(No Model.)

W. C. HOMAN.

HANGING LAMP.

No. 412,502. Patented Oct. 8, 1889.

Fig 1

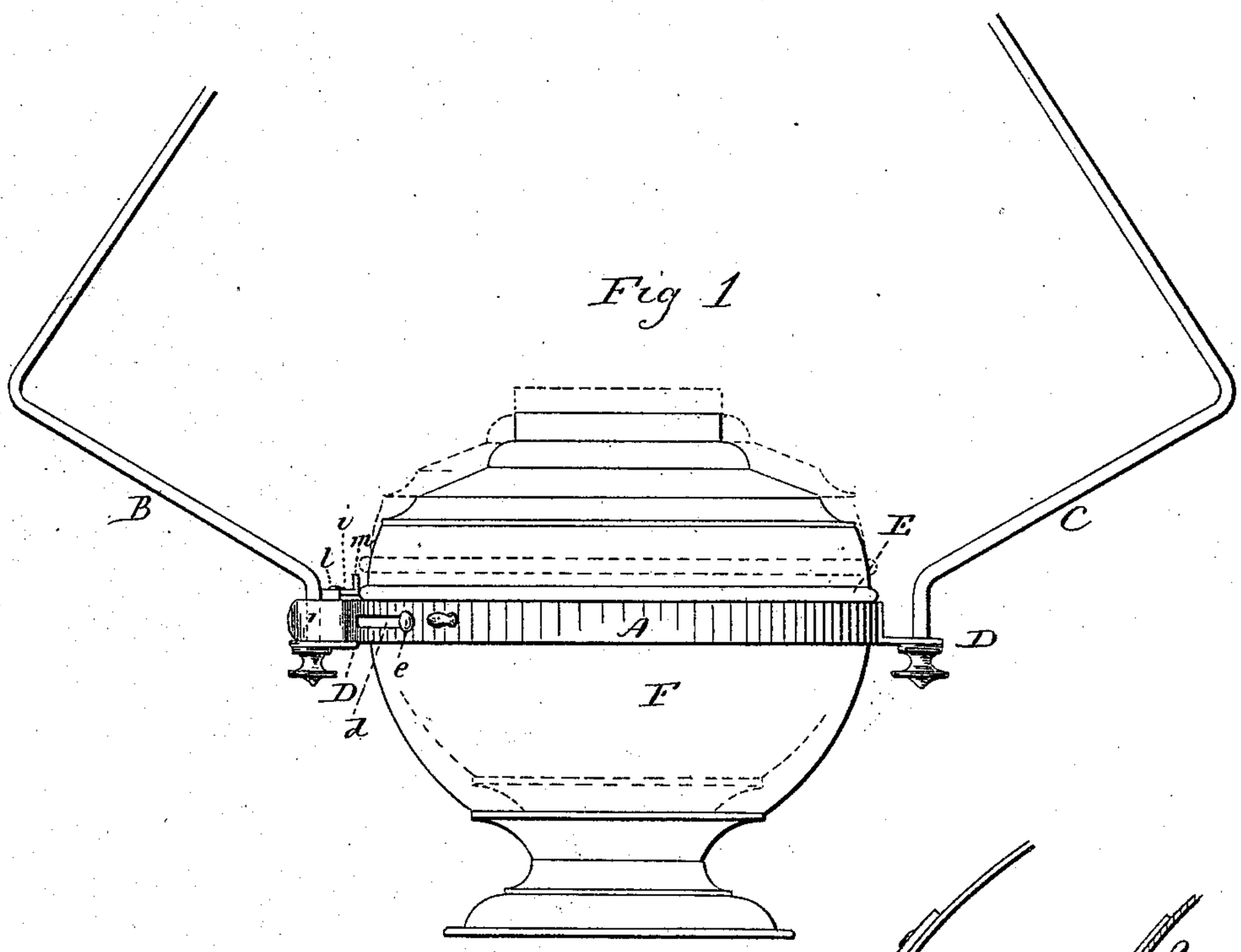


Fig. 4

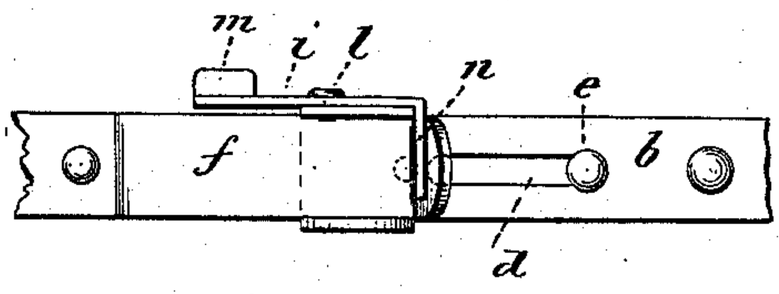


Fig. 5

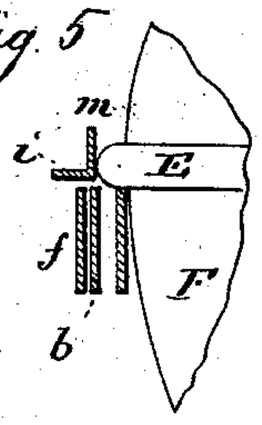


Fig. 6

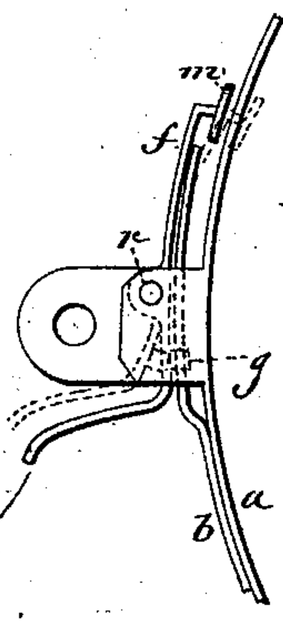


Fig. 2

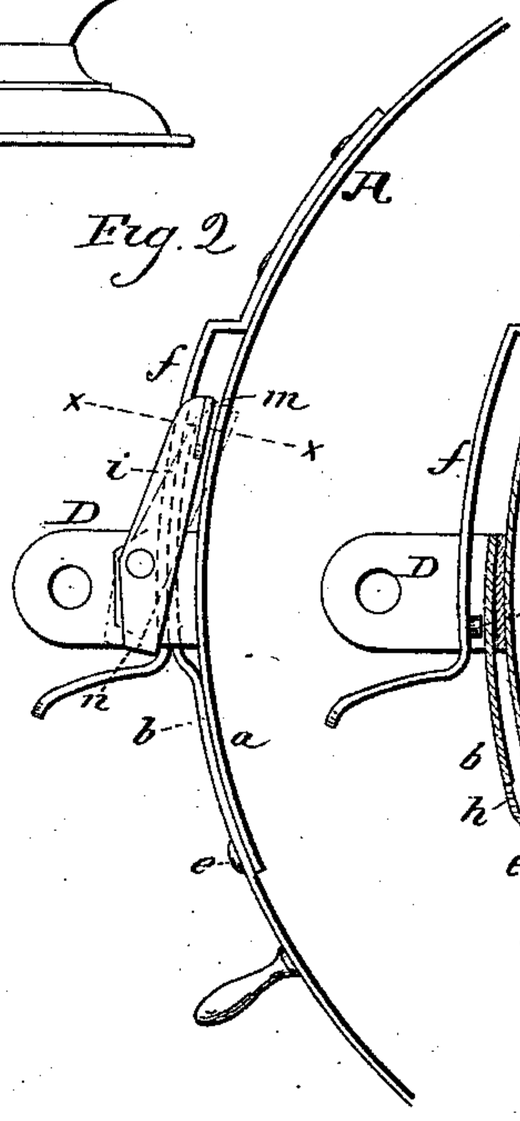
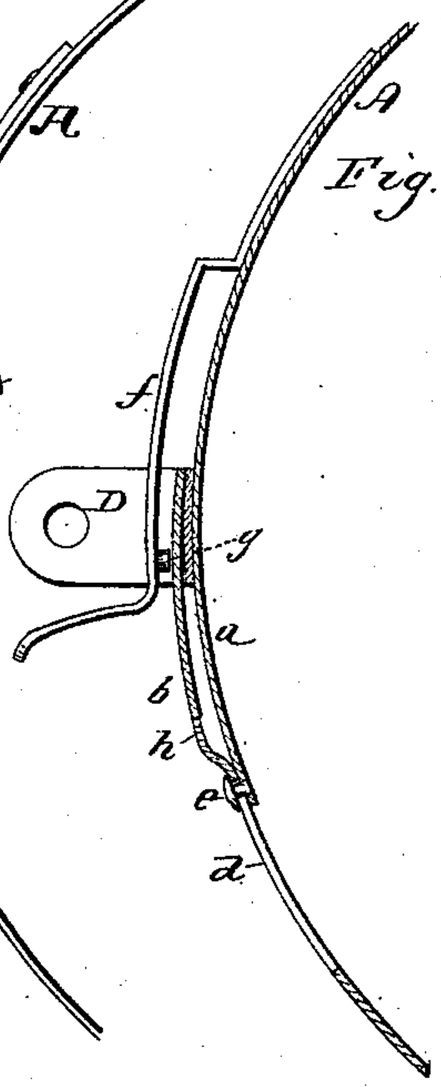


Fig. 3



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UNITED STATES PATENT OFFICE.

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HANGING LAMP.

SPECIFICATION forming part of Letters Patent No. 412,502, dated October 8, 1889.

Application filed May 24, 1889. Serial No. 311,966. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HOMAN, of Meriden, in the county of New Haven and State of Connecticut, have invented new Improvements in Hanging Lamps; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the fount-ring and a portion of the frame with the fount in place; Fig. 2, a top view of the fount-ring in the contracted position and showing the guard; Fig. 3, the same in the expanded position, showing the guard removed and the ring in partial horizontal section; Fig. 4, a side view looking directly upon the back of the latch; Fig. 5, a transverse section on line *x x* of Fig. 2; Fig. 6, a top view illustrating modification in the latch and guard.

This invention relates to an improvement in that class of lamps which are adapted to suspend a single lamp-fount from the ceiling, and in which the supporting device is a ring around the fount, with branches extending therefrom upward, so as to meet over the lamp at the point of suspension—such as commonly called "harps"—the object being to construct the ring so that the fount may be passed upward from the under side and be interlocked with the ring when in place, but yet so that the fount may be readily disengaged and removed from the ring without lifting the fount above the ring, this being desirable in hanging lamps in which a shade is employed, because it avoids tipping the fount to pass it with the chimney over the ring, as must be done when the fount is to be introduced or removed from above the ring; and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

A represents the ring; B and C, the two branches of the frame, extending upward from the ring at diametrically-opposite points, the two branches being brought together in the usual manner. This part of the frame may be any of the usual or desirable forms or styles, not being essential to the present invention.

The ring A is made from a strip of metal having a considerable degree of elasticity, and of a length greater than the circumference required for the ring, so that the two ends may overlap, *a*, Fig. 2, representing the inner, and *b* the outer overlapping end.

The frame is attached by ears D D at diametrically-opposite points on the frame, these ears, as here represented, being made from sheet metal secured to the ring. One of the overlapping ends (here represented as the outer end *b*) is constructed with a circumferential slot *d*, and the inner overlapping end is provided with a headed stud *e*, extending through the said slot, as seen in Fig. 3, the slot and stud permitting the overlapping ends to slide one upon the other for the expansion or contraction of the ring. The ring in its expanded condition, as seen in Fig. 3, is so much greater in diameter than the shoulder E on the fount F that the fount may readily pass through the ring from the under side until the shoulder E is above; then the ring may be contracted until it is of a diameter less than the shoulder E, and so that the fount, then free, may rest thereon. To interlock the two ends of the ring when in the contracted position, a spring-latch *f* is attached upon the outer side of the ring near one end and so that the other end of the ring may pass between the said latch and that part of the ring to which the latch is attached, and as represented in Fig. 2. The latch upon its inside is provided with a stud or nose *g*, which in the contracted position of the ring will enter a corresponding hole or notch *h* in the other end of the ring, and as represented in Fig. 2. Thus interlocked the ring is held in the contracted position and so as to support the fount. If the latch be drawn outward so as to disengage the ring, then the natural elasticity of the ring will cause it to spread, as represented in Fig. 3, the slot *d* limiting the expansion of the ring. The overlapping of the end of the ring should be as seen in Fig. 3, so that the overlapping end will not pass from under the stud *g* of the latch.

When the fount is in place, as before described, and the ring contracted, the spring-latch *f* automatically springs into engagement with the other part of the ring, so as to se-

curely hold the ring in that contracted condition.

To avoid accidental disengagement of the ring when the fount is in place, I provide a guard *i*, hinged to that part of the ring to which the latch is attached, as upon a pivot *l*. This guard is upon the upper edge of the ring, and from it a finger *m* projects inward, so as to bear against the shoulder E of the fount, as seen in Figs. 1 and 5. From the other end of the guard a finger *n* extends downward upon the back of the latch, as seen in Figs. 2 and 4, and the fingers *m* and *n* are in such relation to each other that when the fount is in place, as seen in Fig. 1, the finger *m* bearing against the fount will be prevented from moving inward, and will hold the finger *n* against the back of the latch, as seen in Fig. 2, and serve as a guard to prevent the turning of the latch to disengage the ring; but so soon as the fount is removed to take the shoulder E away from the finger *m* then the guard is free to turn, as indicated in broken lines, Fig. 2, and so as to permit the latch to be disengaged for the expansion of the ring.

To remove the fount after it has been set in place, as before described, and the latch locked in engagement, it will be necessary to raise the fount, as seen in broken lines, Fig. 1, until the shoulder E is out of engagement with the finger *m*, and when the fount is so raised the latch may be disengaged and the ring expanded; then the fount can be drawn down through the ring. In replacing, the fount is passed up through the ring until the shoulder E is above the finger *m*, as in broken lines, Fig. 1. In that position the ring is contracted and the latch engaged; then the fount, dropped upon the ring, presses upon the finger *m* and turns the guard to bear upon the latch and so as to prevent possible disengagement, as before described.

Instead of making the guard as an independent hinged piece, it may be made integral with the latch, as seen in Fig. 6, the latch being hung upon a pivot *r* on its part of the ring, one arm extending forward and carrying the stud *g*, to engage the other part of the ring, the other arm extending in the opposite direction and terminating in the finger *m*, and so that, in order that the latch may be turned outward to disengage the ring, the finger must correspondingly move inward, as indicated in broken lines, Fig. 6. In this case the latch may be rigid—that is, so that it need not be operated as a spring, but be mechanically turned to produce the engagement, and when so engaged and the fount in place the returning of the latch will be prevented.

I have represented the slot *d* as in the outer overlapping end of the ring and the stud upon the inner overlapping end; but it will be understood that this order may be reversed, the slot being in the inner portion and the stud in the outer portion. This reversal does not require illustration. It will also be understood that the engaging devices between the latch and the ring may be reversed—that is, the projection of the spring and the notch on the latch—without departing from this invention, such modification being too apparent to require illustration.

I am aware that divided rings for the support of various articles have been employed, the ends of the ring overlapping and secured together around the body to be supported in the ring or for the support of the ring. I therefore do not wish to be understood as claiming, broadly, a divided ring having its ends overlapped and such overlapping ends adapted to be secured together.

I claim—

1. In a hanging lamp, the ring for the support of the fount, divided, its ends overlapping, and adapted for expansion and contraction, the ring supported upon the frame, and the overlapping ends of the ring, the one provided with a latch and the other constructed to engage said latch when in the contracted position, substantially as described.

2. The fount-supporting ring of a hanging lamp, constructed from a strip of metal, its two ends overlapping, the one constructed with a circumferential slot and the other with a corresponding headed stud through said slot, to permit the expansion and contraction of the ring, combined with a spring-latch upon one end, the other end constructed for engagement with said latch when the ring is in the contracted position, substantially as described.

3. The fount-supporting ring of a hanging lamp, constructed from a strip of metal, its ends overlapping, combined with a latch upon one of said ends adapted to engage the other of said ends when in the contracted position, and a guard between the said latch and fount, substantially as described, and whereby when the fount is in place the said guard is brought into contact therewith to hold the latch in its engaged position, substantially as described.

4. The fount-supporting ring of a hanging lamp, constructed from a strip of metal, its ends overlapping, combined with a spring-latch upon one of said ends and adapted to engage the other of said ends when the ring is in the contracted position, a guard hung upon said ring to swing in a horizontal plane, one end of said guard adapted to bear upon the back of said spring-latch, the other end of said guard adapted to bear against the fount when the fount is set upon the ring, substantially as and for the purpose described.

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