

No. 894,433.

PATENTED JULY 28, 1908.

A. H. HANDLAN, JR.
LANTERN FRAME.

APPLICATION FILED JAN. 27, 1908.

Fig. I.

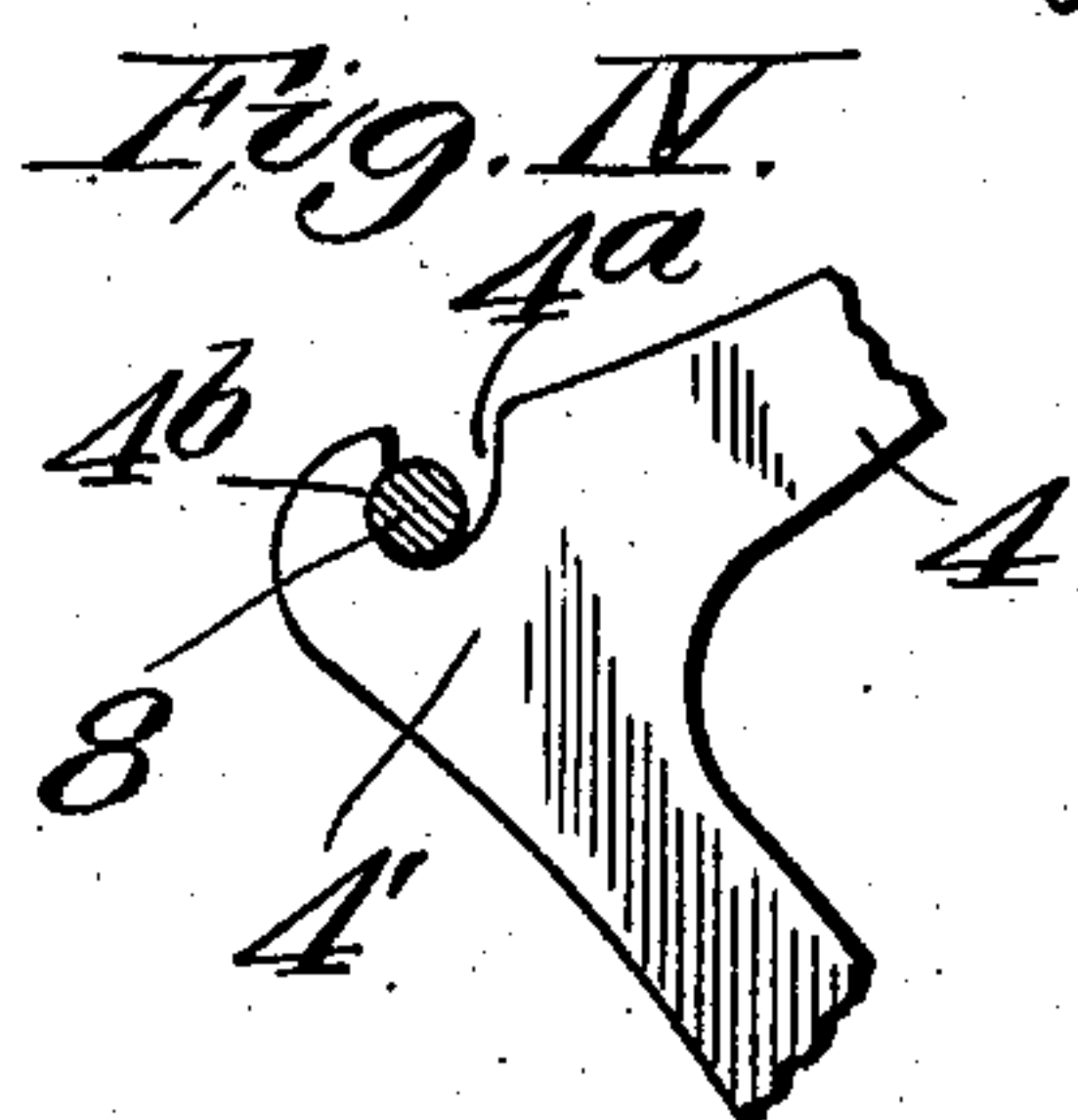
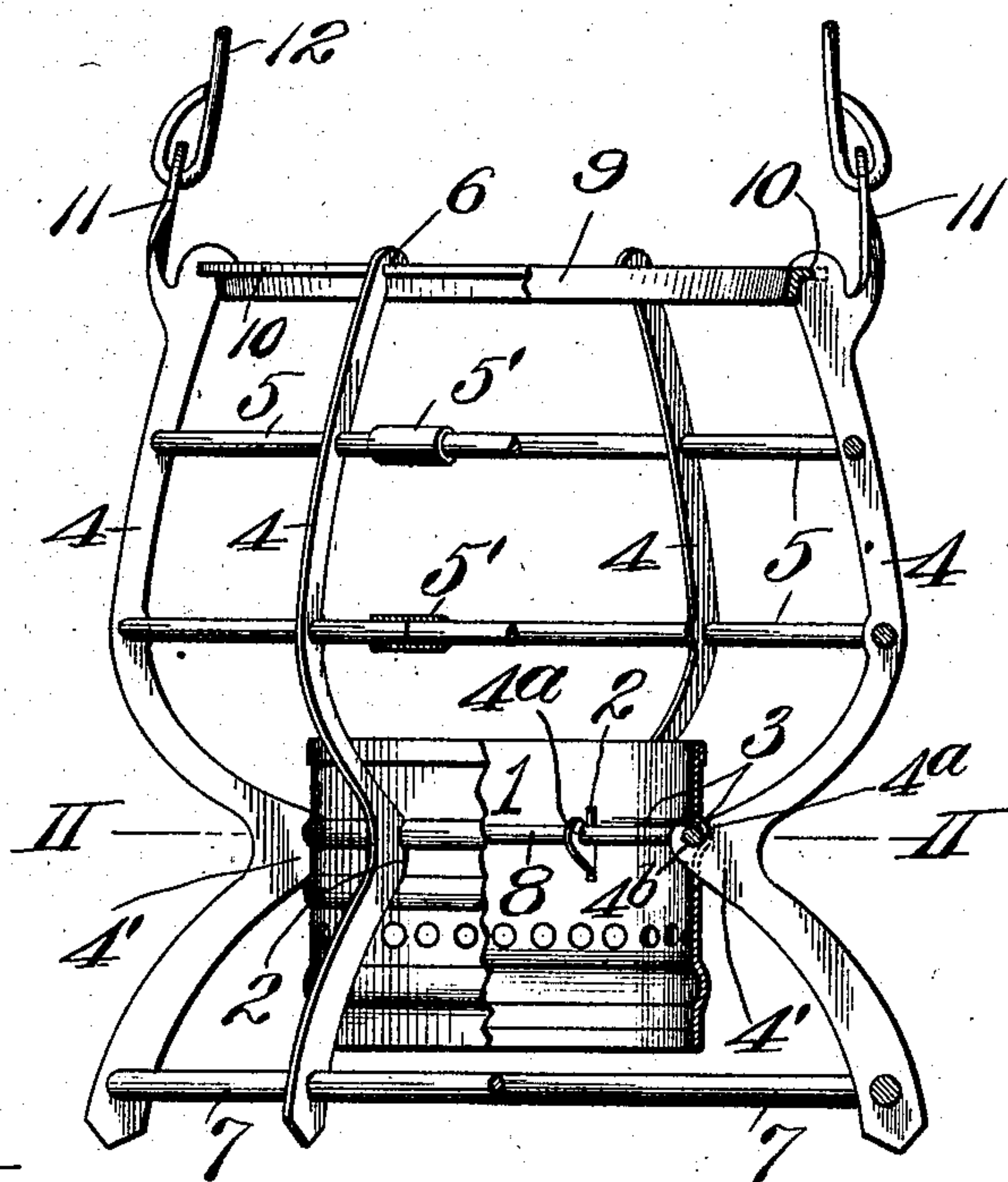
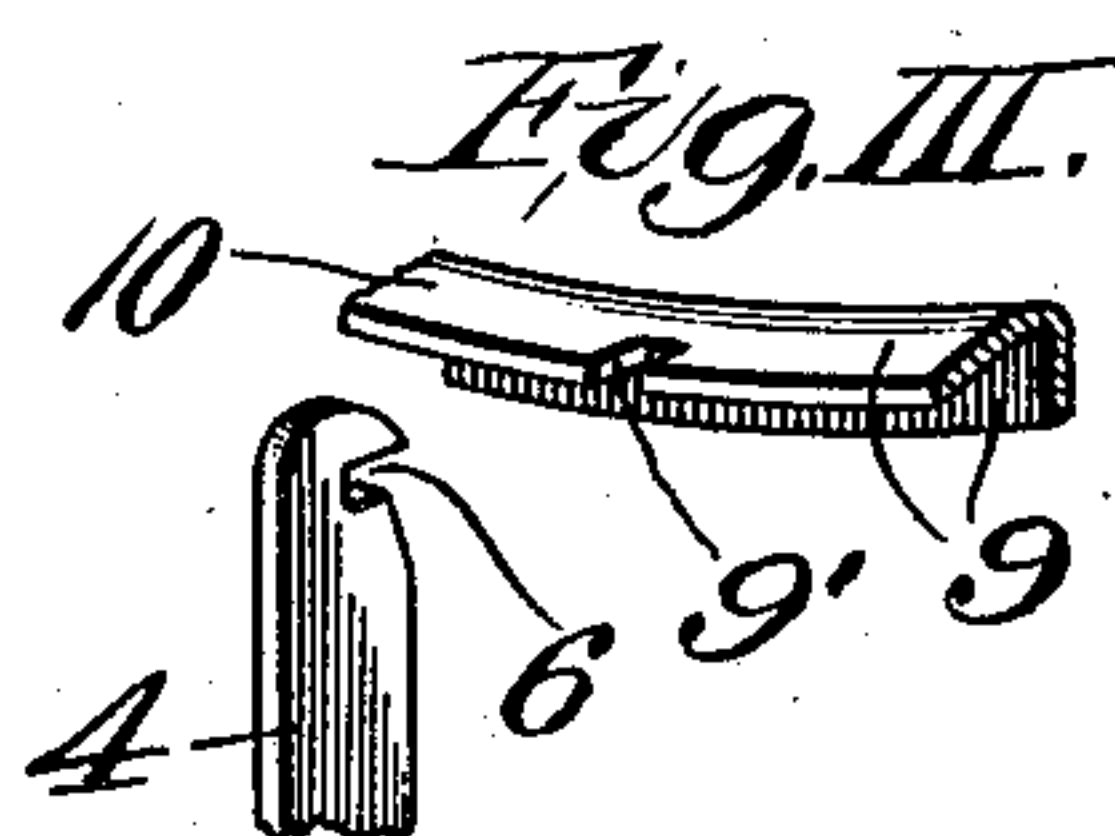
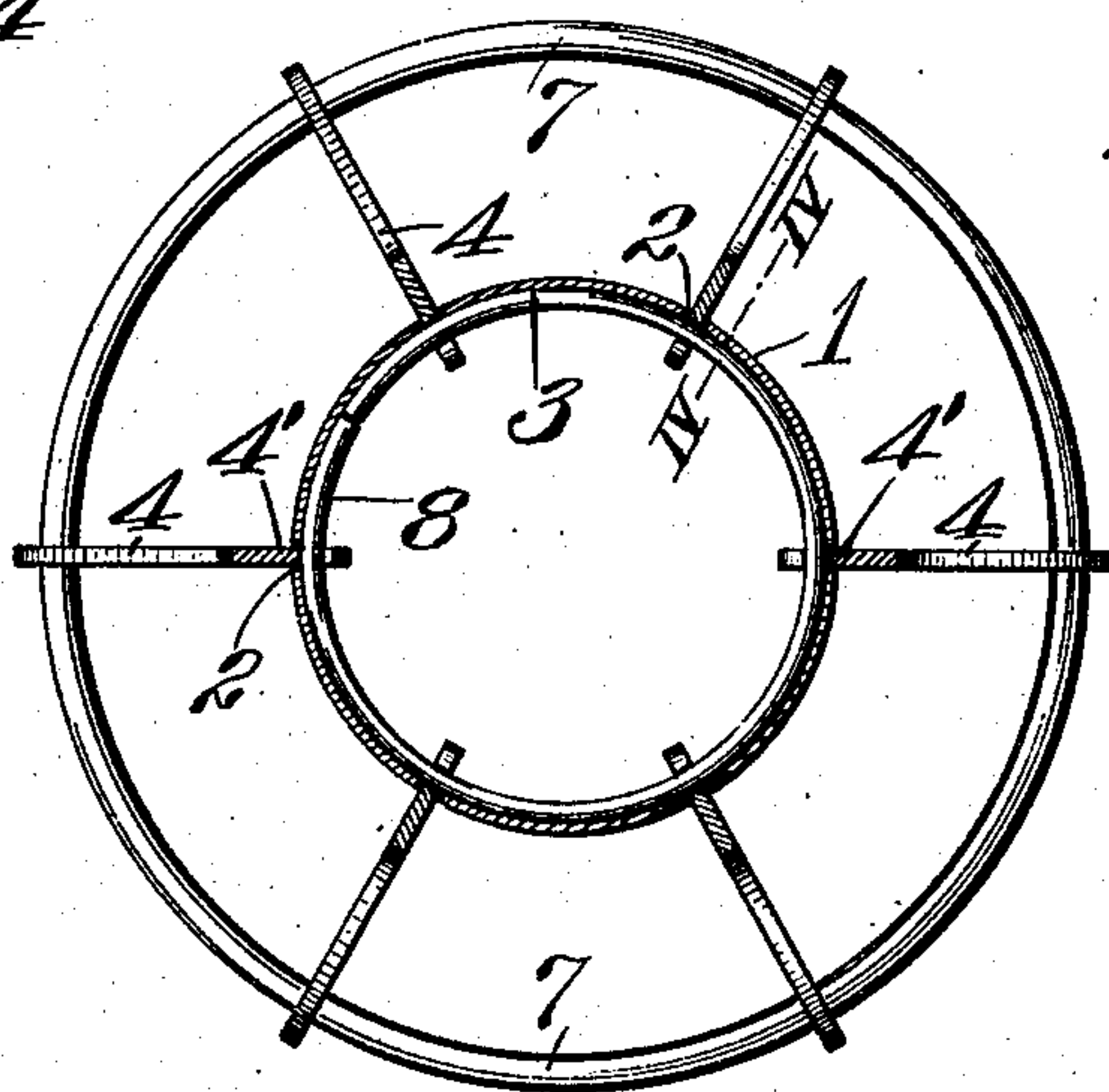


Fig. II.



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LANTERN-FRAME.

No. 894,433.

Specification of Letters Patent.

Patented July 28, 1908.

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To all whom it may concern:

Be it known that I, ALEXANDER H. HANDLAN, Jr., a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Lantern-Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the frame of hand lanterns of the kind commonly used upon railways and it has for its object the production of a frame of this description so constructed that skilled labor will not be required in the manufacture of the frame to solder the joints as is necessary in lantern frames of the kind named as ordinarily made.

Figure I is a view partly in elevation and partly in vertical section of my lantern frame. Fig. II is a horizontal section taken on line II—II, Fig. I., and Fig. III is a perspective view of a fragment of the distance ring and the upper end of one of the vertical guard members, and Fig. IV is a cross section taken on line IV—IV, Fig. II.

In the accompanying drawings: 1 designates the binding band or fount receiving band of my lantern frame. This band is provided at intervals with vertical slots 2 and it has an internal annular groove 3 which is intersected by said slots.

4 designates the vertical guard members of the lantern frame which are made with upper arms that extend above the points at which the vertical slots and internal annular groove are located in the binding band 1 when said vertical members are connected to said band, and lower arms that extend beneath said point when the parts are united. The upper arms of the vertical guard members are provided with perforations that receive guard rings 5 and they are also provided at their upper extremities with transverse notches 6 into which are fitted a member to be hereinafter more particularly referred to. The lower arms of the vertical guard members are provided with perforations that receive a lower tie ring 7 by which the arms are held from either inward or outward movement after they are put in place as parts of the lantern frame. At the junction of the upper and lower guard members, which guard members extend inwardly toward the binding band 1 at this point, as seen in Fig. I, are inwardly extending arms 4' that are

adapted to be introduced through the vertical slots 2 in the binding band 1. These arms are provided with vertical openings or notches 4^a by virtue of which the arms 4' are rendered hook arms.

8 is an annular retaining ring that occupies the annular groove 3 in the binding band 1 and which is adapted to be engaged by the hook arms 4' when said arms are inserted through the vertical slots in the retaining band beneath the retaining ring and are then moved upwardly until the vertical openings or notches of the arms receive said ring.

In the assembling of my lantern frame the series of vertical guard members 4 are connected to the binding band 1 as the initial step of assembling the parts of the frame. The vertical members are then held in a suitable frame and the tie ring 7 is threaded through the perforations in the lower arms of said vertical members for the purpose of tying said arms together in their equidistant positions. The guard rings 5 are then threaded through the perforations in the upper arms of the vertical guard members and their ends when brought into abutment with each other are connected to hold them from separation by coupling sleeves 5' slidably fitted to the rings. 9 is a distance ring that is introduced between the upper arms of the vertical guard members and which is provided with an outwardly projecting flange 10 that enters into the transverse notches 6 at the upper extremities of said guard member arms. This distance ring acts not only to restrain the upper arms of the vertical guard members from inward movement but also serves to stiffen the upper end of the lantern frame. The flange 10 of the distance ring is provided with horizontal notches 9', see Fig. III, and dotted lines Fig. I, which receive the upper ends of the vertical guard members when said guard members are fitted to said ring. This construction in conjunction with the feature of the transverse notches 6 in the vertical guard members, provides for the interlocking of the vertical guard members with the distance ring in order that the parts will not shift relative to each other.

After all of the parts of my lantern frame have been assembled in the manner described the frame is dipped in fluid solder and the various joints therein receive a coating of solder with the result of closing said joints and firmly uniting all of the members.

It will be seen that the herein described

lantern frame is one which may be readily put together and rendered complete by unskilled labor inasmuch as it is only necessary in constructing the frame to properly assemble the different members and then cause them to be held assembled by the simple act of dipping the frame into fluid solder instead of following the laborious method of soldering each separate joint which necessitates the employment of skilled labor.

Two of the vertical guard members of the lantern frame are provided with ears that are adapted to receive a bail.

As shown in Fig. IV, the outer wall of each vertical opening or notch 4^a in the hook arms of the vertical guard members is provided with an off-set seat 4^b into which the retaining ring 8 enters when the guard members are introduced into the binding band 1. The object in providing this seat in the outer walls of the vertical openings or notches is to prevent slippage of the retaining ring from the hook arms of the vertical guard members after one or more of said hook arms have been placed in engagement with the retaining ring and the other hook arms are being placed in such engagement.

I claim:

1. In a lantern frame, a binding band having vertical slots, a retaining ring located within said binding band, a plurality of vertical guard members each having hook arms formed with vertical openings and extending inwardly through the vertical slots of said binding band, and engaging said retaining ring which seats therein through the vertical openings, and means whereby said guard members are connected above and beneath the point of connection thereof to said binding band, substantially as set forth.

2. In a lantern frame, a binding band having vertical slots, a retaining ring located within said binding band, a plurality of vertical guard members each having hook arms formed with vertical openings and extending inwardly through the vertical slots of said binding band, and engaging said retaining ring which seats therein through the vertical openings, rings whereby said guard members are connected above and beneath the point of connection thereof to said binding band, substantially as set forth.

3. In a lantern frame, a binding band having vertical slots, a retaining ring located within said binding band, a plurality of vertical guard members each having hook arms formed with vertical openings extending inwardly through the vertical slots of said binding band, and engaging said retaining ring which seats therein through the vertical openings, rings whereby said guard members are connected above and beneath the point of connection thereof to said binding band, and a distance ring interposed between the upper ends of said guard members, substantially as set forth.

4. In a lantern frame, a binding band having vertical slots, a retaining ring located within said binding band, a plurality of vertical guard members each having hook arms extending inwardly through the vertical slots of said binding band, and engaging said retaining ring which seats therein through the vertical openings, and means whereby said guard members are connected above and beneath the point of connection thereof to said binding band; said hook arms having vertical notches extending transversely thereof and the outer walls of which are provided with curved seats into which said retaining ring enters, substantially as set forth.

5. In a lantern frame, a binding band having vertical slots and an annular groove extending across the vertical slots, a retaining ring located within said binding band and fitting in the annular groove, a plurality of vertical guard members each having hook arms extending inwardly through the vertical slots of said binding band, and engaging said retaining ring which seats therein through the vertical openings, and means whereby said guard members are connected above and beneath the point of connection thereof to said binding band; said hook arms having vertical notches extending transversely thereof and the outer walls of which are provided with curved seats into which said retaining ring enters, substantially as set forth.

ALEXANDER H. HANDLAN, Jr.

In the presence of—

LILY ROST,
E. S. KNIGHT.