

No. 841,648.

PATENTED JAN. 15, 1907.

J. H. HILL.  
LANTERN.

APPLICATION FILED JUNE 4, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

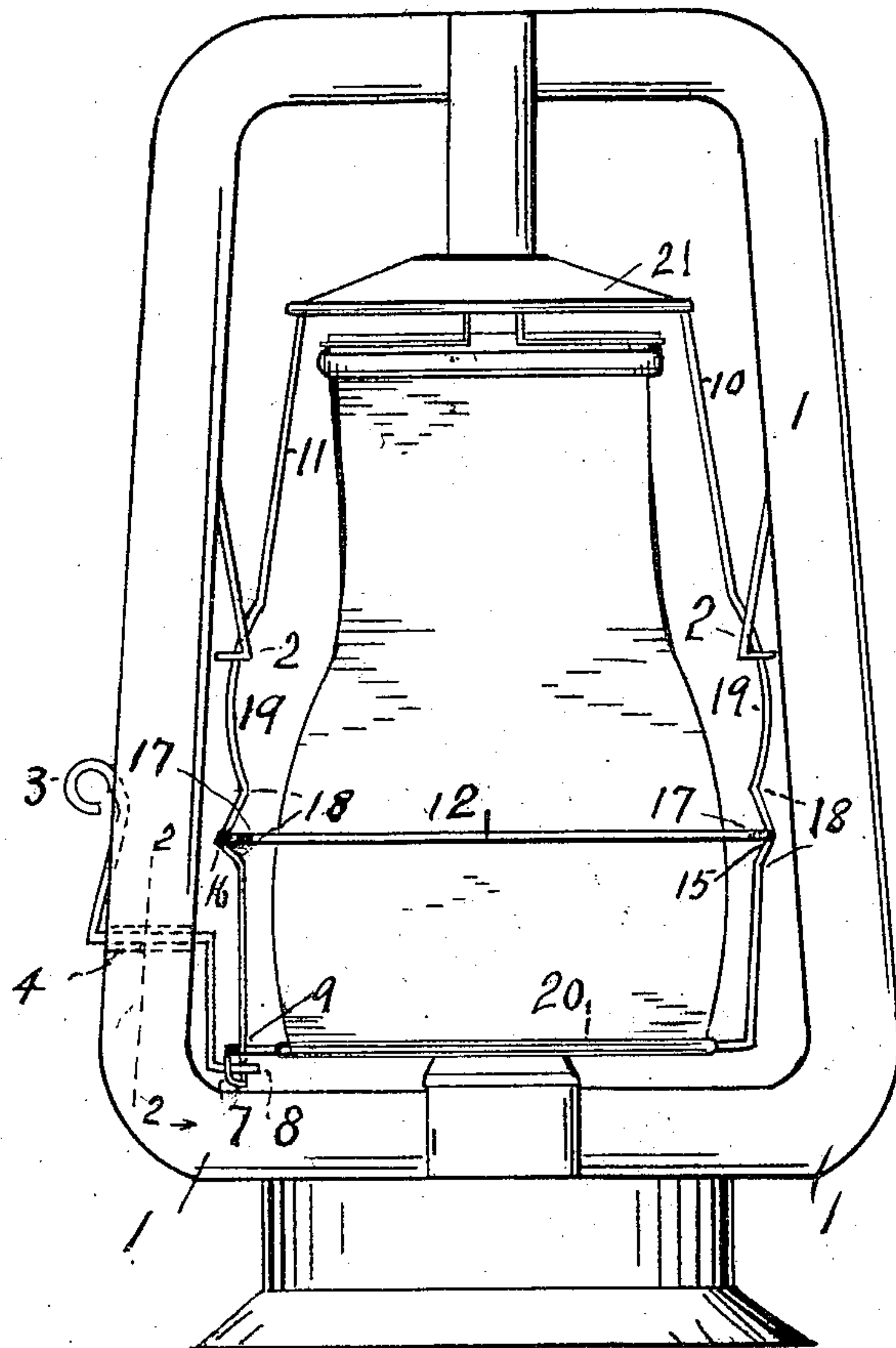
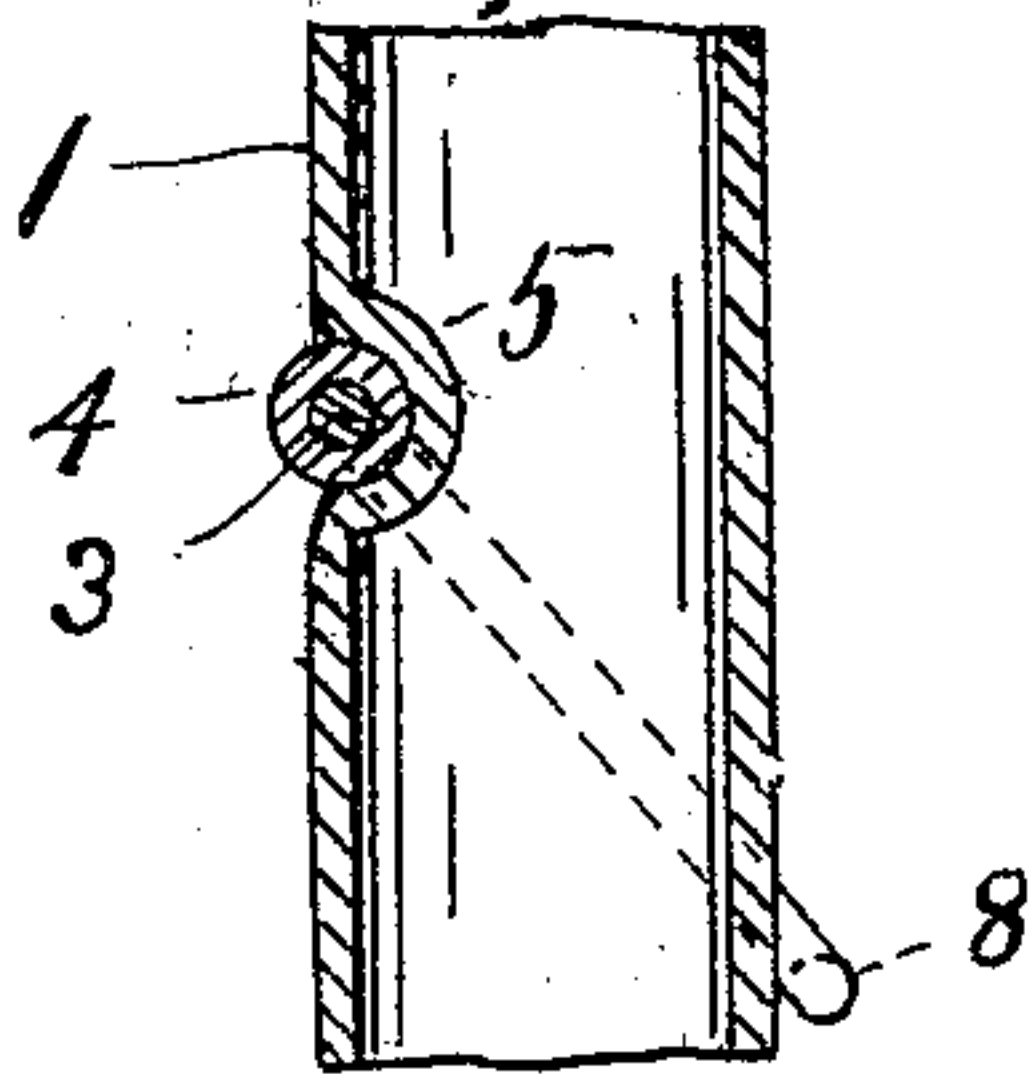


Fig. 2.



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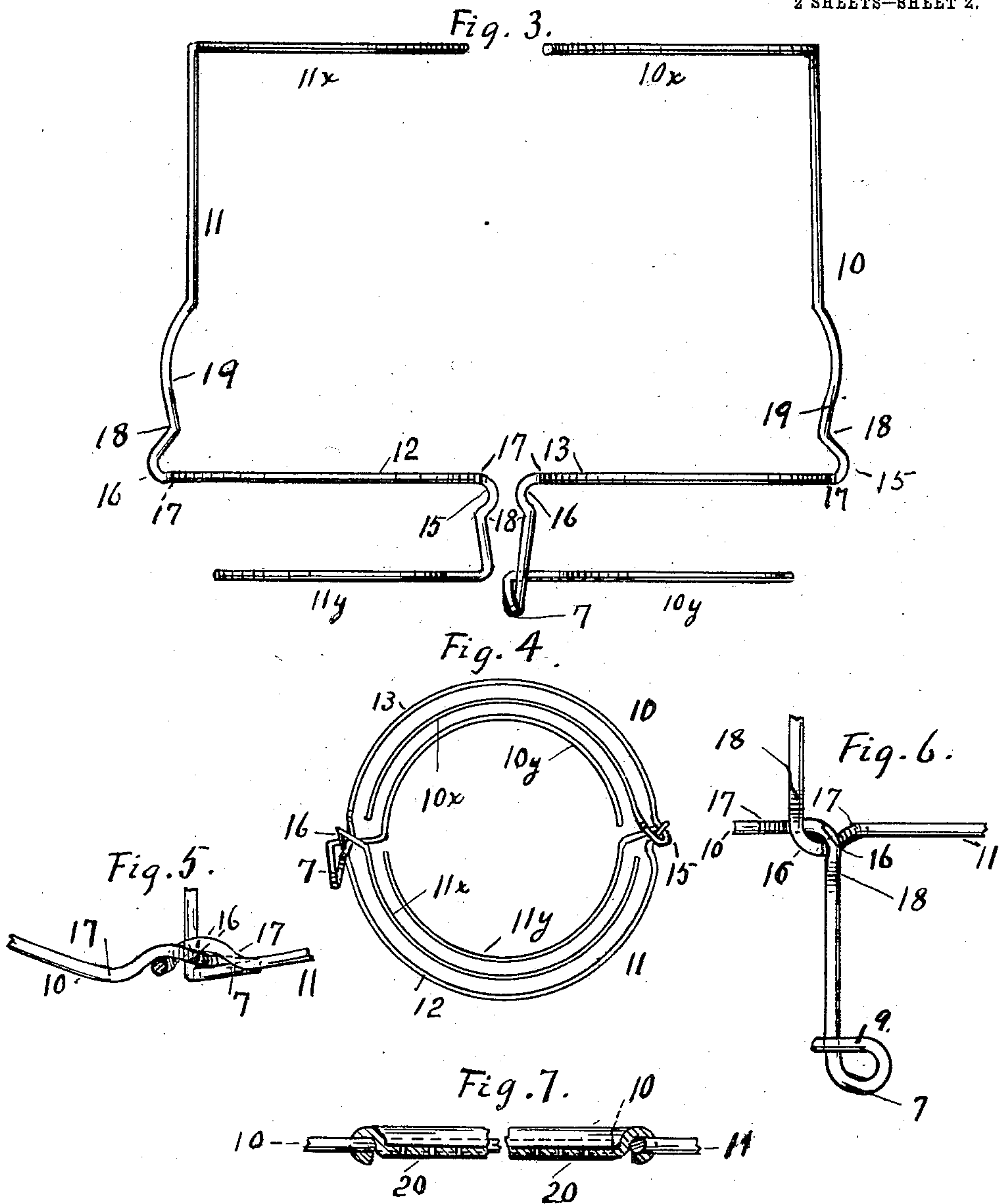
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# UNITED STATES PATENT OFFICE.

JAMES H. HILL, OF ROCHESTER, NEW YORK.

## LANTERN.

No. 841,648.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed June 4, 1906. Serial No. 320,078.

*To all whom it may concern:*

Be it known that I, JAMES H. HILL, a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Lanterns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention relates to lanterns, and has for its object to simplify the construction and cheapen the manufacture of the globe frame and guard and increase its efficiency and durability.

The invention consists in the construction hereinafter described and pointed out.

In the accompanying drawings, which illustrate the invention and form part of the specification, Figure 1 is a side view of a lantern with the improvement. Fig. 2 is an enlarged section on line 2 2 of Fig. 1. Fig. 3 is a side view of the globe frame and guard members detached from the lantern and from each other. Fig. 4 is a plan of the globe frame and guard, the members being united together, but separate from the lantern. Fig. 5 is an enlarged partial plan showing the locking engagement of the frame and guard members. Fig. 6 is a view at right angles to Fig. 5. Fig. 7 is a partial enlarged section showing the globe-supporting plate bent around the lower semicircular parts of both frame and guard members.

Numeral 1 denotes the air-tubes of a lantern, provided with guides 2 of known form.

3 indicates a globe-lifter cooperating with the globe-frame by means of a device to be described. This lifter has a bearing in a tube 4. Such tubular bearing has heretofore been soldered to the exterior of the air-tube; but soldering the same has been found difficult and the connection insecure, owing to the cylindrical form of the tubes arranged at right angles to each other. To facilitate the soldering and also strengthen the connection, the air-tube is indented, as indicated at 5, to provide a seat for the tubular bearing 4. This seat lengthens the contact of the parts and provides that a stronger connection may be made with a less amount of solder.

The globe frame and guard comprises two members, (denoted by 10 and 11.) Each member consists of a single piece of wire bent to form an upper end semicircular part 10<sup>x</sup> 11<sup>x</sup> and a lower semicircular part 10<sup>y</sup> 11<sup>y</sup>,

and intermediate these ends a part 12 or 13 to form with a corresponding part a globe-guard. It should be noted that in member 10 in Fig. 3 the three substantially semicircular parts 10<sup>x</sup> 13 10<sup>y</sup> all curve in the same direction, and that toward the observer. On the other hand, in member 11 the curved parts 11<sup>x</sup> 12 11<sup>y</sup> all curve reversely—that is, away from the observer.

Heretofore globe-guard rings have been fastened to the side wires by soldering. This comparatively expensive and insecure means of connection is avoided by joining the curved parts 12 and 13 of the members 10 and 11 by means of interlocking bends 15 and 16. These preferably comprise portions bent or indented at 17 and 18 in both horizontal and vertical planes to avoid all play or slipping one upon the other of the wires which constitute the globe-frame and guard-ring. Each member 10 11 has two such bends 15 16, one at each end of the curved part 13 or 12, and when the members are put together in use the bends 15 at the right side of members 10 and 11 (see Fig. 3) come together, as also do the bends 16 at the left, thus leaving the vertical parts of the two members at opposite sides of the frame.

The side wire of member 10 is provided with an integral ring or loop 7 to receive the cranked arm 8 of the lifting-lever. To obviate all danger that this arm may be forced out of the ring, the wire is made to overlap or cross, as indicated at 9.

The side wire of each member of the globe-frame has an outward bend, (indicated at 19,) which coöperates with the guides 2 to hold the globe either up or down.

20 denotes a globe-supporting disk engaged with the two frame members at their lower ends, and 21 a bell-disk engaged with said members at the top.

In Fig. 7 the bottom of member 10 is shown, the curved part terminating at the point indicated by 10<sup>y</sup>, the whole of curved part 10<sup>y</sup> being inclosed by the edge of plate 20, the corresponding part 11<sup>y</sup> of member 11, which is similarly inclosed, being cut away by the plane of section, as at 11<sup>y</sup> in said figure.

Having thus described the invention, what I claim is—

1. A wire globe-frame and globe-ring guard consisting of two integral members, said guard consisting of parts of said members joined to each other by interlocking



bends, the interlocking parts being extended part above and part below the interlocks to the bell and base plates.

2. A wire globe - frame and globe - ring guard consisting of two integral members, said guard consisting of parts of said members joined to each other by interlocking bends, the interlocking parts being extended part above and part below the interlocks to the bell and base plates, the wires having indentations 17 to prevent slipping of the guard and side wires.

3. A globe frame and guard consisting of two wires each comprising a vertical side portion integral with a transverse curved portion, said curved portions forming a globe-ring guard, the ends of said wires being above and below the portions forming the guard.

4. A globe frame and guard consisting of two members, each member being a single wire bent at a plurality of points in different horizontal planes into approximately semi-circular form, said guard being intermediate upper and lower plate-connecting bends.

5. A globe frame and guard consisting of two members, each member being a single wire bent at a plurality of points in different horizontal planes into approximately semi-circular form, the members interlocking.

6. In a globe frame and guard having single side wires, a connecting globe-ring con-

sisting of parts integral with said side wires of the frame and intermediate the ends thereof, said ends being secured to the bell and the globe-supporting plate.

7. In a globe frame and guard having side members, a connecting globe-ring made integral with said members of the frame, and means consisting of bends in said members to prevent slipping of the parts at their connection.

8. In a globe-frame, a side wire provided with an integral ring or loop, in combination with a globe-lifter having an end adapted to be freely entered in or withdrawn from the loop, said ring comprising parts of a side wire and base-ring overlapped to prevent disengagement of the frame and lifter in operation.

9. The combination with a globe-frame, a globe-lifter, and the air-tube of a lantern, of a tubular bearing for the globe-lifter, said air-tube being indented to form a seat for said bearing, and the bearing soldered in said seat.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES H. HILL.

Witnesses:

F. A. RUSSELL,  
J. D. HENRY.