

Sheet 1-3, Sheets.

S. Rust.

Wick Raiser.

Nº 3,467.

Patented Mar. 9, 1844.

Fig: 3.

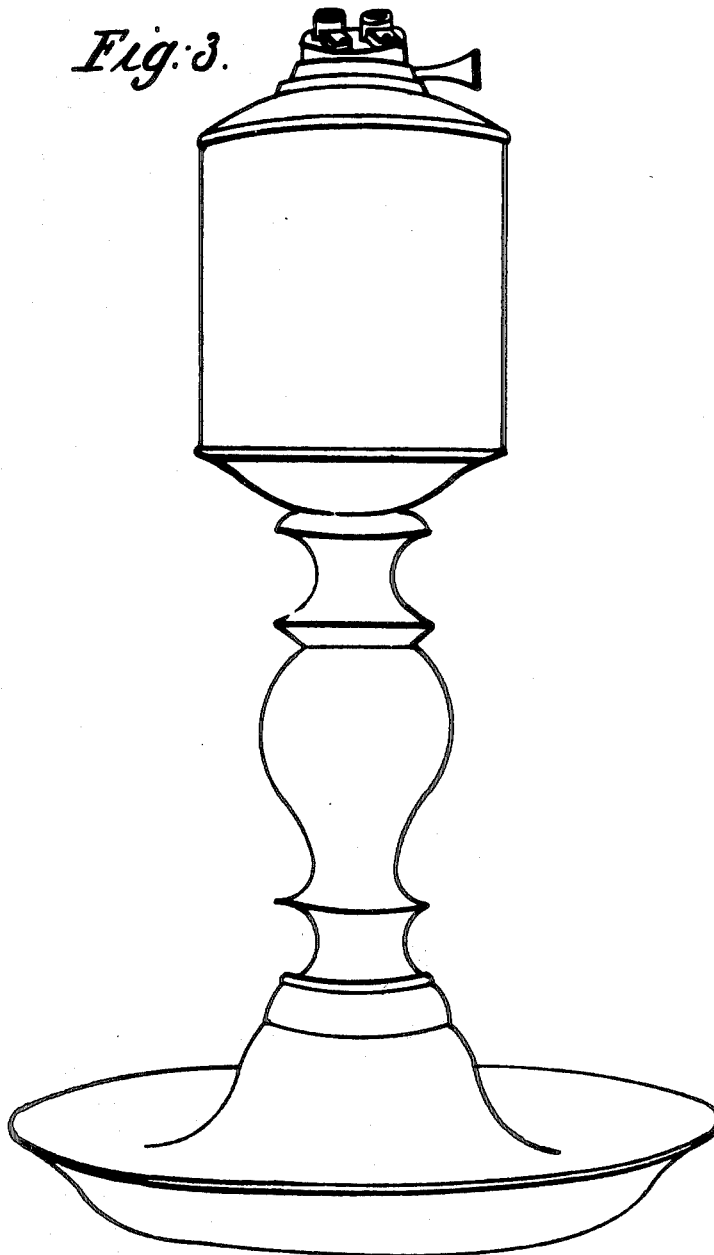


Fig: 1.

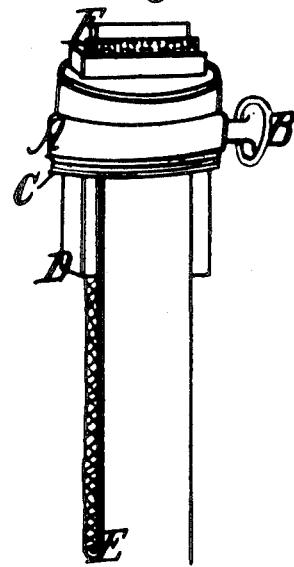
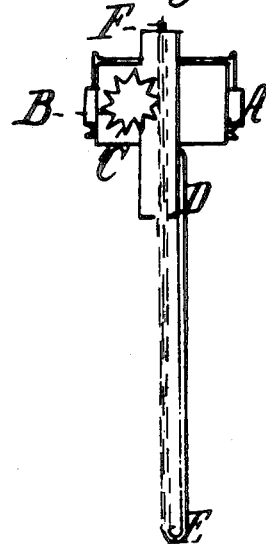


Fig: 2.



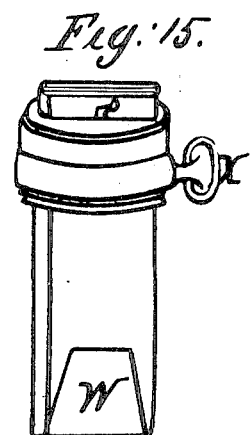
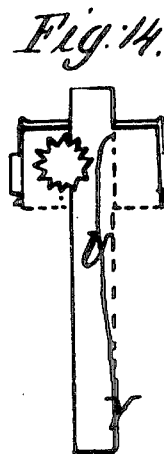
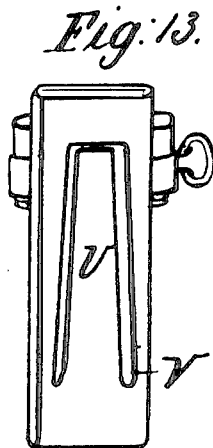
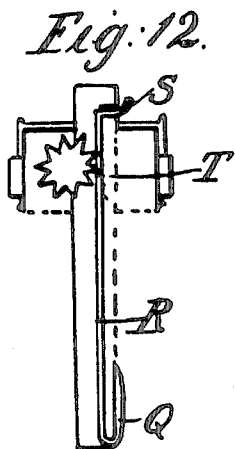
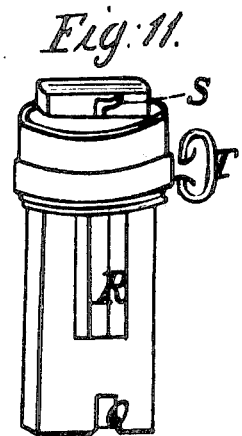
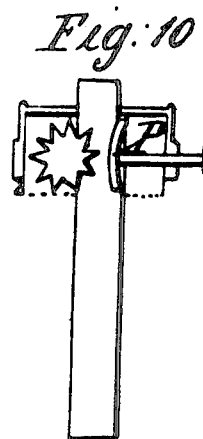
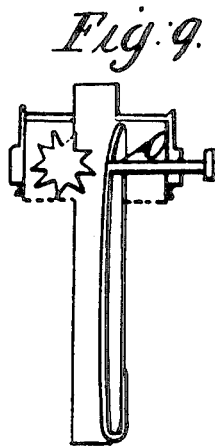
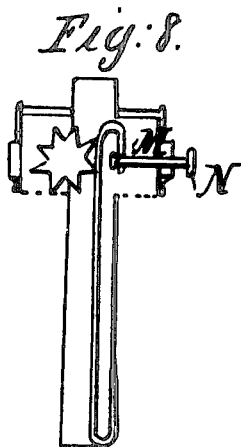
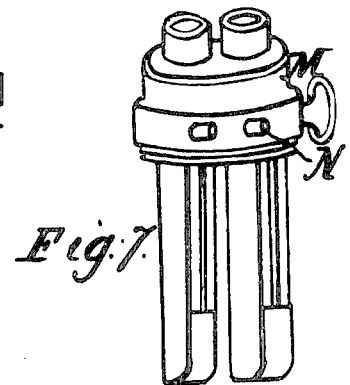
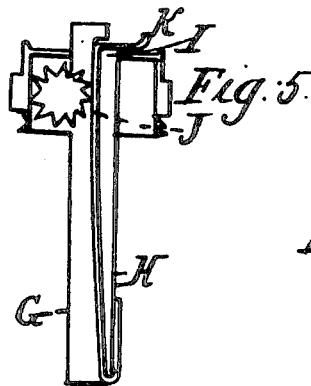
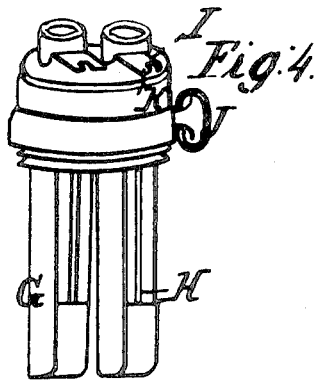
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Sheet 3-3 Sheets.

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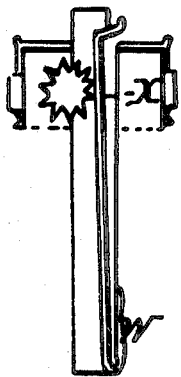


Fig. 16.

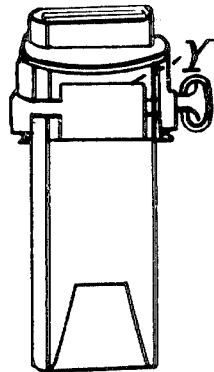


Fig. 17.

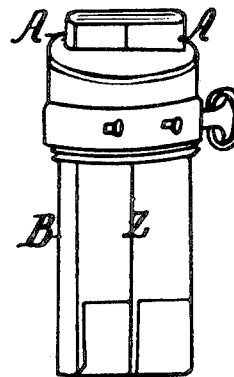


Fig. 18.

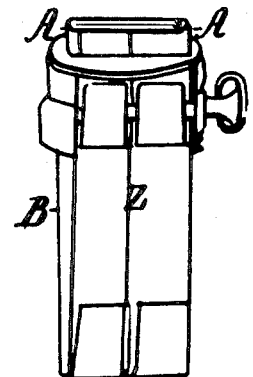


Fig. 19.

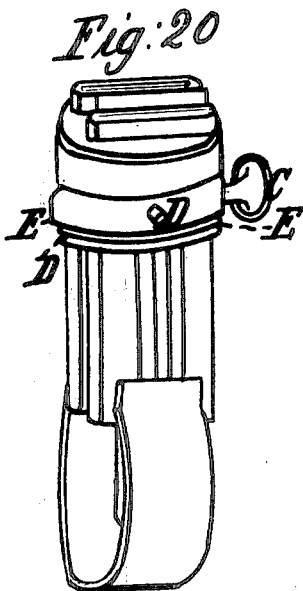


Fig. 20.

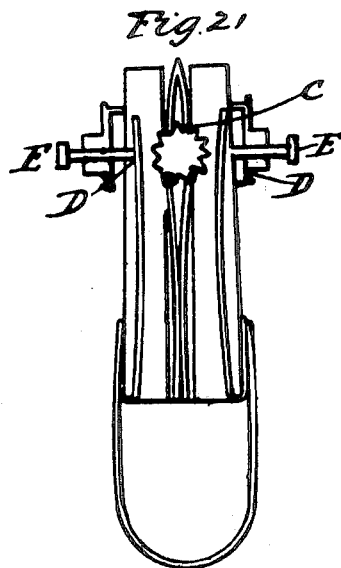


Fig. 21.

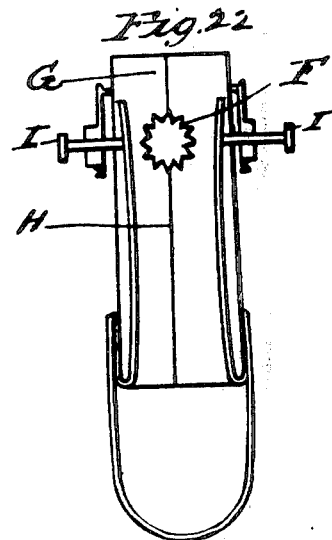


Fig. 22.

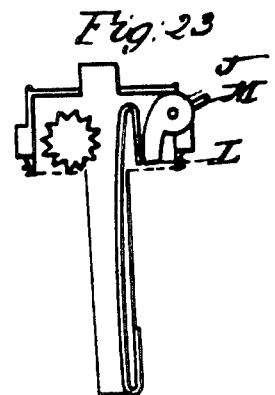


Fig. 23.

UNITED STATES PATENT OFFICE.

SAMUEL RUST, OF NEW YORK, N. Y.

RAISING LAMP-WICKS

Specification of Letters Patent No. 3,467, dated March 9, 1844; Antedated January 29, 1844.

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, &c., which improvement is applicable to my former improvement of the piece of metal, spring, or heater as patented by me September 14, 1843, and is also applicable to other lamps which have a roller to raise or depress the wick or a wick-raiser analogous to the roller, and that the following is a full and exact description of the same as invented or improved by me.

Whereas the former patent is made, with a raised or capped stopper as A, Figures 1 and 2, and a roller to regulate the wick below the cap as B, working in at the side of the tube C, on the wick, which patent consists of a piece of metal, spring or heater acting and pressing against the wick and roller as a spring which piece of metal, spring or heater is soldered to the bottom part of the tube as D, and extended down to E, and then bent and carried up through the tube to F, at the top, so as to run a hollow wick on to it, or to put the wick in all on one side either in a long tube or a short tube, my improvement now consists of a thumb piece, press or slide combined with the roller to manage the wick and a recess or opening in the side of the tube and stopper for the spring or thumb-piece to work in which recess or opening I use either with or without the thumb piece as is hereinafter described.

The whole lamp with my improvement is represented as Fig. 3. One, two or more tubes or sockets to receive the wick, may be used in the stopper, but I first represent it with two, which tubes or sockets for the common candle wick I make round at the top of the ordinary size and round on one side where the roller is from end to end represented as G Fig. 4 and G Fig. 5 to receive the wick while the other side is made square or angular forming the recess or opening for the spring or thumb piece to work in as H Fig. 4 and H Fig. 5; also a recess cut in the stopper where the tube is received, opposite the recess or opening in the tube as I Fig. 4 and I Fig. 5 which allows more room for the spring to work and to have a gradual bend back at the top from the roller so as to receive the wick all on one side, without

obstruction to the elasticity of the spring as would naturally be in the ordinary tube and stopper without the recess or opening.

The spring is made as wide as the recess or tube and soldered to the bottom part of the tube on the outside and bent and extended up the inside of the tube above the top of the stopper into or opposite the recess or opening in the tube and stopper pressing against the wick and roller as J Fig. 4 and J Fig. 5 and bent out through the recess or opening in the side of the tube above the top of the stopper as K Fig. 4 and K Fig. 5 on the opposite side to the roller forming the thumb piece on the end of the spring, which spring I use in the recess or opening either with or without the thumb piece. But the thumb piece is better particularly for the common candle wick as a touch of the finger to the thumb piece presses back the spring and the wick is easily inserted and carried down by the roller. Also when the lamp is burning or not burning either wick can be raised or depressed without moving the other, by pressing back the spring that is on the wick not requiring to be moved which will stand still while the other wick will be acted upon by the spring and roller to either raise or depress it when the roller is turned by which means the wick is beautifully adjusted. This thumb piece is used also with the spring pressing from the wick and roller as well as pressing to them which is represented as L Fig. 6 precisely as described by Fig. 4 and Fig. 5 above only the spring presses from the wick and roller so that the wick is entirely free from all pressure when the lamp is burning except the momentary pressure by the finger to raise or depress it which obviates the necessity of having grooves around the roller for the oil to circulate but the roller can be made with plain cogs or teeth lengthwise only in place of making them with the reversed grooves and by pressing the thumb or finger against the thumb piece so as to press against the wick and roller the wick can be instantly raised or depressed by turning the roller.

Either wick can be raised or depressed the same way while the other not pressed upon will remain unmoved which is very handy to adjust both wicks alike or to extinguish either or both the same as when the spring presses against the wick and

roller as in the former case. This thumb piece, press or slide I also use by means of small wires or other slides working through the side of the stopper with the spring
 5 soldered to the bottom part of the tube and extended up the tube as in the former case only bent back from the roller and turned downward at the end under the cap of the stopper as M Fig. 7, and M Fig. 8, with the
 10 wires or slides attached to the spring loosely by means of a rivet notch or head on the ends of the wires through a hole or slit made in the end of the spring at M.

The other end of the wires or slides outside of the stopper at N Fig. 7, and N Fig. 8, has a notch, catch or head to take hold of with the finger or thumb to press back the spring to regulate and manage the wick precisely in the same manner as described by
 20 Fig. 4 and Fig. 5 with the thumb piece above the stopper which is the same. Also these wires or slides are used at the side of the stopper with the spring pressing from the wick and roller as O Fig. 9, in the same manner as described by Fig. 7, and Fig. 8,
 25 only the spring extends up to the inside of the stopper and bent a little back from the roller as O Fig. 9, without turning the end downward to attach the wires or slides to the spring, but the wires or slides simply
 30 press against the side of the spring without being attached or fastened to the spring and used to press upon the wick with the finger or thumb to raise or depress it precisely as
 35 the thumb piece above the stopper as described by Fig. 6, and is also the same. Likewise this thumb piece, press or slide with the recess or opening in the tube I use
 40 by means of these wires or slides working in at the side of the stopper in the same way as described by Fig. 7, and Fig. 8, only without any spring by a piece of tin as wide as
 45 the recess or tube about a half inch long more or less bent a little curving on each end and soldered to the ends of the wires on the curved side and placed working into the
 50 tube and side of the stopper as P Fig. 10 with the convex side of the piece of tin next to the roller which by pressing the wick against the roller with the finger by means
 55 of this thumb piece and turning the roller raises or depresses the wick in the same manner as in the former cases and is the same. Or a spiral spring may be used on
 this wire or slide to either press it from the wick and roller or press it to them and made to perform either way the same as described by the flat spring and is the same.

All these different modes of using my improvement I have described as being the best
 60 for either the round one tube or two tube lamps for the common candle wick. But this thumb piece press or slide with the recess or opening in the tube and stopper is
 65 likewise admirably calculated for the flat

tube and woven flat wick in the same manner as described above for the common candle wick only it is not necessary for the spring and roller to be as wide as the tube
 70 but have the part of the roller which acts on the wick about one-fourth of an inch wide and the spring the same width and place them in the middle of the tube and stopper
 75 which spring is soldered to the bottom of the tube as Q Fig. 11 and Q Fig. 12 and bent and extended up the inside of the tube into or opposite the recess or opening in the
 80 side of the tube as R Fig. 11 and R Fig. 12 above the top of the stopper and bent out through the recess or opening at the side of the tube forming the thumb piece on the
 85 end of the spring as S, Fig. 11 and S Fig. 12 which spring is made to press against the wick and roller as T Fig. 11 and T Fig. 12.

The spring may be in a separate piece
 85 soldered on to the bottom of the tube as described, or two slits may be punched or cut lengthwise in the tube from about a half
 90 an inch of the bottom and extended up to the inside of the cap of the stopper and connected by a cross slit at the top leaving a strip in the center of the tube for the
 95 spring as U Fig. 13 and U Fig. 14 which slits also form the recess or opening for the spring to work in. The spring is bent in from the bottom as V Fig. 13, and V Fig.
 100 14 pressing against the wick and roller and bent back at the end from the roller under the cap of the stopper to be convenient to take in the wick.

The recess or opening in the tube and stopper, allowing the spring to recede, as
 105 described. I use both with and without the thumb piece, press or slide, but the thumb piece is best, as the woven wick can easily be inserted, without having any stiffness on
 110 the end, by pressing back the spring, and likewise the candle wick can be handily inserted, and regulated in a flat form, by making the tube also flat, and the spring as
 115 wide, as the inside of the tube, and the roller as wide or nearly so, so as to act on the wick, from side to side of the tube. The spring is soldered to the bottom of the tube, as W Fig. 15, and W Fig. 16, and extended
 120 up the inside of the tube, as wide as the tube, to the under side of the cap of the stopper, pressing on the wick and roller at X Fig. 15 and X Fig. 16, and also, extended up, in the middle part of the spring, about
 125 an eighth of an inch wide, above the top of the stopper and bent out through the recess, or opening, at the side of the tube, forming the thumb piece on the end of the spring, above the top of the stopper.

The recess or opening in the tube and stopper, is as wide, as the spring or a little
 130 wider, both at the wide part and narrow part, so as to allow room for the spring to work; the whole of which is the same as

Fig. 4 and Fig. 5, only this being a wide tube, the spring does not continue its whole width, above the stopper, but the sides recede under the cap of the stopper, which requires only a narrow recess or opening, in the stopper, for the narrow part of the spring to recede into, either for the spring to press to the wick and roller, or to press from the wick and roller, which is also used both ways. Or, the same wide tube may be used with the top of the spring, below the top of the stopper, as Y Fig. 17, by means of the wires or slides, working through the side of the stopper, both with the spring, pressing to the wick and roller and with the spring pressing from the wick and roller, precisely as described by Fig. 8 and Fig. 9, only this is a wide tube and one in a stopper, while Fig. 8 and Fig. 9, are the narrow tube and two in a stopper. But this thumb piece, press or slide with the recess or opening, is likewise admirably calculated for the flat candle wick, by making two small flat tubes and soldering them in the stopper, with the edges together, as one wide flat tube or by making one wide flat tube, with a division of a strip of tin, in the middle, lengthwise, as Z Fig. 18 and Z Fig. 19, with the spring and roller, in each side, the same as has been described, by the two tubes, as Fig. 4 and Fig. 5 and Fig. 6, with the thumb piece, above the top of the stopper, and also as Fig. 7, Fig. 8, and Fig. 9, (and likewise Fig. 10 with the curved plate on the end of the slides) with the thumb piece by means of the wires or slides, working through the side of the stopper. The tube into and above the cap of the stopper is made round on the edges, as A Fig. 18, and A Fig. 19, (but may be made angular) and below the cap of the stopper it is made angular, on the edges as B Fig. 18, and B Fig. 19, which is necessary to make a square recess or opening, on each side for the spring to work.

The springs here are intended to press from the wick and roller, with the wires or slides, working through the side of the stopper, as the thumb piece, as represented by Fig. 9. The advantage of this tube is, the wick can be easily inserted either side, which at once spreads at the top and forms the flat wick, and when trimmed off and burning, either side can be raised or depressed, to adjust both alike, without trouble or cutting off, or to burn one side alone, which could not be done were all to be raised together, as in the case of the flat woven wick, which is not so cheap, or so easily obtained, neither are the capillary tubes so free, and open, to conduct the oil, as the candle wick.

The same thumb piece, press or slide and recess or opening in the tube I also use with the roller, between two wicks, and between two flat tubes, as C Fig. 20 and C Fig. 21, with the recess or opening in the outward

sides of the tubes, opposite to the roller, with the spring working into the recess or opening, pressing from the wick and roller as D Fig. 20 and D Fig. 21, with a wire in each side of the stopper, as E Fig. 20 and E Fig. 21, as the thumb piece, press or slide, to press either wick, with the thumb or finger, against the roller, which will raise or depress it, by turning the roller, while the other not pressed upon will remain unmoved.

A heater may be used for lard, between the two tubes, which consists of a strip of thin metal about five eighths of an inch wide, folded or bent in the middle, with the two ends passing down each side of the roller, with a slit cut in each side, for the roller to work through. The common candle wick can be regulated, in the same way, by having the roller and spring act on the wick, from side to side of the tube. Two round tubes, like those described, by Fig. 4, and Fig. 5, (or two square or small flat tubes, placed edge to edge, in the stopper to make one wide flat tube) can be used in the same manner. Or I use the thumb piece, press or slide with the roller, also, between two wicks, by placing the roller crosswise, or in the center of one flat tube, as F Fig. 22, (so that the teeth of the roller are toward each edge of the tube) with a division of a strip of tin, lengthwise, in the tube, at the top above the roller, as G Fig. 22, and also, with a division, at the bottom of the tube, below the roller, as H Fig. 22, to divide the wick, both above the roller and below it.

The position of the roller forms or allows the recess, in each edge of the tube, for the springs to work, which springs are soldered to the bottom of the tube, at the edges and extended up the tube, on each edge, pressing from the wick and roller with the wires or slides, working through the sides of the stopper as I Fig. 22, pressing against the side of the spring, on either side of the roller, in the same manner, as the wires or slides already described, in the former cases. Or as another mode of thumb piece, a circular piece of tin can be inserted vertically, in the side of the stopper, as J Fig. 23, working on a wire or pin, soldered to the side of the stopper, under the cap, with a projection about three eighths or a half inch, from the circle of the lower side, to press against the spring as L Fig. 23, also with another projection, on the circular piece of tin, outside of the stopper, as M Fig. 23, to take hold of, with the thumb or finger, which by pressing downward, will force the spring against the wick and roller and perform the same office, as the thumb pieces previously described.

Thus I have described and set forth a variety of modes of using my improvement, which are accompanied by drawings and

eleven models of the same, all of which work beautifully, and could describe still more, but it is unnecessary, as—

What I claim and desire to secure by Letters Patent is—

A thumb piece, press or slide to manage the wick by pressing the thumb piece, press or slide, against the wick or wick raiser with the finger or thumb or relieving the pressure from the wick or wick raiser, combined with the roller or any other wick raiser, analogous to the roller and also the

recess or opening in the tube or stopper combined, with either the spring thumb piece, press or slide as above set forth or in any other way that is essentially the same.

Witness my hand and seal this twenty fifth day of January eighteen hundred and forty four A. D.

SAMUEL RUST. [L. s.]

Witnesses:

I. N. RUST,

SAML. A. RUST,

SILAS CUMMINGS.