

## RECENTLY PATENTED INVENTIONS.

## Electrical Apparatus.

**TELEGRAPH-RELAY.**—JULIO E. CORDOVEZ, Panama, U. S. of Colombia. The invention provides an efficient and sensitive construction for repeating telegraph messages both with and without the use of sounders or other receivers at the intermediate stations, and allows the use of the apparatus either for repeating purposes or for those of ordinary communication from station to station. The use of springs or like delicate and rather uncertain devices is avoided.

## Engineering Improvements.

**ROTARY ENGINE.**—FREDERICK S. PICKERING, Olathe, Kans. The inventor has devised an improved engine, the characteristic features of which are to be found in a cylinder having a central core spaced from the wall of the cylinder to form an annular working-chamber. The piston has a number of piston-heads traveling in this working-chamber. A revoluble abutment extends into the annular chamber, the abutment having a cut-out portion for the passage of the piston-heads. Peripheral seats for this abutment are formed by a recess in the inner surface of the cylinder and the recess in the core, the core being provided at this recess with a packing forming part of the seat. The peripheral surface of the abutment contacts closely with its seats in the recesses, thereby forming a closed working-chamber and a perfect abutment for the back pressure of the steam. The core-packing is subjected to steam pressure for counterbalancing purposes. Springs engage the core-packing and act in conjunction with the steam pressure to insure a constant excess of pressure in the direction of the abutment and constant contact therewith.

## Machines and Their Accessories.

**BELT-PLACER.**—JORDAN S. MONTGOMERY, FELIX G. OWEN and ROBERT R. OWEN, JR., of Franklin, Ky. The object of the invention is to provide a simple device especially adapted for the placing of long, heavy, horizontally-running belts, such as a belt for a threshing-machine or the like driven from an engine. The device comprises a segmental plate gradually diminishing in width from one end to the other and provided with an upwardly projecting flange on its upper end. The plate is secured to an arm which is provided with a hub adapted loosely to fit upon the end of a pulley-shaft. The arm is detachably secured to the pulley. On turning the pulley, the band will first engage with the wider portion of the segmental plate, and as the pulley rotates the flange will force the belt over and upon the pulley.

**SAWING-MACHINE.**—CHARLES SEYMOUR, Defiance, Ohio. To its long list of woodworking machines the Defiance Machine Works has added an improved sawing-machine which is designed for sawing off at one operation both ends of a spoke, handle, neck-yoke, singletree-blank, or other articles which are to be made of the same length. The machine is readily adjustable for any length of work required. Broadly, the machine has circular saws for sawing off the work; an endless carrier for feeding the work to the saws; swing-arms, resting on the work while the saws cut off the ends of the work; and a friction drive-gear for the endless carrier, controlled from one of the arms.

## Railway Devices.

**MAIL-BAG HOLDER.**—ALEXANDER M. HARRIOTT, Rye, N. Y. Hitherto great difficulty has been experienced in providing a device which will hold the bag securely under ordinary conditions, and yet quickly and effectively release it when the bag is engaged by the catcher or fork of the railway train without breaking the rings. The present invention provides a device which will hold the bag securely under all conditions, except when strain is placed sidewise on the bag, and then the bag will be quickly released so that it can be carried away by the train.

**SWITCH-OPERATING MECHANISM.**—FRED A. CARROLL, Penn Yan, N. Y. The mechanism is designed to be carried by a street-car for operating railway switch-tongues and also for operating a connection between switch-tongues. The device which forms the subject of this invention can be easily operated by a motorman on the car-platform. A rod is vertically movable through the car-platform and is held in its axially-adjusted position. Springs take the thrust of the rod in opposite directions. A shoe is carried on the lower end of the rod; and the switch-tongue is operated by the shoe.

**RAILROAD-TRACK.**—JACKSON, LIEB and COMPANY, Citizen's Bank, Anderson, Ind. The tendency of tracks to spread on curves on account of the extraordinary strain exerted against the inner side of the outer rail by trains is well known. The present invention seeks to provide a simple construction by which the outer rail is securely anchored. The application of this structural method to railway curves will also tend to diminish the rotting of the rail by the accumulation of moisture.

## Household Utensils.

**WINDOW-CLEANER.**—THOMAS MART,

Brooklyn, New York city. By means of this simple device a person can simultaneously clean and polish both the inner and outer surfaces of the window-pane. The utensil consists of two arms connected by a spring at one end and provided with head-blocks which receive polishing-cloths. The window is received between these padded blocks, and is polished on both sides at the same time.

**AUXILIARY POT-HANDLE.**—EMIL MEYER, Jersey City, N. J. The object of the invention is to provide a new and improved auxiliary pot-handle which is simple and durable in construction and which is readily applied to a kettle to permit one conveniently to move the kettle about or to turn it over and pour off the liquid contents without disturbing the solid matter.

## Architectural Improvements.

**CONSTRUCTION OF FLOORS, PARTITIONS, OR THE LIKE.**—VALENTINE MOESLEIN, Manhattan, New York city. By means of this construction a floor, partition or the like can be cheaply built and rendered perfectly fireproof. The construction comprises spaced supporting arms and metal laths extending transversely from one arm to the other. These laths have laterally-offset recessed portions passing around the supporting arms and securing the laths thereto. The recessed portions hold the major portion of the laths at one side of the supporting arms opposite the side embraced by the recessed portion.

**ADJUSTABLE DOOR-FRAME.**—JOHN BACHUS, Jersey City, N. J. This adjustable door frame is arranged to permit convenient adjustment of the rabbit-strip at any time to insure proper opening and closing of the door without requiring planing or rechanging of the door as has been so frequently practised hitherto to overcome the defects caused by swelling, shrinking, warping and settling.

## Apparatus for Special Purposes.

**APPARATUS FOR REGENERATING AND PURIFYING AIR.**—ALEXANDRE DESGREZ and VICTOR BALTHAZARD, Rue Saint Jacques 240, Paris, France. The apparatus decomposes sodium bioxid or any other alkaline bioxid by cold water, with the object of producing oxygen and soda, with which vitiated air is placed in contact. The oxygen renews that which has been used in respiration, and the soda absorbs or fixes the carbon dioxide expired. In addition, the foul air and toxic material produced by respiration are destroyed by this reaction, which is of an oxidizing character. The apparatus consists essentially of an automatic means for distributing sodium bioxid; a generator in which water is made to react upon the sodium bioxid; and a fan which causes the circulation of air in the apparatus.

**MEANS FOR COOLING CALENDER-ROLLS.**—GEORGE F. DREW, Brunswick, and CHARLES DICKINSON, Lisbon Falls, Me. The invention is an improvement in devices for supplying air to the surfaces of calender-rolls of paper-machines, and avoids the expense of the unnecessary upright pipes and the objections incident to their use. The hollow stands or housings of the calender ring machines are used in supplying the air to the discharge-pipes. The merits of this construction are numerous. No floor-space is occupied, so that the machine-tender may work in a space free and unobstructed.

**TIME-INDICATOR.**—CHARLES H. BRAKE, Hawarden, Iowa. The invention is a device for indicating the time occurring simultaneously at different points of the globe and for solving problems connected with the change of dates and with the local times of different cities. The device may also be used for solving problems in which it is desired to ascertain where and when a traveler, leaving New York at noon on a journey westward and proceeding so rapidly as to keep the sun in his meridian, will change his date.

## Miscellaneous Inventions.

**CIGAR CUTTER AND LIGHTER.**—CARL A. ROSENHOLZ, Wardner, Idaho. The cigar lighter is of that type in which a wick of an oil or spirit lamp is ignited by an electric spark. The lamp or torch is so connected with the body portion or hood that it can be swung and rotated freely relatively to the body portion or hood. Hence the electric wires cannot be broken. In connection with the lighter, a cigar-tip cutter is provided which is operated by a swinging movement of the torch.

**CORNET ATTACHMENT.**—CHARLES SPRINGER and GEORGE DAVIS, Newark, N. J. The invention is designed to enable a player to change the pitch from A natural to B flat and vice versa without interrupting the playing of the instrument. The pitch may be changed at will without lengthening or shortening the shank or hub of the instrument. Formerly much inconvenience was occasioned by the substitution of the long and short tubes; but by this invention the change can be made without shifting the position of the mouthpiece.

**SAND-POINT.**—MILTON LATTI, Burwell, Neb. The invention is an improvement in sand-points for wells and particularly in points that are formed with perforations, a spiral rib extending around the perforated portion, and a wire-cloth strainer being secured upon the rib over the perforated por-

tion. The present invention seeks to furnish an improved construction and arrangement of the wire-cloth with a view to secure a distribution of the strain or pressure upon all the wires of the cloth so that such strain or pressure will be distributed between the wires which cross each other at right angles.

**PLANE.**—LUDWIG KEMLINE, Pinole, Cal. The handle of the plane may be adjusted transversely so as to place the hand of the carpenter in any desired position relatively to the transverse extent of the plane. By these means the carpenter may avoid bruising his hands.

**BELT.**—SAMUEL J. PROKESCH, Manhattan, New York city. This improved belt is arranged readily to yield lengthwise and to accommodate itself to the motions of the wearer's body, so as to fit at all times snugly to the waist of the wearer without requiring any adjustment by lengthening or shortening the belt as now commonly practised.

**BARREL.**—GRANVILLE M. TILGHMAN, West Norfolk, Va. The barrel is intended for use in the shipment of garden truck and the like, in which ventilation is necessary. The broad idea of the invention comprehends a stave for use in barrels, baskets and like packages, which stave is deflected between its ends in the direction of its plane. In making barrels it is difficult to use splints or staves crossing one another diagonally. By this invention this difficulty is overcome.

**ACCOUNT-LEDGER.**—PAUL K. PAULSEN, Irwin, Iowa. The invention is a perpetual ledger or file, and comprises a tray having a number of slips, and hinged clips which may be swung down over the slips. One slip is provided for each customer. The several items are entered on the customer's slip. When he pays the account the slip is marked "paid" and handed to the customer, thus giving him an itemized receipt of the account and withdrawing his name from the ledger. Hence the ledger is not encumbered by names of customers who have discontinued accounts. The keeping of books is unnecessary. Nothing is overlooked, as sometimes happens when posting is delayed.

**MANTLE-SUPPORT.**—NELS E. ERICSON, Ridgway, Pa. It is the usual practice to support a burner-mantle by a wire extended from the base of the burner and along one side of the mantle. When the wire becomes heated it bends and causes the mantle to break. Mr. Ericson overcomes this difficulty by providing a simple device that will not be affected by heat. The mantle is supported straight down in the chimney and is at all times free from the glass.

**SOAP-CAKE.**—THOMAS A. LYNCH, 222 Van Buren Street, Brooklyn, New York city. In connection with a cake of soap a plate of rigid material not affected by water is provided and so arranged as to support the soap slightly above the bottom of a soap-dish. Thus the soap is held out of contact with the water that may be on the bottom of the soap-dish or on the stand-top. Soap is thereby saved; for it is well known that when but slightly moistened, soap is slowly dissolved and wasted. The plate may also be provided with pumice stone if it be so desired. The inventor is the proprietor of the "Tom Artlyn" soaps.

**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.

## NEW BOOKS, ETC.

**HOLZ UND MARMOR-MALEREL.** Praktische Anleitung, zur Herstellung von Holz und Marmor-Imitationen, Imitation eingelegter Arbeiten mittelst Anstrich, übertragen von Drucken auf Holz, Glas, etc. Decoriren von Fensterscheiben u.s.w. für Maler, Anstreicher, Vergolder, Lackirer, Tischler, Drechsler, Decorateure und verwandte Geschäfts-Zweige. Von Louis Edgar Andés. Vienna: A. Hartleben. 1901. Pp. 243.

The present monograph on the decoration of wood and marble is certainly one of the most interesting and valuable which has appeared in the excellent series of technical monographs published by Hartleben. The work is accompanied by admirably colored plates which should be of immense assistance to the beginner in the art of decorating wood and marble. The coloring of these plates is so accurate that it is difficult to go astray.

**AMERICAN HANDBOOK OF THE BREWING, MALTING AND AUXILIARY TRADES.** Chicago: Wall-Henius. 1901. 16mo. Pp. 1,266. Gilt-edge leather. Price \$10.

The authors are directors of the Scientific School for Brewing, of Chicago, and of the American Brewing Academy. This is a book of ready reference for persons connected with the brewing, malting, and auxiliary trades, together with tables, formulas, calculations, bibliography and dictionary of technical terms. The authors have done a signal service to all those who are in any way connected with brewing of malt liquors. They have produced a most admirable book which no brewer or any of his chief employes can afford to be without. It is issued in a handy form. It is not possible to give even a list of the chapters, but a special table of contents has been prepared and will be sent by the publishers 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. 1210.**—For manufacturers of tooth brushes.
- TURBINES.**—Lefel & Co. Springfield, Ohio, U. S. A.
- Inquiry No. 1211.**—For parties engaged in sheet metal spinning.
- "U. S." Metal Polish. Indianapolis. Samples free.
- Inquiry No. 1212.**—For manufacturers of a machine for kiln-drying wheat.
- Spring motors. Smith Novelty Co., Hopewell, N. J.
- Inquiry No. 1213.**—For small portable engine and saw; the engine to be used for pumping, corn shelling, etc.
- WATER WHEELS.** Alcott & Co., Mt. Holly, N. J.
- Inquiry No. 1214.**—For manufacturers of papier maché goods.
- Yankee Notions. Waterbury Button Co., Waterbury, Ct.
- Inquiry No. 1215.**—For manufacturers of heart bangles for rings.
- For bridge erecting engines. J. S. Mundy, Newark, N. J.
- Inquiry No. 1216.**—For attractive novelties for window display.
- Machine chain of all kinds. A. H. Bliss & Co. North Attleboro, Mass.
- Inquiry No. 1217.**—For manufacturers of house lamps or room selling novelties for agents.
- Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.
- Inquiry No. 1218.**—For manufacturers of soft or virgin rubber tubing.
- Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.
- Inquiry No. 1219.**—For parties engaged in contract work on wire heading machines.
- For Sheet Brass Stamping and small Castings, write Badger Brass Mfg. Co., Kenosha, Wis.
- Inquiry No. 1220.**—For manufacturers of natural stone for filtering water.
- Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.
- Inquiry No. 1221.**—For manufacturers of portable shelving for shoe and dry goods stores.
- Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.
- Inquiry No. 1222.**—For a steam oven for a small bread-baking plant, wood to be used for fuel.
- SAWMILLS.**—With variable friction feed. Send for Catalogue B. Geo. S. Comstock, Mechanicsburg, Pa.
- Inquiry No. 1223.**—For parties to manufacture in quantities a small metal collar and tie retainer.
- WANTED.**—Punch and die work, press work and light manuf'g. Daugherty Novelty Works, Kittanning, Pa.
- Inquiry No. 1224.**—For manufacturers of machines for making buttons from shells, etc.
- Automobiles built to drawings and special work done promptly. The Garvin Machine Co., 149 Varick, cor. Spring Streets, New York.
- Inquiry No. 1225.**—For manufacturers of small electric light plants.
- See our Collective Exhibit—Section "S," Electricity Building, Pan American Exposition. Standard Welding Company, Cleveland, Ohio.
- Inquiry No. 1226.**—For manufacturers of metal blinds for store windows.
- Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.
- Inquiry No. 1227.**—For manufacturers or dealers in the fabrics used in making incandescent gas mantles.
- The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.
- Inquiry No. 1228.**—For pumps and pumping machinery.
- The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. Munn & Co., publishers, 361 Broadway, N. Y.
- Inquiry No. 1229.**—For malleable iron gas, water and steam tubes and fittings.
- Send for new and complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broadway, New York. Free on application.
- Inquiry No. 1230.**—For brass valves and cocks.
- Inquiry No. 1231.**—For lead pipe and sheet lead.
- Inquiry No. 1232.**—For brass and copper brazed tubes.
- Inquiry No. 1233.**—For bottle washing and corking machinery, also all specialties in connection with the beer and whisky trade.
- Inquiry No. 1234.**—For patent labor-saving devices.
- Inquiry No. 1235.**—For novelties for steam users.
- Inquiry No. 1236.**—For woodworking machinery.
- Inquiry No. 1237.**—For girders and joists for builders and contractors.
- Inquiry No. 1238.**—For manufacturers of detachable handle flat irons.
- Inquiry No. 1239.**—For household and domestic novelties.
- Inquiry No. 1240.**—For manufacturers or dealers in small rubber pillow ventilators.
- Inquiry No. 1241.**—For manufacturers of machines for making tarred paper felts for roofing.
- Inquiry No. 1242.**—For builders of special machinery for weaving wire fences, etc.
- Inquiry No. 1243.**—For manufacturers of hot air engines with exhausts.
- Inquiry No. 1244.**—For manufacturers of cork grinding machinery.
- Inquiry No. 1245.**—For manufacturers of stone-crushing machinery.
- Inquiry No. 1246.**—For manufacturers of small tin boxes with screw lid suitable for mailing samples of sand three-quarters of an inch in depth and two inches in diameter.
- Inquiry No. 1247.**—For hand and power cure-cutting machines.
- Inquiry No. 1248.**—For manufacturers of iron try molds for making small aluminium castings; also mills to grind scrap aluminium.
- Inquiry No. 1249.**—For advertising novelties of the Buffalo Exposition.