

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.

BET-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, Courbevoie, 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