

ENGINEERING INVENTIONS.

A car bell has been patented by Mr. William H. Hudson, of New York City. It is adapted to be operated from the axle of the car when the latter is in motion, the carbell and striker being arranged in connection with a pulley having an arm operating on the striker, an endless belt passing over the pulley and operated by the axle of the car.

A steam heater for railway cars has been patented by Mr. Henry R. Robbins, of Baltimore, Md. This invention covers certain novel features of construction in steam heaters in which pipes or tubes are supported underneath a train of cars, with means for communicating with registers or other devices for diffusing the heat within the cars.

A car coupling has been patented by Mr. Lavvega Self, of Piedmont, Mo. Combined with the chambered head of the drawbar is a spring-pressed follower adapted to hold the pin in an elevated position, and to hold the link in suitable position for engagement with the drawhead of the adjacent car, the device being simple and designed to work entirely automatically.

An automatic railroad gate has been patented by Mr. John T. Phillips, of New Castle, Pa. It is designed to be closed automatically by the approaching train and opened as soon as the last car has passed the gate, which is pivoted, in connection with springs arranged at the side of one of the rails of the track, wheels mounted in bearings, levers engaging the springs and wheels, and other novel features.

A tube expander has been patented by Mr. Thomas Beverly, of Ellis, Kansas. It is especially designed for expanding the ends of boiler tubes close up to the flange of the flue sheet, a single tool being provided for flues of different diameters, the stock being adapted to receive rollers or swages of different sizes, in connection with which is employed a tapering plug varied in size and form for different requirements.

A car coupling has been patented by Mr. Henry Gallager, of Savannah, Ga. It is intended especially for use on freight cars, having a drawhead of the ordinary form, with pin openings, with a main lever and a pin suspended at its forward end, the rear end being pivoted to the drawhead, the device being intended as a simple construction, whereby the coupling and uncoupling can be effected without trainmen going between cars.

A railway gate has been patented by Mr. Oliver H. P. Cornell, of Albany, N. Y. It is for closing highways at the intersection of railways and for giving an alarm just before and during the closing of the gates, and has a spring-actuated mechanism, a scape wheel and a pendulum pivoted on a fixed support, with other novel features governing the time of opening and closing and adapting the gate for use in a variety of situations.

AGRICULTURAL INVENTIONS.

A combined hay rake and tedder has been patented by Mr. Cassius M. Maxson, of Portville, N. Y. This invention covers various novel details in the construction and combination of parts of a machine which can be readily adjusted for use as rakes or as tedders, and which is calculated to be reliable in operation in either capacity.

A dust conveyer for thrashers has been patented by Mr. Lyman A. Miller, of Carbondale, Ill. Combined with the thrashing cylinder and feed board are a fan and fan case, with a tube having its vertical portion provided with inwardly or rearwardly projecting tubes, extended to conform to the lower side of the feed board and then carried upward and rearward to cause it to overhang the feed board.

A combined seeder and fertilizer distributor has been patented by Mr. Isaac N. Franklin, of Lake View, Chicago, Ill. The construction is such that the seed and fertilizer are simultaneously dropped in one spot on one side of the machine into a furrow made by the opening cutter or plow, the furrow afterward being closed by the driving wheel, the invention covering various novel details and combinations of parts.

MISCELLANEOUS INVENTIONS.

An improvement in calipers forms the subject of a patent issued to Mr. Oliver D. Warfield, of Chicopee Falls, Mass. The invention consists in a joint formed of two rolling surfaces held together by a spring, the legs having convex surfaces and mortises, and the spring having tenons to fit the mortises.

A hat has been patented by Mr. Robert Plats, of New York City. It is designed as a cheap and practical folding hat, the brim wire being formed in curved sections, with inwardly projecting radial arms at the ends of each section, the arms being held by radial seams in the brim.

A fireplace blower has been patented by Mr. Ralph Ely, of Delaware, Ohio. A hood is secured to the lower edge of the blower proper, and so arranged as to permit free access for the purpose of stirring the fire, while the dust resulting from such stirring will be carried up the chimney by the draught.

A necktie fastening has been patented by Mr. James H. Carter, of Philadelphia, Pa. A back plate is connected at its upper edge to the upper edge of the front or main portion of the necktie, with openings through the front portion and back plate, the button head holding the tie also serving as a substitute for the ordinary scarf pin.

A scribing attachment has been patented by Mr. William F. Seargeant, of Marshall, Mo. It consists of two parallel legs united by a head block, one leg being somewhat longer than the other, with other features, the attachment being more particularly designed for marking off weather boards where they abut against window casings and corner strips.

A swing has been patented by Mr. John O. Lyon, of Quincy, Ill. Its construction is such that no rope or other connection with a fixed point is

required to operate the swing. The seat may be adjusted to an upright or a reclining position. The swing is easily portable, and has an awning to adapt it for comfortable use in sun or shade.

A hat hook has been patented by Messrs. Gustav and Frederick Pape, of New York City. This invention covers a pivoted arm arranged to be closed upon a hat or other garment placed upon the hook, and to be locked to prevent the removal of the garment except by the person holding the key to unlock the pivoted arm.

A cattle stanchion has been patented by Mr. Dwight Manwaring, of Algona, Iowa. The frame has a horizontal rod on its top crosspiece, the neck bars having separate independent flexible connections at their upper ends sliding laterally on the horizontal rod, the neck bars being thus yieldingly mounted and increasing the comfort of the animal.

A necktie has been patented by Mr. John H. Irwin, of Philadelphia, Pa. Combined with a binding strip formed with button holes are studs fitted within the button holes, the binding strip being composed of several layers of the material forming the outer face of the scarf, thus making a scarf which can be worn much longer than the ordinary form.

A bustle has been patented by Messrs. Edward D. and John Fraser, of Brooklyn, N. Y. It consists of main and auxiliary loops so arranged that when the extending loops are subjected to any pressure directed toward the person of the wearer the loops will fold upward and inward to positions within the line of the main supporting hoop.

A cuff fastener has been patented by Mr. David Stone, of New York City. It is a stud formed with a hollow shank adapted to receive a headed pin, the head of the stud being preferably concave and the hollow shank being preferably provided with a spring, making a fastener whereby the cuff may be readily secured in such position as may be desired.

A carpet stretcher has been patented by Mr. Oscar L. Sprague, of Andover, Ohio. Combined with a slotted main frame is a rack bar carrying teeth and having vertical and longitudinal movement, a pivoted lever carrying a pawl, an independently pivoted retaining pawl, and other novel features, calculated to make a simple and effective device for the work of putting down carpets.

A cigar bunching machine has been patented by Messrs. William M. Steidle and Anton Senn, of Toledo, Ohio. It has an endless traveling apron and adjustable guide roller, whereby either or both edges of the belt may be slackened or tightened to roll bunches of different sizes and shapes, the compressor cutting off surplus tobacco as it depends on the cigar bunch placed in the shaper and forcing the bunch into the mould cavity without too much pressure.

An improvement in pants has been patented by Messrs. Frank Kahn, Hirsch Morris, and Louis Morris, of Memphis, Tenn. It consists in having a strip stitched at opposite sides of the crotch seam, through the laps or folds, with a second separate strip crossing the first strip and stitched to the legs at opposite sides of the seams, the invention relating especially to working pants or overalls, and being intended to make ripping practically impossible.

A fruit picker has been patented by Mr. George C. Thompson, of Darien, Ga. It consists of two pivoted hemispherical cups, arranged to nest together or pass one into the other, combined with a pull cord for closing them to a spherical form, and a forked handle, permitting fruit to be picked from clusters, from the picker not expanding to occupy a great space when opened.

A washing machine has been patented by Mr. John W. Neff, of Buckhannon, West Va. Combined with a suds box in which revolves a drum, having circular plates with circularly arranged bowed springs, the plates carrying concave rubbing sections connected by bolts to the ends of the springs, are other novel features, to bring more or less pressure on the clothes in their passage between the drum and rubbing sections.

A shuttle operating mechanism has been patented by Mr. Lynn W. Buck, of Springfield, Vt. The sweep stick is formed with a slot through which the picker stick passes, the slot being larger than the picker stick, to permit independent movement of the latter, the sweep stick being supported and connected with the picker stick by an all wood or all metal connection, and yet retaining freedom of action or rebound.

An implement for buckling bale ties has been patented by Mr. Frederic S. Williams, of De Roche, Ark. Combined with a bar having a device at one end for clamping one end of the tie is a lever fulcrumed to the bar, and formed with a forked forward end adapted to retain the cross bar of a buckle held to the other end of the tie, and allow the first named end of the tightened tie to be passed around the buckle cross bar, with other novel features.

A plastic compound for walls has been patented by Mr. Henry W. Merritt, of Somerville, Mass. This invention is an improvement on a former patented invention of the same inventor, and provides for a compound consisting of silica and a solid silicate and carbonate of lime, each in pulverized condition, dissolved in water, and a soluble alkaline silicate, the whole intermixed and incorporated after a special manner, and including variations for different uses.

An automatic perforator for printing presses has been patented by Messrs. George and Robert Kennedy, of New Westminster, British Columbia, Canada. The invention provides a hollow rule containing a serrated cutter mounted on links to give it a parallel motion, in combination with an angled lever pivoted in the hollow rule and arranged to be engaged by the yielding contact carried by the platen of the press, for perforating paper in the operation of printing.

A washing machine has been patented by Mr. Townson Hand, of Shelbyville, Ind. This invention provides an improvement in machines where

conical shaped dashers are made to reciprocate vertically in a tub on a revolving table, the machine being adjustable by a single tension screw to operate on a large or small number of clothes, and provides means whereby the dashers may be readily changed from a vertical to a horizontal position, with other novel features.

A stringed musical instrument has been patented by Mr. George W. Van Dusen, of Brooklyn, N. Y. This invention relates more particularly to pianos, providing a simple arrangement of the strings and their supports, the spring wire being flattened where it is doubled over or around a head or pin, and the string head having a knife edge bearing upon a compensating lever, the construction being designed to assure the maintenance of the strings in practically perfect harmony and pitch of tone.

A carding engine has been patented by Messrs. Benjamin A. Dobson and William I. Bromley, of Bolton, Lancaster County, Eng. The invention relates to an improved arrangement for casing in the space between the cover of the doffer cylinder and the adjacent portion of the main cylinder of the carding engine, dispensing with the ordinary wooden or tin mould or any other loose filling up or making up pieces, the use of which necessitates separate adjustments of the parts.

A carding engine has likewise been patented by Mr. William Dobson, of Bolton, Lancaster County, Eng. In connection with the engine bend, flexible bend moving lengthwise, and cams and pins for adjusting the flexible bend, are a slotted bracket piece on the engine bend and a pin or projection on the end of the flexible bend riding in the slot, making an easily arranged positive adjusting action.

SCIENTIFIC AMERICAN BUILDING EDITION.

JUNE NUMBER.

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The Railroad Gazette, handsomely illustrated, published weekly, at 73 Broadway, New York. Specimen copies free. Send for catalogue of railroad books.

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Curtis Pressure Regulator and Steam Trap. See p. 253.
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HINTS TO CORRESPONDENTS.

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

(1) W. W. Q. writes: I have two baths which I have been using for plating; one is of cyanide of silver and the other of cyanide of gold; how can I reduce these baths so as to obtain metallic silver and gold? A. Precipitate with zinc shavings and sulphuric acid, and dissolve out the excess of zinc with more sulphuric acid. Do not work at it in a closed room, as poisonous gas may be evolved.

(2) S. M. M. desires a recipe for preserving rose leaves, as we see them in jars in art stores. A. Put a handful of salt on the bottom of an earthen jar, then a layer of leaves, and repeat this alternately until the jar is filled. Keep the jar as much as possible in a cool place, and covered over when the leaves are not to be exposed.

(3) A. F. asks: 1. Will paper varnished with common furniture varnish be good material for use in an induction coil? A. Shellac is generally used, and will save time in drying. The other will answer, but may need baking after each application. 2. I have a small magneto-electric machine, such as is used in ringing telephone bells; will it work a small induction coil, and what kind of a current does it produce, no commutator being used? A. It will work a small induction coil, giving the usual "shuttle" current. 3. I have a large number of small spools wound with No. 36 silk-covered wire, each spool containing about 1 1/4 ounces of wire; can I use the wire for making an induction coil, and if so, how should the spools be connected and how should the layers be insulated? A. You can use the wire, but must rewind it. See SUPPLEMENT, Nos. 160 and 166, for full instructions.

(4) J. M. G. asks: 1. Can you give me a receipt for starching India paper? A. See article on "India Paper," page 149, SCIENTIFIC AMERICAN for March 5, 1887, for this information. 2. Can you tell me how to burn or boil linseed oil? A. Linseed oil in the proportion of 1 gallon with 3/4 pound litharge is allowed to simmer with frequent stirring until a skin begins to form, which scum is then removed, and when the oil has become cold and settled, the clear portion is decanted and called boiled oil. 3. What effect has sugar of lead on printing inks? A. If combined with the linseed oil, it would tend to make a quick-drying ink.

(5) T. H. K. writes: In tinning copper vessels, I have them scoured out with sand after they have been in sulphuric acid water a day or so, and when I come to tinning, use a forge heat, and tin with pure block tin and sal ammoniac, but the tinning will not adhere to the copper on some parts. A. A forge blast is very uncertain, and apt to overheat spots before the tin takes. A charcoal furnace is better. You should be able to tin vessels or kettles with powdered resin sprinkled on the surface, by pouring on the melted tin, having it quite hot, and allowing the surplus to run off at once back into the melting pot. A little powdered sal ammoniac will help the flow if it becomes lumpy. Brushing the clean surface of the copper with a saturated solution of zinc and sal ammoniac in hydrochloric acid (tinman's acid) should also work well, pouring the hot tin quickly. We fear that your whole trouble comes from the treacherous forge fire.

(6) J. E. S. asks the best explanation of the fact that the moon appears larger when near the horizon than when high in the heavens. A. The atmosphere by its refraction acts as a lens, producing an apparent increase in diameter near the horizon. Some claim that it is only an optical illusion; yet, when we consider that the atmosphere as seen from the surface of the globe is a section of a vast lens whose radius is the semi-diameter of the earth, it is reasonable to assume a small increase in the size of objects seen through it, and a still greater increase when seen in the obliquity of the horizon, in the same manner as an object is seen at a low angle through a long focus lens, or by turning it edgewise.

(7) A. S. E. asks (1) how to clean Quincy granite when rusty, after being exposed to the weather a few years. A. Use strong lye, or make a hot solution of 3 pounds of common washing soda dissolved in a gallon of water. Lay it on the granite with a paint brush. 2. What is the cause of Italian marble having a greasy appearance after being in the weather a few years? A. The discoloration is due to the gases in the air, and the marble can be cleaned similarly to the method as above given.

(8) G. R. R. asks how to restore the luster of morocco leather, such as is used for blinds and saddles in harness. A. It is probably patent or japanned leather on your harness, instead of morocco; such luster is put on by baking on a special black varnish in an oven. A paste suitable to preserve gloss of patent leather and prevent cracking is made of wax with a little olive oil, lard, and oil of turpentine, mixed when warm, to be of the consistency of thick paste when cooled.

(9) J. E. writes: I have a large ash heap which I wish to use for walks around the house. Can you tell me what to mix with it to make a cheap and durable walk? A. Mix ordinary clay with your ashes, and it will make a good walk. 2. Also how to clean a marble slab that has become discolored from use? A. Take 2 parts of common soda, 1 part of pumice stone, and 1 part of finely powdered chalk; sift it through a fine sieve and mix it with water; then rub it well all over the marble, washing with soap and water.

(10) E. G. G. desires some method of wholly or partially decolorizing vinegar. A. Filter it through charcoal or add a handful of charcoal to a barrel containing it. Agitate thoroughly and then filter.

(11) J. E. A. asks: What will clean a white Derby hat? A. Wash in a hot solution of carbonate of soda or sesquicarbonate of ammonia; but it is difficult for even an expert to clean such stock without destroying the original finish.

(12) R. B. W.—For plain directions for making a simple telephone, see SUPPLEMENT, No. 142; for making colored fires see details in SUPPLEMENT, Nos. 49 and 317.

(13) C. H. desires a receipt or preparation to clean and polish knives, forks, and tinware. A. Rub with equal portions of fine coal ashes and soda, with a little water.

(14) W. B. H. says: Will you please give me the height of printer's type as usually made, in thousandths of an inch. A. 1 1/2% of an inch.

(15) J. M. D. asks: 1. What will be the result if I introduce a small amount of compressed air into boilers supplying steam to run compressor? A. Air and steam combined for motive force is a novel idea, which has been tried and has failed; it costs more to introduce the air than its value. It will do no harm and little good. 2. What is the best lubricant for cylinders of engines driven by compressed air? A. Use light mineral oil. 3. What is meant by "clearance space" in cylinder? A. Clearance is the space between the cylinder head and the piston at the commencement of the stroke, and the steam passage between the valve and cylinder.

(16) W. H. S. asks for something, in liquid or any other form, good for purifying air in laboratory where acids and gases exist. A. We know of nothing but ventilation. The odors you wish to overcome are presumably stronger than anything you could use to neutralize them.

(17) C. E. B. asks: What material is used in taking a mould of one's head and shoulders, preparatory to making bust of plaster of Paris or clay? Also, how can one prepare or cover the hairy portions of the head and face? A. The person must lie on his back, his hair being tied behind; into each nostril put a conical piece of paper, open at each end, to allow of breathing. The face is to be lightly oiled over, and the plaster being properly prepared is to be poured over the face, taking particular care that the eyes are shut, till the plaster is a quarter of an inch thick. In this way a mould is to be formed from which a second cast is to be taken, that will furnish a cast exactly like the original. How such work can be done by those who are inexpert is described in the SCIENTIFIC AMERICAN of November 27, 1886.

(18) J. C. G.—Galvanized pipe for water for house supply is not poisonous if the water be kept running constantly. If the pipe is closed for a night, the water that the pipe contains should be drawn off before any water is used in the morning. The black pipe gives rusty water, and if of small diameter, soon stops up with rust nodules.

(19) A. L. P. asks what to use to paint cast iron vases with, white, that will stand the weather. A. White japan varnish baked on the vase in an oven or drying room at a temperature of 225° is the only white that will stand the weather. All air-drying paints weather.

(20) W. S. C. asks how to make black stencil blocking which is sold in cakes. A. Triturate together 1 part pure soot and 2 parts Prussian blue with a little glycerine, then add 3 parts gum arabic and sufficient glycerine to make the desired consistency.

(21) G. A. writes: We have an island on which poison ivy grows. What is the best means to exterminate it, and what is the antidote for ivy poisoning? A. The vines can only be removed by digging them up or burning them away. They cannot be destroyed except with other vegetation through fire and similar means. As an antidote, bathe the parts affected with a tablespoonful of sulphate of copper dissolved in a small tea-cupful of boiling water.

(22) W. S. asks (1) a recipe for a candy called butterscotch. A. Take 1 pound of sugar, 3/4 pint of water, and set over a slow fire; when done, add 1 1/2 tablespoonfuls of butter, and lemon juice to flavor. 2. What is the best paste, homemade? A. See recipe given in SCIENTIFIC AMERICAN SUPPLEMENT, No. 159. 3. How is ginger ale made? A. See article on "Summer Beverages," given in SCIENTIFIC AMERICAN SUPPLEMENT, No. 270.

(23) J. E. P., Jr., asks a receipt for overcoming the odor of corduroy. A. We doubt there being any practical remedy, except the equivocal one of substituting some other more powerful odor. There are kinds of corduroy which do not have much odor.

(24) A. C. D. asks how to make a filter for oil that has been used once in dynamo oil cups. This oil accumulates, and is not very dirty. A. Filtering through cotton or cotton waste is the simplest manner of purifying the oil, if it is not very dirty. When a

more thorough filtering is needed, heat the oil with an equal quantity of water to 212° Fah., agitate for a short time, and allow it to cool before decanting.

(25) A. B. C. desires a recipe for making first class sticky fly paper. A. In a tin vessel melt together 1 pound of resin and add 2 fluid drachms of linseed oil; while the mixture is warm, dip a spatula into it, and spread what adheres to the blade on foolscap paper. Different samples of resin require varying proportions of oil to make the mixture spread properly.

(26) A. C. B. asks about painting posts with a mixture of boiled oil and pulverized coal. What kind of coal is used, and the best mode of pulverizing it? A. Use charcoal, which can be easily pulverized in a mortar. Coating posts, which have been charred, with coal tar is a better preservative, the absorbent properties of the charcoal on the surface causing the tar to penetrate to a good depth.

(27) W. J. E. asks: What proportion of an iceberg is under water? A. About seven-eighths of its volume.

(28) H. O. W. asks: 1. Is there any government land in Indiana or Illinois unclaimed? If so, how can it be acquired by settlers? A. Address the Land Commissioner of the States referred to. There is also an official of that title in Washington whom you may consult on these points. 2. Will tincture of cantharides cause increased growth of hair or beard without injury, and how is it applied? A. It is an irritant, and is used to induce growth where morbid action exists. It is the basis of many hair invigorators, but fails of action where the hair is dead. A well known preparation is: Scald black tea 2 ounces, with 1 gallon boiling water, strain, and add 3 ounces glycerine, tincture cantharides 1/2 ounce, and bay rum 1 quart. Mix well by shaking, and then perfume. 3. What will remove tan or sunburn from the face? A. Use a mixture of magnesia in soft water, spread on the face, and after a minute or two wash off with Castile soap suds and rinse with soft water.

(29) L. M. asks (1) for some receipt for promoting the growth of hair. A. See preceding answer to H. O. W. 2. One to remove the same without injury to the skin. A. Use a strong solution of barium sulphide made into a paste with powdered starch. It should be applied immediately after it is mixed, and allowed to remain there for 5 or 10 minutes. If not used very carefully, it may injure or mark the skin.

(30) G. H. S. asks: What will take oil, grease, butter, or any substance of an oily nature out of writing paper? A. Use pipe clay, powdered, and mixed with water to the thickness of cream; leave it on for some hours.

(31) Derfla asks how to restore a type writer ribbon where the ink has become dried in. A. If it has enough color left, put on a little glycerine. For a new ribbon, or complete renovating, take of aniline black 1/2 ounce, pure alcohol 15 ounces, and concentrated glycerine 15 ounces. Dissolve the aniline black in the alcohol and add the glycerine.

(32) W. S. asks: What is liquid anhydrous ammonia? Can you favor me with the method of making same on a small scale? A. It is liquefied ammoniacal gas, NH3. Liquid ammonia may be produced by leading the anhydrous ammoniacal gas into a tube plunged in a freezing mixture composed of crystallized calcium chloride and ice, having a temperature of -40°. See Roscoe's "Treatise on Chemistry," vol. i.

(33) T. R. J. asks: Which of the common metals are most susceptible to heat and cold? A. Mercury and zinc.

MINERALS, ETC.—Specimens have been received from the following correspondents, and have been examined with results stated.
P. R.—The metallic portion is pyrite or sulphide of iron, and utterly valueless.

TO INVENTORS.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

May 31, 1887,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Table listing inventions and their patent numbers, including items like Abdominal supporter, Adding machine, Advertiser, wire fence, Air moistener, Apron, Arm rest, Auger bit, Axle, Axle lubricator, Baby walker, Bale tie hooks, Baling press, Bat, Batteries, Bead, Bed pan, Bed spring, Bedsteads, Bell, Belt, Bicycle seat, Billiard chalk holder, Bit, Blind stop, Block, Blower, Boiler, Boot or shoe, Boots or shoes, Box, Bridge, Bucket, Buckle, Bung, Burner, Bustle, Button fastener, Butter worker, Cage protectors, Calipers, Camera, Camera shutter, Canning, Car, Car coupling, Car coupling, Car coupling, Car coupling, Car coupling, Car door fastening, Car lamps, Car lock and seal, Car sash, Car seat, Car seal, Car spring, Car spring, Car starter, Car wheel, Cars, Card gilding machine, Carpet stretcher, Carpeting, Carriage top, Carriage top prop, Carrier, Cart, Cartridge crimper, Case, Center marking device, Centering machine, Chain, Check rower, Cheese knife, Cheese vat, Chimney cleaning apparatus, Churn motor, Cider or wine press, Cigar bunching machine, Cigar mould, Cleaner, Closet, Coal conveyer, Coffee pot, Collar supporting pad, Colorimeter, Comb, Combing machine, Copper from its ores, Copying machine, Corner iron, Cot and canopy, Cot, folding, Cotton gin rib, Coupling, Cuff fastener, Cultivator, Cultivator attachment, Cultivator, harrow, Cultivator, listed corn, Curry comb, Curtain ring, Curtain pole socket, Cuspidor, Cut-off, automatic, Cyclometer, Dental mallet, Dentistry, Desiccating roll, Desk, school, Dish, covered, Distilling ammonia, Distilling water, Door check, Door hanger, Dredging apparatus, Dress shield, Drier, Drilling tool, Drum, heating, Dry closet, Drying offal, Dust collector, Dyeing apparatus, Earring, Earring fastening, Edge burnishing machine, Egg carrier, Electrical conductor, Electrical conductors, Bed, spring, J. W. Young, Bedsteads, gates, etc., brace for, Lenix & Swann, Bell, car, W. H. Hudson, Belt, electric, W. W. Dunlap, Bicycle seat, C. A. Williamson, Billiard chalk holder or casing, A. Labre, Bit, See Auger bit, Blind stop, E. C. Smith, Block, See Pigeon hole block, Blower, fireplace, R. Ely, Boiler, See Steam and water boiler, Boot or shoe, G. Vallant, Boot or shoe packs, crimp for, C. Gerhard, Boots or shoes, buttonhole strip for, G. Vallant, Boots or shoes, machine for lasting, F. Chase, Boots or shoes, manufacture of, C. K. Bradford, Box, See Fare box, Paint box, Signal box, Bridge, C. W. Sherwood, Bucket, milk, J. D. Perry, Buckle, J. H. Donahue, Bung, A. Rust, Burner, See Gas burner, Petroleum burner, Vapor burner, Bustle, E. D. & J. Fraser, Button fastener, W. Halkyard, Butter worker, O. J. Wenner, Cage protectors, bracket hook for, W. S. Armstrong, Calipers, O. D. Warfield, Camera, See Photographic camera, Camera shutter, automatically operating, W. G. Price, Canning, D. E. 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