

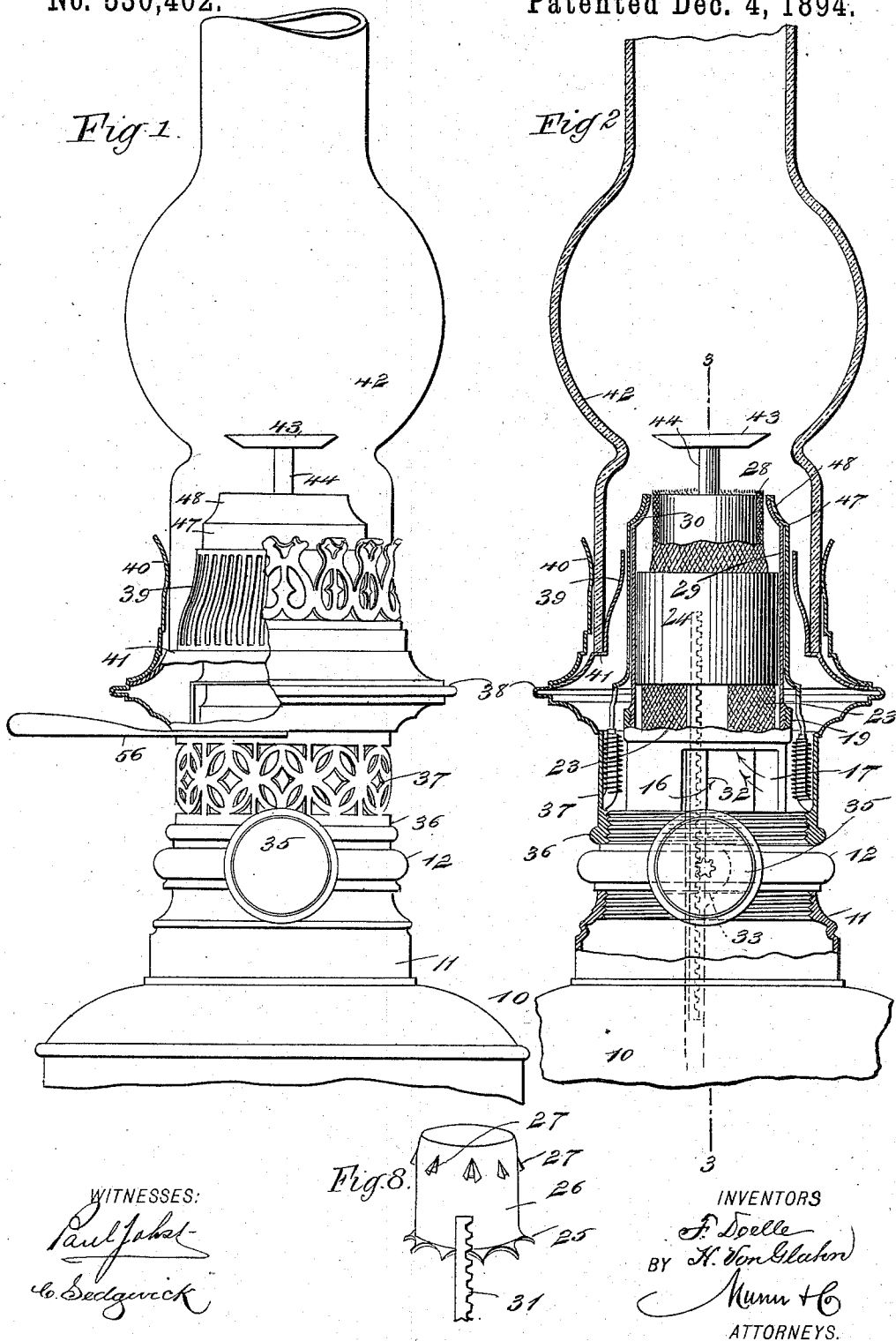
(No Model.)

2 Sheets—Sheet 1.

F. DOELLE & H. VON GLAHN.
LAMP.

No. 530,402.

Patented Dec. 4, 1894.



(No Model.)

2 Sheets—Sheet 2.

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Fig. 1.

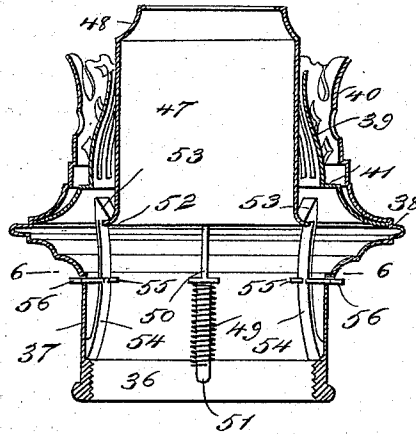


Fig. 6.

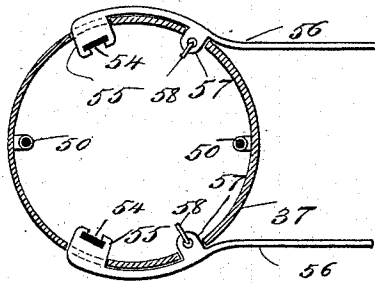


Fig. 3.

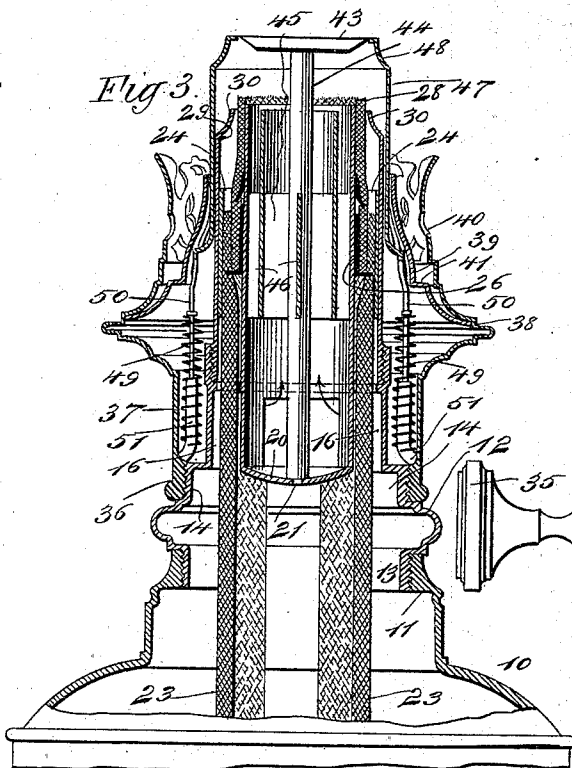


Fig. 4.

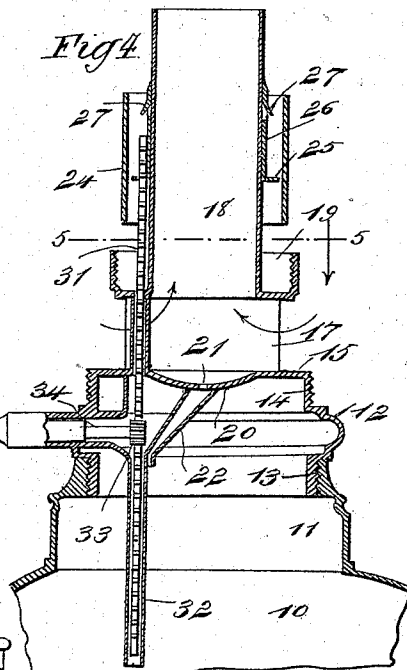
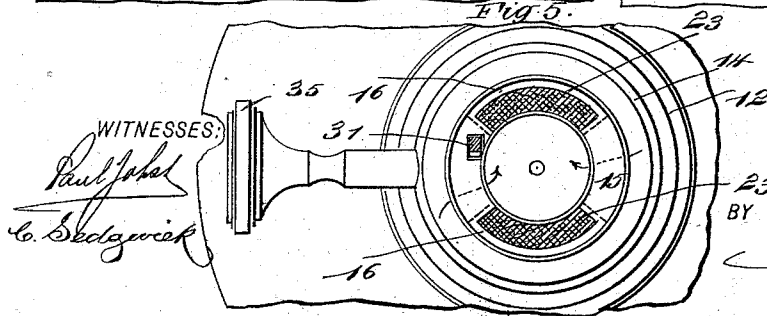


Fig. 5.



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UNITED STATES PATENT OFFICE.

FERDINAND DOELLE AND HENRY VON GLAHN, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 530,402, dated December 4, 1894.

Application filed March 9, 1894. Serial No. 503,000. (No model.)

To all whom it may concern:

Be it known that we, FERDINAND DOELLE and HENRY VON GLAHN, of New York city, in the county and State of New York, have invented a new and Improved Lamp, of which the following is a full, clear, and exact description.

Our invention is an improvement in burners for Argand lamps, and pertains to the construction and arrangement of parts constituting the flame extingisher, as hereinafter set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation of the lamp embodying our invention. Fig. 2 is a central vertical section through the burner, the extingisher being open. Fig. 3 is a vertical section on the line 3—3 of Fig. 2. Fig. 4 is a detail vertical section through the burner, but with the holder and other parts removed. Fig. 5 is a broken sectional plan on the line 5—5 of Fig. 4. Fig. 6 is a detail sectional plan on the line 6—6 of Fig. 7, showing particularly the means for releasing the extingisher so as to put out the flame. Fig. 7 is a detail vertical section of the chimney holder and extingisher; and Fig. 8 is a broken detail view of one of the wick tubes and its adjusting rack.

The lamp 10 may be, so far as its body is concerned, of any usual shape, and it has at the top the ordinary neck 11 which is internally screw threaded so that the base tube 12 of the burner may be screwed to it, this tube having at its lower end a flange 13 which is exteriorly threaded to fit the thread of the neck. The base tube is also provided with a threaded portion or collar 14 by which the chimney holder may be secured, as hereinafter described, and above this portion the base tube is reduced, as shown at 15, and merges in two opposite segmental wick spouts or holders 16, see Fig. 5, the spaces between which form flues 17 through which air may pass to the center tube 18 which is arranged in the ordinary way so as to provide for a central draft to the flame, this tube being formed integral with the base tube and having opposite its lower end a collar 19 inter-

nally screw threaded so as to receive the guide tube which surrounds the wick, as hereinafter described.

Beneath the tube 18 is a depression 20 having therein an air hole 21 beneath which is a spout 22 opening into the lamp body, this arrangement providing for the necessary vent and preventing the oil from being spilled. The flame is supplied with oil through two wicks 23, which are oppositely arranged and extend through the wick spouts 16 and up on opposite sides of the center tube 18, to which they are clamped by a ferrule or tube 24, and they also engage the brads 25 at the lower edge of the adjacent wick tube 26, which is held to slide on the upper portion of the center tube 18 and is provided, near the top, with exterior brads or spurs 27 which engage the burner wick 28 which encircles the upper end of the center tube and the lower end of which extends opposite the wicks 23 which, being clamped to the burner wick, as shown in Fig. 3, serve as feed wicks to supply the burner wick with oil. The burner wick being short may be conveniently renewed when it is used up, and as the wicks 23 are never burned, they do not need to be renewed and consequently the annoyance of taking the burner apart to renew the wicks is avoided.

The ring 24 and the burner wick are surrounded by a guide tube 29, which is reduced at its upper end, as shown at 30, this upper edge being just opposite the upper portion of the center tube 18, and the wick 28 is held between the two tubes and is burned at the orifice formed between the two tubes. The wick tube 26 has secured to it a rack 31 which projects downward through a casing 32 and into the lamp body, this rack engaging a pinion 33 on the spindle 34 which is journaled in a suitable support in the side of the tube 12 and has the usual milled wheel 35 at its outer end, by which it may be turned and, by turning the spindle and pinion, the rack is moved longitudinally, the tube 26 is also moved and the wick regulated.

The lamp burner is provided with a suitable chimney holder which has a collar 36 at its lower end adapted to screw to the threaded portion or collar 14 of the base tube 12, and just above this collar the holder is of open construction, as shown at 37, so that the air

may pass freely through and through the ports 17 to the draft or center tube 18. The open work 37 merges into an expanded portion 38 of the holder which may be of any improved design, and above this is the holder proper comprising the inner spring section 39 and the outer spring section 40, these being like the sections of an ordinary chimney holder, and at the base of the inner section 10 39 is a shoulder 41 on which the chimney 42 rests. The burner is provided with the ordinary deflector 43, which is arranged above the center tube 18, the deflector having the usual spindle 44 which extends down into the tube 18, and this is provided with the cus- 15 tomary inner tube 45 and wings 46 to hold it in its proper position within the center tube.

The lamp is provided with an extinguisher 47 which is of tubular form and slides on the 20 guide tube 29, of which it is a counterpart in shape, the extinguisher 47 having a reduced upper end 48 which is adapted to fit snugly around the edge of the deflector 43, so that when forced upward it extinguishes the flame. 25 The extinguisher is normally pressed upward by spiral springs 49, which press upward against rods 50 secured to the lower edge of the extinguisher, see Fig. 7, the rods moving in guide tubes 51 which are attached to the 30 collar 36 of the chimney holder.

The extinguisher 47 has a flange 52 at its lower edge, which is adapted to engage the catches or shoulders 53 on the upper ends of the spring arms 54 which are secured within 35 the chimney holder, as shown in Fig. 7, and when the extinguisher is pushed down, the spring catches, by engaging the flange 52, hold the extinguisher against the tension of the springs 49.

40 The spring arms 54 are arranged on opposite sides of the chimney holder and are clasped by the inner ends 55 of the releasing levers 56 which have inturned lugs 57 projecting through the chimney holder and held in place 45 by rings 58, so that the lugs serve as the fulcrums of the levers, the outer ends of which project laterally, as shown best in Figs. 1 and 6. The levers may be arranged in any other convenient way, and it will be seen that by 50 pressing their outer ends together, their inner ends are forced apart, thus pulling outward on the spring arms 54 of the catches and releasing the extinguisher tube 47 which, impelled by the springs 49, springs upward 55 against the deflector 43 and thus extinguishes the flame.

It will be seen, that there are two spring-supports for the extinguisher tube, 47, and that they are arranged diametrically opposite

each other. This is for the purpose of avoid- 50 ing the binding and friction of the said tube with the guide tube, 29, when sliding upward on the latter—that is to say, it has been found that, if supported by a single spring, the extinguisher is tilted slightly laterally 65 and thus pressed against one side of the wick more than the other, which pressure is sufficient to prevent the extinguisher operating in many cases. It is likewise essential the rods, 50, should slide with the greatest free- 70 dom in their guide-tubes, 51, so that the extinguisher may move without obstruction by friction in that particular. It will be further seen, that a very important result is obtained 75 by the arrangement of two spring catches on opposite sides of the burner, and of the levers for operating the same—that is to say, by providing two catch-releasing levers, and arranging their outer free ends so that they 80 project parallel on one side of the burner, the said ends may be pressed toward each other simultaneously, and the extinguisher tube thereby released, without exerting any lat- 85 eral pressure against the lamp, as occurs in all cases where a single lever is employed. Furthermore, if by chance one of the levers, 56, is struck and tilted, and its connected catch thereby released, the extinguisher is not released, since it will still be held by the 90 opposite catch. In short, the extinguisher can only be released, as before stated, by simultaneous pressure on both levers, and this is done without tending to overturn the lamp.

Having thus described our invention, we claim as new and desire to secure by Letters 95 Patent—

As an improvement in Argand-lamp burners hereinbefore set forth, the combination, with guide, or wick-tube, and the slidable extinguisher tube, having a base flange, of two 100 spring-supports for the extinguisher, which are arranged diametrically opposite, and consist of slidable rods having lateral projections, or shoulders, guide-tubes therefor which are fixed inside the burner, and springs ar- 105 ranged on the rods below said shoulders, two spring catches arranged oppositely, and the two releasing levers arranged and fulcrumed oppositely, and their free ends projecting laterally and parallel on one side of the burner, 110 as shown and described, for the purposes specified.

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