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(54) **LAMPS**

(76) Inventor: **Alexander Black**

Alexander Wheeler

Sellers Patent

The Schedule referred to in these Letters Patent and marking part of the same containing a description in the words of the said Alex. Wheeler of his improvement in Lamps.

The Lamp is a common Argandt Lamp for light house and the wick is raised by a screw the same method of shading to be applied to any other kind of Lamps. For heating the oil a pipe, syphon tube head inverted funnel or cap of tin plate or other metal, square round or any other figure that the heated air may be driven into around over or under the oil. One end of the head or other conveyance is attached to the case of the reservoir with a hole for the smoke and heat to pass. And the other end is fixed to the fountain close so that a round aperture will intervene the two edges of the case and fountain fit closely except two small holes near the union with the fountain for discharging the smoke which collects between them when large reflectors are used a screw is put through the reflector for placing the glass above the lamp. Directly over this hole inside the reflector a roll of wire is applied to convey the smoke through behind the reflector which will operate on the pipe syphon tube head inverted funnel or cap in the same manner as with smoke reflectors. Also a solid rod or bar of metal will produce a sensible effect for the same purpose by inserting a metal rod through the foam base of the lamp with its top part bent over the blaze of the lamp and made hollow like the head or cap before mentioned, so that the blaze may operate on the inside of the cavity and heat the metal. All the bottom of the rod or tube extends through the fountain a large metal bottom may be soldered to retain the heat between the case and fountain. The head or cap part of the rod may be one half of an inch more or less

and either square round or any other shape. The end of the rod may be applied without the shoulder cap over the flange. The rod may be of copper or any other metal which will conveyheat and is equally applicable to oil lamps to which it may be applied by inserting in the cross bar inside the lamp to burn oil or from the flange. The convenience of the rod is that it may be placed over the flange in winter and turned from the flange to the back of the lamp in summer. Around the outside case of the fountain a woollen wrapper is wound or a stuffing of wool cotton or some other covering quilted or fastened to a leather, and is made into a pocket to retain the heat if necessary a circle is also attached to the bottom of the tube of Argandi lamps to draw off the oil by any that it may cool while and prevent its burning by night.

For raising the circle. A sheave or band wheel is placed around the hoop and the hoop when turned raises up the rack of or tube, which holds the wick.

For snuffing the lamp. A perpendicular wire passes through the center of the inside tube of the Argandi Lamps with a right angular sprig which revolves over the wick and cuts off the snuff. This wire is preserved in a vertical position by a hole thro a small cross bar near the top of the inside tube and by a socket at the bottom of the vertical bar receiving an L the upright part having a mortice through which it is moved against the side of the lamp to adjust the height of the finger for snuffing and the finger may be applied, like the hand of a clock but by clock work. A sheave or band wheel is fastened at the bottom of this wire, by which it receives its rotation. The whole or band wheel whether in the hoop for raising the wick may be the same by chains or endless screws or by clockwork. And the wheel or band wheel which moves the finger to cut off the snuff may be of suitable diameter and moved by the same method as the band wheel

for raising them. The motion to these wheels is given by the hands, which fasten around the wheels which elevate the lamps and descend over the pulleys at the edge of the table and have balance weights at their ends to counteract them.

The other ends of these bands are fastened to two cords which descend to the lower part of the light house: and these two cords are fastened to sliders on the ends of a lever graduated like a Romans balance: that they may be moved further towards the center to increase the motion: or nearer to the fulcrum to lessen it.

The lever may be four or five feet in length or less the weight being suspended near one end and the cords attached to the sliders between that and the fulcrum or center of motion.

Other forms of lever may be applied. The weight or a buoyant vessel, floating in a tunnel contained in another vessel, which has a cock, or aperture through which the liquid flows or runs. The best shape of these vessels is a frustum of an inverted cone. The one which contains the liquid should have a diameter to prevent any obstruction from entering the cock: and the buoyant one must be adjusted by weights sufficient to procure the gradual descent. Wheels and pinions may be applied for the same purpose.

In order to carry off the smoke and vapour of the lamps, from the lantern, a large inverted funnel may be suspended over the hole, with the pipe going through the centre of the lantern. Upon the funnel a plane reflector, made to curve over the Lamps, so that the blaze from the lamps will run up them and have the appearance of double lamps. These reflectors are Malleonary and when the lamps are trimmed they are slid past them for the purpose and when trimmed replaced. The method of these improvements of argand lamps for light Houses is as follows. Place the lamps on the table and screw them fast firmly. Pass a band around the wheels or wheels for raising or raising the weights and over the pulleys, at the edge of the table,

attach one end of the bands to the wires, which extend from the bottom of the light house. To the other end of the bands be a weight sufficiently heavy to extend the bands. Fix another band in a similar manner around the wheel or wheels of the buoy for rain and fasten one end to a wire and the other to a weight as before described. Attach the lower ends to the two wires to the sliders of the vanes, and specify the foregoing weight to extend of the vanes. Then turn the crank & the perpendicular of the water through the crank becomes nearly a square. Observe how fast the descent of the foregoing weight moves the wheels or wheels of the pinion and muffle and by removing the sliders on the vanes, adjust them correctly. Should the motion of the buoy not produce a sufficient weight of line either diminish the stream of the liquid or remove the sliders of the vanes nearer to buoyant weight. The crank or winch for the foregoing is mutual & consists of the pinion or handle to guage the exact size of the hole for boring. The liquid which is to be forced may be pumped or dipped into its original container.

The following directions may be considered as requisite for executing the machinery for the foregoing purpose. The cone for containing the liquid may hold 150 gallons, more or less. The buoy muffle may be large enough to hold 20 or 30 gallons and to be about one half loaded with weights. The liquid used for the aforesaid purposes must be of such a nature as not to be evaporated or altered by frost such as proof spirits, pickle or the like nature of salt works. I have also made the following improvement in the management of the light house. I bore holes through the glass on the land side and gave a proper inclination to the reflectors in order to throw the light higher and cast a better light on the ocean. I have also invented a compass for warning the hands and feet of seamen while steering a vessel. It consists of a tube or pipe of from three or four inches in diameter open at the lower end when placed in an aperture to be made in the

deck of a vessel for receiving it. I then make another tube or pipe of copper, or any other metal, that will not burn and of about four feet in length, and of about 3 inches in diameter; this tube or pipe is flattened so as to leave an aperture from one eighth to one fourth of an inch and is made fast to the deck of a vessel the same immediately over and in an aperture made in the deck. The small or narrowed end of the first mentioned tube or pipe, is then inserted in the aperture, and fastened or cemented to the bottom or lower side of the flattened tube or pipe fastened on the deck. The lamp is suspended in the cabin, immediately and directly under the first mentioned tube or pipe and made fast by wires attached to the lamp, near the blaze and to the deck; and kept in that position, so that the flame or blaze of the lamp will strike directly to the centre of the mouth or open end of the tube, or pipe. So that the heat may be conducted to the flattened tube or pipe fastened on the deck of the deck, and after a piece of plate or bullion and a rod which are to be attached to the upper side of the flattened tube or pipe on the deck. To the upper side of the flattened tube or pipe is attached a metal plate or bullion about one or two inches thick and three or four inches diameter. To this plate or bullion is affixed or screwed in a rod which will receive the heat from the lower tube or pipe, to which the man at the helm or steersman lays his hands when cold. The feet also may be warmed by stepping on or applying them to the flattened tube or pipe fastened to the deck. The ends of the tube are left open for discharging the smoke. Ashes placed between the deck and flattened tube or pipe will prevent it from burning the deck. The same principle can be applied to any house or Dwelling and carriages of any kind. I also make a lamp for warming the feet and giving light to a person travelling on horse back or in a carriage in cold stormy weather. To do this I make a case or stand of copper sufficiently large to contain the fuel.

and admit a small lamp in front of it with glass. This dispersion which is made to fall, when put on, will cover a great part of the roof, and the heat from the blaze of the lamp shining against the reflector will communicate warmth to the roof which thereby is reflected on the road. I also make a gas light lamp which furnishes itself with gas. I take a common Argand's lamp or any other lamp, & candle and fix it in a place which answers the purpose. Let the blaze of the lamp or fire which ignites a vessel nearly half filled with pitch, tar or resin. From this vessel a tube may lead to any part of the house from whence a light will be wanted when it burns. This blaze may also ignite another vessel half filled in the same manner with pitch &c and a pipe leading from it to give a green blue light and so on to any number of lights. I have also invented a model of a floating bell to be placed on dangerous ledges and shoals for the preservation of lives of seamen and property.

Witnesses
J. A. Vanmine
Mary P. Vanmine

Alexander Black

Exd.
M.G.C.