

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

POCKET ELECTRICAL BURGLAR-ALARM.—H. A. KREH, New Orleans, La. This invention relates to electric alarm mechanisms and admits of general use, but is of peculiar value in preventing burglaries and theft. It may be used to advantage by travelers, theatrical performers, and persons whose jewels, goods, and chattels are peculiarly liable to be stolen. Also in all instances where it is desired to apprise a person of the opening of a door, window, or other closure member of any kind.

Of Interest to Farmers.

GATE.—T. J. VAN PELT, State Center, Iowa. This improvement is in farm-gates of the vertically-swinging type adapted to be opened or closed from either side of the gateway by a person in a vehicle, the object being to provide a gate of this character that will be practically automatic in operation, simple in construction, and having no parts liable to get out of order, broken, or interfered with by snow or ice.

Of General Interest.

APPARATUS FOR HAND-WEAVING.—MARY E. BARTLETT, Baltimore, Md. This is an apparatus to be employed by children in kindergarten and primary schools for weaving diminutive tubular garments, particularly caps, dresses, and stockings for dolls. The invention is embodied in construction and form of the pattern-card or handloom proper upon which the weaving is done and by which the definite and required shape of the article of apparel is imparted, and also in the manner in which the weaving and detachment and subsequent tying-in of the garment are effected.

ANIMAL-BLANKET.—C. H. CARLI, Stillwater, Minn. This improvement is particularly in blankets for horses, the object being to provide a simple means for preventing the blanket from slipping around on the animal when used as either a night or street covering. Simple devices secure the front of the blanket over a horse's chest and obviate the employment of the usual straps or buckles.

ATTACHMENT FOR PHONOGRAPHS.—L. T. PRUDON, North Bergen, N. J. In this case the invention relates to an attachment for phonographs and similar instruments, the attachment being in the nature of a gage for stopping the carriage of a phonograph at any desired point in order to make repetitions of a record without repeating portions of the record which precede the part that it is desired to repeat.

Heating and Lighting.

SMOKE-CONSUMER.—A. GRÖNBERG, Wasa, Finland, Russia. This improvement relates to an arrangement to effect the burning of smoke and saving of fuel and can be applied to boilers of any construction. Applied to furnaces for steamers of modern construction with retreating tubes, the idea does not in this case necessitate alteration, the heated air being introduced through the fire-bridge, where the smoke is ignited and smokeless gases pass through the tubes. When boilers with exterior surfaces or tube-boilers are employed, a special stove must be erected before the boilers into which grates, tubes, etc., have to be placed and the firing is done, the heated air being introduced at a place that allows the smoke to be ignited before the gases touch the fire-surface of the boiler.

ACETYLENE-GAS GENERATOR.—E. M. MCGEE, Yankton, S. D. In this patent the invention relates to certain improvements in acetylene-gas generators providing for a reliable automatic carbide-supply and insuring automatically closing the various valves in communication when the carbide-chamber is open to replenish the charge.

AIR-HEATING DRUM.—G. E. LEONARD, Sheridan, Wis. The object of the present invention is to provide a new and improved air-heating drum for stoves arranged to support the tubular heating-drum on a comparatively cool surface by causing a rapid circulation of air through the heating-drum and providing the top thereof with an asbestos filling. It relates to heating-stoves having a tubular heating-drum, such, for instance, as shown and described in a former patent granted to Mr. Leonard.

Household Utilities.

SHADE-FIXTURE.—F. G. ROHNER, Dubuque, Iowa. In rented houses every tenant ordinarily secures new sets of shade and curtain fixtures, and after a few changes the window-casings become greatly disfigured. The chief object of the invention is to provide permanent fixtures which can be adjusted to support any shade likely to be used. To accomplish this result, the inventor provides a plate to be adjustably secured to the casing or the like and a bracket adapted to be supported by the plate and in turn adapted to support the shade.

Machines and Mechanical Devices.

PARALLEL MOTION.—F. M. MYERS, Carthage, Mo. The object of this invention is to provide means for sustaining a moving member so that the member will be given an extensive movement laterally simultaneously with and in addition to its movement longitudinally. The invention may be employed in numerous connections, an obvious application being to stone-

forming machines, where saws may be engaged with the stones four times for each revolution of the crank-shaft.

OIL-FLOWING DEVICE.—J. KAMBISE, JR., Piney, W. Va. In this patent the invention relates to apparatus for raising oil, water, or other liquids in wells by the use of a gaseous fluid under pressure. The object is to provide a new and improved oil-flowing device arranged to utilize the gas frequently found above the oil strata for flowing the oil to the surface and for collecting and saving the said gas.

APPARATUS FOR PURIFYING WATER.—H. F. HODGES, Philadelphia, Pa. The invention has reference to an improved apparatus for the purification of water, and has for its primary object to provide means for removing from water any bacteria, gases, or other impurities which it may contain, whether of a solid or liquid nature, by the agency of heat.

METHOD OF PURIFYING WATER.—H. F. HODGES and J. KUEN, Philadelphia, Pa. In this case the invention has relation to an improved method of purifying water, primarily by distillation, whereby the water is entirely relieved of all impurities, whether of a solid, liquid, or gaseous nature. The process gives to water its natural sweet taste, and renders it more palatable for table use.

WATER-STILL.—H. F. HODGES and J. KUEN, Philadelphia, Pa. The principal object of the invention, which relates to an improved construction of apparatus for the distillation and purification of water, is to provide an apparatus so constructed as to enable the inventor to utilize a primary body of heat to evaporate and purify successive bodies of water in such a manner that the consumption of fuel for this purpose is greatly decreased and the cost of production consequently minimized. The distillate is improved in taste by the process, and its effect upon the human system is rendered as beneficial as is possible by the use of the purest spring-water.

APPARATUS FOR PURIFYING WATER BY DISTILLATION.—H. F. HODGES and J. KUEN, Philadelphia, Pa. Among the objects of this invention the principal one is the provision of means for distilling and purifying water whereby it is entirely relieved from all impurities either of a solid, liquid, or gaseous nature, and at the same time relieved of that flat or bitter taste ordinarily found in distilled waters, and becomes possessed of properties and qualities rendering it sweet and palatable. The means provided materially increase the number of working cells in the apparatus without proportionately increasing the amount of fuel used.

CEMENT-BLOCK PRESS.—E. H. HARRY and I. L. SHAW, Gibson City, Ill. The employment of cement blocks as a foundation material for construction of foundations and walls of buildings has greatly increased of late and their superiority for this purpose has led to many inventions in means for producing them. The present invention has for its object to provide an improved press which shall be distinguished by lightness, strength, rigidity, ease of operation, and economy of construction.

Prime Movers and Their Accessories.

ROTARY ENGINE.—I. F. PARMENTER, Berlin, Mass. This invention is designed more particularly as an improvement on an engine previously patented by Mr. Parmenter. The present improvements are designed to provide for a better control of the steam or other motive agent by providing improved means for governing the distribution of the steam so that the operation of the engine may be regulated with greater decision.

ENGINE.—R. P. MOORE, Renfrew, Ontario, Canada. According to the embodiment of the invention the engine is arranged to have the motive force act against one face of the piston in the usual manner. At the opposite end of cylinder, however, the rod is passed through a stuffing-box or its equivalent, and this end is employed at times as a compressor, at other times as a power-cylinder to start the engine, these operations being controlled by a valve. In this manner the engine when running may be made to compress air or other elastic fluid, which may be stored and employed to start the engine upon a further operation.

WIND-WHEEL.—O. ULRICH, Gross Lichterfelde, near Berlin, Germany. The object in this invention is to provide a new and improved wind-wheel in which the wings adjust themselves automatically, according to the wind-pressure, to insure a steady uniform running of the wind-wheel both in light and strong winds and requiring no mechanical regulating devices for setting the wings to the proper angle.

Railways and Their Accessories.

RAIL-FASTENER.—H. M. MACE, Catskill, N. Y. The object of this invention is to provide a fastening device to be used in connection with railway-rails for the purpose of holding them firmly to their ties, which device will prevent the rails from spreading and tilting and will also reduce to a minimum their tendency to creep.

Pertaining to Vehicles.

ATTACHMENT FOR VEHICLE-SHAFTS.—D. J. QUIGLEY, Litchfield, Minn. This invention refers to means for connecting thills or shafts of vehicles with their running-gears so that the shafts may be shifted laterally to permit the animal drawing the vehicle to travel

at one side of the center of a country road out of the rut and on firm ground, while the wheels run on the beaten track. The object is to afford means for adjustably counteracting side draft and permitting the shafts to be shifted toward or from the center of the axle without the use of tools.

Designs.

DESIGN FOR LACE TRIMMING.—C. G. NEUBARTH, New York, N. Y. Mr. Neubarth has invented a new, original and ornamental design for a lace trimming, in which the elongated scalloped ornamentation runs from edge to edge of the band of linen, silk, or the like, over bars crossing each other at right angles.

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.

Business and Personal Wants.

READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry. MUNN & CO.

Marine Iron Works. Chicago. Catalogue free.

Inquiry No. 7265.—For manufacturers of chimney tile of different kinds.

"U. S." Metal Polish. Indianapolis. Samples free.

Inquiry No. 7266.—For makers of electric lamps or bulbs.

Drying Machinery and Presses. Biles, Louisville, Ky.

Inquiry No. 7267.—For makers of fine steel castings.

Perforated Metals, Harrington & King Perforating Co., Chicago.

Inquiry No. 7268.—Wanted, a small hand vacuum pump for experimental purposes.

Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

Inquiry No. 7269.—Wanted, a machine for mashing flower pomades.

Adding, multiplying and dividing machine, all in one. Belt & Tarrant Mfg. Co., Chicago.

Inquiry No. 7270.—For makers of household goods, also for large manufacturing or supply house in general.

WANTED.—To manufacture Park Amusement Devices. Royalty. Box 773, New York.

Inquiry No. 7271.—For manufacturers of briquettes.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

Inquiry No. 7272.—For makers of composition pipe, made of papier maché, wood or asphalt.

I sell patents. To buy, or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.

Inquiry No. 7273.—For makers of attachments for bicycles whereby to travel on railroads.

WANTED.—Patented specialties of merit, to manufacture and market. Power Specialty Co., Detroit, Mich.

Inquiry No. 7274.—For makers of metal tanks, aluminum preferred, for use in connection with compressed air apparatus.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Machine Company, Foot of East 138th Street, New York.

Inquiry No. 7275.—For makers of heavy black crayon for making heavy block line.

Mechanical devices of brass, aluminum, and kindred metals manufactured for inventors and patentees, and marketed on royalty, when desired. Imperial Brass Mfg. Co., 241 So. Jefferson St., Chicago, Ill.

Inquiry No. 7276.—For manufacturers of baby carriage wheels and velocipede wheels for cushion tires.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, wood fiber machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 7277.—For parties to make tanks used for hand fire extinguishers.

Absolute privacy for inventors and experimenting. A well-equipped private laboratory can be rented on moderate terms from the Electrical Testing Laboratories, 548 East 80th St., New York. Write to-day.

Inquiry No. 7278.—Wanted, elevator buckets with sprockets and chain for attaching bucket.

WANTED.—By big Iowa Wash Machine Company to manufacture on royalty Rotary Washer, preferably one made by some Eastern concern who do not cover Western territory. Address Rotary, Box 773, N. Y.

Inquiry No. 7279.—For makers of solid back horse brushes, with a "Turtle" as a trade mark.

Manufacturers of all kinds sheet metal goods. Vending, gum and chocolate, matches, cigars and cigarettes, amusement machines, made of pressed steel. Send samples. N. Y. Die and Model Works, 508 Pearl St., N. Y.

Inquiry No. 7280.—For makers of carpet-cleaning machines.

Have you much figuring to do, chiefly multiplication and division? The "Brunsviga" will save you 90 per cent of time and all mental effort. 13 and 13 figures products. Automatic devices make error impossible. Simple. Lasts lifetime. FELIX HAMBURGER, 90 William Street, New York.

Inquiry No. 7281.—For machinery for making chewing gum.

Inquiry No. 7282.—For the makers of an extract having taste and flavor extracted from muskmelon.

Inquiry No. 7283.—For makers of baby carriage and go-cart wheels.

Inquiry No. 7284.—For makers of watchmakers' materials.

Inquiry No. 7285.—For makers of prepared solder, as can be used for household use without an iron.

Inquiry No. 7286.—For the manufacturers of alcohol gas stoves, excepta coffee pots and Patent Hydronette and Water Bringers.

Inquiry No. 7287.—For the makers of the "In and Out" registers for hospitals.

Inquiry No. 7288.—For manufacturers of laundry supplies and washing machines.

Inquiry No. 7289.—For manufacturers of elastic rubber, double-valved exhaust, ellipsoid shape, for creating a vacuum in a bottle or other vessel.



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.

(9776) W. B. asks: Would like to know the materials needed, and how to develop blue prints. Or is there a book published that would teach me same, without going to any school? A. Very little skill is required to make blue prints. Take citrate of iron and ammonia 80 grains and water 1 ounce, for one solution. Take ferricyanide of potassium 60 grains and water 1 ounce for a second solution. Mix the two in equal parts when you wish to make the paper. With a swab of absorbent cotton cover the paper evenly and dry in the dark. Keep in a dry and dark place. Print as for any photograph, but stronger, till the shadows are bronzed, and place the print in a pan of water to develop. Wash in changes of water till all the color is out of the white parts of the print.

(9777) C. P. L. asks: Would two bodies exactly the same shape and size but differing greatly in their respective weights (say for instance, one was composed of iron and the other of wood) reach the ground at the same time, if dropped simultaneously from a great height? A. The heavier of two bodies of the same size falls faster, since it has more momentum with which to overcome the resistance of the air when dropped from a height.

(9778) F. W. B. asks: 1. Please give (in substance) an explanation of the phenomena of rotating storms, such as whirlwinds, cyclones, etc. Do they always rotate in one direction, and why? A. The rotation of storms is caused by the rotation of the earth on its axis. In the northern hemisphere these storms rotate in a direction opposite to the motion of the hands of a clock; in the southern hemisphere they turn with the hands of a clock. All cyclones, hurricanes, tornadoes, etc., follow the same law. 2. Is it possible for a whirlwind to rotate for a time in one direction, and then reverse and whirl in the opposite? I ask this last especially for the reason that two reputable persons of my acquaintance claim to have seen this phenomenon. A. Small whirlwinds, such as form in a field or at a street corner, probably turn in either direction; but if one was seen to rotate one way, and in a brief time another was seen in the same place turning in the opposite direction, we should consider that these were two different whirlwinds, and not a whirlwind which had reversed itself.

(9779) L. A. H. asks: Is there such a thing in the realm of science as flame or combustion without emitting light? A. Combustion is usually the combination of a substance with oxygen. This may take place with rapidity, so that much heat is produced, and also light; but often it takes place so slowly that no light is seen, and the temperature may not rise very much above that of the air. The rusting of iron or steel is an example of this.

(9780) J. M. asks: 1. If all so-called empty space is absolutely cold and dark, and light and heat on the earth are only the result of the sun's rays agitating the particles of matter contained in the earth's atmosphere, how then can the sun illuminate the moon to such an extent that the reflected light reaches the earth?—bearing in mind that the moon has no atmosphere. And by what explanation can Prof. Newcomb's views be understood? It would seem to my lay mind that the moon is always cold and dark, it having no atmosphere to cause the sun's rays to heat or light it; but how does its light reach the earth? A. The present accepted theory is that light is not light on its way through space, but radiant energy, which becomes light or heat upon striking some material object which can transform it into light or heat. There is then no light in the space between the sun and the earth, but if an eye were to be placed there, it would receive the energy of the sun's rays and see that energy as light. If a hand or a thermometer were placed there, the radiant energy would be transformed into heat, and would affect the hand or thermometer. This radiant energy strikes the surface of the moon, and is reflected to the earth. Here we receive it, and see it or feel it as light or heat. The space is dark and cold. The material is warmed by the sun's radiation. Space contains little which can be warmed. The moon will be warmed when the sun's rays strike it, and will become cold again when the sun sets as the earth does. The changes will be more rapid and extreme be-