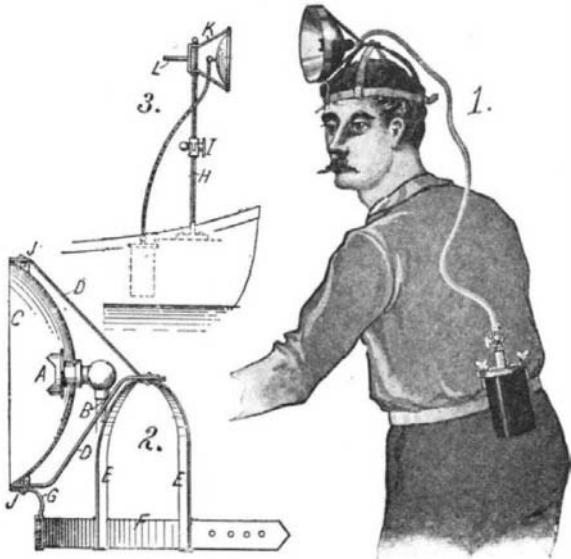


A PORTABLE LAMP.

A very convenient form of lamp has recently been devised for the use of campers, hunters, etc. It consists of a portable acetylene gas generator, and a burner arranged within a reflector which is open at the front for the escape of heat. The walls of the re-

**A PORTABLE LIGHT FOR CAMPERS.**

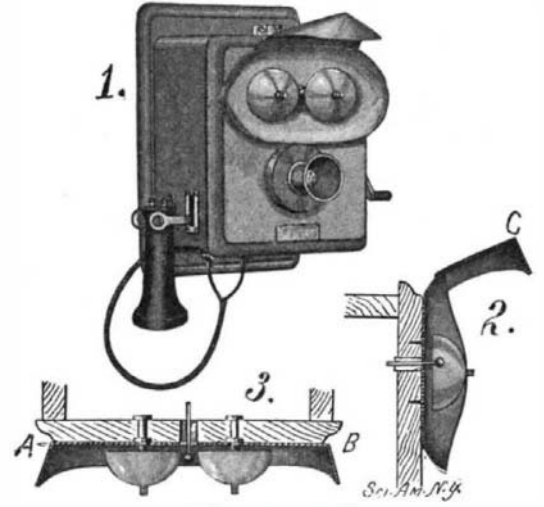
flector are imperforate, to prevent the passage of air through the reflector when the lamp is being moved about or is exposed to the wind. In this way the danger of extinguishing the light is avoided. The accompanying illustration shows in Fig. 1 how the lamp may be attached to the head of a man, while the gas generator is secured to his belt. The details of the head attachment are shown in the sectional

view, Fig. 2. The burner A is attached to the flexible tube B, which runs to the generator. The reflector C in which the burner is fitted is provided with a flange along its outer edge, to which the arms D are secured. These arms are fastened to a cage E provided with a strap F, which is strapped about the head of the wearer. As an additional support to the lamp, a small bracket G connects the bottom of the reflector directly to the head strap. When it is desired to use this device on a boat or in camp, it is mounted on a stand H, as indicated in Fig. 3. This stand is formed of two sections, one of which is hinged upon the other, so that the lamp may be moved laterally. By means of a thumb screw I, the two sections may be clamped at any desired position. The lamp is taken out of the head gear by unscrewing the bolts J, and it may be then fastened in a bracket K, which is swiveled on the upper end of the stand. The swiveling bracket is provided with a handle L, which enables one to move the lamp about in any desired direction. The inventor of this portable lamp is Mr. O. A. Loveless of Waters Meet, Mich.

RESONATOR FOR TELEPHONES.

Pictured in the accompanying engraving is a device adapted to augment the sound of telephone bells or other signals, so that the signal may be heard in places where there is more or less noise. The device is particularly adapted for use in shops, pumping stations, and the like, where ordinary sounds are not discernible, especially under heavy atmospheric conditions or in damp or rainy weather. The device consists of an elongated dished body formed with sound reflectors at opposite ends, and a similar sound reflector overhanging the center of the body. This device is placed behind the bells of the telephone, and acts to reflect the sound in a definite direction. The reflectors referred to are indicated at A, B, and C in

the illustration. It will be observed that they are of conical form, and the reflectors A and B serve to catch the sounds which ordinarily travel out in a lateral direction from the telephone, and direct them forward. The reflector C serves similarly to collect and reflect the sound waves that pass upward. For convenience in manufacture the reflector C is preferably made in a separate piece, but the portion which

**RESONATOR FOR TELEPHONES.**

extends to the main body is tangent thereto and flattened, in order that a neat joint with the body may be effected. The device is extremely simple, and can readily be attached to a telephone by means of a couple of screws. The form of the reflector can be modified to throw the sound to one side if desired instead of directly forward. The inventor of this resonator is Mr. Patrick E. Finlay of New Orleans, La. (No. 2 St. Louis Pumping Station.)

RECENTLY PATENTED INVENTIONS.**Electrical Devices.**

ELECTROLYTIC CELL.—J. McPHAIL, Carteret, N. J. The inventor seeks to construct an electrolytic cell in which there may be brought about a complete separation of the products, with a minimum of undesirable by-products, the cell occupying a comparatively small space and being simple and easily handled.

TELEPHONE ATTACHMENT.—B. E. DERRICK, New Albany, Ind. In view in this case is the provision of a construction comprising a bracket, and a frame for carrying the receiver of the telephone, swingingly mounted on the bracket and adapted to rest on the circuit-controlling arm of the telephone when swung to a depressed inoperative position, and release said arm when swung upright in position for use.

Of Interest to Farmers.

DUMPING-VEHICLE.—P. BRAND and C. G. GLASRUUD, Shreveport, N. D. The invention relates more particularly to a vehicle having a running gear of any suitable type, a frame rigidly carried by the rear axle of the vehicle, and a wagon body mounted upon the frame, the rear axle serving as a pivot to permit the body to be tilted so that its contents can be dumped.

INSECTICIDE.—J. W. WOODS, Portland, Ark. The ingredients composing this destroyer are to be thoroughly mingled by agitation, and applied to the plants infested with boll weevil or other insects, by sifting the same over the plant. The compound may also be applied to the infested plants in any other desirable manner.

COMBINED BED-SHEET AND SHELTER-TENT.—F. WHITNEY, Cimarron, New Mex. The sheet is for use by stockmen which may be quickly supported in the form of a shelter tent, the device being so constructed that it can be readily packed for transportation and which is complete in one piece with ropes attached so that it may be adjusted with supports as a tent, or when desired may be used as a bed sheet, the stockman having the complete device in compact form at all times, except the supports, which can readily be obtained.

Of General Interest.

BEER-TAPPER.—R. B. SPIKES, Washington, D. C. The tapper is of that form in which a bung casing is screwed into the head of the barrel and is provided with separate ports, through one of which compressed air is admitted to the barrel, while beer is drawn out through the other. With this form a detachable coupling bearing separate tube connections, for the air and beer, is arranged to be turned into the casing and in the movement to operate a valve which simultaneously opens or closes the air and beer ports.

METAL-DEPOSITING APPARATUS.—J. K. REYNARD, East Elmhurst, N. Y. It has been found that the distinctness of the sound produced by phonograph records is much increased by depositing upon the wax a fine layer or film of metal previous to electro-plating. The metal preferably used is gold. The invention reduces the consumption of gold and preserves

a perfect seal for the vacuum chamber in which the depositing operation takes place.

BOX.—W. L. HOWLAND, Cedar Rapids, Iowa. In the present invention the improvement pertains to boxes, and has for its object the provision of a box preferably made of wood which while strong can be easily and cheaply manufactured and may be quickly put together by the user when desired.

METHOD OF TREATING WOOD DURING DISTILLATION.—H. W. DOUGHTY, Amherst, Mass. In this instance the intention is to provide a new and economical method of utilizing the waste from resinous pine wood, in the form of saw-dust, mill-chips, etc., to recover, in commercially valuable forms, the various constituents of such wastes.

CONCRETE-MOLD.—R. N. NEIL, Cozad, Neb. One provision in this case is that for a mold with side members which are connected by spools supported by rods disposed therein, the spools having hollow heads in which the rods are screwed, there being additional threads in recesses in extremities of the heads in which nuts having orifices are adapted to mesh, means in the heads preventing the rotation of heads on bolts which are disposed on the orifices in the nuts.

ENVELOP-FASTENER.—J. E. A. THOLLANDER, Piedmont, Fla. An object here is to provide a fastener which can be applied to any common form of envelop, which prevents the unauthorized opening of the envelop without leaving traces of such an act, which is inexpensive, and which adds but slightly to the weight or bulkiness of the envelop.

Hardware.

SHADE-BRACKET.—H. WITTMANN, Cincinnati, Ohio. In this patent, the invention is an improvement in curtain fixtures and has for an object among others to provide a novel construction by which the brackets may be readily applied and adjusted to suit any suitable length of curtain and then clamped in position.

FOOT-REST FOR SHOE-SHINING STANDS.—G. F. OLIVER and R. ROUSSEAU, Ilion, N. Y. The invention pertains to foot rests such as used at shoe-shining stands for supporting the feet when the shoes are being polished. The object is to provide a rest which will operate to hold the foot rigidly in position and at the same time permit the sides of the shoe to be exposed.

DOOR-LOCK.—G. W. NORTHRUP, Brainerd, Minn. This invention refers to door locks of the class known as mortise locks, which are embedded in a door by forming a recess in the body of the door from the free edge inward. The purpose is to provide a lock of simple construction, and while possessing all the advantages of the mortise lock, may be placed on thin doors, or those of greater thickness.

MITER-BOX.—F. W. McLEAN, West Monroe, La. The patentee has for his object the provision of a device which is light and compact, and one that will permit the use of an ordinary hand saw by drilling a single hole therein, and with which the full length of the saw will be utilized.

SASH-LOCK.—L. H. GRAU, San Francisco, Cal. The invention may be defined as consisting of a bolt insertable in the overlapping portions of the sash frames at each corner, the bolts passing from the inside through the lower

sash into the upper sash, and guard plates movable over the heads of the bolts to prevent the bolts from being punched out from the outside of the window.

Heating and Lighting.

PREHEATING LIGHTING-FIXTURE.—W. N. BEST, Sr., New York, N. Y. The invention relates to improvements in fixtures and more particularly to that type in which combustible gas is burned and the products of the combustion of the flame are delivered to the interior of an inverted mantle. The device supports the mantle and permits the gas to be heated to a high temperature before it is burned and before it is delivered to the mantle.

REMOVABLE FURNACE-OVEN.—N. E. STORMS, Minneapolis, Minn. The object here is to provide an oven for removable attachment to a furnace or regular heater, to permit using the oven for baking and other purposes, and without placing the oven and its contents directly over the burning fuel in the fire-box or subjecting the contents of the oven to the action of the obnoxious gases incident to burning of the fuel in the fire-box.

THERMOSTAT.—W. ENTERLINE, Big Run, Pa. Mr. Enterline's invention relates to a thermostat which may be disposed against a boiler and which, while inexpensive to construct, may be readily adjusted to a boiler of any type and will automatically and accurately regulate the supply of gas which is supplied to the burner under the boiler.

Household Utilities.

REGULATING VALVE.—H. C. BENWITZ, Chicago, Ill. The invention is an improvement in regulating valves for the hot and cold water supplies leading to wash stands, bath tubs, and other similar places. The valve includes an actuating-lever or handle which is operable not only to control both the hot and cold water supplies, but also to control the water or outlet.

MEASURING APPARATUS.—R. HOYT, New York, N. Y. The invention pertains to apparatus for measuring various materials, it being particularly useful in connection with packing-machines in which it is desired that a measure by weight shall be quickly made and with substantial accuracy.

STRAIGHTENING-MACHINE.—E. A. LANE, Fulda, Cal. The invention refers to machines for removing bulges, dishes, dents, and the like from metal, especially from band saws, and relates more particularly to a machine having removable rolls, one of which has an annular concave part spaced inwardly from the edges of the roll whereby the latter has flat parts at each side of the concave part, and a second roll having at each side of the concave part, flat portions.

CHANGEABLE-SPEED GEARING.—W. SCOTT, Sheridan, Wyo. One object of the improvement is to supply a gearing more especially designed for use in the driving mechanism of automobiles and other machines, and arranged to enable the operator to use any one of four different speeds for driving ahead and a single speed for driving backward.

HOISTING-MACHINE.—C. F. DALLMAN, Antigo, Wis. The machine is for use whenever a hoisting drum is desired for raising or lower-

ing loads, power being applied through a shaft, which through its connection with a second shaft rotates the gear wheels at each end of the drum. Mechanism is arranged to operate the drum from a distance, the operation of the drum being the same whether it is manipulated directly by a bar lever or immediately by the three-armed lever.

HYDRAULIC GOVERNOR.—A. DICKERSON, American Fork, Utah. In this mechanism, which in part is operated upon the same general principle as in the steam governor formerly patented by Mr. Dickerson, the hydraulic piston constitutes an automatic check to the movement of the whole gate mechanism. The gate follows every move of the governor, and if there is any change of pressure of water on the gate, the whole will automatically readjust itself without necessitating a change in the speed of the engine.

MACHINE FOR MAKING MACARONI AND THE LIKE.—J. RIVARA, Natchez, Miss. The aim in this case is to simplify the construction of machines of the pastry class and to adapt the screw, which operates the plunger or piston, to be quickly withdrawn from the cylinder in which dough or other material is pressed to produce macaroni or other product.

YARN-PRINTING MACHINE.—N. COSTIKYAN, Leicester, England. The intention of this inventor is to provide a machine for use in printing warp yarns, especially carpet or pile yarns, according to a predetermined pattern, and arranged to permit printing at one operation as many knots or spaces as desired and in one or more colors.

Machines and Mechanical Devices.

DUMB-WAITER OR ELEVATOR.—C. A. STURM and R. N. FLACK, Portland, Ore. This invention is intended especially to be used where the waiters or cages are operated from a point outside of the cage or waiter. An object is to provide means for indicating to the operator when the car has arrived at the end of its travel up or down.

AUTOMATIC FIREARM.—J. J. REIFGRABER, St. Louis, Mo. In operation when the breech block has reached its rearmost position the cartridges may be fed up from the magazine and the block may then move forward with the barrel and the block latch will adjust in rear of the block and travel therewith and with the barrel forwardly locking the block from any rearward movement until the barrel has again been pushed back in position in which the locking latch may be released to release the block.

SINTERING-MACHINE.—A. B. YOUNG, Salt Lake City, Utah. One of the purposes in view in this improvement is the provision of a device in which finely divided ore may be brought into a conglomerate mass by a sintering process and then may be delivered free from the machine in blocks of convenient size for subsequent treatment in a blast furnace.

MACHINE FOR MAKING CELLULAR BOARDS.—S. M. LANGSTON, Camden, N. J. In the present construction the machine is especially adapted for making asbestos board, and involves mechanism for pasting together two sheets corrugating the combined sheets, heating them to dry the adhesive material and retain the corrugations in permanent form and then securing a third sheet to the crowns of