Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

STAVE EQUALIZER.—Elijah P. Spaulding, of Murfreesborough, Tenn.—A pair of circular saws, preferably mounted on the same arbor, are placed as far apart as the required length of the staves to be cut. A pair of disks mounted on a horizontal shaft, parallel with the shaft in front of it, work between the saws by lapping them back to a place where the attendant who supplies them to the carrier may take them away. The table is capable of swinging up and down to adjust it to the said carrier for having the right inclination to deliver the staves properly, and it may be fastened at any required inclination. Preferably, there will be two pins in each disk, so that they take two staves at each revolution. If the staves are to be sawn off square at the ends, the two disks will be of the same size; but if they are to be beveled for tapered casks, one disk will be larger than the other, so as to present the staves obliquely, and the difference in the size of the two disks will vary as the taper of the cask varies. When the disks are of different sizes, their faces will be correspondingly beveled. Interchangeable disks of the different kinds required will be used for adapting the machine to cut the staves to any required bevel.

WARPING MILL.—John W. Fries, of Salem, N. C.—This invention has for its object to so arrange the heck of a warping mill that the yarn wound upon the warp cylinder will not become entangled while being dyed or prepared after its removal from the mill. The invention consists in applying to the hook a vibratory motion, whereby the threads are laid diagonally, so that the threads of the same layers will not be quite parallel and those of overlying thicknesses will cross each other and not be parallel, thus preventing their becoming entangled.

ROTATING READING TABLE.—Thomas Cartwright, of New York city.—This invention has for its object to furnish an improved rotating reading table or book support for attachment to circular and octagonal tables that are supported upon a pedestal, and it consists in the rotating arm, adjustable rod, and gas pipe provided with plugs or stopcocks at its ends, stationary or jointed gas burners, and an adjustable book rest, in combination with each other and the pedestal of a table.

HAND CORN SHELLER.—Julius O. Fraizer, of Worthington, Ind.—This invention has for its object to furnish an improved hand corn sheller. The base of the sheller is a board, plank, or block, six inches, more or less, in length and breadth, and one inch, more or less, in thickness. To the ends of a U-shaped steel spring, the middle part of which is bolted to the base, are bolted two semi-tubular jaws, having teeth formed upon their inner or concave sides, so that when the ear is forced through the space between the said jaws, the teeth may remove the kernels from the cob, the said jaws being held forward upon the ear by the elasticity of the spring, which elasticity also enables the jaws to adjust themselves to and operate effectively upon ears of different sizes.

WOOD SCREW.—John S. Armstrong, of St. John, Canada.—This invention consists in a screw provided with a nick widening from the center toward the circumference, to allow the edge of driver to be pressed up and wedged tightly near the center.

COTTON PLANTER.—Henry A. Ridley, Jacksonport, Ark.—This invention has for its object to furnish an improved seed planter, designed especially for planting cotton seed. To the rear end of the beam is attached the body of the planter, which is made somewhat in the shape of the hull of a ship, to adapt it to press open the furrow to receive the seed. Just in front of the body is attached a plow, to open the furrow. Suitable mechanism gives a faster or slower feed as desired, and also keeps the seed stirred up so that it will not clog, and so that it will pass out freely.

WASHING FLUID.—Martha A. Sanderson, Fremont, Mich.—The object of this invention is to provide efficient means for lessening the labor of washing clothes, and it consists in a fluid composed of alcohol, camphor gum, aqua ammonia; and a second mixture of hot rain water, sal-nitre, borax and saleratus. When the above two mixtures have stood twelve hours, they are mixed together with rain water in a glass or stone vessel, and kept tightly corked for use.

RUDDER.—Richard H. Thomas, Kid's Grove, near Stoke-on-Trent, England.—This invention consists of a rudder of two blades, arranged side by side, one on each side of the axis, and distant from each other so as to allow a solid flow of water between them, being connected at top by a horizontal bar or disk to the axis or shaft. They are also connected in like manner at the bottom to a pivot stepped in the projecting end of the keel, and also divided at or near the middle vertically, and similarly connected by disks or bars to a journal fitted in a block in which the projecting end of the propeller shaft is also journaled, so as to strengthen the rudder and support the propeller shaft.

APPARATUS FOR CHARGING BLAST FURNACES.—William A. Miles, Salisbury, Conn.—This invention relates to improvements in the mechanism for charging blast furnaces, and more particularly to the charger for which the United States letters patent No. 130,652 were granted, the 20th day of August, 1872. The present invention consists, principally, in making the sliding bottom plates of the charger inclined on their upper faces, and also in making the stationary upper and lower guides of these plates, or either of them, hollow to admit water or air circulation, and prevent the heat of the furnace from burning them. Finally, the invention consists in the use of friction rollers above and below the sliding plates to facilitate their movement.

RAILROAD RAIL JOINTS.—John McLean Staughton, Riverton, Ky.—This invention has for its object to furnish an improved rail joint, which shall be so constructed as to hold the ends of the adjacent rails level, so that one cannot rise above the other, so that the two ends cannot sink down at an angle with the body of the rails, and which will give the joint greater strength and equal flexibility with the other parts of the rails. It consists in the fish plates made with the fish bellycurve upon the middle part of their lower edges, and in the adjacent ends of the rails having their flanges cut away for a less distance than the length of the fish plates.

NAIL MACHINE.—Henry Reese, Baltimore, Md.—The invention consists in drawing the end of a heated rod into a round pointed blank between two surfaces that move in reverse directions and with the same velocity; in then shaping said blank with dies; and in a peculiar mode of applying the brushes, shocks pring and raised edges on the drawing faces.

HOSE PROTECTOR.—Isaac P. Maxwell, Baltimore, Md.—The invention consists in forming a hose jumper in three readily detachable sections.

STAVE JOINTER AND CROZING MACHINE.—John McGrew, Ravenswood, West Va.—The invention consists in arranging one or more pairs of angle shaped knives to reciprocate over a bearing roll upon which the hoop is feed intermittently, for the purpose of notching the hoop and allowing it to take the bulge necessary in barrels. Secondly, the invention consists in a peculiar mode of intermittently moving the roll, feeding forward the hoop, and then holding it while the said notches are cut.

COMBINED LADDER AND SCAFFOLD.—Robert L. Upchurch, Pana, Ill.—The invention consists in constructing an article adapted to use by painters, carpenters, and others as a scaffold, and to be employed at the sides of walls and corners to serve as an ordinary step ladder when folded, and as a fruit ladder when reversed.

TURBINE REACTION WATER WHEEL.—John McGrew, Ravenswood, West Va.—The invention consists in combining with the inner chute of a turbine wheel a series of peculiarly constructed buckets that by their relation to the discharge apertures utilize all the pressure of the water. Secondly, it consists also in providing the chute ring with a vertical circular flange by which great steadiness and uniformity of motion is secured to the wheel. Thirdly, it consists also in placing a gate on the inside of the chute and adjusting it by a reciprocating slide on the outside, whereby the quantity of water admitted may be nicely and easily graduated.

KNIFE SCOURER.—Frank O. Harvey, Kansas City, Mo.—The invention consists in making a knife scourer of a trough, a stationary pad block, and a hinged and handled pad block; whereby the labor of scouring is sensibly essened, while the rapidity of its performance is greatly increased.

PIPE MOLDING MACHINE.—Dennis Long, Louisville, Ky.—The invention consists in the application to molding machines of a movable table resting on a foundation plate and provided with one or more seats for the flasks and patterns; in the peculiar form of pattern, which is enlarged at both ends as compared with the turned off intermediate portion; and in the construction of movable seats for the end of pattern and flask. The lower ends of pattern exercise a pressure upon the sides of mold as it is withdrawn, which compacts and condenses the sand.

SPARK ARRESTER AND SMOKE CONSUMER FOR PASSENGER LOCOMOTIVES.—Wm. Martien, Baltimore, Md.—The invention consists in arresting the smoke, sparks, and cinders at the top of smoke stack and forcing them by an air draft from front of locomotive down a tube, and into a chamber where the cinders are stopped, while the smoke is carried around and emptied into fire box.

SPARK ARRESTER AND SMOKE CONSUMER FOR FREIGHT LOCOMOTIVES.—Wm. Martien, Baltimore, Md.—The invention relates to that special class of locomotives which are used for freight cars, and consists in combining with a hooded smoke stack a bibranched pipe through which are forced the cinders, sparks and smoke, the two former into cinder boxes prepared to receive them and the latter into the fire box. It also consists in utilizing the cinders to create friction on the track by transferring them to sand box wherefrom they are distributed, upon the track and in front of drive wheels, at the will of the engineer.

DRIVING GLOVE.—Edwin V. Whitaker, Gloversville, N. Y.—The invention relates to a new article of manufacture, which is to be used in driving or riding horses or other animals, and which consists of a mitt having the four fingers covered in pairs so that one of the reins will pass as usual between said pairs, while two fingers being in each pocket or envelope will coöperate in keeping one another warm. It also consists in the pattern which is preferably employed for cutting out said mitt.

AUTOMATIC FEEDING LAMP.—Dr. Samuel K. Jackson, Norfolk, Va.—The invention consists in automatically maintaining the desired oil level in a beacon lamp by means of hydrostatic pressure applied so as to take advantage of the different specific gravities of oil and water, and so as to cause the water to feed itself and take up the space gradually vacated by the oil. This lamp furnishes a continuous light by night and day for a long period without requiring any attendant to trim or replenish it, and supplies a want which has been long felt by the commercial public. It would seem that this invention must greatly facilitate transit through our bays and harbors since safety will be equally secured for navigation by day or by night and even with comparatively inexpert mariners. The pilotage also, which has hitherto been regarded as such an onerous burden upon certain classes of vessels, it is calculated, will be sensibly lessened.

BUTTON.—Spencer B. Lane, Waterbury, Conn.—The invention consists in forming the perforated head of a button with lips and the shank with a bifurcation, by which they may be connected. The upper end of the shank is forked, to enter with its prongs two apertures in the head of the button or stud. These apertures are formed in said head by punching, but so that no material is removed; consequently, the material between the apertures is turned up to form two lips. After the prongs of the shank are passed through the holes of the head, said prongs are bent apart and clinched upon the button, the pressure upon them also bending the lips over the prongs. The lips serve thus to hold the prongs down upon the head and steady the entire connection of parts.

WASHING MACHINE.—Edmund E. Flint, Tonawanda, N. Y.—This invention relates to a washing machine. The suds box of the washing machine is of semi-cylindrical shape, of wood or other material, and supported on stand ards. The rubber is segmental, the rubbing surface being formed by diamond shaped slats or rods. This rubber is attached to the lower ends of vertical slotted bars, whose upper ends are connected by a transverse handle. A shaft serves as the pivot of the rubber when the same is vibrated. A roller bottom is put within the suds box beneath the rubber. In operation the rubber is vibrated by hand, and moves over the roller bottom, the articles to be cleaned being between the rollers and slats. A wash board fastened to the top of the rubber can be used for hand washing by placing the rubber against one end of the suds box.

PITMAN CONNECTION FOR HARVESTERS.—William Ferris, Pleasant Plain, Ohio.—This invention has for its object to furnish an improved device for connecting the sickle bar and pitman in reapers and mowers, taking up the play beneath the knife bar and pitman, enabling the wear to be conveniently taken up, and which will greatly diminish the wear and lessen the draft of the machine. It consists in the tapering hole formed through the eye of the sickle bar and the branched ends of the pitman, having a screw thread cut in the said hole in one or both of said branches and the wooden pin, to form a connection between the sickle bar and pitman of a harvester or mower.

FLY TRAP.—Addison M. Chapel and James G. Hubbard, Pittsfield, Mass.—This invention has for its object to furnish an improved fly trap. It consists of a cylinder caused to revolve by clockwork mechanism, and which is covered with fly bait. On alighting thereon, the flies are carried into a semicircular cavity, from which they are by suitable means prevented from escaping. A scraper brushes them off the cylinder into a passage through which they emerge into the cage.

INDIA INK SLAB.—Julius Speyer, Terre Haute, Ind.—This invention has for its object to furnish an improved slab, designed chiefly for the use of draftsmen in grinding India ink sticks, and for holding the liquid ink and preserving it from evaporation. It consists in forming a grinding surface and an ink well in the upper side of the slab or block, and a chamber in the under side of the same, in which the stick may be deposited when not in use.

BOTTLE PACKER.—Robert T. Penick, St. Joseph, Mo.—This invention has for its object to furnish an improved device for packing bottles and packages of bottles in sawdust, short shavings, rice husks, etc., and which shall correctly and uniformly regulate the space between the bottles, and between the bottles and the sides of the box in which the bottles are to be packed.

[OFFICIAL.]

Index of Inventions

For which Letters Patent of the United States were granted.

FOR THE WEEK ENDING NOVEMBER 27, 1872, AND EACH BEARING THAT DATE.

SCHEDULE OF PATENT FEES:

On each Caveat	$10
On each Trade-Mark	$25
On filing each application for a Patent (seventeen years)	$15
On issuing each original Patent	$20
On appeal to Examiners-in-Chief	$10
On appeal to Commissioner of Patents	$20
On application for Reissue	$30
On application for Extension of Patent	$50
On granting the Extension	$50
On filing a Disclaimer	$10
On an application for Design (three and a half years)	$10
On an application for Design (seven years)	$15
On an application for Design (fourteen years)	$30

Aerial navigation, apparatus for, Moy and Shill	133,331
Ale, beer, and water cooler, I. Erskine	133,362
Automatic hatchway protector, Waring and Wilson	133,345
Axle box, carriage, P. R. Stage	133,494
Axle box for carriages, etc., lubricating, W. W. Crane	133,417
Axle boxes, machine for lining carriage, H. Kellogg	133,449
Axle boxes, machine for forming linings for, H. Kellogg	133,450
Bake pan, R. D. McDonald	133,377
Bale tie, L. Arnold	133,349
Bale tie, F. Cook	133,412
Bed bottom, invalid, C. A. Tousley	133,502
Bed bottom, spring, A. E. Miller	133,329
Bed, sofa, and lounge bottom, R. Jennings	133,371
Bee hive, W. R. Clark	133,355
Billiard table, W. H. Griffith	133,365
Bird cage, E. B. Jewett	133,372
Bird cages, feed cup for, G. Gunther	133,442
Boom saddle and chafing band for masts, W. T. Griffenberg	133,439
Boot crimp, P. Sanders	133,339
Boot and shoe burnisher, L. I. Bumpus	133,301
Boot soles and uppers, machine for uniting, A. A. Reed, (reissue)	5,164
Box, C. Storer	133,496
Bracelet, A. O. Baker	133,291
Brick machine, W. C. Gaither	133,429
Bricks, implement for picking up and carrying, R. Bryden	133,299
Brush, L. Abbott	133,347
Buckle, trace, S. S. Sargeant	133,340
Buckle, trace, J. Lindsey	133,458
Burner, lamp, L. J. Atwood	133,397
Button hook, lacing, D. Heaton	133,312
Can opener, W. Thomas	133,500
Canal boats, propelling, J. A. Sterling	133,495
Car coupling, Flower and Graves	133,344
Car coupling, E. C. Hubbard	133,369
Car coupling, P. Brown	133,406
Car coupling, W. A. Dean	133,421
Car coupling, W. F. Grassler	133,437
Car coupling, C. H. Knowlton	133,456
Car coupling, L. B. Wilson	133,512
Car seat, G. Buntin, (reissue)	5,158
Car wheel, H. C. Lockwood	133,461
Car wheel, lubricating, W. W. Crane	133,418
Car wheel, railroad, D. Prew	133,336
Car, railroad bathing, L. Bagger	133,398
Car door, grain, J. Bassler, (reissue)	5,157
Card rack, E. R. McKean	133,378
Cards, game of, M. Bradley	133,296
Carriage, W. Ottmann	133,475
Carriage clips, die for bending, M. Seward	133,492
Carriage spring heads, filing, C. B. and G. Gilbert	133,432
Chains, machine for making ornamental, J. A. Field	133,427
Chairs, rocker fastener for, J. S. Lowry	133,464
Churn, M. Lockwood	133,462
Clamp and wrench combined, E. Maguire	133,325
Clothes washer, P. Read	133,485
Corn sheller, hand, T. Weaver	133,346
Corn and cob mill, J. H. King	133,455
Corpses, device for handling, H. Huber	133,447
Cover for coal holes, composition, J. F. Wood	133,513
Culinary vessels, pivoted lid for, J. H. McConnell	133,326
Cultivator, W. D. Smith	133,387
Cultivator, C. Marsh, 2d	133,467
Cutter head, T. Long	133,463
Deodorizing oils and fats, Loew and Dotch	133,322
Disinfecting compound, J. Gamgee	133,430
Distilling hydrocarbons, Faucett and McGowan	133,425
Door, hanging sliding, G. M. Darley	133,359
Dredge box, J. Dalzell	133,307
Dredger, T. J. Clepper	133,303
Drilling machine, rock, G. H. Pierce	133,478
Drum, stove pipe, G. Van Waters	133,506
Egg carrier, G. M. Huston	133,315
Elevator, sucker rod, Stitts and Dresser	133,390
Feather renovator, T. J. Adams	133,348
Feeding canal, J. G. Brewer,	133,353
Fence, E. M. Crandal	133,358
Fence, iron, T. Rogers	133,489
Fence, portable, Westbrooks and Clemmons	133,510
Filter, water, A. J. Robinson	133,488
Fire arm, breech loading, J. M. Whittemore, (reissue)	5,167
Fire shovel, S. Kyle	133,320
Fireproof building, Johnson and Hall	133,448
Fly trap, Chapel and Hubbard	133,354
Fly trap, A. Veling	133,507
Folding chair, Travis and Mahoney	133,503
Fork, band cutting, D. Arnold	133,396
Fruit preserving apparatus, J. Cope	188,413
Fruit, funnel for canning, S. B. Hertwig	188,445
Furnace, hot air, O. Bellman	133,293
Furnace, hot air, W. K. Manning	133,375
Furnace slag, treating, F. A. Luckenbach	133,466
Furnaces, lining for metallurgic and other, J. C. Hill	133,446
Gas, manufacturing, J. C. Tiffany	133,391
Gear wheels, pattern for curved tooth, R. Oliver	133,384
Gimlet, C. L. Griswold	133,440
Girder, W. G. Cutler	133,306
Glove, T. Kehoe	133,319
Glove, J. F. Mason	133,376
Grain dryer, C. R. Coe	133,410
Grain drill, G. S. Ball	133,292
Grain, apparatus for decorticating, S. Dodson	133,309
Graining machine, G. Geiger	133,311
Grate, stove, H. W. Pell	133,477
Hair roll, T. Schionbick	133,491
Harness pad, W. H. Rutan	133,338
Harness trimmings, making rubber coated, A. Albright (reissue)	5,155, 5,156
Harrow, Davis and Beagle	133,308
Harvester, corn, T. Merrell	133,327
Harvester pitman connection, W. Ferris	133,363
Harvester cutters, rifle for sharpening, J. R. Cliffton	133,408
Harvester cutters, sharpening bench for, J. R. Cliffton	133,409
Harvester binder's attachment, S. Mills	133,473
Hatchet, R. H. Thompson	133,343
Hinge, trunk and box, B. Hogan	133,313
Hoisting machine, J. Ashcroft	133,289
Horseshoe sharpener, T. P. Randall	133,337
Inkstand, J. G. Lucas	133,465
Insect destroyer, C. J. Hauck	133,444
Iron into steel by hydrocarbon vapors, making, T. R. Scowden (reissue)	5,165
Ironing table, J. M. Crouthamal	133,304
Jack, lifting, C. E. and F. A. Randall	133,484
Jack, lifting, G. Sweezey	133,499
Journal box, G. R. Meneely	133,472
Knife and fork cleaner, J. L. Hannum	133,367
Ladder and scaffold, combined, R. L. Upchurch	133,505
Land roller, J. D. McAnally	133,468
Lantern, Pohl and Higgins	133,479
Lap board, M. Church	133,302
Lathe for turning metal, S. W. Putnam	133,483
Lathe for turning spools, L. W. Boynton	133,403
Leather dressing, J. N. Baratta	133,400
Lemon squeezer, W. A. and J. W. Whitney	133,511
Letter box attachment for doors, E. K. Mull	133,474
Locomotive engine, J. Lewis	133,321
Loom, pneumatic, C. Richardson	133,336
Loom for weaving blinds, etc., B. R. Murphy	133,332
Loom picking mechanism, C. E. Smith	133,493
Lubricator, S. Hutchinson, Jr.	133,316
Manure for transportation, preparing, L. W. Boynton	133,404
Mattocks, picks, etc., machine for forming the eyes of, J. Donald	133,360
Meat stuffer, A. R. Silver	133,342
Medical compound, L. B. Millard	133,32

Medical compound, J. Harrigan..... 133,443
Metallic grinding ring for mills, G. and H. O'Connor..... 133,333
Mill and press, cider, H. and H. S. Paul..... 133,476
Millstone feed, J. W. Anderson..... 133,288
Molasses pitchers, top for, G. M. Irwin..... 133,317
Mole trap, T. J. Brown..... 133,407
Nail machine, wrought, H. Reese..... 133,486
Nail machines, feeding device for, J. Nolan (reissue)..... 5,161
Neck tie, O. Kueppers..... 133,457
Nut lock, K. H. Loomis..... 133,324
Oil wells, rope socket for, H. Badcock..... 133,290
Paddle wheel, T. Shaw..... 133,341
Paper folding machine, A. Washburn..... 133,393
Paper bag machines, pasting apparatus for, J. Arkell..... 133,395
Pasteboard box, S. W. Millichamp..... 133,330
Photographic camera, C. A. Waterbury..... 133,394
Plow, S. D., D. A., and J. B. Morrison (reissue)..... 5,160
Poke, horse and cattle, B. Page..... 133,334
Pulley, self-lubricating, W. W. Crane..... 133,416
Pump, S. Lane, Jr..... 133,373
Pump, steam, J. C. and E. H. Dean..... 133,419
Purifier, middling, E. P. Welch..... 133,509
Railroad track cleaner, J. Paradis, (reissue)..... 5,162
Railway train brake, D. T. Perkins..... 133,335
Refining hydrocarbon oils, Faucett and McGowan..... 133,426
Refining petroleum, etc., H. M. Baker..... 133,399
Rivetingmachine, J. Berry..... 133,294
Rocking chair G, Gardner..... 133,431
Rolling machine, metal, H. Kellogg..... 133,451, 133,452, 133,453
Rolling mills, roll for metal, H. Kellogg..... 133,454
Roof, C. P. Weaver..... 133,508
Rotary engine, F. Jessop..... 133,318
Rudder for vessels, A. H. Murphy..... 133,382
Saloon table shelf, J. R. McRae..... 133,471
Sash holder, Branch and Liddell..... 133,352
Sawing machine, J. P. Summers..... 133,497
Sawing and planing machine, M. E. Tucker..... 133,504
Sewing machine, W. G. Beckwith..... 133,351
Sewing machine table, G. Rehfuss..... 133,487
Sewing machine table attachment, J, C. Egley..... 133,361
Sewing machine table hinge, M. C. Brinser..... 133,298
Sewing machine treadle, C. H. Morgan..... 133,331
Sewing machine presser foot, J. L. and D. H. Coles..... 133,411
Shaft hanger, W. W. Crane..... 133,415
Shank for tools, A. H. Suplee..... 133,498
Sheep shears, F. Van Doren, (reissue)..... 5,166
Shoemaker's tool, J. E. Ober..... 133,383
Show case for ribbons, etc., Gross and Ruth..... 133,366
Shutter fastening, W. Zeiter..... 133,511
Signal, ship's, Read and Nickoll..... 133,385
Sink, J. H. Coyne..... 133,414
Skate fastening, Hunter and Chenoweth..... 133,314
Slop pail, J. L. Jennings..... 133,370
Smut machine, J. S. Poultney..... 133,480
Spark arrester, W. F. Grassler..... 133,436
Spinning machines, manufacture of rings for, C. E. Trowbridge..... 133,344
Springs, manufacture of, W. Evans..... 133,424
Stamp canceler, J. Goldsborough..... 133,435
Stationary implement, compound, H. S. Ball..... 133,350
Stave jointer, J. McGrew..... 133,469
Steam engine, E. H. Cutler..... 133,305
Steam engine, reciprocating, Moy and Shill..... 133,380
Steam engine, rotary, Grotz and Dennison..... 133,441
Steam engine lubricator, P. W. Brewster..... 133,297
Steam pressure regulator, N. C. Locke..... 133,459, 133,460
Stool, pivot, H. Earl, Jr..... 133,310
Stone, etc., cutting, B. C. Tilghman..... 133,501
Stripping and feed roll for burring machines, etc., J. K. Proctor..... 133,482
Silky, J. A. Bilz..... 133,401
Thill coupling, H. Fitzsimmons..... 133,428
Tinner's tool, A. Bingham..... 133,295
Tobacco stripping and booking machine, O. Dean..... 133,420
Turn table, A. and H. F. Snyder..... 133,388
Umbrellas, etc, lock, S. Wales..... 133,392
Vise, machinist's, Demmon and Diefendorf..... 133,423
Wagon axle, E. D. Gird..... 133,433
Wagon, dumping, W. Buck..... 133,300
Wagon seat fastening, Schairer and Reimold..... 133,490
Wash basin, J. Broadfoot..... 133,405
Wash boiler, W. H. Lines..... 133,374
Washing machine, O. Lonval..... 133,323
Washing machine, E. Cox..... 133,357
Washing machine, G. W. Mollineaux..... 133,379
Washing machine, I. B. Stillman..... 133,389
Washing machine, wool, J. K. Proctor..... 133,481
Watch escapement, P. G. Giroud..... 133,434
Watch chain hook, C. Faas, (reissue)..... 5,159
Water engine, J. H. Connell..... 133,356
Water meter, Gray and Brittingham..... 133,438
Water ram, C. Hodgkins..... 133,368
Water wheel, turbine, T. J. Alcott..... 133,287
Water wheel, turbine, J. McGrew..... 133,470
Wrench, O. Bonneville..... 133,402
Wrench, F. L. Delfer..... 133,422

APPLICATIONS FOR EXTENSIONS.

Applications have been duly filed, and are now pending, for the extension of the following Letters Patent. Hearings upon the respective applications are appointed for the day hereinafter mentioned:

22,835.—HARVESTER.—W. K. Miller. January 22, 1873.

23,097.—MACHINE FOR CROZING BARRELS, ETC.—H. Littlejohn. Feb. 12, 1873.

23,105.—CONSTRUCTION OF STEAM VESSELS.—J. Montgomery. Feb. 12, 1873.

EXTENSIONS GRANTED.

15,995.—BREECH LOADING FIRE ARM.—G. W. Morse.

22,213.—RAILROAD CAR BRAKE.—A. L. Whipple.

DISCLAIMER.

15,995.—BREECH LOADING GUN.—G. W. Morse, Washington, D. C.

DESIGNS PATENTED.

6,269.—BILLIARD TABLE.—O. D. Benjamin, Toledo, Ohio.

6,270.—NURSING BOTTLE.—M. S. Burr, Boston, Mass.

6,271.—COOKING STOVE.—E. Bussey, Troy, N. Y.

6,272.—PRINTING TYPE.—J. M. Conner, New York city.

6,273.—BROOM.—G. F. Gale, Philadelphia, Pa.

6,274.—IRON FENCE.—C. F. and J. M. Hankey, Danville, Ill.

6,275.—SODA WATER APPARATUS.—G. F. Meacham, Newton, Mass.

6,276.—TWINE HOLDER.—E. J. Steele, New Haven, Conn.

6,277.—FIRE SET HOLDER.—E. J. Steele, New Haven, Conn.

6,278.—BILLIARD TABLE.—J. Syrcher, Buffalo, N. Y.

6,279.—BELL STAND FOR HARNESS.—A. E. Taylor, New Britain, Conn.

6,280.—CORAL BOOK STAND.—S. L. Westerfield, New York city.

TRADE MARKS REGISTERED.

1,066.—SUGAR CURED HAMS.—Backman & Wilson, Cincinnatti, Ohio.

1,067.—COTTON GIN.—W. G. Clemons, Columbus, Ga.

1,068.—STOVES AND STOVE TRIMMINGS.—Culter & Proctor, Peoria, Ill.

1,069.—VELVET RIBBONS.—Giron Frères, St. Etienne, France.

1,070.—BACK SEAMED BOOTS.—I. Hall, Boston, Mass.

1,071.—LEATHER.—E. Larrabee & Sons, Baltimore, Md.

1,072.—ESSENTIAL OILS, ETC.—C. H. Phillips, New York city.

1,073.—ANNATTO.—L. E. Ransom, New York city.

1,074.—SAWS.—Wheeler, Madden & Clemson, Middletown, N. Y.

Value of Patents,

AND HOW TO OBTAIN THEM.

Practical Hints to Inventors.

PROBABLY no investment of a small sum of money brings a greater return than the expense incurred in obtaining a patent even when the invention is but a small one. Larger inventions are found to pay correspondingly well. The names of Blanchard, Morse, Bigelow, Colt, Ericsson, Howe, McCormick, Hoe, and others, who have amassed immense fortunes from their inventions, are well known. And there are thousands of others who have realized large sums from their patents.

More than FIFTY THOUSAND inventors have availed themselves of the services of MUNN & Co. during the TWENTY-SIX years they have acted as solicitors and Publishers of the SCIENTIFIC AMERICAN. They stand at the head in this class of business: and their large corps of assistants, mostly selected from the ranks of the Patent Office: men capable of rendering the best service to the inventor, from the experience practically obtained while examiners in the Patent Office: enables MUNN & Co. to do everything appertaining to patents BETTER and CHEAPER than any other reliable agency.

HOW TO OBTAIN *Patents.*

This is the closing inquiry in nearly every letter, describing some invention which comes to this office. A *positive* answer can only be had by presenting a complete application for a patent to the Commissioner of Patents. An application consists of a Model Drawings, Petition, Oath, and full Specification. Various official rules and formalities must also be observed. The efforts of the inventor to do all this business himself are generally without success. After great perplexity and delay, he is usually glad to seek the aid of persons experienced in patent business, and have all the work done over again. The best plan is to solicit proper advice at the beginning. If the parties consulted are honorable men, the inventor may safely confide his ideas to them; they will advise whether the improvement is probably patentable, and will give him all the directions needful to protect his rights.

How Can I Best Secure My Invention?

This is an inquiry which one inventor naturally asks another, who has had some experience in obtaining patents. His answer generally is as follows, and correct

Construct a neat model, not over a foot in any dimension—smaller if possible—and send by express, prepaid, addressed to MUNN & Co., 37 Park Row, New York, together with a description of its operation and merits. On receipt thereof, they will examine the invention carefully, and advise you as to its patentability, free of charge. Or, if you have not time, or the means at hand, to construct a model, make as good a pen and ink sketch of the improvement as possible and send by mail. An answer as to the prospect of a patent will be received, usually, by return of mail. It is sometimes best to have a search made at the Patent Office; such a measure often saves the cost of an application for a patent.

Preliminary Examination.

In order to have such search, make out a written description of the invention, in your own words, and a pencil, or pen and ink, sketch. Send these, with the fee of $5, by mail, addressed to MUNN & Co., 37 Park Row, and in due time you will receive an acknowledgment thereof, followed by a written report in regard to the patentability of your improvement. This special search is made with great care, among the models and patents at Washington, to ascertain whether the improvement presented is patentable.

Rejected Cases.

Rejected cases, or defective papers, remodeled for parties who have made applications for themselves, or through other agents. Terms moderate. Address MUNN & Co., stating particulars.

Copies of Patents.

Persons desiring any patent issued from 1836 to November 26, 1867, can be supplied with official copies at a reasonable cost, the price depending upon the extent of drawings and length of specification.

Any patent issued since November 27, 1867, at which time the Patent Office commenced printing the drawings and specifications, may be had by remitting to this office $1.

A copy of the claims of any patent issued since 1836 will be furnished for $1.

When ordering copies, please to remit for the same as above, and state name of patentee, title of invention, and date of patent. Address MUNN & Co., Patent Solicitors, 37 Park Row, New York city.

MUNN & Co. will be happy to see inventors in person, at their office, or to advise them by letter. In all cases, they may expect an *honest opinion*. For such consultations, opinions and advice, *no charge is made*. Write plain; do not use pencil, nor pale ink be brief.

All business committed to our care, and all consultations, are kept *secret and strictly confidential*.

In all matters pertaining to patents, such as conducting interferences, procuring extensions, drawing assignments, examinations into the validity of patents, etc., special care and attention is given. For information, and for pamphlets of instruction and advice

Address

MUNN & CO.,

PUBLISHERS SCIENTIFIC AMERICAN,

37 Park Row, New York.

OFFICE IN WASHINGTON—**Corner F and 7th streets,** opposite Patent Office.

PROSPECTUS

OF THE

SCIENTIFIC AMERICAN.

The Best Mechanical Paper in the World!

A year's numbers contain over 800 pages and several hundred engravings of new machines, useful and novel inventions, manufacturing establishments, tools, and processes.

The SCIENTIFIC AMERICAN is devoted to the interests of Popular Science, the Mechanic Arts, Manufactures, Inventions, Agriculture, Commerce, and the Industrial pursuits generally, and is valuable and instructive not only in the Workshop and Manufactory, but also in the Household, the Library, and the Reading Room.

To the Mechanic and Manufacturer!

No person engaged in any of the mechanical pursuits should think of doing without the SCIENTIFIC AMERICAN. Every number contains from six to ten engravings of new machines and inventions which cannot be found in any other publication.

Chemists, Architects, Millwrights and Farmers.

The SCIENTIFIC AMERICAN will be found a most useful journal to them. All the new discoveries in the science of chemistry are given in its columns; and the interests of the architect and carpenter are not overlooked, all the new inventions and discoveries appertaining to these pursuits being published from week to week. Useful and practical information pertaining to the interests of millwrights and millowners will be found published in the SCIENTIFIC AMERICAN, which information they cannot possibly obtain from any other source. Subjects in which planters and farmers are interested will be found discussed in the SCIENTIFIC AMERICAN, many improvements in agricultural implements being illustrated in its columns.

We are also receiving, every week, the best scientific journals of Great Britain, France and Germany; thus placing in our possession all that is transpiring in mechanical science and art in these old countries. We shall continue to transfer to our columns copious extracts, from these journals, of whatever we may deem of interest to our readers.

TERMS.

One copy, one year - - - - - - - - - - - - $3.00
One copy, six months - - - - - - - - - - - 1.50
One copy, four months - - - - - - - - - - - 1.00
One copy of Scientific American for one year, and one copy of engraving, "Men of Progress," - - - - - - - - - - - 10.00
One copy of Scientific American for one year, and one copy of "Science Record," for 1873 - - - - - - - - - - - - 4.50

Remit by postal order, draft or express.

The postage on the Scientific American is five cents per quarter, payable at the office where received. Canada subscribers must remit, with subscription, 25 cents extra to pay postage.

Address all letters, and make all Post Office orders or drafts payable to

MUNN & CO.,

37 Park Row, New York.

INDEX

ILLUSTRATIONS.