A. We know of no means except by chemical analysis. Some of the ordinary tests for tin might be applied. 3. Can good brandy be made from sour, musty wine? A. Brandy can be obtained from the wine designated by distillation. As to the quality, we cannot say. 4. Does the law allow a man having a still for chemical purposes to distill enough liquor for his own use? A. It is necessary to have a license in order to distill liquor, whether for private consumption or public sale. 5. What is good to varnish scraps in /a'scrap book, something that will not stick the leaves rogether? A. Boil clear parchment cuttings in water in a clean glazed pipkin till they produce a very clear size. Strain it and keep it for use

- (10) D. B. asks how the chilled mandrel is made to cast cast-iron box for wagon axle so he will not have to ream them. A. Make the chill mandrel of wrought iron of the proper taper, and make a slot 1/8 inch wide its entire length and nearly through; fill the slot lightly rammed with moulding sand or weak core sand. If this does not spring enough to prevent the box from cracking by shrinkage, cut the slot wider or bore a hole clear through the mandrel.
- (11) D. W. G. desires the formula of Dr. Tebbett's Physiological Hair Regenerator. A. This preparation is an aqueous solution of acetate containing about 6% grains of metallic lead to each ounce of
- (12) G. F. N. asks whether salicylic acid will preserve animal and vegetable oils, and what effect the acid has upon the human flesh or skin. A. See the article on salicylic acid contained in Scientific AMERICAN SUPPLEMENT, No. 226. This acid prevents fermentation and putrefaction. The dry powder of the acid has practically no effect upon the skin, i. e., it is not corrosive.
- (13) J. H. E. asks (1) how to color kerosene different shades, what, and how to use it. A. Use aniline colors sold as soluble in oil. 2. How to nickel plate? A. See the article on "Electro Metallurgy" contained in Scientific American Supplement, No., 310. 3. How to fasten a lamp chimney to a revolving head for cleaning? A. It can be clamped on to a wooden chuck, but the head should be specially adapted for
- (14) C. J. M. asks if there is any way of taking out stains from matting or carpet, caused by dripping from stove pipe. A. The dripping probably consists of so many ingredients that its removal cannot be accomplished. Soot, for instance, cannot be removed. If it is simply coal tar, try water and then
- (15) J. W. P. asks how to make a paste for placing labels on tin and glass. A. See "Reliable Paste for Labels for Glass, Wood, and Metals," page 199, Scientific American for September 26, 1885.
- (16) A. B. asks: What is the process used for covering pills with awhite stratum (notsugar coated) that will be damp proof? A. They are probably gelatine coated, i. e., covered with a strong solution of 6 parts of gelatine and 1 part sugar. See "How to Coat Pills with Gelatine," Scientific American SUPPLEMENT, No. 370.
- (17) G. E. B. writes from Hillsboro, Dakota: At a depth of 126 feet, in drilling an artesian well, a vein of gas was struck, which threw at once all water out of 2 inch pipe to a height of 30 feet. Applying a torch, the flame shot up ten feet, burning with great brilliancy and intense heat until extinguished. Would such a vein, if continuous, be of utility for illuminating or other purposes? A. Yes. Natural gas is now extensively used for illuminating purposes and also as a substitute for coal and wood alumina, but no economical process of extracting the in producing heat.
- if they are allowed to develop sufficiently, but the animal is generally slaughtered before the parasites mature sufficiently to produce death.
- (19) K. asks if it is possible to get zinc or tin in finely divided state, by any chemical means, from their salts, same as we reduce copper from the sulphate. A. Zinc dust is a commercial article, and is obtained in the manufacture of the metal. Fine crystals of tin can be obtained when water containing zinc dust in suspension is gradually added to a solution of tin chloride. There is no prac tical chemical process that we can recommend.
- (20) J. A. asks how to make the best spirit varnish suitable for varnishing carved wood. A. A shellac varnish will answer, made by dissolving shellac in 95 per cent alcohol. The color of the wood will influence the selection of the gum. Spons' Workshop Receipts, 1st Series, which we can send for \$2, will give you a number of valuable formulas that may be used.
- (21) A. M. asks (1) how to prevent rubber boots from cracking. A. Rubber boots are coated with a flexible varnish in the course of their manufacture. The application of a solution of rubber on carbon disulphide may be of some help, but it would not bepermanent. 2. How to prevent rain coming in a skylight. A. Tight joints will prevent the entrance of rain; we know of no other means.
- (22) G. H. D. desires a receipt for making compressed yeast such as is sold in little flat squares, about an inch square, covered with tin foil. A. This yeast is obtained by straining the common yeast in breweries and distilleries until a moist mass is obtained, which is then placed in hair bags and the rest of the water pressed out until the mass is nearly dry, It is then sewed up into bags for transporta-
- (23) T. R. W. asks how to make a preparation to paint iron cores with, so that they will slip out of the castings easily and leave a perfectly smooth hole. A. Paint the cores with black lead, ground fine, and water. When nearly dry, smooth the surface with a trowel or slicker.
- (24) J. G. W. asks for some process of hardening crude petroleum. He wants to make an axle

- powder in other mixtures used in polishing plate. grease similar to the common axle grease in the market A. Use paraffine or tallow. See the article on "Lubricants," contained in Scientific American Supple-MENT, No. 316. A number of valuable receipts are given in the paper referred to.
 - (25) S. L. asks the use and value of bat guano. A. It is used as a fertilizer. Its commercial value is dependent upon its analysis. 20 cents is the market value per unit of bone phosphate contained in the guano, and \$1.75 is the value of nitrogen equivalent to ammonia. These prices are by the ten. Or dinary bat guano seldom contains two per cent of nitrogen equivalent to ammonia, although from 4 to 5 per cent are sometimes found.
 - (26) N. L. B. asks: Can the glue in old water color be removed by any simple and cheap process? If so, how? That is, so the pigments may be used again by the addition of fresh glue. A. By soaking the material in water till it becomes disintegrated, then adding fresh water and continuing to do so, in time all of the glue will be washed out, leav ing the pigment behind.
 - (27) B. C. H. asks: 1. In qualitative analysis, an easy way to separate iron and zinc, both being precipitated by ammonia. A. Zinc is not precipitated by ammonia, therefore filter and test filtrate with hydrogen sulphide for zinc. 2. Of what does the purple solution in the porous cup of a chrome battery consist, and does it clog up the pores at all? A. Pro bably chrome alum. It crystallizes, and so clogs the battery.
 - (28) A. S. G. asks if hydrogen peroxide is one article and Naquet's bismuthic dye another, or do they both mean the same thing? A. They are two independent and separate articles. The bismuth dye referred to is not made commercially in this country, as far as we know. The hydrogen peroxide can be purchased from any wholesale druggist in New York or other commercial center.
 - (29) C. E. Q.—Cherry stain can be removed by using a strong solution of oxalic acid, but you will find it preferable to stain it a darker color, by using some of the liquids recommended for
 - (30) F. T. asks if there is any receipt for making a pomade for polishing metal that is superior to the German metal putz polishing pomade. A. In answer to query 20, in Scientific American of May 2, 1885, a formula for a paste is given which is cheaper and equally as efficient as the putz pomade.
 - (31) G. F. D. asks: What gives beef oil a rye bread taste, or what acid is used to flavor beef oil for butterine purposes? A. Probably butyric acid. See the "Manufacture of Artificial Butter," contained in Scientific American Supplement, Nos. 48 and 49, also Dr. Tidy's article on Butterine Manufacture, in SCIENTIFIC AMERICAN SUPPLEMENT, No. 397
 - (32) A. J. W. asks: Is the bite of the skunk sure hydrophobia or is there anything known about it? A. The skunk is often affected by a disease which renders its saliva so poisonous that its bite is more to be feared than that of the rattlesnake. Many instances are given in which persons sleeping on the ground have been bitten, generally with fatal, and always with dangerous, consequences. It has not been shown, as far as we know, that this disease has any connection with hydrophobia.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined with the results stated.

W. H. F.-The amount of alumina contained in sample of clay can only be determined by analysis, the expense of which would be \$12.00. All clays contain metal is as yet known.—J. M. M.—Your own description (18) H. E. D. asks why trichinæ do not of the minerals is quite correct; they appear to be vakill the animal. A. The trichinæ will kill the animal rieties of decomposed silicates, such as feldspar and mica. The specimens were examined for tin, but none was found. We would suggest that a larger quantity of the suspected tin ore be sent to us, with \$5.00, to pay for an assay, which would definitely settle the

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For which Letters Patent of the United States were Granted,

January 19, 1886,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.] Air brakes, valve for operating, P. Pickering 334,466

Anvil. vise, and drill, combined, J. Weathers..... 334.626

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	Axle box, car, R. M. McGrath	834,540
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ı	Bag holder, W. S. Kendall	834,589
l,	Bag holder, I. Steenrod	334,482
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) : } ;	Gun, magazine, J. M. Marlin	334,535 334,575	Sa
3	Gun, water, J. L. Shaw	334,570	Sa
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Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,712 334,708 334,709 334,507 334,507 334,635	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble. 934,542, Pocketbook, Putnam & Hoffman. Post hole digger, W. & E. W. Gibbs. Postal clerks, practice case for, L. Rogers. Pot lifter, J. B. Kibler. Potato digging machine, W. H. McCall. Press, J. Stewart Pressure regulator, fluid, G. Metzger. Printer's quoin, W. R. Whitmore. Printing tickets, apparatus for, J. P. Dunn.	384,416 384,470 334,558 334,414 334,489 384,08 334,542 334,722 384,563 334,473 334,666 334,473 334,456 334,485 334,714 334,500 334,697
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley Drier. See Clothes drier. Dropper. See Fertilizer dropper. Electric machine regulator, dynamo, R. H. Mather Electrical cable, underground, Kruesi & Langton, Jr Electrical cables, machine for making, Kruesi & Langton, Jr Electrical conductors, manufacture of, H. R. Mason Engraving machine, M. Bock Excavator, S. F. Welch Exercising machine, E. N. Bowen Fabrics, machine for singeing, J. Ryle Fan, automatic, P. Murray, Jr	334,600 334,715 334,529 334,636 334,712 384,708 334,709 334,507 334,697 334,697 334,674 334,717	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	384,416 384,470 334,588 334,414 334,439 384,408 334,543 334,543 334,653 334,653 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,592 334,697
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley Drier. See Clothes drier. Dropper. See Fertilizer dropper. Electric machine regulator, dynamo, R. H. Mather. Electrical cable, underground, Kruesi & Langton, Jr. Electrical cables, machine for making, Kruesi & Langton, Jr. Electrical conductors, manufacture of, H. R. Mason. Engraving machine, M. Bock. Excavator, S. F. Welch Exercising machine, E. N. Bowen. Fabrics, machine for singeing, J. Ryle.	334,600 334,715 334,529 334,636 334,712 384,708 334,709 334,507 334,507 334,637 334,637 334,638 334,717 334,684	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	384,416 384,470 384,458 334,588 384,408 384,424 334,632 334,633 334,633 334,633 334,456 334,456 334,456 334,456 334,456 334,456 334,532 334,532 334,532 334,532
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley Drier. See Clothes drier. Dropper. See Fertilizer dropper. Electric machine regulator, dynamo, R. H. Mather. Electrical cable, underground, Kruesi & Langton, Jr Electrical cables, machine for making, Kruesi & Langton, Jr Electrical conductors, manufacture of, H. R. Mason. Engraving machine, M. Bock. Excavator, S. F. Welch Exercising machine, E. N. Bowen. Fabrics, machine for singeing, J. Ryle. Fan, automatic, P. Murray, Jr. Fan, automatic, P. Murray, Jr.	334,600 334,715 334,529 334,636 334,712 334,708 334,709 334,507 334,507 334,635 334,717 334,685 334,717 334,683 334,717 334,683 334,727	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,583 334,583 334,408 334,408 334,543 334,563 334,563 334,456 334,456 334,456 334,456 334,456 334,456 334,500 334,697 334,697 334,632 334,580 334,580 334,580
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley Drier. See Clothes drier. Dropper. See Fertilizer dropper. Electric machine regulator, dynamo, R. H. Mather Electrical cable, underground, Kruesi & Langton, Jr. Electrical cables, machine for making, Kruesi & Langton, Jr. Electrical conductors, manufacture of, H. R. Mason Engraving machine, M. Bock Excarcising machine, M. Bock Exercising machine, E. N. Bowen Fabrics, machine for singeing, J. Ryle Fan, automatic, P. Murray, Jr. Fan, summer, G. H. Aylworth Fare recorder and register, H. Marshall Farm gate, T. B. Thorn	334,600 334,715 334,529 334,529 334,529 334,712 334,709 334,507 334,507 334,697 334,693 334,697 334,693 334,693 334,693 334,513 334,727 334,634 334,528	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,583 334,484 334,489 334,424 334,722 334,563 334,600 334,600 334,450 334,450 334,450 334,450 334,450 334,450 334,450 334,450 334,450 334,450 334,450
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,712 334,708 334,709 334,507 334,650 334,507 334,685 334,717 334,683 334,717 334,683 334,717 334,683 334,717 334,683 334,717 334,634 334,717 334,634 334,717 334,634 334,717 334,631 334,717 334,631	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,589 334,588 334,428 334,728 334,623 334,633 334,633 334,431 334,630 334,633 334,431 334,630 334,431 334,631 334,631 334,63
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,507 334,708 334,709 334,507 334,637 334,634 334,717 334,634 334,727 334,631 334,577 334,577 334,577 334,577 334,536	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,589 334,588 334,428 334,722 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,433 334,633 334,433 334,633 334,433 334,633 334,433 334,633 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,636 334,636 334,636
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,529 334,636 334,712 334,709 334,450 334,507 334,650 334,507 334,635 334,717 334,634 334,634 334,631 334,631 334,631 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,533 335 335 33	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,489 334,489 334,482 334,722 334,723 334,633 334,463 334,456 334,45
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,636 334,708 334,709 334,507 334,637 334,634 334,717 334,634 334,727 334,631 334,532 334,577 334,536 334,536 334,536 334,536 334,536	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,589 334,589 334,589 334,582 334,782 334,633 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,434 334,434
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,636 334,708 334,709 334,507 334,637 334,634 334,717 334,634 334,727 334,631 334,532 334,727 334,631 334,577 334,533 334,533 334,533 334,533 334,533 334,634	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,458 334,489 334,489 334,484 334,724 334,723 334,633 334,474 334,47
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,712 334,708 334,709 334,507 334,650 334,507 334,685 334,717 334,683 334,717 334,683 334,717 334,634 334,717 334,634 334,737 334,636 334,458 334,532 334,639 334,463 334,463 334,463 334,463 334,461	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,489 334,489 334,489 334,623 334,633 334,633 334,633 334,431 334,633 334,431 334,43
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,529 334,536 334,708 334,709 334,450 334,507 334,634 334,717 334,634 334,717 334,634 334,717 334,634 334,717 334,634 334,517 334,634 334,517 334,636 334,458 334,529 334,458 334,458 334,458 334,458 334,458 334,458 334,458 334,458 334,458 334,458 334,458 334,521 334,451 334,451 334,451 334,451	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,583 334,583 334,583 334,583 334,583 334,683
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,636 334,712 334,709 334,450 334,507 334,635 334,4717 334,685 334,717 334,681 334,717 334,691 334,514 334,513 334,513 334,513 334,636 334,458 334,532 334,638 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461 334,461	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,489 334,484 334,482 334,722 334,633 334,473 334,633 334,473 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,457 334,696 334,458
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,636 334,708 334,709 334,450 334,507 334,497 334,634 334,717 334,634 334,717 334,634 334,727 334,634 334,517 334,634 334,517 334,636	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,489 334,484 334,482 334,722 334,633 334,473 334,633 334,473 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,457 334,696 334,458
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,536 334,536 334,708 334,507 334,507 334,507 334,497 334,634 334,717 334,634 334,727 334,631 334,533 334,536 334,536 334,536 334,636 346 346 346 346 347 347 347 347 347 347 347 347	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter check row corn, E. H. Reynolds. Planter hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,583 334,583 334,583 334,583 334,663 334,663 334,663 334,663 334,466 334,466 334,466 334,466 334,466 334,466 334,466 334,466 334,466 334,466 334,466 334,467 334,682 334,483 334,483 334,486
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,636 334,708 334,709 334,507 334,650 334,507 334,685 334,685 334,685 334,681 334,681 334,633 334,631 334,633 334,633 334,633 334,633 334,633 334,633 334,636 334,633 334,634	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,470 334,489 334,424 334,782 334,633 334,633 334,633 334,434 334,782 334,456
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,708 334,709 334,450 334,507 334,635 334,507 334,635 334,717 334,635 334,717 334,631 334,511 334,514 334,717 334,631 334,532 334,733 334,533 334,533 334,533 334,533 334,533 334,533 334,533	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter hand corn, S. Hackett. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,429 334,528 334,424 334,723 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,434 334,433 334,726
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,708 334,709 334,507 334,6507 334,6507 334,6507 334,677 334,691 334,777 334,691 334,577 334,719 334,536 334,777 334,719 334,536 334,437 334,470	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,439 334,538 334,414 334,439 334,533 334,633 334,633 334,633 334,431 334,436 334,436 334,436 334,436 334,436 334,436 334,436 334,436 334,436 334,436 334,436 334,437 334,438 334,43
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,712 334,636 334,708 334,709 334,450 334,507 334,637 334,637 334,631 334,631 334,631 334,631 334,632 334,633 334,532 334,633 334,533 334,533 334,533 334,533 334,533 334,533 334,533 334,533	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,439 334,458 334,424 334,732 334,633 334,453 334,456
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,536 334,536 334,708 334,709 334,450 334,507 334,497 334,633 334,717 334,634 334,717 334,634 334,717 334,634 334,536 334,458 334,536 334,458 334,536 334,458 334,536 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,456 334,556 334,556 334,556	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,429 334,528 334,424 334,722 334,633
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,536 334,708 334,709 334,507 334,507 334,507 334,634 334,717 334,634 334,727 334,631 334,532 334,536 334,436 334,532 334,636 334,436 334,531 334,536 334,436 334,531 334,436 334,532 334,536 334,436 334,531 334,436 334,532 334,536 334,436 334,531 334,436 334,531 334,436 334,532 334,536 334,436 334,531 334,436 334,532 334,536 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,531 334,436 334,531 334,531 334,436 334,531 334,436 334,531 334,531 334,436 334,531 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531 334,436 334,531	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,429 334,528 334,463 334,563 334,663 334,663 334,663 334,466 334,466 334,466 334,466 334,466 334,476 334,466 334,476 334,467
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,712 334,636 334,709 334,450 334,507 334,637 334,637 334,631	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,439 334,424 334,439 334,633
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,536 \$334,508 \$34,708 334,507 334,507 334,497 334,537 334,634 334,777 334,634 334,777 334,634 334,537 334,634 334,537 334,638 334,538	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,420 334,523 334,633
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,636 334,708 334,709 334,450 334,507 334,635 334,507 334,631 334,631 334,631 334,536	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,429 334,424 334,429 334,633 334,634
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,536 334,536 334,708 334,709 334,450 334,507 334,497 334,634 334,717 334,634 334,717 334,634 334,717 334,634 334,717 334,634 334,536 334,536 334,536 334,458 334,536 334,458 334,536 334,458 334,536 334,458 334,536 334,537	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble	334,416 334,429 334,528 334,424 334,723 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,633 334,734 334,633 334,734 334,633 334,734 334,633 334,734 334,633 334,734 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,636 334,433 334,434
Damper, stovepipe, G. W. Mudd. Dental vulcanizing apparatus, Hood & Reynolds. Digger. See Post hole digger. Door securer, D. Bromley	334,600 334,715 334,529 334,536 334,536 334,708 334,507 334,450 334,507 334,497 334,634 334,777 334,634 334,777 334,636 334,536 334,458 334,537 334,638 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570 334,570	Planter, check row corn, W. B. Chambers. Planter check row corn, E. H. Reynolds. Planter, hand corn, S. Hackett. Planter, seed, P. & F. W. Boxendale. Plaster or cement, J. Thomlinson. Plow fender, R. H. Avery. Plow, sulky, G. H. Fowler. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plug, turning, F. W. Polle. Plumber's fitting, J. Noble. Postal clerks, practice case for, L. Rogers. Postal clerks, practice case for, L. Rogers. Pot litter, J. B. Kibler. Potato digging machine, W. H. McCall. Press, J. Stewart. Pressure regulator, fluid, G. Metzger. Printer's quoin, W. R. Whitmore. Printing tickets, apparatus for, J. P. Dunn. Privy seat, G. & J. Turnbull. Propeller, ship's, H. C. Bender. Propulsion of ships, F. Girein. Pump, I. W. Numan. Pump, hand force, A. Stevens. Pump, steam jet, J. A. Marsh. Punching device, R. Allstatter. Railway circuit. electric, F. L. Pope. Railway crossing, J. Gray. Railway rail fastening, H. L. De Zeng. Railway switches, operating mechanism for, W. B. S. Reed. Railway switches, operating mechanism for, W. B. S. Reed. Raking, hoeing, shoveling, and pitching, combined tool for, W. Heston. Rat trap, C. F. A. Kobelke. Recorder. See Fare recorder. Reel for colling lead pipe, C. E. Heiss. Reeling machine, silk, E. W. Serrell, Jr., 334,619, Reeling machinery, silk, E. W. Serrell, Jr., 334,619, Reeling machinery, silk, E. W. Serrell, Jr., 334,619, Reeling machinery, silk, E. W. Serrell, Jr., 334,619, Reeling machine, Fed regulator. Pressure regulator. Feed regulator. Pressure regulator. Repling machine, J. T. Obenchain. Rolling mill, wire rod, C. H. Morgan. Refrigerator, J. Stephenson. Regulator. See Damper regulator. Electric machine regulator. Feed regulator. Pressure regulator. Roller mill, J. T. Obenchain. Rolling tubes, machine for, S. P. M. Tasker. Roofing, metal, F. C. Tegethoff. Sash halance, J. Weathers. Sash fastener, J. V. Bassell. Sash holder, M. A. Cutter. Sash and door bolt, F. C. Robinson. Sawmill feed carriage, G. M. Hinkley. Sawmill feed carriage, G. M. Hinkley.	334,416 334,439 334,458 334,424 334,439 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,633 334,634 334,63

Seeding machine drill tube, G. M. Williams		_
seeding machine drift tube, G. M. Williams	224 600	
Separator. See Cockle separator.	334,688	
Sewage, etc., dry system of disposing of, T.		ī
Hawksley	334,436	B
Sewing machine, D. L. Keeler Sewing machine quilting frame, H. T. Davis		_
Sewing machine dulking frame, H. T. Davis Sewing machine table frame and treadle, J. E.		E
Donovan		
Sewing machine trimming attachment, G. H.		
Noble		-
ewing machine welt guide, W. Aikenhaft coupling, J. Richards		
hoe, C. H. Buchanan		1
noe clasp, Hammond, Jr., & King	334,484	
es and slippers, manufacture of, C. H. Bu-		
chanangn, revolving, J. F. Bengert		
ign, sectional, W. P. McKenna		
iphon, automatic flushing, W. B. Parsons, Jr		
kylight, J. F. Forderer334,650,	384,651	2
kylight frame, H. J. Sullivan park arrester and conductor, T. J. Sımpson	334,487	
eed governor, centrifugal, M. R. Goding	334,581	
inning frames, thread guide support for ring,		
W. Jencks	334,441	
ring. See Wagon seat spring.	224.055	
rinkler, M. Goldmanamp battery, circular ore, A. B. Paul		
ation indicator, railway, J. Schmid		
eam boiler, H. J. Mitchell	334,673	
eam boiler. sectional, A. Craik		
eam generator, C. Gortonearing gear for vessels, steam, A. J. Maginnis	334,657	
cereotype matrices, apparatus for drying, G.	003,000	
Pepe	834,544	
tone conveyer, G. W. Richardson	334,471	
one cutter head, J. W. Maloyone cutting machines, cutter head for, J. W.	33 4, 595	
Maloy		ĺ
tone saw, J. Peckover	354,678	,
aspenders, J. T. Brodnax		1
ablet, school and business, C. M. Moodyextile fabrics, machine for producing orna-		
mental surfaces on, A. Schmidt		
hill coupling, A. Sampson et al		
hill coupling, Walker & Beardsley	384,494	
rashing machine band cutter and feeder, W.		L
H. Spencemepiece dial, A. O. Gott		
bacco pipe, W. I. Palmer	334,462	
y theater, J. W. Sherman	834,622	
raction engine, L. C. Taber	334,623	ļ
rellis hook, J. Juddruck, hand, B. F. Bergh		
wine and wire cutter, W. L. Haas	334,582	_
ppe writer for stenographic purposes, J. C.		1
Zachos	334,630	¦ '
ype writing machine, J. F. Dawsonype writing machine, T. D. Worrall		ì
mbrella or parasol, G. W. Jones	334,588	(
alve, P. Harvey	334,481	ľ
alve, automatic stop, J. L. Chapman	224 640	
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	334,690	
alve gear for duplex engines, J. Fielding	334,690 334,576	
alve gear for duplex engines, J. Fielding ehicle running gear, A. J. Beach (r) ehicle running gear, F. Hildreth	334,690 334,576 10,679 384,439	
alve gear for duplex engines, J. Fielding chicle running gear, A. J. Beach (r) chicle running gear, F. Hildreth chilator, R. D. Logerot	334,690 334,576 10,679 384,439 834,571	
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Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V Sone Vessels in dry dock, device for centering, A. Bulman Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett	334,690 334,576 10,679 384,439 334,571 384,481 334,563 334,615 334,683	
'alve gear for duplex engines, J. Fielding 'ehicle running gear, A. J. Beach (r) 'ehicle running gear, F. Hildreth 'entilator, R. D. Logerot 'essel for transporting liquid cargoes in bulk, L. V. Sone 'essels in dry dock, device for centering, A. Bulman 'ise, pipe, A. L. Rose 'Vagon, dumping, L. O. Bennett 'Yagon seat spring, F. F. Fowler	334,690 334,576 10,679 384,439 334,571 384,481 334,563 334,615 334,683 334,425	
Valve gear for duplex engines, J. Fielding 'ehicle running gear, A. J. Beach (r) 'ehicle running gear, F. Hildreth 'entilator, R. D. Logerot 'essel for transporting liquid cargoes in bulk, L. V Sone 'essels in dry dock, device for centering, A. Bulman 'ise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon, dumping, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray	334,690 334,576 10,679 384,439 334,571 334,481 334,663 334,615 334,683 334,425 334,555 334,702	-
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulman. Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray	334,690 334,576 10,679 384,439 334,571 334,481 334,663 334,683 334,683 334,425 334,555 334,755 334,759	-
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulman Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray. Vashing machine, Manring & Gibbons Vashing machine, T. Martin	334,690 334,576 10,679 384,439 334,571 334,481 334,663 334,683 334,425 334,555 334,755 334,755 334,596	-
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulmar Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray. Vashing machine, Manring & Gibbons Vashing machine, T. Martin Vashing machine, T. Martin Vashire closets, etc., handle or pull for, W. H.	334,690 334,576 10,679 384,439 334,571 394,481 334,663 334,615 334,683 334,425 334,555 334,702 334,598	-
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulman Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray Vashing machine, Manring & Gibbons Vashing machine, T. Martin Water closets, etc., handle or pull for, W. H. Bate	334,690 334,576 10,679 384,439 334,571 394,481 334,615 334,615 334,683 334,425 334,555 334,702 334,598	-
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulman Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray Vashing machine, J. E. Gray Vashing machine, Manring & Gibbons Vashing machine, T. Martin Vater closets, etc., handle or pull for, W. H. Bate Vater wheel, turbine, J. P. Frizell: Veather strip, C. J. W. Platt	334,690 334,576 10,673 384,439 334,571 334,481 334,663 334,653 334,425 334,556 334,596 334,596 334,598	
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulman. Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray Vashing machine, Manring & Gibbons Vashing machine, T. Martin Vater closets, etc., handle or pull for, W. H. Bate Vater wheel, turbine, J. P. Frizell; Veten strip, C. J. W. Platt Vheel. See Water wheel.	334,690 334,576 10,679 384,493 334,571 334,681 334,693 334,425 334,595 334,596 334,598 334,598 334,523 334,523 334,463	
'alve gear for duplex engines, J. Fielding 'ehicle running gear, A. J. Beach (r) 'ehicle running gear, F. Hildreth 'entilator, R. D. Logerot 'essel for transporting liquid cargoes in bulk, L. V. Sone 'essels in dry dock, device for centering, A. Bulman 'ise, pipe, A. L. Rose 'Vagon, dumping, L. O. Bennett 'Vagon seat spring, F. F. Fowler 'Vashing machine, Arbogast & Hains 'Vashing machine, J. E. Gray 'Vashing machine, T. Martin 'Vater closets, etc., handle or pull for, W. H. Bate 'Vater wheel, turbine, J. P. Frizell' 'Vater wheel, turbine, J. P. Frizell' 'Vater wheel. See Water wheel. 'Vheel. See Water wheel. 'Vheel. See Water wheel.	334,690 334,576 10,679 384,439 334,571 334,481 334,615 334,615 334,623 334,555 334,555 334,596 334,596 334,598 334,523 334,523 334,523	
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Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulmair Vise, pipe, A. L. Rose Vagon, dumping, L. O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray Vashing machine, T. Martin Vater closets, etc., handle or pull for, W. H. Bate Vater wheel, turbine, J. P. Frizell: Veather strip, C. J. W. Platt Vheel. See Water wheel. Vhindlass, F. W. Thomson Vindunill, L. Leach Vindunill, L. Leach	334,690 334,576 10,679 384,439 334,561 334,663 334,655 334,555 334,556 334,596 334,598 334,523 334,523 334,523 334,523 334,523 334,523	
Valve gear for duplex engines, J. Fielding Vehicle running gear, A. J. Beach (r) Vehicle running gear, F. Hildreth Ventilator, R. D. Logerot Vessel for transporting liquid cargoes in bulk, L. V. Sone Vessels in dry dock, device for centering, A. Bulman. Vise, pipe, A. L. Rose Vagon, dumping, L, O. Bennett Vagon seat spring, F. F. Fowler Vashing machine, Arbogast & Hains Vashing machine, J. E. Gray Vashing machine, T. Martin Vater closets, etc., handle or pull for, W. H. Bate Vater wheel, turbine, J. P. Frizell: Veather strip, C. J. W. Platt Vheel. See Water wheel. Vhistle for steam boilers, alarm, D. P. Dobbins Vinding machine, Culp & Allen Vindmill, L. Leach Vindmill, L. Leach Vindmill, L. Leach	334,690 334,576 10,679 384,439 334,571 394,481 334,663 334,615 334,683 334,556 334,702 334,596 334,596 334,596 334,596 334,596 334,596 334,596 334,596 334,519 334,569 334,569	
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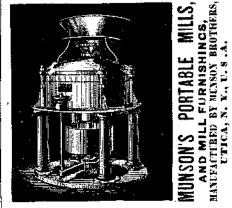
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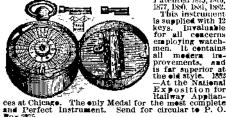
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Surplus by the standard of N. Y., Policies in force January 1, 1886, 61,437, insuring.

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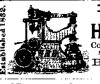
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