each end means for attaching it to the sections of a book the index slip having movement on the guide. The movable or duplicate index is adapted to be carried over the face of one or more pages, to temporarily locate the names, letters or figures at a point distant from where they are entered on the book, economizing time and sening the chances of mistakes.

POTATO CUTTER.—Oscar A. Bulette, Seattle, Wash. This is a simple and easily operated device for cutting potatoes into longitudinal blocks. The blades of the cutter are so arranged that they will cut all sides of the blocks, insuring a uniform shape and avoiding feather edges, which have a tendency to crinkle or become too crisply cooked before the entire block has been perfectly cooked. The several parts of the device may be readily detached to facilitate thorough cleaning.

INKSTAND.—Francis B. Pratt. Canton. Miss. This inkstand has an ink well and a supply well, a feeder duct leading from the bottom of the ink well to the bottom of the supply well, while an air duct leads from the upperportion of the ink well to the supply well. A cup shaped plug, closed at the bottom and open at the top, and suited to hold a sponge, has a screw thread engagement with a flange in the upper end of the ink well, and by screwing the plug downward the ink is forced into the supply well. The inkstand is easily cleaned and filled, and but a small quantity of ink need be exposed at any time.

PLAYING CARDS.—Charles B. Rosenberger, Pittsburg, Pa. This invention provides a plurality of suits of cards, each suit having an identifying character common to all the cards in the same suit, and each card having scoring numerals, one for an identifying character without color thereon, and the other for the same and its color. The game affords two grades of chance, and a commensurate degree of remuneration for the winning player.

TEMPORARY BINDER, -Jos. W. Wood. Baraboo, Wis. This improvement comprises a back piece from the ends of which metal clips extend forward, each clip being curved to form a channel providing seats for a lacing cord which is woven back and forth through the clips in the channels. A simple and inexpensive binder is thus formed for pamphlets and newspapers, in which the back edges and bottom ends of the matter bound will be protected from abrasion.

MOLE TRAP.—Jacob W. Reger, Charles W. Denison and George D. Denison, Judson, Mo. In a U shaped frame whose pointed ends are adapted to be pressed into the earth at opposite sides of a runway is held a sliding trip rod, on whose lower end is a head which is made to rest on the earth directly over the run way. The mole, in passing, raises the earth slightly, when the trip rod releases a spring pressed follower which carries prongs or teeth that pass into the runway and through the mole or other animal.

NOTE.—Copies of any of the above patents will be furnished by Munn & Co., for 10 cents each. Please send name of the patentee, title of invention, and date of this paper.

NEW BOOKS AND PUBLICATIONS.

THE PRIMARY FACTORS OF ORGANIC EVOLUTION. By E. D. Cope. Chicago: The Open Court Publishing Company. 1896. Pp. xvi, 547. Price \$2.

This work by Prof. Cope is entitled to a far more extended review than we can possibly give it here. We hesitate, indeed, to say anything about the present book feeling that a mere statement of its title and the author's name will be enough to give it standing. It is a very elegantly printed book, thoroughly indexed, elaborately illustrated, and is a valuable contribution to and presenta tion of the doctrine of evolution. Darwinism itself is in such a state of evolution, has been so modified by Weis mannism, that what is known as a "New Darwinism" has been created, so that it really requires almost as much reading to keep pace with the modern science of evolu tion as with electricity or any other science. The author does not seem to be, by any means, a pronounced Weis mannist. A cursory glance at the index inclines us to the belief that it is not very accurate in its paging.

An Examination of Wrismannism. By George John Romanes. Chicago: The Open Court Publishing Com-pany. 1896. Pp. ix, 221. Price, paper 35 cents, cloth \$1.

As a companion to Prof. Cope's book, we here have Weismannism critically examined by one who figures as having produced more effect on modern Darwinism than all others, probably, put together, and to those who desire to study modern evolution, perhaps the reading of both these books will be of value.

ON GERMINAL SELECTION AS A SOURCE OF DEFINITE VARIATION. By August Weismann. Chicago: The Open Court Publishing Company, 1896. Pp. xii, 61. Price 25 cents.

This paper was read in the first general meeting of the International Congress of Zoologists at Leyden on September 16, 1895, as we are informed in the preface. We have put it with the other two books to complete the series which they seem to form.

THE CENTURY SCIENCE SERIES. Clerk Maxwell and Modern Physics. By R. T. Glazebrook. New York: Macmillan & Company. 1896. Pp. vi. 224. Price \$1.25.

The students of the history of science have some favorite characters whose lives they are never tired of reading, either because of their interesting characters or because of their interesting work. Fleeming Jenkin is, perhaps, the most fortunate in his biographer, Robert Louis Stevenson having written a most graphic life of the scientist. Faraday and Maxwell form two kindred spirits whose lives will ever be favorites with all who admire the simple and gentle in humanity. As a supplement to the Campbell and Garnett more personal biography of Maxwell, the same publishers give us here, in brief, an account of his life in science and what he did in and most useful way.

the scientific world. We have just reviewed several books on evolution, and it seems a little peculiar to find in them, as well as in this, no apparent reference to Maxwell's physical demonstration of the difficulties attendant npon the acceptance of Darwin's theory based on the probable size of the molecule. As a supplement to the life of Maxwell, the present book will be quite indispen-

THE SUGAR FACTORY MANAGER'S HAND-BOOK OF NOTES, TABLES, RULES, AND DATA. For managers, engineers, chemists, overseers, panboilers, and others engaged in the manufacture of cane sugar and the distillation of rum. By B. R. Body. Manchester: Office of the Sugar Cane. 1896. Pp. 78. Price \$1.50.

This is one of those familiar little English books containing information relating to particular trades and businesses. It is written from the technical standpoint and can be recommended to sugar manufacturers and chemists as representing a most practical view of the sub-

VAN NOSTRAND'S SCIENCE SERIES. Sew erage and Sewage Purification. By M. N. Baker. New York: D. Van Nostrand & Company. 1896. Pp.

This excellent little addition to Van Nostrand's Science Series is devoted particularly to the disposal of sewage from the American standpoint. It really relates as much to the laying of sewers as to the disposal works, and the disposal works themselves are very fully treated, the discussion of which is particularly to be commended.

AN ADVENTURE IN PHOTOGRAPHY. By Octave Thanet. Illustrated from photographs by the adventurers. New York: Charles Scribner's Sons. 1893. Pp. xi, 179. Price \$1.50.

There are few brighter writers than Octave Thanet and to our mind the authorship of this book is an excellent recommendation. It describes the author's adventures in the South with her camera, details her troubles and her successes, and throughout is replete with hints as to photographic processes. The work throughout is couched in most lively language, and whether one understands photography or not, is most excellent and lively reading. There are numerous illustrations, many of which serve as pegs on which to hangthe story.

DOMESTIC SANITARY DRAINAGE AND PLUMBING. Lectures on practical sanitation delivered to plumbers, engineers and others in the Central Technical Institution, South Kensington,London, under the auspices of the City and Guilds of London Institute for the Advancement of Technical Education. By William R. Maguire. Second edition. New York: D. Van Nostrand Company. 1896. Pp. 475. Price \$4.

Sanitary engineering from the scientific aspect is here excellently treated, for the book presents the practical application of scientific hydraulics to the plumbing of dwellings, and with much success. Instead of starting out with the practical presentation of its subject, the book opens with a reasonably good treatise on the elementary science, touches on the subject of the education of plumbers, passes on to sewage and sewage disposal, the rest of the work being devoted to sewerage and water supply. Throughout the plumber is kept in mind, and many useful hints may be gleaned by the workman of even many years' standing from the pages of this work. It has an index and a table of contents, is liberally illustrated, and is a tribute to the present desire of the public to have the best sanitary appliances in the dwelling house.

E LOCOMOTIVE. Hartford, Conn. Published by the Hartford Steam THE LOCOMOTIVE. Boiler Inspection and Insurance Company. New series. Vol. XVI. 1895. Pp. iii, 191.

The Locomotive is a trade publication and an example to all of how such a work can be conducted. It is a journal in which details of boiler accidents and explor and much information in regard to boiler inspection, etc. are given; in which the practical points about boilers are discussed, and into which a considerable amount of interesting scientific matter relating to the subject finds its way. To our mind the journal is most interesting, and bound in book form, is a welcome addition to the

GESCHICHTE DER EXPLOSIVSTOFFE.
Von S. J. von Romocki. II. Die rauchschwachen Pulver in ihrer Entwickelung bis zur Gegenwart. Mit vielen Abbildungen. Berlin: Robert Oppenheim (Gustav Schmidt). 1896. Pp. xi, 324. Price \$4.

This second section of this work is devoted to smoke less powders, and really gives a most admirable treatment of the subject. Those conversant with the language need not be troubled with the German type in reading it, the Roman type used in this book being one of its merits.

CHEMISTRY AT A GLANCE. A study molecular architecture. Issued in series. No. I. Oxides. By Herbert B. Tuttle. New 59. Price 60 cents. New York. 1896. Pp.

This is the first of some ten successive publications designed to cover the field of chemistry. The author works almost entirely with graphic formula, and while this system of treating the subject is apt to lead one too far, yet the book, for a young chemist properly warned, will be, we believe, a most useful one, and will do a great deal to systematize his ideas. It will be easy enough for him to escape the danger of too great fixity by his work in the laboratory and his study of other books. Indeed, we believe that for the young chemist to start in this way, with chemistry as a purely mathematical science and then to find from investigation in the laboratory and in subsequent reading the numerous exceptions to the fixed theory which he will have formed, is perhaps the best

Business and Personal.

he charge for Inscrtion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue

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Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.

References to former articles or answers should give date of paper and page or number of question.

Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.

Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of bouses manufacturing or carrying the same.

Special Written Enfortmation on matters of personal rather than general interest cannot be expected without remuneration.

Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly.

Minerals sent for examination should be distinctly marked or labeled.

(6908) S. E. E. says: I would like to know, first, what is the proper dressing or polish to use on kangaroo and goat or kid shoes to keep them from cracking. Also the proper dressing for patent leather to prevent cracking. A. Add some olive oil to some pure wax which has been melted in a water bath and then add lard. Mix thoroughly by stirring over a moderate fire. Add oil of turpentine, then a little oil of lavender. This will form a paste which should be put in boxes. Apply with a linen rag. The paste keeps the leather soft and restores the gloss.

(6909) R. G. writes: I have been experimenting with thin films. Thus far I have failed to ecure a soap bubble mixture that would produce a lasting film. Can you give me a formula for a good mixture? A. C. V. Boys, in his interesting work on soap bubbles, says, "Common yellow soap is better than fancy soap." The mixture we like best is made as follows: "Fill a clean stoppered bottle three-quarters full of pure wate (distilled water preferred). Add one-fortieth part of its weigh of cleate of soda, which will probably float on the water. Leave it for a day, when the cleate of soda will be dissolved. Nearly fill up the bottle with pure glycerine and shake well. Leave the bottle stoppered for about a week in a dark place. Siphon off the clear liquid, add one or two drops of strong ammonia to every pint of the liquid. Use the mixture from a small work ing bottle. Do not getout the stock bottle every time s bubble is to be blown. Do not warm or filter the mixture.' This mixture will keepfora yearorso.

(6910) E. McD. asks: Can you inform quinine for microscopical examination? A. Mix 3 drachms of pure acetic acid with one drachm of alcohol, add 6 drops of diluted sulphuric acid (1 part acid, 9 parts water). Place one drop of this fluid on a glass slide and add a minute particle of quinine. After this has dissolved add a very small drop of tincture of iodine by means of a fine glass rod. After a time, chemical action ceases and the crystals begin to form slowly, without heat. These crystals are beautiful in polarized light.

(6911) J. D. asks (1) the meaning of ampere turns. A. The product of the amperes passing through a wire multiplied by the number of complete circles made by such wire. 2. Name some good open circuit batteries. A. The Leclanche is standard. Dry batteries are also excellent. For batteries see our SUP PLEMENT, Nos. 157, 158, 159, 792, 3. Where can I get catalogne of small electrical apparatus? A. Address any of our advertisers of electrical goods. 4. Name SUPPLE MENT number with simple ammeter and voltmeters. A. There are no really simple ones. For examples see our SUPPLEMENT, Nos. 652, 563, 618, 628, 668, 353, 734. 5. How many grains of conner does one amnere denosit? A. 0.33 milligramme per second. 6. Is T. A. Edison a college graduate? A. No. 7. Name SUPPLEMENT num ber with induction coils. A. Nos. 160, 569, 229.

(6912) A. J. E. writes: 1. Constructed as directed, which of the two motors, 759 and 641, would give more power? A. The motor of Supplement, No 759, is the more powerful. 2. Could motor 641 be wound so as to farnish 1/8 horse power, with two cells of Edison-Lalande batteries? A. No. 8. For a drum armature would disks of tin answer as well as carriage washers or punchings? A. Disks of sheet tin would answer, as this is simply tin-plated sheet iron. 4. Are thedisks insulated from the shaft in a drum armature? A. They need not be. 5. Which is better for the fields of motor 641: (a) the laminated sheet iron as shown, (b) cast iron fields, or (c) fields made up of a piece of wrought iron 16 inch thick? A. For even cross section the solid wrought iron field is slightly the better.

(6913) S. & T. write: We wrote you about length and size of wire for resistance for Plante storage cells. You gave iron wire 10-12, but did not know potential or current. The dynamo is 110 volt current and is made to run 100-110 volt lamns. Is the number of lamps the machine is able to light the potential? A. There is no such thing as a 110 volt current. Potential is expressed in volts, current in amperes. You require about 50 amperes of current for 100 16 candle power 110 volt lamps. A No. 5 or even No. 6 copper wire would carry this-a No. 0 or No. 00 iron wire. The amount a wire will carry varies with its surroundings. If exposed to the air, it will carry more without dangerous heating than if insulated and tightly wound. The smaller fron wire would be quite large enough, if wound in a loose spiral-The potential of the machine gives the voltage of the lamps proper to go with it.

(6914) F. A. McL, asks how many vibrations it takes to produce the lowest note on a piano, say A, and if they increase regularly or not. That is, does each note increase with the same number of vibrations of its neighbor? Do every two notes differ with the same number of vibrations as you go up the scale? What is the number of vibrations to produce each of the notes of the plano keyboard? A. The middle C is taken generally as corresponding to 256 double vibrations per second. C one octave below has one-half this number of vibrations, C one octave above has double, two above four times and so on. Then for the musical scale, taking C as unit, the other notes are represented by fractions, as C=1, $C \operatorname{sharp}=\frac{2}{3}\frac{2}{3}$, $D \operatorname{flat}=\frac{2}{3}\frac{2}{3}$, $D=\frac{2}{3}$, $D \operatorname{sharp}=\frac{2}{3}\frac{2}{3}$, $E \operatorname{flat}=$ 2, E=2, etc. Thus to get the number of vibrations in any of the above in the octave above middle C. multiply 256 by the fraction. All this is subject to variations in the tandard pitch. Thus the French standard middle C has 261, the English 256 double vibrations. The lowest audible note is about 16 per second; under some conditions it is claimed that 9 vibrations per second have been audible. On some grand pianos A with 2716 vibrations per second is included on the keyboard, and the range may go up to Alv with 3520 or Cv with 4224 vibrations per second. The intervals between notes are expressed by fractions, thus: C to D &, D to E.o. E to F 15. etc., each interval being the quotient of the ratio of the lower divided by the ratio of the higher note.

(6915) W. asks: 1. Approximately, what would be the dimensions of permanent magnets, giving an output of three or four 16 candle power lamps -alternating current? A. This question cannot be answered without knowing the quality of the magnets and voltage of lamps. You would need 20 square inches of pole area and 2,500 turns of No. 18 wire on the armature, taking low excitation of the magnetic circuit. 2. Driven by the same power, how many more 16 candle power lamps would an alternator furnish over a direct current machine? The fields being excited by a separate dynamo, the above power being figured on the basis of one-half horse. A. There should be little or no difference. 3. Will the power or current required to excite the fields equal the additional lights in the above? You cannot escape using power to excite fields, whether derived from an outside source or from the dynamo itself. 4. Would it not be better in small plants to use the alternatormore extensively, of course double winding the armature, for current to excite the fields? Would there not be less fluctuation in the lights with the variations of the power, and would not less trouble be experienced in general management of dynamo and lights? A. Each type of generator and plant has its own advantages and disadvantages. The direct current is more convenient in some ways and is less liable to give bad shocks.

(6916) H. V. S. asks how to prepare a implex or a hektograph for producing copies of letters. A. Our Supplement, No. 438, contains an illustrated description with full details of the hektograph. We can supply it by mail for 10 cents.

(8917) E. A. B. says: There is a preparation being sold by parties in different parts of the country, which, in solution, will preserve quite perfectly fruits and vegetables immersed in the solution and kept covered by it, sealing not being necessary. Can you tell me what this preparation is, and how to make it, or where to procure it in bulk? A. Use only fruits and vegetables which are thoroughly sound. The fruit or vegetables may be washed if desired. The fruit may be packed in jars, crocks, or kegs as desired. Put it in as closely as possible without injuring the fruit, as the more compact it is packed the smaller will be the quantity of liquid required to cover it. Take two ounces of salicylic acid and twenty-five pounds of sugar (coffee C); the acid and the sugar are dissolved in 61/2 to 7 gallons of hot water. See that both the sugar and acid are all perfectly dissolved, let the solution get cold and then pour on enough of the liquid to cover the fruit. The top of the vessel should be covered, but need not be sealed. The quantity of sugar is usually sufficient to make the fruit sweet enough for table use. The quantity of liquid named above is sufficient to cover about twenty five gallons of fruit. For preserving pease, beans, tomatoes, sweet corn, pickles, etc., the quantity of acid remains the same, but twenty ounces of sodium chloride (common salt) are added and the quantity of hot water is reduced to five gallons; proceed as before. When cold, the vegetables can be covered with the liquid. It is very essential to see that the fruit or vegetables are completely covered by the solution at all times. Any fruit found floating on the top should be promptly removed, as it would tend to contaminate the contents of the vessel. If it is found that the solution is evaporating, more of the liquid should be added. It is perhaps as well to have the crocks, etc., have

TO INVENTORS.

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covers which fittight enough to prevent evaporation of the contents. All medical authorities do not consider	Car safety guard, street, C. M. Pratt	Loc
that this process of preserving fruit by salicylic acid is healthy.	Carbureter, J. S. Porter	Loc
(6918) G. K. D. says: I write to ask if you can furnish me with the approximate formula (as	lng, J. Déiss	Lu Ma Ma
exact as possible) of the composition used for making the Swedish safety matches, both the composition in the head of the match and the composition of the coating on	cooking, K. Hopkins. 663,860 Chain, drive, C. W. Schwartz, Jr. 554,030 Chain link, detachable, J. M. Dodge. 564,057	Ma Ma Ma
the box on which the match is struck. I refer to safety matches in general, not especially to the Swedish make,	Chair. See Folding chair. Chair attachment, b. Berkemeyer. 564,044 Chimney cowl, D. Scott. 563,803 Chuck, f. W. Sigel. 563,813	Ma Me Me Me
although that is a very good sample. A. 1. Dip the splints in a paste composed of chlorate of potash, 6 parts; sulphide of antimony, 2 to 3 parts; glue, weighed dry, 1	C. E. Perkins. 564.158	Me Me
part. The paste for the rubbing surface is amorphou phosphorus, 10 parts; oxide of manganese or sulphide	Camp. See Wire confining clamp. Cleaner. See Dish cleaner. Street cleaner. Clock, electrical programme, A. J. Reams	Mil Mil Mil
of antimony, 8 parts; glue, 3 to 6 parts, weighed dry. The ingredients must be thoroughly mixed and care	Cloth cutting machine, F. H. Caldwell	MU
must be taken not to mix the chlorate of potash in the dry state with the other materials; it should be mixed first with the glue dissolved in warm water. The paste	Con ee, method of an apparatus for drying, A. F.	Mo Mo Mu
for the rubbing surface may be spread with a brush or spatula on the side of the box. 2. Glue, 16 parts;	Collar, horse, R. G. Lehman	Na No
chrome yellow, 2 parts; oxide of iron, 2 parts; peroxide of manganese, 24 parts; hyposulphite of lead, 8 parts; and chlorate of potash, 36 parts. Composition for the	Concentrator, W. H. Rockfellow	Or (
box.—Hyposulphite of lead, 260 parts; chlorate of potash, 14 parts; oxide of iron, 7 parts; powdered glass, 8 parts;	Corn busker, G. C. Janney. 663,861 Corset, M. F. Linquist. 564,020 Coupling. See Car coupling. Hose coupling. 'Itill coupling.	Ox l'as Pai
finest glue, 4 parts; and amorphous phosphorus, 24 parts. Glue is dissolved in water; other ingredients, being in	Crusher mill, J. Walker 634,039 Curling iron. A. Morley .563,783 to 663,785 Curtain, flaxible, T. R. Bunn 663,785 Curtain bolder, C. J. Swanstrom 664,121	Pa Pa Per
powder, are afterward mixed with it to the consistence of paint and app ied with a brush to the surface of the box.	Curtain boider, C. J. Swanstrom	Pei Ph Ph
(6919) G. M. asks (1) whether in the manufacture of calcium, carbide for the production of	Damper, Dugan & Balley	Pb Pis Pic
acetylene gas, charcoal can be substituted for coal, in regions where wood is abundant and coal is scarce.	Die. See Screw Cuttink die.	Pili Pip Pit Ple
A. Charcoal probably could be substituted for coal, but the economy of so doing, and its practicability, would	Dish oleaner, J. E. Durand 983,914 Dishfrecting apparatus, F. W. Weiss 953,825 Display frame, L. T. Snow 564,634 Display stand, Illuminating, A. F. Baumer 853,732 Domestic boiler, G. C. Twyman 564,128 Door or shutter, Mathewaon & Grier 653,179 Door or window fastening, L. Grossmann 553,575 Down for table Lamplin & Hough 582,825	Plo Plo Plo
have to be the subject of experiment. 2. an fuel gas be made directly from wood or charcoal, the same as from coal in circumstances as described above? If so, where	Dredger, G. H. Nichols	Plo Por Por
can I find a description of the process? A. Yes; wood, on account of the hydrogen contained, would work better	Egg tester, J. L. Ritter	Po Po Po
perhaps than charcoal, and certainly much more economically, as it would avoid the loss of heating constituents incidental to the manufacture of charcoal. 3.	H. Hawes	Eri Pri Pri
Where can I find a description of the process for the manufacture of wood pulp for paper making? A. See	Electric resistances, instrument for measurement of N. Eversbed. 663,917 Electrical apparatus, protective appliance for, A. de Khotinsky	Pri Pri Pu
SUPPLEMENT, Nos. 732, 733, 734, 848, 872, 937, 951, 959, 960, and 982, for valuable data. 4. What numbers of the	Electrolytes, method of and apparatus for regu- lating temperature of, Kroseberg & Straub 663,972	Pu Pu Pu
SCIENTIFIC AMERICAN SUPPLEMENT contain an account of the electrical exhibition recently held in New York? A. Nos. 19, 20, 21, and 22, vol. 74.	Engine. See Rotary engine. Rotary steam engine. Steam engine.	Pu Pu
TO INVENTORS.	Urle	Pu Pu Ra
An experience of nearly tifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the	Envelop, M. Donnelly. **Excavating, etc., bucket or grapple for, G. M. Urle. 563,941 Excavator, J. J. Prendergast. 563,941 Excavator, J. J. Prendergast. C. Estabrook. 563,751 Eyes, instrument for determining errors of refraction in, A. Clarke. 564,125 Fabric cutting machine, Palmer & Mercer. 564,125 Faucet for liquids under pressure, regulator, S.C. 573,962	Ra Ra Ra Ra
laws and practice on both continents, and to possess un- equaled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons	Faucet for liquids under pressure, regulator, S.C. 578,962 Freels. 533,962 Rence machine, wire, A. Brown 533,737 Ferrillizers, means for distributing, H. H. Gridley 533,231 File, bill, J. M. Butcher 564,172 File for bolding sales sitps, Grady & Robson 553,862 Fire alarm system, automatic, J. Young 553,832 Fire and burg lar alarm, J. T. Peet 553,863 Fire extinguisher, D. Farrell, Jr 564,670 Fire extinguisher, automatic, C. E. Buell 553,973 Fire paid, chemical, C. R. Macomber 563,973	Ra Ra Re Re
contemplating the securing of patents, either at bome or abroad, are invited to write to this office for prices, which are low, in accordance with the times and our ex-	File for bolding sales slips, Grady & Robson	Re
tensive facilities for conducting the business. Address MUNN & CO., office SCIENTIFIC AMERICAN, 361 Broadway. New York.	Fire extinguisher, automatic, C. E. Buell	Ro
	Fire pail, chemical. C. R. Macomber	Ro
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		Stove oil burning attachment, P. Vanborn Stove, vapor, F. G. Palmer	563,897 563,982 563,982	Red Shir
bt, N.		Straw harpoon, J. A. McGreevey	563,790 564,013 563,870	Wai Woo
	564,177 564,152 563,769	Stuffing box gland, separable, Reece & Primm Sucker rod wrench, C. L. Dunbam. Surveyor's monument, R. J. Nortbam.	564,028 563,848 564,025	any
esand	563,745	Suspenderends, hook and eye for, J. T. Barrow Suspension wheel, A. E. Morey Switch. See Railway switch.	563,731 563,782	issue 10 ce of t
	563,865 563,868	Stop motion, W. S. Hamm. Stopper. See Bottle stopper. Stoyer oil burning attachment, P. Vanborn. Stove, vapor, F. G. Palmer. Strainer, G. R. Melonev. Straw harpoon, J. A. McGreevey. Straw harpoon, J. A. McGreevey. Street cleaner, R. W. Furnas. Street sweeper, H. Mueller, Jr. Stuffing box gland, separable, Reece & Primm. Sucker rod wrench. C. L. Dubbam. Surveyor's monument, R. J. Northam. Suspenderends, hook and eye for, J. T. Barrow. Suspension wheel, A. E. Morey. Switch. See Railway switch. Table. See Drawing table. Tack, E. Keunsball. Tacke block. J. Fraser. Tall fastener, W. T. Merriman. Tank. See Flushing tank. Tanning hites, C. Knees.	563,969 564,012	Bros a lar
erring,	004.021	Tau Insteller, W. T. Merriman	564,086	rent rent
1 lock.		Telegraphy, printing, J. J. Reifgraber	564,101	it St

Telephone system, W. R. Patterson Telephone system, A. Graham	563.87
Telephone system, A. Graham	563,87
Thermostat, L. G. Woolley. Thill coupling, W. L. De Grace. Thill coupling, G. A. Fowler. Thill retainer, J. Barr.	563,936 563,831 663,840
Thill counting W. I. De Grace	663 84
Thill counting G A Fowler	564 011
Thill retainer 1 Rese	564,011 563,900
Tolli retainer, J. Barr Ticket stamping and supplying apparatus, col- controlled, C. Berzdorf. Till and recorder, combined cash, W. T. Blaine. Time indicator and register, Helfenstein Hollmas	
controlled C Peridonf	ER2 72/
Controlled, C. Derzuori	563,734
Till and recorder, combined cash, w. T. Blaine.	564,048
Time indicator and register, Heirenstein	&
	002,01
Tire. bicycle, H. A. Veazie	563,82
	563.76
Tire, elastic steel, B. Frohlich Tire tightener, F. M. Cromer	564,007
Tire, pneumatic, T. B. Sloper	564.11
Tire tightener, F. M. Cromer Tire, pneumatic, T. B. Sloper Tire, wheel, H. A. Veazie.	563,82
cber	663,839
cher Tires to wheels, machine for securing, W. h	4.
Tollet hox. M. S. Rowland	663.98
Tongs operating apparatus H. Aiken	564.04
Tongs operating apparatus, H. Aiken Toy, J. L. Ken dall	
TOY, Dechanical, W. L. Urqubart. Toy puzzle, A. H. Jones. Trace carrier, F. P. McElfresb. Track brake, H. Custin	663.89
Townwale A lones	563 06
Toy puzzle, A. H. Jones	563,87
Manage backs TI Treating	663.88
Track brake, H. Kustin. Track construction and fittings, T. Clifton Track sander, pneumatic, F. M. Dean	003,00
Track brake, H. Kustin. Track construction and fittings, T. Clifton Track sander, pneumatic, F. M. Dean Transformer rotaty E. Thomson	003,70
Track sander, pneumatic, F. M. Dean Transformer, rotary, E. Thomson.	563,69
1rap. See Animai trap.	
Trestie, adjustable, J. C. Crist	564.04
Trap. See Animal trap. Trap. See Animal trap. Trestle, adjustable, J. C. Crist. Triuming, millinery, S. Symons. Triplicating register, W. T. Blaine. Trolley fuder, It. H. Blan chard. Trolley track, L. Coburn. Trunk cabinet, Cavanaugh & Lusberg. Trunk cabinet, Cavanaugh & Lusberg.	563.81
Triplicating register, W. T. Blaine	564.040
Trolley finder, H. H. Blan chard	563,99
Trolley track, L. Coburn	564,00 563,74
Trolley wheel, W. C. Cottrell	663,74
Trunk cahinet. Cavanaugh & Lusherg	663,84
Tube machine, metal, G. W. Peters	563,79
Troposotting machine & H & P E Hodgkin	564,070
	ooz,on
Hougkin	502,010
Umbrena case, G. A. Lioyu	563.86
Hodgkin. Umbrella case, G. K. Lloyd. Valve, A. M. Clark.	503,74
VAIVE, H. E. WEIIS	003,94
Umbrella case, G. K. Lloyd. Valve, A. M. Clark. Valve, A. E. Wells. Valve, automatic, A. G. Paul. Valve, automatic stop, J. S. Dodge. Valve device, compound engine, E. F. C. Davis. Valve, engine, C. A. Wheeler.	563,74 563,94 79, 563,88
Valve, automatic stop, J. S. Dodge	564,00
Valve device, compound engine, E. F. C. Davis.	564,06
valve, engine, C. A. w neeler	563.82
Valve, engine, C. A. Wheeler	o
Valve, hydraulic pressure regulating, E. (o
Valve, hydraulic pressure regulating, E. (o
Valve, hydraulic pressure regulating, E. (Thompson	O. 564,16 564,05
Valve, hydraulic pressure regulating, E. (Thompson	O. 564,16 564,05
Valve, hydraulic pressure regulating, E. (Thompson	O. 564,16 564,05
Valve, hydraulic pressure regulating, E. (Thompson	O. 564,16 564,05
Valve, hydraulic pressure regulating, E. (Thompson	0. 564,16 564,05 & 564,11 66, 564,07 663,96
Valve, hydraulic pressure regulating, E. (Thompson	0. 564,16 564,05 & 564,11 66, 564,07 563,96
Valve, hydraulic pressure regulating, E. (Thompson. Valve operating deer ce, E. F. C. Davis Valve operating mechanism, engine, Sheff Riggs Valve, quick action triple, W. Hirst	0. 564,16 564,05 & 564,11 66, 564,07 563,96
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, quick action triple, W. Hirst	0
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, quick action triple, W. Hirst	0
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle running gear, E. J. Laban. Velocipede, F. S. Buckingham.	564,16 564,05 66,564,07 564,07 563,96 564,01 563,90 564,01 563,90
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle running gear, E. J. Laban. Velocipede, F. S. Buckingham.	564,16 564,05 66,564,07 564,07 563,96 564,01 563,90 564,01 563,90
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle running gear, E. J. Laban. Velocipede, F. S. Buckingham.	564,16 564,05 66,564,07 564,07 563,96 564,01 563,90 564,01 563,90
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy. Vehicle brake, O. M. Kirlin. Vehicle run, J. A. Woodwortb. Vehicle run, J. A. Woodwortb. Vehicle running sear, E. J. Lahan Velocipede, F. S. Buckingham. Velocipede, F. T. Millet. Vending machine, colu controlled, C. E. M. Vending machine, colu controlled, C. E. M.	0 564,16 564,05 & 564,07 564,111 563,96 564,10 563,90 564,15 564,15 564,15
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy. Vehicle brake, O. M. Kirlin. Vehicle run, J. A. Woodwortb. Vehicle run, J. A. Woodwortb. Vehicle running sear, E. J. Lahan Velocipede, F. S. Buckingham. Velocipede, F. T. Millet. Vending machine, colu controlled, C. E. M. Vending machine, colu controlled, C. E. M.	0 564,16 564,05 & 564,07 564,111 563,96 564,10 563,90 564,15 564,15 564,15
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enrine, Sheff Riggs. Valve, quick action triple, W. Hirst	0 564,16 564,05 & 564,07 66. 564,07 66. 564,07 564,07 564,08 564,15 563,90 563,90 563,78
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Buckingham. Velocipede, F. S. Buckingham. Velocipede, F. T. Millet. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin actuated, J. P. Beretta. Vendels, apparatus for raising surken, C. Cumping.	564,16 564,06 665,564,07 564,07 564,07 564,07 564,07 564,07 564,07 564,07 564,07 564,07 564,17 563,90 563,78
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enrine, Sheff Riggs	564,16 564,06 564,07 564,07 564,07 563,90 564,01 564,01 564,01 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,18
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enrine, Sheff Riggs	564,16 564,06 564,07 564,07 564,07 564,07 564,07 564,01 564,01 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,18
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enrine, Sheff Riggs	564,16 564,06 564,07 564,07 564,07 564,07 564,07 564,01 564,01 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,18
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enrine, Sheff Riggs	564,16 564,06 564,07 564,07 564,07 564,07 564,07 564,01 564,01 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,17 564,18
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle running gear, E. J. Lahan Vehicle running gear, E. J. Lahan Velocipede, F. S. Buckingham Velocipede, F. T. Millet. Vending machine, coin controlled, C. E. M Dowell Vessels, apparatus for raising sucken, C. Cur ninge Vessels, etc., automatic means for closing lea in marine, H. Bricard. Violin bow, J. D. Loppentien. Washing machine, L. L. Chase. Washtub, W. B. Bolton	564.16 564.06 6564.07 564.07 564.07 564.01 564.01 564.01 564.01 564.01 563.00 563.00 563.00 564.01 564.01 564.01 564.01 564.01 564.01 564.01 564.01 564.01 564.01 564.00 564.01 564.01 564.01 564.00
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Buckingham. Velocipede, F. T. Millet. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin controlled, C. E. M Dowell. Vessels, apparatus for raising sunken, C. Cum inga. Vessels, etc., automatic means for closing lea in marine, H. Bricard. Violin bow, J. D. Loppentien. Washing machine, L. L. Chase. Washtuk, W. B. Botton.	564,16 564,06 564,07 565,564,07 563,96 563,96 564,08 564,08 564,08 564,15 563,76 663,75 Ks 564,14 564,08 564,16 564,08 564,16 564,08
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Buckingham. Velocipede, F. T. Millet. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin controlled, C. E. M Dowell. Vessels, apparatus for raising sunken, C. Cum inga. Vessels, etc., automatic means for closing lea in marine, H. Bricard. Violin bow, J. D. Loppentien. Washing machine, L. L. Chase. Washtuk, W. B. Botton.	564,16 564,06 564,07 565,564,07 563,96 563,96 564,08 564,08 564,08 564,15 563,76 663,75 Ks 564,14 564,08 564,16 564,08 564,16 564,08
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, Signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Woodwortb. Vehicle rum, J. A. Buckingham. Velocipede, F. T. Millet. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin controlled, C. E. M Dowell. Vessels, apparatus for raising sunken, C. Cum inga. Vessels, etc., automatic means for closing lea in marine, H. Bricard. Violin bow, J. D. Loppentien. Washing machine, L. L. Chase. Washtuk, W. B. Botton.	564,16 564,06 564,07 565,564,07 563,96 563,96 564,08 564,08 564,08 564,15 563,76 663,75 Ks 564,14 564,08 564,16 564,08 564,16 564,08
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Valve, safety gas, C. O. Jackson Velocipe trim, J. A. Woodwortb Vehicle brake, O. M. Kirlin Vehicle running gear, E. J. Laban Velocipede, F. S. Buckingham Velocipede, F. T. Millet Vending machine, coin controlled, C. E. M Dowell Vessels, apparatus for raising surken, C. Cur minge Vessels, atomatic means for ciosing lea in marine, H. Bricard. Violin bow, J. D. Loppentien. Washing machine, the L. Chase. Washtub, W. B. Bolton Watch, stem winding and setting, G. A. & J. Lockwood.	0. 564,166. 564,07. 665,694,07. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,107. 564,007
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Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin Vehicle run, J. A. Woodwortb Vehicle run, J. A. Woodwortb Vehicle run, J. A. Woodwortb Vehicle run, J. A. Buckingham Velocipede, F. S. Buckingham Velocipede, F. T. Millet Vending machine, coin actuated, J. P. Beretta. Vending machine, coin controlled, C. E. M. Dowell Vessels, apparatus for raising sunken, C. Cur minge Vessels, etc., automatic means for closing lea in marine, H. Bricard Valve, B. Bolton Washing machine, L. L. Chase Washing machine, L. L. Chase Washing wachine, L. L. Chase Washub, W. B. Bolton Watch. stem winding and setting, G. A. & J. Lockwood Waterwage, C. B. Mather Water purifying apparatus, R. T. Scowden Weatber vanes, ornamental indicator for, A.	564,166 666,066 666
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle rum, J. A. Woodwortb. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin controlled, C. E. M Dowell. Vessels, apparatus for raising sunken, C. Cum ings	564,166 666,066 666
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating me chanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle rum, J. A. Woodwortb. Vending machine, coin actuated, J. P. Beretta. Vending machine, coin controlled, C. E. M Dowell. Vessels, apparatus for raising sunken, C. Cum ings	564,166,266,266,266,266,266,266,266,266,266
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle run, J. A. Woodworth Vehicle run, J. A. Woodworth Vehicle run, J. R. Woodworth Vehicle run, J. R. Woodworth Vehicle run, J. R. Woodworth Vending machine, coin actuated J. P. Beretta Vending machine, coin actuated J. P. Beretta Vending machine, coin actuated J. P. Beretta Vending machine, coin controlled, C. E. M Dowell Vessels, apparatus for raising sunken, C. Cur mings Vessels, atc., automatic means for closing lea in marine, H. Bricard Violin bow, J. D. Loppentien. Washing machine, L. L. Chase. Washtub, W. B. Bolton. Watch stem winding and setting, G. A. & J. Lockwood. Waterwage, C. B. Mather. Water heater, M. J. Lordier. Water purifying apparatus, R. T. Scowden. Weatber vanes, ornamental indicator for, A. Weighing apparatus, V. Ratcliff.	564,166,266,266,266,266,266,266,266,266,266
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle run, J. A. Woodwortb. Vehicle run, J. A. Woodwortb. Vehicle running gear, E. J. Laban. Velocipede, F. S. Buckingbam. Velocipede, F. T. Millet. Vending machine, colu actuated, J. P. Beretta. Vending machine, colu actuated, J. P. Beretta. Vending machine, colu actuated, J. P. Beretta. Vending machine, colu controlled, C. E. M. Vossels, apparatus for raising sunken, C. Cur minge. Vessels, etc., automatic means for closing lea in marine, H. Bricard. Vashing machine, L. L. Chase. Washtub, W. B. Bolton. Watch, stem winding and setting, G. A. & J. Lockwood. Waterwage, C. B. Mather. Water beater, M. J. Lordier. Water baster, M. J. Lordier. Water vanes, ornamental indicator for, A. Munson. Weighing apparatus, V. Ratcliff. Weidling machine, seam, M. Baumann.	564,166 6564,056 6564,056 6564,056 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,97 6563,98 6563,93 6563,98
Valve, hydraulic pressure regulating, E. (Thompson Valve operating device, E. F. C. Davis Valve operating mechanism, enzine, Sheff Riggs Valve, safety gas, C. O. Jackson Valve, signaling safety, J. J. Roy Vehicle brake, O. M. Kirlin. Vehicle run, J. A. Woodwortb. Vehicle run, J. A. Woodwortb. Vehicle running gear, E. J. Laban. Velocipede, F. S. Buckingbam. Velocipede, F. T. Millet. Vending machine, colu actuated, J. P. Beretta. Vending machine, colu actuated, J. P. Beretta. Vending machine, colu actuated, J. P. Beretta. Vending machine, colu controlled, C. E. M. Vossels, apparatus for raising sunken, C. Cur minge. Vessels, etc., automatic means for closing lea in marine, H. Bricard. Vashing machine, L. L. Chase. Washtub, W. B. Bolton. Watch, stem winding and setting, G. A. & J. Lockwood. Waterwage, C. B. Mather. Water beater, M. J. Lordier. Water baster, M. J. Lordier. Water vanes, ornamental indicator for, A. Munson. Weighing apparatus, V. Ratcliff. Weidling machine, seam, M. Baumann.	564,166 6564,056 6564,056 6564,056 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,96 6563,97 6563,98 6563,93 6563,98
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DESIGNS.

Badge, J.F. Shipp. 25,767 Belt pin, B. Rice. 25,770 Brush bandle, bicycle, F.G. Neubert. 25,775	
Button, G. A. Schlechter. 25,768 Cabinet, folding, E. H. Grant 25,788 Corkscrew collar, E. Walker 25,776	
Cyclometer casing, F. Hart	
rows. 25,780 Hoisting machinery cross head, F. A. Bates. 25,778 Mat, H. Stubner. 25,777 Necktie holder, P. Hennessy 25,771	
Oven, bake, E. H. Huenefeld	
Shelf bracket. T. Corscaden. 25,785 Sbutter bowing clasp, window, W. H. Bothwell. 25,781 Sliversmith's stock or ornament, P. Mubr 25,769	
Fire valve cap, G. H. F. Schrader. 25,774 Furning machin e roller, M. Ross. 25,779 Water pillow, A. A. Stoll 25,766	

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pany	20,011
pany. Bicycles, B. F. Raynor, Jr	28,612
Bicycles, B. F. Raynor, Jr	28,613
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Remington Arms Company. Carpet sweepers, Bissell Carpet Sweeper Company Cement, imported, F. W. Douglas. Clears, E. Seidenberg, Stiefel & Company	28,598
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Cigars, C. Upman	28,088
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Cotton goods, Marshall Field & Company	28,576
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cle Fittings Company	20,000
pany28,577, 28,579,	28,580
Enamel and bouse paints, varnishes and japans,	•
McLennan-French Paint Company	28,600
Field & Company	28,578
Farm implements. T. Cascaden. Jr	28,614
Flour, J. B. Camors & Company	28,594
Flour. wheat. ('bristiansen & Henderson	28,595
Garment supporters. C. D. Shain	20.00
Guano superphosphates and fertilging composi-	
tions, R. W. L. Rasin	28,603
Gum, chewing, D. Norris	28,590
Lap robes, Rippowam woolen Manufacturing	28.587
Linena Regenhart & Raymann	28,58
Company	28,590
Oils, lubricating, F. A. Schnorr	28,590
Pille I Hughes 98 806	28,607
Powders for the feet. A. S. Olmsted	28,605
Preparations for preventing and overcoming odors from perspiration, S. C. Noble	
odors from perspiration, S. C. Noble	28,604
Pumps and engines, Geo. F. Blake Manufacturing	90 615
Company	28,600
Shirtings and sheetings, Wamsutta Mills	28,588
Shirtings and sheetings, Wamsutta Mills	28,584
Wood nilers, primers and paints, Bridgeport Wood	90 601
Finishing Company	40,00

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