

(30) S. F. B. asks for a recipe for a paste or muclage for a scrap book. Ordinary muclage is too hard and stiff after it is dry. A Rice starch, 1 oz.; gelatin, 3 drachms; water, 1/2 pint; heat with constant stirring until the milky liquid becomes thick and glassy, and the paste is ready. Keep the paste in a tight bottle with a few drops of clove oil.

(31) W. B. H. asks: Will you please inform me how I can expand the rubber cylinders so as to place them on the shafts of clothes wringers? The iron shafts are first wound in their whole length with heavy twine or cord, forming the core of the shaft, over which the rubber cylinder is to be placed. The bore of the rubber cylinder is much smaller than the iron shaft before it is wound. What I wish to know is, how this thick stubborn rubber cylinder is expanded so as to be placed over the cord wound core or shaft. A Rubber rollers are expanded by means of a conical piece of brass which is fitted to the end of the roller shaft. The large end of the brass core must of course be larger than the larger part of the shaft. The cement which is applied to the inside of the roller and to the shaft acts as a lubricant.

(32) H. B.—The total eclipse of 1869 took place on the 7th day of August.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated.

S. B.—The bituminous substance closely resembles grahamite—an inspissated and oxygenated petroleum. Am. J. Sci. II., xlii. 420, 1866.—A. W. C.—Mica (muscovite) is usually cut in about 100 numbers, the sheets varying in size from 2 x 2 to about 8 x 12 inches, and the prices (for clear and perfect sheets) from 50 cents to \$6 per hundred sheets.—E. H. P.—Hematite of fair quality. An assay would be requisite to determine its precise value.

HINTS TO CORRESPONDENTS.

We renew our request that correspondents, in referring to former answers or articles, will be kind enough to name the date of the paper and the page, or the number of the question.

Many of our correspondents make inquiries which cannot properly be answered in these columns. Such inquiries, if signed by initials only, are liable to be cast into the waste basket.

Persons desiring special information which is purely of a personal character, and not of general interest, should remit from \$1 to \$5, according to the subject, as we cannot be expected to spend time and labor to obtain such information without remuneration.

COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges with much pleasure the receipt of original papers and contributions on the following subjects: Light as a Motive Power. By F. E. G. M. Variable Velocity. By J. T. O.

[OFFICIAL.]

INDEX OF INVENTIONS FOR WHICH

Letters Patent of the United States were Granted in the Week Ending June 25, 1878,

AND EACH BEARING THAT DATE. [Those marked (r) are reissued patents.]

A complete copy of any patent in the annexed list, including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired, and remit to Munn & Co., 37 Park Row, New York city.

Table listing various inventions and their patent numbers, including Amalgam, refining retorted, F. Gutzkow; Anchor for check row cords, L. L. Haworth; Atomizer, W. L. Hubbell; Auger, G. F. Stearns; Axle, car, J. W. Whittle; Baker and roaster, S. W. White; Balloon, J. Tracy; Barrel heads and covers, fastening, W. I. Winne; Basket, I. J. Cole; Bed bottom, B. F. Allen; Bee h've, N. M. Barnes; Bee hive, W. A. Shoemaker; Bee hive, D. S. Thomas; Belt shipper, D. C. Newell; Bit stock, C. M. Knowles; Blood, making articles from, W. H. Dibble; Bobbin, J. S. Crowley; Boiler covering, I. L. Merrell; Boiler heads, flanging, Campbell & Richards; Boilers, crown sheet for locomotive, J. Meredith; Bonbon wrapper, I. J. Van Skelline; Book, copy, D. H. Lueken; Boot and shoe counters, etc., moulding, J. Kleffner; Boots, manufacture of, W. R. Miller; Bottle stopper, A. E. N. Agnel; Box fastener, R. Mead; Box, packing, I. Popper; Box, wooden, G. A. Mannie; Boxes, fastening packing, M. J. Rivard; Boxes, etc., device for packing, A. D. Spencer; Braid, etc., holding coils of, S. B. Felsler; Brack, automatic wagon, G. Kemmel; Broom, J. W. Booth; Brush, horse, F. Foss; Bucket, metal, M. Campbell; Burglar alarm, J. W. & W. W. Wharf; Burial casket, G. A. Kirchner; Butter tub, R. Still; Butter tub, I. & J. Westcott; Buttoner and button fastener, L. H. Parker; Calipers, H. C. Wight; Can, butter, G. W. Simpson; Car coupling, W. C. Gannett; Car coupling, Pope & Sampson; Car, open railway, W. H. Paige; Car, street, W. H. Paige; Carburetor, W. Morehouse; Carding machines, device for, Schofield & Wilde; Carpet stretcher and fastener, W. H. Sallada; Cartridge holder, D. C. Farrington; Casting door knobs, E. E. Stow; Celluloid and other compositions, J. W. Hyatt.

Table listing various inventions and their patent numbers, including Cement, manufacture of hydraulic, J. Dimelow; Chair barber's, A. Wekerle; Change gate, H. P. Speckman; Churn, W. Howland; Cigar bundler and binder, G. W. Rhyneanson; Cigar package, M. Jonas; Cigarette, G. E. Boyve; Clasp, F. Armstrong; Cleansing and scouring device, C. Raetz; Cloth drying machine, T. Goodall; Cloth finishing machine, E. T. Marble; Clothes boiler, etc., convertible, J. B. Franklin; Cock, reverse way, E. B. Quick; Coffee, compound for coating roasted, J. T. Cooke; Coin holding and delivering device, C. H. Bliss; Comb, M. Butron; Cooker, feed, C. Gorton; Cooker, feed, J. A. Peirron; Cooler, milk, Peck & Ball; Cooling and freezing apparatus, J. Ring; Corn dropper, H. H. Hartsock; Cultivator, wheel, G. W. Ray; Curtain cord tightener, Porter & Beatson; Cut-off engines, J. H. Dunbar; Cutlery, blank for, Abel & Pedder; Cutting instrument or tool, J. A. Peer; Dental pluggers, motor for, Moreau & Dennis; Ditcher, C. B. Stough; Doll, M. M. Steuber; Draw gage, J. H. Tays; Drill, grain, E. D. Mead; Dyeing apparatus, A. V. Hysore; Ear piercer, A. Gipperich; Eggs, treating preserved, O. A. Stempel; Electric circuit, vibrations in an, E. Gray; Electric lighting system, Sawyer & Man; Electric lights, regulator for, Sawyer & Man; Engine, reciprocating, D. W. Kellogg; Engine, steam, J. B. Crawley; Engine, wind, D. D. Wadsworth; Engines, storing the power of wind, M. Everhart; Etching on glass, J. Unwin; Faucet, Beauvois & Morreau; Faucet for compartment vessels, J. Butcher; Faucet, measuring, F. X. Rousseau; Feather renovator, Emmerick & Hamermiller; Feed cutter, W. H. Ahrens; Fence, O. A. Clark; Fence, S. Craig; Fence, J. Hallner; Fence post, Hawson & Burnham; Fence post, J. W. Yarbrough; Fence wire, barbed, F. Billings; Fifth wheel, J. Kritch; Fire arm, breech loading, D. M. Lefever; Fire arm, breech-loading, H. Updegraff; Fireman's belt hook, H. Buchholz; Fork, horse hay, R. N. B. Kirkham; Friction clutch, L. D. Dana; Fruit picker, S. R. Ruckel; Furnace, blast, D. N. Jones; Furnace door, J. Ashcroft; Furnaces, air distributing pipe for, M. M. Snider; Furnaces, feeding fuel to, A. L. Schultz; Gas meter prover, J. T. Wheeler; Gate, farm, E. F. H. Romans; Gate, farm, J. E. Strong; Gate operating mechanism, A. R. Sherman; Grain binder, Travis & Chute; Grinding machine, Randall & Dana; Guns, carriage for machine, D. C. Farrington; Harrow, Pentreath & Crosby; Harrow tooth, Waterbury & Miller; Harrow, wheel, F. Bramer; Harvester, J. Bordwell; Harvester, J. M. Rutherford; Harvester, C. Whitney; Harvester, platform, G. Sweet; Harvester rake, O. Cooley; Hat finishing machine, E. Woolley; Hatchway doors, opening and closing, J. J. Lacey; Hay tedder, J. M. Hill; Heater, D. Sullivan; Hoes, forming the eyes of, E. L. Keeler; Hog cholera compound, A. R. Derrickson; Horse collar, S. M. Palmer; Horse detaching device, R. Fox; Horseshoe, O. Von Ruville; Horseshoe blanks, manufacturing, F. Holub; Horseshoe blanks, rolling, F. Holub; Horseshoe nail machine, Flanders & Goodrich; Horseshoe nails, making, D. B. Loring; Hose attachment, J. Dawson; Hose pipe nozzle, J. T. Hayden; Hub, vehicle, A. W. Antbolne; Ice locomotive, H. Laine; Ice tool, W. H. Barwick; Ingots, treating cast steel, Cammell & Duffield; Insecticide compound, D. Maurer; Jar holder, fruit, J. Woodruff; Jewelry, scrollwork for, L. Heckmann; Journal bearing, D. M. Finlayson; Kilt suit, child's, I. Crane; Knitting machines, narrowing mech. for, W. Aiken; Knitting machines, stopping mech. for, S. Arnold; Lamp, H. P. Nichols; Lamp bracket, B. A. Neisser; Lamp or lantern, J. Felt; Lamp or lantern, C. H. Rockwell; Lamp reflector, Sheldon & Pope; Lamp socket and stand, J. Gallinger; Latch, gate, J. S. & J. Matthews; Latch, reversible, M. C. & S. S. Niles; Leather, tramping drum in manuf. of, F. Kapp; Lightning rod coupling, Reyburn & Hunter; Link bending machine, W. Jones; Liquors, flavoring, J. H. Thierman; Lock, time, T. F. Keating; Locomotive, road, J. B. Root; Loom picker, J. G. Garland; Loom stopping mechanism, J. Watters; Loom take up, G. H. Holmes; Lubricator, vehicle axle, A. Beauvois; Mangle, H. Albers; Marble, artificial, A. Brault; Matchbox, W. A. Morse; Mechanical movement, J. B. Root; Milk and provision rack, R. A. Bassett; Mill, disintegrating, T. L. Sturtevant; Mill, grinding, A. H. Wagner; Mirror for exhibiting samples, L. G. Francis; Motion, mechanism for transmitting, J. S. Adams; Muclage bottle stopper, H. T. Cushman; Musical notation, L. D. Holtermann; Newspaper folding machine, M. H. Rogers; Nut lock, W. H. Schall; Nut lock, W. Walter; Oatmeal machine, D. Oliver; Oil cloth, making, T. Potter; Oils, apparatus for refining fat, H. T. Yaryan; Organ, reed, G. Blatchford; Organ, reed, W. O. Trowbridge; Ozone generator, G. F. H. Bartlett; Packing, steam, E. Robinson; Padlock, W. Bobannan; Padlock, J. W. Gable; Paper, etc., reducing wood to pulp for, B. F. Brown; Pen, fountain, C. Stockmann; Pen, pneumatic stencil, T. A. Edison; Pessary, J. W. Dawson; Piano stool, Bramble & Deihl; Picture frame, A. S. Davis; Pile driver, G. H. Cavanagh; Planing machine, box, J. Mannebach; Planing machine, wood, J. Richards; Planter, check row corn, H. N. McConoughey; Planter, seed, R. L. Cleveland; Plow, N. P. Bowsler; Plow, R. W. Workman; Plow and harrow, J. C. Teague; Plow, ditching, A. Wiley; Plows, draught adjuster for, W. A. Woodward; Pole for agricultural implements, L. B. Kenney; Potato digger, A. N. Smiley; Press, baling, P. K. Dederick; Printing machine, speed, Brush & Hartnett; Printing machines, inking, J. F. Hubbard; Printing press, C. B. Cottrell; Projectile for ordnance, H. Relly; Pulley frame, sash, O. S. Garretson; Rail joint, Baker & Root; Rail joint, Eckert & Levan; Rail joint, W. A. Hawthorn; Rail joint, A. Meharry; Railway ditching machine, D. Horrie; Railway switch bar, R. Gurley; Roofing, sheet metal, W. S. Grafton; Roofing, sheet metal, M. Horrie; Roofs, closing seams of sheet metal, H. E. Bottum; Rowlock, J. Forbes, Jr.; Sad iron, I. P. Chalfant; Sad iron and heater, C. Ezard; Sash fastener, L. W. Knight; Sash fastener, F. Marten; Sash holder, J. W. & W. W. Wharf; Saw, drag, F. Mayrhofer; Saw teeth, manufacture of, N. W. Spaulding; Scales, weighing, H. S. Cochran; Scraper, road, S. G. L. Morrow; Seeding machine, A. P. Steele; Sewing machine needle, A. C. Carey; Sewing machine shuttle, W. T. Elliott; Sewing machine cutting attachment, D. J. Tapley; Shearing machine, animal, E. J. Watson; Shoe, J. B. Stevens; Shutter, fireproof, S. L. Pollock; Sieve, M. A. & G. M. Richardson; Sled propeller, J. Mahedy; Snatch block, T. J. Bray; Soap holder, W. H. Dewees; Sphygmograph, E. A. Pond; Spinning mule, J. Hackley; Spring, car, C. M. Higginson; Stamp cancelling device, Neville & Godwin; Steam, generator of, O. Marland; Steamer, feed, Parker & Yokom; Stereotype block, A. Henning; Still, oil, G. Miles; Stove damper, J. S. Van Buren; Stove, gas, W. M. Jackson; Stove, magazine, W. W. Baldwin; Stove pipe damper, S. Crowell; Strawberry protector, T. Delany; Syringe, vaginal, H. T. Chamberlin; Table, C. Kade; Target ball, N. F. Turner; Thrashing machine frame, T. Harrison; Thread finishing device, T. Kohn; Thread from spools, etc., unwinding, W. E. Turner; Tire setting machine, B. F. Young; Tobacco, making plug, W. T. Yarbrough; Tobacco, packing smoking, W. J. Cussen; Toy, G. Zuckschwerdt; Toy pistol, J. Brunner; Trace fastening, L. P. Crandall; Trough, watering, O. J. Smith; Truck, car, S. D. Hurd; Trunk catch, J. Arnold; Tubing, sheet metal, J. S. Brooks; Valve gear, C. Pratt; Varnishing machine, T. B. Dooley; Vault cover, illuminating, V. Dale; Vaults, etc., illuminating door for, T. Hyatt; Vegetable cutter, Weatherbee & Mowder; Velocipede, H. Ackermann; Veneer cutting machine, L. Anderson; Veneer cutting machine, T. Hanvey; Ventilator, J. E. Richard; Vise, carpenter's, E. H. Brower; Vise, hand, B. F. Stephens; Wagon cover, C. H. Cutler; Wagons, device for unloading header, N. Archibald; Wagons, platform gear for, H. L. Kingsley; Warming machine, L. L. Shaw; Washing machine, R. E. McCauley; Washing machine, M. M. Sanders; Washing machine, pounder, C. A. Dodge; Water closet, M. J. McEwan; Water raising apparatus, F. J. Seybold; Water wheel, turbine, L. F. Johnson; Wheel, vehicle, W. Thunen; Whiffetree hook, J. Marcellus; Windlass, J. P. Manton; Windmill, F. Forster; Wire barbing tool, Hill & Jayne; Yoke adjuster, J. Dalt.

TRADE MARKS.

Table listing trade marks and their patent numbers, including Beaver cloths, Bacon, Baldwin & Co.; Beeswax, Wakeman & Fier; Boots and shoes, Hurst, Miller & Co.; Blankets, L. Strauss & Co.; Cigars, Fay & Co.; Cigars, W. Simpson; Cigars, Gutmann & Rice; Cigars and cigarettes, etc., D. Hirsch & Co.; Cigars, cigarettes, etc., Kerbs & Speiss; Compound paste, etc., B. F. Callender; Cotton jeans, etc., A. A. Low & Brothers; Healing balsam, Dr. H. D. Whitbeck & Co.; Lye and potash, E. Lauferty; Medicinal preparation, J. Heywood; Ointment, Soler & Guardias; Parlor stoves, S. S. Jewett & Co.; Perfumes for the breath, W. M. Fleming; Saleratus, soda, etc., Welck & Smith Spice Co.; Silk handkerchiefs, etc., B. B. Tilt & Son.; Smoking tobacco, Beck & Feldkamp; Soap and candles, Proctor & Gamble; Soda water, etc., Hayes Brothers; Starch, The Buffalo Grape Sugar Company; Whisky, Crane, Hastings & Co.; Yeast powders, The Taylor Manufacturing Company.

DESIGNS.

Table listing designs and their patent numbers, including Font of printing types, W. W. Jackson; Gem setting, C. A. Faas; Glassware, H. Franz; Hobby horse, O. Unzicker.

English Patents Issued to Americans.

From July 26 to July 30, inclusive.

Table listing English patents issued to Americans, including Cutting screw threads, F. Armstrong; Designs, apparatus for copying, T. Hall; Forges, Munsell and Thompson Manuf. Co.; Ice machinery, T. Cook; Illuminating apparatus, J. W. De Castro; India rubber boots and shoes, National Rubber Co.; Lamps, R. Hitchcock; Medical compound, L. J. Dart; Pantagraph, J. Thorro; Spinning machinery, J. C. Stanley; Spinning machinery, J. Birkenhead; Tacking apparatus for boots, F. C. Hinds.

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