MACHINE FOR SAWING KINDLING WOOD.—W. A. Allen, Baltimore, Md.—This invention relates to that class of sawing machines in which several circular saws are employed, in connection with endless chains and knees, for carrying the logs.

CIDER PRESS.—John J. Shaffer and Emanuel Stoner, Westminster, Md.—This invention relates to a press, in which the follower slides up and down upon vertical rods, passing through it, one near each of its ends.

FARM GATE.—Daniel Shockey, Waynesborough, Pa.—The object of this invention is to provide for public use a neat, light, simple, and strong gate, for use upon farms, etc., and which can be conveniently opened or closed from either side.

FIRE GRATE.—Asa Snyder, Richmond, Va.—This invention consists of a basket grate and concave perforated radiator, placed in such relation to the chimney and jambs as to leave an air space between the grate and the chimney and jambs, said air-space being, in fact, a continuation downward of the smoke flue of the chimney, and being seperated from such smoke flue by a damper placed between the radiator and the chimney for the purpose of creating a rapid draft through the air-space, and carrying off the debris dislodged by raking the fire.

"FIXING" OR REPAIRING PUDLING FURNACES.—Morgan Z. Evans, Ormsby Post office, Pa.—This invention relates to puddling and boiling furnaces, and applies in the process called by furnacemen "fixing," which is performed as occasion may require, in the way of repairs.

REAPING AND MOWING MACHINES.—T. H. Taylor, Jeffersonville, Ill.—This invention relates to improvements in reaping and mowing machines designed to provide an improved arrangement for operating the cutter bars; also, an improved arrangement of the cutter and cutter supporting bars.

KNIFE GUARD.—E. A. Goodes, Philadelphia, Pa.—The invention consists of a wire-guard attachment, so shaped and arranged relatively to the knife blade, that it may be readily clamped to the blade by thumb nuts, screwing on to the ends of the wire and against the back edge of the blade, with the gaging part adjusted along the edge, at one side, parallel with it, and the required distance for the thickness of the paring from it.

HORSE-POWER.—Diffendall & Hughes, Westminster, Md.—The object of this invention is to provide a simple and compact arrangement of multiplying wheels in a portable horse-power, for producing a rapid motion for the tumbling shaft, from the first mover, with the least possible amount of lateral pressure on the driving shaft.

LIFE, SURF, AND OTHER BOATS.—Henry Thompson, Mobile, Ala.—The object of this invention is to provide new and useful improvements in small boats, to render them safe and efficient as life, surf, or pleasure boats. Also, to provide improvements in propelling apparatus, calculated to apply the same to better advantage than in the common way. Also, to provide an an arrangement of the paddlewheels and wheel guards, to facilitate the transportation of the said boats on land. Also, to provide an arrangement of pumping devices, which may be used either for pumping water from the hold, or for drawing water over the side, for playing upon fires, or for other purposes.

Answers to Correspondents.

CORRESPONDENTS who expect to receive answers to their letters must, in all cases, sign their names. We have a right to know those who seek information from us; beside, as sometimes happens, we may prefer to address correspondents by mail.

SPECIAL NOTE.—This column is designed for the general interest and instruction of our readers, not for gratuitous replies to questions of a purely business or personal nature. We will publish such inquiries, however, when paid for as advertisemets at $1·00 a line, under the head of "Business and Personal."

☞ *All reference to back numbers should be by volume and page.*

A. H. B., of Pa.—A body floating in a fluid medium, and sustaining by its buoyancy just as much weight as it is capable of supporting, would descend through that medium by the addition of just sufficient weight to overcome the friction of the fluid against its sides. It will then certainly take *as much* (practically more) weight to draw it down through that fluid as it can raise by its buoyancy. In the answer to the correspondent about the balloon, the endeavor was to make this point clear, and to show that a balloon in rising could exert no more force (practically not so much) than would be required to pull it down again.

W. A. H., of Tenn.—The plan of closing a well air tight at its mouth and inserting a pipe to reach below the surface of the contained water, and raising the water by forcing air into the well will work in some cases, but it is neither new, patentable, nor practicable. Because the top of a wheel rolling along a level surface moves faster ahead relatively to any point on that surface than the bottom, it does not follow that its circumferential motion is greater at the top than at the bottom. What we mean by circumferential motion, is the motion of all points in the circumference around the axis of the wheel.

J. A., of Ill.—The photographer has the best of it. The contraction of the pupil of the eye does not diminish the apparent size of external objects. The reason of the apparently larger size of the sun and moon when near the horizon is probably that they are then in immediate contrast with terrestrial objects, by which their size is estimated, while in the zenith no such standard of comparison can be simultaneously viewed with them.

B. J. J., of Va.—We would not recommend the arrangement of piping for a lumber drying-house you propose. "A Practical Treatise on Heat," published by Henry Carey Baird, of Philadelphia, will instruct you properly on this subject. There ought to be good ventilation in any room used for drying purposes. Your last question cannot be answered in the form you put it.

J. B. W., of Pa.—Your suggestions for ventilating mines by forcing air down through a main pipe by steam power, and delivering it through branch pipes, contain nothing new. This is, however, a good plan, and it, or its equivalent, has been tried successfully in English coal mines. We agree with you that either this or some other equally effective system ought to be generally adopted in working coal mines.

J. W. P., of Me.—The best material for a step to a turbine wheel is probably lignum vitæ. That your steps burn out indicates that the wheel is not balanced properly to take off its weight from the step. If it is not practicable to balance it in this way your only remedy will be to increase the size of the bearing in proportion to the weight of the wheel.

G. M. S., of Miss.—The power of an engine having a twenty-inch stroke would be to one having a thirty-inch stroke, everything else being equal and the steam being worked non-expansively, as one to two. This, of course, supposes everything so arranged that the mean effective pressure in the cylinders should be the same throughout their respective strokes.

F. C. B., of Ohio.—To scale sheet steel, use a wooden trough lined with sheet lead. Use crude sulphuric acid, one part of acid to ten of water, by measure, or rather more dilute, let the sheets remain only a very short time in the bath, take them out and wash them in hot lime water, and then rub them with clean dry saw dust or chaff.

W. Z., of La.—The appearance of gold, copper, or brass, is given to tin plate by the application of suitable lackers. You can purchase these lackers at dealers in varnishes, etc.

F. D. H., of N. Y.—You can dissolve rubber in naphtha to a thick solution and with it stop small holes in rubber. Apply it soft and allow it to harden thoroughly.

G. G. B., of N. H.—The mineral specimen seems a schist containing iron. It appears to be of no value, but analysis might give a different result.

J. D. P., of N. Y.—The broad gage railways are failures only because they are, for various reasons, so expensive in their operation. We can not enter at this time into a detailed account of these causes, They are good for the passengers but hard on the companies who own them.

M. G., of Minn.—Your sketch is very imperfect, but from what we can understand of it, it shows no patentable improvement. It would, therefore, be scarcely worth while to enter into the computation necessary to determine what strain such a structure would sustain.

S. E. W., of N. Y.—Friction would be reduced in using friction rollers under your shaft in proportion to the diminished surfaces of the journals. The size must depend upon the circumstances of the case. Make the rollers as large as you can conveniently.

C. T. G., of Pa.—It would be impossible to give you the knowledge you require in the form of a recipe. A small volume called "The Complete Practical Brewer," published by Henry Carey Baird, of Philadelphia, gives the precise information you require.

J. M. H., of Wis.—We know of no steam apparatus which will meet your requirements and which you can purchase ready made You might, it seems to us, easily devise one for yourself. Set your wits t work.

R. S. B., of Ky.—The minerals you send appear to contain iron and perhaps copper, with sulphur and arsenic. We cannot determine whether other metals of value are present without making an assay.

M. S. M., of Mo.—The stones you send are agate and chalcedony. They have little value except when worked and polished. They are rendered valuable according to the labor bestowed upon them.

E. H. S., of N. H.—You will find an article fully treating your question about long and short screw drivers in the SCIENTIFIC AMERICAN, Vol. XVIII, No, 25, page 393, June 20, 1868.

Business and Personal.

The Charge for Insertion under this head is One Dollar a Line. If the Notices exceed Four Lines, One Dollar and a Half per line will be charged.

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING OCT. 5, 1869.

Reported Officially for the Scientific American

SCHEDULE OF PATENT OFFICE FEES:

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A sketch from the model or drawing, relating to such portion of a machine as the Claim covers, from $1
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The full Specification of any patent issued since Nov. 20, 1866, at which time the Patent Office commenced printing them ..... $1·25
Official Copies of Drawings of any patent issued since 1836, we can supply at a reasonable cost, the price depending upon the amount of labor involved and the number of views.
Full information, as to price of drawings, in each case, may be had by addressing
MUNN & CO.,
Patent Solicitors, No. 37 Park Row, New York.

95,405.—COMPOSITION FOR MAKING TYPES FOR PRINTING WALL PAPER, OILCLOTH, AND OTHER FABRICS.—R. A. Adams, New York city.
95,406.—SAWING MACHINE.—W. A. Allen, Baltimore, Md.
95,407.—MEDICAL COMPOUND OR CORDIAL.—Joseph Ambrose, Nashville, Tenn.
95,408.—HAY LOADER.—Isaac Anderson, Poland, Ohio.
95,409.—BINDING GUIDE FOR SEWING MACHINE.—E. F. Angell, Chicago, Ill.
95,410.—HAMES FASTENER.—H. W. Austin and E. C. Perry, Portage township; Edwin C. Perry, assignor to G. T. Nash, Kalamazoo Mich.
95,411.—COTTON PRESS.—Augustine Baldwin, New York city. Antedated Sept. 22, 1869.
95,412.—APPARATUS FOR CARBURETING AIR AND GAS.—Arthur Barbarin, New Orleans, La.
95,413.—DEVICE FOR STEAMING ROVINGS.—Solomon Barber, South Coventry, Conn.
95,414.—BAND CUTTER.—W. C. Barr and E. J. Hunkins, Macon City, Mo.; said Hunkins assignor to said Barr for his right. Antedated Sept. 22, 1869.
95,415.—WASHING MACHINE.—B. B. Beers and Nathan Couch, New Fairfield, Conn.
95,416.—HAY AND COTTON PRESS.—John Berkeley, Washington, Texas.
95,417.—SHAFT COUPLING FOR CARRIAGES.—Albert Betteley, Boston, Mass.
95,418.—MACHINE FOR SOLDERING TIN CANS.—J. G. Borden, Brewster Station, N. Y.
95,419.—PURIFYING IRON AND STEEL, OR OTHER METAL.—Edward Brady, Philadelphia, Pa.
95,420.—RIM PRESS AND TIRE HEATER.—J. H. Britton, Painesville, Ohio.
95,421.—TABLE SLIDE.—Aaron Brower (assignor to himself and C. S. Hall), Rochester, N. Y. Antedated Sept. 18, 1869.
95,422.—COTTON-THINNING MACHINE.—I. W. Burch, Fayette Miss.
95,423.—THRASHING MACHINE.—Duncan Campbell, Indian Town, Ill.
95,424.—SAFETY PIN FOR SECURING CLOTHING.—Frederick Catlin, New York city.
95,425.—DYERS' VAT.—H. Champenois, New York city.
95,426.—ATTACHMENT FOR WINDOW SASH CORDS.—S. N. Chapin, New Britain, Conn.
95,427.—STUMP EXTRACTOR.—Daniel S. Chapman, Conneaut, Ohio.
95,428.—REFRIGERATOR.—A. J. Chase (assignor to B. F. Horn), Boston, Mass.
95,429.—COOKING STOVE.—B. F. Clement (assignor to C. H. Buck and W. S. Wright), St. Louis, Mo.
95,430.—HAMES FASTENER.—J. Clendening, Rockford, Ill.
95,431.—RAILWAY CAR COUPLING.—Michael Connelly (assignor to himself and H. W. Rogers), Baltimore, Md.
95,432.—HERNIA TRUSS.—D. J. Cooper, New Orleans, La.
95,433.—TRUSS AND SUPPORTER.—D. J. Cooper, New Orleans, La.
95,434.—RAILWAY CAR COUPLING.—Wm. Cottrell (assignor to himself and F. G. Wiese), Bordentown, N. J.
95,435.—LATHING MACHINE.—George N. Creamer, Trenton, N. J.
95,436.—BEEHIVE.—L. H. Critchfield, Shreeve, Ohio.
95,437.—SPRING FOR GANG PLOWS.—H. N. Dalton, Pacheco, Cal.
95,438.—WRENCH.—A. B. Davis, Pleasantville, Pa.
95,439.—HAY DERRICK.—Winfield Denton, Iowa City, Iowa.
95,440.—HORSE POWER.—Joseph Diffendal and S. Hughes, Westminster, Md.
95,441.—METHOD OF FORMING MOLDINGS.—Joseph Dill and E. Rice, Grand Rapids, Mich.
95,442.—BAND FOR BOOMS AND GAFFS.—David Dryburgh, Philadelphia, Pa. Antedated Sept. 20, 1869.
95,443.—RAILROAD SPIKE.—P. J. Dwyer, Elizabethport, N. J.
95,444.—BOILER FEEDER ALARM DEVICE.—J. W. Ebert and E. C. McCloy, Zanesville, Ohio.
95,445.—APPARATUS FOR EVAPORATING AND DECOMPOSING LIQUIDS.—Albert Eckstein (assignor to "Zdenks Ritter Von Wessely"), Vienna, Austria.
95,446.—TURN TABLE.—L. W. Emmart and E. D. Griffith, Washington, D. C.
95,447.—BALING PRESS.—C. J. Emmett, New York city.
95,448.—HOISTING MACHINE.—Wm. Eppelsheimer (assignor to himself and E. A. Trapp), San Francisco, Cal.
95,449.—SNOW PLOW.—C. L. Ericzon, Salt Lake, Utah Territory.
95,450.—FIXING PUDDLING AND BOILING FURNACES.—M. Z Evans, Ormsby, Pa. Antedated Oct. 1, 1869.
95,451.—HAY RAKER AND LOADER.—Newton Farlow and J. A. Ham, Sullivan, Ill.
95,452.—DEVICE FOR SUPPORTING THE SHAFTS OF VEHICLES.—Rubin Fink and Reuben Daveler, Lancaster, Pa.
95,453.—WHEELED CULTIVATOR AND PLOW.—Sam'l Fisher, Hightstown, N. J.
95,454.—SAUSAGE STUFFER.—Charles Forschner, New York city.
95,455.—TOY TOP.—Henry Foulkes, Utica, N. Y.
95,456.—BEARING FOR SPINDLES IN SPINNING MACHINES.—J. B. Fuller, Norwich, Conn. Antedated Sept. 16, 1869.
95,457.—ATTACHING HANDLES TO CUTLERY.—J. W. Gardner (assignor to "Lamson and Goodnow Manufacturing Co."), Shelburne Falls, Mass.
95,458.—HARROW.—D. L. Garver, Hart township, Mich.
95,459.—MANUFACTURE OF COAL GAS.—Wm. Gibson, Cambridge, Mass.
95,460.—LAMP BURNER.—E. L. Gilman (assignor to himself and F. Houghton), Somerville, Mass.
95,461.—HOT-AIR FURNACE.—B. Gommenginger and C. W. Trotter, Rochester, N. Y.
95,462.—MACHINE FOR DRAWING FLAX, ETC.—John Good, Brooklyn, E. D., N. Y.
95,463.—KNIFE GUARD.—E. A. Goodes (assignor to the Philadelphia Patent and Novelty Co.), Philadelphia, Pa.
95,464.—WASH BOILER.—S. A. Goodwin, Buffalo, N. Y.
95,465.—PROCESS OF PREPARING ALIZARINE.—Chas. Graeb, Frankfort-on-the-Main, and Charles Liebermann, Berlin, Prussia.
95,466.—CARRIAGE SEAT.—S. P. Graham, Columbus, Ohio.
95,467.—HARROW.—P. S. Graves and P. B. Parcell, Ashmore Ill.

95,468.—CLEANING BRUSH FOR ORDNANCE.—John Tyndale Greenfield, Dover, England.
95,469.—RUFFLING ATTACHMENT FOR SEWING MACHINES.—Louis H. Gunnerman (assignor to himself and William G. Hoover), Pittsburgh, Pa.
95,470.—SHOE KNIFE.—M. E. Hall, Spring, Pa.
95,471.—RAILWAY.—David Harrison, Fayette, Miss.
95,472.—APPARATUS FOR SEPARATING GOLD FROM SAND.—D. F. Hawkes. Timbuctoo, Cal.
95,473.—PROCESS OF SEASONING WOOD.—T. W. Heinemann, New York city.
95,474.—PROCESS AND APPARATUS FOR PRESERVING WOOD.—T. W. Heinemann, New York city.
95,475.—PRESS FOR MAKING COFFIN TOPS.—A. W. Hendrick, Batavia, Ill.
95,476.—VALVE DEVICE FOR STEAM AND OTHER ENGINERY.—E. H. Hewins, Boston, Mass.
95,477.—MILK AND PROVISION SAFE.—William Hinman, Elkhart, Ind.
95,478.—CIGAR MACHINE.—J. C. Hintz, Cincinnati, Ohio.
95,479.—TILE MACHINE.—George Jackson, Albany, N. Y.
95,480.—MACHINE FOR CUTTING TAPERS.—Clark Jillson, Worcester, Mass.
95,481.—GOVERNOR FOR STEAM AND OTHER ENGINERY.—W. J. Kesselmeyer and C. A. Kesselmeyer, Manchester, England, and E. H. Nacke, Als-Schoenfeld, Saxony.
95,482.—WHIP HOLDER.—A. W. Johnson, New York city.
95,483.—BORING TOOL.—W. J. Johnson, Newton, and George Tainter, Watertown, Mass.
95,484.—MANUFACTURE OF WHITE OXIDE OF ZINC.—Richard Jones, Mount Holly, N. J.
95,485.—HULLING MACHINE.—C. H. Keniston, Somerville, and J. H. Sawyer (assignors to J. T. Prince), Boston, Mass.
95,486.—STEAM ENGINE.—Alden Kilby, Boston, Mass.
95,487.—PLOW.—Henry Killam, Mendon, Mich.
95,488.—CARRIAGE-AXLE CONNECTION.—J. W. Kingsbury, New Bedford, Mass.
95,489.—DOLL.—Martin Kintzback, Philadelphia, Pa.
95,490.—SAWING MACHINE.—R. M. Lafferty (assignor to himself and J. E. & J. P. Prutzman), Three Rivers, Mich.
95,491.—CHAIR.—Allen Lapham, Paterson, N. J.
95,492.—CHOCOLATE PASTE.—L. F. Leger, New York city.
95,493.—HAY RAKER AND LOADER.—J. C. Leonard, S. B. Holcomb, and W. B. Wright, Clinton, Mo.
95,494.—MARINE PAINT.—W. H. Lewis, assignor to himself and J. B. Folger, Boston, Mass.
95,495.—COMBINED TRY-SQUARE, CALLIPER, ETC.—W. J. Linton, Detroit, Mich. Antedated Sept. 20, 1869.
95,496.—MANUFACTURE AND REFINING OF SUGAR.—Louis J. F. Marguerite, Paris, France. Patented in France, October 16, 1867.
95,497.—CAR SPRING.—J. R. Mathews, New London, Conn.
95,498.—LOCOMOTIVE HEAD-LIGHT.—H. S. Maxim and James Radley, New York city.
95,499.—SEWING MACHINE.—T. L. Malone, Mount Gilead, Ohio.
95,500.—MANUFACTURING GERMAN HAND-CHEESE.—F. C. Mende and T. F. Mende, Philadelphia, Pa.
95,501.—COOKING STOVE.—B. H. Menke, Cincinnati, Ohio.
95,502.—Suspended.
95,503.—WATER GAGE.—George Murray, Jr., Cambridgeport, Mass.
95,504.—DEVICE FOR HOLDING TOGETHER THE DIFFERENT PARTS OF BUREAUS AND OTHER ARTICLES OF FURNITURE.—J. O. L. Murray and D. A. Mullane, New Orleans, La.
95,505.—CULTIVATOR.—A. S. Perrigo, Sandwich, Ill.
95,506.—COMBINED LATCH AND LOCK.—N. Petre, New York city.
95,507.—COMBINED LATCH AND LOCK.—N. Petre, New York city.
95,508.—LATCH.—N. Petre, New York city.
95,509.—LOCK.—N. Petre, New York city.
95,510.—HOT-AIR REGISTER.—H. M. Phinney, Cambridge, Mass.
95,511.—WINDOW BLIND.—Anthony Pirz and Manuel Pirz, East New York, N. Y.
95,512.—AIR-PRESSURE WATER RESERVOIR.—J. W. Prendergast, New York city.
95,513.—FLYING MACHINE.—W. F. Quinby, Wilmington, Del.
95,514.—CHURN DASHER.—Gustav Radbruch, Hoboken, N. J.
95,515.—VELOCIPEDE.—John Reinhart, (assignor to Andrew Christian), New York city.
95,516.—MACHINE FOR MAKING AND WRAPPING WEBBING BOOT STRAPS.—J. W. Richardson, South Braintree, Mass.
95,517.—COMPOSITION FOR COVERING STEAM BOILERS, ETC.—John Riley and C. W. Bissell, Troy, N. Y., assignors to C. W. Bissell, Terrance Riley and Mary C. Frazer.
95,518.—FENCE.—Smith Riley, Kenton, Ohio.
95,519.—STAGING FOR ROOFS.—W. B. Ross, Keene, N. H.
95,520.—CULTIVATOR.—S. A. Sabin, Pecatonica, Ill.
95,521.—SLEIGH-ATTACHMENT FOR VELOCIPEDES.—Theodore Searing, New York city.
95,522.—HARVESTER.—Allen Sherwood, Auburn, N. Y.
95,523.—MANURE DRAG.—A. H. Shock and H. R. Shirk, Lancaster, Pa.
95,524.—FARM GATE.—Daniel Shockey, Waynesborough, Pa.
95,525.—MODE OF ATTACHING TRIMMING TO ARTICLES OF DRESS.—John Sims, Liverpool Road, England, assignor to Wm. Sparks Thompson.
95,526.—HARVESTER.—Wm. P. Slack, Lewisburg, Pa.
95,527.—MANUFACTURE OF SOAP FOR MEDICINAL AND FOR OTHER PURPOSES.—Lebbeus W. Smith, Boston, Mass. Antedated September 18, 1869.
95,528.—PIPE COUPLING.—Thomas Smith, Baltimore, Md.
95,529.—FIREPLACE.—Asa Snyder, Richmond, Va.
95,530.—CRADLE.—Augustus Spiegel, Indianapolis, Ind.
95,531.—WATER VELOCIPEDE.—Fisher A. Spofford and Matthew G. Raffington, Columbus, Ohio.
95,532.—STEAM GENERATOR.—Samuel Stanton, Newburg, N. Y.
95,533.—BOILER WATER REGULATOR AND ALARM.—Leopold Steigert, Cincinnati, Ohio.
95,534.—MANUFACTURE OF PIGMENTS FOR PAINTS.—Robert S. Stenton, New York city.
95,535.—SEED DRILL.—S. Stow, East Enterprise, Ind.
95,536.—ORGAN AND MELODEON.—Simeon Taylor, Worcester, Mass.
95,537.—HARVESTER.—T. H. Taylor, Jeffersonville, Ill.
95,538.—LIFE BOAT.—Henry Thompson, Mobile, Ala.
95,539.—GANG PLOW.—J. N. Thompson and Wm. Kenady, Belpassi, assignors to D. W. Frary, Portland, Oregon.
95,540.—AUTOMATIC PASSENGER REGISTER.—H. H. Trenor, New York city.
95,541.—DOUBLE SHOVEL PLOW.—Charles Immanuel Voigt, West Salem Ill.
95,542.—BATH-TUB EDUCTION TUBE.—William. H. Walton, Philadelphia, Pa.
95,543.—STEAM ENGINE GOVERNOR.—William Wickersham, Boston, Mass.
95,544.—CHAIR, CRADLE, COT, ETC.—John T. Wightman, Charleston, S. C.
95,545.—WATER ELEVATOR.—J. W. Wheeler, Cleveland, Ohio.
95,546.—RAILWAY CAR COUPLING.—J. C. Wilson, Appleton, Wis.
95,547.—WATCH.—Charles V. Woerd, Waltham, Mass.
95,548.—PITMAN-CONNECTION FOR HARVESTERS.—Rufus C. Wood, Le Roy, Kansas.
95,549.—HORSE POWER.—Daniel Woodbury, Rochester, N. Y.
95,550.—FURNACE DOOR FRAME.—David H. Young, Manchester, N. H.
95,551.—STOVE DRUM.—Wm. Allchin, Newburg, N. Y.
95,552.—WASHING MACHINE AND TABLE.—Daniel Arndt, Toledo, Ohio.
95,553.—SPRING FOR BED BOTTOMS.—Lyman M. Bates, Jackson, Mich.
95,554.—MANUFACTURE OF SHEET IRON.—Silas Barker, Hartford, Conn.
95,555.—RAILWAY-RAIL CHAIR.—Robert C. Blackall, Albany, N. Y.
95,556.—GRAIN DRYER.—Wm. Blakey, Baltimore, Md.
95,557.—GRINDING MILL.—Righter W. Bowman, Orangeville, Pa.
95,558.—CIDER PRESS.—Asa Brooks, Tolland, Conn.
95,559.—WAGON TONGUE HOLDER.—Orlando F. Bryant, Carver, Minn.
95,560.—CHURN.—Francis Burdick, South East, N. Y., and Lodewick Burdick, Locraven, Pa.
95,561.—COMBINED STRAW-CUTTER AND FEED BOX.—Jesse Burgess, Richmond, Ind.
95,562.—REFRIGERATOR.—Morgan Burton, Darlington, Pa.
95,563.—COTTON PRESS.—C. A. Caldwell, Concord, N. C.
95,564.—SPRING-BED BOTTOM.—Charles L. Chadeayne, Yonkers, N. Y.
95,565.—WASHING MACHINE.—E. Hall Covel, New York city.
95,566.—POST AUGER.—Z. S. Cracraft, Lacon, Ill.
95,567.—WASHING MACHINE.—John Crampton and Wm. H. Pangborn, Plainfield, N. J.
95,568.—MANUFACTURE OF IRON AND STEEL.—Norman Cutter, Cincinnati, Ohio, and Elliot Savage, West Meriden, Conn.
95,569.—ROCK DRILL.—Charlton H. Davis, San Francisco, Cal.
95,570.—CAR COUPLING.—Calvin R. Densmore and Jacob A. Vreeman, Oil City, Pa.
95,571.—SEWING MACHINE FOR BOOTS AND SHOES.—Auguste Destouy) assignor to Charles Goodyear, Jr.), New York city.
95,572.—TABLE CASTER.—Henry A. Dirkes, New York city.
95,573.—WASHING MACHINE.—Charles F. Dodge, New York city.
95,574.—PROCESS OF DISTILLING SPIRITS.—Joshua Ellingwood, Owensborough, Ky.
95,575.—LAMP-SHADE SUPPORTER.—Charles W. Emerson (assignor to himself and John C. Abbott), Hartford, Conn.
95,576.—FABRIC FOR ROOFING AND FOR OTHER PURPOSES.—Benjamin F. Field, Beloit, Wis., and Robert D. O. Smith, Washington, D. C., assignors to Benjamin F. Field.
95,577.—MANUFACTURE OF ANVILS, AND THE TOP AND BOTTOM PARTS OF HAMMERS, ETC.—David Foster, Sheffield, England. Patented in England, June 4, 1868.
95,578.—APPARATUS FOR TRANSMITTING POWER.—Arthur L. Freeman, South Boston, Mass.
95,579.—PLATFORM FOR RAILWAY CAR.—Joseph Gilmer, Monticello, Fla.
95,580.—MACHINE FOR DRAWING AND SPINNING WOOL, ETC., FROM THE CARDING MACHINE.—John Goulding, Worcester, Mass.
95,581.—SEWING MACHINE.—Joshua Gray, New York city.
95,582.—MACHINE FOR SAWING LATH.—Wm. P. Hale, Ionia, Mich.
95,583.—PROCESS OF TREATING WOOD, TO PRESERVE, SEASON, AND GIVE IT A BETTER SURFACE.—Ira Hayford and Joseph F. Paul, Boston, Mass.
95,584.—MACHINE FOR STEAMING AND SHRINKING CLOTH.—Wm. Hebdon, New York city.
95,585.—MACHINE FOR BENDING FIFTH-WHEELS.—Geo. W. Heckart, New Lisbon, Ohio.
95,586.—MECHANICAL MOVEMENT.—William M. Henderson, Philadelphia, Pa.
95,587.—Suspended.
95,588.—SPRING SCALE.—Simon Ingersoll, Brooklyn, N. Y.
95,589.—SCALE ROD.—Hans Iversen and Daniel Acker, New York city.
95,590.—WAGON SEAT.—Melvin Jincks, Wallace, N. Y.
95,591.—STEAM ENGINE SLIDE VALVE.—Hans Knudsen, North Windsor, Wis.
95,592.—SASH HOLDER.—J. S. Kuder and Willoughby Seiple, Tiffin, Ohio.
95,593.—WATER WHEEL.—Dennis Lane, Montpelier, Vt.
95,594.—HEN'S NEST.—D. P. Leach, Franklin, Ind.
95,595.—LOW-WATER INDICATOR.—L. L. Lee, Milwaukee, Wis.
95,596.—FENCE.—William Mallary, Bucyrus, Ohio.
95,597.—WATER CLOSET FOR RAILROAD CARS.—W. E. Marsh, Jr., Plainfield, N. J.
95,598.—MOULDINGS OF WOOD.—W. J. Miller and J. W. Campbell, New York city.
95,599.—COFFEEPOT.—Elie Moneuse and Louis Duparquet, New York city.
95,600.—WASHING MACHINE.—Chas. Muhl, Bloomington, Ill.
95,601.—BOILER FURNACE.—G. H. Nott, Boston, Mass.
95,602.—SAW TEETH.—W. B. Noyes (assignor to himself and C. S. Baker), Manchester, N. H.
95,603.—SCREW FEEDING APPARATUS.—E. S. Pierce, Hartford, Conn.
95,604.—CONSTRUCTION OF ORDNANCE.—J. B. Read, Tuscaloosa, Ala. Antedated Sep. 27, 1869.
95,605.—SIRUP FOR FLAVORING BEVERAGES, ETC.—Victor Rilett, Hoboken, N. J.
95,606.—CALENDERING MACHINE.—H. E. Rogers, South Manchester Conn.
95,607.—GRAIN DRILL.—J. R. Rude, S. B. Rude, and G. W. Rude, Liberty, Ind.
95,608.—CIDER PRESS.—John Schaffer and Emanuel Stoner, Westminster, Md.
95,609.—SNAG BOAT.—E. M. Shield, Cincinnati, Ohio.
95,610.—COMPOUND FOR CURING TOOTHACHE.—W. P. Sigsby, Delta, Ohio.
95,611.—HAY ELEVATOR.—Anthony Smith, Shellsburg, Pa.
95,612.—REFRIGERATOR, SIDEBOARD, AND ROOM COOLER.—D. E. Somes, Washington, D. C.
95,613.—AIR PUMP.—D. E. Somes, Washington, D. C.
95,614.—APPARATUS FOR TRANSMITTING POWER BY MEANS OF A FLUID PASSED THROUGH A PIPE OR TUBE.—Robert Spear, New Haven, Conn.
95,615.—SLEEVES OF OVERCOATS, ETC.—Joseph Steinhauser, Lancaster, Pa.
95,616.—GRAIN DRYER.—S. M. Stevens, Elwood, Ill.
95,617.—PROCESS OF FORMING LETTERS, CHARACTERS, AND ORNAMENTS ON GLASS.—C. M. Strauss, Memphis, Tenn.
95,618.—DISH WASHER.—James A. Strong, North Wolcott, Vt.
95,619.—GRAIN DRILL.—W. H. Trimmer, Round Hill, Pa.
95,120.—HOTEL ANNUNCIATOR.—Lucius J. Vansands, Chicago, Ill.
95,621.—PIPE CONNECTION.—Augustus Weyermann, Saint Gall, Switzerland.
95,622.—SPRING FOR BEDS, BERTHS, CAR SEATS, ETC.—N. S. Whipple, Detroit, Mich.
95,623.—BOILER FOR COOKING STOVES.—Henry R. Robbins, Baltimore, Md., assignor to himself and J. J. Moran. Antedated Sept. 21, 1869.
95,624.—MODE OF APPLYING INKS OF DIFFERENT CHARACTERS SO AS TO PRINT SAFETY, REVENUE, AND OTHER STAMPS.—William Thorpe, St. Louis, Mo.
95,625.—HOOP SKIRT.—K. McRae, New York city.
95,626.—INK FOR PRINTING REVENUE, POSTAGE, AND OTHER STAMPS, SO AS TO SECURE GREATER SAFETY AND PREVENT FRAUDS.—Thos. Antisell, Washington, D. C.

REISSUES.

64,484.—BUCKET EAR.—Dated May 7, 1867; reissue 3,658.—Henry Callahan, John Reese, and R. S. Heglen, Dayton, Ohio, assignees, by mesne assignments, of Henry Callahan.
35,141.—COOKING STOVE.—Dated May 6, 1862; reissue 3,659.—E. J. Cridge, Troy, N. Y.
57,743.—METAL FRAME FOR PIANOS.—Dated Sept. 4, 1866; reissue 3,660.—Martin Martins, New York city.
86,305.—METALLIC LATHING.—Dated Jan. 26, 1869; reissue 3,661.—I. V. Holmes, New York city.
45,272.—WASH BOILER.—Dated Nov. 29, 1864; reissue 3,662.—John Reist, Philadelphia, Pa.
91,388.—ATTACHMENT OF MAIN SPRINGS TO WATCH BARRELS, etc.—Dated June 15, 1869; antedated Dec. 15, 1868; reissue 3,663.—Arthur Wadsworth, Newark, N. J., for himself and Robert Schell, New York city, assignee of Arthur Wadsworth.
78,705.—SPRING SEAT.—Dated June 9, 1868; reissue 3,664.—J. L. Whipple, Detroit, Mich.
48,366.—TREMOLO ATTACHMENT.—Dated June 27, 1865; reissue 3,444, dated May 18, 1869; reissue 3,665.—Alonzo Hitchcock, George G. Saxe, and James H. Robertson, New York city, assignees of Riley W. Carpenter.

DESIGNS.

3,687.—BUCKLE.—Alma Bedford, Coldwater, Mich.
3,688.—CENTER PIECE.—Henry Berger, New York city.
3,689.—DRAWER PULL.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn.
3,690 and 3,691.—LATCH HANDLE.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn. Two Patents.
3,692.—MATCH SAFE.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn.
3,693.—SHUTTLE HOOK.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn.
3,694 and 3,695.—SASH LIFT.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn. Two Patents.
3,696.—DOOR KNOB.—Stephen Eich, East Toledo, Ohio.
3,697.—MUFF.—J. K. Cappelhoff, New York city.
3,698 to 3,703.—CARPET PATTERN.—E. J. Ney, Dracut, Mass., assignor to Lowell Manufacturing Co. Six Patents.
3,704.—BELL.—F. G. Niedringhaus, St. Louis, Mo.
3,705.—TEA SERVICE.—Wm. Parkin (assignor to Reed & Barton), Taunton, Mass.
3,706.—KNITTED CAP.—Wm. Schwab, New York city.
3,707.—TRADE MARK.—George C. Thilenius, Cape Girardeau, Mo.

EXTENSIONS.

BORING MACHINE.—Arcalous Wyckoff and E. R. Morrison, of Elmira, N. Y.—Letters Patent No. 13,606, dated Sept. 25, 1855; reissue No. 404, dated Oct. 14, 1856.
INTERLOCKING GRATE BARS.—S. Van Syckle, of Titusville, Pa.—Letters Patent No. 13,669, dated Oct. 9, 1855.

PATENT OFFICE DECISION RESPECTING DESIGNS—APPLICATION OF FRANKLIN FIELD FOR A PATENT FOR A DESIGN FOR PAPER COLLARS.

ON APPEAL TO THE EXAMINERS-IN-CHIEF—S. H. HODGES FOR THE BOARD.

It is true, as has been remarked in this case, that the differences between the design presented, and the one referred to by the Examiner in charge, are very slight. The lines in the respective drawings are nearly the same, and were nearly in the same direction. It must be remembered, nevertheless, that almost imperceptible variations in the lines of drawings often change the whole aspect of the images represented, and may cost intense study, and the exercise of the highest genius. The emotions indicated by the painting of a face may be entirely changed by modifications which would not be noticed by a stranger to the art. The novelty of a design is not to be determined, therefore, by the extent to which the lines are parallel to those of another, but the effect must also be taken into consideration.

The design which was referred to as being an anticipation of the one before us was intended to represent a collar with a hem. The purpose of the applicant is to represent a collar with a tape attached to the border, and his drawing is modified accordingly. The change, though slight in itself, produces the desired effect. This constitutes a substantial difference between the two, and precludes the one from being regarded as an anticipation of the other.

The decision of the primary Examiner is reversed.