

Business and Personal.

The charge for insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue.

Marine Iron Works. Chicago. Catalogue free.
"U. S." metal pollab. Indianapolis. Samples free.
Presses & Dies. Ferracure Mach. Co., Bridgeton, N. J.
Yankee Notions. Waterbury Button Co., Waterbury, Ct.
Screw machines, milling machines, and drill presses.
The Garvin Mach. Co., Spring & Varick Sts., New York.
Concrete Houses - cheaper than brick, superior to stone. "Ransome," 757 Monadnock Block, Chicago.
The celebrated "Hornsby-Avroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.
The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. Munn & Co., publishers, 361 Broadway, N. Y.
Free! An Illustrated History of Cripple Creek gold camp (with correct map), together with our big family weekly, three months on trial for 25c. Illustrated Weekly, Denver, Colorado.
Send for new and complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broadway, New York. Free on application.

Notes & Queries

HINTS TO CORRESPONDENTS.
Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.
References to former articles or answers should give date of paper and page or number of question.
Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and though we endeavor to reply to all either by letter or in this department, each must take his turn.
Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.
Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.
Scientific American Supplements referred to may be had at the office. Price 10 cents each.
Books referred to promptly supplied on receipt of price.
Minerals sent for examination should be distinctly marked or labeled.

(7015) W. J. B. asks: 1. Under separate cover I send a sample of a bug which we found in pearl barley. Please give me its name and a preparation with which to kill them. A. The specimen represents the common granary weevil (Calandra granaria), one of the most injurious enemies of stored grain, both in this country and abroad. It attacks grain of all sorts, and is partial apparently to pearl barley, as it is often reported in this grain. See page 279 of a pamphlet on "The More Important Insects Injurious to Stored Grain," which the Department of Agriculture, Washington, D. C., will send you on application. The best remedy for granary insects is bisulphide of carbon, and you will find an account of how to use it on page 293. Answer by Mr. L. O. Howard, Entomologist, United States Department of Agriculture. 2. What is the best book for beginners in the electrical subject, which gives rules for the calculation of the electric motor, etc.? A. Dr. Sloane's "Arithmetic of Electricity," \$1 by mail.

(7016) G. S. A. asks: Please inform me what to use to keep belts from slipping. Is resin injurious to belts? A. Beeswax is the best application for keeping belts from slipping. Rub the pulleys or the inside of the belt with a piece of wax. It needs but very little.

(7017) M. J. S. asks: 1. What is meant by open and closed circuit work in connection with batteries? A. An open circuit battery is one adapted for occasional or intermittent work only. Such a battery must be inactive when the circuit is open, and must have the property of depolarizing itself so as to be ready for use when needed. It may be very quickly polarized in use without detracting from its availability. A closed circuit battery must not be easily polarized when in use, and may, and often does, polarize when not used. 2. What is best form of battery (primary) for electroplating with gold, silver, copper and nickel, and about how many cells of a given size would be required to work five to ten gallons of silver solution? A. There are many batteries which will answer. The copper sulphate, Daniell and gravity and the Smees are often recommended. For full description of batteries see our SUPPLEMENT, Nos. 157, 158, 159, 792; for electroplating see Nos. 310 and 426. 3. Does cyanide in plating solutions attack asphaltum varnish? A. No. 4. How thick can a copper or silver deposit be made? A. As thick as desired.

(7018) Typo asks: 1. How can one tell direction to run a dynamo, of whatever make? A. The commutator cylinder must be turned away from the ends of the brushes if copper ones are used. If carbon brushes are employed, it can be run either way, but proper lead must be given the brushes. 2. Post to attach load wire and return wire, whatever the style of dynamo and position of its posts. A. While dynamo is running immerse the ends of the wires in copper sulphate solution. Copper will at once be deposited on the load wire. 3. What rules govern, if there is any danger to the plating generator in using too small a bath of solution or piece of work, with machine run at highest speed it was built for? A. There is no danger to the machine.

(7019) L. A. B. says: Please give me, through your paper, a recipe for a cement that will stick glass together, and be acid proof, something that will make a good photo. bath tray of clear glass, prisms, etc. A. A cement which, according to Dr. Wagner, is proof against even boiling acids, may be made by a composition of Indian rubber, tallow, lime, and red lead. The India rubber must first be melted by a gentle heat, and then 6 per cent to 8 per cent by weight of tallow is added to the mixture while it is kept well stirred; next dry

slaked lime is applied, until the fluid mass assumes a consistence similar to that of soft paste; lastly, 20 per cent of red lead is added, in order to make it harden and dry. 2. For bisulphide of carbon prisms, Mr. Lewis M. Rutherford, who has had much experience in this subject, employs a cement of glue and molasses. The surfaces must be perfectly clean; they are then warmed and dusted with a fine camel's hair brush, and placed in contact. A hot and fluid mixture of glue and molasses is then applied around the edges, and penetrates by capillary attraction. It must be left a day or two to harden, before preparing the next side. A ground stopper was also rendered tight by a little molasses. (See Silliman's American Journal, March, 1865.) Marine glue is also employed, and we suppose that the cement from glycerine and litharge may be.

(7020) L. B. says: Please give me through your valuable paper a remedy to cure asthma. A. The most popular remedies for this disorder are those used by inhalation.

Table with 2 columns: Name and Drachms. Includes Grindelia (8), Jaborandi (8), Eucalyptus (4), Digitalis (4), Cubeba (4), Stramonium (16), Potassium nitrate (12), Cascarella bark (1).

The ingredients should be in fine powder, and thoroughly dry before mixing. The composition is used by burning from one-fourth to one-half teaspoonful, and inhaling the smoke. The nitrate of potash is dissolved in water, and the powder moistened with it and dried.

(7021) Dr. H. asks: In what number or numbers of your publications can I find a recipe for a grease-proof cement for glass? It must withstand a considerable degree of heat. A. The hardest cement is produced by triturating 50 grm. (grammes, not grains) of litharge with 5 cubic centimeters of glycerine; if more glycerine is used, the mass hardens much more slowly and imperfectly. The small proportion of glycerine, however, makes it impracticable to prepare large quantities of the cement at a time. For this purpose it will be necessary to take more glycerine. . . . The most favorable results are obtained by adding 2 volumes of water to 5 volumes of glycerine (s. g. 1.240). Six cubic centimeters of this liquid are incorporated with 50 grammes of litharge. This mass requires a shorter time than any other proportions to produce a hard cement, ten minutes only being required to harden moderately, while after two hours it becomes harder than any mixture containing glycerine and litharge alone; but after a few days the latter compound (prepared without water) overtakes the former in hardness, and remains so. If it is desired to produce a cement which rapidly hardens and still have considerable firmness, it is advisable to use water with the glycerine.

TO INVENTORS.
An experience of nearly fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices, which are given in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO., OFFICE SCIENTIFIC AMERICAN, 361 BROADWAY, NEW YORK.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

October 27, 1896,

AND EACH BEARING THAT DATE.

(See note at end of list about copies of these patents.)

Table listing inventions with names and dates. Includes Abrading machine, Pritchard & Sellmayer (570,184), Alarm, See Fire and burglar alarm, Railway alarm, Safe alarm (570,185), Alloy of iron and producing same, metallic, M. Hall (570,016), Amusement apparatus, D. M. Harman (570,014), Anchor, F. Baldt (570,420), Arm, body, R. F. Stevenson (570,067), Axle box lid, car, A. O. Buckius (570,374), Bag, See Woven bag (570,343), Ball holder, H. Millerberg (570,343), Ball or fork, basket, H. M. Weaver (570,438), Baling press, A. L. Kohler (570,027), Barber's appliance, R. B. Snee (570,107), Bars and ingots, power driven tool for dressing, F. J. Wooster (570,079), Basket or can, fruit picker, A. M. Denig (570,385), Battery, See Galvanic battery, Battery plates, machine for making grids for secondary, A. F. Madden (570,224), Bearing, axle, A. J. Thelning (570,111), Bearing, shaft or axle, F. A. Meiller (570,040), Bearings, ball retainer for anti-friction wheel, E. K. Richter (570,146), Bed and couch, folding, E. E. Peck (570,048), Bed bottom, spring, F. D. Colvin (570,425), Bed, folding, E. J. Stuart (570,348), Bed, spring, W. R. Stewart (569,994), Bed spring frame, E. S. Sample (570,344), Bedsteads, rail grip joint for iron, G. Brand (570,369), Beer governor, steam, J. D. De Gear (570,086), Bell, door, G. W. Eddy (570,322), Bicycle, E. Y. MacKenzie (570,320), Bicycle, T. S. Millerberg (570,179), Bicycle, J. J. Narewan (570,327), Bicycle, G. H. Sears (570,271), Bicycle ball bearing, E. C. Howe (570,428), Bicycle canopy, folding, J. Kaufman (570,285), Bicycle bearing, A. F. Price (570,062), Bicycle handle bar, P. C. Rockwell (570,183), Bicycle lamp bracket, C. F. Walker (570,240), Bicycle post fastening, F. I. Johnson (570,309), Bicycle wheel, R. C. Fay (570,250), Billiard cue tip, P. A. Cuenot (570,006), Binder, R. Hildebrandt (570,339), Bit, See Bridle bit (569,996), Boiler and boiler furnace, W. Brand (570,365), Book, manifold sales, W. D. Bates (570,201), Boot, Dollison & Rimer (570,403), Booth, Hunt & Walker (570,403), Boring cylinders, compound feed motion for, W. S. Phelps (570,050), Boring machine, W. W. Black (570,197), Bottle, S. Alexander (569,988), Bottle closure, W. Scheerer (570,342), Bottle, muilage, J. S. L'Hommedieu (570,030), Bottle, non-refillable, J. S. Wood, Sr. (570,273), Bottle, non-refilling, S. Taylor (570,288), Box, See Junction box, Mail box, Bracket, See Bicycle lamp bracket, Brake, See Car brake, Vehicle brake, Wagon brake, Brake beam, H. B. Robiscuna (570,057), Brake beam hanger, E. Marcotte (570,323), Brick press, hydraulic, G. Laner (570,239), Bridge, E. Thacher (570,029), Bridge gate, draw, C. J. Lavey (570,029), Bridle bit, A. F. Kiehl (570,312), Broom attachment, J. S. Williams (570,358), Brush machine, J. F. Mumford (570,261), Bunsen burner, W. H. Chadock (570,084), Burner, See Bunsen burner (570,025), Butchering apparatus, Kennedy & Slattery (570,374), Button, collar, T. Brown (570,199), Cableway for dumping purposes, C. H. Locher (570,429), Car brake, N. F. Corne (570,004), Car coupling, A. F. Gubli (570,171), Car coupler, L. N. Singin (570,211), Car coupling, Young & Nichols (570,274), Car crossings, electric signal for street, G. A. Parrish (570,046), Car door, A. M. Wiatt (570,074), Car door, Watt & Ball (570,075), Car draught rigging, W. H. Miner (570,089), Car tender, H. Schmidt & Styles (570,032), Car tender, H. Lutzschel (570,069), Car tender, J. S. Meredith (570,134), Car freight, J. M. Peet (570,331), Car motor, electric, C. S. Bradley (570,119), Car sides and ends, lateral support for, W. A. Thomas (570,148), Car tender, C. H. Dressel (570,156), Car ventilating mechanism, W. J. Tully (570,353), Cars, drop attachment for railway passenger, R. P. Thomas (570,350), Card, account, C. Elkin (570,249), Card, motor, display, W. F. Jones (570,408), Cardboard cutter, bevel edge, D. T. McCall (570,180), Carriage, baby, J. A. Johnson (570,407), Cart, T. Hill (570,400), Case, See Sbox case (570,422), Cash and package carrier, Barr & Weaver (570,114), Cash register and indicator, W. Bassett (570,141), Cash registers, transferring and resetting mechanism for, F. Barnard (570,196), Cash registers, transferring and resetting mechanism for, A. W. Marr (570,178), Casket, H. Walker (570,356), Casting hollow cylinders, mould for, H. Messing (570,324), Catalametal sack, M. E. Ballard (570,216), Chain wrench, G. Amborn, Jr. (570,213), Clear branding machine, A. Rottach (570,230), Circuit breaker, A. J. Wurts (570,212, 570,415, 570,419), Circuit breaker, automatic, A. J. Wurts (570,417), Circuit interrupting device, A. J. Wurts (570,415), Clamp, See Rope clamp (570,106), Clasp, See Door clasp (570,377), Clay elevator, F. S. Slattery (570,247), Clothes line hanger, J. H. Burlich (570,332), Clutch, F. Brostrom (570,247), Coat and hat hanger and lock, combined, P. J. Piatti (570,228), Coaks or taps, machine for grinding, L. D. Biddle (570,431), Comb darning mechanism, T. W. Hickey (570,085), Comb and E. H. Hubbard (570,169), Conduit tube, E. T. Greenfield (570,168), Conduit, underground, E. T. Greenfield (570,168), Conduits, making interior, E. Lavens (570,256), Conveyer, bucket, A. J. Fritb (570,251), Cores, method of and apparatus for forming, S. J. Adams (569,996), Cork press, J. P. M. Stiles (570,113), Corrugating and cutting tool, J. Blumer (570,218), Corset, F. K. Hieck (570,398), Couch or settee, convertible, E. Harry (570,208), Coupling, See Car coupling, Thill coupling, Crimping tong, G. L. Thompson (570,413), Current motor, S. Brinkman (570,221), Currents, system of distribution for alternating, C. S. Bradley (570,118), Curtain fixture, adjustable, J. R. Thom (570,349), Curtain stretcher, W. Simon, Jr. (570,210), Cupholder, self-cleaning, E. Benoit (570,217), Currier, G. B. Blythe (570,346), Cutter, See Cardboard cutter, Meat cutter, Derrick, sectional, O. Crosby (570,124), Desk, W. P. Kilder (570,311), Door check, Moore & Holliday (570,039), Door clasp, H. W. Harris (570,017), Door, motor, E. T. Greenfield (570,168), Drawing press, hydraulic, L. Schuier (570,063), Drilling machine, slot, J. C. Harrison (570,091), Dust pan, A. Koehler (570,026), Dyeing anilin black, V. G. Bioede (570,117), Dyeing, process of and apparatus for, Le Blois & Dyeing vapor, V. G. Bioede (570,116), Electric circuit switch, A. J. Wurts (570,418), Electric elevator, F. B. Perkins (570,410), Electric heater, Wetmore & Roehl (570,077), Electric light fixture, G. A. Schmidt (570,411), Electric motor, S. Brinkman (570,221), Electric motor regulator, W. A. Anthony (569,989), Electric switch, S. A. Stewart (570,038), Electrical apparatus, J. F. Kelly (570,310), Electrode for electric power storage batteries, end, J. Lawkela (570,028), Electrolytic depositing apparatus, W. E. May (570,133), Elevator, See Clay elevator, Electric elevator, Screw elevator, Elevator, C. A. Harkness (570,253), Engine, See Gas and steam engine, Steam engine, Engine, H. W. Forslund (570,290), Engine, E. J. Pennington (570,439), Engraving machine, B. F. Stowell (570,070), Envelope, A. M. C. Calmers (570,390), Envelope, A. McCance (570,289), Excelsior wrappers or pads, machine for manufacturing, H. F. Shubolt (570,236), Fabric, See Tubular fabric (570,069), Fastener socket, J. B. Strickler (570,306), Faucet, self-closing, W. A. Turner (570,435), Feed water heater and condenser, J. M. Keller (570,227), Feed water heater regulator, J. Perry (570,066), Feed water regulator and low water alarm, J. S. Steele (570,066), Feed water regulator, automatic, J. I. Thornycroft (570,351), Feeding granulated substances, mechanism for, H. E. Smyser (570,108), Fence, wire, E. H. McPherson (570,230), Fender, See Car fender (570,194), Fifth wheel, D. Wilcox (570,306), File, druggist's prescription, C. L. Giraf (570,219), Filtering material or fabric, L. B. Fletcher (570,226), Fire and burglar alarm, B. J. Lowman (570,151), Fire escape, B. S. Sample (570,262), Fire extinguisher, M. E. Ogden (570,391), Fireproof door, G. Fox, 2d (570,102), Floor illuminating, E. L. Ransome (570,085), Fracture apparatus, O. Clauson (570,085), Fracture, See Hoist in fractures, Furnace, machine for, G. Playford, Jr. (570,268), Furnace valve, R. Stevens (570,272), Furnaces, device for preventing obstruction of blast in blast, J. M. Hartman (570,129), Fuse for shells, time, W. J. Smith (570,065), Fuse, See Fuse for shells, Galvanic battery, R. W. Gordon (570,013), Game apparatus, J. G. Gregory (570,336), Game apparatus, Ryan & Whitney (570,105), Game counter, E. C. Bull (570,120), Garbage or rubbish receptacle, C. Arrick (569,990), Gasket fastening, W. F. Peet (570,267), Gas and steam engine, combined, R. E. Olds (570,263), Gas, apparatus for manufacturing fuel, C. Dellwik (570,382), Gas collecting apparatus, F. G. Walker (570,357), Gas generating apparatus, C. Dellwik (570,383), Gas generator, A. Rauber (570,008), Gas producer, safe device, G. E. Woods (570,149), Gate, See Bridge gate, Gate, Barnhill & Thurman (570,362), Gate, D. R. Burnham (570,198), Gates, barn doors, etc., device for opening or closing, J. D. Shropshire (570,412), Gear for toy engines, Ellis & Steward (570,203), Generator, See Gas generator, Steam generator, Glove, boxing, F. A. Harvey (570,062), Glucose or sugar from starch, apparatus for manufacturing, H. C. Pope (570,183), Governor, steam engine, E. J. Armstrong (570,307), Grinding machine, J. W. Terry (570,110), Grip and brake operating mechanism, J. Jonson (570,023), Gun, gas operated magazine, C. J. Ebbets (570,388), Handle, See Cutlery handle, Handle, P. C. Rockwell (570,186), Hanger, See Clothes line hanger, Coat and hat hanger, Harp, W. R. Whitcomb (570,242), Hat fastener, Barbour & Edwards (570,150), Hat carriers, etc., rail for, J. E. Porter (570,334), Hay rake and loader, T. G. & J. H. Threlkeld (570,071), Heater, See Electric heater, Water heater, Heating systems, air valve for hot water, W. B. Van Sickle (570,073), Heel nailing and compressing machine, F. F. Raymond, 2d (570,437), Hoisting cases, automatic car holder for, J. R. Lamb (569,999), Hook, See Snap hook, Trolling hook, Horsehoe, T. G. Dellinger (570,278), Horsehoe nail clencher, J. H. Ranck (570,185), Hose carriage, V. Spindler (570,297), Hose supporter, R. H. Payne (570,145), Hose, L. E. Foster (570,430), Hub for vehicles, wooden, J. Austing (570,215), Hydrant, W. A. Graham (570,283), Hydrant, fire, C. E. Loetzer (570,081), Indicator, See Laundry list indicator (570,162), Inkstand, J. Thomson (570,161), Insulating joint for conduit tubes, E. T. Greenfield (570,170), Insulating joint for metal or armored conduit tubes, E. T. Greenfield (570,166), Insulator, Martin & Hewlett (570,034), Insulator, section, L. W. McCarthy (570,140), Ironing machine, W. Hess, Jr. (570,397), Japan board point cleaner, H. F. McGill (570,181), Jar or bottle, H. A. & J. M. Hickok (570,086), Joint, See Insulating joint, Pipe joint, Junction box and means for uniting metal conduit tubes thereto, metallic, E. T. Greenfield (570,167), Knitting machine, J. G. Powell (570,325), Knitting machine, J. E. Rowe (570,069), Lamp, electric arc, G. C. Pyle (570,063), Lamp for producing spirit gas incandescent gas light, A. Perlich (570,049), Lantern lighter, C. E. Case (570,379), Last, shoemaker's, J. A. Colby (570,154), Lathing machine, W. S. Hamm (570,220), Laundry list indicator, E. Lundqvist (570,319), Letter or card sign, R. G. Lake (570,318), Levelling spirit, C. F. Robinson (570,056), Lightning arrester, automatic, G. P. Johnson (570,406), Liquids, means for controlling flow of, G. C. McEwen (570,436), Lock, See Rail lock, Sash lock, Seal lock, Lock, W. F. Feistner (570,087), Lock, J. Luebber (570,032), Locomotive smokestack, C. E. Burton (570,083), Loom, C. Seybold (570,234), Loom, lappet, J. K. MacCull (570,259), Loom picker sticks, rocker and shoe connection for, A. Barselou (570,364), Loom reed, J. A. & C. Clark (570,381), Loom, swivel, H. Willmunder (570,339), Lounger or settee, multiform, E. Harry (570,207), Lubricator sight feed, F. M. Ashley (570,090), Mail box, Ribner & Fontaine (570,270), Maple, Jackson & White (570,404), Match box sanding machine, A. Peterson (570,244), Meat cutter and meat cutting mechanism, C. F. Jones (570,222), Metal band for sectional jackets or steam pipe coverings, W. C. Bull (570,276), Metal planing machine, H. Hess (570,033), Metal stamping apparatus, E. M. Ferguson (570,010), Metallic, Cronin & Shields (570,005), Metallurgical vessels, tipping, H. Aiken (569,987), Meter, See Wat meter, Micrometer gauge, J. Stromberg (570,189), Mill, See Windmill, Mining machine, W. W. Patterson (570,330), Motion, mechanism for transmitting, A. Becker (570,326), Motor, See Car motor, Spring motor, Motor fluid, means for controlling supply of, E. A. Fordyce (570,162), Music rolls, apparatus for producing, J. H. Tracy (570,332), Near sight device for projecting, C. Dixon (570,387), Needle slapping machine, P. M. Beers (570,101), Nut lock, O. A. Norlund (570,101), Nut lock, W. Turner (570,354), Nut threading machine, Webb & Clare (570,193), Ore concentrator, F. J. Woods (570,243), Overhaul, J. J. Brinkman (570,247), Overshoe fastener, M. St. John (570,347), Pad, See Stair pad, Paper feeding machine, E. T. Cleathero (570,000), Pencil tip, combination, G. E. Eggert (570,248), Phonographs, etc., spring motor for, F. L. Capps (570,371), Piano, J. H. Reed (570,038), Piano action, upright, W. Munroe (570,041), Piano sounding board, J. H. Butler (570,133), Pick holder, A. G. Maber (570,321), Pipe joint, flexible, Jackson & Hunt (570,406), Pipe nipples, tool for holding, T. Schulze (570,283), Pipe plug, G. B. Beatty (570,388), Pistols or revolvers, stock and barrel extension for, G. B. Pittavoy (570,145), Pitchers, etc., foot for, W. McAusland (570,325), Plow, subsoil, F. D. Tucker (570,192), Plow, swivel, C. M. Lufkin (570,177), Pneumatic dispatch apparatus, S. W. Barr (570,423), Pneumatic dispatch apparatus, E. A. Fordyce (570,161), Pole and coupling, vehicle, J. Imler (570,020), Potatoes or onions, machine for grading, G. W. Snyder (570,305), Press, See Baling press, Brick press, Drawing press, Printing machines, etc., raked roller for, G. E. McAdams (570,226), Pump attachment, antifreezing, D. F. Humphreys (570,394), Pump, power, W. E. Brown (570,372), Pump valve mechanism, steam, J. L. McGiffin (570,042), Puzzle, T. J. Barrett (570,363), Rack, See Wall rack, Rail lock and support, W. B. Cook et al. (570,003), Railway alarm, F. F. Rosback (570,168), Railway crossing apparatus, G. Gibbs (570,328), Railway electric, A. Norman (570,328), Railway frog and crossing, L. F. Braine (570,062), Railway grip, cable, L. J. Hirt (570,173), Railway rails, machine for drilling, A. D. Gore (570,427), Railway signal, A. J. Seifert et al. (570,064), Rake, See Hay rake, Recorder, See Time recorder, Reeling machine for paper or other fabrics, W. H. Waldron (570,255), Refrigerator, E. H. Giesy (570,426), Refrigerator and counter, display, H. P. McIntosh (570,043), Refuse, apparatus for removal and transportation of, C. A. E. de la Sauce (570,060), Register, See Electric motor regulator, Feed water regulator, Rein guard, C. Jackson (570,091), Rheostat, C. Dinkley (570,009), Ring, S. Buchsbaum (569,994), Rocking or similar horse, M. E. Converse (570,402), Rod connection, H. P. Boyd (569,995), Rope clamp, J. M. Logue (570,287), Safe alarm, F. A. Machold (570,033), Safe alarm, H. H. Freeman (570,035), Sash fastener, G. Mehl (570,007), Sash lock, window, E. E. Dalton (570,007), Sash support, window, G. Johnstone (570,022), Saw hanging, J. Heyn (570,094), Saw sharpener, W. H. Myers (570,226), Saw tool, B. S. Sample (570,262), Scoop, weighing, C. A. Johnson (570,454), Scraper, wheeled earth, J. W. Hobson (570,401), Screen, See Window screen, Screw elevator, Otis & Smith (570,329), Seal, F. E. Geisler (570,123), Seal car, E. G. Gorie (570,127), Seal lock, J. Schirra (570,061), Seaming sheet metal vessels, J. A. Steward (570,147), Sewing machine, F. R. Packham (570,265), Sewing machine binding attachment, K. Buxbaum (570,121), Sewing machine for lasting boots or shoes, W. S. Hamm (570,252), Sewing machine lap seam guide, F. W. Merrick (570,286), Sewing machine stay guide, F. W. Merrick (570,286), Sewing machine takeup, J. M. Morrow (570,036), Sharpening edged tools, device for, W. Purdy (570,327), Sheet separating machine, W. A. Lorenz (570,175), Sheet separating machine, Lorenz & Reising (570,176), Shirt waist, F. A. Platz (570,051), Shoe stay, A. Weiland (570,076), Shovel, gas, F. W. Mansfield (570,322), Sifter, ash, P. R. Krause (570,132), Signal, See Railway signal, Signal apparatus, J. G. Schreuder (570,062), Size, painters', J. Clasen (570,122), Smoke and cinder conveyer, W. H. Larimore (570,115), Smoke consumer, W. E. Cole (570,001), Smokestack, C. Pickering (570,114), Snap hook and buckle, combined, J. W. Crandall (570,277), Snap switch, A. B. Herrick (570,172), Sole splitting machine, F. J. Freese (570,164), Speed friction gear, variable, C. Seybold (570,233), Speed measure, H. E. Kelley (570,024), Spindle heads and whistles, apparatus for assembling, G. M. Bresser (570,375), Spindle support, A. Gartner (570,205), Spinning frame separator, ring, H. W. Bracken (570,423), Spinning machine, J. T. Meats (570,409), Spouts, discharge apparatus for pivoted, E. F. Resolds (570,055), Spring motor, G. W. Parker (570,286), Stacker, pneumatic, D. N. Nester (570,182), Stair pad or carpet lining, F. O. Haubner (570,221), Stamp, hand, J. C. Otteson (570,264), Steam engine, duplex, G. R. Ray (570,054), Steam generator, N. W. Pratt (570,229), Steam, method of and apparatus for generating, E. A. Ashcroft (570,196), Stitches, tool for picking and marking lines of, E. F. Mower (570,139), Store service apparatus, E. A. Fordyce (570,104), Stove, hot blast, F. C. Roberts (570,130), Stove or tensile receptacle, E. J. Brewer (570,275), Switch, See Electric switch, Electric circuit switch, Snap switch, Switch mechanism, electrically actuated, W. S. Browne (570,370), Switch, E. F. Foster (570,383), Synchronizer, D. T. Bentley (570,245), Tableaux vivants, apparatus for producing, M. H. Kerper (570,265), Tank, See Watering tank.