102.092.—Combined Manure Fork and Scraper.—J. W. Clarke, Kingston, Wis.
102,093.—EXTRACT FOR THE CURE OF CANCER AND OTHER
DISEASES.—P. A. Cobb, Lynchburg, Va.
102,094.—PATTERN CHAIN FOR LOOM.—H. D. Davis, North Andover, Mass.

102,095.—Horseshoe Blank.—John Day, Buffalo, N. Y.

102,096.—Operating Fan Tremolos.—J. H. Dow (assignor to himself and Darius Wilcox), Birningham, Conn.

102,097.—Concrete Pavement.—N. H. Downs, Birmingham, 102,098.—French Bedstead.—R. C. Du Bois, Washington, D. C. 102,099.—THILL COUPLING.—Ceorge W. Dubuisson, Norwich, 102,100.—HAME ATTACHMENT.—Charles H. Easte, South Bos ton, Mass.

102,101.—LAWN MOWER.—Norman Eaton, Woburn, Mass.
102,102.—ROAD SCRAPER.—James C. Evans, Delaware, Ohio.
102,103.—LUNCH VALISE.—Sigmund Feust, New York city.
102,104.—ELASTIC ROLL.—Jas. B. Forsyth and John J. Haley, Boston, Mass. 102,105.—Combination Tool.—Calvin A. Foster, Fitchburg, 102,106.—Scissors Sharpener.—Calvin A. Foster, Fitchburg 102,107.—Wheel for Locomotive Land Conveyance, and COAL-HOISTING APPARATUS.—James S. French, Alexandria, Va. 103,108.—SHUTTER FASTENER.—Frederick W. Frost, Somerville, Mass.
102,109.—METALLIC CARTRIDGE.—Adonis N. C. Gavard, Paris, France.
192,110.—Wire Covering Machine.—Ambrose Circudat
New York city. New York city.

102,111.—SCREW PROPULSION FOR TUG BOA'TS.—Edward D. Gird, Syracuse, N. Y.

103,112.—SAWING MACHINE.—Allen Goodman and Hardin Goodman, Williamsburg, Mo.

102,113.—FLY NET FOR HORSES.—John Craham, New York 102,114.—Stove Pipe Shelf, Heater, and Damper.—Edward Hall, Beloit, Wis., and F. D. Searl, Rockton, 111.
102,115.—Brick Machine.—George W. Harlan, Cincinnati, Onio. 102,116.—Non-Conducting Covering for Steam Boilers. -Washington Harris and Wo. Howell, Philadelphia, Pa. 102, 117.—PIE STAMPER AND CUTTER.—Allon Hawkes (assignor for one half to 0. E. Bigelow), Providence, R. I. 102, 118.—MINERAL PAIN'T.—Edward B. Heckel, Vincent, Pa. 102,119.—Stove Pipe Drum.—Jacob Heger, Jefferson, Wis. 102,120.—FAUCET.—Joseph Heine and John Vonficht, Toledo, 102,121.—Horseshoe.—John Henderson, Albion, N. Y. 102,122.—MECHANISM FOR MAKING WIRE HEDDLES.—E. T. Hertle and Richard Thompson, New York city.
102,123.—COVER FOR TABLES, FLOORS, ETC.—August Herzog, 102,124.—SIRUP PITCHER.—John H. Hobbs, Wheeling, West 102,125.—HINGE FOR SHUTTERS.—Johann Hof and Philipp Brenncis, Baltimore, Md. 102,126.—Hydrant.—James P. Hyde, New York city. 102,127.—Axle Box for Carriages.—David Jewett, Lynn, Moss. 102,128.—Earth Closet.—Ceorge Baker Jewett, Salem, 102,129.—Stopper for Jars and Bottles.—H. W. Ketcham, 102,129.—STOPPER FOR JARS AND BOTTLES.—II. WILLIAM, New York city.
102,130.—MACHINE FOR ROLLING CONICAL AND OTHER TUBES.—Charles Kewin, Sun Francisco, Cal.
102,131.—HARVESTER.—William A. Kirby, Auburn, N. Y.
102,132.—KNOE FOR SAFE DOORS.—Joseph C. Kittredge, San 102,132.—ANOE FOR SAFE DOORS.—Joseph . Rittredge, San Francisco, Cal.
102,133.—ANIMAL TRAP.—John O. Kopas and Geo. W. Bauer, Washington, D. C.
102,134.—ANIMAL TRAP.—John O. Kopas, Washington, D. C., assignor for one half his right, to S. I. Wailes, Salisbury, Md.
102,135.—TREATINO PARAFFINE AND OBTAINING IT IN CRYSTALS.—Frederick Lambe, London, England. Antedated Dec. 4, 1865.
102,136.—ROTARY PUMP.—Erwin Lavens and James C. Lamb, Middletown, Conn. 102,137.—PISTON ROD PACKING.—Harvey T. Lee, Marysville, 102,138.—Hame for Harness.—Josiah Letchworth, Buffalo, 102.139.—Coffee Urn.—Eugene Martin. Waterbury, assignor to himself and Blaise Soules, Bridgeport, Cenn.
102,140.—ROTARY PUMP.—Henry W. Mather, New York city.
102,141.—BRICK KILN.—William T. Mathews, Negaunee, Mich.
102,142.—SELF-WINDING AND BALANCING CURTAIN FIX-TUBES.—F. C. D. McKay, Elmira, N. Y.
102,143.—STOVE GRATE.—Henry Miner (assignor for one half his right, to Louis Harter), Green Island, N. Y.
102.144.—PAVING BRICK.—David Moffatt and John Thomson 102.144.—FAVING BRUK.—DAVIE MORACE ARE SOME TROBLES, PRINCIPLE CHECK FOR LOOM.—William Montgomery. Northampton, Mass.
102.146.—MANUFACTURE OF STEEL.—Charles Motier Nes, York, Pa.
102.147.—SAFETY VALVE.—H. J. Paine (assignor to himself) York, Pa.

102,147.—SAFETY VALVE.—H. J. Paine (assignor and Joseph Kelly), Providence, R. I.

102,148.—Treating Tin Scrap to Obtain Useful Products.—D. D. Parmelee, New York city, assignor to W. K. Marvin.

102,149.—Car Coupling.—William B. Parsons, Short Tract, N. Y.

Suovel Plow.—Corge Perry, Tranville,

Suovel Plow.—Corge Perry, Tranville,

Composition for Inking Rollers, Pads, etc.—Lewis Rollers, etc. Elis, ETC.—Iva Poffenberger, Champaign county, Ohio.

102.152.—HULLING MACHINE.—William Porter, Brooklyn, N. Y.

102,153.—PAPER FILE.—John P. Quarles, Richmond, Va.

102,154.—Screen Attachment for Windows.—Geo. Reed,
W. C. Hoogland, and J. J. Newson, Brooklyn, Cal.

102,155.—Machine for Uniting Boot and Siloe Soles to
The Uppers.—T. K. Reed. East Bridgewater, assignor, by mesne assignment, to Gerdon McKay, trustee of the McKay Sewing Machine Association, Beston, Mass. 102,155.—APPARATUS FOR PITCHING BEER AND OTHER BAR-BELS.—Hermann Reutti and Philipp Winkelhaus, Hamilton, Ohio. 102,157.—INKING APPARATUS FOR COLOR PRINTING.—Israel L. G. Rice, Cambridge, Mass. 102,158.—APPARATUS FOR REEFING SAILS.—N. W. Rich, Swempecott, Mass.

102,159.—MACHINE FOR TRIMMING THE HEELS OF BOOTS AND SHOER.—E. P. Richardson, Lawrence, assignor to himself and F. W. Carruth, Boston, Mass. Antedated April 9,1870.

102,160.—MACHINE FOR JOINING THE CLEANING TEETH OF CROSSCUT SAWS.—John H. RODSON, OVID, Mich.
102,161.—COMPOUND TO BE USED IN TREATING RHEUMATISM AND OTHER DISEASES.—John B. Rodgers, St. Louis, Mo. Antedated April 12, 1870. ted April 12, 1540.

102,162.—PLOW.—Samuel D. Sayre, Rockford, Ill.

102,133.—LAMP.—Bennett B. Schneider, New York city.

102,164.—BOBBIN-VINDER FOR SEWING MACHINES.—Thos. Shanks, Baltimore, Md. 102,165.—WATCHMAN'S TIME CHECK.—David Shive, Phila-102,109.— WATCHMAN'S TIME CHECK.—David Shive, Thila-delphia, Pa.
102,166.—CLEANING WOOL AND HAIR.—Chas. F. A. Simonin, Philadelphia, Pa., and Edward W. Coffin, Glendale, N. J.
102,167.—Device for Haneine Pictures, Etc.—Corelli W. Simpson, Bangor, Me. 102,168.—LAMP.—Francis Vanvost Sleeth, Keokuk, Iowa 102,169. -VAPOR BURNER.-Chas. E. Smith and H. J. Rice, Columbus, Ohio. 102,170.—Sewing Machine.—Geo. A. Smith and Edward L. Miller, Philadelphia, Pa.

102,171.—Churn Power.—Ruth N. Smith, New York city.
102,172.—Horse Hay Rake.—Solomon P. Smith, Waterford,

102,173.—HAY TEDDER.—Walter Smith, Weston, Mass.

102,174.—GOVERNOR VALVE.—William Smith, Philadelphia,

102,175.—APPARATUS FOR COOLING GRAIN.—S. A. Stebbins, Toledo, Ohio.
102,176.—Self-acting Equalizing Valve.—J. J. Steiger, Peoria, Ill.
102,177.—Amalgamator.—Charles C. Stevensen, Gold Hill, Nevada. 102,178.—FOLDING CHAIR.—Alexander W. Stewart, Boston, 102,179.—FOLDING CHAIR.—Alexander W. Stewart, Beston, Mass. 102,180.—Fodling Chair.—Alexander W. Stewart, Boston 102,181.—METAL-CAPPED CORK.—Edwin Street, East Haven, 102,182.—Spring Bed Bottom.—Richard Tattershall, Beloit, 102,183.—Type Distributing Machine.—D. B. Thompson, Brooklyn, N. Y.

102,184.—Machine for Grinding and Polishing Marbles.

J. H. Volk. Chicago, Ill.

102,185.—Carpet Fastener.—R. W. Walker, Washington, 102,186.—Still for Petroleum.—John Warren, Flushing, 102,187.—Stop Valve for Petroleum Packages.—Albin Warth, Stapleton, N. Y.
102,188.—TAP FOR LIQUID PACKAGES.—Albin Warth, New York city. 102,189.—Copy Book.—John D. Williams, New York city. 102,190.—Button Fastening.—Morris Wise, New York city. 102,191.—Shutter Worker.—Hermann Wolff, Milwaukee,

102,192.—Shutter Worker.—Herman Wolff, Milwaukee, 102,193.—ARTIFICIAL TEETH. — John H. Wood, Lebanon, 102,194.—MEDICINE FOR COUGHS AND COLDS.—Allen Young, Pittsborough, N. C. 102,195.—MACHINE FOR FORMING AND CUTTING EYELETS AND FOR THE PREPARATION OF STOCK FOR THE SAME.—S. W. Young (assignor to himself, Russell A. Dennison, and Elisha Dyer), Providence, R. I. 102,196.—Advertising Desk.—H. W. Crotzer, Philadelphia,

102,197.—Door Spring.—A. T. Ballantine (assignor to himself, W. W. Kingsland, N. R. Bates, and L. D. Phelps), Titusville. Pa. 102,198.—BRONZING AND GILDING.—J. L. Duffee, Washington,

102,199.—PUMP.—B. F. Custin, Middletown, Ind.

#### REISSUES.

3,921.—TREATING ORGANIC MATERIALS WITH AIR.—Rudolph D'Heureuse, New York city.—Patent No. 93, 182, dated August 3, 1889. 129. HOISTING MACHINE.—Wm. Miller, Cincinnati, Ohio.
—Patent No. 48,579, dated July 4, 1865; reissue 2,066, dated September 5, 1865. 3,923.—GRAIN SEPARATOR.— B. B. Turner, Cuyahoga Falls, Ohio, assignee of G. B. Turner and James A. Vaughn.—Patent No. 1,013, dated April 9, 1861.

onio, assignee of G. B. Infrier and James A. Vangan.—Patent No. 1,013, dated April 9, 1861.

3,924.—Cas Generator.—Ben jamin Bost, Dayton, Ohio, assignee of Patrick Kelly.—Patent No. 92, 317, dated July 6, 1869.

3,925.—Mill..—J. B. Brown, Peekskill, N. Y., assignee of C. B. Hutchinson.—Patent No. 29,490, dated August 7, 1860.

3,926.—Mill..—J. B. Brown, Peekskill, N. Y., assignee of C. B. Hutchinson.—Patent No. 29,490, dated August 7, 1860.

3,727.—HAND STAMP.—B. B. Hill, Chicopee, Mass.—Patent No. 59,395, dated November 6, 1866; reissue 2,336, dated January 14, 1868; reissue 3,261, dated January 12, 1869.

3,928.—Giller Folk Loose Pulleys.—C. A. King and D. B. Wesson, Springfield, Mass., assignees of C. A. King.—Patent No. 15,912, dated October 19, 1869.

3,929.—Baker's Oven.—M. A. E. McKenzie, Brooklyn, N.

dated October 19, 1869.
3,929.—BAKER'S OVEN.—M. A. E. McKenzie, Brooklyn, N. Y., assignee to Duncan McKenzie.—Patent No. 28, 130, dated May 1, 1860.
3,930.—ROLLER FOR CLOTHES WRINGER.—Woonsocket Rubber Company, Woonsocket, R. I., assignees of J. F. Holt.—Patent No. 49,030, dated July 25, 1865.

No. 49,000, dated July 25, 1865.
3,931.—MACHINE FOR SAWING MARBLE.—P. J. Torney, for himself, and charles W. Hayden, and J. L. Kidwell, assignees of P. J. Torney, Washington, D. C.—Patent No. 84,518, dated December 1,1868.

3,973.—Masonic Chart.—James Ames. Indianapolis. Ind. 3,974.—Buggy Body.—William M. Armstrong, Middletown, 3,975.—WATCH CHAIN.—Montraville Buffum, Leominster, Mass.
3,976.—CARPET PATTERN.—R. R. Campbell (assignor to Lowell Manufacturing Company). Lowell, Mass.
3,977 to 3,983.—CARPET PATTERN.—E. J. Ney, Dracut, assignor to Lowell Manufacturing Company, Lowell, Mass. Seven patents.

3,984.—TRADE MARK.—D. A. Page, Dover, N. H. 3,985.—HANDLE FOR SPOONS, FORKS, LADLES, ETC.—J. R. Wendt, New York city,

#### EXTENSIONS.

MACHINE FOR SOWING FERTILIZERS.—W. S. Bartle, Newark, N. Y.-Letters patent No. 14,708, dated April 22, 1856; reissue 558, dated May 18, 1858.

PULVERULENT ACID FOR USE IN THE PREPARATION OF SODA POWDERS, FARINACEOUS FOOD, AND OTHER PURPOSES.—E. N. Horsford, Cambridge, Mass.—Letters Patent No. 14,722, dated April 22,1856; reissue 2,537, dated May 7,1867; reissue2,579, dated June 9,1868.

OMPOSITION FOR INKING ROLLERS, PADS, ETC. — Lewis Francis and C. H. Loutrel, New York city, assignces of Lewis Francis and F. W. Letmate.—Letters patent No. 43.192, dated, June 21, 1854; reis-suc 2,505, dated November 26, 1867.—Filed March 28, 1870.

## NEW BOOKS AND PUBLICATIONS.

ELECTRO-METALLURGY PRATICALLY TREATED. By Alexander Watt, F.R.S.A., Lecturer on Electro-Metallurgy, etc., formerly one of the Editors of "The Chemist." New Edition. Strahan & Co., Publishers, 56 Ludgate Hill, London.

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