Business and Personal.

The charge for Insection under this head is One Dollar a lin tisements 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. E." U. S." metal polisb. Indianapolis. Samples free. Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J. Yankee Notions. Waterbury Button Co., Waterb'y, Ct.

Screwmachines, milling machines, and drill presses. The Garvin Mach. Co., Spring & Varick Sts., New York. Concrete Houses - cheaper than brick, superior to Ransome." 757 Monadnock Block, Chicago.

The celebrated "Hornsby-Akroyd" 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.



HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters or no attention will be paid thereto. This is for our

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 This is for our information and not for publication.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

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 beginner 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

(7017) M. J. S. asks: 1. What is meant by open and closed circuit work in connection with hatteries? 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 Smee are often recommended. For full description of batteries see our Supplement, Nos. 157, 158, 159, 792; for electroplating see Nos. 310 and 436. 3. Dues cyanide in plating solutions attack asphaltum varuish? 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 Indiarnbber, 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 Bridle bit, A. F. Kiehl.

Bridle bit, A. F. Kiehl.

Broom attachment, J. S. Williams.

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. Rutherfurd, 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

ose used by managion.	Drachms
Grindelia	8
Jaborandi	8
Eucalyptus	4
Digitalis	4
Cubebs	4
Stramonium	. 16
Potassium nitrate	12
Cascarilla 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 glyccrine, 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 mix ture 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 nundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequaled 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 low, in accordance with the times and our extensive facilities for conducting the business. Address MUNNA CO., office SCIENTIVIC 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.)

١.	Abrading machine, Pritchard & Sellmayer 570,184	Fifth wheel, D. Wilcox	570.19
٠	Alarm. See Fire and burglar alarm. Railway	File, druggist's prescription, C. L. Glraf. Filtering material or fabric, L. B. Fletcher. Fire and burglar alarm. B. J. Lowman. Fire agence 1 Borrer.	570,30
.	alarm. Safe alarm.	Filtering material or fabric, L. B. Fletcher 5	570.21
1	Alloy or compound and producing same, metallic, C. M. Hall	Fire and burglar alarm. B. J. Lowman	570,25
1	Amusement apparatus, D. M. Harman	Fire estinguisher M F (leden	570 26
١.	Anchor, F. Baidt	kireproof door, G. Fox. 2d	570.39
1	Anchor, F. Baidt	Floor, filuminating, E. L. Ransome.	570,10
1	Axle box lid, car, A. O. Buckius 570,374	Fracture apparatus, O. Clausson	570,08
١.	Bag. See Woven bag.	Furnace. See Hot alr furnace.	
	Bak bolder, H. A. Skreberg	Furnace, mechanical stoker, G. Playford, Jr	0 (U,26
.	Raling press A L. Kohler 570.027	Furnace valve, R. Stevens Furnaces, device for preventing obstruction of blast in blast, J. M. Hartman.	310,21
1	Baling press. A. L. Kohler	blast in blast. J. M. Hartman	570,12
4	Bars and ingots, power driven tool for dressing,		
1	Bars and ingots, power driven tool for dressing, F. J. Wooster 570,079 Basket or can, fruit picker's, A. M. Denig 570,385	()age. See Micrometer gage. Galvanic battery, R. W. Gordon	
ı١	Basket or can, fruit picker's, A. M. Denig 570,385	Galvanic battery, R. W. Gordon	570,01
1	Battery. See Galvanic battery. Battery plates, machine for making grids for sec-	Game apparatus, J. G. Gregory	
١,	ondary, A. F. Madden 570.224	Game counter. E. C. Bull	570 12
Ц	Bearing, axle, A. J. Thetring. 570,111 Bearing, shaft or axle, F. A. Mueller. 570,040 Bearings, ball retainer for antifriction wheel, E.	Game counter, E. C. Bull	569.99
. 1	Bearing, shaft or axle, F. A. Mueller 570,040	Garment fastening, W. F. Peet	570,26
1	Bearings, ball retainer for antifriction wheel, E.	Garment fastening, W. F. Peet	570,26
1	K. Righter 570,146 Bed and couch, folding, E. B. Peck 570,048 Bed bottom, spring, F. D. Colvin 570,425 Bed, folding, R. J. Stuart 570,338	Gas, apparatus for manufacturing fuel, C. Dell-	EMO 90
3	Red bottom apring F D Colvin 570.495	wik Gas collecting apparatus, F. G. Waller	570,38 570,35
9	Red folding R 1 Stuart 570.348	Gas generating apparatus, C. Deliwik	570.38
. 1	Bed, spring, W. R. Beisvert. 569,994	Gas generator, A. Dauber.	570,00
1	Bed, spring, W. R. Boisvert. 569.994 Bed apring frame, R. S. Sample. 570,341 Bedsteads, rail grip joint for iron, G. Brand. 570,369	Gas producer safety device, G. E. Wonds	570,14
-1	Bedsteads, rail grip joint for iron, G. Brand 570,369	Gate. See Bridge gate,	
ч	Beer governor, steam, J. D. De Gear 570,086	Gate, Barnoill & Thurman	570.36
ч	Beer governor, steam, J. D. De Gear 570,086	Gates harn doors ate device for opering or	010,12
ا د	Bicycle, T. S. Miller	closing, A. J. Shrone.	570.41
.	Bicycle, J. J. Naregang 570,827	Gate. See Bridge kate. Gate, Barnnill & Thurman. Gate, D. R. Burnbam. Gates, barn doors, etc., device for opening or closing, A. J. Shrope. Gear for motocycles, Ellia & Steward	570,20
۹ ا	Bicycle, G. H. Sears	Generator. See Gas generator. Steam genera-	
3	Bicycle ball bearing, E. C. Howe	tor.	F80 00
ı	Bicycle canopy, folding, J. Kaufman 570,285 Bicycle gearing, A. F. Price 570,082 Bicycle bandle bar, F. C. Rockwell 570,187 Bicycle lamp bracket, C. F. Walker 570,240	Glove, boxing, F. A. Harvey	97U,U8
	Ricycle handle har F. C. Rockwell 570 187	Glucose or sugar from starch, apparatus for man- ufacturing, C. Pope	570 18
1	Bicycle lamp bracket, C. F. Walker	Governor, steam engine, E. J. Armstrong	570.30
٠ ا	Bicycle post fastening, F. I. Johnson 570.309	Governor, steam engine, E. J. Armstrong	570.11
9	Bicycle wheel, R. C. Fay 570,250 Billiard cue tip. P. A. Cue not 570,006	Grlp and brake operating mechanism, J. Jonson	570,02
_	Billiard cue tip. P. A. Cuenot	Gun, gas operated magazine, C. J. Ehbets	570,38
	Bit. See Bridle bit.	Handle. See Cutlery bandle. Handle, F. C. Rockwell	570 10
τ	Boiler and hoiler furnace, W. Brand 569 008	Handle, F. C. Rockwell Hanger. See Clothes line hanger. Coat and bat hanger.	010,10
-	Book. manifold sales, W. D. Bates	hanger.	
	Boot, Dollison & Rimer	Harp, W. E. W bitcomb	570.24
•	Booth, Hunt & Walker	Hat fast ener, Barbour & Edwards	570,15
•	S. Phelps	Hay carriers, etc., rail for, J. E. Porter. Hay rake and loader, T. G. & J. H. Threikeld	570,33 570 (7
	Boring machine, W. W. Black	Heater. See Electric heater. Water heater.	010,01
	Bottle, S. Alexander	Heating systems, air valve for hot water, W. B.	
,	Bottle closure, W. Scheerer 570,342	Van Sickle. Heel nalling and compressing machine, F. F. Ray-	570.07
1	Bottle, mucilage, J. S. L'Hommedieu 570.030	Heel nailing and compressing machine, F. F. Ray-	
	Bottle, non-refillable, J. S. Wood, Sr 570,273	mond, 2d	570,43
١	Bottle, non-refilling, S. Taylor	Campbell Cares, automatic car bolder for, J. R.	560 00
,	Bracket. See Bicycle lamp bracket.	Campbell	
В	Brake. See Car brake. Vehicle brake. Wagon	Horsesboe, T. G. Dellinger.	570,27
	brake.	Horsesboe, T. G. Dellinger. Horsesboe nail clencher, J. H. Ranck	570,18
•	Brake beam, H. B. Robischung	Hose carriage, V. Spindler. Hose supporter, R. H. Payne. Hot air furnace, L. S. Pfouts	570,2
е	Brake Deam Danger, E. Marcotte 570,323	Hose supporter, R. H. Payne	570,14
1	Brick press, bydraulic, G. Langer. 570,314 Bridge, E. Thacher. 570,239	Hub for vehicles, wooden, J. Austing	570 2
1	Bridge gate, draw, C. J. Lavey	Hydrant, W. A. Graham	570.2
•	Bridge gate, draw, C. J. Lavey 570,029 Bridle bit, A. F. Kiebi 570,312	Hydrant, fire, C. E. Loetzer	570,0
y	Broom attachment, J. S. Williams 570,358	Indicator. See Laundry list indicator.	2000

Ŧ		_	٠
١	Brusb macbine, J. F. Mumford	In	
	Button, collar, B. A. Brown 570,025 Button, collar, B. A. Brown 570,324 Cabinet. J. E. Caplinger 570,199	In	1
	Cablewa y for dumping purposes, C. H. Locher. 570,429 Car brake, N. F. Corne 570,004 Car coupling, A. F. Gubl. 570,171	Ir Ir Ja	
	Car coupling, A. F. Gubl 570,171 Car coupling, L. N. Singin 570,271 Car coupling, Young & Nichols 570,274 Car crossings, electric signal for street, C. A. Par-	Ja Ju)
	Tisb	K K L	1
	Car fender, H. Lotzgesell 570,009 Car fender, H. S. Meredith 570,134	L	8
	Car motor, electric. C. S. Bradley	L	E
	Thomas	L	E
	Car signating device, C. H. Dressel. 570,156 Car ventilating mechanism, W. J. Tully 570,358 Cars, drop step attachment for railway passenger. R. P. Thomas. Card, account, C. Eikin 570,359 Card and holder, display, W. F. Jones 570,409 Cardonard cutter, bevel edge, D. T. McCall 570,169 Carrisge, baby 1 1 Johnson 570,409	L	(
		L	(
	Case. See Show case.	L	(
	Cash register and indicator, W. Bassett. 570,114 Cash register and indicator, J. H. McCormick. 570,141 Cash registers transferring and resetting mechanism for, F. Barnard 570,196	L	
	anism for, F. Barnard 570,196 Casb registers, transferring and resetting mechanism for, A. W. Marr. 570,178 Casket, J. H. Walker 570,326 Casting bollow articles, mould for, H. Messing 570,324	M M M	ו ו
	Catamenial sack. M. E. Ballard	١	
	Clgar branding macbine, A. Rottach 570,232 Circuit breaker, A. J. Wurts 570,212, 570,415, 570,419 Circuit breaker, automatic, A. J. Wurts 570,416 Circuit interrupting device, A. J. Wurts 570,416	M	ı
	Clasp. See Door clasp.	M	I
	Clay elevator, F. S. Slattery 570,105 Clotbes line hanger, J. H. Burlich 570,377 Clutch, C. F. Brostrom 570,247 Coal washer, W. L. Scalfe 570,232 Coat, and bat hanger and lock, combined, P. J. Patt 570,282	M	1
	Coat and bat banger and lock, combined, P. J. Piatti. 570,228 Cocks or taps, machine for grinding, L. D. Biddle. 570,431 Comb dabbing mechanism. T. W. Hickey. 570,028	I M	l
	Conduit tube, E. T. Greenfield 570,169		1
	Conduit, underground, E. T. Greenfield	NNNANO	1
	Cork cabinet, Wilson & Neely 570,118 Corr ugating and cutting tool, J. Blumer 570,218		
	Couch or settee, convertible, E. Harry 570.208	P	
	Coupling. See Car coupling. Thill coupling. Crimping tongs. G. L. Thompson. 570,413 Cultivator, D. D. Funk. 570,281 Currents, system of distribution for alternating,	P	•
	C. S. Bradley	F	
	Curiery bandle, W. B. Steeles. 570,346 Cutter. See Cardboard cutter. Meat cutter. Derrick, sectional, O. Crosby 570,124	Ē	
	Door check, Moore & Holliday	P	9
	Drawing grees, hydraulic, L. Schuler	F	•
	Dyeing, process of and apparatus for, Le Blois &	F	
	Electric circuit switch, A. J. Wurts	BE	
	Electric elevator, K. B. Perkins. 570,41 Electric beater, Wetmore & Roebi 570,07 Electric light fixture, G. A. Schmidt. 570,42 Electric motor, S. G. Brinkman. 570,42		,
	Electric motor regulator, W. A. Anthony. 509,988 Electric switch, S. A. Stewart. 570,08 Electrical apparatus, J. F. Kelly. 570,316) k	
	end J. Langelaan	3 F	
	Elevator. See Clay elevator. Electric elevator. Screw elevator. Klevator, C. A. Harkness	B	F
	gine. Engine, H. W. Forslund		1
	Engravinz macbine, B. F. Stowell	0 F	
•	Excelsior wrappers or pads, machine for manufacturing, H. F. Shadbolt. 570.23 Fabric. See Tubular fabric.	F	
	facturing, H. F. Shadbolt	6 I E	
	Feed water regulator and low water alarm, J. S. Steele Feed water regulator, automatic, J. 1. Thorny-	6 H	1
	Feeding granulated substances, mechanism for,	1 1	
4	Fender. See Car fender.	0 8	3
•	File, druggist's prescription, C. L. Glraf. 570,30 Filtering material or fabric, L. B. Fietcher. 570,29 Fire and burglar alarm, R. J. Lowman 570,29	8 8	3
60		1 8	
4	Floor, filuminating, E. L. Ransome	5 5	3
3 8 7	Furnace, mechanical stoker, G. Playford, Jr	1 2	
95	Fuse for shells, time. W.J. Smith		
4	Game apparatus, J. G. Gregory	5 8	
0	Garment fastening, W. F. Peet	UΙ	
6 8 5 8	Gas collecting apparatus, F. G. Waller 570,35	3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
100	Gas producer safety device, G. E. Wonds 570,14	8 8	į
$\frac{6}{2}$	Gate, Barnnill & Thurman	8 8	
71	closing, A. J. Shrope	3 8	
8 5 2 7	tor. Glove, boxing, F. A. Harvey	18	
7 0 9 0	Governor, steam engine, E. J. Armstrong	0 8	
8	Handle. See Cutlery bandle. Handle, F.C. Rockwell 570.18	0	c
5	Hanger. See Clothes line hanger. Coat and bat	1.	
K	B Hat fastener, Barbour & Edwards	2 8	
1	Van Sickle	3	٤
0	Heel nailing and compressing machine, F. F. Ray- mond, 2d	7 9	
	Hook. See Snap book. Trolling hook. Horsesboe, T. G. Dellinger. 570,17 Horsesboe nail clencher. J. H. Ranck. 570,18	8	
14	Hose carrage, V. Spindler	30	
9	rup for venicles, wooden, J. Austing 570,21	15	ċ

1	Inkstand. J. Thomson	570,191
5	Insulating joint for metal or armored conduit tubes. E. T. Greenfield.	570,170 570,166
8	Thrulatol, Malitin & Hewiter	570,034 570,140 570,397 570,181
1	Insulator, section I. McCartby. Ironing macbine, W. Hess, Jr Japan board point cleaner, H. F. McGill Jar or bottle, H. A. & M. M. Hickok. Joint. See insulating joint. Pipe joint. Junction box and means for uniting metal conduit tubes thereto, metallic, E. T. Greenfield Knitting macbine, J. G. Powell. Knitting macbine, J. G. Powell. Lamp, electric arc, G. C. Pyle Lamp for producing spirit gas incandescent gas light. A Peritch	570,096
6	duit tubes thereto, metallic, E. T. Greenfield Knitting machine, J. G. Powell. Knitting machine, J. E. Rowe	570,167 570,835 570,059
5829	Lamp, electric arc, G. C. Pyle. Lamp for producing spirit gas incandescent gas light. A. Perlich	570,053 570,049
1 9	light, A. Perlich Lantern lighter, C. E. Case Last, shoemaker's, J. A. Colby Lasting machine, W. S. Hamm Laundry list indicator, R. Lundqvist.	570,379 570,154 570,220
8	Laundry list indicator, R. Lundqvist. Letter or character, sign, R. G. Lake. Level, spirit, C. F. Richardson.	570,319 570,313 570,056
8	Letter or character, sign, R. G. Lake. Level, spirit, C. F. Richardson. Lightning arrester, automatic, G. P. Johnson. Liquids means for controlling flow of, G. C. Mc- Ewen.	570 ,406 570 ,436
υ	Ewen	570,087 570,032
0	Loom, C. Seybold	570,083 570,234 570,2 60
2 4 1	Loom picker sticks, rocker and shoe connection for, A. Barselou. Loom reed, J. A. & C. Clark. Loom, swivel, H. Willmunder. Lounse or settee, multiform, E. Harry. Lubricator sight feed, F. M. Asbley. Mail box, Richner & Fontaine. Manile, Jackson & Wbite. Match box sanding machine, A. Anderson. Meat cutter and meat cutting mechanism, C. F.	570,364 570,381
6 78	Lounge or settee, multiform, E. Harry. Lubricator sight feed, F. M. Asbley.	570,359 570,207 570,080
6	Mangle, Jackson & Wolte. Match box sanding machine, A. Anderson. Meat cutter and meat cutting mechanism, C. F. Jones	570,404 570,244
14	Jones. Metal band for sectional jackets or steam pipe coverings, W. C. Bull. Metal planing machine, H. Hess.	57 9,222 570,226
17	Metal planing machine, H. Hess. Metal shaping apparatus, E. M. Ferguson Metallic tie. Cropin & Shields	570,093 570,010 570,005
6	Metal shapilya apparatus, E. M. Ferguson Metalictie. Cronin & Shields. Metalictie. Cronin & Shields. Metalingical vessels, tipping. H. Aiken. Meter. See Wattmeter. Micrometer gage, J. Stromberg.	569,987 570,189
32	Mill. See Windmill. Mining machine, E. & W. Patterson Motion, mechanism for transmitting, A. Becker	
28 31 25	Motor. See Car motor. Spring motor. Motor fluid, means for controlling supply of, E. A. Fordyce	570,162
03 59 58	Motor. See Car motor. Spring motor. Motor fluid, means for controlling supply of, E. A. Fordyce. Music rolls, apparatus for producing, J. B. Tracy Near sightedness, device for treating. C. Dion Needle slabbing machine, P. M. Beers. Nut lock, O. A. Norlund. Nut lock, V. Turner. Nut threading machine, Webb & Clare. Ore concentrator. F. J. Woods. Org an, J. H. Chase. Overshoe fastener, M. St. John. Pad. See Stair pad.	570,352 570,279 570,367
56 51	Nut lock, O. A. Norlund	570,101 570,354 570,193
13 18	Ore concentrator. F. J. Woods. Organ, J. H. Chase. Overshoe fastener, M. St. John.	570,243 570,200 570,347
98 08	Pad. See Stair pad. Paper feeding machine, E. T. Cleathero. Pencit tip, combination, G. E. Exgert. Phonographs, etc., spring motor for, F. L. Capps Photographs, etc., spring motor for, F. L. Capps Photographic card drier. N. H. Reed. Piano action, upright, W. Munroe. Piano sounding board. J. H. Butler.	570,000 570,248
13 81	Photographic card drier. N. H. Reed. Plano action, upright, W. Munroe.	570,338 570,041
18 49 10	Piano sounding board, J. H. Butler Pick bolder, A. G. Mabler Pipe Joht, fex'ble, Jerguson & Hunt Pipe np ples, tool for bolding, T. Schulze Pipe plate, G. S. Beitb	570,153 570,321 570,405 570,283
17 46 24	Pipe plate, G. S. Beith Pistols or revolvers, stock and barrel extension	570,368
11 39 17	Pipe plate, G. S. Beitb. Pistols or revolvers, stock and barrel extension for, G. B. Pittavino. Pitchers, etc., foot for, W. McAusland. Plow, subsoil, F. D. Tucker. Plow, swivel, C. M. Lufkin. Pneumatic dispatch apparatus, S. W. Barr. Pneumatic dispatch apparatus, S. A. Fordvee.	570,325 570,192
69 63	Pneumatic dispatch apparatus, S. W. Barr	570,421
26 17	Potatoes or onions, machine for grading, G. W.	570,020 570,306
16 16 18	Press. See Baling press. Brick press. Drawing press. Printing machines, etc., ringed roller for G. F.	
10 77 11	McAdams.	570,226 570,284
24 89 18	phreys Pump pneumatic, W. F. Browne Pump pneumatic, W. F. Browne Pump valve mechanism, steam, J. L. McGiffin Puzzle, T. J. Barrett Rack. See Wall rack. Rail lock and support, W. B. Cook et al	570,372 570,042 570,363
10 28	Rack. See Wall rack. Rail lock and support, W. B. Cook et al Railway alarm, F. P. Rosback. Railway crossing safety apparatus, G. Glbbs	570,003 570,058
33 53	Railway crossing sarety apparatus, tr. Gious. Railway, electric, A. Norman F. Braine. Railway grip, cable, L. J. Hirt. Railway rails, macbine for drilling, A. D, Gore Railway rails, according to the control of the	510,089 570,328 570,082
80	Railway rails, macbine for drilling, A. D. Gore Railway signal, A. J. Seifert et al Rake. See Hay rake Recorder. See Time recorder.	570.427 510,064
39 70	Reeling machine for haner or other tahrica W.	570.355
89 89	H. Waldron. Refrigerator, E. H. Glesy. Refrigerator and counter, display, H. P. McIntosh.	570,426
69 06 35	Refuse, apparatus for removal and transporta- tion of, C. A. E. de la Sauce	570,060
27	Regulator. See Electric motor regulator. Feed water regulator. Rein guard. C. Jakson.	570.097
66 51	Ring, S. Buchsbaum.	570,009
08 90 90	Rope clamp, J. M. Logue,	569.995 570,287 570,633
94 194 108	Sast attarm, H. H. Freeman Sast fastener, G. Mebl. Sast lock, window, E. E. Dalton	570,011 570,035 570,007
119 158 151	Sawaharnener W H Myora	570 226
62 391 102	Saw tool, R. Bennett. Scop, weighing C.A. Johnson. Scraper, wheeled earth J. W. Hobson. Screen. See Window screen. Screw elewator, Oits & Suith.	570,434 570,401
)85 268	Screw elevator, Otia & Smith	570,329 570,126 570,127
72 29	Seal lock, J. Schirra Seaming sheet metal vessels, J. A. Steward Seeding machine, F. R. Packham	570,061 570,147 570,265
65 113	Sewing machine for lesting hoots or shoes W S	0.042.02
193 105 120		570,252 570,288
)90)67)63	Sewing machine takeup, J. M. Merrow	570,037 570,136 570,337
182 157 183	Sheet separating machine, w. A. Lorenz. Sheet separating machine, Lorenz & Reising Shirt waist, F. A. Platz.	570,175 570,176 570,051
008 [49	Show case, F. W. R. Mansfeld. Sifter, asb. P. R. Krasel. Signal. See Rajiway signal.	570,322 570,132
362 198	Smoke and cinder conveyer, W. H. Larimore	570,062 570,122 570,315
112 203	Span book and buckle combined 1 W Crandell	270,139
92	Snap switch, A. B. Herrick	570,172 570,164 570,235
183 107 110	Spindle blades and whirls, apparatus for assembling, G. M. Burgess.	570,375
)23 388	Spinning fram eseparator, ring, H. W. Bracken Spinning machine, J. T. Meats.	570,423 570,409
186 242	Spring motor, G. W. Parker.	570,055 570,266
242 150 334 371	Stair pad or carpet lining, F. O. Haubner	570,221 570,264 570,054
J71 J73	Steam generator, N. W. Pratt	570,229 570,195
437	Stitches, tool for pricking and marking lines of, E. F. Mower. Store service apparatus. E. A. Fordvee.	570,139 570,163
999 278 185	Stove u tensil receptacle, E. M. Brewster	570,104 570,275
227	Switch machanism electrically actuated W S	
143 430 215 283	l Tableaux vivants, apparatus for producing, M. H.	570,373 570,390 570,245
031	Kerner.	. J (U, 206