

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

**PORTABLE DYNAMO.**—G. A. ALLEN, Western Springs, Ill. By means of this improvement a device may be built of twice the capacity of any former construction without increasing the size of the armature-shaft or length of rack-bar. It reduces to a minimum, if not entirely obviates, all sparking at the brushes and secures a great improvement in smoothness of running. The device is capable of firing more than twice as many fuses as any machine of this type, but is easily transferred from place to place and operated by one man.

**CIRCUIT-BREAKER FOR ELECTRICAL CONDUCTORS.**—W. G. SHAW, White Plains, Md. In this patent the invention is an improvement in circuit-breakers for electrical conductors, and is particularly designed for use on overhead wires forming parts of a circuit. The sub-shafts are concentric and in alignment and form supports for the circuit making and breaking sections in the operation of the invention.

Of General Interest.

**CAR.**—F. A. BOOLE and L. D. STEPHENSON, Blaine, Wash. The invention has reference to cars, and especially to those for holding lumber in kilns during process of drying. Its principal objects are to provide such a car in which each piece of lumber will be separated from those adjacent to it by an air-space and which may be readily assembled or disassembled.

**CORD OR STRING CUTTER.**—A. F. HOFFMAN, Olean, Mo. The cutter comprises a handle having a reverse curve, the two parts of the handle being separated from each other to form a crook, a blade formed integrally with the body of the handle and in general alignment therewith, one edge of the blade being sharpened, and a curved and blunted point extended in general alignment with the blade.

**TURPENTINE-BOX.**—A. C. McLEOD, Quitman, Ga. The invention comprises a box and a reinforcing-wire having a front portion wired to the upper edge of the front of the box and provided at its ends with rearwardly-projecting portions wired to the upper edges of the opposite ends of the box and extended rearwardly beyond the box to connect with a tree.

**PNEUMATIC WATER-LIFT.**—W. A. HARRIS and S. H. HARRIS, Greenville, S. C. In the present patent the invention is an improvement in pneumatic water-lifts, and has for its object to provide a novel construction by which the water may be elevated by pneumatic pressure and which may be utilized as a fire-extinguisher when it is desired.

**HALF-TONE-PRINTING PLATE.**—L. F. SMITH, El Paso, Ill. The object of the inventor is to successfully make half-tone plates without any expensive apparatus. Although for use in half-tone work, line-etching in zinc, brass, or other metals may be made as thin plates and mounted in the same way. The method of connecting the face-plate to the back is applicable to all kinds of printing-plates, engraved or chemically etched, of thin and flexible plates or thick and rigid ones, of a flat surface or a curved plane surface, and a wooden backing or a metal backing.

**SHEET-METAL ROOFING.**—D. J. WINN, Sumter, S. C. In this instance the invention consists in forming one of the side edges of the sheets with two additional folds arranged to form a return-bend over the ridges, so as to cover and protect the nails and giving a triple thickness of sheet metal over the ridges. The roofing-plates are folded in one piece and compactly nested for mutual protection and economic transportation.

**CREOSOTE-TRAP.**—E. C. COLE, Chicago, Ill. The invention is an improvement in stoves and ranges, and has for an object the provision of a novel means whereby to catch and retain creosote dropping from the smoke-pipe of a range. An important feature is a pocket or trap formed in the casting of the back flue and all dangers of leakage resulting from defective joints and the like are avoided.

**DERRICK.**—W. L. ALLAN, San Francisco, and W. T. PRICE, Ithaca, N. Y. The principal object of the invention is to construct a derrick which may be erected without the use of a gin-pole, and which is so formed as to allow of the topmast-sheave being placed close to the top of the mast, thus doing away with certain stresses set up in the mast when the sheave is placed in the usual position and also allowing the mast to be made lighter than heretofore.

**AUTOMATIC SHUT-OFF FOR FLUIDS.**—E. L. CRIDGE, Passaic, N. J. The improvement relates to valve mechanism, the more particular object being to provide a valve operated and controlled by means of pressure of a fluid passing through said valve, the arrangement being such that when the pressure of the fluid falls below a predetermined limit the valve closes and shuts off further flow of the fluid.

**BELT-FASTENER.**—P. TESSIER, Horace, N. D. This invention is an improved fastening means for connecting the ends of a power-belt, rendering the connection secure without injury to the normal strength of the material. Among the objects of the invention is to provide a device of this character which can be readily applied or removed when desired and

which will act to hold the ends of the belt with greater security as the tension thereon is increased.

**SPEED-INDICATOR.**—J. T. F. CONTI, 195, Boulevard Pereire, Paris, France. This apparatus essentially comprises a receptacle having a central capacity connected with an upper lateral tubular or circular chamber and containing a heavy liquid, such as mercury, upon which rests a lighter liquid the level of which will depend upon the deformations of the liquid under the influence of the centrifugal power.

**FLUE-CLEANER.**—G. C. FRENCH, Chicago, Ill. The invention has reference to flue-cleaners, and has for its object to provide means adapted to readily and completely loosen and remove soot and scale from the inside of a boiler-tube without becoming clogged and consequently rendered more or less inoperative. The operation of the cleaner is continuous.

**SEDIMENT-CATCHING POCKET FOR RECEPTACLES.**—W. M. GILBERT, Conshohocken, Pa. The invention relates to certain improvements in dispensing-receptacles, and more particularly to means adapted to be inserted within or formed integral therewith whereby any sediment which settles to the bottom of the liquid may be caught and prevented from being dispensed with the main body of the liquid.

**GRATE-BAR.**—A. L. HOWARD, Vinton, La. The invention is especially useful in connection with devices adapted for the purpose of burning culm, sawdust, and the like. The object is to provide a device inexpensive to manufacture and which presents removable top sections which may be easily replaced from time to time as circumstances require.

**FIREPROOF CONSTRUCTION FOR BUILDINGS.**—J. JACOBS, Akron, Ohio. In the present patent the purpose of the inventor is the provision of an economic and effective fireproof construction for fire doors, shutters, and partitions, which construction combines lightness with strength and durability and is readily adaptable to any manner of building.

**EYE-PROTECTOR.**—E. MIROVITCH, 53 Rue Notre Dame de Lorette, Paris, France. The invention comprises eye-glasses or goggles for automobilists or others, having a double ventilating-tube and an extensible bridge-piece, the construction of the bridge comprising two semi-cylindrical stems adapted to work within a screw-threaded nut having right and left handed screw-threads adapted to engage corresponding threads on the ends of the respective stems. It relates to improvements in eye-protectors for which former Letters Patent of America were granted to Mr. Mirovitch.

**SANITARY MOUTHPIECE-GUARD.**—R. R. MACGILL, Baltimore, Md. The object in this case is to provide a simple and efficient device which will insure the user of the device protection against disease germs, and which permits the application of new disinfectant material for each user of the device without necessitating the removal of the same from the telephone.

**SAFETY DEVICE FOR ELEVATORS.**—W. LOWRY, Cowley, Alberta, Canada. The invention refers more especially to devices for elevators employed in coal and other mines, although applicable to elevators employed in other places. One of the principal objects is to provide devices of this kind of an embodiment to overcome disadvantages and objections encountered in the use of many other devices of the kind hitherto employed.

**CRATE.**—R. MORGAN, Ellsworth, Kan. Mr. Morgan's invention is an improvement in crates of the collapsible type. By the peculiar construction of the sides of the crate the said sides may be extended and contracted longitudinally during the folding and opening of the crate, the contraction of the sides permitting inward folding of the sides and ends without interfering with each other.

Hardware.

**NUT-LOCK.**—J. K. GOURDIN, Pineville, S. C. The invention secures a better spreading of a locking-key into spaces between a nut and bolt in order to lock said key in place when driven home. The key is of soft metal, and pressure applied, it spreads into the spaces in the threads of the bolt and nut and locks them against displacement. Means provide for increasing this locking effect. In compressing the key in the space between nut and bolt a punch may be placed against the outer end of the key when fitted in place and the punch hammered to force the soft-metal key between the bolt and key. A wrench applied with force cuts the soft-metal key and permits removal of the nut.

**SNAP-HOOK.**—J. C. WELCOME, SR., Burns, Ore. One purpose of the invention is to provide a hook particularly adapted for use in connection with harness, so constructed that all springs are dispensed with and so that even if the snap is closed it will automatically open when a ring or like object is passed to the bill of the hook and whereby the snap will be automatically closed by the entered object when within the bill, but that after the hook is engaged with an object it will not become disengaged until purposely released.

**WRENCH.**—A. S. MORANGE, Stratford, Conn. The invention is an improvement in wrenches having among other objects to provide a strong and compact adjustable wrench of simple con-

struction in which all of the operating parts are completely inclosed, thereby presenting a neat outward appearance and protecting the adjusting means from the weather.

Heating and Lighting.

**FLAME-SPREADER FOR OIL-BURNERS.**—J. H. GREENHAGEN, Columbia City, Ore. The invention pertains its improvements in flame-spreaders for all burners used in railroad signal-lamps and the like, its object being to produce a spreader which is economical in the use of oil, and designed to properly spread the flame without causing smoke, and preventing accumulation of dirt in the spreader.

**HEATING STOVE.**—L. H. THURSTON, Belt, Mont. The improvement is in the nature of a new heating stove, applicable for heating stoves and furnaces of all kinds, and to which is given the name of "oxygen blast." It is designed to secure a more economical use of fuel, a thorough heating of the lower stratum of air in the room, and a perfect ventilation of the room with removal of foul air.

Household Utilities.

**PLATE-LIFTER.**—C. F. SMITH, New York, N. Y. In this patent the invention is an improved plate-lifter for carrying plates, lids, and other devices about in the kitchen, especially when in heated condition. The invention is primarily directed to a novel construction adapting the lifter to be adjusted with facility to suit plates, pans, etc., of varying diameter.

**WINDOW-SHADE AND CURTAIN-SUPPORT.**—J. L. SMITH, Eureka Springs, Ark. The object of the inventor is to provide means simple in construction and durable in use adapted to be readily applied to a window-casing and to permit a curtain or shade to be lowered from the top of a window and held adjusted in the desired position, so as to admit air and light from above the top of the curtain and shade and permit of readily cleaning the same.

**BEDBUG-TRAP.**—J. E. BRUNDIN, New York, N. Y. The device is intended to be employed in connection with a bed or bedding for the purpose of trapping bedbugs and such like insects or vermin. The principal object is to produce a trap which may be easily and quickly applied or set for the uses intended and which may be readily detached and emptied or discharged.

Machines and Mechanical Devices.

**APPLIANCE FOR CORD AND ROPE MACHINES.**—P. M. STEGMAIER, Plymouth, Mass. The appliance is applied in cord and rope machines for the purpose of smoothing and rendering uniform and compact the lay or twists of the strands of cord or rope as the latter leaves the forming device. It is adapted for all purposes of what are known as "fore-turn-tubes" and "after-turn-tubes," and may be disposed in either horizontal or vertical position, according to the character of the forming or laying devices of the cord or rope machine on which the same may be applied.

**ATTACHMENT FOR LINOTYPE-MACHINES.**—W. N. BOWMAN, Pierre, S. D. The device consists of a guard adapted to fill an open space at the top of the mold-slide, thus preventing metal from dropping in front of the ejector-blade, the guard end bearing against the periphery of the rim of a mold-wheel, so as to scrape therefrom all type-metal, and a wiper arranged in the path of the mold adapted to oil the walls of the mold-orifice, enabling the slug to be ejected and a perfect "lock-up" to be obtained between the mold and the spout of the melting pot, thereby preventing high slugs caused by metal adhering to the back of the mold.

**PAPER-MAKING MACHINE.**—W. H. HOFFMAN, Little Falls, N. Y. The invention pertains to cylinder and Fourdrinier machines; and its object is to provide improvements in machines whereby light-weight stock, such as used for making tissue and toilet paper is prevented from sticking and breaking while passing the press-rolls, thus producing a better quality of paper, increasing the capacity of the machine, and reducing waste of stock to a minimum.

**CANDY-MACHINE.**—Z. S. HOFFMAN, Newark, N. J. In this instance the improvements are in candy-machines of the type operating centrifugally to force out the melted sugar or other candy material in shreds or of a floss-like nature, the main object being to so construct the candy-head that the outlet may be readily adjusted as to size, thus providing for various sizes of shreds.

Railways and Their Accessories.

**SLEEPER AND CONNECTION FOR RAILWAYS.**—R. H. IRELAND, Newark, N. J. Among the objects in this invention is the provision for the securing of the rails without the use of spikes or like fastening devices and enabling the rails and sleepers to be assembled expeditiously without the necessity of gaging the distance between the rails, which is fixed and determined in the manufacture of the sleeper.

**AUTOMATIC AND STEAM PIPE COUPLING.**—W. F. THORNTON, JR., Germantown, Pa. An object of the inventor is to simplify the construction of this device, making it positive and perfect in action even when the coupling of the cars takes place under the most unfavorable

circumstances, as when brought together on sharp curves or when the couplers of the cars stand at different heights; further, to provide for the connecting of the air and steam pipes of one of the improved automatic couplers with such pipes of an adjacent car when the latter is not thus provided.

**RAIL-JOINT.**—A. E. SPRATLEY, Monett, Mo. Among other objects in this case is to dispense with the use of bolts and other devices for positively connecting the rail ends together, and thereby admitting of the rails expanding independently of each other. The construction is such that the strength of the joint is materially increased and the ends of the rails supported in a way to prevent the constant pounding of the train-wheels depressing them at this point.

Pertaining to Recreation.

**BAIT TRAP AND HOLDER.**—V. LE BEAU, New Orleans, La. The object in this improvement is to provide means for storing food adapted to attract minnows, to hold the food compactly and in good condition so as not to be affected by the currents or when raising the trap out of the water, and also to provide means whereby the live bait is permitted to readily enter the trap and be retained.

Pertaining to Vehicles.

**VEHICLE.**—O. J. WIDMEIER, Sigel, Ill. In driving on country roads where they are bad it is inconvenient for a single-horse team to pass along by reason of the fact that most vehicles which pass are double-horse teams. Horses of the double teams wear two paths in the roadway, and the intermediate space becomes very rough, upon which space the horse, if it were a one-horse vehicle, must pass. The object is to provide a vehicle which will overcome this objection.

**BOW-REST FOR VEHICLE.**—J. H. SPRAGUE, Norwalk, Ohio. The invention relates to improvements in folding tops for automobiles and other vehicles, and more particularly to means for spacing the bows of said tops and holding them in definite position in relation to each other when the top is folded back, said means being so constructed that all chafing and wearing of the bows or cover is prevented. The bow-rests are so constructed as to prevent all rattling or jarring of adjacent parts.

**AUTO SNOW-CAR.**—J. SHERWOOD, Lake, Idaho. In carrying out his invention, Mr. Sherwood provides a main frame mounted on runners and carrying a suitable motor, together with a propeller connected with the said main frame and arranged to be operated by the motor mechanism on the main frame to advance the car, and also to be heated from the said motor mechanism, whereby to keep the surface of the propeller clear of accumulations of snow, so it will be in operative condition at all times when desired.

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.

(10410) A. C. M. asks: I am told that some ten years ago a method was described in the SCIENTIFIC AMERICAN by which a man can obtain power by looking at some particular part of his face through the mirror. This power enables him to get rid of his own diseases and to cure certain diseases in other persons by a method called suggestive treatment. This treatment, I am told, is also called biology or telepathy. The particular part of the face referred to has been pointed out to me, but I want to have full information on the subject, and shall be very glad to obtain, if possible, spare copies of the SCIENTIFIC AMERICAN which contained the suggestions referred to above, or any books dealing with the subject of obtaining power by this or any other means. I shall also feel very much obliged if you would kindly let me know the names and addresses of the persons practicing this treatment, to whom I may refer for the solution of my difficulties. A. We have no information regarding a method of curing diseases by looking at ourselves in a mirror. We wish it were in our power to do so. It would be vastly easier than to take medicine.