

No. 745,446.

PATENTED DEC. 1, 1903.

H. L. KUBBERNUSS.
MEANS FOR STIFFENING WIRE PLASTER.

APPLICATION FILED MAY 27, 1903.

NO MODEL.

Fig. 1.

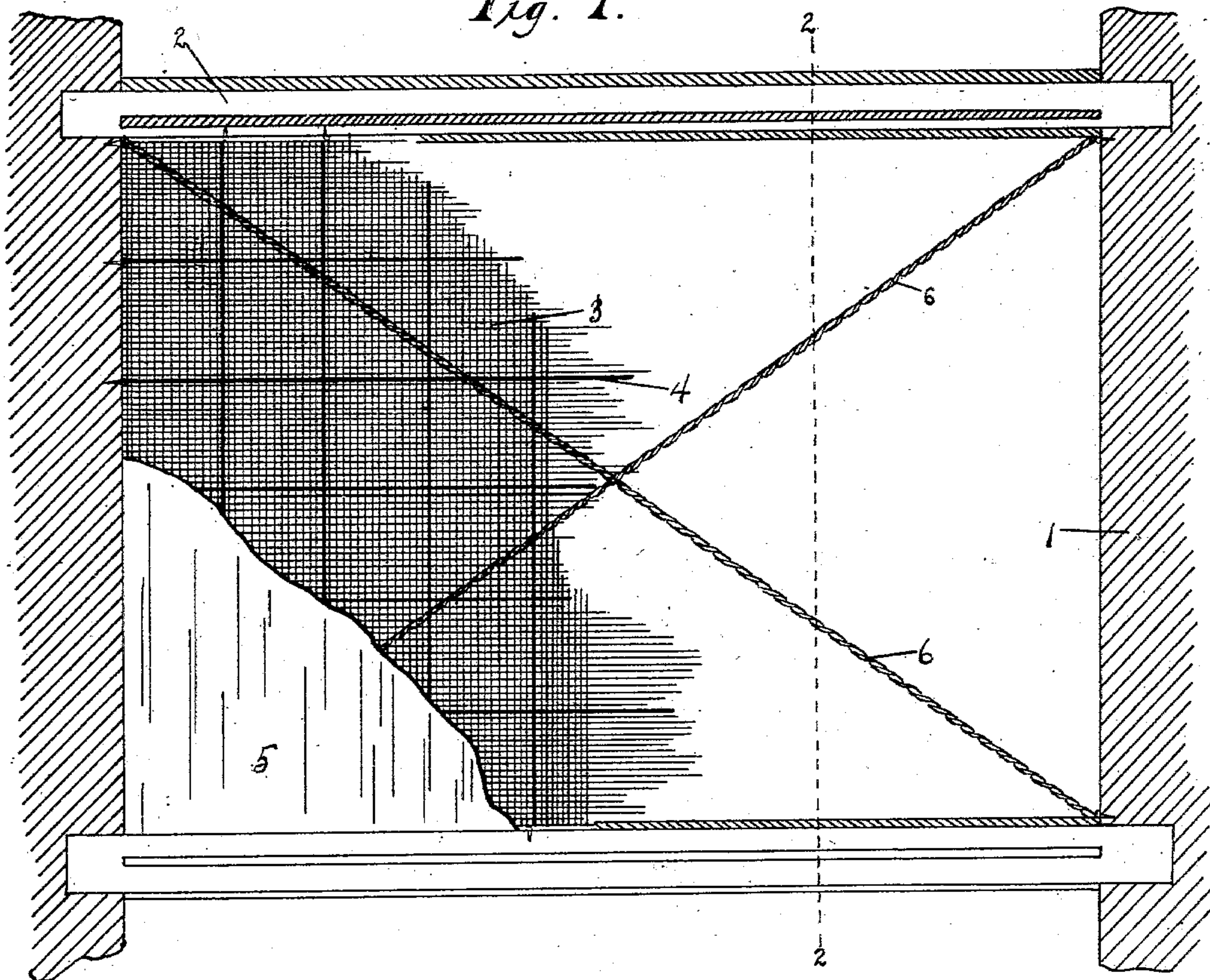


Fig. 2.

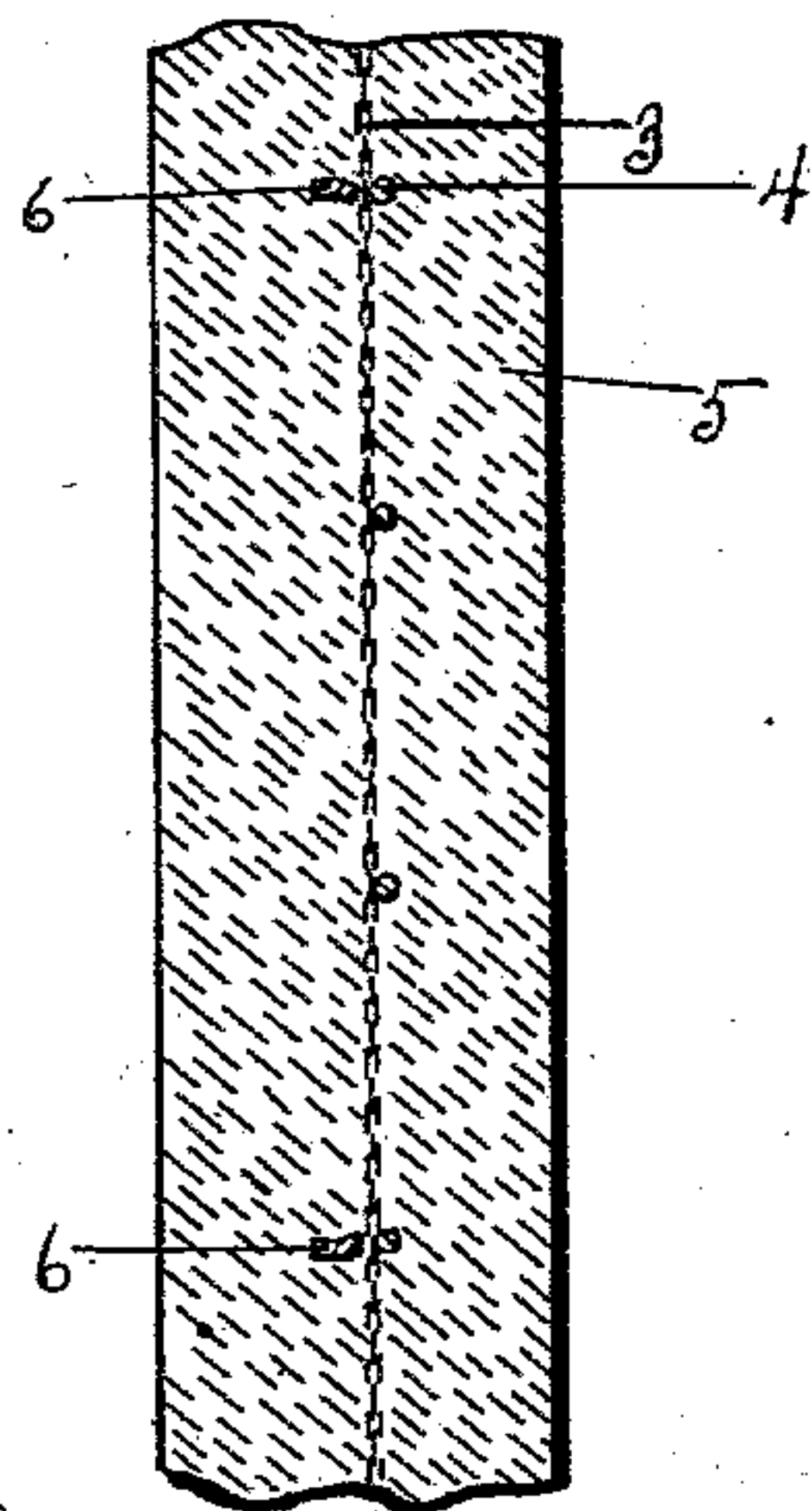
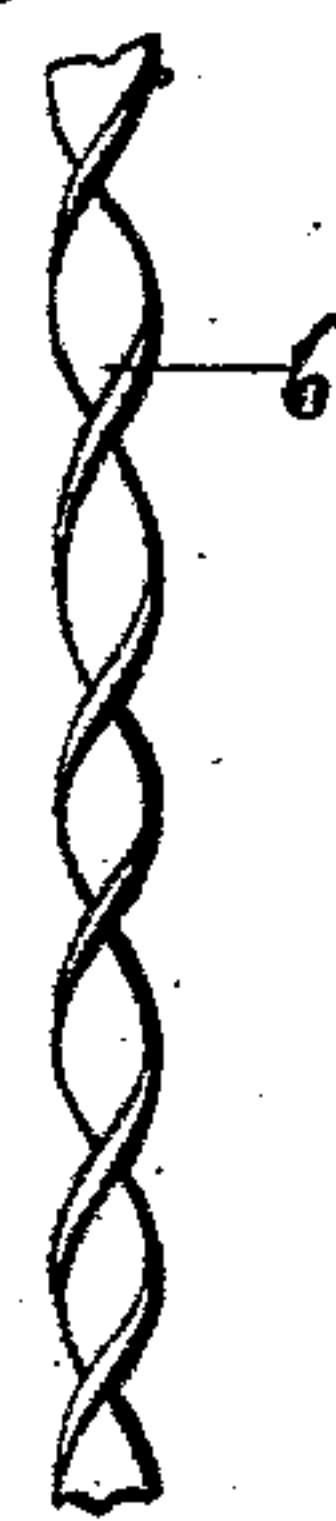


Fig. 3.



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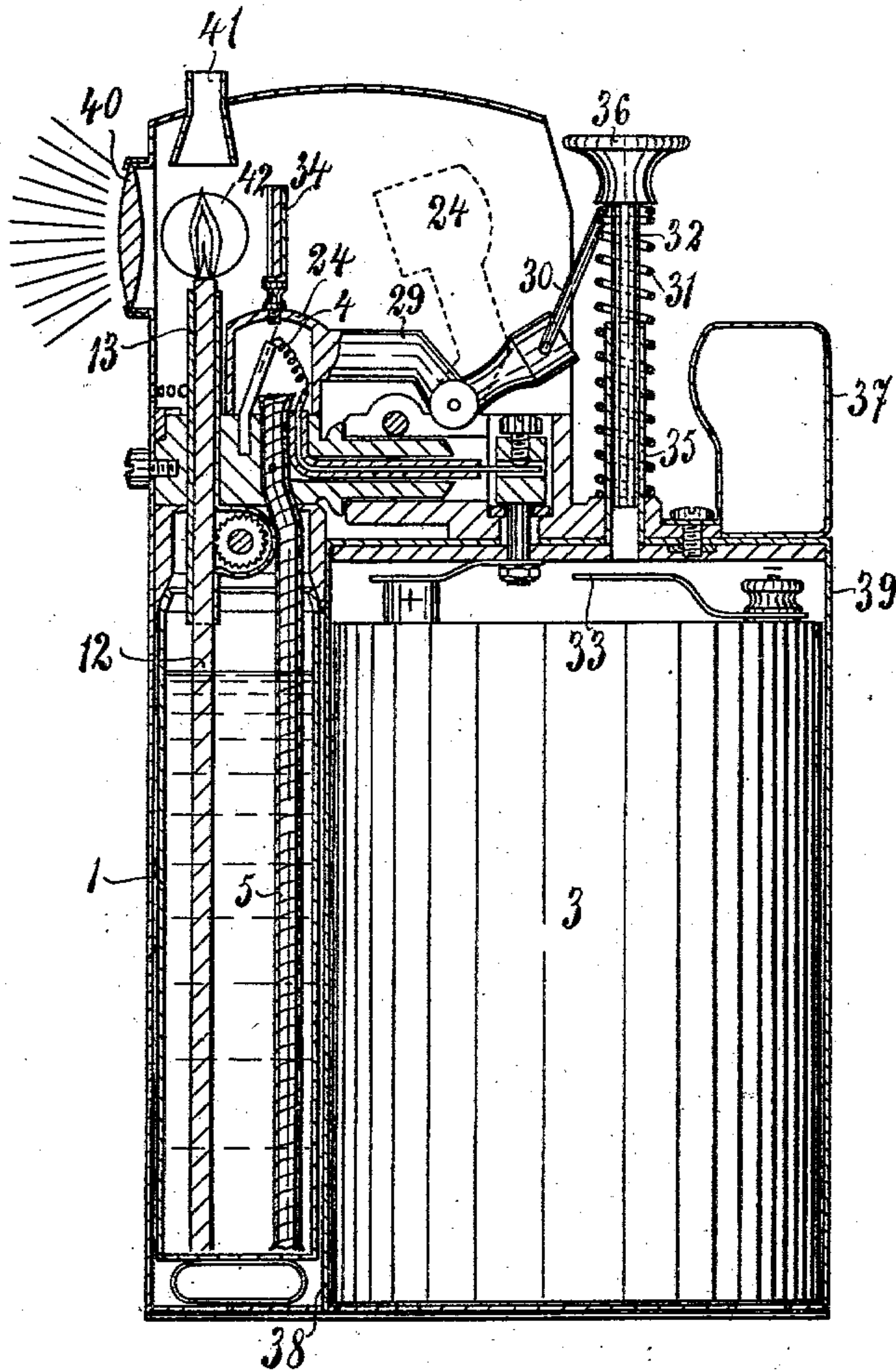
A. L. LIND & C. H. CARLSSON.
ELECTRIC IGNITER FOR LAMPS.

APPLICATION FILED APR. 18, 1903.

NO MODEL.

3 SHEETS—SHEET 2.

Fig. 4.



Witnesses.

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August Ludwig Lind
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No. 745,447.

PATENTED DEC. 1, 1903.

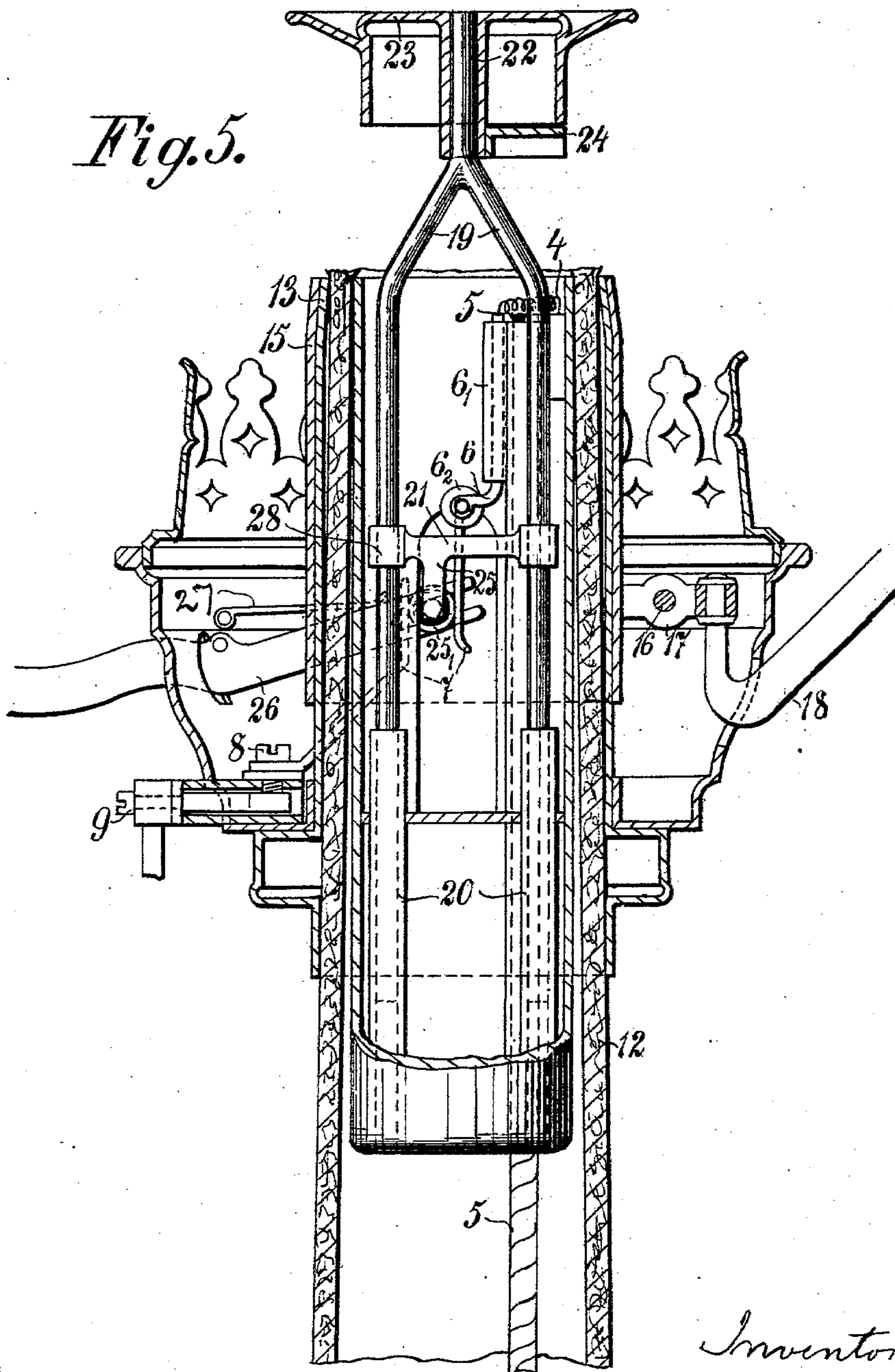
A. L. LIND & C. H. CARLSSON.
ELECTRIC IGNITER FOR LAMPS.

APPLICATION FILED APR. 18, 1903.

NO MODEL.

3 SHEETS—SHEET 3.

Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

AUGUST LUDVIG LIND, OF STOCKHOLM, AND CARL HELDÉ CARLSSON, OF LILJEHOLMEN, SWEDEN.

ELECTRIC IGNITER FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 745,447, dated December 1, 1903.

Application filed April 18, 1903. Serial No. 153,185. (No model.)

To all whom it may concern:

Be it known that we, AUGUST LUDVIG LIND, engineer, residing at Tantogatan 15, Stockholm, and CARL HELDÉ CARLSSON, engineer, residing at Liljeholmen, Sweden, both subjects of the King of Sweden and Norway, have invented certain new and useful Improvements in Electric Igniters for Lamps; and we declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to a lamp with electric lighting device and help-wick, which lamp is principally characterized thereby that the lighting-wire is fixed fast and situated between the upper end of the tube inclosing the help-wick and a cap fitted above the same, which cap is movable up and down and is intended to be raised when the main wick is being lighted in order to allow the flame from the help-wick to have access to the upper end of the main wick, but is also intended to be lowered after the lighting of the main wick in order to extinguish the help-wick and protect the lighting-wire from being acted upon by the main wick. Such a device for protecting the lighting-wire is of great importance, as the latter does not require to be moved in order to be brought out of reach of the influence of the main wick, as is the case in the devices hitherto known, where the lighting-wire, on account of its movement, is easily shaken asunder.

This invention is illustrated by the accompanying drawings, of which—

Figure 1 shows a lamp in vertical section, and Fig. 2 in detail. Fig. 3 shows a vertical section through the center air-pipe, and Fig. 4 shows a modification. Fig. 5 is an enlarged sectional view showing the operative mechanism of the lamp.

When referring to Figs. 1, 2, and 3, 1 denotes the oil-well, in the lower portion 2 of which, separated from the oil, there is a battery 3, one pole of which battery being in conductive connection with the metal walls of the lamp, which again by means of other small metal parts in the lamp are in conductive connection with one end of a platinum wire 4, serving for the lighting of the help-

wick 5, the other end of which is connected with a wire 6, situated in the main-wick pipe and insulated from the latter by means of a cylinder 6', inclosing it. After this the wire 6 passes a short distance downward out through the wall of the main-wick pipe by means of a similarly-insulated cylinder 6², fitted in the said wall, in order to be finally united with a contact-spring 7, which by means of a wire is connected with contact-screws 8 9, to which again a conducting-wire 10 is attached, which latter passes through a tube 11, passing through the oil-well and down to the other pole of the battery in order to join it. 12 is the main wick, which, as usual, is fitted in the wick-pipe 13. Around the upper part of this a cylinder 15 is loosely fitted, which eventually tapers upward and springs inward with its upper edge, serving to extinguish the main flame upon being raised. In order to attain the object of being able to easily act upon the said cylinder 15, the same is movably connected with a lever 17, pivoted on the point 16 and provided with exterior handle 18, in such a manner that the cylinder is raised when the handle 18 is depressed in order to partly cover the upper end of the main wick in order to extinguish the lamp, but, on the other hand, is lowered when the handle is raised, so that the wick is exposed. 19 represents two fork-shaped shanks, which are joined together and can be pushed up and down in guides 20 and are connected at the bottom by means of a cross-stay 21 and at the top combine in a stem 22, supporting the ordinary flame-spreader 23 and besides a cap 24, serving to cover the help-wick and the platinum wire when the main wick is burning, so that the platinum wire is protected against being acted upon by the main wick, and the help-wick is kept extinguished in consequence of no air being permitted to enter. It is obvious that the flame-spreader 23, as well as the cap 24, will be raised when the shanks 19 are raised, in consequence of which the platinum wire will be exposed against the main wick, so that lighting of the latter may take place. In order to effect the lighting or the extinguishing of the help-wick and the raising or lowering of the cap 24 at the same manipulation,

the following arrangement is made: A downward-inclined arm 25 is fitted on the cross-stay 21, from which arm extends a lateral projection, which is gripped by the fork-like end of a lever 26, accessible from the outside, which under ordinary circumstances is kept depressed by a spring 27 with the interior fork-shaped end, so that even the shanks 19, the flame-spreader 23, and the cap 24 maintain their lowest positions. If the outer end of the lever 26 is pulled down against the action of the spring, the said parts will be raised, and under this movement a roller 25', insulatedly connected with the said lateral projection by means of a bushing of insulating material, occupies the intermediate space between the contact-springs 7, so that this conduction is closed, and the platinum wire glows, lights the help-wick, and by means of this the main wick. Upon releasing the lever 26 the cap 24 is caused, as is obvious, to descend, thereby covering the platinum wire and therewith the help-wick, so that the air has not access to this latter, whereby its flame goes out. The lamp now burns with the main wick, and in order to extinguish it, as said above, it is only necessary to pull down the handle 18. Concerning the aforesaid cross-stay 21, it, together with the arm 28, serves to limit the downward movement of the shanks 10 against the guides 20.

Finally, Fig. 4 differs from Figs. 1 to 3 in the construction shown in the following respect: According to Fig. 4 the tube of the help-wick, as well as the lighting-wire 4 and the cap 24, are situated at the side of the pipe 13 of the main wick, while the said cap is mounted on an arm of an up-and-down movable lever 29. The other arm of the said lever is pivotally connected with the lower end of an arm 30, the upper end of which is likewise connected with a bar 32, provided with a push-button 36, which bar is pressed upward by a spring 31 and guided in a fixed cylinder 35. It is obvious that the cap 24 will be raised in order to expose the lighting-wire 4 and the help-wick 5 when the rod 32 is pressed downward. In the way of the lower end of the bar 32 there is a contact-spring 33, attached to one pole of the battery, being so arranged that closing of the conduction between the ends of the lighting-wire is effected when the rod 32 is pressed down

in contact with the said spring, so that the lighting-wire is caused to glow simultaneously with the raising of the cap 24. Obviously the rod 32, the push-button 36, and the link 30 may be substituted by the arrangement that the outer end of the lever 29 is extended, for instance, by means of a descending arm serving for the creation of contact with the spring 33. In Fig. 4 the device is shown applied to a lantern provided with a handle 37. The oil-well 1 and the battery 3 are arranged side by side in an outer vessel 39, divided by means of a partition 38, from which they can be easily removed. A reflector 34 is mounted on the cap 24 opposite the main flame, reflecting the light through the light-openings 40. 41 is a small chimney directly above the main flame for the emission of the fumes. Through this opening, by way of example, a cigar can be inserted in order to light it.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a device of the character set forth, the combination of a main wick, a flame-spreader slidably mounted above said wick, an auxiliary lighting-wick, and a cap for said lighting-wick, carried by said spreader, substantially as described.

2. In a device of the character set forth, the combination of a tubular main wick, a flame-spreader for said wick, rods on which said flame-spreader is mounted, bearings for said rods, a cross-tie between said rods, an insulated roller carried by said cross-tie, an auxiliary lighting-wick within said main wick, an insulated electric wire for lighting said auxiliary wick, connections leading from said wire to a source of electricity, and a switch in one of said connections, a cap carried by said spreader for covering said wire and auxiliary wick, a pivoted lever connecting with said cross-tie whereby the rods may be raised and the electric switch simultaneously closed by said roller, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

AUGUST LUDVIG LIND.

CARL HELDÉ CARLSSON.

Witnesses:

ERNST NARDLINDE,
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