Chair. See Barber's chair

(2333) G. R. L. asks for a receipt for a liquid stove polish that will dry quickly and leave a bright polish. A. Mix 2 parts copperas, 1 part powdered bone black, and 1 part black lead with enough water to give proper consistency (like thick cream) Two applications are to be recommended

(2334) H. R. B. asks how to make the flexible pad composition that is sold for notes. A. Dissolve the best quality of glue in water, and add of glycerine one-fifth the weight of the dry glue.

(2335) W. P. S. asks: What is the best cement for fastening leather to wood? Is leather to cover a bex tightly put on while wet? A. Use a mixture of flour paste and glue. Apply the leather dry.

(2336) A. G. E. asks how much hydrogen gas is liberated by one pound of sulphuric acid in water acting on iron. A. One forty-ninth pound, meauring 6673 cubic inches. This supposes pure sulphuric acid or oil of vitriol to be used.

(2337) E. E. R. asks: 1. Can you give me any receipt for perfume so it will mix intimately with melted paraffine and the perfume be lasting when the paraffine is cold and cut into tablets? I feet high and nearly as much in diameter, and I wish it have two receipts now, one the odor is not agreeable, and the other, while pleasant, does not last. A. Oil of bergamot 4 parts, do. lavender 2 parts, do. cloves 1 part, do. neroli 1/2 part. Many others could be given. 2. Can you not give me a receipt for making sachet powder to put in sachet bags, to perfume drawers, etc.? A. There are many formulas. The following is for patchouly: Ground patchouly herb 2 pounds, do. rhodium 🔏 pound, do. orris root 1 pound, do. benzoin 1/4 pound, oil of patchouly 1 drachm, oil of rose 20 drops. 3. I want tern slide without the aid of sensitized plates. A. a receipt both in liquid and dry state (if possible) to make an ink eraser. I use chloride of lime dissolved in water and acetic acid, but the mixture loses its strength, when bottle has been used several times, from exposure to the air, and renders it not very desirable as an article of commerce, causing buyers to pronounce it a fraud. A. Use oxalic and citric acids mixed, or use binoxalate of potash. These are solids, but can be used

(2338) R. McK. asks: 1. What is the best thing for the removal of freckles? A. Nothing really efficacious except corrosive applications can be given. Even such are apt to have only a transitory effect. 2. What acid is used for writing that is invisible when written, but which develops upon being heated? A. Dilute sulphuric acid with a gold or quill

(2339) T. C. B. writes: I have a pound or so of protosulphate of iron which has been exposed to the air for some time, and which has become in- i tically insoluble after it has once become set. A. crusted with a white powder. Does this impair the use of the crystals, and if so in what manner? A. The white color may only indicate the loss of water of crystallization. It does not impair the substance except as it changes its weight. It may, however, be accomparied by oxidation, which would form basic and insoluble salts, requiring addition of acid for solution.

(2340) D. J. R. asks for a good receipt for a black walnut stain. A. a. A decoction of green walnut husks dried and boiled in lye is recommended. $\textbf{\textit{b.}} \ Dragon's \ blood \ and \ lampblack'mixed \ in \ wood \ alcohol$ may be used, well rubbed into the wood. c. One gallon strong vinegar, 1 pound dry burnt umber, 1/2 pound fine rose pink, 1/2 pound dry burnt Vandyke brown. After mixing and standing for a day it is ready for use. Apply with a sponge.

(2341) P. W. asks how to make a sub stance which when burnt will give forth a strong hut pleasant odor or perfume, and if burnt in a room will perfume the room for two or three hours. A. Use following ingredients in powder: Charcoal 2 pounds, olibanum 1/2 pound, Tonquin beans, gum benzoin, allspice, cinuamon, cloves, and nitrate of potash % pound of each. Make into a mass with gum tragacanth in solution in water and form in moulds or with the fingers. Several others could be given.

(2342) E. D. writes: In your issue of May 17, 1890, in answer to question 2179 (J. L. S.), you give a formula for removal of soot stains from granite. I tried it, and it removed the soot stains, but left a stain of light green, probably from the sulphate of copper. What will remove that? A. Try ammonia on a small portion. If it turns it blue, copper is present, and sponging with ammonia will tend to remove it. Ex periment on a small portion to test the efficacy of the treatment. Weak muriatic acid should also be effectual and might very properly be used as a second applica tion to follow the ammonia.

(2344) Philwood writes: 1. I noticed in an old Scientific American that a windmill would not do to run a dynamo, on account of its fluctuating motion. If the windmill was so governed that it would run ata uniform rate, would it do to run a dynamo? A. Yes; if the mill could be kept going at a high enough rate of speed. 2. If the wind should suddenly fall away so that the mill stopped entirely, would it harm the material working of the dynamo? A. The dynamos would cease to develop electric energy. The current would stop. No harm would be done. 3. What are the best works on electroplating that you would advise a beginner to get and which would explain everything in clear language? A. Read our SUPPLEMENTS, treating of this subject, especially No. 310.

(2345) D. B. asks if honey bees make honey from flowers, or if they make only what is called bee bread from flowers. A. Bees extract honey from flowers, taking it into their stomachs and disgorg ing it into comb in the hives. The hairs upon their body accumulate pollen, which the bee pours into little pellets, and which is called "bee bread." The adults eat honey, the larvæ eat "bee bread."

(2346) I. S. asks: 1. What is the cause and cure, in the case of young persons in apparent perfect health, sound teeth, of temperate, abstemious, indus trious habits, addicted to no abuse, exhaling a disagreea ble breath? A. Possibly dyspepsia. A physician should be consulted. 2. We constantly see the most opposite opinions in public journals, from equally authorita-

tive sources, of the "carp"-praise and utter condemnation. What is the fact? A. The quality varies with the circumstances of its cultivation and environment. Hence widely different opinions have been ex pressed concerning it. It should furnish an excellent food if properly treated. 3. Did the so-called "German carp" originate only in Germany? A. It originated in Central Asia was introduced into Europe some centuries ago, and came to the United States via Germany. The whole subject of its history, qualities, and cultivation is admirably given in a paper in our Supplement, No.

(2347) T. E. M. asks: 1. About how many volts would it take to kill a rat? A. The voltage required to kill a rat might for the alternating current be put at 200 or 300 volts. It is uncertain, and will vary with circumstances. 2. How is bottled soda water mad that is sold by confectioners? A. By charging the proper mixture of sirup and water with carbonic acid gas by special apparatus.

(2348) W. J. M. asks: How can I cut off the head and neck of a large glass bottle such as chemicals are put in, without too much expense? It is two cut as smooth as possible. A. There is a certain amount of risk in doing this. File a notch on the line and hold a red hot wire against the glass, moving it back and forth along the line for the cut. When a crack starts you can lead it around with the hot wire. Tie a string or spring a rubber band around the bottle as a mark. Success is doubtful.

(2349) C. E. E. asks how to transfer a woodcut picture from the paper to the glass of a lan-Soak the picture in water. Varnish the plate of glass with dammar varnish or Canada balsam. When just tacky," remove the picture from the water and place it face downward on the varnish side of the glass, gently rub it on, seeing that no air bubbles are left between paper and varnished glass. Let it dry until perfectly hard. Then with the wet finger tip rub off the paper until little more than the design is left. Varnish a second time and allow to dry. The result is apt to be either too pale or too obscure.

(2350) A. A. D. writes: I would like to have a receipt for a glossy black ink, one that would be suitable for writing on labels which are exposed to sunlight. I have tried many of the formulæ which have been published, but the juks soon fade. A. Use best China ink rubbed up in a solution of shellac in borax

(2351) W. A. A. asks if anything can be added to silicate of soda (water glass) to render it prac-Nothing of the sort is known. 2. Cananything be added to make it more waterproof when worked as a varnish? A. No. 3. Do you know of any cheap flexible cement that does not contain rubber or rubber or gutta percha? A. Not that is of any value. 4. Has the evolution of hydrogen gas from water by electrolysis ever been made of practical use as a heat-producing agent? Why could it not be done? Could not the electric current be supplied by a dynamo? Would it be necessary to acidulate the water? A. No. It is absurd to attempt it, as the original heat energy expended in driving the dynamo will exceed by far that supplied by combustion of the hydrogen. The water must be acidulated.

(2352) T. D. G. asks: 1. What is the remedy for perspiration of a disagreeable odor? I understand it is caused by the presence of some peculiar acid in the blood or circulatory system. Can the disagreeable odor be removed without effecting the amount of perspiration? What will do it? A. The cause cannot be broadly stated. A physician should be consulted for each case. The following powder is a useful local application (for external use only): Subnitrate of bismuth and salicy lic acid of each 1 part, starch powder 2 parts. 2. Is hard water considered more healthful than soft water? What is the best method for rendering hard water soft for washing purposes? A. Soft water is considered the best and most healthful. Hardness may be due to sev eral causes. If caused by the presence of bicarbonate of lime, boiling will remove it.

(2353) X. X. asks for any cheap and practical method of keeping milk, butter, etc., cool withoutice, either by evaporation or otherwise. A. By placing the article in a metallic vessel wrapped with cloths and kept wet, a slight cooling will be effected, especially on a dry and windy day.

(2354) H. W. E. D. asks: What is the name of the skin you find inclosed, and where it can be purchased. A. It appears to be gold beater's skin, and is sold by druggists

(2355) R. A. asks what shape a base ball curver is, and what it is made of. A. The base ball is curved by the pitcher, without any appliance. The subject has been discussed in this journal, with illustrations and explanations of the position of hand, body, etc. Attempts have been made to invent an apparatus for the hand, but have had little or no suc-

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July 8, 1890.

AND EACH BEARING THAT DATE.

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Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. Gallager. Car coupling, G. Highfield. Car coupling, G. Lenhart. Car coupling, C. Lenhart. Car coupling, U. Snyder. Car coupling, C. W. Terpening.	431,817 431,760 431,550 431,866 431,770 431,946 431,992 431,658 431,906 431,936 431,743 431,648 431,683 431,768 431,768 431,775 431,902 431,775 431,902 431,775 431,850 431,728 431,728 431,728 431,850
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Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. F. Davis Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, C. Lenhart. Car coupling, S. H. Pierce. Car coupling, U. Snyder. Car coupling, C. W. Terpening. Car coupling and uncoupling device, McWhirter & Scheble. Car door, W. J. Walker. Car door cleat, freight, G. L. Webster.	431,817 431,760 431,550 431,866 431,970 431,982 431,688 431,936 431,743 431,683 431,683 431,683 431,775 431,850 431,775 431,852 431,936
Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can forkerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. Gallager. Car coupling, H. Gallager. Car coupling, G. Lenhart. Car coupling, C. Lenhart. Car coupling, U. Snyder. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car door cleat, freight, G. L. Webster. Car heater, street, H. W. Libbey. Car, railway, E. M. Bentley.	431,817 431,760 431,560 431,866 431,770 431,946 431,992 431,658 431,906 431,936 431,743 431,644 431,644 431,683 431,768 431,768 431,768 431,758 431,682 431,850 431,902 431,850 431,926 431,926 431,936
Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, E. B. Goelet. Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, S. H. Pierce. Car coupling, S. H. Pierce. Car coupling, C. Webster. Car coupling, C. Webster. Car door cleat, freight, G. L. Webster. Car door cleat, freight, G. L. Webster. Car rallway, E. M. Bentley. Car table, railway, H. S. Haggard.	431,817 431,760 431,550 431,866 431,970 431,936 431,936 431,936 431,638 431,638 431,638 431,638 431,638 431,638 431,775 431,852 431,728 431,936 431,936 431,731 431,947 431,947 431,947 431,947 431,947 431,515
Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can forkerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis. Car coupling, H. F. Davis. Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, S. H. Pierce. Car coupling, S. H. Pierce. Car coupling, C. W. Terpening. Car coupling and uncoupling device, McWhirter & Scheble. Car door, W. J. Walker. Car door cleat, freight, G. L. Webster. Car heater, street, H. W. Libbey. Car, railway, E. M. Bentley. Car table, railway, H. S. Haggard. Car wheel, C. G. West	431,817 431,760 431,550 431,866 431,976 431,982 431,688 431,683 431,683 431,683 431,683 431,775 431,659 431,775 431,852 431,852 431,926 431,926 431,926 431,926 431,926 431,926 431,926 431,926 431,936
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Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. F. Davis Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, C. Lenhart. Car coupling, C. W. Terpening. Car coupling, G. W. Terpening. Car coupling and uncoupling device, McWhirter & Scheble. Car door, W. J. Walker. Car door, W. J. Walker. Car door cleat, freight, G. L. Webster Car heater, street, H. W. Libbey. Car, railway, E. M. Bentley. Car table, railway, H. S. Haggard. Car wheel, C. G. West Cars provided with intermediate trucks, means for facilitating the uncoupling of, W. H. Mar-	431,817 431,760 431,550 431,946 431,932 431,458 431,938 431,638 431,638 431,638 431,638 431,638 431,638 431,768 431,768 431,769 431,775 431,850 431,938 431,635 431,938 431,635 431,938
Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. Gallager. Car coupling, G. Highfield. Car coupling, G. Lenhart. Car coupling, S. H. Pierce. Car coupling, U. Snyder. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car coupling, G. W. Terpening. Car door, W. J. Walker. Car door, Car, street, H. W. Libbey. Car, railway, E. M. Bentley. Car table, railway, H. S. Haggard. Car wheel, C. G. West. Cars, air brake for railway, D. Dunn. Cars provided with intermediate trucks, means for facilitating the uncoupling of, W. H. Marshall.	431,817 431,760 431,550 431,866 431,770 431,986 431,992 431,658 431,906 431,936 431,743 431,683 431,683 431,768 431,768 431,683 431,775 431,902 431,850 431,728 431,627 431,850 431,580 431,580 431,580 431,580 431,580 431,580 431,580 431,938
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Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. Gallager. Car coupling, G. Highfield. Car coupling, G. Lenhart. Car coupling, C. Lenhart. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car door cleat, freight, G. L. Webster. Car heater, street, H. W. Libbey. Car, railway, E. M. Bentley. Car wheel, C. G. West Cars, air brake for railway, D. Dunn. Cars provided with intermediate trucks, means for facilitating the uncoupling of, W. H. Marshall. Carding engine, W. P. Canning Carrier. See Pneumatic dispatch tube carrier. Carrying and power cable apparatus, L. H. Goodwin.	431,817 431,760 431,550 431,866 431,770 431,946 431,992 431,658 431,906 431,936 431,743 431,644 431,683 431,683 431,768 431,768 431,775 431,902 431,850 431,926 431,822 431,823 431,926 431,830 431,938 431,938 431,938 431,938
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Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. F. Davis. Car coupling, H. F. Davis. Car coupling, H. F. Baylis. Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, G. Lenhart. Car coupling, S. H. Pierce. Car coupling, G. W. Terpening. Car coupling and uncoupling device, McWhirter & Scheble. Car door, W. J. Walker. Car door, Cat, Treight, G. L. Webster. Car heater, street, H. W. Libbey. Car, railway, E. M. Bentley. Car sprovided with intermediate trucks, means for facilitating the uncoupling of, W. H. Marshall. Carding engine, W. P. Canning Carrier. See Pneumatic dispatch tube carrier. Carrying and power cable apparatus, L. H. Goodwin. Cart, road, C. Fahrney. Cartridge primer, gun, W. Lorenz.	431,817 431,760 431,550 431,946 431,936 431,936 431,936 431,936 431,936 431,638 431,638 431,638 431,638 431,638 431,638 431,758 431,638 431,639 431,759 431,850 431,936 431,836 431,945 431,636 431,945 431,636 431,945 431,636
Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis. Car coupling, H. F. Davis. Car coupling, G. Highfield. Car coupling, G. Highfield. Car coupling, C. Lenhart. Car coupling, S. H. Pierce. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car coupling and uncoupling device, McWhirter & Scheble. Car door, W. J. Walker. Car door, W. J. Walker. Car heater, street, H. W. Libbey. Car, railway, E. M. Bentley. Car table, railway, H. S. Haggard. Car wheel, C. G. West Cars, air brake for railway, D. Dunn. Cars provided with intermediate trucks, means for facilitating the uncoupling of, W. H. Marshall. Carding engine, W. P. Canning Carrier. See Pneumatic dispatch tube carrier. Cart, raid, C. Fahrney.	431,817 431,760 431,550 431,946 431,936 431,936 431,936 431,936 431,936 431,638 431,638 431,638 431,638 431,638 431,638 431,758 431,638 431,639 431,759 431,850 431,936 431,850 431,936 431,938 431,636 431,945 431,636 431,945 431,636
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Bridge gate, J. P. Maloney. Bridle bit, W. R. M. Wheeler. Broiler or toaster, W. Brooks. Brush, G. A. Barnes Brush fillings, tie plate for, S. K. Hawkins. Buckle, J. P. Harris. Buckle, J. P. Harris. Buckle, suspender, G. B. Pilkington Burner. See Gas burner. Cable roads, chain grip for, W. Heckert. Cable sheave, F. B. West. Can for kerosene or other inflammable fluids, T. Medford. Car. cable grip, B. F. Crow. Carbon structures, composition for porous, C. R. Goodwin. Car coupling, H. C. Buhoup. Car coupling, H. F. Davis Car coupling, H. G. Buhoup. Car coupling, G. Highfield. Car coupling, G. Lenhart. Car coupling, C. Lenhart. Car coupling, U. Snyder. Car coupling, U. Snyder. Car coupling, C. W. Terpening. Car coupling, C. W. Terpening. Car coupling, G. W. Terpening. Car coupling, M. B. Bentley. Car table, railway, H. S. Haggard. Car wheel, C. G. West. Cars provided with intermediate trucks, means for facilitating the uncoupling of, W. H. Marshall. Carding engine, W. P. Canning Carrier. See Pneumatic dispatch tube carrier. Cartyroad, C. Fahrney. Cartridge primer, gun, W. Lorenz. Case. See Book case. Packing and refrigerating case. Case for holding and exhibiting oil cloths, etc., E E. Jandrey.	431,817 431,760 431,550 431,866 431,946 431,936 431,936 431,936 431,936 431,936 431,743 431,684 431,683 431,768 431,768 431,768 431,775 431,902 431,850 431,728 431,632 431,832 431,543 431,543 431,543 431,543 431,543 431,543 431,543 431,938
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1	Checkrein safety loop, J. O'Brien	431.672
ì	Cigar rolling apron, F. C. Miller	
	Clipping machine, hair, Cook & Hinds	431,833
	Clock, alarm, A. M. Lane	431,595
	Cloth cutting machine, W. S. Salisbury431,998, Collar fastener, horse, P. T. Bradley	
	Collar, horse, A. Charles	4:31,558
1	Compound engine, S. M. Vauclain	431,860
į	Conveying service apparatus, J. C. Martin	431.666
	Copy holder, C. E. Bruntbaver	
	O'Harra Corn hook, L. H. Sholder	431,822
	Corpses, method of treating, J. H. Chambers Coupling. See Car coupling. Pipe coupling.	431,687
	Cultivators, corn dropping attachment for, W. O. Dixon	431 889
	Cultivator, riding, J. H. Jones	431,980
	Cultivator, walking, J. H. Jones	
1	Cut-out, thermal, L. B. Favor	451,708
	Darning machine, A. Helwig Dental articulator, J. W. Moffitt	
	Dental polishing pencil, K. C. Whaley Die stocks, reamer attachment for, E. T. Mueller.	431,713
į	Dish pan and drainer, wash, M. A. Gaugh Dock, portable, N. F. Rogers	
,	Door check, J. W. Lairamore	431,897
	Door check, A. E. Matheson Door lock, Ping & Mendenhall	431.674
	Door, sliding, C. D. Fey Draught equalizer, Boynton & Brown	431,547
	Drill blanks, machine for swaging, J. C. Taft Drill, seeder, and cultivator, combined, J. W.	431,925
	Rogers Drilling machine, Midgley & Harbaugh	431,919
	Drum, beating, G. Ott	431,78
' 	Drying apparatus, collar and cuff, J. G. Dixon	431,766
	Dust arrester, J. B. Martin Dynamo, E. H. Johnson	431,812
i	Egg tester, F. H. Juergens Electric accumulator plates, apparatus for pre-	431,591
	paring, C. F. Pollak Electric cable subway, W. L. Parsley	431,617
	Electric machine, magneto, A. E. Colgate	431,559
	Electric machine regulator, dynamo, G. A. Pol-	431,618
	Electric motor apparatus, S. C. C. Currie Electric wires, etc., metallic pole for, Schneider &	
	Carson Electrical conduit pipes, apparatus for cutting, S.	
	P. Denison Electrical conversion, apparatus for, E. N. Dick-	
,	erson, Jr Electro-therapeutic appliance, A. W. Jackson	431.879
•	Elevator. See Store service apparatus elevator. Emery polishing wheels, finishing, F. Kohnle	
	Engine. See Air engine. Carding engine. Com-	
1	pound engine. Locomotive engine. Steam engine.	
,	Engine lubricator, steam, J. A. Mumford Evaporating apparatus, T. Gaunt	
;	Extract, obtaining meat, J. Van Ruymbeke Fabric. See Waterproof gossamer fabric. Wover	431,73
)	fabric. Faucet fastener, G. W. Aldrich.	
,	Fence, L. S. Newman	431,70
	Fence coping, J. T. Shimer	431,77
ŀ	Fence machines, tension device for, W. Peeper Fence, picket, H. W. Volck	431,75
)	Fence, portable, R. North	431,82 431,75
	Fences, device for building wire and picket, J. E. Remington	
5	Fertilizer distributer, F. P. Morrison Fire alarm, automatic, H. E. Jacobs	431.60
)	Fire escape, T. Ellison	431.56
,	Fire escape ladder, F. E. Davis	431,87
)	Fire extinguisher, automatic, F. Grinnell431.971	. 431.97
)	Fire extinguishing compound, C. M. Martin Flood gate, W. U. Robbins	. 431,98 . 431,91
3	Frame. See Window frame. Fruit picker, G. T. Ridlon	431,70
3	Furnace, M. E. Alley Furnaces, device for supplying superheated steam	431,92
)	to, M. E. Alley	431,68
3	Galvanic battery, C. R. Goodwin	431,74
	Game, P. Bosche	431,72
3	Garment supporting hook, C. A. Whitcher	431.86
3	Gas, apparatus for the manufacture of, W. T. Bate	431,93
3		431,71
5	chine discharge gate.	
2	Gate, J. S. Burgess	. 431,55
7	Gate, J. Gunder	431,74
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6	Glassware, apparatus for the manufacture of W. Buttler	,
7 5	Grain huller and scourer, J. Short	431,78
0 5	Grease cup, E. H. Benners	. 431,86
8	breech-loading, P. Mauser	4.31,66
	Guns, shell extractor for bolt, P. Mauser431,669 Hair and wig, J. Y. Borden	431,83
5	Hair bang, A. L. Hobbs	. 431.82
	Hame, C. E. Carr	. 431,55
5 9	Handle. See Tool handle. Hanger. See Trolley wire hanger. Harrow. spring tooth, C. La Dow	. 431 59
1	Harvester, corn, Gibbs & Boozer	. 431,57
	Hatchway gates, device for operating elevator	•
7	1	. 431,58
0		
9	van	3 , 4 31,92
8	Heating device, S. B. Jerome	. 431,58
	Holder. See Bag holder. Bag and twine holder	

holder.