

## RECENTLY PATENTED INVENTIONS.

## Mechanical Devices.

**SAWMILL LOG-TURNER.**—WILLIAM N. ELIOTT, 107 Kerr Street, Memphis, Tenn. The invention relates to improvements in steam log-turners that employ a toothed bar called a "nigger," which, occupying a generally vertical position, is made to rise and fall beneath the log and also to move laterally and horizontally as it operates on the log above and serves to turn the log or transfer it from the log-deck to the sawmill-carriage. The present invention consists in the special means for cushioning the nigger-bar against shock in its backward and forward thrust in a horizontal direction, as it rises and falls beneath the log.

**DRAWING-MACHINE FOR COKE-OVENS.**—RICHARD D. MARTIN, of Alderson, Indian Territory. The machine is arranged readily to remove the products from the coke-oven, to separate the ashes from the coke, and to deliver the ashes in separate heaps at one side of the machine. The machine is characterized by the general simplicity of its construction and by an efficiency of operation that leaves nothing to be desired.

**AUTOMATIC SPOKE FACING AND TAPERING MACHINE.**—GEORGE A. ENSIGN, of Defiance, Ohio. Mr. Ensign has devised for the Defiance Machine Works an apparatus which is especially designed for jointing, facing, and tapering the edges of spokes and for reducing the width of the tenons to the exact dimensions required for accurately fitting the mortises in the hub of the wheel. The machine is completely automatic in operation. The spokes are not handled while in the machine. The spokes are finished in large quantities in a comparatively short time.

**TYPEWRITING-MACHINE.**—HUBERT BURG, of Mollkirch, Roshelm, Alsace, Germany. The object of the invention is so to arrange the mechanism of a type-wheel typewriter that the construction will be simplified. The mechanical arrangements have for their object to impart rotary movements to the type barrel or wheel by means of a small number of simple devices, while obtaining at the same time a comparatively large number—twenty, for example—of positions different as to the direction of displacement. The simultaneous operation of several keys can in no way injure the mechanism or interfere with the operation.

**WIRE-FENCE MACHINE.**—JOHN M. BARBER, of St. Charles, Ill. The machine is designed to twist wire strands in the manufacture of picket-fences. The machine is simple, light, and efficient, the movable parts being so arranged as to minimize side strains and to reduce friction.

**BALING-PRESS.**—ELDRIDGE T. HILL and THOMAS J. HIGHTOWER, of Murfreesboro, Tenn. The invention provides a construction of baling-press which can be manually operated with great power, and wherein a series of bales can be formed and the loose bale in the press conveniently tied while the other bales are in process of formation. A bale leaving the press serves as a bulkhead for the material which is being formed into a bale. The arrangement of parts is such that the machine cannot readily get out of order.

## Apparatus for Special Purposes.

**AUTOMATIC STARTING APPARATUS.**—GEORGE V. ELLIS, Manhattan, New York city. Mr. Ellis has devised a fluid-operated starting device for all kinds of machinery. For example, the apparatus can be employed to start the ejector or other pump used to clear out cess-pools and drainage-tanks in cisterns of sewerage. The starting apparatus comprises a pipe commanded by a valve; a cylinder in which a piston works, having connection with the valve to actuate it; and a device tending to move the valve into open position. Fluid pressure is applied to the piston so as to move the valve against the tendency of the device.

**CIGARETTE-MAKER.**—HENRY H. HARRISON, Manhattan, New York city. The device is to be used by anyone who desires to make his own cigarettes. The cigarette-maker comprises a tubular body portion in which a charging-tube can be slidably fitted. The charging-tube has a longitudinally-extending slot. A closure-plate has a contracted neck pivotally mounted on the end of the body portion, and is capable of fitting within the charging-tube, the slot of the tube receiving the contracted neck of the closure-plate. The closure-plate acts to hold the tobacco in place, the charging-tube moving over the closure-plate; and this plate therefore serves as an abutment to prevent the displacement of the charge. When the charging-tube has been withdrawn from the body-tube, the cigarette will be completed.

**PHONOGRAPH-REPRODUCER.**—EDWARD KARLOW, Manhattan, New York city. The object of the invention is to provide a device in which the jarring and metallic sounds so disagreeable in many phonograph-reproducers will be eliminated and a clear, loud tone obtained. An arm has one end loosely connected with the diaphragm and is provided at its other end with a foot and between its ends the reproducing point is carried. A hinge connects the foot of the arm with the body of the reproducer, the hinge consisting of rubber secured to oppositely arranged supports and to which the foot of the arm is secured between the supports. As the arm does not engage any

metal at and is cemented to the rubber, it cannot rattle at that point; while it is yieldingly mounted so as to be capable of following the vibrations of the point.

**CLARIFYING APPARATUS.**—CHARLES R. HUDSON, Warren, Ind. Oil prepared for shipment from the fields must be heated during the winter. The salt water mixed with the oil must be "settled-out"; otherwise it would gather in the lines and would freeze and burst the pipes. In the oil-fields it is hence customary to steam the oil. It is the object of the present invention to provide a means by which the oil can be more quickly heated and clarified at a considerably less expense than has heretofore been possible. This object is obtained by the simple apparatus which forms the subject of the present invention.

## Vehicles and Their Accessories.

**SLEIGH-BRAKE.**—AUGUST C. PATZER, Sanborn, Wis. The brake is adapted especially for use on bob-sleighs such as are commonly employed for heavy and light draft purposes. The sleigh-brake consists of brake rods or pins carried in vertical passages in the sleigh runners and movable to engage the surface directly under the runners. Levers are connected at their outer ends with the brake rods or pins, the inner ends of the levers being heavier than the outer ends, so as normally to hold the brake rods or pins in inactive position. The levers can be moved into operative position by a hand-lever.

**RUNNING-GEAR FOR HORSELESS CARRIAGES.**—GILBERT J. LOOMIS, Westfield, Mass. The object of the invention is to provide an improved construction, which will be very light and of great strength, and which, while rigid enough to bear all strains without undue vibration will have sufficient transverse mobility to accommodate itself to uneven roads. The improved running gear consists of two parts—a front section and a rear section connected by a longitudinal pivot, so that one section can swing transversely in relation to the other, thus securing an easy motion of the carriage on uneven roads.

## Railway Appliances.

**AIR-BRAKE.**—GEORGE W. EDGINGTON, of Coalville, Utah. In the train-pipe an air-discharge valve, normally closed, is arranged. A cam-lever is pivoted at one end, and is adapted to engage the valve to open it when moved from its normal position. A fixed arm is loosely connected with the cam-lever. When the truck runs off the rails and assumes an angular position relatively to the car-body, then the fixed arm imparts a swinging motion to the cam-lever, so that the cam end lifts the valve off its seat and opens the air-discharge valve to the outer air, and thereby allows the escape of air to the train-pipe. The brakes are then set in the usual manner and the derailed car brought to a standstill.

## Miscellaneous Inventions.

**CRUPPER-BUCKLE.**—JAMES T. PRICE, Lincoln, Ill. The crupper-buckle is arranged to work freely at any angle in which it may be placed and to prevent catching of the hair of the horse's tail. The buckle can be manipulated with great ease, and can be readily fastened or manipulated in the dark as well as in the daylight, even if the leather be stiff and hard when frozen.

**NECKTIE-CLASP.**—DR. RUEL A. JONES, Stanford, Ky. The necktie-clasp is designed for clasping the ends of a necktie made in two sections. When the free ends of a section become worn or soiled, the sections may be readily detached from the clasp, reversed, end for end, and again secured to the clasp, bringing fresh ends into use. Thus a necktie is provided with four wearing ends instead of two.

**KNOCKDOWN BOX.**—BOLIVAR N. SYKES, Harrellsville, N. C. The invention is an improvement in knockdown boxes, having for an object to provide a novel construction of box which can be readily erected for use and which can be knocked down and compactly arranged for storage or shipment whenever desired.

**SHIELD FOR WOUNDS.**—EDWARD C. SHEARS, Lakota, N. D. The purpose of the invention is to provide a shield for attachment to a surgical splint, or to be used in connection with plaster of paris or starch, or other form of bandage or splint, for the safe and convenient septic or antiseptic treatment and protection of wounds and injuries, and for the inclosure and treatment of boils and the like, as well as fractures and dislocations of the fingers, toes and other members.

**MOP.**—JOHN E. ATKINS, Meriden, Conn. The mop has a handle formed with an annular channel and adapted to have an end inserted into a cake of soap. A bag-like cover is drawn over the cake of soap and is secured in the annular channel. By using the mop the hands are left entirely free.

**MEANS FOR PRESERVING SEALS IN TRAPS OF WASHBASINS, ETC.**—MARY A. HYDE, Manhattan, New York city. Connected with a water-seal trap is a reservoir, a standpipe being in communication with this connection. Concentric jackets surround the standpipe, the outer jacket receiving water at the top and the inner jacket at the bottom. The inner packet is opened at

the top and extends over the outer jacket. A bell has movement over the jackets and is adapted to be seated on the inner jacket. A pressure valve is connected with the interior of the reservoir, and a lever actuates the pressure-valve. The lever is operated by the guide for the bell. The device is an improvement upon a similar apparatus patented by J. P. Hyde, and is considerably more efficient for the reason that the construction avoids resealing by water at the edge of the bell.

**HAT-CLEANING PAD.**—JOSEPH KRISSES, Brooklyn, New York city. The pad is especially adapted for cleaning felt hats, and is so constructed that it can be worn without inconvenience between the sweat-band and adjacent portion of the crown. The pad is always on hand for use. Advertising matter can be placed upon the pad.

**WASHSTAND.**—ISAAC MASON, Brooklyn, New York city. The body of the washstand is constructed so that it will be provided with two doors opening outward. These doors carry shelves attached to their inner faces, which shelves register with shelves in the stationary portion of the body. One of the shelves in the stationary portion of the body is so formed that a washbowl and pitcher can be conveniently placed thereon, while the smaller shelves connected with the doors are adapted to receive smaller articles.

**DRAIN.**—JAMES F. SIKES, Palma Sola, Fla. The object of the invention is to provide a drain so arranged as to exclude silt or soil, whereby the water may flow uninterruptedly through the drain for irrigation purposes. The pipe rests upon a filter-bed through which the water must pass so that the silt, by reason of gravity, cannot follow.

**FLOWER-POT.**—HENRY MILLINGAR, of Merchantville, N. J. This improved flower-pot is to be used temporarily only. It is constructed of light thin strips or sheets of wood which have a peculiar form so that they can be overlapped to form a tapered pot.

**EYEGLASSES.**—OTTO P. BAILER, 290 Main Street, Memphis, Tenn. The invention is an improvement in the devices used in eyeglasses for connecting the posts with the bow-string. The invention has for its object to provide means by which to prevent the screw which connects the post and bow-string from accidentally becoming loose.

**CLASP.**—JAMES N. WATT and JOSEPH A. WHITE, of Pendleton, Ore. This clasp is especially useful for fastening suspenders to trousers. It comprises two jaws, moved into gripping position by the positive action of a cam held in active position by the strain on the clasp.

## Designs.

**ELECTROTHERAPEUTIC DEVICE.**—BENJAMIN G. STAUFFER, Harrisburg, Pa. The entire device presents the appearance of a circular disk broken at its quarters by relatively narrow radial slots.

**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.

**THE OCTIMAL SYSTEM OF NOTATION AND NUMERATION.** Combining simplicity with the greatest practical utility. By George H. Cooper. Author's Edition. New Westminster, Canada. 1901. Pamphlet. Pp. 29.

**MINERVA.** Jahrbuch der Gelehrten Welt. Edited by Dr. K. Trübner, 10th year, 1900-1901. Strassburg, Germany: J. Trübner. 1901. New York: Lemcke & Buechner. 16mo. Pp. 1,235.

It is impossible to put down the present volume without paying a glowing tribute to the editor and publisher for producing such an unique list of the learned of the world. There is not an institution of any kind which is not mentioned, together with a list of the professors, librarians, etc. It is to the scientific world what the "Almanach de Gotha" is to the titled classes. An elaborate index of persons makes reference easy. It is an example of German bookmaking that has rarely been surpassed. It is useful in many ways to institutions, newspapers, etc.

**MECHANICAL DRAWING.** Written for the use of Naval Cadets at the United States Naval Academy. By F. N. Bartlett, U.S.N. New York: John Wiley & Sons. 1901. 8vo. Pp. 188. Price \$3.

The author bases his treatise on the methods in use in the United States Navy as far as these methods can be determined, in general the methods of the Bureau of Steam Engineering being followed. The directions are very explicit.

**THE CURRENT ENCYCLOPEDIA,** issued monthly by Modern Research Society, Chicago, Ill. \$5. Vol. 1, No. 1, of this new monthly periodical, arranged in the form of an encyclopedia, tabulating current events in a concise form, accompanied by excellent illustrations, has recently appeared and promises to be a valuable acquisition to the literature of the time. It contains the latest information on such subjects as History, Science, Philosophy, Literature, Legislation, Politics, Industry, Religion, Education, Art, etc.

## 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 &amp; CO.

- Marine Iron Works. Chicago. Catalogue free.
- Inquiry No. 1276.**—For manufacturers of iron fence.
- For mining engines. J. S. Mundy, Newark, N. J.
- Inquiry No. 1277.**—For the manufacturers or jobbers of Bunsen burners.
- TURBINES.**—Lefel & Co. Springfield, Ohio. U. S. A.
- Inquiry No. 1278.**—For manufacturers of machines for freezing liquids.
- "U. S." Metal Polish. Indianapolis. Samples free.
- Inquiry No. 1279.**—For manufacturers of collapsible tubes.
- Spring motors. Smith Novelty Co., Hopewell, N. J.
- Inquiry No. 1280.**—For a press for tamping clay into pipe molds.
- WATER WHEELS.** Alcott & Co., Mt. Holly, N. J.
- Inquiry No. 1281.**—For dealers or manufacturers of machines for grinding dry roots to flour dust.
- Yankee Notions. Waterbury Button Co. Waterbury, Ct.
- Inquiry No. 1282.**—For manufacturers of small planing mills.
- Machine chain of all kinds. A. H. Bliss & Co. North Attleboro, Mass.
- Inquiry No. 1283.**—For dealers in razor or tool steel in bars one-eighth by three-quarters of an inch.
- Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.
- Inquiry No. 1284.**—For manufacturers of rubberoid tubing.
- One-half or one-quarter meritorious invention, big profit. Box 364, Kokomo, Ind.
- Inquiry No. 1285.**—For manufacturers of nickel caps for the ends of an inbaer.
- Sawmill machinery and outfits manufactured by the Lane Mfg. Co. Box 13, Montpelier, Vt.
- Inquiry No. 1286.**—For manufacturers of almond hullers and shellers.
- For Sheet Brass Stamping and small Castings, write Badger Brass Mfg. Co., Kenosha, Wis.
- Inquiry No. 1287.**—For manufacturers of tin cans for varnish, etc.
- Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.
- Inquiry No. 1288.**—For manufacturers of small steam turbines.
- Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.
- Inquiry No. 1289.**—For manufacturers of small portable storage batteries.
- SAWMILLS.—With variable friction feed. Send for Catalogue B. Geo. S. Comstock, Mechanicsburg, Pa.
- Inquiry No. 1290.**—For water motors of about 30 pounds pressure.
- Special and Automatic Machines built to drawings on contract. The Garvin Machine Co., 149 Varick, cor. Spring Streets., N. Y.
- Inquiry No. 1291.**—For manufacturers of slot machines (in or near Chicago preferred), also manufacturers of nickel-in-the-slot perfume machines.
- Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.
- Inquiry No. 1292.**—For the latest Edison storage battery to run a 25-foot launch.
- INVENTORS, ATTENTION!**—Incorporate your companies in South Dakota, Charter fee, \$10. Laws most liberal in United States. Address Box 6, Pierre, S. D.
- Inquiry No. 1293.**—For some article useful to farmers, to sell through agents.
- The celebrated "Hornby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.
- Inquiry No. 1294.**—For the manufacturers of the Jewett typewriter.
- 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. 1295.**—For manufacturers of an acetylene gas device in which the carbide falls into an excess of water at given times instead of the whole retort holding the acetylene being immersed.
- A HIGH ENDORSEMENT.—People who contemplate a trip to the Pan-American Exposition should read what President O. T. Corson, of the National Educational Association, says about the Lackawanna Railroad. It follows:
- "One of the most pleasant railroad trips it has ever been our pleasure to enjoy was over the Lackawanna. The roadbed is excellent, the train schedule fast, and the dining-car service the very best. The absence of smoke and dust, due to the use of hard coal and cinder ballast, adds greatly to the enjoyment of the trip."
- Five through trains daily between New York and Buffalo, equipped with Pullman sleeping and observation cars, dining cars and vestibule coaches. It is the perfection of railroad comfort.
- Inquiry No. 1296.**—For brass or steel molds to make small rubber articles, also for vulcanizers.
- Gasoline Lamps and System, Turner Brass, Chicago.
- Inquiry No. 1297.**—For large manufacturers and jobbers of tin toys.
- Wanted punch and die work, press work and light manufacturing. Racine Model Works, Racine, Wis.
- Inquiry No. 1298.**—For the best envelope addressing machine.
- Inquiry No. 1299.**—For manufacturers of electric belts.
- Inquiry No. 1300.**—For manufacturers of wire specialties, as wire cloth, light screens, etc.
- Inquiry No. 1301.**—For builders of cold storage buildings, small foundries and castings for chain pumps.
- Inquiry No. 1302.**—For a simple, inexpensive check or controller on a spring mounted reel, employed in mechanical toy.
- Inquiry No. 1303.**—For manufacturers of novelties for the mail order business.
- Inquiry No. 1304.**—For the address of the manufacturer of "The New Era Excavator."
- Inquiry No. 1305.**—For parties to put up a plant for the manufacture of charcoal and the by-products of distilled wood.
- Inquiry No. 1306.**—For machinery for making butchers' skewers.
- Inquiry No. 1307.**—For manufacturers of compressed air engines of 2 to 10 h. p.