

(No Model.)

F. RHIND.
HARP RING FOR LAMPS.

No. 546,597.

Patented Sept. 17, 1895.

Fig. 1.

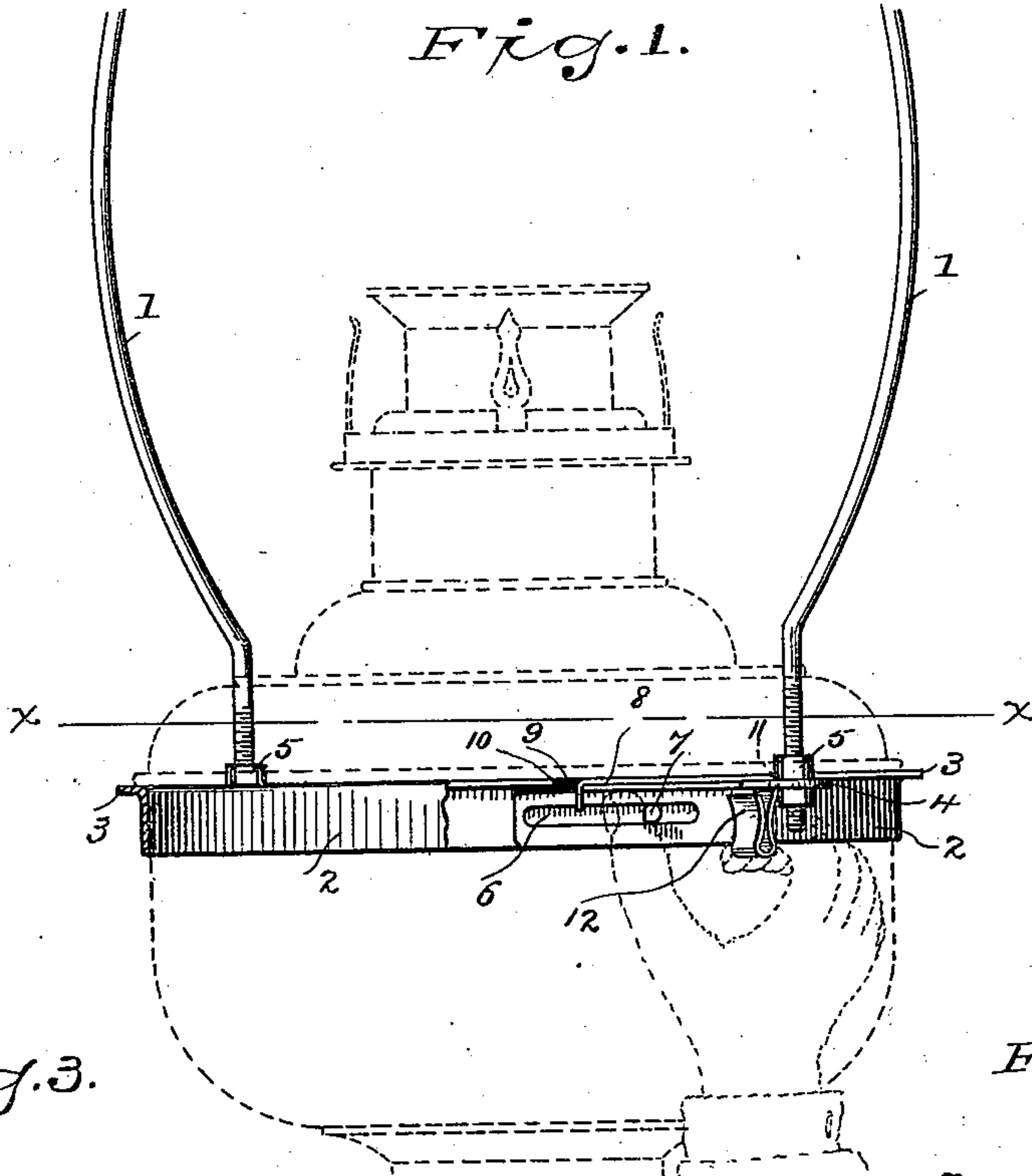


Fig. 3.

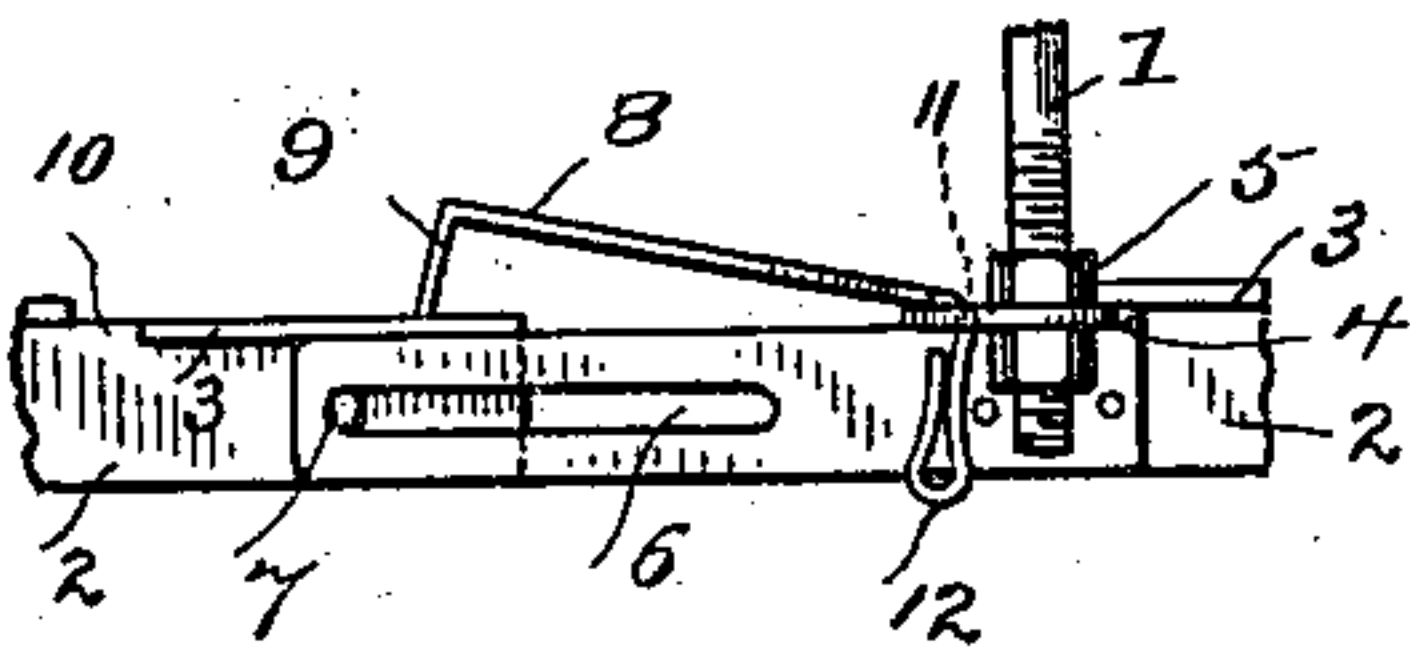
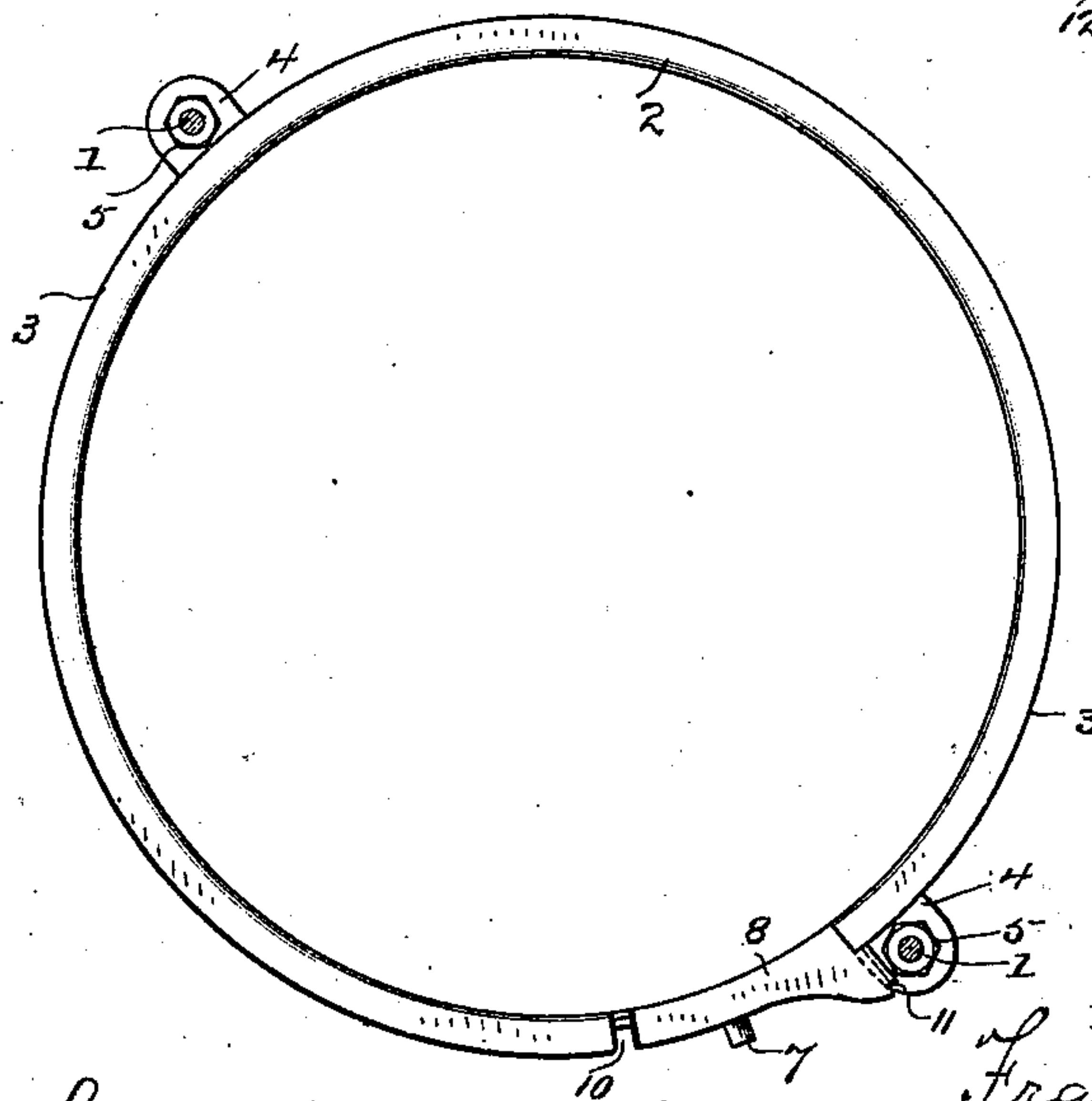
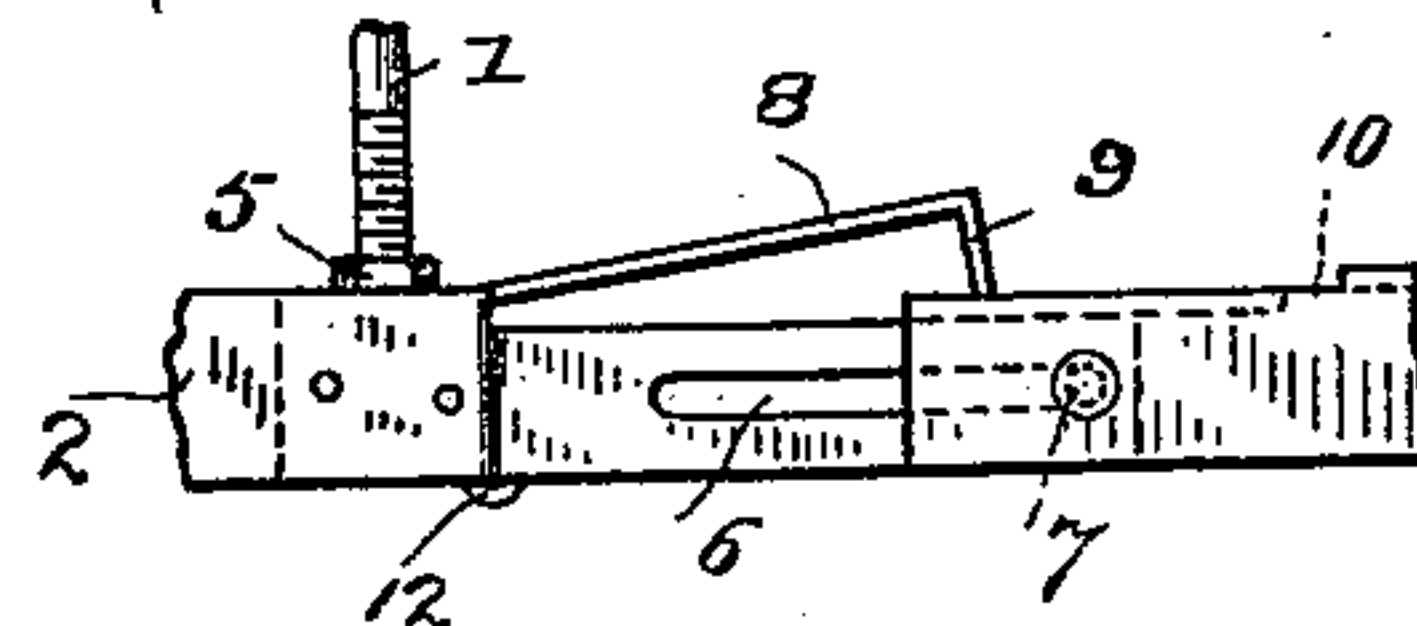


Fig. 4.



WITNESSES

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Fig. 2.

INVENTOR

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UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

HARP-RING FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 546,597, dated September 17, 1895.

Application filed June 12, 1895. Serial No. 552,528. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Harp-Rings for Lamps; 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 appertains to make and use the same.

My invention has for its object to provide a spring harp-ring for suspending lamps, which shall be so constructed that it will at all times retain its shape, and which shall be provided with a locking device always in view, and so constructed and arranged that it cannot be moved to the locking position except when the ring is contracted, thus doing away with all danger of the ring catching in an intermediate position and permitting the lamp to drop through when the weight is placed thereon, the catch being retained in the locking position by the lamp itself, so that all danger of the lamp being held insecurely and all possibility of its falling is avoided.

With these ends in view I have devised the novel construction, of which the following description, in connection with the accompanying drawings, is a specification, numerals being used to designate the several parts.

Figure 1 is a side elevation of my novel harp-ring in operative position, the ring being partially broken away and the lamp being shown in dotted lines; Fig. 2, a section on the line $x x$ in Fig. 1, looking down; Fig. 3, a detail view corresponding with Fig. 1, but showing the ring in the expanded position; and Fig. 4 is a rear view corresponding with Fig. 3.

1 denotes the arms and 2 the ring, which is provided with a flange 3, which lies in the horizontal plane, and upon which the lamp rests in use. The ring is shown as provided with ears 4, to which the arms are attached by nuts 5 engaging threads at the lower ends of the arms. The ring is made of spring metal and by its own resiliency will spring to an expanded position when released, the ring in its expanded position being large enough so that the lamp may be passed up through

it from below, after which the ring may be closed and locked in the closed position. One end of the ring is provided with a slot 6 and the other with a pin 7, which passes through the slot and serves as a guide for the ends of the ring in expanding and closing, and also as a stop to limit the movement of the ends of the ring in expanding. The ring is locked in the closed position by means of a gravity catch 8, the forward end of which is provided with a hook 9 adapted to drop into a slot 10 in the flange to lock the ring at the closed position. The catch may be attached in place in any suitable manner. In the present instance I have shown one of the ears 4 as provided with a slot 11, and the rear end of the catch as bent at a right angle passed through the slot and then bent backward upon itself to form a finger-piece 12.

The operation will be clearly understood from the drawings. It is obvious that when the ring is in the expanded position hook 9 will rest upon the flange, as in Figs. 3 and 4. In this position—*i. e.*, the ring being expanded—the lamp may be passed up through the ring, but will not be supported thereby until the ring has been pressed to the closed position, as in Figs. 1 and 2. In the closed position the edge of the bowl of the lamp will rest upon the flange and also upon the catch retaining the latter in the locking position, so that it will be impossible to lift the catch to permit the ring to spring to the open position without lifting the lamp away from the flange and the catch. To remove the lamp from the ring the operator lifts the lamp with one hand and places a thumb and finger, respectively, on pin 7 and finger-piece 12 which lifts the hook out from slot 10. As soon as the operator relieves the pressure upon the finger-piece and pin, the resiliency of the ring itself will expand the ring until the opening movement is stopped by the engagement of pin 7 with the ends of slot 6. The lamp may then be passed down through the ring. The use of a flanged ring is an important feature, in that it adds greatly to the strength of the ring and provides a ring that will carry the heaviest lamps filled with oil without danger of the ring being

sprung out of shape or "ovaled," as it is termed. It also enables me to provide a locking device separate from the ring itself, the position of which may be seen at all times, 5 which may be readily operated, and which will be retained in the locked position by the lamp itself.

Having thus described my invention, I claim—

- 10 1. The combination with a spring ring having at one end a slot 6 and at the other end a pin adapted to engage said slot, a flange 3 and a slot 10 in said flange, of a locking catch upon one end of the ring which is provided with a 15 hook adapted to engage slot 10 in the other end of the ring so that a lamp carried by the

ring will act to retain the catch in the locking position.

2. The combination with a spring ring provided with a flange adapted to support a lamp 20 in use, said flange being provided with a slot 10, of a locking catch having at one end a hook adapted to engage said slot and at the other end a finger-piece for convenience in operation. 25

In testimony whereof I affix my signature in presence of two witnesses.

FRANK RHIND.

Witnesses:

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S. V. RICHARDSON.