RECENTLY PATENTED INVENTIONS.

Apparatus for Special Purposes.

CONDENSER.—O. S. Still, Annette, Cal. The invention relates to a condenser especially intended for use with an apparatus for extracting mercury from cinnabar and analogous ores. In operation the vapors generated in a furnace retort are led into the upper part of the condenser shell where they are met by a spray. The vapors are thereby condensed and the condensate falls to the bottom of the shell. A body of water in the bottom of the condenser prevents the falling quicksilver from striking the bottom of the condenser and becoming divided into small particles, which would tend to return it to a vaporous state.

Dental Appliances.

DENTISTRY.—D. T. Hill, Syracuse, Neb. The invention provides a simple means for securing artificial molars and bicuspids in position in such manner that the denture cannot be accidentally displaced, but may be readily removed when desired. The locking device comprises a box-like member provided with a V-shaped spring. This attaches to the rubber plate on which the artificial teeth are secured and the locking device itself is secured to a crown which engages over a natural tooth.

DENTAL APPLIANCE.—F. C. Rood, Walla Walla, Wash. Dr. Rood's invention relates particularly to devices for trimming the roots of teeth in preparing them for crowning with Richmond, Logan, or other dowel or pin crowns. The arrangement is such that the pin which enters the root canal is connected movably with a cutter, so that the cutter can be turned at different angles without displacing the pin from the root canal and without necessitating any unnecessary enlargement of this canal.

Electrical Devices.

INTERCHANGEABLE TELEGRAPHIC KEY.—W. C. Dean, Quitman, Ga. This invention is an improvement upon that form of interchangeable telegraphic key or combined key and switch in which a single key is so constructed and arranged as to be used in common with any number of telegraphic circuits and instruments, doing away with the necessity of the operator changing his position from one instrument to another, and also of carrying a typewriter from instrument to instrument when messages are to be transcribed thereon.

Of Interest to Farmers.

KNOTTER-GEARING.—J. M. Rector and W. H. Rosbury, Monarch, Mont. The object of the invention is to dispense with toothed gearing ordinarily employed for connecting the driving shaft with the knotter shaft, and to provide a superior means for transmitting the movement through the medium of crank arms and a link connecting them.

Of General Interest.

CHEESE-GAGE.—W. H. Frank, Burkesville, Ky. The invention is an improvement in that class of cheese gages which are adapted for use in cutting up cheese into slices of a desired weight, size, or price. The present invention is an improvement upon one previously patented by Mr. Frank, and is arranged to hold and guide the cheese in an improved manner, so that the slices severed will have uniform faces instead of being cut at greater or less angles, as might otherwise be the case.

COLLAR.—A. Johnson, Wellsville, Ohio. The invention is an improvement in dog collars. The collar is so arranged that it will be contracted when the dog pulls on the chain, thus exerting a pressure to restrain the dog. It will be found especially useful with dogs that slip the collar, as the device is self-adjusting, and the weight of the dog chain will regulate its size. The dog, therefore, will not be able to get the collar off, as the harder he pulls, the smaller the collar will become.

COMPOSITION OF MATTER.—E. C. May, Chicago, Ill. The object of the invention is to provide an improved composition of matter for the manufacture of firebricks, tiling, etc., and which is exceedingly hard and solid, and not liable to deteriorate under the influence of air or high heat. The composition of matter consists of the following ingredients: Pulverized coal ashes, 1 ton; powdered silica, 1-5 ton; and a binding material, such as cement, or lime, 1-5 ton.

GOODS-EXHIBITOR.—P. J. Koll and J. J. Koll, Earling, Iowa. This apparatus is designed and adapted by these inventors for use by merchants for suspending and displaying robes, rugs, and the like. The chief objects aimed at in its construction are simplicity, cheapness, strength, portability, and adaptation for exhibition of a series of robes or rugs to the best advantage and in minimum space.

CALCULATING APPARATUS.—A. B. Bly, Ottumwa, Iowa. The invention relates to apparatus for performing various mathematical operations, being particularly adapted for the addition of serials of numbers. Its principal objects are to provide a simple yet accurate apparatus. Any combination of numerals, the sum of which does not exceed the capacity of the apparatus or is less than thousand millions, may be added. The same general method is employed in subtraction, except that for the number to be deducted belts are moved in opposite direction. Multiplications may be treated as multiple additions and division as multiple subtraction.

BOOK-FINISHER'S STAND.—V. Kling, Council Bluffs, Iowa. In finishing books on the back it is the usual practice to place the book in a clamp to hold it firmly; but as the book must be turned many times in order to do the work on either side of the "hubs" it is necessary to open the clamp and manually turn the book and again place it in the clamp. To obviate this work is the aim of the inventor, by means of which a book may be readily turned without taking it out of the clamp until the book is entirely finished.

DUST-COLLECTOR.—R. L. Hollingsworth, Faith, Ga. Though adapted for use in other places the inventor's improvements are intended more especially for use in factories, mills, and the like for collecting from the air therein any and all dust, shavings, or other solid particles with which such air may be laden; and one of his principal objects is to provide a device simple in construction, comparatively inexpensive to manufacture and thoroughly effective and reliable in operation.

BRACKET.—J. F. Kress, W. Loshelder, H. O. Gross and H. Loshelder, Jr., Pittsburg, Pa. While this bracket is simple and inexpensive to construct, it serves to support both the shade and drapery for windows of any width and for the application of various lengths of shade-rolls and drapery-poles after the brackets have been fixed in place, thus providing without change in position for the curtains of different users and for variations in the position of draperies in accordance with different tastes.

GARMENT.—I. L. Marrow, New York, N. Y. It is customary to provide garments, especially such as men's and boy's drawers, with non-elastic loops of tape at or near the top, through which may be passed suspender-ends or other supporting attachments for holding the garments in the proper position. As these and the material of which the garments are made do not stretch, the loops are frequently of no service, especially for tall men, and when the waists of the garments are short. Mr. Marrow's main object is to overcome these objections.

CALENDAR FOR PENCILS, ETC.—F. Spillane, New York, N. Y. In this instance, the object is to provide a calendar for pencils, penholders, and like articles arranged to permit the user of such articles to have ready reference at any time to the calendar for obtaining a desired date of the present month, the calendar being very simple in construction and easily applied to the article.

BOOK-CLAMP.—J. N. Bostick, Fresno, Cal. More definitely stated, this invention relates to novel means whereby loose leaves may be held and bound into book form by stapling or other securing means. Specifically stated, the invention consists of a peculiar spring-acting clamp adapted to be secured upon the top of a table or other support and means for working it.

FOUNDATION-ANCHOR FOR BRIDGES.—P. P. Carver, Estill Springs, Tenn. In this patent it is the object of the invention to provide an improved means for fastening hollow bridge columns or pipes used for other purposes in stone or rock foundations. To this end Mr. Carver has adopted and successfully employed the means. The invention is applicable in cases where no water exists.

Hardware.

WRENCH.—R. J. Cosseboom, Leadville, Colo. Mr. Cosseboom's invention relates to improvements in pipe-wrenches of general type, the object being to provide a wrench of this character that will be simple in construction, having no parts liable to get out of order, and that may be readily adjusted to a pipe or rod and rigidly grip the same without danger of marring or crushing it.

SAW.—G. G. McGill, Decatur, Ind. The principal object of this invention is to make a saw that will cut through flooring, weatherboard, timber, and the like, at all places where a section of board is to be removed without first boring holes and using a Keyhole saw to start the kerf. The blade of the saw is curved at the tip and provided with teeth both on the lower and the upper edge.

DOOR OR WINDOW LOCK.—W. F. Martin, New York, N. Y. The purpose of this invention is to provide an absolutely secure lock by which to fasten doors, windows, and the like against entry from one side, the purpose being in practice to place the lock on the inside of the door or window, so as to lock the same against opening from the outside.

WRENCH.—C. H. Ritts, Wausa, Neb. In this case the invention relates to improvements in wrenches, particularly adapted for tightening screw-threaded calks in horseshoes, but obviously adapted for tightening nuts, lag-screws, and the like; and the object is to provide a wrench of this character that will be very simple in construction and adapted to operate with comparatively little manual exertion.

Heating and Lighting.

WATER-HEATING APPARATUS.—A. P. Broomell, York, Pa. In this patent the invention is an improvement in water-heating apparatus commonly called "fuel economizers," and has for an object to provide a novel construction whereby to prevent the splitting of the headers from the pressure exerted in forcing the tubes or pipes into such headers.

HOT-WATER HEATER.—J. A. Coppridge, Roanoke, Va. This hot-water heater comprises a firebox formed of four corner standpipes connected by horizontal pipes and leading to a hollow crown sheet or dome. The whole is encased in a metal or brick casing. The dome is formed with depending chambers for heating the water to a high degree before it passes out to the radiators. The firebox is provided with an improved type of door.

Machines and Mechanical Devices.

LEAD GAGE AND ARBOR LEVEL.—M. C. Barry, Atlanta, Ga. The device is adapted for setting a carriage and arbor of a circular sawmill so that the saw will cut directly parallel to the carriage. By means of this device, the crude and clumsy method of using a long string or cord for gaging the carriage is obviated. The device can be gaged within a few minutes by an unskilled person in lining up a mill and getting the desired lead.

NUT-HOLDER.—G. F. Zwilling and C. W. Richards, Cleveland, Ohio. This nut-holder is designed especially for automatic nut-tapping machines. The device is arranged to provide for holding the nut with that firmness necessary to the operation of the tap therein, and yet allowing the nut a certain bodily movement transversely of the tap, so that should the sides of the nut not be true, it may be shifted laterally as the tap enters the nut, and the tap allowed to operate evenly.

CAMERA.—L. Nesemann, New York, N. Y. The purpose of the invention is to provide an effective form of camera in which accommodation is afforded for a large reel of films, and means for conducting the films past the rear of the camera box in such manner that "moving pictures" may be taken or so that individual pictures may be taken at will. An alarm is provided which will be sounded after a predetermined number of pictures have been taken.

AMUSEMENT APPARATUS.—C. V. Johnson, Salt Lake City, Utah. In this apparatus a rolling object, such as a bicycle, under the control of a rider, travels about a vertical looped path, by virtue of centrifngal force generated and under the momentum acquired from its passage down an incline leading to the loop. It is more particularly applicable to apparatus in which a portion of the path is omitted to cause the rider to leap across the gap thus formed under the impetus he has attained.

WORK-CARRIER.—G. A. Ensign, Defiance, Ohio. The invention relates to woodworking machines, such as mortising machines, boring machines, and the like. The workcarrier is arranged to have a limited sliding motion between adjustable stops, or a free unlimited sliding motion for any desired distance independent of the stops.

AUTOMATIC DOOR-ALARM.—P. Bourne, New York, N. Y. One purpose of this improvement is the provision of an alarm attachment for doors brought into operation by the slightest turn of a door-knob with which the device is connected and which device may be expeditiously carried from and locked out of action whenever desired.

MOVABLE MAP AND MACHINE FOR OPERATING SAME.—T. Ikemori, New York, N. Y. The purpose here is to provide a machine having means whereby maps may be moved relatively to each other simultaneously or in any sequence, and whereby any one map may be independently and singly moved with panoramic effect to demonstrate a route traveled over by a party, and to illustrate geographic features traversed and line of travel, as from town to town, country to country, etc., and to provide means for illuminating portions of maps and displaying at intervals illuminated scenes in travel of the person and forming the subject of the display or lecture.

TYPE-EJECTING DEVICE IN TYPE-CASTING MACHINES.—J. Mayer and C. Albrecht, Berlin, Germany. This invention relates to a device of the kind described in the inventor's other application for United States patent. The type-mold there described is adapted for producing a plurality of types at a time. It is provided with a plurality of parallel cross-cavities in a plane, and consequently the type-ejecting device comprises a comb-like ejector, the teeth of which are either made in one piece with a part of the machine or secured thereon by suitable known means. In the latter case the construction is such that distance between the several teeth can be varied to the circumstances.

CLAMP FOR HAT-PRESSING MACHINES.—V. J. Lawson, New York, N. Y. In this patent the invention has reference particularly to a new and improved clamp intended for use in connection with hat-pressing machines, by means of which the felt may be drawn outward from the mold in case the felt does not reach to the edges thereof.

JACK FOR MINING-MACHINES.—M. Raines, Decota, W. Va. This improvement is especially adapted to that form of mining-machines in which a drill is used and which have to be braced between the roof and the floor of a vein in order to secure the proper pressure for operation. It is applicable, however, to various forms of mining-machines and not limited to the mining of any particular material, although the inventor desires it specially to apply to the mining of coal.

REVERSING MECHANISM.—F. C. Mudd, Ellisgrove, Ill. The invention relates to eccentrics reversibly mounted on their shafts; and its object is to provide reversing mechanism more especially designed for use on locomotive-engines and other engines and machines and arranged to allow convenient reversal of the eccentric at the will of the operator and protect the working parts against dust, etc., to insure a proper working of device at all times.

MACHINE FOR CALCULATING INTEREST AND PERCENTAGE. W. M. Braly, Blackwell, Oklahoma Ter. The purpose of this invention is to provide a machine for calculating interest and percentage which will be of simple and economical construction, concise, accurate, and readily operated. The machine accomplishes this, in such transactions, as, when the rate of interest and time are given to find the interest: when the interest and rate are given to find the time, etc., in an improved and satisfactory manner.

Prime Movers and Their Accessories.

BOILER STAY-BOLT.—J. Peters and J. Coleman, El Paso, Texas. This improvement is in the nature of a novel form of steam-boiler stay-bolt, designed to connect the crown-sheet of the firebox with the outside shell of the boiler, and it consists in such construction of bolt and the combination of the same with the sheet and shell as will secure a strong connection of these parts, which will compensate for expansion and be capable of adjustment, and which will also facilitate the making of repairs and the tightening up of the bolts against leakage.

Railways and Their Accessories.

THIRD-RAIL COVERING.—T. Buckley, New York, N. Y. The invention relates to means for shielding the rail from the action of the weather, and also to the protection of life and property against the dangers of the rail when energized. A wall is located on each side of the rail and two arched metal coverings protect it above. These coverings are normally held in engagement with each other by coiled springs but are adapted to be spread apart by pilot-shoes to admit the contact-shoe of the car.

CAR-WHEEL AND AXLE.—W. A. Honeyman, Wallace, Idaho. In carrying out the present invention the object particularly in view is the provision of an improvement which will be exceedingly simple in its construction and which will be durable—that is, able to stand the hard uses incident to conditions under which it is employed. The inventor provides an axle which is self-oiling; and means for locking the wheels in position on the axle, the construction being such that a minimum of friction is had with the maximum strength and security.

EMERGENCY-COUPLING.—G. J. Hubbard, Port Jervis, N. Y. In this patent the invention refers to railroad car-couplers; and its object is to provide a coupling arranged to permit of conveniently tying or coupling the draw-heads of adjacent cars together in case the coupling mechanism of the draw-heads is broken or out of order.

Pertaining to Vehicles.

STEERING DEVICE.—W. H. Douglas, Belleville, N. J. The inventor's object is to provide a device which can only be actuated from the steering-wheel, and when not required for steering needs no attention or holding on the part of the operator, as it is locked in any position in which it is left and is not affected by jars or strains when the conveyance travels over rough roads, for instance, the device requiring bnt little power to actuate when it is desired to steer the conveyance. It relates to automobiles and similar road-vehicles, aerial and marine vessels, and other mechanial conveyances requiring steering.

Designs.

DESIGN FOR A FOLDING-CHAIR.—H. C. Strobel, New York, N. Y. This design is of an ornamental chair shown in perspective. It is extremely delicate and artistic in its curved and straight lines and finely proportioned. A dotted four-pointed star with a ring in its center, in which a round spot is placed, occupies the middle of the chair seat.

BADGE.—C. L. Jennings, Leander, Tex. This is a design for an article or device intended for use on goods, chattels or other property to indicate that they are for sale. The device is in the nature of a badge which may be attached to the clothing or property of a person, or otherwise employed for the purpose above stated. The article is a block or disk having its face ornamented by figures in different colors which readily attract attention.

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.