

RECENTLY PATENTED INVENTIONS.

Pertaining to Apparel.

WRINKLE-ERADICATOR.—FLORA A. PARIS, New York, N. Y. The purpose of this invention is to provide a device for eradicating wrinkles from the human face, and to so construct the device that it will be exceedingly simple and light, and so that it can be expeditiously and conveniently applied and removed, and worn without material discomfort.

Of Interest to Farmers.

GATE.—J. W. MATTHEWS, Brady, Tex. An object of the inventor is to provide a farm-gate which can be opened and shut from points remote from the gate itself, which is positive in operation, and which requires little force to close or open it. It can be operated at a point remote by an occupant of a vehicle, and when opened, remains in that position until a further manipulation of the operating parts closes it.

Of General Interest.

MATCH-BOX.—C. W. OERTEL, New York, N. Y. The object of the invention is to provide a match box made of a single piece of paper, which is simple and compact in construction, more especially designed for pocket use, and arranged to permit ready access to the loose matches for convenient removal whenever it is desired to use the same.

LEAD-PENCIL.—W. B. McKIM, Elizabeth, N. J. One purpose of the inventor is to provide a pencil with a removable magazine clip for the sticks of lead, which clip can be manufactured and sold independently of the holder, and can be readily placed in position in a holder, secured therein, and be conveniently and expeditiously removed therefrom when empty for the introduction of a loaded clip.

FOLDING FIELD-GLASSES.—J. B. KISSNER, Baltimore, Md. Each of the sides of the separate barrels or tubes of the field glass folds separately, but the swinging frames and supports fold together. A spiral spring is arranged around the pivot pin of the folding frame, one end of the spring engaging a flange, and the other the frame, the spring acting normally to swing the connected frames outwardly from the back. Recesses receive the swinging frames and when folded the glass occupies but little space.

HORSE-COLLAR.—T. G. HADAWAY, Athens, Ga. This is a double collar, that is, one having two pads, an inner and an outer. By the arrangement of the connection between the roll and the two pads, they are all firmly secured and a space and roll shoulder are provided for the hames, which renders it practically impossible for the hames to slip off the roll. A leather neck pad is stitched to one of the inner pads at one side, and a strap and buckle connect the ends of the pads.

COOP AND CRATE.—G. HEIM, Newport News, Va. By this invention a coop or crate is provided which may be made of one or more units and in which units may be added to increase the capacity of the coop to any desired practicable extent, and in practice it is preferred to make the units alike so that they can be readily added and removed and so repairs can be readily effected whenever desired.

METHOD FOR COKING HYDROUS BITUMINOUS COMBUSTIBLES.—P. HOERING, Berlin, Germany. The invention does not permit the escape of steam from the substances operated upon. The steam is generated in great quantities during the drying of aqueous bituminous combustibles, which precedes the coking, and the steam is utilized by causing it to act upon the material to be coked, for which coking a coke-oven of any kind may be used.

STERILIZING AND PRESERVING POSTS AND POLES.—H. P. FOLSOM and H. JONES, Circleville, Ohio. In this improvement the object is to so treat the post or pole as to thoroughly disinfect the same to stop decay and kill any germs or parasites that may be at work, and at the same time, to prevent further access of germs, air, insects, or other cause of decay, infection, or deterioration.

LOOSE-LEAF BINDER.—A. CHRONIK, New York, N. Y. This leaf binder is simple and durable in construction and arranged to permit convenient opening of the binding flanges for the insertion or removal of the leaves and to allow closing of the binding flanges for securely binding the leaves in place, the binder being adapted to be locked against the removal of the leaves by unauthorized persons.

MANUFACTURE OF COVERED WIRE.—C. V. ACKERMAN, Passaic, N. J. The wire is covered by an insulating plastic substance such as cement or the like, and this substance is inclosed in a wrapper formed of sheets, such as a sheet of tin or the like, the wrapper serving as a mold for the substance during the subsequent vulcanizing or other hardening process of the substance.

LETTER-CLIP.—C. A. LOCKE, Salt Lake City, Utah. This device is especially adapted for use in post-offices, railroad offices, and other large establishments handling a quantity of letters, and is designed to avoid the necessity for tying the letters up into separate packages as is now commonly done. The invention relates more particularly to a clip adapted for use in holding a plurality of letters together.

THEATRICAL PROPERTY.—M. FORTUNEY, 29 Boulevard Berthier, Paris, France. The object of the invention is to provide a concave

wall or shell in a simple and inexpensive manner, and the invention consists in a pliable material, such as canvas, cloth, or the like secured to a rigid structure so as to form with the structure an air tight space and means for exhausting the air from said space, whereby the pliable material will be drawn towards the walls of the structure to form a concave surface or background.

TENSION-GUIDE AND THREAD-CLEANER.—W. J. ENGLISH, Cohoes, N. Y. The purpose here is to provide a continuous tension guide and thread cleaner, which will most effectually split lumps, motes, and other protuberances from the thread in its passage from a bobbin to a reel, free acting and opposing permanent magnetic strippers being provided for the purpose, between which the thread passes, which strippers are loosely mounted in a suitable frame and applicable to any form of winder or reel.

DISPENSING AND MEASURING APPARATUS.—C. DACOSTA and P. DACOSTA, Cienfuegos, Cuba. The invention relates to dispensing and measuring apparatus, and more particularly to that class for dispensing and measuring granular material such as sugar, flour, and the like. One object is to provide an apparatus having manually operable means for dispensing a predetermined quantity of material from a bulk of the material contained in the receptacle of the apparatus.

GEOGRAPHICAL GLOBE.—H. HARGER, Lost River, Idaho. The globe is particularly intended for use in schools. It is hollow and sectional and provided with means for securing the sections detachably together and to the axis upon which the globe revolves in a suitable frame. A curved and graduated ruler is employed, adapted to swing around the globe, and for use in indicating and drawing meridians and parallels on the surface.

Hardware.

RATCHET-WRENCH.—A. J. HIGGEE, Callaway, Neb. The invention is an improvement in ratchet wrenches in which a handle is provided with an enlarged head having a circular cavity which receives a rotating block provided with a recess adapted to receive a nut and also a movable jaw forming one side of such recess.

HARNESS.—E. B. GUERIN, East Orange, N. J. The invention has reference to an improvement in harness and has for its purpose the provision of means for attachment between the collar and neck yoke, which will provide for a closer and stronger hitch than is ordinarily obtained and which will render the harness less expensive.

CHANNELING-TOOL.—J. C. MERCER, Barre, Vt. A tool constructed in accordance with this invention considerably saves in time and labor over the usual method of working granite, and can be used to great advantage in hollowing vases, cutting windows in vaults, cutting steps and such other similar work; also, after the stone has been cut, no further dressing is generally needed.

Heating and Lighting.

BUILDING-LIGHT.—P. SCHWICKART, New York, N. Y. The invention refers to walls, skylights, floors, and other parts of buildings, and its purpose is to provide a light which is simple and durable, exceedingly strong in construction, cheap to manufacture, easily and conveniently set up, and arranged to insure a proper and uniform distribution of the rays of light.

HEATING AND VENTILATING DEVICE.—T. JAAP, Belt, Mont. The device is especially adapted for school rooms, or places where a large number of people congregate. Warm air rises to the ceiling, while cold settles to the floor, and carbonic acid gas is heavier than air and settles toward the lowest part of the room. This principle is made use of to obtain a circulation, the heated air passing from the furnace to the room in the ordinary manner, and the foul air passing from the rooms to the furnace.

WALL WATER-HEATER.—J. H. MACKLEY, Denver, Col. The heat from a burner circulates up through the inner heating space, thence across a cross space and down along the inner side of a depending baffle plate, and then up along the outer side of said plate, and thence along the bottom and sides of the pan and out at the outlets, so that nearly all the heat units will be extracted before the products from the burner are discharged at the outlets.

Household Utilities.

FRUIT-JAR COVER.—S. J. VASALY, Little Falls, Minn. The invention comprises a securer for a jar cover constructed of metal in annular form and adapted for detachable connection with the body of the jar, its upper portion being bent inward and downward, and the edge returned and inclined downward at an angle to the horizontal, whereby it is adapted to form a spring bearing for a cover proper.

HYDROCARBON-BURNER.—W. H. CALLIHAN, Beaumont, Tex. The object here is to provide a burner for stoves in which the hydrocarbon is fed over a wire screen through which the air passes, and in this way form a proper mixture for combustion. An object is to provide a trough in which the hydrocarbon is contained and from which it is fed by absorbent material by capillary action.

Machines and Mechanical Devices.

LEACH-CLEARING DEVICE.—W. FERGUSON, Kizer, Tenn. The object of the invention is to produce a device which will operate automatically to feed itself or advance downwardly into the leacher as the spent tank-bark is ejected by it. It concerns itself especially with improvements in the means for driving the feeding mechanism, and for raising and lowering the mechanism to its operating position.

CHANGEABLE-SPEED GEARING.—W. SCOTT, Sheridan, Wyo. The object of the inventor is to provide a changeable speed gearing, more especially designed for use on automobiles and other motor vehicles and machines, and arranged to permit the operator to conveniently and quickly change the speed of the driven shaft or axle, or reverse the same whenever desired.

AUTOMATIC PENCIL-SHARPENER.—L. B. CHADWICK, Boston, Mass. The purpose here is to provide novel details of construction for a sharpener, preferably operated by electricity, and which will produce a fine tapered point on the pencil, the act of placing a pencil in the machine starting the same and continuing the operation until the pencil is removed.

SIPHON.—W. P. LOCKE, Canton, Ohio. The present invention is provided with means for exhausting the air, a piston and cylinder being used instead of a collapsible bulb. It relates particularly to starting devices for siphons which act by exhausting the air from the siphon, and is intended as an improvement on the siphon shown in the patent formerly granted to Mr. Locke.

Musical Devices.

PIANO-PLAYER ATTACHMENT.—C. E. PRYOR, Binghamton, N. Y. Mr. Pryor's invention relates to musical instruments and more particularly to piano players having pneumatic action, his more particular purpose being to provide means under easy control of the operator for opening and closing the doors by the depression of a pedal or other simple movement.

ACTION FOR UPRIGHT PIANOFORTES.—J. DELERUE, 10 Campo da Regeneração, Oporto, Portugal. The action is provided in a well-known manner with a check arranged under the hammer-butt. The invention consists essentially in arranging at the upper part of the jack a lateral arm and in mounting the check on a U-shaped spring secured near the axis of the whip and passing through an opening of the jack.

PNEUMATIC ACTION FOR SELF-PLAYERS.—F. B. LONG and E. A. TAPPE, Los Angeles, Cal. This invention relates to cabinet players, self-playing pianos and like self-players, and its object is to provide a pneumatic action, arranged to insure long life, especially as to the pneumatics, and to produce a quick and accurate response of the keys or strikers, according to the pneumatic to be produced.

Railways and Their Accessories.

SWITCH.—B. G. WATKINS, Nehawka, Neb. The invention pertains to switches and is particularly useful in connection with overhead or suspended track rails. An object is to provide a switch for overhead, single track, tram or railway systems such as are used in storage-warehouses, packing houses, and the like, by means of which a car can be easily and smoothly guided from one track to another.

FIRE-EXTINGUISHER.—N. P. MATLOCK, Chickasha, Okla. The aim of this invention is to provide a fire extinguisher adapted to be used in railway passenger coaches, cars, and the like, by means of which fires in stoves of the coaches are instantly extinguished in case of accident, and by means of which gas or oil lamps in the coaches are extinguished.

RAILWAY TIE AND RAIL FASTENING.—J. U. BEATTY, Arrow, Pa. The invention refers to railway ties and rail fastenings, and the object is to produce a railway tie having simple means for fastening the rails thereto, which will operate to hold the rails securely without the use of spikes or the ordinary fastening devices.

Pertaining to Recreation.

GAME APPARATUS.—J. CHABOTY, San Francisco, Cal. The object of the invention is to provide a simple and inexpensive game apparatus in the use of which each player strives to complete an incomplete subject-figure, picture or representation, by attaching members representing the parts missing from the subject, upon a blank support rather than directly upon the incomplete figure.

Pertaining to Vehicles.

VEHICLE-WHEEL.—G. H. GRUSS, Goldfield, Nev. The invention relates to improvements in wheels designed for use on automobiles or other vehicles and in which the outer rim or tire is secured to the hub by a set of spiral springs and a resilient cushion, whereby the vehicle upon which the wheel is used is relieved from all jar or concussion due to road obstructions, and whereby the normal life and efficiency of the wheel is materially increased.

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.

Full hints to correspondents were printed at the head of this column in the issue of August 8th, or will be sent by mail on request.

(10831) V. F. asks: 1. Why is the core of induction coil made of small iron wires instead of one solid piece? A. The core of an induction coil is made of wire, and not solid, in order to prevent the whirling currents, called "Foucault" currents, which would travel round the core if they could do so. They would heat the core very greatly. 2. Is it the volts, amperes, or watts that make an electromagnet? A. Amperes turns produce magnetism in a coil. One ampere flowing once around a turn of wire is an ampere turn, and the voltage produced by a coil is proportional to the ampere turns in the coil. Hence a coarse wire is used of low resistance, so that there may be a large number of amperes flowing through it, and often many turns are put on, so that the ampere turns may be as great as possible. This applies to the primary winding. 3. Is there any relation between sizes of primary and secondary wires and increase in voltage of an induction coil? Where can I get a book which treats in a simple manner the subject of storage batteries? Also one telling of the process of refining crude petroleum? A. Treadwell's "Storage Batteries," price \$1.75, is a good book; Bottone's "Management of Accumulators," price \$1.50, is also to be recommended. A good book upon refining petroleum is Brant's "Practical Treatise on Petroleum," price \$7.50. 4. It is a law in physics that in the magnetic lines of force, the direction of such lines at any point is a tangent to the curve at that point. What, then, is the direction opposite the middle of a bar magnet? Opposite the end? A. The same rule applies to determine the direction of the magnetic lines when the lines are straight as when they are curved. At the middle of a magnet the tangents coincide with the lines themselves, as they do also at the ends of the magnet. A straight line is a curve with an infinite radius.

(10832) M. W. H. asks: 1. What is the philosophy of salt causing ice to freeze and unite in summer (as in case of making ice-cream), and causing ice and snow to melt in winter? A. Salt does not cause ice to freeze in summer and melt in winter. That is very loose thinking. The ice and salt in the freezer melt at any time of the year. The cream in the inner can freezes because the heat which melts the ice in the outer box is taken from the cream in the inner can. The ice cannot get heat to melt itself from the outer air because the box in which it is is of wood, which is a non-conductor of heat. The inner can is of metal and so is a conductor of heat. The cream furnishes heat to the ice and is cooled and frozen by the process. Ice and salt will melt in the open air by taking heat from the air at any temperature above 7 deg. F. below zero. Below that temperature they will not melt. 2. Why does frost penetrate solid ground so much deeper (in the same locality) than it does loose, porous ground? A. Solid ground freezes better than porous ground because the porous earth contains air. Air is one of the very best non-conductors of heat, and keeps the heat in the earth. 3. Why does frost penetrate a wall 12 inches thick (solid) sooner than the same thickness of wall with an open space in it, say, for instance, 6-inch wall, 3-inch space, then 6-inch wall, there being no way to moderate the temperature between the two 6-inch walls—or even a 12-inch wall with a 2-inch air space in it? A. The air space in a wall acts just as the air spaces in the porous ground do in the last question. It prevents heat from passing, and thus houses are built with air spaces in the walls to keep them cool in summer and warm in winter. Double windows are used in cold regions for the same purpose. 4. Would the explosion of a compressed-air tank be as dangerous to life and limb as other explosions, say, for instance, steam (outside of being scalded) or other explosives such as powder or dynamite? If there be a difference what is the nature of it? A. Air at the same pressure as dynamite will produce as destructive effects as dynamite. It is difficult to imagine any method by which this can be brought about. 5. As everything in nature has a cause, what causes the wind to blow (hard or easy); also what causes it to change sometimes half a dozen times a day, apparently in the same temperature (hot or cold)? A. Wind is produced by the heat of the sun, and always blows from a place of higher barometric pressure to one of lower pressure. This place may be in the next field in a summer day, and it may be hundreds of miles away. The wind rarely travels in a straight line for any considerable distance, but swerves and changes its direction as you state. 6. At what height in a heated room is the most stagnant air, consequently the most unhealthy and germ-bearing atmosphere? A. No height can be given for the worst air in a room unless it be at the ceiling above. Currents quickly diffuse the bad air to all parts of a room.