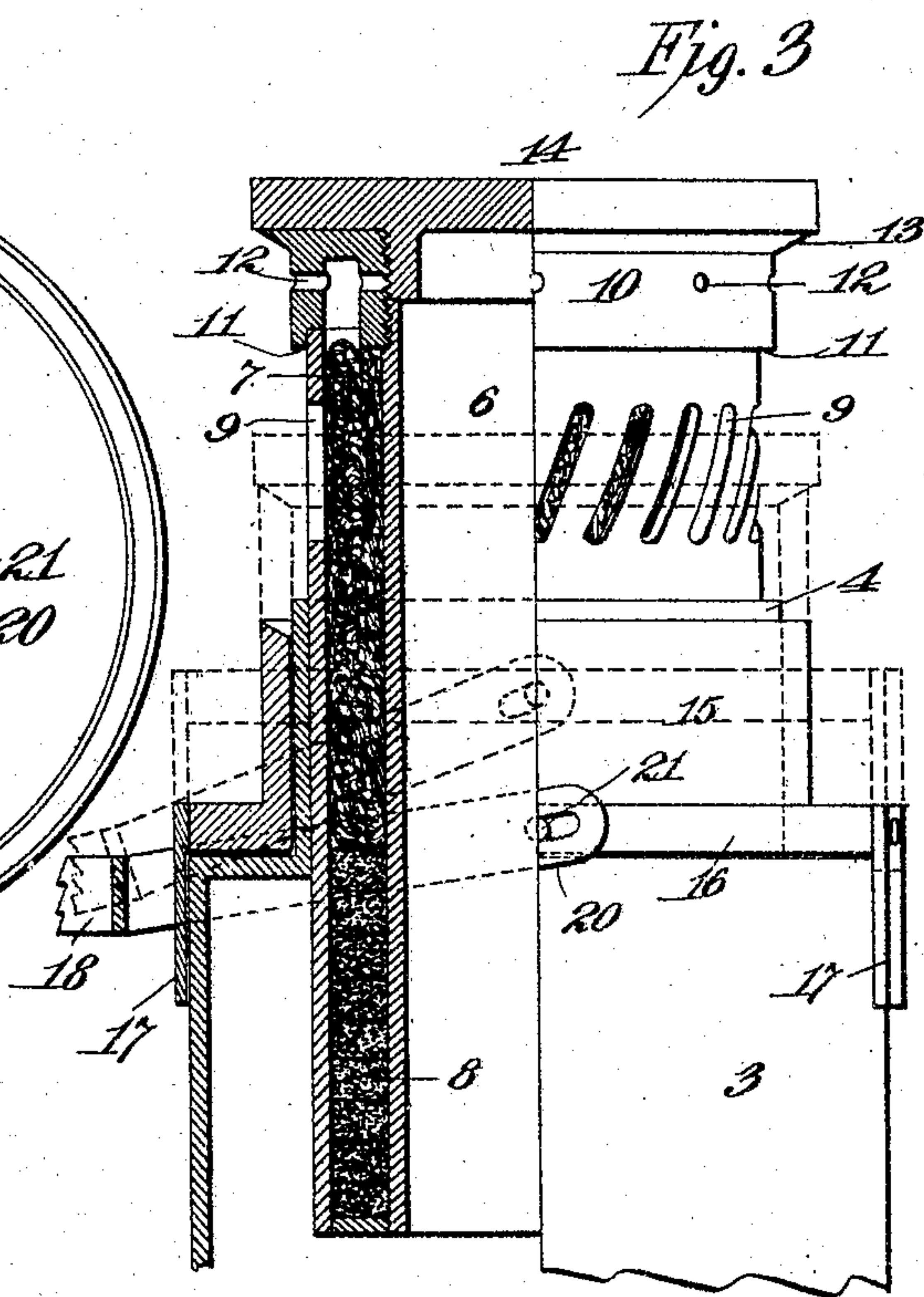
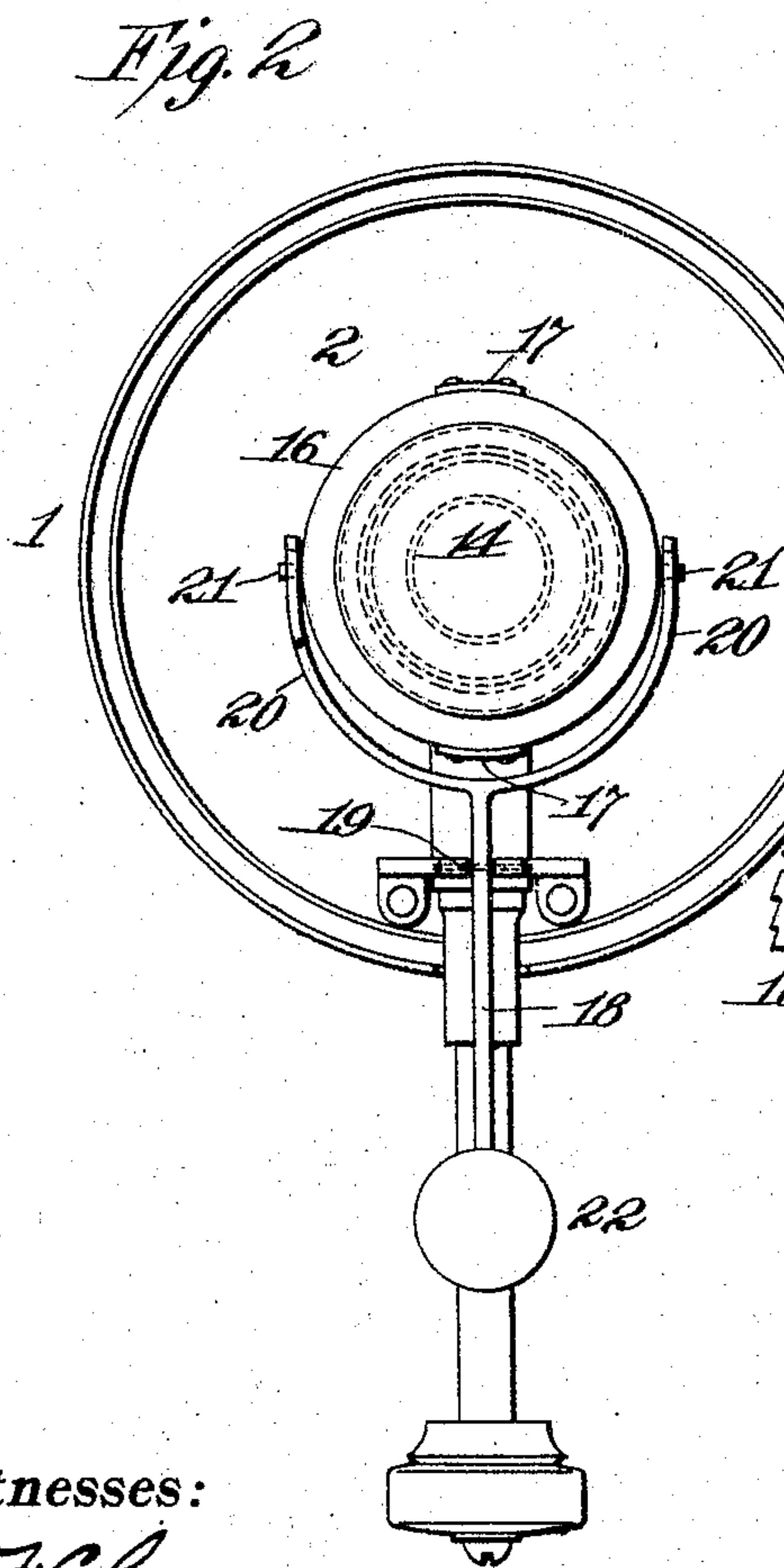
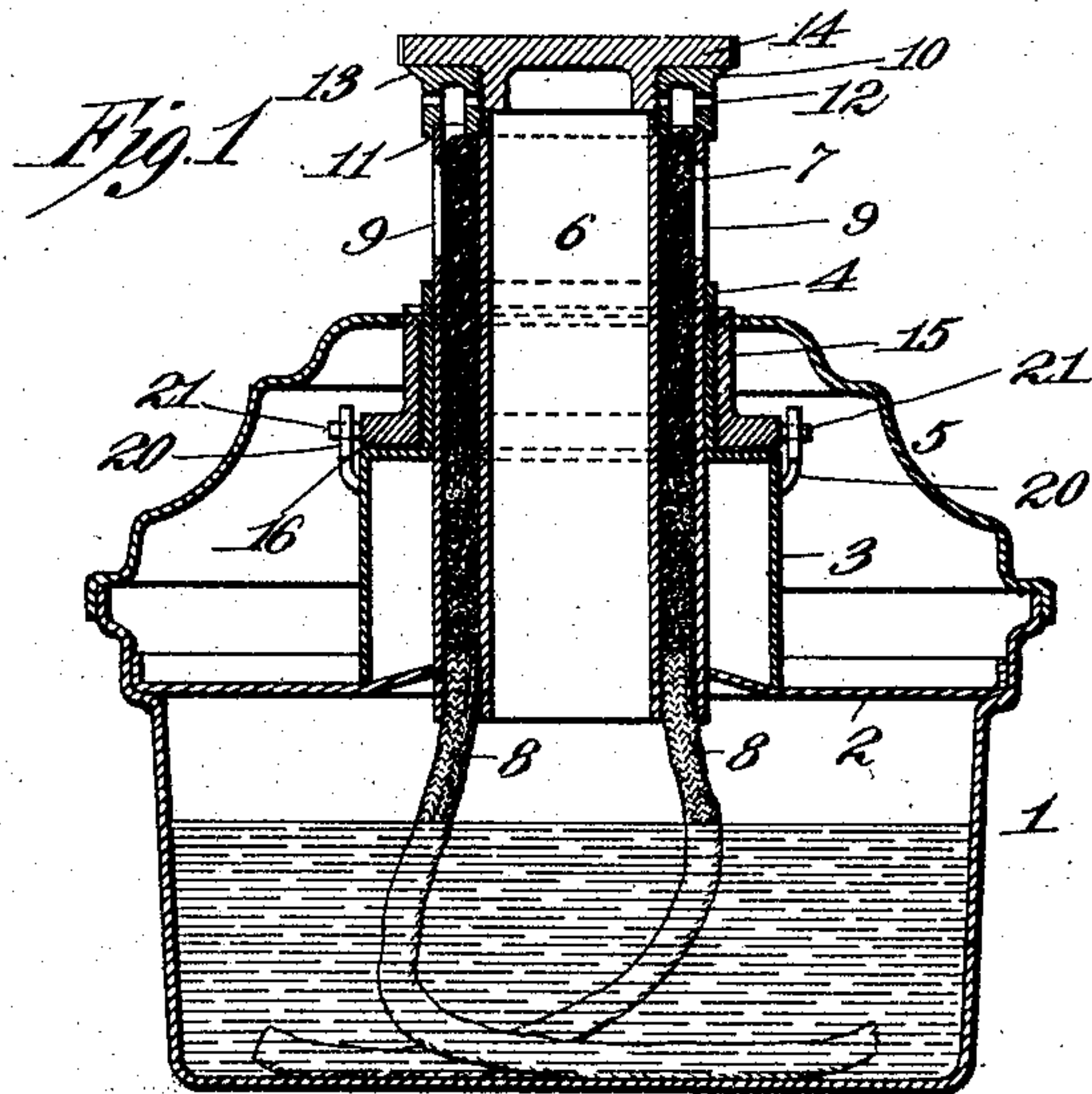


No. 787,006.

PATENTED APR. 11, 1905.

S. STERNAU & L. STRASSBURGER.
ALCOHOL LAMP.

APPLICATION FILED MAY 6, 1902. RENEWED AUG. 19, 1904.



Witnesses:

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UNITED STATES PATENT OFFICE.

SIGMUND STERNAU AND LIONEL STRASSBURGER, OF NEW YORK, N. Y.,
ASSIGNORS TO S. STERNAU & CO., OF NEW YORK, N. Y., A COPARTNER-
SHIP.

ALCOHOL-LAMP.

SPECIFICATION forming part of Letters Patent No. 787,006, dated April 11, 1905.

Application filed May 6, 1902. Renewed August 19, 1904. Serial No. 221,359.

To all whom it may concern:

Be it known that we, SIGMUND STERNAU and LIONEL STRASSBURGER, citizens of the United States, residing in the borough of Manhattan, city of New York, State of New York, have invented a certain new and useful Improvement in Alcohol-Lamps, of which the following is a description.

Our invention relates to improvements in alcohol-lamps of the type described and claimed in our Patent No. 696,507, dated April 1, 1902. With the patented lamp the font is provided with a stationary regulating-tube, within which is mounted a vertically-movable burner-tube, said burner-tube being provided with burner-openings, above which are arranged a plurality of gas-vents, so that as the burner-tube is moved downwardly within the regulating-tube the burner-openings will be gradually covered to leave a series of gas-jets still burning and which are finally extinguished by a further downward movement of the burner-tube. With our present improvements we limit the downward movement of the burner-tube, so that the regulating-tube provides only for the gradual covering of the burner-openings, and we employ a separate gas-extinguishing sleeve operated by a supplementary lever, which sleeve surrounds the regulating-tube and is designed to be moved upwardly to cover the gas-vents. This construction is somewhat more satisfactory in actual practice than where the regulating-tube is relied on to cover both the burner-openings and the gas-vents, as will be explained.

In order that the improvements may be better understood, attention is directed to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a vertical sectional view showing a lamp of the type covered by our patent with the present improvements applied thereto; Fig. 2, a plan view of the same with the upper casing removed; and Fig. 3, an enlarged sectional view through the burner-tube, regulating-tube, and gas-extinguishing sleeve on an enlarged scale.

In all of the views corresponding parts are

represented by the same numerals of reference.

As we describe in our patent, the body 1 of the lamp is provided with a partition 2, forming a font beneath it for containing the alcohol. Extending up from the partition 2 is a stationary regulating-tube 3, having a contracted or reduced upper portion 4. The body 1 is provided with a top 5, which surrounds the regulating-tube above the shoulder thereon. Mounted within the regulating-tube is a vertically-movable burner-tube 6, formed with outer and inner walls, between which is placed the asbestos packing 7, with wicks 8 below it dipping into the alcohol in the font. The outer wall of the burner-tube is formed with inclined burner-openings 9. The top cap 10 of the burner-tube is threaded into the inner wall of the latter and forms a shoulder 11 above the burner-openings 9 and which is engaged with the top 4 of the regulating-tube when the burner-tube is moved to its downward position. In this latter respect the construction differs from that of our patent, wherein the shoulder 11 was omitted and in which the cap 10 of the burner-tube was also movable within the regulating-tube. The cap 10 is provided with gas-vents 12 therein and with an inclined shoulder or flange 13 at its upper part. A plug 14 is screwed into the cap 10, which plug may be removed to permit the font to be filled through the burner-tube, as we explain in said patent. The burner-tube is moved vertically by any suitable mechanism—as, for instance, by a rack and pinion, as described in said patent.

Surrounding the reduced portion 4 of the stationary regulating-tube is an extinguishing-sleeve 15, having an inclined upper surface adapted to engage accurately with the shoulder 13, so as to extinguish the jets at the vents 12. This extinguishing-sleeve is provided with a flange 16 on its bottom, which normally rests on the shoulder of the regulating-tube. The extinguishing-sleeve 15 is guided in its vertical movements and prevented from binding on the regulating-tube by being provided with a pair of fingers 17,

which depend from the flange 16 and engage diametric points on the enlarged portion of the regulating-tube. We effect the movements of the extinguishing-sleeve preferably
 5 by means of a lever 18, pivoted in a support 19, carried by the top of the font and provided with bifurcated arms 20, having slotted connections with pins 21 on the flange 16. This lever is provided at its outer end with a
 10 finger-piece 22, which is located conveniently adjacent to the handle for turning the shaft for effecting the movements of the burner-tube, as shown, whereby when the burner-tube has been moved to its lowermost position
 15 within the regulating-tube to cover the burner-openings 9 and engage the shoulder 11 with the top of the stationary regulating-tube the finger-piece 22 can be operated to elevate the extinguishing-sleeve 15 into engagement with
 20 the shoulder 13, and thereby extinguish the gas-jets. In this way the burner-tube is moved downward to the limit of its movement to always insure the user of the lamp that the gas-vents will be left uncovered to
 25 give only the moderate degree of heat which may be necessary. When it is desired to extinguish the lamp entirely, the finger-piece 22 is depressed to elevate the extinguishing-sleeve. With the lamp of the patent some
 30 care had to be exercised in lowering the burner-tube not to extinguish the gas-jets, which objection is entirely removed by means of the present improvement.

Having now described our invention, what
 35 we claim as new, and desire to secure by Letters Patent, is as follows:

1. In an alcohol-lamp of the character described, the combination with the stationary regulating-tube and the movable burner-tube
 40 having burner-openings and gas-vents therein, of means for limiting the movements of the burner-tube to cover only the burner-openings thereof, and a separate extinguishing-sleeve for covering the gas-vents, substantially as set forth.
 45

2. In an alcohol-lamp of the character described, the combination with the stationary regulating-tube and the movable burner-tube

having burner-openings and gas-vents therein, of means for limiting the movements of
 50 the burner-tube to cover only the burner-openings thereof, and a separate extinguishing-sleeve surrounding the regulating-tube for covering the gas-vents, substantially as set forth.

3. In an alcohol-lamp of the character described, the combination with the stationary regulating-tube and the movable burner-tube mounted therein and having burner-openings and gas-vents, of a shoulder carried by the
 60 burner-tube above the burner-openings for engaging the top of the regulating-tube, and an extinguishing-sleeve surrounding the regulating-tube for covering the gas-vents, substantially as set forth.

4. In an alcohol-lamp of the character described, the combination with the stationary regulating-tube and the movable burner-tube mounted therein and having burner-openings and gas-vents, of a shoulder carried by the
 70 burner-tube above the burner-openings for engaging the top of the regulating-tube, an extinguishing-sleeve surrounding the regulating-tube for covering the gas-vents, and a shoulder at the top of the burner-tube with
 75 which said extinguishing-sleeve coöperates, substantially as set forth.

5. In an alcohol-lamp of the character described, the combination with a stationary regulating-tube and a burner-tube movable
 80 therein and provided with burner-openings and gas-vents, of an extinguishing-sleeve surrounding the regulating-tube for closing the gas-vents, means for moving the burner-tube vertically, and a lever connected with the ex-
 85 tinguishing-sleeve and located adjacent to the burner-tube - operating mechanism, substantially as set forth.

This specification signed and witnessed this 1st day of May, 1902.

SIGMUND STERNAU.
 LIONEL STRASSBURGER.

Witnesses:

LEWIS P. COOK,
 MAY I. HICKEY.