

**RECENTLY PATENTED INVENTIONS.**  
Of Interest to Farmers.

**SEED-SOWING MACHINE.**—M. H. BROWNING, Perry, Ill. In this patent the invention is an improvement on that class of broadcast seed-sowing machines which are particularly adapted for sowing clover and other seeds among standing corn or on ground in which corn or other crop has been planted in rows.

**BEEF-HARVESTER.**—J. F. SANDBERG, Smithfield, Utah. The beets are planted in rows. A rotary cutter at the front end cuts off the very rank tops and a toppler by its blades co-operating with the roller operates to cut the top portions sufficiently below the ground surface, the scraper following and discharging tops to one side, the plow following in line with the rows and digging out the beets, disintegrating the soil and separating it from the beets by aid of pins. A rake in the plow's rear gathers and discharges the beets by aid of the toothed roller to a trough at the rear where they are discharged aside by the conveyer.

**Of General Interest.**

**LOGGING DEVICE.**—G. MOORE, Granite Falls, Wash. The invention relates to logging devices such as shown and described in the Letters Patent of the United States formerly granted to Mr. Moore. The object of the present improvement is to provide a device arranged to permit convenient running of the logs down steep grades under perfect control of the operator and without danger of injuring the logs or wasting time.

**LOCKING DEVICE FOR UMBRELLAS.**—E. MOSES, Jennings, La. One purpose of this invention is to provide a lock or catch forming a portion of an umbrella or parasol which cannot be unlocked to open the umbrella except by one familiar with the combination, or by violent means, or by taking the lock apart, the object being to prevent the indiscriminate appropriation of umbrellas by persons not entitled to their use.

**PROCESS OF MAKING FERTILIZER FROM LEATHER SCRAP.**—E. J. FUCHS, Scranton, Pa. The invention refers to the material known as "ammoniate fertilizer," which is made from the scraps and refuse portions of vegetable-tanned leather. This ammoniate is employed mainly in the manufacture of fertilizers. By preparing the ammoniate so that it contains no tannin and little or no unavailable ammonia its quality is greatly improved, and by eliminating the soluble tannin it is possible to practically make all of the ammonia available.

**CONTRACTIBLE MOLD.**—G. GEORGENSON and J. E. HENNING, Fond Du Lac, Wis. This flexible mold is for use in the construction of arches, culverts, sewers, or the like, in which a temporary support is required for the cement, brick, or stone used in construction. A "cylinder" is employed, being formed of sheet metal and provided interiorly with means for expanding and contracting it.

**WHIP-SOCKET.**—T. ARMSTRONG, Saranac, N. Y. In this case the invention has reference to improvements in whip-sockets, the object being to provide a novel and simple means for locking the whip-stock in the socket, thus preventing the removal excepting upon its release by unlocking the retaining mechanism.

**SAFETY-RAZOR.**—J. R. CURLEY, New York, N. Y. Mr. Curley has for an object the provision of a razor arranged to permit of using the implement to produce either a right or left hand shearing cut or a straight scraping cut and to allow convenient opening for cleaning purposes and insertion and removal of the blade and a very fine adjustment of the blade relative to the guard.

**PROCESS OF MAKING VANILLIN.**—E. L. FROGER-DELAPIERRE, 25 Rue de Belfort, Courbevois, Seine, France. The present invention has for its object a process for the production of vanillin or other aromatic aldehydes containing free phenol groups. This process is based upon the oxidizing action exerted by oxygen in presence of terpins, sesquiterpins, etc., upon phenols containing allyl groups or propenyl groups, or upon certain derivatives of such phenols with free phenol groups, such as clove-oil, eugenol, isoeugenol, and their analogues.

**MARINE VESSEL.**—J. F. GRAY, Portsmouth, N. H. By means of this invention, Mr. Gray provides a life-boat completely inclosed, and which may be operated as a submarine and to allow persons to enter the life-boat even after the wreckage of the larger vessel without in any way opening the life-boat to the surrounding air or water, as the case may be, after which the life-boat may be sealed, and disconnected from the larger vessel, the life-boat being fitted with propelling means, and such equipment as will render it self-sustaining.

**CARD-CASE.**—M. NIELL, New York, N. Y. In this patent the invention refers to card-cases to hold business or personal cards, and has for its object the provision of a case adapted to hold such cards, to keep them in a serviceable condition, and to enable one card to be withdrawn from the case without handling the remaining cards therein.

**SOAP.**—L. H. REUTER, New York, N. Y. Average soap of the market contains too much free alkali—so much, indeed, that it cannot be used without injury for toilet, medicinal,

or technical purposes. On a large scale a neutral soap is not obtainable in one operation, and therefore practically all soap manufactured necessarily contains an excess of free alkali, which can only be removed in a second operation—for instance, by neutralization with an acid.

**BRICK-KILN.**—C. K. WELLER, Atlanta, Ga. The object of this improvement is to provide a structure wherein it is not necessary to cover the entire length of the kiln-floor, as in other structures heretofore used, before turning the drying-air into the duct; but as fast as a bench or section of the brick is set the air may be turned into it and the drying commenced, thus facilitating the working of the kiln.

**DRAFTING APPARATUS.**—T. F. WILLIAMS, New Bethlehem, Pa. This apparatus is especially useful in connection with devices embodying the use of scales for the purpose of measurement. The object of the inventor is to provide an apparatus which permits the drafting of designs and other drawings with exactness and rapidity and which facilitates the laying off of measured distances in horizontal or vertical directions.

**COMPOSITION FOR SOUND-RECORDS.**—E. J. B. BROCHERIOUX, P. J. TOCHON, A. FORTIER, and L. V. MAROTTE, 23 Quai Voltaire, Paris, France. The object of this invention is the production of a special composition designed to be applied to the surface of paper, cardboard, pasteboard, and other substances to form a film or coating on which sounds may be recorded and subsequently reproduced by means of a phonograph. It is especially suitable for the production of cards which bearing the record may be forwarded by post and read by the recipient by means of a phonograph.

**HYPODERMIC SYRINGE.**—J. DE LISLE, New York, N. Y. The object of the present invention is to provide a syringe arranged to contain antitoxin serum in an absolutely aseptic condition during the time the syringe is stored or in transit and to enable the user to readily rearrange the parts to allow a free unobstructed flow of the serum through the needle when the syringe is used. It relates to hypodermic syringes, such as shown and described in Letters Patent of the United States formerly granted to Mr. De Lisle.

**TOBACCO-BOX.**—M. B. BEHRMAN, Baltimore, Md. The inventor produces an improved tobacco-box which is simply and durably constructed and adapted to be carried in the pocket to contain and protect a tobacco plug, and having an attachment which may be quickly and easily operated to sever a portion of a size suitable for chewing. The inconvenience of using a pocket-knife is thus avoided. Mr. Behrman has invented another tobacco-box and it is an improvement in that class of pocket tobacco-boxes which are provided with a cutting attachment for severing from a plug portions or sections of a size adapted for chewing.

**PAPER-ROLL HOLDER AND CUTTER.**—J. F. FINAN, Cumberland, Md. The invention consists in an improvement upon the general construction of a roll-holder and cutter, seen in previous patents granted to Mr. Finan. In the present improvement the cutter-bar gravitates to its outward position by reason of downwardly-inclined guides, and is one in which a simple and better construction is obtained. The cutter devices may be applied to any form of roll holder already in use as a wall-bracket.

**UMBRELLA.**—P. GREEN, Wytheville, Va. The invention pertains particularly to the means whereby an umbrella is held open and closed by the operation of a runner in connection with a stick. In operation a spring-latch will be disengaged by small pressure upon the thimble in the direction of length of the stick when it is desired to adjust the umbrella from open to closed position, or vice versa.

**NUT-LOCK.**—E. L. PITTS, Phoenix, Ariz. In this case the invention is an improved nut-fastening adapted for application in various ways, but particularly for the pivots of barbers' shears, scissors, and other cutting implements. It is applicable as a nut-lock and screw attachment for connecting any two or more parts, whether movable on each other or not.

**DISPLAY-HANGER.**—R. O. DOUGHTY, Mount Pleasant, Mich. The object in this instance is to provide a hanger or merchandise-support, more especially designed for use in stores and arranged to compactly support and display for scarfs, collars, muffs and other articles to the greatest advantage, and at the same time preventing petty theft or removal of the articles by unauthorized persons.

**TELEGRAPHIC CODE.**—A. M. FISHER, Box 1375, New York, N. Y. The object of the invention is to provide a code, more especially designed for the use of large business concerns and arranged to permit convenient and accurate codifying of correspondence, specifications, orders, and the like, each code-word being readily pronounceable and of not more than ten letters.

**Hardware.**

**PIPE-CLAMP.**—R. PARKER, Lakewood, N. J. This invention is an improved clamp embodying in its construction a plurality of jaws which are universally adjustable, adapting them to support pipes of irregular forms,

branch joints, and any kind of pipe-fitting. The nature of the construction is such that it may be folded to occupy a small compass, enabling the clamp to be conveniently carried from place to place, and manufactured at a small cost.

**TOOL.**—J. B. KRAUS, Puyallup, Wash. This invention relates to watchmakers' tools; and its object is to provide a tool for accurately and quickly placing the roller-table in position on the balance-staff in a very convenient manner and without danger of injuring the roller-jewel, pivots, or balance-wheel.

**Household Utilities.**

**SHOVEL.**—C. F. SMITH, New York, N. Y. This shovel is for use in sifting ashes, especially before the same are removed from the stove. The invention is particularly directed to a form of detachable bottom for the shovel and a novel device for securing the same in place, the device being of such construction and placed in such position as not to interfere with the use of the shovel in the ordinary manner.

**LIQUID-SEPARATOR.**—G. W. DIXON, Chicago, Ill. This invention relates to improvements in devices for the separation of light matter from heavy liquids—such as cream, oils, fats, grease, and the like—the object being to produce a simple device particularly adapted for household use in separating cream from milk in bottles or other receptacles.

**Machines and Mechanical Devices.**

**ASH-HANDLING CRANE.**—C. R. ORD, McAdam, New Brunswick, Canada. The object of the invention is to produce an apparatus especially adapted for handling ashes or cinders, facilitating the unloading and dumping operation. More specifically, the invention relates to means for dumping the bucket in which the ashes or cinders are carried, and, further, in providing an arrangement which tends to decrease the amount of leakage at the operating-cylinder.

**MACHINE FOR SHAPING PRUNES.**—A. C. BURDICK, Portland, Ore. This invention relates to a machine for shaping prunes, it being especially designed to roll dry or evaporated prunes into a novel shape, as best adapted for the top layer when packing them in boxes and commonly known as "facing" prunes. The machine is capable of acting on a large number of prunes simultaneously, thereby shaping them with facility and at a nominal cost.

**COTTON-GIN ATTACHMENT.**—G. W. LONG, Lindsay, Indian Ter. In this patent the invention relates to means for conveying or removing the cotton-seed from the gin-box, and has for its object peculiar, novel, and improved means for the purpose stated, the same being designed for use in place of the screw conveyer commonly employed in the bottom of the seedbox.

**WRAPPING-MACHINE.**—A. H. POTBURY, Portland, Ore. Caramels are supplied to links of a chain, which stops when a caramel is in position for removal. During movement of chain a strip of paper is fed into a paper-slot and then an arm swings to sweep the caramel into place for engagement by a plunger. In the meantime, severed from the strip, the caramel and paper move into a folding-box and then follows a process of folding the caramel. A new one is now placed on a new strip fed forward above the folded caramel, the plunger forcing the wrapped caramel into a chute. This movement makes the final folding, turning the folded ends up against the ends of the caramel, and completing the wrapping.

**Prime Movers and Their Accessories.**

**INTERNAL-COMBUSTION ENGINE.**—F. WACKENHUTH, Newark, N. J. The engine is particularly useful in burning liquid fuels, but operative in connection with gaseous or solid fuels, if desired. The object of the invention primarily is to secure complete combustion of fuel, at the same time avoiding loss of heat and radiation through the cylinder-walls and contamination of the fresh charge by the products of previous combustion within the cylinder.

**RELIEF-VALVE FOR LOCOMOTIVES.**—T. E. BEAGHAN, H. E. REID, and J. H. BEST, Shenandoah, Va. The object of the invention is to provide an arrangement which will operate to prevent compression in the ends of the cylinder or steam-chest when the pistons are moving freely therein and without steam and under such conditions as arise when the locomotive is driven or running freely without steam, as in stopping or in going down a grade.

**HORIZONTAL BOILER.**—J. C. PARKER, Red Bank, N. J. The brick arch commonly used in boilers for closing off the draft between the fire-box and the front end of the boiler is done away with in this case and is replaced by a coil of pipe having both ends connected to the boiler and covered with asbestos. By reason of deterioration this arch was rebuilt several times during the life of the boiler. This inventor effects just as perfect a seal between the fire-box and the front of the boiler and at the same time the water circulating in the coil forming this seal aids in generation of steam by the absorption of heat which would otherwise be lost.

**Railways and Their Accessories.**

**MAIL-BAG-DELIVERY DEVICE.**—P. J. A. SCHNOOR, Holstein, Iowa. The mail-bag is suspended from one of two supports on the derrick at the station or railway side, and a bag is also suspended from the head at the free or outer extremity of crane, the latter obviously being adjusted outwardly from the side of the car. As the car moves along the mail-bag on the derrick will be taken up by the crane, and the mail-bag on the crane will be taken up by the derrick.

**Pertaining to Recreation.**

**AMUSEMENT DEVICE.**—H. S. BASSETT, Edwall, Wash. This invention relates to that class of amusement devices designed for the production of peculiar sounds, and more particularly to devices in which the sound is produced by the vibration of a thin strip of material when exposed to the influence of a blast of air. The device may be carried in the pocket. Sounds may be produced by inserting the device between the lips and blowing through the same.

**FISH-HOOK.**—W. J. EVANS, Minneapolis, Minn. On this hook the bait is fully exposed at all times, but cannot escape from the hook or be detached by the fish. At the same time no part of the hook is passed through the body of the bait and the frog, the bait preferably used, may swim about, and even rise to the surface and breathe with nearly as great freedom as though the hook were not attached. The swimming bait attracts the fish and cruelty to live bait is obviated.

**Pertaining to Vehicles.**

**STEERING DEVICE FOR WHEELED VEHICLES.**—J. W. LOVE, Truby, Texas. The invention has reference more especially to steering devices for wheeled vehicles, such as cultivators, planters, sulky-plows, grain-drills, and the like; and one of the principal objects thereof is to overcome numerous disadvantages and objections frequently encountered in the use of other contrivances or structures hitherto devised for similar purposes.

**VEHICLE-TIRE.**—F. HITCHCOCK, Freeport, New York. One purpose of the invention is to provide an armor for use in connection with the shoe of an automobile or other vehicle tire and a protection for the inner tube, rendering the tire punctureless, and to so construct and apply the armor that it will not detract from the usual elasticity of such tires.

**Designs.**

**DESIGN FOR A WALL-COVERING.**—L. PRONBERGER, Berlin, Germany. This design for a wall-covering comprises alternate vertical bands, the broadest of which have a moire effect and at regular intervals ornamented with comparatively large fleur de lis.

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



**HINTS TO CORRESPONDENTS.**

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

(10374) J. D. W. C. asks: Inasmuch as it is frequently stated to be a fairly well-established fact that our sun, with his attendant and dependent flock of planets, are in flight as one body, with some distant star as a center of the solar system combined orbit, it would be interesting to know the probable time, in earth-years, to complete the circuit. I am unable to find information on this point. If not too much trouble, please reply through inquiry column. A. There is no knowledge whatever upon the length of time required for our sun to make one circuit of its mighty orbit. It is quite a well-established fact that the sun and, of course, his family of planets with him, are moving in a certain direction in space. The stars in the quarter of the sky from which the sun is going are slowly moving apparently toward each other, and at the opposite point of the sky the stars are apparently moving farther from each other. Sufficient time has not elapsed since these observations began to enable one to determine the rate of the motion of the sun.

(10375) J. T. H. asks: Will you explain what makes the two images in a pair of

glasses? I often see objects in my glasses reflected from behind me, one very clear reflection and the other dim to the right of the right eye and to the left of the left eye. I have also noticed my own reflection in the same way in a looking glass when held close to the face, but not when held at a distance of a foot away. A. There are two surfaces of every lens or mirror of glass coated on its back. Both of these surfaces reflect light from behind and to the side of the one wearing the glasses. If it is lighter in front than at the back, one does not notice these reflections and the images they form; but if it is dark in front and light behind the person, one can see the objects behind him. He may even see a double reflection of the same object, one from the front surface and the other from the back surface of the glass. One may easily amuse himself by experimenting in order to learn how much he may see in his glasses in this way.

(10376) S. A. H. asks: A friend makes the statement that a wagon wheel in motion moves faster at the top than at the bottom or portion on the ground. Is this the case? A. To answer the question, "Does the top of a wagon wheel move faster than the bottom?" it is necessary to define the word "move." When that is done it becomes evident that the question is very indefinite. A rotating wheel moves with the same velocity in every part, as measured in degrees of the circumference. If it did not it would break in pieces. The wheel has another motion as a whole along the road. In this respect the wheel moves all together and therefore with the same velocity. Still another motion is that of any point of the wheel with reference to a line on the ground. At one moment a point on the rim of the wheel is in contact with this line; it then rises till it is the entire diameter of the wheel above the line, and then descends till the point is again in contact with the ground. The wheel has meanwhile gone a distance equal to its circumference. The point has risen in a cycloid and moved down again in the same kind of curve. At any moment the point of the rim which is coming down to the ground is also coming to rest as viewed from that point of the ground. It touches the ground for an instant and moves up again. Since it was descending and now is ascending it is evident that between the two it must have come to rest. Since it is at rest for the instant it is in contact with the earth, that point is a center of motion, the hub is moving with a certain rate and the rim at the top is moving twice as fast as the hub in a forward direction. Now the front point of the rim is moving vertically down and the rear point is moving vertically upward at the same moment. This is one of the perpetually recurring questions. We have answered it hundreds of times. We have published notes upon it many times. Among recent notes, see Notes and Queries in Vol. 92, Nos. 16, 20, 25; Vol. 93, No. 2, price 10 cents each.

(10377) W. L. S. writes: I notice your answer to queries, No. 10297, in issue of January 19, 1907, and also remember substantially the same answer to a question about a year ago—that water would not burst barrels in freezing if the barrels were open at one end. On the contrary, they will burst in very cold weather, as I know from experience. For twenty-five years I was engaged in milling in southeast Missouri and for ten years had to get new barrels or repair the old ones every spring. At last I put in each barrel a piece of straight-grained wood about 2 x 2, with a hole 3/4 inch bored through it about half the distance from the bottom to top of barrel. This piece of wood was allowed to extend 3 or 4 inches above the barrel. After putting in these pieces of wood our barrels would last, and hold water, for five or six years, and would freeze solid during the winter without injuring the barrels.

(10378) F. B. asks: How many pounds pressure would I get on a 12-inch pipe, running to a turbine, with a tank of water holding one and one-half million gallons of water, with a ten-foot fall? How many horse-power would I gain with every ten-foot fall through the same pipe? How many horse-power will it require to lift a six-inch stream of water 100 feet with the best pump, and will it take twice as much power to lift a 12-inch stream the same height? A. You would have 41-3 pounds per square inch pressure at the turbine. It is possible to obtain 5 horse-power from the 12-inch pipe, and the same for each additional 10-foot fall. It will require about 12 horse-power to fill your 6-inch pipe at full flow, and four times as much power for a 12-inch stream with four times as much water.

(10379) C. N. M. asks how to make tracing cloth. A. 1. Boiled linseed oil (bleached), 10 pounds; lead shavings, 1/2 pound; zinc oxide, 2 1/2 pounds; Venetian turpentine, 1/4 pound. Boil for several hours, then strain, and dissolve in the strained composition 2 1/2 pounds white gum copal. Remove from the fire, and when partly cold, add oil of turpentine (purified), sufficient to bring it to proper consistency. Moisten the cloth thoroughly in benzole and give it a flowing coat of the varnish. 2. Varnish the cloth with Canada balsam dissolved in turpentine, to which may be added a few drops of castor oil, but do not add too much, or it will not dry. Try a little piece first with a small quantity of varnish. The kind of cloth to use is fine linen; don't let the varnish be too thick.

NEW BOOKS, ETC.

**PUNCHES, DIES, AND TOOLS FOR MANUFACTURING IN PRESSES.** By Joseph V. Woodworth, M.E. New York: The Norman W. Henley Publishing Company, 1907. 8vo.; pp. 483. Price, \$4.

This book has been written and compiled by a practical man for the use of all practical men who are interested in the working of sheet metals, designing and constructing of punches and dies, and the manufacturing of repetition parts and articles in presses. This book is doubtless the last word in the literature of the subject. It deals with the vast field of metal work, and does so in a clear, concise, and thoroughly practical manner. It treats of the fundamental principles of construction, and the numerous methods of procedure in practice. It is very well illustrated.

**QUASI-PUBLIC CORPORATION ACCOUNTING AND MANAGEMENT.** By John F. J. Mulhall, P.A. Boston: Corporation Publishing Company, 1906. 8vo.; pp. 199.

The evolution of business into corporate form, which is so large and important a phase of our modern social structure, necessitated a corresponding change in the methods of accounting and management. This is especially true of quasi-public corporations. The scarcity of data bearing on the accounting and management of such corporations led to the writing of this book. It should be of interest to those interested in corporations in an administrative or executive capacity, and especially to the accountant. It includes books, forms, and methods necessary for the proper organization and management of a business, and the recording of all essential details of Revenue, Operation, Maintenance, and Construction.

**ROCKS OF CAPE COLVILLE PENINSULA, N.Z.** By Prof. Sollas, F.R.S. With Introduction and Descriptive Notes by Alexander McKay, F.G.S. Vol. II. 4to.; pp. 215.

**LA TELEGRAPHIE SANS FIL ET LA TELEMANIQUE A LA PORTE DE TOUT LE MONDE.** By E. Monier. Preface by Dr. E. Branly. Paris: H. Dunod et E. Pinat, Editeurs, 1906. 12mo.; pp. 115.

**PHYSICAL ECONOMICS.** By Erastus Eugene Holt, A.M., M.D., LL.D. Chicago: Press of the American Medical Association, 1906. pp. 29.

**LOOKING FORWARD. The Phenomenal Progress of Electricity in 1912.** By H. W. Hillman. Northampton: Valley View Publishing Company, 1906. 12mo.; pp. 320.

**REPORT ON THE ADMINISTRATION OF THE DEPARTMENT OF STREET CLEANING OF THE CITY OF NEW YORK.** Adopted by the Board of Aldermen, 1906. 8vo.; pp. 136.

**ELEMENTS OF MECHANICAL DRAWING.** In Two Parts. By Alfred A. Tittsworth, M.Sc., C.E. New York: John Wiley & Sons, 1906. 8vo.; pp. 130. Price, \$1.25.

**ECONOMICS OF ROAD CONSTRUCTION.** By Halbert Powers Gillette. New York: The Engineering News Publishing Company, 1906. 12mo.; pp. 49. Price, \$1.

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Cabinet, physician's, H. A. Hughes	842,720
Calculating machine registering mechanism, J. F. Mays	842,689
Calipers, micrometer, F. Spalding	842,682
Camera roller blind shutter, photographic, C. Sasse	842,263
Cameras and roll holders, winding key for film, C. Bornmann	842,251
Can closure, A. Brandt	842,825
Can closure, J. K. Kasperbauer	842,444
Canister, J. K. Kasperbauer	842,463
Capstan, traveling, H. M. Fisk	842,394
Car brake, W. Martin	842,679
Car coupling, D. Patterson	842,692
Car fender, E. Kinneway	842,559
Car, mine, C. A. Keller	842,670
Car seat, Bugd & Conde	842,298
Car stake, R. L. Edwards	842,638
Car switch, automatic mine, M. O. Horning	842,667
Car switch operating mechanism, J. Barnes	842,380
Car unloading apparatus, platform, P. Mc Nerney	842,807
Car window sash, E. T. Robinson	842,493
Carbureted apparatus, T. H. Glascoe	842,436
Carburetor, Bryant & Welling	842,170
Carburetor, explosion engine, A. B. Schuyler	842,429
Card dealing machine, playing, G. Murch	842,803
Carline, J. H. Weisbrod	842,597
Carpet cleaning machine, L. B. Cobb	842,385
Carpet sweeper, J. S. Clagett	842,826
Carrier. See Pneumatic despatch tube carrier.	
Carving machine, F. H. Richards	842,422
Caster, R. E. Bierd	842,753
Cellulose threads, manufacturing glassy, R. Linkmeyer	842,568
Cement block machine, G. L. Reed	842,491
Cement, burning, C. A. Matcham	842,848
Centrifugal machine, D. T. Sharples	842,258
Centrifugal separator, D. T. Sharples	842,257
Chuck, J. A. Leland	842,469
Churn dasher, F. W. Cook	842,386
Cigar and cigarette holder and ash receiver, combined, S. L. Bigelow	842,613
Cigar bunching machine, Bright & Davis	842,818
Cigar perforator, J. G. Deherty	842,530
Cigarette machine, R. N. Du Brul	842,534
Clay screen, J. B. Williamson	842,599
Clothes hanger, attachment intended to save, T. Tryon	842,821
Clothes drier, A. F. Paggi	842,490
Clothes hanger support, C. Frankel	842,193
Clothes line, B. A. Brunner	842,760
Clothes line support, C. A. Enggren	842,188
Clutch, Downey & Davis	842,533
Clutch, Fay & Ellsworth	842,640
Clutch, F. Starr	842,841
Clutch, automatic, W. Cooper	842,629
Clutch, pulley, M. & C. Skegstad	842,587
Cob breaker or crusher, G. H. Mayne	842,881
Coke cooler, D. G. Arnold	842,456
Coke cooling, C. B. Arnold	842,747
Column, C. F. Linsemeyer	842,213
Column base, E. Zimmermann	842,604
Comb, F. Fontneau	842,643
Commutator, Carver & Stout	842,624
Commutators, making, T. Duncan	842,829
Compounds, reducing, F. J. Tone	842,273
Concrete construction mold, J. F. Swinerton	842,722
Concrete floor laying apparatus, A. Lanquist	842,566
Concrete mixer, Kensel & Lowry	842,206
Concrete work, collapsible form for, S. Biblet	842,812
Contact breaker, extra highly vibrating, G. Many	842,407
Conveyor, J. H. Bell	842,611
Conveyers, idler for belt, J. J. Ridgway	842,813
Cooling apparatus, H. J. Vasekzelles	842,595
Core fastener, H. Hellweg	842,459
Core drill, G. E. Okell	842,577
Cork sheets, method of and mechanism for making, J. H. Stone	842,356
Corner brace, E. C. Jan	842,789
Cotton chopping machine, S. H. Tucker	842,727
Cotton picker's sack carrier, W. A. Byrd	842,765
Crank, starting, G. M. D. Merwin	842,783
Crate, collapsible, G. G. Robrson	842,494
Cryptographic machine, H. Burg	842,763
Cuff holder, J. L. Forbes	842,192
Cultivator, F. L. Carrell	842,623
Cultivator, cotton, G. W. Abernethy	842,159
Cyclograph, J. F. Cooley	842,447
Damper, time controlled, Cawthorne & Lumis	842,525
Danger signal, electric, A. McCahon	842,574
Derrick, E. E. Mantee	842,799
Desk, E. L. Gardner	842,780
Discharging apparatus, automatic, H. C. Linsley	842,567
Dish washer, M. V. Trimble	842,726
Display rack, G. Grossman	842,651
Dividing machine, H. P. Hayes	842,694
Door check, C. G. Deming	842,304
Door check, R. R. Smith	842,350
Door check, R. H. Brothers	842,521
Door fastener, sliding, W. H. Durant	842,535
Door pivoting device, J. E. Huey	842,668
Door securer, H. B. Palmer	842,691
Dough dividing machine, P. S. Ward	842,596
Dough mixer and kneader, O. D. Woodruff	842,509
Drafting attachment, T. S. Ross	842,585
Drafting instrument, J. A. Heysrick	842,662
Drainer, dish, M. E. Roberts	842,701
Draw head banger, H. G. Savage	842,253
Dredge, J. L. White	842,364
Drier. See Cigarette machine drier.	
Drying apparatus, A. Coleman	842,769
Drilling machine, H. G. Morse	842,227
Drill machine, multiple spindle, E. W. Cleveland	842,176
Dust binding composition and making same, L. Dressler	842,636
Dust separator for cleaning apparatus, G. Dittmar	842,529
Dust suction apparatus, A. Hein	842,671
Dye and making same, aze, W. Herzberg	842,548

Egg tester, P. J. Schreiber	842,423
Elastic substance similar to India rubber and its manufacture, L. Roland	842,839
Electric controller, H. Sawyer	842,342
Electric generators, wireless balance for, R. C. & E. Taylor	842,358
Electric meter system, C. Baehr	842,515
Electric switch, safety, A. H. Williamson	842,843
Electrically conducting bodies for use as contacts, making, Vietel & Egly	842,730
Electrolytic cell, Seward & van Kugelgen	842,256
Electropneumatic channeler, A. H. Glisson, reissue	12,602
Elevator safety stop, H. Y. Baldwin	842,294
Engine, L. D. Chritton	842,446
Engine cylinders, means for cooling explosive, G. P. Dorris	842,531
Engine lubricator, steam, O. Sanders	842,710
Engine starting means, internal combustion, C. J. Coleman	842,627
Engine system, steam, D. M. Somers	842,588
Engine tender, traction, R. S. White, Jr.	842,739
Engine, electrical ignition mechanism for explosion cell, C. Brauer	842,617
Engines, incandescent igniter for gas, C. A. Anderson, et al.	842,607
Engines, means for controlling the supply of vapor to internal combustion, F. H. Smith	842,261
Engines, wrist pin bearing for, W. B. Mason	842,847
Engraving and die sinking machine, H. Phillips	842,697
Engraving or carving machine, H. M. Albee	842,745
Excavator, J. B. Ames	842,746
Excavator control power means, J. B. Webster, Jr.	842,734
Explosion engine, J. T. Lagergren	842,468
Explosive engine, J. Eckhard	842,392
Explosive engine, White & Middleton	842,737
Eyeglass nose piece, H. L. De Zeng	842,181
Eyeglasses, S. W. Burch	842,762
Fare register, W. L. Lightfoot	842,475
Fastening device, E. A. Reeves	842,492
Feed water heating means, J. Fournia	842,777
Feeding machine, R. E. Godson, et al.	842,601
Fence, H. T. Harper	842,197
Fence post, W. N. Reynolds	842,811
Fence post, cement, B. F. Gibler	842,454
Ferrous carbonate, making, A. Flugge	842,452
Ferry, aerial, S. B. Harding	842,457
Fertilizer distributor, W. A. Freeman	842,194
Filter, E. Burt	842,764
Filter for defecation, R. M. Villarino	842,731
Filter, pressure, C. W. Merrill	842,484
Firearm, G. E. Witherell	842,287
Firearm, R. C. Thomas	842,438
Fish hook, G. H. & L. C. Van Leek	842,594
Fishing float and line holder, combined, C. R. Fleming	842,540
Fishing reel, R. L. Hunter	842,551
Fishing reel, T. V. Buckwalter	842,761
Fluid controlling device, S. Z. de Ferranti	842,393
Fluid pressure brake, W. H. Sauvage	842,424
Food, cattle, W. F. Warren	842,281
Form, arm syc bust, C. H. Scott	842,715
Furnace, J. V. Martin	842,678
Furnace charging apparatus, G. Baehr	842,514
Furnaces, oil burning and drying device for, U. Wedge	842,736
Fuse mount, C. E. White	842,738
Garment fastener, C. H. Schmidt	842,498
Garment hook, E. Goldsmith	842,542
Garment supporter, M. L. Gasten	842,541
Garment supporter, A. R. Pollock	842,810
Gas burner, P. E. Peterson	842,334
Gas burner, G. Machlet, Jr.	842,792
Gas furnace, H. A. Schnellbach	842,427
Gas generator, acetylene, B. W. Scott	842,345
Gas lighting and extinguishing apparatus, automatic, N. H. Shaw	842,259
Gate catch, J. H. Mitchell	842,685
Gate lock and support, combined swing, C. E. Sargent	842,711
Gear cutting machine, J. E. Gleason	842,455
Gear, reversing, W. J. D. Miller	842,684
Gear, transmission, Degen & Manuel	842,773
Glass articles, making, J. A. McLane	842,233
Glass bulbs, rotating heating device for tubulating, E. B. Flather	842,191
Glass drawing furnace, sheet, George & Sheet	842,399
Glass to lead device for introducing, Knapp & Mulholland	842,209
Glassware heating and finishing machine, H. A. Schnellbach	842,426
Glassware to leers, device for conveying, Knapp & Mulholland	842,210
Glove blank, W. N. Marsden	842,408
Gold dredge, H. J. Clark	842,383
Grain treating device, C. D. Woolverson	842,289
Grapple, G. W. Smith	842,719
Grass cutter, Herrick & Cleary	842,189
Grinding apparatus, G. Benicke	842,324
Gun, air, W. P. Markham	842,324
Gun cleaner, C. F. Forbes	842,776
Gun mount, portable, W. Mayer	842,570
Gun sighting device, portable, J. Kurig	842,564
Gun with wedge breech block barrel recoil, M. Hermsdorf	842,547
Guns, training lever for, J. Krone	842,563
Hair comb, F. S. Cartwright	842,524
Hame attachment, D. Gleim	842,400
Hammer, W. J. Malloy	842,323
Hammer, pneumatic, J. F. Clement	842,626
Hammer, pneumatic, H. Hardsecg	842,381
Hammer, E. B. Fillman	842,698
Handle, B. T. Landers	842,790
Harrow controlling means, E.	