S. RUST.

Lamp.

No. 3,260. Patented Sept. 14, 1843.

Fig: 1.

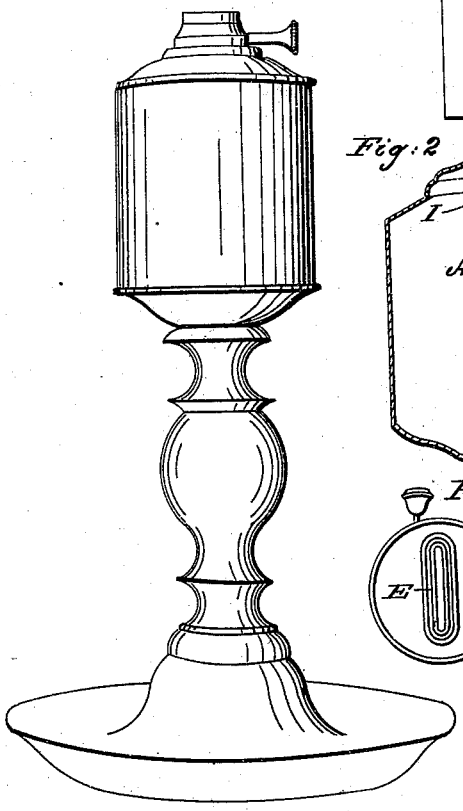


Fig: 6.

Fig: 4.

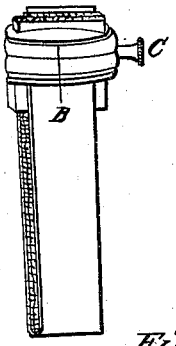


Fig: 2.

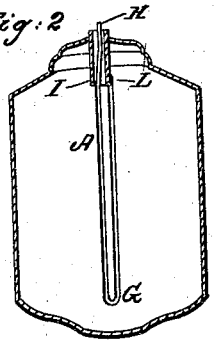


Fig: 3.

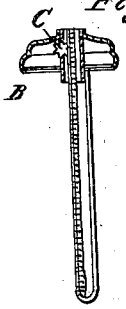


Fig: 7.

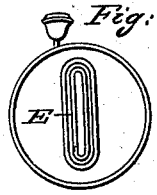
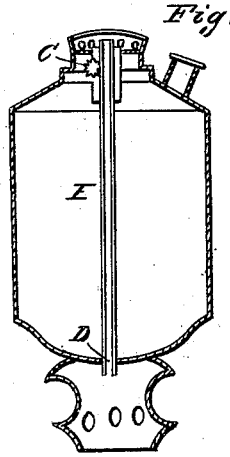


Fig: 5.



UNITED STATES PATENT OFFICE.

SAMUEL RUST, OF NEW YORK, N. Y.

LAMP.

Specification of Letters Patent No. 3,260, dated September 14, 1843.

To all whom it may concern:

Be it known that I, SAMUEL RUST, of the city of New York, county and State of New York, have invented a new and useful improvement in lamps for lighting houses, stores, and other places, which improvement is applicable to the roller-lamps which raise and depress the wick by means of a roller and also to other lamps which have no roller; and I do hereby declare that the following is a full and exact description as invented or improved by me.

The mode heretofore for putting the wick into lard lamps, has been dirty and troublesome, as the burners, or parts which contains the wick have had to be taken out of the lamp while full of grease and handled for the insertion of the wick; but my improvement completely obviates the evil with as much simplicity as the common oil lamp which will answer for both lard and oil without alteration or changing its general appearance from an oil lamp.

The whole lamp with my improvement is represented with the roller by Figure 1. This improvement consists of a piece of metal as a spring or heater about five eighths of an inch wide more or less, tubular or otherwise soldered or fastened to the tube, or inside of the stopper, which spring or heater I extend downward to the bottom part of the bowl of the lamp, or as far down as is necessary for the length of wick, and then bend it upward and carry it through the tube or top of the stopper so as to run a hollow wick on to it the same as in the Argand lamp, or to put the wick in, all on one side, at pleasure of the user. This spring or heater is represented without the roller or wick by a section as A, Fig. 2, in a stopper with a short tube one end of which is fastened to the bottom of the tube at L and then extended downward to the bottom part of the bowl of the lamp to G and bent and carried upward through the top of the tube to H which when used without roller is made so as to press the wick when in against the side of the short tube at the bottom as I and bent a little back so as to stand in the center of the tube at the top at H which spring or heater thus serves to suspend and keep the wick from falling when in use with oil, or, with lard when fused. It also keeps the wick from sliding up when shoved down into the thick lard after filling the lamp, without any other complication. This spring or heater thus sustaining the wick allows the tube to be made large and roomy so that the wick is instantly shoved down at the top of the tube without taking out the stopper by means of a small strip of tin about one-fourth or three eighths of an inch wide and from two to three inches long which is done by pressing the wick down against the force of the spring, which spring gives way to the wick and lets it down with ease. The wick is also easily picked up by pressing against the force of the spring above the top of the tube. The tube being large and open admits a circulation of air between the tube and wick which prevents it from crusting, and adds greatly to the brilliancy of the light. This spring or heater is used with the roller to raise or depress the wick, also, fastened to the tube or stopper and bent precisely in the same manner as above described and passing up through the tube the same, only in place of pressing the wick against the side of the tube it presses it against the roller as B, Fig. 3, and B, Fig. 4, which allows a thick or a thin wick to pass between the spring and roller, with a soft and gentle pressure and with the same ease the wick is represented by Fig. 3 and Fig. 4 to be in place on to the spring or heater. The shaft or body of the roller is placed on the outside of the tube, but on the inside of the stopper with the largest part or teeth of the roller reaching inside of the tube so as to act on the wick when in as C Fig. 3, C Fig. 4 and C Fig. 5, through a hole or opening into the side of the tube for this purpose.

The roller either in oil or in lard when melted, takes down the wick at once and raises and depresses it; but the wick can be shoved down into the hard lard at the top of the tube without taking out the stopper by means of a strip of tin as Fig. 6 cut out in the middle, so as to embrace the roller, as it goes down, which must be pressed also against the force of the spring, and the spring will give way, and the wick will go down with ease, as in the former case. This spring or heater works beautifully with the roller, on the common candle wick, by making the tube square and narrow, and the roller and spring to fill the tube, from side to side, which may have one tube or two tubes in the lamp. It also works well on this wick, and is used advantageously without the roller. This

spring or heater is used either with or without the roller in a long tube in the same manner as described in the short tube, only it is not necessary that it should bend and go up to the inside of the stopper to be fastened, but be fastened directly to the bottom of the tube, and go straight up, as the tube may be considered a part or connection of the spring, or heater itself in this case is the same. This spring or heater in place of fastening it to the tube or stopper is also fastened to the bottom part of the bowl of the lamp as D Fig. 5 either tubular or otherwise as in the former cases and made to pass up through the tube and top of the lamp and to perform the same office, either with the roller, or without it, as the wick can be carried down or regulated in the same maner as in the former cases. This mode I show with the roller as C Fig. 5 and the spring or heater made tubular as E Fig. 5 and E Fig. 7 with a shade holder and air holes in the pillar of the lamp in the usual manner allowing a circulation of air to pass up through the tubular spring or heater and wick as represented by E Fig. 5 and E Fig. 7. This spring or heater being tubular has been experienced to be sufficiently elastic, to allow a thick or a thin wick to work with the same ease and performs equally well, as in the other cases, either with the roller or without the roller. This last mode is not convenient for a stopper and consequently a separate place or opening must be made in the top of the lamp, on the side to put in the oil, or lard, which is not so good by far except for a shade lamp, as fastening it to the stopper as in the former cases, but is evidently the same. This piece of metal, spring, or heater, may be made narrower, say a small strip of tin plate, or other substance which is conveniently soldered, or fastened to the bottom of the tube, and extended up, and made to press against the roller or wick which is the same as the former cases only smaller. This will save a great deal of trouble in not being confined to a particular thickness of wick as was the case with the old mode which has given a great deal of trouble and caused many to abandon these kind of lamps.

What I claim as new and useful, and desire to secure by Letters Patent, is—

The piece of metal, spring, or heater, as above applied into the tube, soldered, or fastened into the tube, stopper, or lamp, and combined with the tube, stopper, or lamp, in such way and in such manner as is above set forth or in any way that is essentially the same, and so combined with the roller, as to act in any way on the roller or wick, as a spring, either in the tube, or at the bottom of the short tube or socket, pressing against the roller or wick, for the purpose of receiving a thick wick or a thin wick.

Witness my hand this twenty eighth day of June 1843.

SAMUEL RUST.

In presence of—
SARAH A. RUST,
SILAS CUMMINGS.