### RECENTLY PATENTED INVENTIONS. Electrical.

ELECTRODE AND INCANDESCENT ELEC-TRICAL CONDUCTOR. - Lewis L. Jones, Brooklyn, N. Y. Arc light pencils and filmentary conductors for incandescent lights are, by this invention, designed to be formed of a paste composed of a refractory or non-conducting oxide, a metallic or conducting oxide, and a huid binder consisting of the acid solution of two oxides, one refractory or non-conducting, the other metallic and conducting, then drying the article and subjecting it to a high heat. Or the mixture may be made by stirring together powdered ingredients of refractory earthy substances with metallic conducting substances, or in other ways, it being designed to form a substance which, for either arc or incandescent lighting, will have longer life than the carbons, and give greater intensity and steadiness of light.

### Railway Appliances.

SWITCH OPERATING DEVICE.—Benjamin Bartelmes, Brooklyn, N. Y. This invention provides an attachment for a cable railway car to set a platform switch in advance of the car, if the switch has been left open by a car ahead leaving the track. Combined with a forward extension of the car platform is a vibratable weighted arm with a wheel at its outer end, a flexible connection extending from the arm over a pulley and thence to the car platform, the device being adapted for detachable connection with the platform dashboard.

### Mechanical.

SHAPER AND CUTTER HEAD.—John J. Quinn, Rochester, N. Y. The shaper head provided by this inventor has its body made up of a series of col-lars, each or which has a central bore enabling the head to be secured to a mandrel, while the knives have dovetail tongues fitting in keyways in the collars, each keyway being partly in two collars, so that the oody portion of the head and the knives are rabbeted together. A sectional head is thus formed which may be easily put together or taken apart, one which will cut effectively, and in which the knives may be quickly and firmly fastened in place. Heads of this class are especially adapted for use in cutting raised panels, mouldings, and similar work.

BUILDERS' SCAFFOLD.—John E. Ennis Duluth, Minn. Portable scaffolds of great strength and simple construction, and easy to handle, are described in this patent. The main support consists of a shaft formed of a tubular rod, with a collar reversibly mounted near one end, a bracket and clutch mechanism being also mounted on the shaft, the mechanism including reversible clutch members, whereby the mechanism is adapted to move the shaft and the bracket, or be movable on the shaft to raise the bracket. The parts of the device may be systematically assembled, and can be bodily transferred from one floor to the other, the workman and material supporting platforms being raised while the work is going on, to keep the material and the wall at substantially the same

# Agricultural

Plow. -John P. Couch, Henrietta Texas. This is a cheap and simple cultivator plow for barring and dirting cotton and other plants, and has a mould board to turn the dirt away from the plant, and a land side extending above and below the mould board to steady the plow and prevent the dirt-from falling back upon the plant. A shovel plow is arranged to the rear of the mould board plow to break up the dirt turned back by the latter and immediately throw it back toward the plants, thus avoiding delay and pre venting any damage from storm or other circumstances The auxiliary standard, carrying the shovel plow, may be arranged upon the same side of the beam as the main standard or upon the opposite side.

# Miscellaneous.

BICYCLE SADDLE.—Charles Stein Meadville Pa. The saddle and springs are of the usual construction, and the parallel members of each spring terminate in a yoke, with a threaded bore receiving a screw, one end of which has a right thread and the other a left, while centrally is a wrench head or nut by which the screw may be turned, and the springs be thereby drawn together or forced apart. The seat being connected with the upper members of the springs, the saddle may, by this improvement, be instantly adjusted to bring the seat to the desired inclination or angle in relation to the machine.

FAUCET.-William W. Riner, Los Angeles, Cal. This is a faucet more especially designed for use on sheet metal cans and similar vessels, being easily operated, very effective, and of simple and durable construction. In one side of the bottom of the can is a recess, in the vertical wall of which, inside the can, is the seat, having a tapering bore, of the faucet. The inner end of the spout is tapered to fit the bore, and has a lateral opening corresponding with one in the bore, the openings aligning when the outer end of the spout is turned downward to discharge the contents of the can, but the apertures being disconnected when the end of the spout is turned up in the recess.

LOBSTER SHIPPING APPARATUS.—Arthur McGray, Yarmouth, Canada. A tank with shelves and havin a detachable door, feed pipes at the sides dischargit upon the shelves, exhaust valves opening from the tank, in connection with a pumping apparatus, form the principal features of this improvement, the tank being designed to be carried on a vessel and afford the means of carrying lobsters long distances alive. The device is portable, and can be readily removed from and placed in position on a vessel, or the tanks may be built in the vessel, and the removable curely held and abundantly supplied with water.

door allows for giving the lobsters air without disturb ing the pipes or cocks

PENDENT SET SCREW DRIVER.—David Mendelson, New York City. This invention relates to a tool used for adjusting the setting stem in stem-winding watches, and provides a single tool which may be instantly adjusted to fit a stem and sleeve of any size, so as to be equally useful in adjusting twoslotted and four-slotted stems. The stem of the handle is provided with four spring arms which stand normally apart at their free ends, each arm having a terminal blade adapted to enter a slot in the watch stem sleeve, while a clamping ring slides on the divided stem

Motor.-John C. Lueneburg, Lakefield, Minn. This is a simple and durable motor designed to drive machinery such as is employed for pro pelling vessels and vehicles. A slide having foot rests is connected with the machinery to be driven, a lever being pivotally connected with the slide, and a frame pivotally connected with the lever, there being handle bars on the frame to be takenhold of by the operator as he presses with his foot on the foot rests on the slide. The sliding motion thus effected by the feet and hands is by proper gearing converted into the rotating of a propeller shaft, novel steering devices being also provided.

Burnisher.—Thomas Lloyd, Boston, Mass. This is a tool designed to facilitate the burnish ing of boots and shoes, stoves, and hot articles of various kinds, and all kinds of metallic ware, a convenient means of tightening the rubbing surface of the burnisher being provided, so that it may always do the mos efficient work. The burnisher tube is of flexible material and has a separate head in each of its ends, a central rod connecting the ends, and there being a screw tension mechanism for forcing the heads apart and stretching the tube. The nature of the body or rubbing surface depends upon the use to which the implement is to be put.

ROAD CART.—Charles H. Kallbreier, Tell City, Ind. The body of this vehicle is suspended upon its springs in a manner designed to insure its riding easily and being kept perfectly level, while a person may easily get into and out of it by means of a real step, the seat swinging to one side. Combined with the cart body and its supporting gear is a transverse front end spring supported by the shafts, and a hinged connection between the middle of the spring and the middle of the front of the body. When two or more persons are in the cart the spring is compressed, and the plate supporting it may be adjusted so that the body and spring will assume the correct relative position

GRATE.-Frederick Carel and Wayland F. Davidson, Charleston, West Va. This is a grate which may be used to heat a single room, or for two three, or four adjoining rooms, forming a recessed grate in one room and a projecting grate in another. It is journaled on a base, with a socket which turns on a pin, and plates fitting in grooves in the base plates fit at their outer edges closely to the walls of the fireplace, lap plates lapping against the sides of these plates. A partition may be employed to divide the grate into compartments, the partition being hollow, and open at its upper and lower ends. In using the grate for different rooms the passage of light or sound hetween the rooms is prevented.

A ROCKING AND INVALID CHAIR. Harris W. Stern, La Salle, Ill. This is a combination construction, designed to be used as a reclining chair, a rocking chair, or a chair for use in nursing the sick means being provided for carrying the foot rest up to a level with the seat, or placing it at any desired angle but a slight distance above the floor. Combined with a platform rocker is asliding frame, swinging vertically at its outer end when slid outward, a rest being pivoted to the frame, and secured in folded position by latches, while folding legs are pivoted to the forward end of the rest.

PEN OR PENCIL CARRIER.—Herbert E. Thornhill, Lyons, N.Y. This is a device made of wire in the form of a V-shaped loop, its arms having eyes to receive the pencil or penholder, and one of the arms having also an eye to receive the fourth finger while an offset or loop is made to cover the position of the first finger. The device is designed to fit comfortably over and around the fingers, and carry and guide the pencil or pen in writing.

AUTOMATIC BOTTLE STOPPER.-Richard G. Williams, L'Anse, Mich. Upon an adjustable band around the bottle neck is hinged a swinging lid, a sliding rod moving in keepers on the side of the bottle being connected with the lid, which is closed by upward pressure upon the rod. The rod extends below the bottom of the bottle, so that when the latter is at rest on a shelf or table, the lid is closed, but the moment the bottle is raised the lid flies open.

FENCE WEAVING MACHINE.-William Lowden, Middleville, Mich. This is a simple machine adapted to run upon and spread the stretched fenc wires and weave with them a series of fence pickets the device obviating the necessity of separate tracks while being easily and rapidly operated to make a very substantial fence. A main feature of the improvemen is a sprocket wheel having a hollow hub with channels within and on opposite sides, and rollers journaled at one end of the hub, the strands of each pair of wires being passed through the wheel and held in the opposite channels, the wheels being revolved to twist the wires after each picket is dropped in place.

FLOWER HOLDER.—Silvie Lord, New York City. This holder has the form of a circular pan with flaring sides, in which a central cylindrical compartment of greater height, around which are supported by wires outwardly inclined tubes, both the pan and central compartment being supplied with water. By placing flowers in and around the inclined tubes and centrally, great facility is afforded for their artistic and natural grouping, while the flowers will be se-

SLATING COMPOUND.—John B. Coles, Bayonne, N. J. This is a compound of soluble glass, alumina, and other ingredients, to impart to various substances or articles to which it is applied a surface which may be readily written upon, while the marks may be quickly erased with water and a sponge or

GOPHER TRAP.—George Moor, La Fayette, Oregon. This device has a spring-pressed spear engaged by a pivoted trigger, a swinging bait lever being connected with one end of the trigger, the construction being such that the mechanism will be tripped when the gopher attempts to pass beneath the trap. The device is also designed to be used for killing other small animals.

DESIGN FOR A SPOON.—Thomas H. Bates and Albert O. Quimby, Fresno, Cal. On the handle of this spoon are represented the two hemispheres apparently joined by clasped hands, over which are figures of caravels or small vessels, while in the bowl of the spoon is a bird's eye view of the Columbian Exposition.

Note.-Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send name of the patentee, title of invention, and date of this paper.

#### NEW BOOKS AND PUBLICATIONS

BULLETIN No. 4, GEOLOGICAL SURVEY OF ALABAMA. Report on the geology of N. E. Alabama and adjacent portions of Georgia and Tennessee. By C. Willard Hayes, Assistant Geologist in Charge. 12mo. Pp. 85. Map.

This pamphlet treats of topography, drainage, stratigraphy and structure of the district. The older method of measuring lines across the country at intervals of ten miles has been dropped and the geological data was at first placed directly upon the topographic map, but this method has been modified by discarding the plane table and plotting all lines in the note book. The work is accompanied by an excellent man of the district.

# SCIENTIFIC AMERICAN

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### NOVEMBER NUMBER.-(No. 85.)

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- Plate in colors showing a colonial residence at Cranford, N. J. Perspective views and floor plans. Cost \$6,000 complete. Mr. Oscar S. Teale, architect, New York. An excellent design,
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- A " Queen Anne" cottage erected at Cranford, N. J., at a cost of \$5,350 complete. A unique design. Perspective elevation and floor plans. Charles G. Jones, architect, New York City.
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(4588) C. W. W. writes: I have two solutions of pig iron, one in HnO3 (sp. gr. 1.2) one in HCl (sp. gr. 1.1)

The residue from the HnO3 solution contained little if any carbon. Does this indicate that there's little or no graphitic carbon in the sample? In the HCl solution the residue contains considerable carbon. Can this be precipitated combined carbon? 1. Is graphitic carbon in pig iron soluble in HnO3 (sp. gr. 1.2)? 2. Is combined earbon in pig iron precipitated by solution of the iron in HCi (sp. gr. 1.1) ? 3. What is the peculiar odor emitted when pig iron is acted upon by HCl? A. Undoubtedly, were heat applied in the solution, the nitric acid might dissolve much of the graphitic carbon. By solution in HCl a great part of the combined carbon escapes as hydrocarbons. The peculiar odor you speak of is largely due to these. If gently heated, and if the hydrochloric acid is of sufficient strength, all the combined carbon will escape as hydrocarbons. To obtain all the carbon a perfectly nentral cold solution of cupric chloride may be used. This dissolves the iron and leaves all the carbon.

(4589) A. B. Y. asks how to split paper. A. Coat both sides of the paper to be split with flour paste, working well into the paper. Take two pieces of stout white muslin and paste one on each side of the paper. Smooth down carefully, remove excess of paste and allow the whole to dry thoroughly. Artificial heat may be used if desired to hasten the drying. When dry, grasp the two pieces of cloth firmly, one in each hand, and pullsolwly and evenly. The paper should split in the

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ılı ns	Doors, device for automatically closing and opening sliding, J. A. Gatfield. Drawing frame stop motion, C. A. Taft. Dress elevator, J. G. Wintjen. Drier, De Lany & Dooley, Jr. Drill. See Grain drill. Rock drill. Ear wire forming device, D. Mendelson.	485,911 485,964	Po Pr Pr
or,	Electric; light circuits, switchboard for, Moore &	485,643	Pr
x-	Electric motor controller, J. P. B. Fiske Electric motors, rheostatic controller for, J. P.	485,620	! Pu Pu
ss d-		485,619	Pu Pu
_	Exhibitor rocking chair H Albin	485,831	Pu
2	Eyeglass holder, W. A. Copeland	485,909 485,600	Ra
J	Byeglass holder, W. A. Copeland. Feed bag, adjustable, F. F. Atkinson Fence, E. B. Maxwell Fence building tool, J. W. Brennaman Fence wire twister, slat, S. J. Blankenbaker Fencing bands, machine for making wire, J. A.	485,835 486,025	Ra Ra Ra
	Fencing bands, machine for making wire, J. A.  Tatro	485,723	R
	Fencing, metallic, H. A. Harrington. Fibrone metallic, annual to Acosta.		Re
	Fibrous materials, apparatus for pressingand dis- integrating, J. H. Brown. Fifth wheel, W. H. Bache. Filtering tule, M. Epstein. Fire box, F. H. Bailey. Fire escape, A. Bowers.	485,837 486,060	Ra
€.	Filtering tube, M. Epstein Fire box, F. H. Bailey	485,788 486,018	Ra
.]	Fire escape, J. F. Downes	485,834 485,914 486,041	Ra Ra Re
76	Fire oox, F. H. Balley. Fire escape, A. Bowers. Fire escape, J. F. Downes. Fire escape, L. E. Hodgdon. Fire escape, L. Lester. Fire escape, E. Rank. Fire kindler, P. Morency.	485,954 485,656	Re
105	Fire escape, E. Rank.  Fire kindler, P. Morency.  Fireplace draught regulator, B. W. Peel.  Fishing reel, A. D. Hendrick  Flask. See Moulder's flask.  Flax or other fiber yielding plants, machine for	485,772 485,772 485,704	Re
99	Flask. See Moulder's flask. Flax or other fiber yielding plants, machine for	2001194	Re
000 153	flies, etc., me and for clearing apartments of, D.	485,734	RO
81 115	A. Jones Flour safe, E. J. Lemmon Folding table, E. F. Bassett	486, 48	Ri
15 185 183 155	Forge, electric, Burton & Angell	486,029 485,672	Ru Sa Sa
95 <b>5</b> 748	Fruit bleaching apparatus, E. Ireland	485,940 485,797	Sa Sa
575 324	Furnace, Johnson & Moran	485,762	Se Se
)53 /42	Furnace, G. T. Moe. Gas burner, C. S. Dean Gas engine exhaust furnace, H. J. Seigneuret. Gas making apparatus. A. Noteman Gate. See kaslway gate. Kaslway safety gate. Gears, pitch gauge for bevel, W. Holland. Gig mill, N. H. Grosselin, Fils.	485,910 485,988	Se
001			Se Se
981 )61 152	Gears, pitch gauge for bevel, W. Holland	486,042 485,929	Sh
890 754 864	Glove or mitten, Bertheau & Hoegren	486,024 485,817	i Sb
78	Governor, steam engine, E. L. Milla.  Grain cleaner, A. Heine		Sh
750 321	Grate, E. Fales	. 485,944 . 485,684	Sh   Sh
012	Gratar for culinary nurnosas I Wlah	485,058 485,973	Sb
976 920	Grinder, sickle, A. J. Neff. Grinding cutlery or other tempered steel articles, A. Johnston	485,697	Sig
154 760 137	Grinding that teeth of harvester sickles, D. Car-	486,503	Si
313	Ham, J. Swigert	485,607 485,996	
903 790	Handle, C. H. Maschmeyer Handle protector, pick, G. M. Newton	. 485,846 . 485,977	So
596 ⊌n≠	Harrow, N. Anderson	485,737 485,677	80
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867 689 662	Harvester, broom corn, G. W. Peterson	485,711 486,014	Sr
685 638 066	nat and trush therefor, A. Mauser.  Hat stiffening machine, W. H. Barnum  Hay loader, J. J. McCreery	485,640 485,601 485,700	St
066 816	Heater. See Water heater. Hinge lock, R. Deane	. 485,613	St
370	Hoisting device, A. L. Plotner.	485,774	St

		₩	
middle, leaving the cut or printing on each side. The	Car and truck safety attachment, A. Ellis 485.918	Journal bearings, composition of matter for, A.	Switch stand, G. Cook. 485,908
appearance, of wood cuts is improved by this method,	Car and truck safety attachment, A. Ellis		8witch stand, G. Cook       485.908         Syringe, duplex, F. S. Ketchum       485,698         Syringe, hypodermic, S. R. Slater       486,657
asit gives the soft effect of an artist's proof on India	ley	Key, J. W. Toops. 485,725 Kitchen cabinet, E. F. Smith 485,725 Kineader, dough, E. Prescott 485,822 Knitting machine, R. Emerson 485,738	Table. See Folding table.
paper. Many magazine or illustrated newspaper cuts may be split and mounted into books to illustrate them	Car coupling, L. C. Martin	Knitting machine, R. Emerson 485,738 Ladders, combined side and center brace attach-	Tapping apparatus, A. P. Smith. 485,716, 485,717 Tapping water mains, apparatus for, A. P. Smith. 485,715 Telegraph sounder, Maret & De Graff. 485,061
more fully. The effects obtained are really surprising.	Car coupling, V. McDonald 485,969 Car coupling, M. T. Miles 485,965	ment for step, A. O. Tannenberg	Telephone, J. W. McDonough
(4590) G. E. C.—A correspondent of the	Car coupling, C. S. Park 485,804 Crr coupling, M. T. Scott. 485,752	Lamp, L. F. Griswold 485,038 Lamp and cigar lighter, pocket, H. A. Sherman 485,939 Lamp, electric arc, G. Kirkegaard 485,744 Lamp, electric arc, J. R. Steers 485,895	Telephone, J. W. McDonough
Lancet states that he has found the following prepara-	Car spring, L. Pfingst	Lamp, electric arc, G. Rifkegaard 485,895	Thill coupling, W. H. Pardee 485,978
tion most useful in cases of falling of the hair:	Car, street, J. E. Foster		
Tincture of jaborandi	D. H. Nichols et at 485,647 Cars, auxiliary motor for, W. Crook, Sr. 486,031	Latch and lock, combined, W. H. Smith 485,667 Latch, gravity, J. W. Toops 485,724	Tire and rim therefor, cus hion, R. M. Keating 485,633 Tire, bicycle wheel, T. H. Sweeting
Lanoline	Grady 486,037	Lathe W. Von Pittler	Time recorder, workman's, W. L. Bundy, Time and rim therefor, cushion, R. M. Keating, Tire, bleycle wheel, T. H. Sweeting, Tire for vehicle wheels, inflatable, K. Brown, The for vehicle wheels, inflatable, K. Brown, Tobacco pipe, W. M. Pratt.
Mix (by the aid of a little soft coap). A little to be	Cars, sanding device for railway, W. B. Leitch 485,703 Carbon filaments, manufacture of, T. A. Edison, 485,615, 485,616	A bbe	Torpedo, C. Nelson 485.974
rubbed in every night.	Carding engine, W. P. Canning 485.680	Letters or designs in relief, producing, M. J. D.	Tower, metal, P. C. Perkins 485,879 Toy, W. P. Shattuck 485,713
(4561) Mr. G. H. S. writes: In this city	Carding engine, traveling flat, W. P. Canning 485,685 Carding engines, device for supporting and ad-	Carter 485,688 Lifting jack, G. C. Wimpee 885,902	Trace holder, J. F. Wynkoop 485,825 Transplanter, H. Baldridge 485,832
(Pueblo, Colorado) we have an electric line controlled by one power house and on one circuit of over 25 miles.	justing screens or undercasings for the cylinders or rollers of, W. P. Canning	Lighting and beating apparatus, D. W. Clegg. 485,827 Liquid agitator. J. D. Stephens 485,753 Lock. See Hinge lock. Registering lock.	Trap. See Animal trap. Insect trap. Sanitary trap.
One track from the Bessemer steel works to near the	son	Lock, A.O. Tannenberg 485,899	Tray for counters, bottle and glass, W. C. Huss 485,743 Trellis, C. G. Derby
Overton oil refinery (both suburbs of Pueblo) is about	bery	Lock case, J. Roche. 485,885 Locket, W. J. Faulkner. 486,033	Trousers protector, I. M. Aaronson. 485,807 Truck brake mechanism, car, G. M. Brill. 485,807
14 miles long, and its branches make up the rest. There	Case. See Braid case. Cigar case. Coin case.	Log turner, W.E. Hill. 455,886 Loom hatten, & W. Schaum 485,886 Loom picker check, S. Greenwood 485,686 Lumber pulling, washing, and assorting machine,	Trunk L. C. Cozens. 485,612  Trunk strap fastener, W. J. Webb 485,671  Tube. See Filtering tube. Speaking tube.  Tunnels, construction and laying of subaqueous,  B. Powell
are about 30 cars, some with one to three trailers, at work at one time, each car with two motors of 40 horse	Cash register, E. T. Taylor. 485,988 Cash register and adder, Claudin & Robert. 486,030 Cash register, indicator, and check printer, R.	Lumber puller and washer, J. D. Hills	Tube. See Filtering tube. Speaking tube.
power using up to 50 amperes of current. This is the	Lamont	J. D. Hilis	R. Poweii  Type line forming machine, Ransom & Maynes 485,983
longest line on one circuit known to me.	Caster, H. M. CEininey. 485,406 Casting amor, Chase & Gantt	Malting apparatus, J. Saladin 485,986  Mandrels for electrolytic deposit of tubes, manu-	Typewriter for stencil making, J. L. Young. 486,059 Typewriter ribbon box, L. H. Rogers. 485,712
(4592) F. G. asks: In calculating, how	Chair bottom, spring, S. Konz. 486,046 Check, draught, etc., bank, A. D. Garner. 485,927 Chenille cutting machine, W. T. Smith. 485,777	facture of, F. E. Elmore 485,919 Manual motor, P. Baldenaperger. 486,020	Typewriting machine, F. A. Heiss
would you go about figuring the size and weight of a fly wheel for a certain size engine? In what propor-	Chenille cutting machine, W. T. Smith	Manuscript cover, G. H. Kent	Umbrella carrier, I. M. Fleisher
tion in area is the suction and discharge pipe to the	Churn, J. A. Papot       485,749         Cigar bun ching machine, J. R. Schmitt.       485,987         Cigar sae e. J. O. Ullin       486,004	Measuring and registering the measurement of lumber, machine for, C. Kidder	Umbrella, folding, A. Beauchamp 485,506 Umbrella stick, J. H. Sprague. 485,719 Undertaker's convertible stand, V. Klenha. 485,801
water cylinder on a pump for boiler feeding, and others	Cigar tip perforator, R. Coben	Measuring vessel, J. Snorf 485,992 Meat cutter, O. D. Woodruff 485,854	Valve, S. F. Gold 485,626 Valve and faucet. A. H. Dauchy 485,828
also? A. The sizes of fly wheels vary considerably with different makers and for the different uses of the co-		Mechanical movement, J. C. Githens	Valve, check, J. P. Gallon
gine, as well also the weight; 3 to 5 times the length of	tle	Mould. See Butter mould.	Valve check W.S. Loveland 485.746
the stroke is about the range for diameter, and from	Clevis, plow, A. E. Guild	Moulder's flask, G. J. Keenan	Valve, direct-acting engine, W. Craig 485,786 Valve disk holder, J. W. Randall. 485,934 Valve, removable check, W. S. Lo veland 485,745
70 to 100 pounds per indicated horse power for the	Cloth cutting machine, J. M. Schollenberger 485,888 Clover hullers and separators, grain cleaning at-	J. O. Astrup	Valve, safety, A. P. Kinney
weight is a common practice with makers of Corliss engines. The lighter weights are assigned to engines	tachment for, R. McLain 485,971 Coal or ore bins, counterbalancefor the discharge	Musical instrument, A. Gylfe	ford
running machinery of uniform load. The unequal	apparatus for, R. W. Ericson	Nut wrench, E. P. Scigliano 485,775 Ore concentrator, T. T. McNary 485,972	Vanore and gages apparatus for superheating M
pressure during the stroke by an early cut-off is also	E. Murray 485,847 Coin case, J. S. Walker 485,778	Ore separation, magnetic, T. A. Edison	Honigmann. 485,796  Vehicle jack, N. E. Bradford. 486,064  Vehicle running gear, P. Weidner. 485,673  University of the service of the servic
an essential factor. You will find the formulas for the different kinds of engines, with explanations and ex-	Coke, manufacturing or burning, J. C. Anderson. 485,904	Ore sengrator C. A. E. Molnicke 485.962	Vehicle spring, C. E. Pearl         485,649           Vehicle top, I. N. Cool         485,610           Velocipede, R. F. Darling         485,839
amples, in Nystrom's "Mechanics," pp. 446, 447, \$3.50	Conve yer trough gate, J. M. Dodge	Ores, bricking fine iron, T. A. Edison 485,840 Ores, magnetically separating, T. A. Edison 485,841 Oyster dredge windlass, J. C. & S. Lake. 485,635	Velocipede, C. W. Saladee
mailed. The relative diameters of suction and force	Of tenific, r. raitel,	Paper carpet, M. G. Faulkner	Veloeipede, ice, Guethler & Gellhaus 485,844 Vessel, A. Werner
pipes for boiler feeding vary by one size of the usual iron pipe sizes. For long suctions or long discharge	Corns device for removing R. Viol . 485.726	Pen, electric perforating, A. D. Lewis	Vessel, conveyer barge storage, F. H. Briggs. 485,836 Violin bow. J. R. Perry. 485,631
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(4593) G. W. J. asks for the formula	Crystallizing and setting box, F. W. Arvine 486.015	Photographic copying, clip for use in, A. Delug 485,758 Piano action, O. Lestina	Wagon brake mechanism, W. H. Eagleson. 485,916 Wall paper exhibitor, A. F. Payne. 485,694 Warp drying machine, F. Haskell. 485,694 Warp tbreads, mechanism for unwinding, Scrim-
for finding the ratios for the months, for finding the	Cultivator, W. C. Moore	Piano action, J. R. Perry. 485,650 Piano soft stop attachment. • Lestina. 485,672 Piano sounding board, P. Wuest, Jr. 486,013	Warp tbreads, mechanism for unwinding, Scrim- geour & Gildard
day of week that any given date of month falls upon.	Current transformer, continuous, E. Thomson 485,669	Pipe. See Tobacco pipe.	Washing machine, J. W. Fell
A. You will find the tables of the ratios for sixty centuries, and the ratios for the months, with examples	Cutter See Mest cutter. Rotary stock cutter.	Iron, G. W. Harrington 485,693	Washing machine, B. L. Finch 485,812 Washing machine, K. W. Hacke 485,687
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old and new style calendar in relation to the days of	Cutting the pile of fustian or other pile fabrics, machine for, J. J. Mann	ing, G. W. Harrington 485,691	Water distributing apparatus, siphonic, J. K. Leedy
the week, in Scientific American Supplement, No. 879, 10 cents mailed.	Cycle saddle post, C. E. Hadley 485,865 Cycle vehicle, C. W. Saladee 586,055 Dentists and surgeons, mouth holding apparatus for, H. M. Casebeer 485,605	1ng, G. W. Harringt on       485,681         Plane truing device, bench, J. P. Gage.       485,923         Plant stand, folding, F. Hamblin       485,927         Planter attachment, corn, J. B. Pedrick       485,710         Plow, C. I., Baggett       485,710         Plow, M. T., Battle       486,722	Water clevator, R. W. Tinsley 480,002 Water heater, J. H. Shivlar 485,892
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An experience of forty years, and the preparation of	Display stand, S. Newman	ham	mechanism therefor, C. Holding
morethan one hundred thousand applications for pa- tents at home and abroad, enable us to understand the	Door operator and supporter, J. A. Hess	Plow, wheel, P. W. Stanliope, Jr. 485,094	Weigher, grain, A. W. dick. 485,779
laws and practice on both continents, and to possess un-	ing sliding, J. A. Gatfield	Powder motor, G. V. Sheffield	and current wheel.
equaled facilities for procuring patents everywhere. A	Drewing trans stop motion, C. A. Tait. \$0.33.  Dress elevator, J. G. Wintjen	Power, electric transmission of, 52, 485,659, 485,659, 485,659, 485,659, 485,659	Wind and current wheel, D. C. Herman 485,933
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contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices	Electric light circuits, switchboard for, Moore &	Propeller wheel, E. D. Bangs 486,062	Wrench. See Nut wrench.  Wrench O. F. H. N. Poichling
which are low, in accordance with the times and our ex-	Electric motor controller, J. P. B. Fiske	Pump, D. E. Aunkst	vienca, o. B. II. M. Releating
tensive facilities for conducting the business. Address MUNN & CO., office Scientific American, 361 Broad-		Pumps, valve operating mechanism for pneu- matic T O Perry 485.884	DESIGNS.
way, New York.	Engine. See Carding engine. Pumping engine. Steam engine.	Power transmitter, Larson & Gunderson   485,689, 485,659     Printer and cutter, roll paper, F. Kirsch   485,792     Printing press attachment, F. Meier   485,791     Propeller wheel, E. D. Bangs   485,792     Propeller wheel, E. D. Bangs   485,793     Pump, D. E. Aunkst   Pump, D. E. Aunkst   485,794     Pump, D. E. Aunkst   7.0 Perry   485,892     Pump, valve operating mechanism for pneumatic, T. O. Perry   485,892     Pumpling engine, pneumatic, T. O. Perry   485,892     Punch, check, E. W. Bassett   485,798     Puzzle, J. J. Jenks us   63,798     Radia tors, construction of cast iron, G. L. Allen     Railway elevated, H. W. Kirchner   485,798     Railway gate, W. Smith   785,798     Railway gate, W. Smith   785,798     Railway rail straightening machine, E. Y. Marshall   785,798     Railway ra	Badge, N. S. Boynton
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United States Were Granted	Fencing, metallic, H. A. Harrington 485,741 Fiber preparing machine, J. L. Acosta 485,90	Railway signal apparatus and system, J. W. Lat- tig	Purse or pocket book, M. Scheuer
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	Grain drill, Fuller & Lee	Sheet metal elbow, W.C. Berger	Powder for allaying fevers, for the treatment of febrile affections and the cure of bandache
Bicycle treadle crank, W. V. Ash 485.67 Bill holder, A. G. Park 485.75	0 Grapple, R. Jones 485.94	ing up W Rurton 486 065	arising from fever H. J. Parker 21 96
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones	Sheet metal vessel, F. A. Walsh 485.851	Radiators, steam and hot weter Dhiledelphie
Bicrcle treadle crank, W. V. Ash	0 Grapple, R. Jones	Sheet metal vessel, F. A. Walsh	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works
Bicrcle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,09         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       486,05         Grinder, sickle, A. J. Neff.       485,97         6 Grinding cuttery or other tempered steel articles, O. A. Johnston       485,69	Sheef metal vessel, F. A. Walsh	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,967 Remedy for gonorrhea and gleet, E. H. Davis. 21,967 Silver polish, P. C. Plasterer. 21,947 Soan, W. Gossage, & Sone
Bicrcle treadle crank, W. V. Ash         485,67           Bil holder, A. G. Park         485,75           Bit. See Bridle bit.         85,75           Bit. See Bridle bit.         86,82           Boat launching carriage, H. J. Woods         486,81           Boiler. See Steam boiler.         486,01           Boiler feeder and indicator, P. A. Newman         485,97           Boiler oli injector, O. A. Enholm         485,82           Boller water, indicator, W. H. Rodgers         486,16           Bookbinder's extensible glue block, J. F. Glenn.         485,72           Bookbinder's extensible glue block, J. F. Glenn.         485,72	0 Grapple, R. Jones.       485,03         Grate. E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       485,05         6 Grinder, sickle, A. J. Neff.       485,07         6 Grinding cuttery or other tempered steel articles, O. A. Johnston.       485,69         4 Grinding mill, A. S. Tragethon.       486,00         4 Grinding the teeth of barvester sickles. D. Car-	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,985 Remedy for gonorrhea and gleet, E. H. Davis. 21,965 Silver polish, P. C. Plasterer. 21,947 Soap, W. Gossage & Sons. 21,345, 21,846 Stamettes, L. H. Ayme. 21,931
Bicrcle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,03         Grate, E. Fales.       485,08         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       485,05         Grinder, sickle, A. J. Neff.       485,07         6 Grinding cutlery or other tempered steel articles,       485,69         A Johnston.       485,69         6 Grinding mill, A. S. Tragethon.       485,60         Grinding the teeth of barvester sickles, D. Carfier.       485,60         7 Fier.       485,60         Ham, J. Swigert.       485,80	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,867 Remedy for gonorrhea and gleet, E. H. Davis. 21,967 Silver polish, P. C. Plasterer. 21,945 Soap, W. Gossage & Sons. 21,945, 21,847 Stamettes, L. H. Ayme Zuits, boys' and children's, A. Levy & Co. 21,837 Tea, Paxton & Gallagher. 21,941 Tea and coffee F. I. Miller. 21,941
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,63         Grate, E. Fales.       485,63         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       485,63         Grinder, sickle, A. J. Neff.       485,05         6 Grinding cutlery or other tempered steel articles,       485,69         7 Grinding mill, A. S. Tragethon.       485,69         6 Grinding the teeth of barvester sickles, D. Carrier.       7         7 Fier.       485,69         2 Ham, J. Swigert.       485,69         3 Handle, C. H. Maschmeyer.       485,73         3 Handle, C. H. Maschmeyer.       485,73	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,867 Remedy for gonorrhea and gleet, E. H. Davis. 21,867 Silver polish, P. C. Plasterer. 21,947 Soap, W. Gossage & Sons. 21,245, 21,847 Statuettes, L. H. Ayme. 21,937 Tea, Parton & Gallagher. 21,947 Trea and coffee, F. J. Miller. 21,947 Trea for bicycles, pneumatic, Boston Woven Hose
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,63         Grate, E. Fales.       485,63         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       485,67         Grinder, sickle, A. J. Neef       485,67         6 Grinding cutlery or other tempered steel articles, G. A. Johnston.       485,69         Grinding mill, A. S. Tragethon.       485,69         Grinding the teeth of barvester sickles, D. Carrier.       7         Flam, J. Swigert.       485,69         2 Hame fastener, G. M. Roat.       485,73         3 Handle, C. H. Maschmeyer       485,73         4 Harp, Durkee & Lanterman.       485,73         6 Harp, Durkee & Lanterman.       485,73	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,987 Remedy for gonorrhea and gleet, E. H. Davis. 21,987 Silver polish, P. C. Plasterer. 21,945 Soap, W. Gossage & Sons. 21,945, 21,847 Statuettes, L. H. Ayme. 21,937 Tea, Paxton & Gallagher. 21,947 Trea and coffee, F. J. Miller. 21,947 Tres for bicycles, pneumatic, Boston Woven Hose and Rubber Company. 21,967 Tobacco and cigar boxes, liquid for flavoring, G. 41, 12 unders.
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,63         Grate, Shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       486,04         2 Grater for culinary purposes, J. Wich.       485,07         6 Grinding cutlery or other tempered steel articles, A. Johnston.       485,67         A. Johnston.       485,67         Grinding mill, A. S. Tragethon.       485,60         Grinding the teeth of harvester sickles, D. Carrier.       485,60         Fier.       485,60         3 Ham, J. Swigert.       485,63         4 Hame fastener, G. M. Roat,       485,63         3 Handle, C. H. Maschmeyer       485,43         4 Harpow, Durkee & Lanterman.       485,73         6 Harp, Durkee & Lanterman.       485,73         6 Harrow, Ford & Moffit       485,62	Sheef metal vessel, F. A. Walsh   485,851	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,986 Remedy for gonorrhea and gleet, E. H. Davis. 21,981 Silver polish, P. C. Plasterer. 21,945 Soap, W. Gossage & Sons. 21,945, 21,846 Statuettes, L. H. Ayme. 21,935 Tea, Paxton & Gallagher. 21,945 Tea, Paxton & Gallagher. 21,947 Trea and coffee, F. J. Miller. 21,947 Trea for bicycles, pneumatic, Boston Woven Hose and Rubber Company. 21,967 Tobacco and cigar boxes, liquid for flavoring. 21,957 Tobacco, plus, A. Engelbard & Sons. 21,958 Tobacco, pnoulting and chasting Walleys & Davis Company. 21,958
Bicrole treadle crank, W. V. Ash         485,67           Bill holder, A. G. Park         485,75           Bit. See Bridle bit.         Blower, Compound steam jef, W. McClave         485,82           Boat launching carriage, H. J. Woods         486,01           Boiler. See Steam boiler.         800         486,01           Boiler feeder and indicator, P. A. Newman         485,92           Boiler water, indicator, W. H. Rodgers         486,62           Book water, indicator, W. H. Rodgers         486,68           Book scrap, J. V. Houston         485,78           Boot or shoe, G. B. Hooper         485,80           Bottle filling apparatus, J. Jackson         485,80           Box ever, F. V. Ertlinger         485,90           Box ever, F. V. Ertlinger         485,90           Bracket. See Shelf bracket, Braid case. C. F. Sundstrom         485,40           Bran duster, A. Heine         445,82	0 Grapple, R. Jones.       485,63         Grate, Shaking, L. E. Jordan.       486,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         A. Johnston       485,67         A. Johnston       485,67         Grinding mill, A. S. Tragethon       486,60         Grinding mill, A. S. Tragethon       485,67         Ham, J. Swigert       485,67         3 Hame fastener, G. M. Roat,       485,67         4 Handle protector, pick, G. M. Newton       485,67         5 Harrow, Durkee & Lanterman       485,73         6 Harro, Durkee & Lanterman       485,63         6 Harrow, Ford & Moffitt       485,62         7 Harvester binder, J. Lund       485,62	Sheef metal vessel, F. A. Walsh   485,851	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,987 Remedy for gonorrhea and gleet, E. H. Davis. 21,987 Silver polish, P. C. Plasterer. 21,987 Soap, W. Gossage & Sons. 21,945, 21,847 Statuettes, L. H. Ayme. 21,937 Tea, Paxton & Gallagher. 21,937 Tea, Paxton & Gallagher. 21,947 Trea and coffee, F. J. Miller. 21,947 Trea for bicycles, pneumatic, Boston Woven Hose and Rubber Company. 21,957 Tobacco and cigar boxes, liquid for flavoring, G. H. Lueders. 21,957 Tobacco, smoking and chewing, Wellman & Dwire Tobacco Company. 21,957 Tobacco Company. 21,957
Bicrcle treadle crank, W. V. Ash. 485,67 Bill holder, A. G. Park. 485,75 Bit. See Bridle bit. Blower, compound steam ict, W. McClave. 485,82 Boat launching carriage, H. J. Woods. 486,01 Boller. See Steam boiler. Boiler feeder and indicator, P. A. Newman. 485,97 Boiler oil injector, O. A. Enholm. 485,82 Boiler water, indicator, W. H. Rodgers. 486,65 Bookbinder's extensible plue block, J. F. Glenn. 485,78 Book scrap, J. V. Houston. 485,79 Boot or shoe, G. B. Hooper. 485,18 Bottle filling apparatus, J. Jackson. 485,81 Bottle filling apparatus, J. Jackson. 485,80 Box cover, F. V. Et tlinger. 485,79 Boxer's ring, G. E. Sterry, Jr. 485,89 Bracket. See Shelf bracket, 485,80 Bradese. C. F. Sundstrom. 485,49 Brake beam, H. B. Robischung. 485,69 Bridge, truss, J. F. Hardesty. 485,89 Bridge, truss, J. F. Hardesty. 485,89 Bridge, truss, J. F. Hardesty. 485,89 Bridge, swire support on draw, J. B. Scace. 485,89	0 Grapple, R. Jones.       485,68         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         A. Johnston.       485,67         A. Johnston.       485,67         Grinding mill, A. S. Tragethon.       486,00         Grinding the teeth of harvester sickles, D. Carrier.       485,67         7 Ham, J. Swigert.       485,67         8 Hame fastener, G. M. Roat.       485,68         9 Handle protector, pick, G. M. Newton.       485,48         9 Harrow, Anderson.       485,67         9 Harrow, Ford & Moffitt.       485,62         9 Harrow, disk, C. S. Sharp.       485,69         9 Harvester, broom corn, G. W. Peterson.       485,69         9 Harvester, corn, W. A. Young.       486,00	Sheef metal vessel, F. A. Walsh   485,851	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works 21,987 Remedy for gonorrhea and gleet, E. H. Davis 21,867 Silver polish, P. C. Plasterer 21,937 Soap, W. Gossage & Sons 21,945, 21,847 Statuettes, L. H. Ayme 21,937 Tea, Paxton & Gallagher 21,937 Tea, Paxton & Gallagher 21,937 Trea and coffee, F. J. Miller 21,947 Tres for bicycles, pneumatic, Boston Woven Hose and Rubber Company 21,957 Tobacco and cigar boxes, liquid for flavoring, G. H. Lueders 21,957 Tobacco, smoking and chewing, Wellman & Dwire Tobacco, smoking and chewing, Wellman & Dwire Tobacco, smoking and chewing, Wellman & Dwire Tobacco, sarsaparilla, A. C. & G. F. Weber 21,957 Tonict cream for the skin, J. F. Hite 21,857 Tonict cream for the skin, J. F. Hite 21,857 Tonict cream for the skin, J. F. Hite 21,857
Bicrole treadle crank, W. V. Ash         485,67           Bill holder, A. G. Park         485,75           Bit. See Bridle bit.         Blower, Compound steam jef, W. McClave         485,72           Blower, Compound steam jef, W. McClave         486,82           Boat launching carriage, H. J. Woods         486,01           Boiler. See Steam boiler.         80.01           Boiler feeder and indicator, P. A. Newman         485,92           Boiler water, indicator, W. H. Rodgers         486,68           Book book scrap, J. V. Houston         485,78           Boot or shoe, G. B. Hooper         485,81           Bottle filling apparatus, J. Jackson         485,89           Boxer's ring, G. E. Sterry, Jr         485,79           Boxer's ring, G. E. Sterry, Jr         485,89           Bracket. See Shelf bracket,         485,49           Brad dase, C. F. Sundstrom         485,69           Brad duster, A. Heine         485,89           Bridge, truss, J. F. Hardesty         485,89           Bridge, truss, J. F. Hardesty         485,68           Bridge, swire support on draw, J. B. Scace         485,68           Bridge, swire support on draw, J. B. Scace         485,68           Bridge bit, J. Maddox, Jr         485,69	0 Grapple, R. Jones.       485,68         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles.       485,67         A. Johnston.       485,67         Grinding mill, A. S. Tragethon.       485,60         Grinding mill, A. S. Tragethon.       485,67         Ham, J. Swigert.       485,67         Ham, J. Swigert.       485,67         Hame fastener, G. M. Roat.       485,67         Handle protector, pick, G. M. Newton.       485,73         Harrow, Anderson.       485,67         Harrow, Ford & Moffitt.       485,62         Harrow, disk, C. S. Sharp.       485,63         Harvester, broom corn, G. W. Peterson.       485,63         Harvester, broom corn, G. W. Peterson.       485,63         Hat and brush therefor, A. Mauser.       485,63         Hat stiffening machine. W. H. Barnium.       485,64	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works 21,987 Remedy for gonorrhea and gleet, E. H. Davis 21,807 Sliver polish, P. C. Plasterer 21,807 Statuettes, C. Gossage & Sons 21,945, 21,847 Statuettes, L. H. Ayme 21,937 Tea, Paxton & Gallagher 21,947 Trea and coffee, F. J. Miller 21,947 Trea for bicycles, pneumatic, Boston Woven Hose and Rubber Company 21,957 Tobacco and cigar boxes, liquid for flavoring, G. H. Lueders 21,957 Tobacco, smoking and chewing, Wellman & Dwire 21,957 Tobacco, smoking and chewing, Wellman & Dwire 21,957 Tobacco, smoking and chewing, Wellman & Dwire 21,957 Tollet cream for the skin, J. F. Hite 21,957 Tonict cream for the skin, J. F. Hite 21,957 Tonict cream for the skin, J. F. Weber 21,957 Varnish, Mayer & Loewenstein 21,957
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,68         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles.       485,67         A. Johnston.       485,67         Grinding mill, A. S. Tragethon.       486,60         Grinding mill, A. S. Tragethon.       485,67         Ham, J. Swigert.       485,67         Ham fastener, G. M. Roat.       485,67         Handle, C. H. Maschmeyer.       485,67         Harrow, Anderson       485,73         Harrow, Ford & Moffitt       485,62         Harrow, Glsk, C. S. Sharp.       485,63         Harvester, broom corn, G. W. Peterson       485,63         Harvester, corn, W. A. Young.       485,63         Hat and brush therefor, A. Mauser       485,63         Hat at fiening machine, W. H. Barnium       485,60         Hat stiffening machine, W. H. Barnium       485,60         Heater. See Water heater       485,70	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. 21,986 Remedy for gonorrhea and gleet, E. H. Davis. 21,965 Sliver polish, P. C. Plasterer. 21,965 Soap, W. Gossage & Sons. 21,945, 21,846 Statuettes, L. H. Ayme. 21,937 Tea, Paxton & Gallagher. 21,947 Trea and coffee, F. J. Miller. 21,947 Trea for bicycles, pneumatic, Boston Woven Hose and Rubber Company. 21,967 Tobacco and cigar boxes, liquid for flavoring, G. H. Lueders. 21,957 Tobacco, smoking and chewing, Wellman & Dwire Tobacco Company. 21,967 Tollet cream for the skin, J. F. Hite. 21,957 Tonict cream for the skin, J. F. Hite. 21,957 Tonict cream for the skin, J. F. Weber. 21,957 Varnish, Mayer & Loewenstein. 21,954 Whalebone, raw and manufactured, New England Whalebone, raw and manufactured, New England
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,68         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles.       485,67         A. Johnston.       486,00         Grinding mill, A. S. Tragethon.       486,00         Grinding mill, A. S. Tragethon.       486,00         2 Ham, J. Swigert.       485,67         3 Ham, J. Swigert.       485,67         4 Ham, J. Swigert.       485,67         5 Handle, C. H. Maschmeyer       485,67         6 Harrow, Anderson       485,73         7 Harrow, Anderson       485,67         8 Harrow, Grod & Moffitt       485,62         9 Harrow, Ford & Moffitt       485,62         9 Harvester, corn, W. A. Young.       485,61         2 Harvester, corn, W. A. Young.       486,01         3 Hat stiffening machine, W. H. Barnium.       485,62         4 Hat stiffening machine, W. H. Barnium.       485,61         6 Hoater. See Water heater.       485,61         Hinge look, R. Deane.       485,61         Hoisting device, A. L. Plotner.       485,72	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works Remedy for gonorrhea and gleet, E. H. Davis 21,86 Sliver poilsh, P. C. Plasterer 21,87 Soap, W. Gossage & Sons 21,945, 21,84 Statuettes, L. H. Ayme 21,83 Tea, Paxton & Gallagher 21,93 Tea, Paxton & Gallagher 21,94 Tres and coffee, F. J. Miller 21,94 Tres for bicycles, pneumatic, Boston Woven Hose and Rubber Company 21,95 Tobacco and cigar boxes, liquid for flavoring, G. H. Lueders 21,95 Tobacco, smoking and chewing, Wellman & Dwire Tobacco Company 21,95 Toniet cream for the skin, J. F. Hite 21,95 Toniet cream for the skin, J. F. Hite 21,95 Toniet cream for the skin, J. F. Weber 21,95 Varmsh, Mayer & Loewenstein 21,94 Vinegar, cider, Duffy, Mountfort & Greene Cider Company 21,95 Whalebone, raw and manufactured, New England Whalebone, raw and manufactured, New England 21,93
Bicycle treadle crank, W. V. Ash	0 Grapple, R. Jones.       485,68         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles.       485,67         A. Johnston.       486,00         Grinding mill, A. S. Tragethon.       486,00         Grinding mill, A. S. Tragethon.       486,00         1 Grinding mill, A. S. Tragethon.       485,67         2 Hame fastener, G. M. Roat.       485,67         3 Ham, J. Swigert.       485,67         4 Hame fastener, G. M. Roat.       485,73         5 Handle, C. H. Maschmeyer       485,67         6 Harrow, Durkee & Lanterman.       485,73         7 Harrow, Anderson       485,67         8 Harrow, Gisk, C. S. Sharp.       485,63         9 Harvester, broom corn. G. W. Peterson.       485,63         9 Harvester, corn. W. A. Young.       486,00         2 Harvester, corn. W. A. Young.       486,00         3 Hat stiffening machine, W. H. Barnium.       485,61         4 Hat stiffening machine, W. H. Barnium.       485,61         6 Heater. See Water heater.       Hringe lock, R. Deane.       485,61	Sheef metal vessel, F. A. Walsh	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works.  Remedy for gonorrhea and gleet, E. H. Davis
Bicycle treadle crank, W. V. Ash. 485,67 Bill holder, A. G. Park. 485,75 Bit. See Bridle bit. Blower, compound steam ict, W. McClave. 485,82 Boat launching carriage, H. J. Woods. 486,01 Boller. See Steam boiler. Boiler feeder and indicator, P. A. Newman. 485,67 Boiler feeder and indicator, P. A. Newman. 485,67 Boiler water, indicator, W. H. Rodgers. 486,65 Bookbinder's extensible plue block, J. F. Glenn. 485,68 Book scrap, J. V. Houston. 485,67 Boots or shoe, G. B. Hooper. 485,68 Bottle filling apparatus, J. Jackson. 485,89 Bottle filling apparatus, J. Jackson. 485,89 Bottle filling apparatus, J. Jackson. 485,89 Boxer's ring, G. E. Sterry, Jr. 485,59 Bracket. See Shelf bracket, 485,69 Bracket. See Shelf bracket, 485,69 Bradses, wire support on draw, J. B. Scace. 485,68 Bridle, Goodell & Hopkins. 485,69 Bridle, Goodell & Hopkins. 485,69 Brush, W. Melius. 485,69 Brush heads, apparatus for inserting plugs in, C. E. Thompson. 485,67 Buildings, metal framework for, J. M. Larimer. 485,87 Bulldings, metal framework for, J. M. Larimer. 485,87 Bulldings, structural work for, J. M. Larimer. 485,87 Bulldings, structural work for, J. M. Larimer. 485,87 Burder. See Gas burner.	0 Grapple, R. Jones.       485,68         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles.       485,67         A. Johnston.       486,00         Grinding mill, A. S. Tragethon.       486,00         Grinding mill, A. S. Tragethon.       486,00         2 Hame fastener, G. M. Roat.       485,67         3 Ham, J. Swigert.       485,67         4 Hame fastener, G. M. Roat.       485,67         5 Handle, C. H. Maschmeyer       485,67         6 Harrow, Anderson       485,67         6 Harrow, Anderson       485,67         7 Harrow, Ford & Moffitt       485,62         8 Harrow, Grod & Moffitt       485,62         9 Harvester, broom corn, G. W. Peterson       485,63         9 Harvester, corn, W. A. Young       485,61         2 Harvester, corn, W. A. Young       485,61         3 Hat stiffening machine, W. H. Barnium       485,62         4 Hat stiffening machine, W. H. Barnium       485,61         6 Heater - See Water heater       485,61         Hinge lock, R. Deane       485,61	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works.  Remedy for gonorrhea and gleet, E. H. Davis 21,861 Silver poilsh, P. C. Plasterer 21,861 Soap, W. Gossage & Sons 21,945, 21,346 Santettes, L. H. Ayme 21,333 Tea, Paxton & Gallagher 21,337 Tea, Paxton & Gallagher 21,347 Trea and coffee, F. J. Miller 21,347 Trea soft bicycles, pneumatic, Boston Woven Hose and Rubber Company 21,967 Tobacco and cigar boxes, liquid for flavoring, G. H. Lueders 21,957 Tobacco, smoking and chewing, Wellman & Dwire 21,957 Tobacco, smoking and chewing, Wellman & Dwire 21,957 Tobacco, smoking and chewing, Wellman & Dwire 21,957 Tollet cream for the skin, J. F. Hite 21,954 Tonics, sarsaparilla, A. C. & G. F. Weber 21,954 Varnish, Mayer & Loewenstein 21,945 Whalebone, raw and manufactured, New England Whalebone Manufacturing Company 21,935 A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1853, will be furnished from this office for 25 cents.
Bicycle treadle crank, W. V. Ash. 485,67 Bill holder, A. G. Park. 485,75 Bit. See Bridle bit. Blower, compound steam ict, W. McClave. 485,82 Boat launching carriage, H. J. Woods. 486,01 Boller. See Steam boiler. Boiler feeder and indicator, P. A. Newman. 485,67 Boiler oil injector, O. A. Enholm. 485,68 Bookbinder's extensible plue block, J. F. Glenn. 486,76 Book scrap, J. V. Houston. 485,67 Boots or shoe, G. B. Hooper. 485,18 Bottle filling apparatus, J. Jackson. 485,81 Boxer's ring, G. E. Sterry, Jr. 485,58 Boxer's ring, G. E. Sterry, Jr. 485,58 Bracket. See Shelf bracket. 485,69 Bracket. See Shelf bracket. 485,69 Brake beam, H. B. Robischung. 485,69 Brad duster, A. Heine. 485,68 Bridle, Goodell & Hopkins. 485,69 Bridle, Goodell & Hopkins. 485,69 Brush, W. Melius. 485,69 Brush heads, apparatus for inserting plugs in, C. E. Thompson. 485,67 Buildings, metal framework for, J. M. Larimer. 485,87 Bulldings, metal framework for, J. M. Larimer. 485,87 Bulldings, metal framework for, J. M. Larimer. 485,87 Burner. See Gas burner.	0 Grapple, R. Jones.       485,83         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles.       485,67         A. Johnston.       486,00         Grinding mill, A. S. Tragethon.       486,00         Grinding mill, A. S. Tragethon.       486,00         2 Grinding mill, A. S. Tragethon.       485,67         3 Ham, J. Swigert.       485,67         2 Hame fastener, G. M. Roat.       485,67         3 Handle, C. H. Maschmeyer       485,67         4 Harrow, Towkee & Lanterman.       485,67         4 Harrow, Towkee & Lanterman.       485,67         4 Harrow, Towkee & Lanterman.       485,67         4 Harrow, Ford & Moffitt.       485,62         5 Harrow, Grod & Moffitt.       485,62         6 Harrow, Ford & Moffitt.       485,62         7 Harvester binder, J. Lund.       485,62         8 Hat stiffening machine, W. A. Young.       485,61         9 Hat vester, See Water heater.       485,61         Hunge look, R. Deane.       485,61         1 Hose reel, R. D. Wirt.       485,61 <td>  Sheef metal vessel, F. A. Walsh   485,831    </td> <td>Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works.  Remedy for gonorrhea and gleet, E. H. Davis</td>	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works.  Remedy for gonorrhea and gleet, E. H. Davis
Bicycle treadle crank, W. V. Ash. 485,67 Bill holder, A. G. Park. 485,75 Bit. See Bridle bit. Blower, compound steam jef, W. McClave. 485,82 Boat launching carriage, H. J. Woods. 486,01 Boller. See Steam boiler. Boiler feeder and indicator, P. A. Newman. 485,07 Boiler feeder and indicator, P. A. Newman. 485,07 Boiler water, indicator, W. H. Rodgers. 486,65 Bookbinder's extensible jule block, J. F. Glenn. 485,60 Book scrap, J. V. Houston. 485,67 Boot or shoe, G. B. Hooper. 485,18 Bottle filling apparatus, J. Jackson. 485,81 Bottle filling apparatus, J. Jackson. 485,80 Box cover, F. V. Et tlinger. 485,79 Bracket. See Shelf bracket. 485,69 Broxer's ring, G. E. Sterry, Jr. 485,89 Bracket. See Shelf bracket. 485,69 Brad duster, A. Heine. 485,69 Bridge, truss, J. F. Hardesty. 485,68 Bridle of See, wire support on draw, J. B. Scace. 485,69 Bridge, truss, J. F. Hardesty. 485,68 Bridle of J. Maddox, Jr. 485,69 Bridle of J. Maddox, Jr. 485,69 Brush, W. Melius. 485,62,485,81 Brush heads, apparatus for inserting plugs in, C. F. Thompson. 485,67 Buddings, metal framework for, J. M. Larimer. 485,87 Bulldings, metal framework for, J. M. Larimer. 485,87 Burner. See Gas burner. Burning solid carbonaceous fuels, means for, W. McClave. 485,88 Butter mould, S. H. Jones. 485,68 Butter worker and weigher, T. Muir. 485,83 Butter mould, S. H. Jones. 485,68 Butter worker and weigher, T. Muir. 485,83 Butter worker and weigher, T. Muir. 485,83	0 Grapple, R. Jones.       485,83         Grate, E. Fales.       485,68         1 Grate, shaking, L. E. Jordan.       486,08         2 Grater for culinary purposes, J. Wich.       485,68         Grinder, sickle, A. J. Neff.       485,67         Grinding cutlery or other tempered steel articles,       485,67         A. Johnston.       486,80         Grinding mill, A. S. Tragethon.       486,80         Grinding mill, A. S. Tragethon.       486,80         2 Hame fastener, G. M. Roat.       485,67         3 Ham, J. Swigert.       485,60         2 Hame fastener, G. M. Roat.       485,67         3 Handle, C. H. Maschmeyer       485,47         4 Harrow, Anderson       485,47         5 Harrow, Ford & Mofitt       485,67         4 Harrow, Ford & Mofitt       485,62         5 Harvester binder, J. Lund       485,62         6 Hay loader, J. L. McCreary.       485,61         6 Hay loader, J. L. Writh       485,61         6 Hose coupling, F. W. Wright       485,61         6 Hose eel, R. D. Wirt       485,61         1 Hyd	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works.  Remedy for gonorrhea and gleet, E. H. Davis
Bicycle treadle crank, W. V. Ash. 485,67 Bill holder, A. G. Park. 485,75 Bit. See Bridle bit. Blower, compound steam jef, W. McClave. 485,82 Boat launching carriage, H. J. Woods. 486,01 Boller. See Steam boiler. Boiler feeder and indicator, P. A. Newman. 485,97 Boiler oil injector, O. A. Enholm. 485,82 Boiler water, indicator, W. H. Rodgers. 486,65 Bookbinder's extensible jule block, J. F. Glenn. 865,82 Book scrap, J. V. Houston. 485,87 Boot or shoe, G. B. Hooper. 485,181 Bottle filling apparatus, J. Jackson. 485,81 Bottle filling apparatus, J. Jackson. 485,81 Bottle filling apparatus, J. Jackson. 485,80 Box ever, F. V. Ettlinger. 485,79 Box ever, F. V. Ettlinger. 485,79 Bracket. See Shelf bracket. 85,89 Brade see, C. F. Sundstrom. 485,89 Brad duster, A. Heine. 485,88 Bridle bit. J. Maddox, Jr. 485,88 Bridle bit. J. Maddox, Jr. 485,88 Bridle bit. J. Maddox, Jr. 485,89 Brush heads, apparatus for inserting plugs in, C. F. Thompson. 485,89 Butter mould, S. H. Jones. 80,00 Butter worker and weigher, T. Muir. 485,87 Butter mould, S. H. Jones. 485,88 Butter mould, S. H. Jones. 485,88 Butter mould, S. H. Jones. 485,88 Butter mould, S. H. Jones. 485,89 Butter worker and weigher, T. Muir. 485,87 Butter worker and weigher, T. Muir. 485,88 Button, G. H. Perrine 485,89 Butter mould, S. H. Jones. 485,60 Butter worker and weigher, T. Muir. 486,60	0 Grapple, R. Jones.       485,83         Grate, E. Fales.       485,63         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       486,05         Grinder, sickle, A. J. Neff.       485,87         Grinding cutlery or other tempered steel articles,       485,87         A. Johnston.       486,80         Grinding mill, A. S. Tragethon.       486,80         Grinding mill, A. S. Tragethon.       485,87         3 Ham, J. Swigert.       485,87         2 Hame fastener, G. M. Roat.       485,47         3 Handle, C. H. Maschmeyer       485,48         4 Handle protector, pick, G. M. Newton.       485,47         6 Harp, Durkee & Lanterman.       485,47         6 Harp, Durkee & Lanterman.       485,47         7 Harrow, Ford & Moffitt.       45,27         3 Harrow, Ford & Moffitt.       45,67         4 Harvester binder, J. Lund       45,67         4 Harvester born corn., W. Peterson.       485,77         5 Harvester born corn., W. H. Barnum.       485,67         6 Hay loader, J. L. McCreary.       485,67         6 Hay loader, J. L. McCreary.       485,67         6 Hose rear freezer, J. E. Newhouse.       485,67         6 Hose cel, R. D. Wirt.	Sheef metal vessel, F. A. Walsh   485,831	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. Remedy for gonorrhea and gleet, E. H. Davis
Advertising device, J. A. & J. B. Wright	0 Grapple, R. Jones.       485,83         Grate, E. Fales.       485,63         1 Grate, shaking, L. E. Jordan.       486,04         2 Grater for culinary purposes, J. Wich.       486,05         Grinder, sickle, A. J. Neff.       485,87         Grinding cutlery or other tempered steel articles,       485,87         A. Johnston.       486,00         Grinding mill, A. S. Tragethon.       486,00         Grinding mill, A. S. Tragethon.       485,00         3 Ham, J. Swigert.       485,20         2 Hame fastener, G. M. Roat.       485,27         3 Handle, C. H. Maschmeyer       485,48         4 Handle protector, pick, G. M. Newton.       485,47         6 Harp, Durkee & Lanterman.       485,67         6 Harp, Durkee & Lanterman.       485,67         7 Harrow, Ford & Moffitt.       485,67         3 Harrow, Glask, C. S. Sharp.       485,67         4 Harvester binder, J. Lund       485,67         5 Hat and brush therefor, A. Mauser.       485,67         6 Hay toader, J. L. McCreary       485,67         6 Hay toader, J. L. McCreary       485,67         6 Has tiffening machine, W. H. Barnum.       485,67         6 Has toader, J. L. McCreary       485,67         6 Hose reel, R. D. Wirt.       4	Sheef metal vessel, F. A. Walsh Shelf bracket, H. L. Bradley Shelf bracket, J. N. Farnham Shelf bracket, J. N. Farnham Shelf bracket, J. N. Farnham Signal. See Railway signal. Sphon, intermittent, R. Field. Sphon,	Radiators, steam and hot water, Philadelphia Hardware and Malleable Iron Works. Remedy for gonorrhea and gleet, E. H. Davis

Switch stand, G. Cook       485,908         Syringe, duplex, F. S. Ketchum       485,698         Syringe, hypodermic, S. R. Slater       486,057         Table. See Folding table.       486,057
Table. See Folding table.  Tapping apparatus, A. P. Smith 485,716, 485,717
Tapping water mains, apparatus for, A. P. Smith. 485,715 Telegraph sounder, Maret & De Graff. 485,051 Telephone, J. W. McDonough 485,876
Telephony, W. Bruening
Thill coupling, C. C. Bradley 485,856 Thill coupling, W. H. Pardee 485,978
Thill or pole prop for vehicles, H. T. Gregg
Tire, bicycle wheel, T. H. Sweeting 485,898 Tire for vehicle wheels, inflatable, K. Brown. 485,605 Tobacco pine, W. M. Pratt.
Torch, gasoline, G. Heidel 485,039 Torpedo, C. Nelson 485,974
Toy, W. P. Shattuck. 485,713 Trace holder, J. F. Wynkoop 485,825
Syringe, hypodermic, S. R. Slater         485,057           Table. See Folding table.         485,716         485,717           Tapping water mains, apparatus for, A. P. Smith.         485,716         485,716           Tapping water mains, apparatus for, A. P. Smith.         485,716         485,716           Telepbone, J. W. McOnougb.         485,876         485,876           Telepbone, J. W. McGlenen.         485,876           Tension device, D. W. McGlenen.         485,778           Tension device, D. W. McGlenen.         485,778           Thill coupling, C. C. Bradley         485,826           Thill coupling, W. H. Pardee         485,843           Thill coupling, W. H. Pardee         485,843           Trie nie recorder, workman's, W. L. Bundy         486,623           Tire and im therefor, cus hion, R. M. Keating         485,633           Tire, bicycle wheel, T. H. Sweeting         485,633           Torch, gasoline, G. Heidel         485,639           Torch, gasoline, G. Heidel         485,639           Torpedo, C. Nelson         485,732           Tower, metal, P. C. Perkins         485,832           Transplanter, H. Baldridge         485,832           Transplanter, H. Baldridge         485,832           Trape See Animal trap.         Trape See Animal tra
Tray for counters, bottle and glass, W. C. Huss 485,743 Trellis, C. G. Derby
Trousers protector, I. M. Aaronson
Trap.   Trap.   Trap.   Trap.   Trap.   Trap.   Tray for counters, bottle and glass, W. C. Huss   485,433   Trellis, C. G. Derby   485,932   Trimming, dress, E. Allen   485,731   Trousers protector, I. M. Aaronson   485,731   Trousers protector, I. M. Aaronson   485,731   Truck brake mechanism, car, G. M. Brill   485,563   Trunk tap fastener, W. J. Webb   485,671   Trunk tap fastener, W. J. Webb   485,671   Tube. See Filtering tube. Speaking tube.   Tunnels, construction and laying of subaqueous, R. Poweil   485,983   Type line forming machine. Ransom & Maynes   485,855   Type line forming machine. Ransom & Maynes   485,855   Type line forming machine. Ransom & Maynes   485,855   Type line forming machine.   Type line forming
Tunnels, construction and laying of subaqueous, R. Powell Type line forming machine, Ransom & Maynes. 485,885 Type line forming machine, Ransom & Maynes. 485,865 Typewriter ribon box, L. H. Rogers. 485,665 Typewriting machine, F. A. Heiss Typewriting machine card holder, C. B. Godfrey. 485,662 Umbrella carrier, I. M. Fleisher. 485,365 Umbrella sterk, J. H. Sprague. 485,365 Umbrella sterk, J. H. Sprague. 485,361 Undertaker's convertible stand, V. Klenha. 485,362 Valve, S. F. Gold. 485,628 Valve, balanced slide, E. L. Mills. 485,628 Valve, check, J. P. Gallon. 485,740 Valve, direct-acting engine, W. Craig. 485,762 Valve disk holder, J. W. Randall. 485,768 Valve, safety, A. P. Kinney. 485,628 Valve, safety, A. P. Kinney. 485,628 Valve, safety, A. P. Kinney. 485,836
Typewriter for stencil making, J. L. Young. 486,059 Typewriter ribbon box, L. H. Rogers. 485,712 Typewriting mechine F. A. Halise. 495,761
Typewriting machine card holder, C. B. Godfrey. 486,186 Umbrella carrier, I. M. Fleisher. 485,922
Umbrella, Hanng, A. Beauchamp 485,70 Umbrella stick, J. H. Sprague. 485,719 Undertaker's convertible stand, V. Klenha. 485,801
Valve, S. F. Gold       485,626         Valve and faucet, A. H. Dauchy       485,628         Valve, by banced slide, E. L. Mills       485,818
Valve, check, J. P. Gallon       485,740         Valve, check, W. S. Loveland       485,746         485,746       485,746
Valve, direct acting engine, W. Gandall. 485,984 Valve, removable check, W. S. Loveland. 485,745
Vaporizer and burner, hydrocarbon oil, G. Bots-
ford
Vehicle jack, N. E. Bradford. 486,064 Vehicle running gear, P. Weidner. 485,673
Vehicle spring C. E. Pearl         485,649           Vehicle top, I. N. Cool         485,610           Velocipede, R. F. Darling         485,839
Velocipede, C. W. Saladee. 486.055 Velocipede, ice, Guethler & Gellhaus. 485.844 Vessel, A. Werner. 486,006
Vessel, conveyer barge storage, F. H. Briggs.         485,836           Violin bow. J. R. Ferry         485,651           Voltmeter, E. R. Carichoff         485,826
Wagon brake mechanism, W. H. Eagleson. 485,916 Wall paper exhibitor, A. F. Payne. 485,648 Warp drying machine, F. Haskell. 485,694
Warp threads, mechanism for unwinding, Scrim-
Washing fabrics, apparatus for, J. Haworth.         485,695           Washing machine, J. W. Feli         485,791           Washing machine, B. L. Finch         485,812
Washing machine, K. W. Hacke 485,687 Washing machine, R. T. King 485,765 Water closet attachment, Martin & Hammon 485,960
Water distributing apparatus, siphonic, J. K.         485,853           Leedy.         485,053           Water clevator, R. W. Tinsley         486,002           Water heater, J. H. Shivlar         485,892           Water or other liq ulds, apparatus for raising and
Water heater, J. II. Shivlar. 485,892 Water or other liquids, apparatus for raising and forcing, Shone & Ault. 485,714
Water wheel nozzle, C. A. Scharff
Waterwheel nozzle, C. A. Scharff 485,663 Weather strip, G. W. Morris 485,747
Weigher, grain, J. A & D. James. 485,632 Weigher, grain, A. Widtek 485,779
Weigher, grain, J. A & D. James. 485,632 Weigher, grain, A. Widtek 485,779
Weigher, grain, J. A & D. James. 485,632 Weigher, grain, A. Widtek 485,779
Weather strip, G. W. Morris Weaving machines, register and stop motion mechanism therefor, C. Holding 485,869 Weigher, grain, J. A. & D. James 485,632 Weigher, grain, A. Widick 485,779 Wheel. See Fifth wheel. Propeller wheel. Wind and current wheel. Wind and current wheel, D. C. Herman 485,622 Wind and current wheel, D. C. Herman 485,622 Wind and current wheel, D. C. Herman 485,623 Windmill titing tuwer, T. O. Perry 485,883 Wire stretching tool, Copper & Cox. 485,611 Wood bending machine, J. Klahr 485,800 Wrench. See Nut wrench. Wrench, O. E. H. N. Reichling 485,657
Weigher, grain, J. A. & D. James. 485,632 Weigher, grain, A. Widtek. 485,779 Wheel. See Fifth wheel. Propeller wheel. Wind and current wheel. Whiffletree, L. S. Flatau. 485,622 Wind and current wbeel, D. C. Herman. 485,632 Wind and current wbeel, D. C. Herman. 485,833 Windmill tilting tuwer, T. O. Perry. 485,883 Wire stretching tool, Copper & Cox. 485,611 Wood bending machine, J. Klahr. 485,800 Wrench. See Nut wrench. Wrench, O. E. H. N. Reichling. 485,657
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Weigher, grain, J. A. & D. James
Weigher, grain, J. A. & D. James
Weigher, grain, J. A. & D. James

Canned fruits and vegetables, Assau, Baines Com-	
pany	
Carbonated drinks, J. T. Driscoll & Co 21,950	
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Works 21,938	
Corsets, E. Schweinburg 21,934	
Cotton goods, such as silesias, sateens, cambrics,	
and twills. Burton Bros. & Co	
Curry combs, spring, Spring Curry Comb Company 21,969	
Works 21,938 Orsets, E. Schweinburg 21,934 Otton goods, such as silesias, sateens, cambrics, and twills, Burton Bros. & Co 21,937 Curry combs, spring, Spring Curry Comb Company 21,939 Deodorizing powder, C. W. Chancellor 21,963 Cartillians annufactural Workston Liven Changle	
cal Company	
Flour, wheat, Minkota Milling Company 21.940	
Gum, chewing, O. G. Davison	
nk, printers' and lithographers'. Ault & Wiborg	
Company	
Liniment, S. Eskridge	
Liniment, S. Eskridge	
ters, pills, ointments, suppositories, and pow-	
ders, Capital Drug Company 21,962	
Overgaiters and leggins, A. Sessler	
Photographic card mounts A. M. Colling Manufac-	
turing Company	
Piano and organ hardware. Blake & Johnson. 21.865	
Pills, H. C. Wilkinson 21.957	
Powder for allaying fevers, for the treatment of	
turing Company turing	
arising from fever, H. J. Parker	
Radiators, steam and hot water, Philadelphia	
Hardware and Malleable Iron Works 21,966	
Remedy for gonorrhea and gleet, E. H. Davis 21.961	
Silver polish, P. C. Plasterer. 21,947 Soap, W. Gossage & Sons 21,945, 21,846	
Soap. W. Gossage & Sons	
Statuettes, L. H. Ayme 21,931 Suits, boys' and children's, A. Levy & Co. 21,935	
uits, boys' and children's, A. Levy & Co 21.935	
l'ea. Paxton & Gallagher 21.941	
l'ea and coffee, F. J. Miller 21.942	
l'ea and coffee, F. J. Miller	
and Rubber Company	
Pobacco and cigar boxes, liquid for flavoring, G.	
H. Lueders 21.954	
Pobacco, plug. A. Engelbard & Sons 21.953	
Pobacco, plug, A. Engelbard & Sons	
Tobacco Company 21,952 Foilet cream for the skin, J. F. Hite 21,864	
Toilet cream for the skin, J. F. Hite 21.964	
Conics, sarsaparilla, A. C. & G. F. Weber 21,959	
Varush Mayer & Loewenstein	
Vinegar, cider, Duffy, Mountfort & Greene Cider	
Company 24.944	
Whalebone, raw and manufactured, New England	
Whalebone Manufacturing Company 21,939	
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