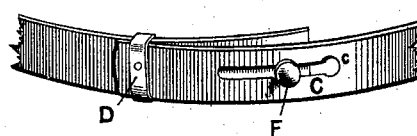
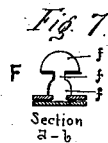
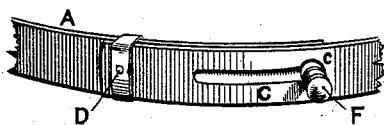
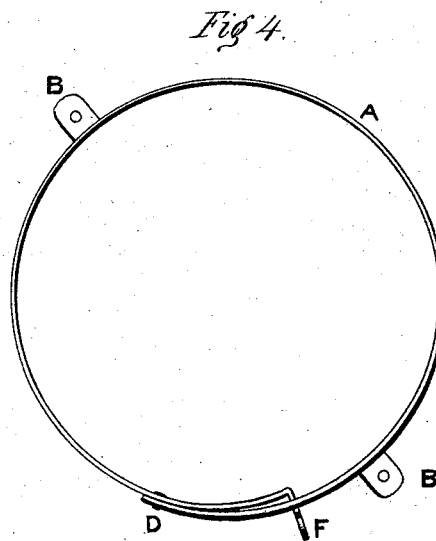
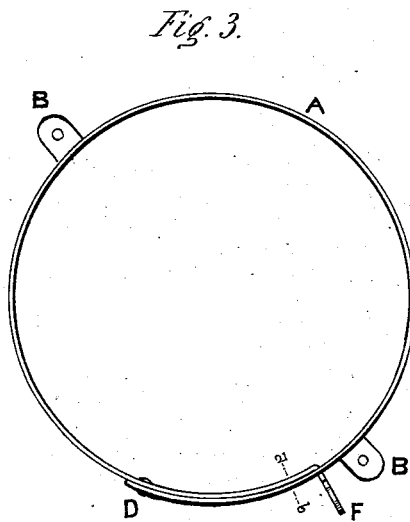
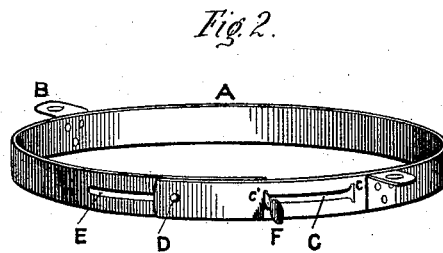
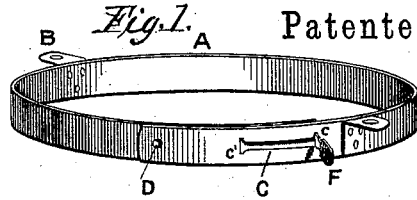


(No Model.)

J. I. JOHNSON.
SUSPENDING DEVICE.

No. 455,878.

Patented July 14, 1891.



WITNESSES
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L. B. Miller.

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UNITED STATES PATENT OFFICE.

JOHN I. JOHNSON, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE EDWARD MILLER & COMPANY, OF SAME PLACE.

SUSPENDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 455,878, dated July 14, 1891.

Application filed February 16, 1891. Serial No. 381,667. (No model.)

To all whom it may concern:

Be it known that I, JOHN I. JOHNSON, a citizen of the United States, residing at Meriden, Connecticut, have invented a new and useful Improvement in Suspending Devices, of which the following is a specification.

My invention relates to that class of suspending devices in which an expansible ring is used to support a lamp or other article, and is intended to produce a ring simple, easily operated, and not liable to accidental derangement.

In the accompanying drawings, Figure 1 represents in perspective a ring embodying my device in its closed or operative position. Fig. 2 is a similar view of the ring opened to its largest size. Figs. 3 and 4 are partial top plan views of the ring in its closed and partly-opened positions, respectively. Figs. 5 and 6 are partial perspective views showing modifications. Fig. 7 is a detail view of the part F shown in Figs. 1 to 4.

The same letters refer to like parts in the several views.

A designates a ring; B B, ears; C, a slot near one end of the ring A; $c c'$, enlarged portions of the slot C; D, a rivet; E, a slot in the other end of the ring A; F, a lug on the ring A, consisting of body f , neck f' , and head f'' .

In the example of my invention illustrated in Figs. 1 to 4 of the drawings the ring A may be made of any suitable material. It is preferably a flat resilient metal band with overlapping ends adapted when closed to surround a lamp or other article to be suspended immediately below a bead or projection on the lamp, said projection finding a seat on the upper edge of the closed ring. Ears B B on the ring A may be used to secure the ring to a "harp" or hanger. As shown, a shouldered rivet D in the outer end of the ring A plays in a longitudinal slot E, cut through the ring near its inner end. The function of this rivet and slot is to maintain the ring in a nearly circular form at all times and to limit its expansion. Near the outer end of the ring A is another longitudinal slot C, widened at its ends $c c'$. The lug F, attached to the ring A at or near its inner end, passes through the slot C. As shown, the lug F is an integral

portion of the ring A bent radially outward. The lug F consists of a body portion f of a width slightly less than that of the enlarged portions $c c'$ of the slot C, a neck f' slightly less in width than the body of the slot C, and a head f'' wider than any portion of the slot C. (See Fig. 7.) The ring A is resilient and so formed that the tendency of the inner end, which bears the lug C, is to press outward, while the tendency of the entire ring is to ward its expanded position.

The operation of the device will be readily understood from the drawings. In its closed or operative position (shown in Fig. 1) the body f of the lug F passes through the portion c of the slot C. It is plain that the effect of the lamp or other article supported in the ring will be to maintain this position and prevent accidental displacement. To remove the supported article, it is necessary to first raise it somewhat. A pressure on the head f'' will then force the inner end of the ring inward and disengage the body f from the portion c of the slot C. The neck f' passes freely through the body of the slot C until the body f of the lug engages with the portion c'' of the slot. The lamp or the like may then be removed downward through the enlarged ring. An opposite series of motions will of course replace it.

In the modification of my device shown in Figs. 5 and 6 of the drawings the enlarged portion c'' of the slot C is omitted. This, by preventing the body f of the lug F from entering the slot C when the ring is expanded, diminishes somewhat the effective capacity of the ring, and is not a preferable mode of construction. In these figures I have also shown the lug F as a separate piece of metal riveted to the ring A, and the slot E and rivet D replaced by a band secured to the outer end of the ring and clasping the inner end. I have shown these modifications as illustrative of the changes which may be made without departing from my invention.

United States Letters Patent No. 424,712 were granted on my application April 1, 1890, and it is evident that I do not claim as my present invention anything shown or described therein. I conceive, however, that

my present device is superior to that shown in my former patent, particularly as requiring less skill on the part of the operator.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

1. In an expansible ring adapted to the support of a lamp or similar article, the combination of overlapping ends, a longitudinal slot in the outer of said ends, said slot being widened at its inner end, and a projecting lug on the inner of said overlapping ends, said lug being formed with a body portion adapted to engage with the widened portion of said slot, and a neck adapted to pass through the body of said slot, substantially as described.

2. In an expansible ring adapted to the support of a lamp or similar article, the combination of overlapping ends, a longitudinal slot in the outer of said ends, said slot being widened at its inner end, and a projecting integral lug on the inner of said overlapping ends, said lug being formed with a body portion adapted to engage with the widened portion of said slot, and a neck adapted to pass through the body of said slot, substantially as described.

3. In an expansible ring adapted to the support of a lamp or similar article, the combination of overlapping ends, a longitudinal slot in the inner of said ends, a longitudinal slot in the outer of said ends, said slot being widened at its inner end, a headed pin in the outer of said ends, adapted to engage with the slot in the inner of said ends, and a lug on the inner of said ends, provided with a body portion of greater width and a neck of less width than the body of the slot in the outer of said ends, substantially as described.

4. In an expansible ring adapted to the support of a lamp or similar article, the combination of overlapping ends, a longitudinal slot in the outer of said ends, said slot being widened at each of its ends, and a projecting lug on the inner of said overlapping ends, said lug being provided with a body portion adapted to engage with the widened portions of said slot, and a neck adapted to pass through the body of said slot, substantially as described.

JOHN I. JOHNSON.

Witnesses:

GEO. L. COOPER,
I. B. MILLER.