is so little, that anyone may be safe. Cook all under the direct influence of the smoke. pork thoroughly. 2. The cause of ptomaine using the meat? A. Ptomaines are formed by decomposition. If only fresh food is used, one will be safe from these poisons.

reader of your paper for several years, and near your home than buy at a distance and always enjoy reading it. I should like to sub-pay transportation charges. Our advertising Hypnotism"; "The Problems of Telepathy mit a problem for solution. The problem is columns very often contain the advertisements this: Several years ago I took a picture of of these dealers. We do not advertise dealers a fast train while running, a Michigan Central in the Notes and Queries column. 3. Where flier, at a point about two miles east of De- can I get some books on argon, helium, neon, catur. On development the plate showed a krypton, and xenon, and give me the prices of blur of 1-32 inch, i.e., the pilot did. I used a them? A. We can send you many valuable Vive extra rapid plate; the focus of the lens papers on the rare gases of the atmosphere was 6 inches; the distance of the engine, the which have appeared in the SUPPLEMENT. pilot, from the camera, 50 feet; the length Among them are argon, Nos. 1000, 1001, 1002, of exposure, 1-100 of one second; camera was and others, price ten cents each; helium, Nos placed at an angle of 15 deg, with the track. 1056, 1057, price ten cents each. 4. What was a Vive, 41/4 x41/4, meniscus lens. A. The etc., so I can find liquid formene? What is solution of your problem of the speed of the formene? A. Formene is a tetrachloride of train is not difficult, at least so far as a carbon CCl. Its preparation can be found sufficiently close approximation is concerned in the Dispensatory. Its properties are those Start with the fact that the image of the of an anæsthetic, similar to those of chloropilot moved 1.32 inch during exposure. Since form, soothing the pain of neuralgia and even the lens is 6-inch focus and the pilot is 50 causing insensibility. As it has been the cause feet away, the pilot moved across the line of death also, it is not used by physicians. It drawn through the center of the lens, 100 is not a substance for an amateur to meddle times 1.32 inch, or 3.125 inches, since 50 feet with. 5. What are the uses of liquid air? A is 100 times 6 inches. And since the camera At present liquid air is not put to any commeris 100 times 6 inches. And since the camera made an angle of 15 deg. with the track, we must divide the 3.125 inches by the sine of 15 deg. to find the distance the pilot moved during the exposure. This gives 12.07 inches as the distance the train moved in the time of exposure, or 1-100 second. In one second it moved 1,207 inches, or 100 feet 7 inches. This is a speed of somewhat over 71 miles per hour. As we said above, this is an approximate solution, but still not far from the result which an exact solution would give.

(11063) J. S. N. asks: Will you Queries the inclosed questions relative to Roman computation? I suppose the matter is simple enough, but I have never come across any work explaining it, nor any person whom I have asked who could throw any light on the subject. A. Very little is known concerning the method by which the Romans used their very inconvenient notation for performing the ordinary calculations. They are supposed to have used the abacus for all except the most simple problems. This instrument is in common use now by all Chinamen, and it is not difficult for any one to see it used wherever these men may be found. A description of the abacus may be had from any encyclopedia. There was a rod for each denomination of numbers to millions, seven rods each carrying five balls. Another set of short rods corresponded to these, and had one ball sliding on each. They could thus count by fives and for calculating ounces. Further than this their business did not require them to go; they never needed to divide the distance of the Kansas-Nebraska Act, the Dred Scott Dethe sun by the velocity of light. They died cision, the Civil Service Act. In all, there are in total darkness in regard to both of these data of the universe. As we said at the outset, we do not know the detail of the method by which the Romans made their calculations. Their mode of writing numbers was not like ours by placing like denomina-Their mode of writing numbers tions in the same column, but each letter had its significance, and each number could be added by itself on the abacus, since each rod meant a denomination.

(11064) W. D. W. says: Will you be kind enough to answer the following questions | plates being very remarkable productions. They for one who is anxious to know and who has the greatest respect for your opinion on scientific matters? 1. Will electric wires, furnishing current for arc lights coming in contact pies some thirty-seven pages, is excellent. with street trees, injure them, that is, when the insulating covering has worn off from rubbing against the branches of the tree? One of the tree and park commission of this city (Columbia, S. C.), a college professor and a very intelligent gentleman, insists that the electricity, that is, all that is taken by the tree in wet weather, will do no harm, while I hold to the opinion that it will ultimately kill it, and I wish to know which one of us is wrong. A. We have found by experience that leakage from electric arc light wires does injure the limbs of trees, particularly when the difference of potential is very great, although we do not believe it would kill the tree unless it was very young. 2. When a tree has been killed by escaping electricity, how long a time should elapse, in case the leak be located and stopped, before it will be safe to put another tree in its place? A. We see no reason why another tree cannot be put in at once if the ground periments which illustrate the wonderful phe has been removed. 3. Some very large oaks that are exposed to the smoke from the railroad workshops have died very recently, and I topic, the separation from each other of the am anxious to know if the smoke is responsible gases of the air. It is in this part that the

without cooking thoroughly, the parasite is long before this time. It may be possible, howtaken into the body and is rapidly propagated. ever, that loss of vitality on account of age The worm came originally from the rat. As may be partly responsible for their dying. A. hogs eat rats, they pass into the hog and If the trees are very close to the top of the thence into man. The only preventive is thorough cooking. This kills the trichinæ. No have lost some vitality on account of it, as the rare or underdone pork should ever be eaten. products of combustion are very destructive to Carrington. With an Introduction The risk is too great. The cost of immunity vegetable life, but the trees would have to be

(11065) C. D. asks: 1. What point poisoning by eating pork. What causes the below the freezing point do air, hydrogen, nipresence of the poison, how the poison can be trogen, oxygen, become liquid? A. These tempresence of the poison, how the personnel of the personne gen, 422; nitrogen, 317; oxygen, 297. 2. Please give me the address of a reliable company that sells chemicals and chemical apparatus. A. (11062) H. S. N. asks: I have been a You had better deal with a firm in the city What was the speed of the train? The camera kind of chemical books, as organic chemistry cial use.

#### NEW BOOKS, ETC.

ANIMAL ROMANCES. By Graham Ren shaw, M.B., F.Z.S. London: Sher ratt & Hughes Co., 1908. 8vo.; 204 pp. Price, \$3.

The book is illustrated by a number of most interesting half-tones showing some interesting beasts of Africa. One view of giraffes is most entertaining. The author has written a num kindly answer in your column of Notes and ber of books on natural history and the present volume is a worthy successor to "Natura History Essays," "More Natural History Essays," "Final Natural History Essays."

> DOCUMENTARY SOURCE BOOK OF AMERICAN HISTORY. 1606-1898. Edited with notes by William Macdonald. New The Macmillan Company, 1908. 12mo.; 116 pp. Price, \$1.75.

The present volume has been prepared in response to a request frequently made by teachers who have used the author's "Select Charters," "Select Documents," and "Select Statutes," particularly designed for the course of instruction of an elementary or comprehensive character, all of which covers the colonial and the constitutional periods of American history in a single year. The book is filled with vitally important documents dealing with American history, such as the Navi carry by tens. Other rods supplied their need gation Act, the charters of various States, the Treaty of Paris, the Sugar Act, the Declara tion of Independence, the Missouri Compromise, 187 documents.

> THE GARDENS OF ENGLAND IN THE MIDLAND AND EASTERN COUNTIES. Edited by Charles Holme. London and New 4to.; 136 plates, 8 in color. \$3.50, postage 35 cents.

The publications of "The Studio" are noted for their sumptuousness, and the present volume is no disappointment. The illustrations are beautifully chosen and finely executed, the color are reproductions of water colors. The stately homes of England offer a never-failing field fo the artist photographer. The text, which occu

AIR LIGHTDE, OXYGENE AZOTE Georges Claude, lauréat de l'Institut. Préface de M. d'Arsonval, membre de l'Institut. Paris: H. Dunod et E. Pinat, 1908. 8vo.; 400 pages, 149 figures. Price, \$3.00.

This work comprises within its scope all the phases of its subject. It is divided into four parts. The first is devoted to the principles of the liquefaction of gases, with the history of the early experiments. The second part is upon the industrial liquefaction of the air, with the necessary discussion of the principles involved and the demonstration of the results which car be expected. The completeness of the work may be seen in the fact that it includes the American machine of J. F. Place, which was introduced to the public in the spring of 1908. The third part contains the many curious ex nomena of the realm of the absolute zero. last part is devoted to that most important 

oxygen and nitrogen for manufacturing pu poses, and not as a source of power or as refrigerating agent. To all the departmen of its subject the book is a valuable contrib

> Carrington. With an Introduction by James H. Hyslop, Ph.D., LL. Boston: Small, Maynard & Co., 190 16mo.; 393 pages. Price, \$1.50.

In presenting this work to the public t author must not be understood as indorsing even as accepting all the views and theori that are advanced from time to time through out the book. He offers these tentatively an merely as possible explanations for facts the on the strength of existing testimony, he h assumed to be established. There are eighted chapters, among which are "The Problems "The Problem of Sleep and Dreams"; "Mode Spiritualism"; "The Case of Mrs. Piper"; "T Nature of Apparitions"; "Experiments Weighing the Soul"; "Premonitions." book is arousing considerable attention.

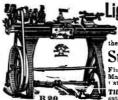
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5	December 15, 1908,	
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ı	Acid, acyl derivative of para-aminophenylar-	007.0
e	Advertising character, L. H. Sternberg	906,9
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1	Bearing, ball, W. E. Cane	906,84
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9	Box covering machine, F. J. Gersdorf	907,0
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7	Brake head, P. T. Handiges	907,0
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,	Builder's bracket, E. G. Day	906,6
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9	Can holder, H. Grenon	906,8
r	Can tops and labeling the same, machine for making. C. A. Myers	906.64
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7	Capsule filler, P. H. Brown	906,50
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r	Car draft structure and draft beam cap, T. L. McKeen	906,68
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9	Car mover, E. E. Chapman	906,69
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r	Carbureter, Winton & Anderson	906,98 906.74
f	Cards or analogous articles, display holder	000 00
f	Carding machine, Bates & Robinson	906,99
1	Carriage runner attachment, baby, O. Fylling	906.70
9	Cash register E Van Cash	906,8
ı	Casting, preparing magnesium and alloys	<i>5</i> ∪0,8€
	thereof for, P. Rakowicz	906,82
9	Chain, S. B. Minnich	907,08
S	Change handler, A. I. Tope	906,61 906.58
	Chimney, J. V. Boland	907,10
-	Chuck, balance, Key & Tessmer	906,89
-	Chuck, drill, R. M. Russell	906,93 906,89
t	Cigar holder, Galatian & Allen	906,79
9	Clasp, F. L. Beymer	906.50
e	Car fender, G. Whitaker Car mover, E. E. Chapman Car pneumatic safety appliance, A. J. Thornley Car stake, A. B. Little Car vestibule curtain, H. H. Schroyer Carbureter, W. F. McCarthy Carbureter, W. F. McCarthy Carbureter, Winton & Anderson Card, scoring, F. F. Schweda Cards or analogous articles, display holder for, J. H. Kevorkian Carding machine, Bates & Robinson Carding machine, Bates & Robinson Carding rummer attachment, baby, O. Fylling Carton, L. H. Peltason Cash register, E. Van Camp. Casting, preparing magnesium and alloys thereof for, P. Rakowicz Cattle gnard, Hewery & Clark Chain, S. B. Minnich Chain fastening, E. A. Cox Change handler, A. I. Tope Chimney, J. V. Boland Chimney, J. V. Boland Chimney cowl, O. H. Rotermundt. Chuck, balance, Key & Tessmer Chuck, drill, R. M. Russell Cigar box, Kronk & Gold Cigar bolder, Galatian & Allen Cicks and watches. electrical apparatus for timing, W. E. Porter Clothes drier, W. H. Tidland	906,92
t	Clothes drier, W. H. Tidland	906,90

ur-	Clothes line prop, I. P. Steed	907,094 906,999
a	Clutch, combined friction and jaw, C. S.	906,713
nts bu-	Clutch for hoisting drums, friction, F. N.	906,061 906,841
rd	Whitcomb	906 585
on	Coal, vertical retort for the distillation of, Woodall & Duckham Cock, ball, G. A. Soderlund Coin-controlled apparatus, J. L. Simmons. Collar and button box, combined, O. A. Lehman	906,597 906,832 906,571
D. 08.	Collar and button box, combined, O. A. Lehman	906,638
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"; ern	Cooler. See Water cooler. Cooler, Cartwright & Martin	906,611
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	Crusher and pulverizer, rock, W. H. Ful- cher	906,790 906,829
S	Crusher and pulverizer, rock, W. H. Fulcher  Crushing mill, T. L. & T. J. Sturtevant  Crutch, wheeled, J. W. Adair  Cuff, R. J. Kerrigan  Cuff holder, W. Beinhoff  Curtain drying and stretching frame, lace,  G. F. Hullings, reissue.  Curtain fixture; Comeau & Beaudoin  Curtain pole and shade fixture, T. Walsh.  Curtain stretcher, lace, W. F. Moyers  Cushion, pneumatic, V. H. Podstata  Cutter head, W. W. Philbrick  Cycle saddle clamp, F. Weihn  Damper regulator, W. D. Luce.  Dental instrument, R. T. Burnley  Dental plate suction device, G. S. Whittaker.	906,845 906,721
	Cuff holder, W. Beinhoff Curtain drying and stretching frame, lace, G. F. Hullings, reissue	906,767 12.896
	Curtain fixture; Comeau & Beaudoin Curtain pole and shade fixture, T. Walsh	906,775 906,970
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016	Dental tool holder, C. B. Gehringer Dish batten, N. L. Lillibridge	906,869 906,809
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84 <b>2</b> 559 -	Doll knee joint, G. Scherf	906,566 906,593
981 609 937	Door check, J. P. Dengler	906,514 906,920 907,015
937 637	Dental plate suction device, G. S. Whit- taker  Dental tool holder, C. B. Gehringer. Dish batten, N. L. Lillibridge. Display rack, E. B. Weston Ditching machine, W. Krueger Ditching wheel, A. Miller Doll knee joint, G. Scherf Door bolt, safety, D. S. Welch. Door check, J. P. Dengler Door check and lock, O. Pearson. Draft equalizer, H. H. Dunnihoo Draft rigging, A. C. Mather Draw bar, slack adjusting, E. Ryan. Drawing board attachment, A. J. Bechtold, Jr.	906,643 906,56 <b>3</b>
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776	Jr. Dress shield, W. H. Simmons Drop head table and cabinet, L. Kiesler Eaves trough cap, Robertson & Shiftey	906,896 906,661
607 675	Election booth, G. A. Gohen Electric controller, C. L. Taylor Electric furnace, K. Birkeland Electric switch, push-button, J. G. Peterson Electric switch receptacle, J. G. Peterson. Electric time switch, Noisom & Lindewald. Electric time switch, Noisom & Lindewald. Electric time switch, Noisom & Lindewald.	906,576 906,682
794 584	Electric switch, push-button, J. G. Peterson Electric switch receptacle, J. G. Peterson.	906,740 906,739
660 932	Electrical heating apparatus, C. D. Babcock Enamel ware, E. D. Holley	906,990 906,628
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846	Engine governing mechanism, explosive, J. W. Smith	906,949
506 047 - 068	Mason & Sintz	906,729 906,789
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557 897 045	Engines, apparatus for supplying fuel to gas, S. R. Du Brie	906,533 906,783
01 <b>2</b> 512	Engines, carbureter for explosive, E. F. Ab-	906,671
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697 978	horn Evaporator, O. Faller Evaporator or heater, vacuum, J. E. & F. M. Dunn	907,017 907,109
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	Exerciser, A. Limoges  Exerciser, physical, J. P. C. Winship  Explosive, safety, N. Ceipek  Evergless case covering machine A Avail	906,517 906,538 906,763 907,007
895 510	Eyeglass case covering machine, A. Axell Eyeglass cases, machine for covering, F. A.	906,517 906,538 906,763
895 ·	Eyeglass case covering machine, A. Axell Eyeglass cases, machine for covering, F. A.	906,517 906,538 906,763 907,007 906,672 906,579 907,081
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895 510 890 719 836	Eyeglass case covering machine, A. Axell. Eyeglass cases, machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J.	906,517 906,538 906,763 907,007 906,672 906,579 907.081 906,802
895 510 890 719 836 875 028 085	Eyeglass case covering machine, A. Axell. Eyeglass cases, machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J.	906,517 906,538 906,763 907,007 906,672 906,579 907.081 906,802
895 510 890 719 836 875 028 085 613	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence real wire S. Leigh	906,517 906,538 906,763 907,007 906,672 906,579 907,081 906,802 906,835 906,702 906,831 906,547 906,844 906,522 906,725
895 510 890 719 836 875 028 085 613 827 008 019	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton Vargyas Faucet, self closing, Stevens & Cordley Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Film handling device, T. S. Graves	906,517 906,538 906,763 907,007 906,672 906,579 907.081 906,802
895 510 890 719 836 875 028 085 613 827 008 019 708 876	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton Vargyas Faucet, self closing, Stevens & Cordley Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Film handling device, T. S. Graves	906,517 906,538 906,763 907,007 906,672 906,579 907,081 906,802 906,835 906,702 906,814 906,547 906,522 906,725 906,750 907,037
895 510 890 719 836 875 028 085 613 827 008 019 708 928 617 888	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell.  Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J. Vargyas  Faucet, self closing, Stevens & Cordley Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Fillin handling device, T. S. Graves Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firerum sight device A. Swasev	906,517 906,538 906,763 907,007 906,672 906,579 907,081 906,802 906,802 906,702 906,702 906,702 906,725 906,725 906,725 906,725 906,725
895 510 890 719 836 875 028 085 613 827 009 019 876 928 617 928 617 617 617 617 617 617 617 617 617 617	Eyeglass case covering machine, A. Axell. Eyeglass cases, machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton  Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Film handling device, T. S. Graves. Von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine. Kraemer & Child.	906,517 906,538 906,763 906,672 906,672 906,579 907,082 906,802 906,835 906,762 906,752 906,752 906,752 906,750 907,037 906,872 906,751 906,751 906,751 906,751 906,751 906,754
895 510 890 719 836 875 827 8028 6613 827 809 876 928 876 928 876 928 876 928 876 876 888 876 876 877 888 877 888 877 877	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Filim handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firsh bait, J. B. Fischer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis.	906,517 906,538 906,763 906,672 906,672 906,802 906,802 906,802 906,802 906,802 906,835 906,762 906,750 906,750 907,037 906,872 906,750 907,037 906,750 907,037 906,750 907,037
895 510 890 719 836 875 828 885 613 827 808 876 928 648 876 873 648 871 848 8961	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Filim handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firsh bait, J. B. Fischer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis.	906,517 906,538 907,007 906,672 906,579 907,087 906,802 906,802 906,835 906,702 906,831 906,52 906,725 906,725 906,750 907,037 906,872 906,751 906,5792 906,792 906,792 906,6808 906,808 906,808
895 510 890 719 836 875 028 085 613 827 708 8376 961 708 888 762 876 961 941 941 941 941 941	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fair lead, E. L. Horton Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Filim handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firsh bait, J. B. Fischer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis.	906,517 906,538 906,763 906,672 906,672 906,579 907,081 906,802 906,835 906,702 906,547 906,512 906,522 906,731 906,519 906,750 907,029 906,751 906,519 906,750 906,764 907,058 906,808 906,808 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809 906,809
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895 510 890 719 836 875 8028 8085 613 708 827 8009 9019 708 876 876 876 876 876 876 876 876 876 87	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton  Yargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Film handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fly caffer, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis	906,517 906,538 906,763 906,672 906,672 906,579 907,081 906,802 906,835 906,654 906,702 906,547 906,522 906,547 907,037 906,519 906,750 906,750 906,750 906,750 906,750 906,761 906,808 906,808 906,808 906,808 906,808 906,808 906,808 906,808 906,935 906,774 906,774 906,706,706
895 5510 890 719 836 875 6028 6013 827 7008 9019 5708 8617 768 8617 8762 8617 8762 8762 8762 8763 8763 8763 8763 8763 8763 8763 8763	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton  Far lead, E. L. Horton  Fare and ticket receptacle, portable, E. J. Vargyas  Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Filim handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace agrate, J. D. Savery Furnace regulator, J. Watson Furnaces, apparatus for handling matte and slag of copper blast, G. K. Fischer.	906,517 906,538 906,763 906,672 906,672 906,802 906,802 906,802 906,835 906,665 906,702 906,514 906,517 906,517 906,750 907,037 906,750 907,037 906,750 907,037 906,514 906,506 907,037 906,650 906,806 906,806 906,902 906,506 906,902 906,500 906,500 906,500 906,500 906,500 906,500 906,500 906,500 906,500 906,500 906,500 906,500
\$95 510 890 719 836 875 6028 613 827 609 828 617 638 637 638 638 638 638 638 638 638 638 638 638	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell Fair lead, E. L. Horton  Far lead, E. L. Horton  Fare and ticket receptacle, portable, E. J. Vargyas  Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence reel, wire, S. Leigh Fender. See Car fender. Filing device, vertical, E. K. Sumerwell. Filim handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace agrate, J. D. Savery Furnace regulator, J. Watson Furnaces, apparatus for handling matte and slag of copper blast, G. K. Fischer.	906,517 906,538 906,763 906,672 906,672 906,872 906,802 906,835 906,665 906,703 906,519 906,750 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,932 906,751 906,932 906,751 906,932 906,932 906,932 906,932 906,932 906,932 906,932 906,932 906,932 906,551 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853
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895 5510 890 719 836 085 085 085 085 085 085 085 085 085 085	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul Jr. Feed bag, A. Gaul Jr. Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furnaces, apparatus for handling matte and slag of copper blast, G. K. Fischer. Furnatus, knockdown article of, P. Morrison Furniture support, E. Hackh Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas producing apparatus, F. E. Fink.	906,517 906,538 906,763 906,672 906,672 906,872 906,802 906,835 906,665 906,703 906,519 906,750 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,932 906,751 906,932 906,751 906,932 906,932 906,932 906,932 906,932 906,932 906,932 906,932 906,932 906,551 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853 906,853
895 5510 890 719 836 827 828 9828 8875 8085 876 8019 8766 87760 8786 8786 8786 8786 8786 878	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furniture support, E. Hackh Garment, K. J. Newman Garment, F. G. Rich Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas regulator, O. W. Lutz Gas revorts, centrifugal machine for feeding,	906,517 906,538 906,763 906,672 906,672 906,802 906,802 906,802 906,835 906,762 906,725 906,725 907,037 906,814 906,524 906,725 907,037 906,519 907,037 906,519 907,037 906,519 906,750 907,037 906,519 906,519 906,519 906,867 906,867 906,867 906,867 906,867 906,867 906,909 906,873 906,873 906,873 907,071 906,519 907,071 906,519 907,071 906,519 907,071 906,873 906,873 907,971 906,873 906,873 906,873 906,909 906,909 906,873 906,909 906,873 906,909 906,873 906,909 906,873 906,909 906,873 906,909 906,873 906,909 906,90
895 5510 890 719 836 827 828 9828 8875 8085 876 8019 8766 87760 8786 8786 8786 8786 8786 878	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furniture support, E. Hackh Garment, K. J. Newman Garment, F. G. Rich Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas regulator, O. W. Lutz Gas revorts, centrifugal machine for feeding,	906,517 906,538 906,763 906,672 906,672 906,802 906,802 906,802 906,835 906,762 906,725 906,725 907,037 906,814 906,524 906,725 907,037 906,519 907,037 906,519 907,037 906,519 906,750 907,037 906,519 906,750 907,037 906,519 906,519 906,863 906,863 906,863 906,863 906,909 906,873 906,873 906,873 906,873 906,873 906,873 907,071 906,873 907,071 906,873 907,071 906,873 907,071 906,873 906,909 906,909 906,90
895 5510 890 719 836 827 828 9828 8875 8085 876 8019 8766 87760 8786 8786 8786 8786 8786 878	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furniture support, E. Hackh Garment, K. J. Newman Garment, F. G. Rich Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas regulator, O. W. Lutz Gas revorts, centrifugal machine for feeding,	906,517 906,538 906,763 906,672 906,672 906,802 906,802 906,802 906,835 906,762 906,725 906,725 907,037 906,814 906,524 906,725 907,037 906,519 907,037 906,519 907,037 906,519 906,750 907,037 906,519 906,750 907,037 906,519 906,519 906,863 906,863 906,863 906,863 906,909 906,873 906,873 906,873 906,873 906,873 906,873 907,071 906,873 907,071 906,873 907,071 906,873 907,071 906,873 906,909 906,909 906,90
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895 510 890 719 836 875 8028 613 827 8019 8008 613 827 8019 807 808 808 807 808 808 808 808	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly paper holder, J. O. Forker Frigh trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furniture, knockdown article of, P. Morrison Furniture, knockdown article of, P. Morrison Furniture, knockdown article of, P. Morrison Furniture, K. J. Newman Garment, F. G. Rich Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas regulator, O. W. Lutz Gas retorts, centrifugal machine for feeding, C. Eitle Gases, apparatus for the analysis of, J. A. Caldwell Gases, apparatus for the analysis of, J. A. Caldwell Gaser, unning, B. W. Berry Gear, speed change, G. O. Leopold Gearing, A. Liese Glass, apparatus for and method of manu- facturing wire, Speer & Taylor. Glove, C. Bernard Govert, collapsible, Fay & Hopkins	906,517 906,538 907,007 906,672 906,672 906,802 906,802 906,835 906,665 906,725 906,725 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,873 906,750 906,8873 906,906 906,8873 906,906 906,812 906,909 906,812 906,909 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812
895 510 890 719 836 875 8028 613 827 8019 8008 613 827 8019 807 808 808 807 808 808 808 808	Eyeglass cases machine for covering, F. A. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly paper holder, J. O. Forker Frigh trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furniture, knockdown article of, P. Morrison Furniture, knockdown article of, P. Morrison Furniture, knockdown article of, P. Morrison Furniture, K. J. Newman Garment, F. G. Rich Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas regulator, O. W. Lutz Gas retorts, centrifugal machine for feeding, C. Eitle Gases, apparatus for the analysis of, J. A. Caldwell Gases, apparatus for the analysis of, J. A. Caldwell Gaser, unning, B. W. Berry Gear, speed change, G. O. Leopold Gearing, A. Liese Glass, apparatus for and method of manu- facturing wire, Speer & Taylor. Glove, C. Bernard Govert, collapsible, Fay & Hopkins	906,517 906,538 907,007 906,672 906,672 906,802 906,802 906,835 906,665 906,725 906,725 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,872 906,750 907,037 906,873 906,750 906,8873 906,906 906,8873 906,906 906,812 906,909 906,812 906,909 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812 906,906 906,812
895 510 890 719 836 875 8028 613 827 8019 8008 613 827 8019 807 808 808 807 808 808 808 808	Eyeglass case covering machine, A. Axell. Tibbals Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fabrics, apparatus for stretching portions of, W. H. & C. H. Mitchell. Fare and ticket receptacle, portable, E. J. Vargyas Faucet, self closing, Stevens & Cordley. Feed bag, A. Gaul, Jr Feed bag, A. H. Shoemaker Fence building machine, wire, M. A. Moss. Fence compensator, wire, D. L. Mullinix. Fence post, H. F. Gehant Fence reel, wire, S. Leigh Fender. See Car fender. Filling device, vertical, E. K. Sumerwell. Filling handling device, T. S. Graves. Fire damp, preventing the liberation of, A. von Groling Fire damp, preventing the liberation of, A. von Groling Fire extinguisher, chemical, H. A. Giseke. Firearm sight device, A. Swasey Fish bait, J. B. Fischer Fish hook, M. Greer Flag ring, H. F. Schwartz Floor dressing machine, Kraemer & Child. Flue cutter, J. W. Faessler Fluid pressure engine, W. T. Lewis. Fly catcher, F. Korndoerfer Fly paper holder, S. F. Monell Fly paper holder, J. O. Forker Fly trap, C. Roberts Folding machine, G. Kleim Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Friction coupling and brake, K. Maybach. Fruit grader, H. A. Beekhuis Fruit jar, G. H. Ricke Furnace grate, J. D. Savery Furnace regulator, J. Watson Furniture support, E. Hackh Garment, K. J. Newman Garment, F. G. Rich Gas machine, Schmitt & Neumann Gas producing, C. J. Greenstreet Gas regulator, O. W. Lutz Gas revorts, centrifugal machine for feeding,	906,517 906,538 906,7638 906,672 906,672 906,802 906,802 906,835 906,665 906,652 906,750 907,037 906,750 907,037 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,751 906,802 906,803 906,903 906,903 906,903 906,903 906,903 906,903 906,903 906,903 906,903 906,903 906,903 906,903

906,786 906,788 906.693 907,096

<b>D</b> есемвек 26, 1908.	
Guns, adjustable tripod stand or mount for automatic, Dawson & Buckham	nting
of. N. Pogolski	906.924
Gymnasium apparatus, F. Medart Gyr n mc n , self-balancing, G. V t. Jo s reissue Hair roll, M. B. Hammond Handmond Handmond Hanness, G. K. Wenig 906 Harness attachment, E. W. Hargiss Harness check, W. C. & H. A. Mitch Harrow, disk, W. H. Cole Harvester, corn, L. Gasser Harvester, fruit, G. Hensley Hasp fastener, E. F. Hulbert Hasp lock, A. L. Jervey Hat hook, S. M. Lawson Hay feeding apparatus, W. T. & J. O.	V. & 12,894 906,795
Hand motor, R. H. Bowman	906,685 9073, 906,974 907,042 ell. 906,907
Harness check, W. C. & H. A. Mitch Harrow, disk, W. H. Cole	ell 906,907 906,692 906,868
Harvester, fruit, G. Hensley Hasp fastener, E. F. Hulbert Hasp lock, A. L. Jervey	906,868 906,626 906,528 906,803
Hat hook, S. M. Lawson	Wise 906,670 906,770
Heat controlling device, W. M. Fulton Heat regulator, automatic, E. N. Farne Heating and ventilating system, D. D.	906,700 er. 906,698 Harr 907,044
Heating system, E. H. Gold	ey 907,060 ey 906,892
Hoisting device, A. H. Neller	906,951 906,961
Humidor, N. G. Stark  Hydrant, F. S. Seagrave	907,025 906,955 906,944
Hasp fastener, E. F. Hulbert Hasp lock, A. L. Jervey Hat hook, S. M. Lawson Hay feeding apparatus, W. T. & J. O. Hay reading apparatus, W. T. & J. O. Hay rake, folding sulky, W. S. Clark Heat controlling device, W. M. Fultor Heat regulator, automatic, E. N. Farne Heating and ventilating system, D. D. Heating system, E. H. Gold Hide tanning compound, G. W. Langl Hinge joint, R. D. Jones, Jr. Hoist, Sohn & Gonder Hoisting mechanism, E. S. Reid Hose nozzle, J. Ford Humidor, N. G. Stark Hydrant, F. S. Seagrave Hydrocarbon burner, E. P. Harms. Ice cream and other matter, apparatus S. V. C. J. obn Includer beater, P. M. Wickstrum Indleator, H. M. Bell Injector, S. I. Kneass Insulator pin, C. G. Ette Ironing board, G. W. & C. W. Bittle. Ironing machine, A. M. Bell Let photometer, L. E. Knott Jih crane, counterweight, W. Van Wie Knitting machine, House & Dietz. Ladder, fire escape, H. C. Sponholz	for 907,099
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Jet photometer, L. E. Knott	907.057 906.587 906.880
Labeling machine, House & Dietz  Ladder, fire escape, H. C. Sponholz  Lamp and lantern, C. Bergener, reisst  Lamp, electrical incandescent, W. Neri  Lamp extinguisher, automatic, C. (	906,631 906,954 12,893
Lamp, electrical incandescent, W. Nerr Lamp extinguisher, automatic, C. (et al	nst 906,550 Older 907,089
et al.  Lamp for inverted incandescent bur gas, A. S. Francis.  Lamp, bydrocarbon, M. W. Pitner	ners, 906,623 906.922
Lantern pinon. A. H. Neureuther	906.930 906.536 906.915
Lamp, hydrocarbon, M. W. Pitner Land roller, S. T. Ralston Lantern, O. E. Krebbs Lantern pinion. A. H. Neureuther Lantern. signal, C. L. Betts Last, G. G. Schelter Lathe center, C. H. Lucas Lavatory. H. M. Weaver Lavatory plug or stopper, H. M. Weav Lawn tennis nets. combined case and for, L. H. Atwell. Lead traps by hydraulic pressure, appar for manufacturing, G. Mereta Leather substitute, patent, S. Nathan Lever, F. T. Gracey	906.681 906.565 907.067 906,592
Lavatory plug or stopper, H. M. Weav Lawn tennis nets. combined case and	ver. 906,591 post 906,848
Lead traps by hydraulic pressure, appar for manufacturing, G. Mereta Leather substitute, patent, S. Nathan.	ratus 907,077 907.087
I:mare a a . Farnsworth	907,021
Liquid carbonating apparatus, H. Pein. Liquid heater, F. Novotny Liquid vending device, H. Pein Liquids, apparatus for the sterilization H. J. Wessels	906.555 906,653 906,554
H. J. Wessels	1 01, 2 206,975 1 the 1 sang 906,669
Liquors, electrolytic apparatus for use it manufacture of bleaching, A. Vogel Lifter carrier, F. G. Held Lock, G. W. Greene Lock and block signal system, R. J. Her	wett,
Locomotive boiler washing and filling tem. W. White, reissue	sys- 12,898
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Mixer, A. M. Monday Mold, L. Townsend Money case, tourist's, J. A. Wilson Motor signal, three-position. C. W. Cole Musical instrument, stringed, P. L. Ca Musical instruments, device for use in	906.966 906.596 eman 907,106
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Oscillation detector, C. D. Babcock Oven, V. V. Bolls	906,883 906,991 907,102 906,639
Overalls or other like garments, antislip protector for, B. Hestness Padlock, S. R. Fraim	ping 907,050 907,026
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## The Automobile Number of the Scientific American

Will issue on January 16, 1909

THIS YEAR W HAVE DONE SOMETHING ENTIRELY NEW



E called on 1200 manufacturers of automobiles and accessories for suggestions. The result was eye-opening. For days and days suggestions came in, most of them illuminating, helpful, and instructive. We read over every one of those letters and made up our minds to use each

in some way. We classified them carefully and turned them over to a corps of expert writers on automobiles, with instructions to EMBODY THESE IDEAS IN THE BEST SERIES OF PRACTICAL ARTICLES AND SHORT MEATY NOTES that ever appeared in any one issue of a magazine.

Among the articles will be one on the commercial truck and delivery wagon. It tells just what the commercial self-propelled vehicle is capable of doing, compared with the horse-drawn vehicle of the same type.

The average automobilist is not an engineer. When his machine stops, he is all but helpless. Many of the 1200 thought it would be an act of mercy to help him out. Mr. Roger Whitman, technical director of the New York School of Automobile Engineers, has prepared a "TROUBLECHART," which a man can carry in his hat, if need be, and consult if he finds himself in mechanical straits. A glance at that chart will tell any intelligent man, woman, or child how to leave the defeat and what to do if a ggr refuse to run. locate a defect and what to do if a car refuses to run.

Magneto Ignition, because it is comparatively new, is a subject on which the automobile user needs enlightenment. Just what magneto ignition is, how it compares with coil ignition, and the comparative advantages of high and low tension, are ably explained in a lucid article.

The Two-cycle Engine is another innovation which ought to be dealt with in the opinion of the trade. Mr. E. W. Roberts, a well-known authority on the subject, has prepared an article which sets forth simply and accurately what the two-cycle engine is, and what it will do to simplify and improve the automobile.

Tires are found to demand more in the way of repair and renewals than any other part of the car. A tire expert has prepared an article, which the tire manufacturer ought to welcome, simply because it informs the chauffeur what he ought to do and what he ought not to do, and places the blame for much tire trouble where it properly belongs—on the man who drives the car. We think we have succeeded in explaining some of the mysteries of tire construction, and that we have laid a heavy finger on the cause of the trouble.

"Lubricants and Lubrication" is made the subject of some straight talk oil devices at the New York School of Automobile Engineers. The driver of a car is set right on the subject of lubricants, and informed what lubricant to use for the various parts of his car. Mr. Hanauer explains all this clearly. What is more, he gives a few simple tests which will indicate whether the oils are what they purport to be.

Repairs are charged for at piratical prices. Automobile manufacturers rail at the garage keeper, because he is not fair to their cars. He puts them in a bad light. No manufacturer cares to learn how many dollars his car cost in repairs, particularly if most of the repairs are easily made. So we intend to publish an article "Making Your Own Repairs," which will pluck out a fainful thorn and make the owner of a car at least partly independent of the exorbitant garage man.

There will be a page full of novelties—short, illustrated articles about clever automobile inventions that save time and labor. Many of them will give the reader a little thrill of mechanical pleasure to learn that such simple—we might almost say obvious-devices are conceived and manufactured. Every one of them is a mechanical short cut.

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	Mann Printing press driving mechanism, multi- color, E. E. Babcock906,673,	907,070 906,674
	j fle r E. Clot :: Pruner, T. J. Litzelman :: Pruner band T J Litzelman	906,586 906,771 907,065 907,064
	Printing machine inking apparatus, M. H.  Mann  Printing press driving mechanism, multi- color, E. E. Babcock	907.082 907,004
y .	W. J. Richards Pump, multple impeller, A. E. Guy Pump, rotary force, C. E. Finkle	906,659 907,040 907,022
	Push button switch, G. B. Thomas Radio-active mass, Loewenthal & Luer Rail bond, E. H. McHenry	907,098 907,066 907,083
	Rail fastening, M. F. Bonzano906,859, Rail joint, J. W. Hawk Rail joint, T. Heiney Reilway cross-tie J. O. Hickman	906,860 906,796 907,048
	Pulley block, J. W. Carlson Pump and compressor system, combination, W. J. Richards Pump, multple impeller, A. E. Guy. Pump, rotary force, C. E. Finkle. Pump, rotary force, R. B. Teachout Push button switch, G. B. Thomas. Radio-active mass, Loewenthal & Luer. Rall bond, E. H. McHenry Rall fastening, M. F. Bonzano. 906,859, Rall joint, J. W. Hawk Rall joint, T. Heiney Rallway cross-tie, J. O. Hickman Rallway cross-tie, J. O. Hickman Rallway electrical block signaling system, G. H. Brown Rallway safety system, J. Kovacevic Rallway safety system, J. Kovacevic Rallway safety f. J. Halbekann Razor ssafety, F. J. Halbekann Razor stropping machine, C. E. Dunn Ribbon bows or neckties, fastening device for, G. E. Tarnow Rifie foresight, F. C. Scott Rivet, E. B. Stimpson Rock drill, motive fluid operated, C. M. Hampson Rotary engine, Bower & Bower	906,861 906,544
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