenfield, New York city.
99,880.—CRACKERS OR MEAT BISCUIT.—Ernest Greenfield, New York city.
99,881.—APPARATUS FOR REFRIGERATING. — A. Guthrie, hicago, Ill., assignor to himself and E. A. Goodrich.

32.—RAILWAY CAR AXLE BOX.—J. T. Hagerty, Camp

99,883.—EGG BEATER, ETC.—William Henry Haines (assignor for one half of his right to Thomas Albert Sandford), Newark,

99,884.—Pump.—M. P. Hall, Gayville, Ill.

99,885.—Coloring Matter to be Used in Vulcanized Rubber.—John Halliday, Lynn, Mass.
99,886.—BRICKKILN.—S. M. Hamilton, Baltimore, Md.
99,887.—BRICKKILN.—S. M. Hamilton, Baltimore, Md.

99,888.—Turashing Machine.—G. B. Hamlin, Willimantic, 99,889.—SAWSET.—H. A. Harris, Center, Texas.

99,890.—THILL COUPLING.—A. S. Harry, Wooster, Ohio. 99,891.—SPLIT RING.—T. S. Hattersley, Trenton, N. J. 99,892.—RELAY FOR TELEGRAPHIC INSTRUMENTS.—E. S. Hidden, Milburn, N. J. 99,893.—REVOLVING FIREARM.—Byron R. Hill, Cranston,

99,894.—LUBRICATOR.—Timothy Holland, New York city.

99.895.—School Desk and Seat.—M. L. Holt and I. C. Ab-99,896.—TREATING FISH AND ANIMAL MATTERS TO OBTAIN OLIS, FATS, AND OTHER PRODUCTS.—Wm. J. Hooper and T. Hooper, Baltimore, Md.

99,897.—HORSE HAY RAKE.—Benjamin F. Horton, Ithaca, 99.898.—Breech-Loading Firearm.—B. B. Hotchkiss, New

York city. 99,899.—Primer for Cartridges.—B. B. Hotchkiss, New

99,900.— Transport of the Windlass.—W. T. Howard and Oliver Reeder (assignors to Oliver Reeder and S. R. Waite), Baltimore, 99,901.—ATTACHMENT FOR LAMP CHIMNEYS.—John Hughes,

99,901.—ATTACHMENT FOR ZEAR New Berne, N. C.
99,902.—ADJUSTABLE DIAL FOR TRAVELERS' WATCHES.—
E. Jas. Hulbert, Portland, Conn., and Aime Nicholas Napoleon Aubin, Montreal, Canada.
99,903.—GRAIN SEPARATOR.—Herbert A. Hummer, Frenchtown, N.J.
99,904.—OBTAINING MADDER EXTRACT.—James Hunter,

Philadelphia, Pa.
99,905.—CLOD AND CORN STALK FENDER.—Geo. H. Jackson,

College Corner, Ind. Antedated Feb. 2, 1870.

99,906.—CRIMPING MACHINE.—Samuel W. Jamison, New York city.

99,907.—Pigment for Distemper Painting.—H. M. John-

ston, New York city.
99,908.—REFLECTOR FOR LAMPS.—Fred. Judson, Castleton,

99,909.—WATER METER.—Joseph F. Kelley, Washington

99,910.—KINDLING WOOD ELEVATOR.—J. E. Kelsey, Brook 1yn, N. Y. 99,911.—FENCE.—James Kerr, Corsicana, Texas. 99,912.—YARD AND TANK CRANE.—L. Y. Ketcham and Jas.

Taylbel, Port Jervis. N. Y. 99,913.—MACHINE FOR SMOOTHING SPOKES.—Horatio Keys. 99,914.—TRACE BUCKLE FOR HARNESS.—Wm. R. Knowles

Columbiana, Ohio. 99,915.—BLACKBALLS FOR BOOT AND SHOEMAKERS.—G. A Knowlton, Natick, Mass.

99,916.—Stove Shelf.—John G. Krichbaum, Youngstown,

99,917.—SLIDING SQUARE AND CALIPER.—L. L. Lamb, Fitch-

99,918.—NECKTIE.—George Lane, New York city. 99,919.—Lock Nut.—Maurice Langhorne, Washington, D. C. 99,920.—Showcase for Spools and other Articles.—J.N. Leonard, Rockville, Conn. Antedated Feb. 14, 1870.
99,921.—ROAD SCRAPER.—Cyrus Little, Van Wert, Ohio.

99,922.—BOAT-DETACHING APPARATUS.—S. L. Lord, Surry

99,923.—RAKE AND TEDDER COMBINED.—J. M. Low, Port-

99,923.—RAKE AND TEDDER COMPINED.—6. M. Len, 1 landvile, N. Y. 99,924.—MANUFACTURE OF FERTILIZERS AND IN EXTRACTING OILS AND FATS.—O. Lugo, Baltimore, Md. 99,925.—WOOD-BENDING MACHINE.—J. W. Martin (assignor to himself and W. A. Brown), Philadelphia, Pa. 99,926.—FEED HOPPER.—Judson Madison, Oswego, N. Y. Antelated Esh 5 1870.

Antedated Feb. 5, 1870.

99,927.—APPARATUS FOR GENERATING GAS FOR HEAD-LIGHTS.—H. S. Maxim (assignor to Rodley McAlister & Co.), New York city.

99,928.—Machine for Cutting Wax for Artificial

FLOWERS, ETC.—Mary Jane McColl, Chicago, Ill. 99,929.—HARVESTER.—J. B. McCormik, Dayton, Ohio. 99,930.—Ornamental Cornice.—T. J. McGeary, Newark,

N. J. 99,931.—FEED CUTTER AND THRASHER.—Norman McLeod.

Clio, S. C. 99,932.—Weather-Strip.—Wm. Miller, Boston, Mass. 99,933.—Corn and Cob Crusher.—J. M. Mower, Milheim,

99,934.—Stove Lining and Fire Brick.—Christian Muir,

Lockhaven, Pa.

99,935.—MANUFACTURE OF INDIA-RUBBER AND GUTTA-PERCHA GOODS.—John Murphy, New York city.

99,936.—WHIFFLETREE.—J. V. Norton, Plainville, N. Y. 99,937.—LOZENGE MACHINE.—Charles A. Oehl, Portsmouth, 99,981.—GRAIN DRILL TOOTH.—Frederick Villard, Mount

99,938.—HEDGE TRIMMER.—David Oliver, Galesburg, Ill. 99,939.—HORSE HAY RAKE.—John K. O'Neil, Kingston,

99,940.—SHINGLE MACHINE.—Wm. H. H. Palmer, Rockville, 99,941.—SCAFFOLD BRACKET.—Edward Parker, Plymouth,

99,942.—HUB FOR CARRIAGE WHEELS.—Wm. C. Pearsall,

CLEANING MACHINERY.—A. Peple. East Billerica, Mass. 99,946.—COMBINED HARROW, ROLLER, AND SEED SOWER.—

C. E. Pierce, New York city. 99,947.—HAY LOADER.—Almon E. Preston, Battle Creek,

99,953.—STEAM PUMPING ENGINE.—Wm. H. Roberts, Mauch

Chunk, Fa.

99,954.—HEATING STOVE.—Wm. F. Ross, Davenport, Iowa.

99,955.—Pencil.—Franklin Rowell and E. C. Loud, Spring.

99,999.—Hinge.—Timothy Smith, Boston, Mass.

99,956.—COLORING VULCANITE OR HARD RUBBER.—A. D. Schlesinger, College Point, L. I., N. Y., assignor to the India-Rubber Comb Company.

93,957.—HARNESS HOOK.—John Seaman, New York city.

99,958.—APPARATUS FOR FORGING METALS.—Thomas Shaw,

Philadelphia, Pa

99,959.—MEDICAL COMPOUND.—G. V. Sheffield and J. A. Sheffield. Northbridge Centre, Mass.
99,960.—Churn.—Nichols Shelton, Odessa, N. Y.

99,961.—CALIPERS.—William Siar, Franklin, Pa.
99,962.—FEEDING MECHANISM FOR SEWING MACHINES.—G.
A. Smith. Philadelphia.Pa.
99,963.—HOT AIR FURNACE.—Wm. Smith, Cicero, Ind.
99,964.—COTTON BALE TIE.—W. M. Smith, Augusta, Ga. Antecated Feb. 10, 1870.

99,965.—TABLE CASTOR.—W. M. Smith, Augusta, Ga. Ante-dated Feb. 5, 1870.
99,966.—HORSE RAKE.—Wesley Squier, Edon, Ohio.
99,967.—TREADLE FOR SEWING MACHINES.—Frederick Stambers.

ler. Hamburg, N. Y.
99,968.—GRAIN HARVESTER AND BINDER.—L. B. Stilson (assignor to himself and J. W. Childs), Minneapolis, Minn. Antedated Feb. 6, 1869.

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Rochester, N. Y. Antedated Dec. 21, 1869.

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99,995.—ANIMAL TRAP.—W. F. Collier, Worcester, Mass., assignor to Howe, Bigelow, & Co.
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3,834.—FEED-WATER HEATERS AND FILTERS.—James Armstrong, Bucyrus, Ohio.—Patent No. 81.971, dated Sept. 8, 1868.

3,835.—MANUFACTURE OF CAST STEEL.—Wm. W. Averell, Bath, N. Y. assignee of Louis La Breche-Viger.—Patent No. 95,338, dated Sept. 28, 1869.

3,836.—CORN PLANTER.—Jas. Campbell and Wm. Campbell, Harrison, Ohio, assignees of Jas. Campbell.—Patent No. 54,642, dated May 3, 1866.

3,837.—ALCOHOLIC LIQUOR FROM TWO DAYS.

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37.—ALCOHOLIC LIQUOR FROM THE RHUBARB PLANT.—
J. H. Deacon, Lumberton, N. J.—Patent No. 86,284, dated January 26,

3,838.—Surge Reliever.—J. J. Emery, Owl's Head, Me., for himself and E. R. Cheney, Boston, Mass., assignee of J. J. Emery.—Patent No. 94,936, dated Sept. 21, 1869.
3,839.—APPARATUS FOR SCRAPING AND WORKING HIDES.—

Henry Lampert, Rochester, N. Y.-Patent No. 60,636, dated December 18, 1866. 3,840.—Manufacture of Fertilizers or Guano from FISH.—Orazio Lugo, Baltimore, Md.—Patent No. 97,939, dated Det 14, 1869.

FISH.—Urazio Lugo, Baltimore, Md.—Patent No. 97,939, dated December 14, 1869.

3,841.—RAILROAD STATION INDICATOR.—A. C. Rogers and Lewis Schaffer, Fort Washington. Pa., assignees of A. C. Rodgers.—Patent No. 95,966, dated Sept. 21, 1899.

3,842.—MANUFACTURE OF HOSE, TUBING, AND OTHER RUBBER FABRICS.—Junius Schenck, Brooklyn, N. Y.—Patent No. 90,397 dated May 25, 1869.

3,843.—Division No. 1.—Steam Heater.—Jos. Shackleton, Rahway, N. J.—Patent No. 87,301, dated Feb. 23, 1869.

3,844.—Division No. 2.—Steam Heater.—Jos. Shackleton, Rahway, N. J.—Patent No. 87,501, dated Feb. 23, 1869.

3,845.—Division No. 3.—Steam Heater.—Jos. Shackleton, Rahway, N. J.—Patent No. 87,501, dated Feb. 23, 1869.

3,846.—Seeding Machine.—W. A. Van Brunt, Horicon Wis.—Patent No. 9,4268, dated Aug. 31, 1869.

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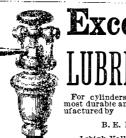
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