RECENTLY PATENTED INVENTIONS. Agricultural Implements.

RAKE.—A. S. Elliott, Mechanisville, Iowa. This rake is specially adapted for use in gathering cut stalks, which lay in windrows, into shocks, preparatory to burning or otherwise disposing of the stalks. The invention embodies an improved construction of the rake head in which the teeth are clamped against possible endwise or lateral displacement.

CULTIVATOR .- W. F. CAHOON, Sumrall, Miss. The cultivator embodies an improved form of bent teeth which operate in connection with the frame in such manner that they can be adjusted to throw to or from the plant, as may be desired. The teeth may be adjusted independently of each other and the implement acts to thoroughly pulverize the soil before it is shoved up to the plant.

Apparatus for Special Purposes.

STEAM-HEATING SYSTEM.-W. E. Roys, Richmond Hill N. V. This is a gravity steamheating system and it is so arranged that the user can control the amount of heat radiating from any radiator in the system to insure proper heating of rooms to a predetermined degree, and to provide a free return of the water of condensation to the steam generator

APPARATUS FOR DEFECATING LIQUIDS. -J. E. HATTON, Sante Deminge city, Sante Dominge. This apparatus is arranged to purify liquids, such as cane juices, and the construction is of such character that the work done will be automatic, thorough and continuous. Means are also provided for regulating and maintaining a uniformity of heat while the work is in progress, and also to regulate the form mortises in woodwork. alkalization of the liquid.

an ash-pit or any other place.

AIR-COOLING, DRYING AND PURIFYING APPARATUS.—W. L. Moore, Washington, D. C. This apparatus will be found useful for cooling, drying and purifying the air in buildings and other places, and for keeping meats, produce or anything that requires low chloride of sodium, chiorid of carcium, or other of the chimicals to lower the melting point of ice, cooking corn and canning the same. This arrange and as the air passes through these pipes, it is machine is distinguished by its simplicity of New York, N. J. Stirrup-straps as usually caused to lose more of its heat and finally by construction, economy of manufacture and employed are made of leather, and in use the gravity to be discharged through the bottom of the apparatus.

RETORT FOR WOOD DISTILLATION .--W. B. Chapman, Boyne City, Mich. The retort and the setting for the same are adapted for use more particularly in wood distillation, for at suitable points along its length, which tages are attained. sheets by departing from straight lines and buckling or curving sidewise, more or less, from expansion and contraction, take up locally

FURNACE FOR RETORTS.—W. B. CHAP-MAN, Boyne City, Mich. The invention relates to a nevel form of furnace and furnace setting for retorts, especially such as are used in the distillation of wood to produce wood-alcohol. The construction enables the use of solid fuel, instead of natural gas, whereby a uniform heating is obtained at much less cost and the fur nace is useful in localities where natural gas cannet be obtained.

PULP-SEPARATOR. — J. K. McLaughlin, Au Sable Forks, N. Y. The invention relates to the manufacture of wood pulp by the sulphid process and provides an improved separator for pulp mills which is arranged to insure a quick and therough separation of the stock from the acid.

Electrical Apparatus.

CIRCUIT-CLOSER .- D. F. MULKEY, Soddy,

COMPOSITION FOR USE IN SECONDARY BATTERIES .- C. T. J. OPPERMANN. 2 WVn Street. Clerkenwell, London, England. Mr. Oppermann is the inventor of improvements in secondary batteries which increase the efficiency and durability of the battery Glasgow, Scotland. The invention applies to by rendering the active material harder and less liable to disintegration and insuring more complete and more uniform chemical action, so as to avoid buckling of the plates.

Engineering Improvements.

AUTOMATIC CURRENT-MOTOR. - JOHN ROEH, Oreville, Wash. This current-meter is adapted to convert the energy of a flowing stream into reciprocating or rotary metion fer driving a pump or other mechanism. The motor can be used in shallow streams as well the working parts are located above water,

Hardware,

NUT-LOCK .- Frank Hart, Newcastle, Pa. of a washer having flanges adapted to engage the side faces of the nut and anchor lugs, which prevent the washer from turning.

HAND DOWELING-GAGE. - J. CORLISS, New York, N. Y. This gage is particularly useful in building frames of doors, windows and the like, and insures the boring of holes with extreme rapidity and absolute accuracy. The instrument may be readily adjusted to work of all sizes, and may, therefore, be found useful in all branches of house-carpentry.

COUPLING FOR CABLES, ROPES, ETC. T. Darling, Marietta, Ohio. The invention provides a simple construction for coupling cables, which may be easily and quickly applied or removed. In well-drilling machinery the operating engine is often located remote from the scene of operations and an inter- all ink when the pen is held with the point mediate cable is employed. The attachment upward. When the cap is screwed on, no leakulletf the cable ullete the several parts ulletr the union of lengths of the cable must be performed with exactitude to secure the best results, and this may be done with Mr. Darling's improved coupling.

Machines and Mechanical Devices.

MORTISING-MACHINE .-- C. J. SEAQUEST, Silverlake, Wash. Mr. Seaquest in this invention provides a handy tool for woodworkers. It comprises a mortising machine which by hand in a very easy manner to accurately

AUTOMATIC GRAIN WEIGHER .--- A. and SOOT-CLEANER FOR STEAM-BOILERS.— J. H. McLeod. Marietta, Kans. The grain WILLIAM EICHELBERGER. Windber, Pa. Mr. weigher belongs to that class in which the Eichelberger has designed an improved soot- grain is received in a stationary hopper and cleaner for steam-boilers, whereby the deposits discharged therefrom into a movable weighing of carbon or soot on the interior surfaces of hopper so connected with the graduated weighthe discharge of grain into the latter. A it is given a proper degree of elasticity. new construction is also provided in the gates FOLDABLE STOOL.-P. R. Anton, Topeka, for recording the weight of the grain.

chloride of sodium, chlorid of calcium, or other by this invention an improved machine for portation. ease and efficiency of operation.

ROOTS .- H. WEBB, Ashton, Mich. The chief bunch. The purpose of this invention is to or distinguishing feature of this improved apovercome this fault by providing single straps, paratus for cutting vegetable roots lies in preferably made of metal in hinged sections the production of wood-alcohol, charcoal and having an eccentric portion and a series of stirrup at an angle to the rider's foot and at other by products. The retort consists of core; cutters arranged on the periphery of the same; an angle to the side of the animal. rugated sheets of relatively thin metal anchored in a peculiar manner, whereby great advan-

MACHINE FOR HANDLING VEHICLES.-G. E. and J. S. Myers, St. Joseph, Mo. These inventors employ two trucks of peculiar construction and two inclined rails for said trucks whereby the wheels of a vehicle may be raised from the ground by merely backing in two opposite directions, enabling the occuthe vehicle onto the trucks. The vehicle is automatically released from the trucks in pulling it off the same, and the trucks are left in or less extent. This, if two adjacent tracks position for jacking up another without reare provided, will permit parties traveling on quiring any special manipulation.

PHOTOGRAPHIC SHCTTER.-W. F. Fol- an adjoining track. MER, New York, N. Y. Through an especial runnel or strainer is so constructed N. Y. The funnel or strainer is so constructed automatically diminishes as it reaches the sky that the straining member may be quickly and line, giving the foreground greater exposure conveniently secured in a straining position than the sky. The exposure may be accu-, in the body of the funnel, and as readily serately controlled from the interior of the box cured when desired in a position which will and means are provided for setting the ex- leave unobstructed communication between the posure opening through the medium of a body and neck of the funnel. scale upon the focusing glass.

Railway Improvements.

Tenn. This improved circuit-closer is particularly adapted for burglar alarm systems in provide an improved joint for joining railway banks, hotels, residences, etc. The circuit rails, bridge trusses and the like. The joint machinery new in expertmental provide an improved joint for joining railway advantage that it can be readily applied to machinery new in expertmental provides and the like. The joint closer may be closed by a person stepping will grip the meeting ends of the rails withupon it, or it may be operated by the opening out the use of bolts and nuts, and will permit of a door or window. without danger of buckling.

Vehicles and Their Accessories.

WHEEL.-A. A. VEREL, 179 George Street, wheels adapted for carriages of various descriptions and cycles, but may also be used for other purposes. It is more especially an improvement in that class of wheels in which some form of spring is interposed between the center or hub, and the spokes that extend N. J. to the rim or felley.

STORM-CURTAIN -J W STATIONS Bloomington. Ind. The curtain may be readily adjusted to protect the occupant of a vehicle from stormy weather, and is so arranged that it may be fastened back when not required for as in streams of considerable depth, and all use, in such a manner as not to interfere with the lowering of the top. The curtain furnished by Munn & Co. for ten cents each. whereby they may be easily adjusted by the will also yield to the movements of the top | Please state the name of the patentee, title of when the vehicle is in motion,

Miscellaneous Inventions.

STOVE .- W. HEUERMANN, Sedalia, Mo. The This improved nut-lock is applicable to all invention provides improved means for force classes of machinery wherein it is desired to ing the circulation of the products of combuslock a nut from turning. The device consists tion in order to secure the maximum heating results therefrom. These means are embodied in a novel construction and combination of parts.

> STOVEPIPE-HOLDER.-J. S. RHODES, East Las Vegas, New Mexico Ty. The stovepipe holder is adjustable in its parts so as to adapt it for general service and permit its application to stovepipes of different diameters, and also enable its hooked engagement with chimney walls of different thicknesses, whereby to clamp and held the pipe in an aperture in the chimney wall and prevent it from retrograde movement therein.

> FOUNTAIN-PEN .-- R. C. PAINE, Bethel, N. Y. The improved fountain-pen insures a ready and continuous flow of ink to the pen point and will automatically drain the pen point of age can take place, even though the pen be he carried point downward.

COMPOSITION FOR CLEANING AND PRE-SERVING METALS .- W. C. OBERWALDER, New York, N. Y. By means of this invention silver or other metals may not only be thoroughly and easily cleaned of discoloring exides and other accumulations adhering thereto, but the subsequent formation of these exides may be effectively prevented.

WHEELBARROW.-W. A. House and W. F. is of simple construction and may be actuated Hosken, Covington, Ky. The wheelbarrow is adapted for use in carrying articles of different sizes such as milk cans, barrels, steves, etc. The handles are adjustable toward and from each other for the purpose of accommodating them to the different sizes of articles to be carried.

BOTTLE-NIPPLE.—PHILIP GAUSS, Yerk, N. Y. The nipple comprises a non-colthe boiler will be removed by the pressure of ing machine as to tilt the same when ally lapsible mouthpiece, so that the opening or gaseous fluids, such as steam or air, and the filled, whereupon the gate of the hopper is duct through it cannot become closed by exaccumulated soot conveyed and discharged into opened to allow discharge of its contents. The ternal pressure or by vacuum occurring in the improvements lie in the receiving hopper and, bottle. The mouthpiece is oval in cross-secweighing hopper and means for cutting off tion, adapting it for the child's mouth, and

of the weighing hopper and in the means Kan. By this invention Mr. Anton provides a stool of novel construction which will afford a meats, produce or anything that requires low combined through metal pipes which are surrounded by melting ice and pipes which are surrounded by melting ice and

> strap is doubled and hung on the saddle with MACHINE FOR CUTTING VEGETABLE the buckle end, forming a thick, unsightly the employment of a hollow, rotary drum, The lower portion of this strap holds the

> > SACK-RACE STRUCTURE.-J. J. WEGNER, Brooklyn, N. Y. This invention provides a new amusement in which cars appearing $t \bullet$ carry sacks are adapted to travel up and down undulating tracks. The sack sections, which contain passengers, are pivotally mounted in the cars and are spring-controlled pants by enegetic movements of their bodies to add to the velocity of the cars to a greater one track to race with others moving upon

SMOKE-CONSUMER.-W. T. Keogh, New Yerk, N. Y. This smeke-censumer belengs te the type in which steam is used. The con-RAIL-JOINT.—C. C. OSENBAUGH and R. L. struction is very simple and efficient, and does machinery new in eperation with cempara tively few structural changes.

MEASURING DEVICE.- CHRISTIAN CHRIS TENSEN, Escanaba, Mich. This device is more particularly designed for use of opticians and eye specialists to fit spectacles and eyeglasses by obtaining accurately the necessary measurements- such as pupilary distance, temple distance, height or depth of the nose angle of the nesepiece, length of the temple, and width at the base of the nose-thus insuring proper fitting of the eyeglasses or spectacles to a wearer's face.

STRETCHER. -F. X. AIGNER. Jersey City, This sectional stretcher is so constructed that the body portion may be parted beneath a patient and the patient laid upon a bed without being turned or unduly jarred when the stretcher is removed. The construction is very simple, and the stretcher may be used with or without attached blankets

Note.-Copies of any of these patents will be 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 themformation. In every case it is necessary to give the number of the inquiry. MUNN & CO.

Marine Iron Works. Chicago. Catalogue free. Inquiry No. 3031.—For makers of woodworking achinery for panelling.

AUTOS.-Duryea Power Co., Reading, Pa.

Inquiry No. 3032.—For the manufacturers of the Peerless Ice Cream Freezer. For logging engines. J. S. Mundy, Newark, N. J.

Inquiry No. 3033.—For makers of Edison's patent steel.

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

Inquiry No. 3034.—For makers of aluminium to do special work. WATER WHEELS. Alcott & Co., Mt. Holly, N. J.

Inquiry No. 3035.—For machinery for making spools and bobbins for factories. Handle & Spoke Mchy. Ober Mfg. Co., 10 Bell St.,

Chagrin Falls, O. Inquiry No. 3036.—For a spring or weight motor from 1 to 2 h. p.

WANTED.-Merchandise vending slot machines. Gene Nobles, Prescott, Arizona.

Inquiry No. 3037 .- For machinery for making brick from sand and cement.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co.. Box 13, Montpelier, Vt. Inquiry No. 3038.—For an attachment for a sta-ionary boiler to use crude or other oils as fuel instead

Die work, experimental work and novelties manufactured. American Hardware Mfg. Co., Ottawa, Ill.

Inquiry No. 3039.—For an oil burner for cooking and heating purposes.

We design and build special and automatic machinery for all purposes. The Amstutz-Osborn Company, Cleveland. Ohio.

Inquiry No. 3040.—For makers of machinery for mixing and bottling medicine.

Special and Automatic Machines built to drawings on contract. The Garvin Machine Co., 149 Varick, cor. Spring Streets., N. Y.

Inquiry No. 3041.—For makers of burners for crude petroleum to be fitted to a small, horizontal steam beiler.

IDEAS DEVELOPED.—Designing, draughting machine work for inventors and others. Charles E. Hadley, 584 Hudson Street, New York.

Inquiry No. 3042.—For makers of small brass or on castings, such as curtain fixtures, etc.

Tools for sheet metal stamping, metal patterns, gear cutting and light machine work. Racine Machine and Teel Works, Racine, Wis.

Inquiry No. 3043.—For flat coil springs, such as are in spring tape measures or small clocks.

Patenteed inventors will hear of something to their interest by addressing the Universal Inventors' Union, 846 Ninth Avenue, New York. Inquiry No. 3044.—For cloth such as is used for tape measures.

Manufacturers of patent articles, dies, stamping

tools, light machinery. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 3045.—For stamped sheet metal goods, such as match boxes, etc. The celebrated "Hornsby-Akroyd" Patent Safety ●il

Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.

Inquiry No. 3046.—For parties to manufacture soap-holding device.

The best book for electricians and beginners in elecicity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. Munn & Co., publishers. 361 Broadway, N.Y. Inquiry No. 3047.—For a dish-washing machine or a small household.

WANTED.-Second-hand screw cutting lathe. Secondhand electric motor, half horse power, alternating current, 104 volts, 60 cycles. W. A. Cornell, Pleasantville

Inquiry No. 3048.—For manufacturers of paper-making machinery.

Station, N. Y.

FOREMAN BOILER MAKER WANTED. - First-class man wanted for a modern shop building marine and stationary boilers, and doing boiler and iron ship repairs. Applicants will please state age, experience nationality, and give names of previous employers. This is a good position for a good man. Address P. O. Box, 2685, Boston.

Inquiry No. 3049.—For manufacturers of wood-engraving machines.

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. 3050.—For the address af the Richard Machine and Tool Co.

WANTED -Capital to develop an invention in miling machinery. Only small sum need be risked to demonstrate. Immense field for business. A fortune to the right man. Address Capital, Box 773.

Inquiry No. 3051.-For dealers in copper tubing Inquiry No. 3052.—For dealers in small metal ubing, also makers of rubber corks.

Inquiry No. 3053.—For makers of presses for ressing and punching paper to be used on flower bou-

Inquiry No. 3054.—For small wheels of special limensions for revolving-top tables.

Inquiry No. 3055.—For a spring motor similar to clockwork to run a sewing machine or a small boat.

Inquiry No. 3056.—For machinery for calcimining in several colors.

Inquiry No. 3057.—For parties to manufacture brass articles, such as nuts, bolts, etc.

Inquiry No. 3058.—For dealers in machinery and supplies for a broom factory.

Inquiry No. 3059.-For ice-making machinery.

Inquiry No. 3060.-For machinery for making soda water. Inquiry No. 3061.-For makers of windmills.

Inquiry No. 3062.—For parties that make models for small machines and apparatus.

Inquiry No. 3063.—For manufacturers of shooting galleries, mechanical or otherwise.

Inquiry No. 3064.—For parties to manufacture wooden novelties.

Inquiry No. 3965.—For manufacturers or dealers in fireproof cloth.