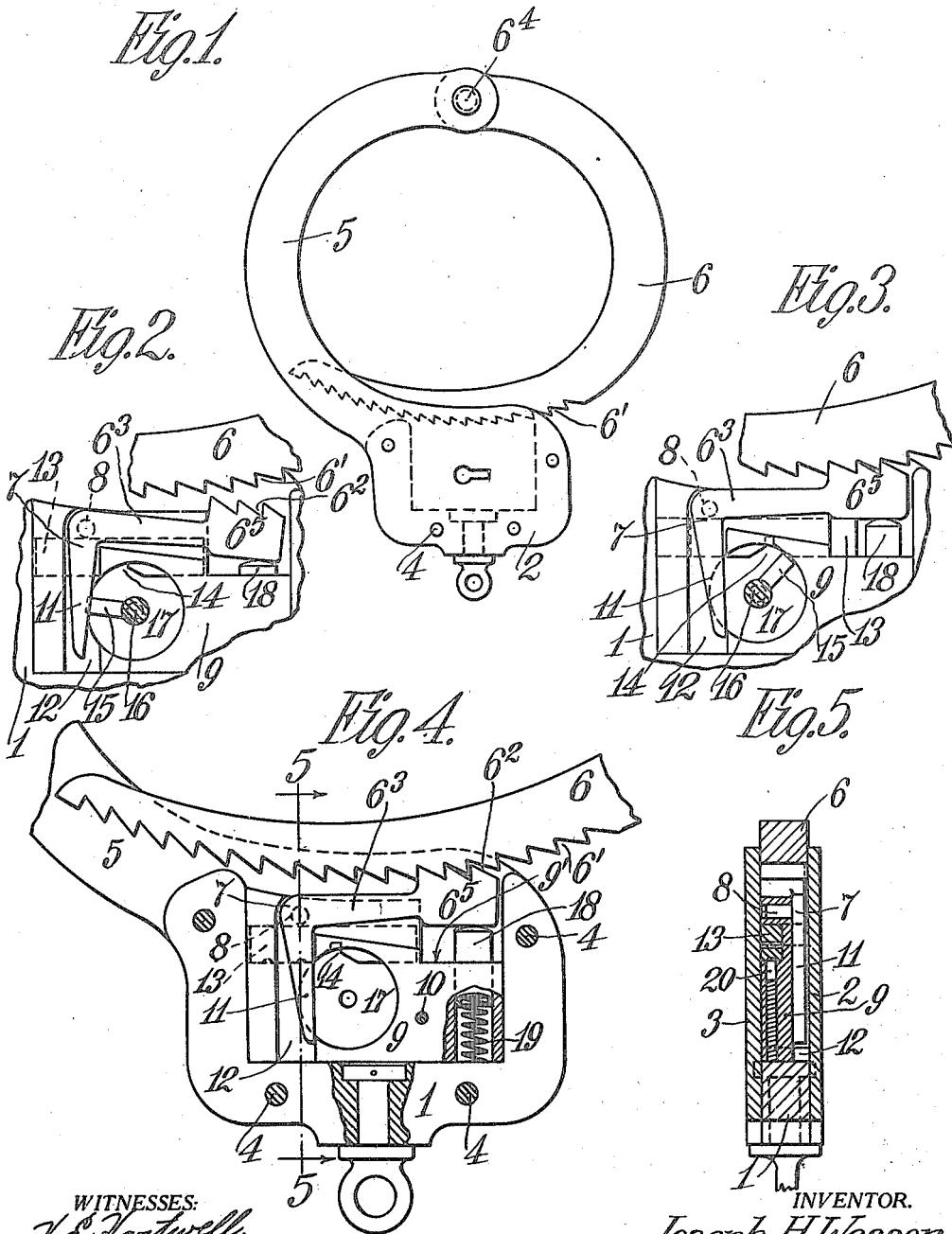


J. H. WESSON.  
 HANDCUFF.  
 APPLICATION FILED OCT. 6, 1914.

1,161,562.

Patented Nov. 23, 1915.



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# UNITED STATES PATENT OFFICE.

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## HANDCUFF.

1,161,562.

Specification of Letters Patent.

Patented Nov. 23, 1915.

Application filed October 6, 1914. Serial No. 865,286.

*To all whom it may concern:*

Be it known that I, JOSEPH H. WESSON, a citizen of the United States of America, residing in the city of Springfield, county of Hampden, and State of Massachusetts, have invented certain new and useful Improvements in Handcuffs, of which the following is a specification.

My invention relates to an improved lock for use with and in a handcuff.

The improvement is particularly adapted for a handcuff with a pivoted and rotatable locking arm.

The objects of the invention are to provide for the rotatable locking arm of the handcuff an improved lock which may be actuated for any one of the following purposes,—first, to permit the rotation of the locking arm in either direction; second, to prevent the rotation of the arm in one direction only; and third, to prevent the rotation of the arm in either direction.

The preferred form of lock for the objects stated is shown in the accompanying drawings and the scope of the invention is defined in the appended claims.

I attain these above objects by means of the devices shown in the accompanying drawings, in which:

Figure 1 is a side elevational view showing the complete handcuff. Fig. 2 is a detail view showing a portion of the serrated locking arm, disengaged from its locking latch for permitting the arm to swing freely about its pivotal attachment, the latch being held in its inoperative position by means of the key. Fig. 3 is a view showing the arm locked and the slidable bolt moved under the locking latch to prevent the locking arm of the handcuff from being moved in either direction. Fig. 4 is a view similar to Fig. 1, on an enlarged scale, showing the position of the parts after the locking arm has been moved to its locking position and before the slidable bolt is moved under the locking latch. Fig. 5 is a vertical sectional view on the line 5—5 of Fig. 4.

Similar reference numerals refer to similar parts in all of the views.

The casing inclosing the operative devices includes a U-shaped base or center piece 1, and the two side plates 2 and 3 which are each secured to the center piece 1 by means of rivets, indicated at 4. Integral with side plates 2 and 3 are a pair of fixed up-

wardly extending spaced arms 5 which are nearly semi-circular in form, and between the free or outer ends of these arms is pivotally attached by means of pivot pin 6<sup>4</sup> the locking arm 6 of the handcuff. This locking arm has formed on the outer edge and at the end thereof notches or serrations 6<sup>7</sup> for the purpose of engaging correspondingly shaped serrations 6<sup>2</sup> on the upper edge of the arm 6<sup>3</sup> of the angular-shaped locking latch element 7, which element is pivotally mounted on a pin 8 that is located in the upper part of a block 9. This block is retained within the U-shaped member 1 by means of a pin 10. The other, or depending arm 11 of the angular shaped locking latch element 7, is located within the space 12, back of the block 9 and adjacent the plate 2.

13 designates a slidable bolt that is located within a recess in the block 9, as shown in Fig. 5, and rests upon the upper edge 9<sup>7</sup> of the block 9. The lower edge of this bolt is formed with a notch 14 having inclined walls, as shown, for receiving the wing 15 of the key 16, which travels in a recess 17 of the block, whereby the bolt 13 may be slid in opposite directions depending upon the direction in which the key is turned.

Engaging the lower side of the arm 6<sup>3</sup> is a plunger 18 that is normally pressed upward by means of the spring 19, which, in turn will move the teeth 6<sup>2</sup> of the locking latch-member 7, into engagement with the teeth 6<sup>7</sup> of the locking arm 6, unless the latch member 7 is moved to its inoperative position by means of the key 16, as shown in Fig. 2. It will be noticed from Fig. 2 that when the key 16 is turned left handed the locking latch-member 7 is moved to its inoperative position and that the slidable bolt 13 is also moved, away from the underside of the end 6<sup>5</sup> of the arm 6<sup>3</sup>, as shown in this figure, and when the key 16 is turned right handed, as shown in Fig. 3, the locking arm 6<sup>3</sup> is elevated by the plunger 18, and the slidable bolt 13 is also moved under the end 6<sup>5</sup> of the arm 6<sup>3</sup>, whereby the locking arm 6 is prevented from turning in either direction, as shown in Fig. 3.

When the key is removed as shown in Fig. 4, the spring pressed plunger 18 will permit the teeth 6<sup>7</sup> of the locking arm 6 to slip over the teeth 6<sup>2</sup> of the arm 6<sup>3</sup> in one direction only but will not allow the locking arm 6 to be moved in a reverse direction. This

figure represents the normal position of the parts of the handcuff but readily permits its application for the purpose intended. It is of course understood that the locking arm 5 6 can, with the parts as shown in Fig. 4, be freely rotated clockwise through a complete circle. In order to retain the slidable bolt 13 in either its operative or inoperative position, a spring pressed retaining pin 20 10 engages recesses in the lower edge of the bolt. This retaining pin, as will be understood, readily permits the slidable bolt to be moved by the key 16 when desired.

It will be seen from my invention that the improvement permits the locking arm 6 to be moved or rotated, first, freely about its pivotal connection in either direction, or, second, it permits the locking arm 6 to be rotated freely in one direction only, but will 20 not permit of its being moved in a reverse direction when the serrations are in engagement, and, third, means are provided to prevent the locking arm from being rotated in either direction.

25 What I claim is:

1. The combination with a handcuff, having a pivoted locking arm arranged to swing through a complete circle, said arm having serrations on one edge thereof, of a lock 30 comprising an angular shaped latch with serrations to engage those of the locking arm, spring-pressed plunger means for automatically moving the latch in position for said serrations to engage each other and 35 prevent the locking arm from turning in one direction through the complete circle, means operable to prevent the turning of said arm in either direction, comprising a slidable bolt movable against the locking latch to hold 40 it in locked position and means to retain the sliding bolt in its position against the latch.

2. The combination, with a handcuff, having a pivoted locking arm arranged to swing 45 through a complete circle, said arm having serrations on one edge thereof, of a lock comprising an angular-shaped pivoted latch with serrations on one arm to engage those of the locking arm and the other arm of 50 which latch is adapted to be operated by a key for moving the latch out of engagement with the arm, a spring actuated plunger independently operable to move the latch into engagement with the locking arm thereby 55 to prevent the latter from a complete rotation, in one direction, a slidable bolt pro-

vided with a recess whereby the key may move the bolt against the latch to hold it in fixed position in engagement with the locking-arm, and thereby prevent any movement of the latter on its pivot. 60

3. The combination with a handcuff, having a pivoted locking arm arranged to swing through a complete circle, said arm having serrations on one edge thereof, of a lock 65 comprising an angular-shaped pivoted latch with serrations on one arm to engage those of the locking-arm and lock the latter, the other arm of which latch is adapted to be operated by a key when turned in one 70 direction to move the latch to an inoperative position, a spring actuated plunger operable to move the latch so its serrations engage the locking arm thereby to prevent said arm from moving a complete circle in 75 one direction and to permit the arm to so move in the other direction, a slidable bolt operable by the key when turned in the opposite direction to hold the latch in fixed position against the arm and thus prevent 80 the movement of the locking arm in either direction.

4. The combination with a handcuff, having a casing formed with rigid arms connected thereto, a locking arm pivotally supported on said rigid arms to swing through 85 a complete circle, said arm having serrations on one edge thereof, a recessed block secured to and located within the casing, of a lock comprising an angular shaped latch pivoted 90 in the block and having one arm formed with serrations to engage those of the locking arm, a notched-slidable bolt located within the recess of the block and operable to prevent said latch from moving away 95 from the locking arm, a spring actuated plunger normally engaging the serrated end of the locking arm to cause the automatic locking of the arm against movement in one direction, a spring-pressed pin to 100 retain said slidable bolt in operative or inoperative position, all constructed and arranged so that the plunger will prevent the locking arm from movement past the casing except to locking position, and said bolt may 105 be operated to hold the latch in position to lock the arm against any movement on its pivot.

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Witnesses:

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