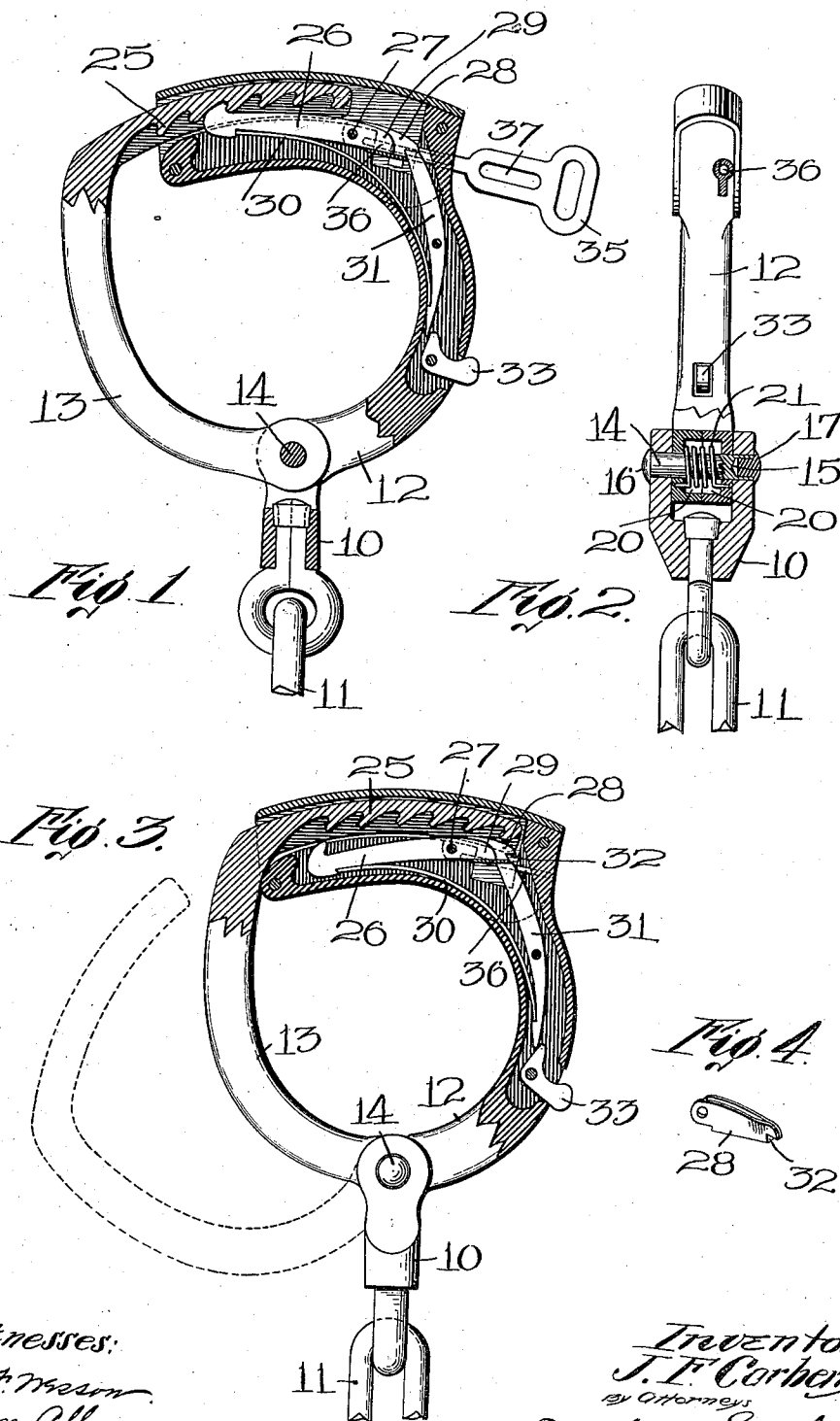


J. F. CARBERRY.
HANDCUFF.
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1,014,118.

Patented Jan. 9, 1912.



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UNITED STATES PATENT OFFICE.

JAMES F. CARBERRY, OF WORCESTER, MASSACHUSETTS.

HANDCUFF.

1,014,118.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES F. CARBERRY, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Handcuff, of which the following is a specification.

The principal objects of this invention are to provide a construction of hand-cuff of a simple and inexpensive type with means where it will be impossible to unlock it by introducing a blade or the like at the end of one of the arms into position for engaging the locking lever; also to provide means whereby a single spring can be employed for operating the locking lever and the retaining lever which prevents it from moving into locking position; and to provide a construction in which the parts can be individually buffed and nickel-plated before they are assembled.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a side view partially in central longitudinal section showing a preferred embodiment of this invention in locked condition; Fig. 2 is an end view of the same partly in section through the pivot pin; Fig. 3 is a view similar to Fig. 2 showing the parts in position in which the handcuff can be opened; and Fig. 4 is a perspective view of a detail thereof.

The invention is shown in a form in which the hand-cuff is provided with the usual swivel member 10 connected in any desired way with a chain 11 or the like for connecting a pair of hand-cuffs together. The two arms 12 and 13 of a hand-cuff are pivoted together by means of a pivot pin 14 which extends through the member 10. This pivot pin is provided with a central axial opening 15 at one end and with a rivet head 16 at the other. In the former is driven a pin 17 also having a rivet head. The two heads abut against the outer surfaces of the member 10. With this construction the several parts of the device can be buffed and nickel-plated separately and assembled afterward. This is an important advantage, because it is a very difficult matter to polish the parts of a device of this kind after they are assembled so as to nickel-plate and buff them in a neat and expeditious manner. After the parts are nickel-plated

and assembled the pin 17 is driven in, and it has been found in practice that by making it with a driving fit the best results are secured.

Each of the two arms 12 and 13 is provided with a counterbored opening 20 which two openings together form a chamber surrounding the pivot pin, and in this chamber is located a spiral spring 21. The ends of this spring are extended outwardly into perforations in the walls of the two chambers so that the ends of the spring are fixed to the two arms. This spring is coiled right handedly about the pin in such a way that when the two arms are together in the position shown in full lines in Fig. 3 there is practically no tension on the spring, and consequently it does not tend to lose its resiliency when the hand cuffs are out of service. On the other hand when the arms are open as indicated in dotted lines in Fig. 3, the spring is put under tension and normally tends to spring the arms back to closed position.

The arm 13 is provided with a rack 25 having teeth for receiving a projection on the end of a locking lever 26. The locking lever is pivoted on a pin 27 fixed on the arm 12. Also pivoted on this arm is a pawl 28 having two side walls and a bottom wall. It is through the two side walls that the pin 27 passes to pivot this pawl at its end. The lever 26 has a projection 29 projecting beyond the pivot pin into the interior of this pawl so as to bear on the bottom wall thereof when the pawl is lifted from the position shown in Fig. 1 to that shown in Fig. 3. In this way it will be seen that the pawl cannot move up without moving the lever down to the position shown in Fig. 3, but when the pawl is down the locking lever 26 is free to move in both ways. Also when the parts are in the position shown in Fig. 1, if the pawl is raised by introducing a thin blade or the like from the left, the spring 30 which normally forces the locking lever into locking position, will force the lever right back into locking position and the lever cannot be tampered with to the extent of unlocking the hand-cuff. A retaining lever 31 is employed having a projecting end adapted to engage in a notch 32 in the end of the pawl 28 to hold the parts in the position shown in Fig. 1. This is operated by a thumb latch 33 in an obvious manner. This pawl holds the locking lever

31 in position even if the lever 36 is temporarily disengaged from the rack 25. The spring 30 operates both the levers 26 and 31, and normally holds the retaining lever back where it cannot move into locking position unless positively moved.

In order to unlock the parts from the position shown in Fig. 1 a barrel key 35 is introduced over a pin 36 and turned so as to lift the pawl 28, when the spring 30 will force the lever 31 inwardly at the top so that it will be disengaged from the notch in the pawl and will come up under the end of the bottom plate thereof which will hold the locking lever down as indicated in Fig. 3. Now if it is desired to lock the hand cuff the latch 33 is operated to force the lower end of the lever 31 inwardly until the upper end moves out into position to enter the notch in the pawl when the spring 30 forces the parts into the position shown in Fig. 1 and the hand cuff will be locked as will be understood. The key 35 is shown as provided with a slot 37 so as to provide a large flat surface for operating it.

While I have illustrated and described a preferred embodiment of my invention, I am aware that many modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the details of construction herein shown and described, but

What I do claim is:—

1. In a hand-cuff, the combination of two arms pivotally connected with each other, one having a locking rack and the other a locking lever for engaging said rack, a pivot pin on which said locking lever is pivoted, a spring for normally forcing the locking lever about its pivot into position to engage the rack, a pawl pivoted on said locking lever having a projection for engaging said pawl and forcing it with it in one direction about the pivot, and means for locking the pawl.

2. In a hand cuff, the combination of a

pivoted locking lever, a pin on which said locking lever is pivoted, a pawl pivoted on the same pin, said lever having a projection engaging the pawl for moving it with it in one direction about the pivot, the pawl being free to move in the other direction independently of the lever, a spring for forcing the lever into locking position, and means for locking the pawl in a position to prevent the spring from acting to move the lever.

3. In a hand cuff, the combination of a pivoted locking lever, a pin on which said locking lever is pivoted, a pawl pivoted on the same pin, said lever having a projection engaging the pawl for moving it with it in one direction about the pivot, the pawl being free to move in the other direction independently of the lever, a spring for forcing the lever into locking position, and means for locking the pawl in a position to prevent the spring from acting to move the lever, said means comprising a second lever for engaging said pawl, said pawl having a notch for receiving the end of the second lever.

4. In a hand cuff, the combination of a pivoted locking lever, a pin on which said locking lever is pivoted, a pawl pivoted on the same pin, said lever having a projection engaging the pawl for moving it with it in one direction about the pivot, the pawl being free to move in the other direction independently of the lever, a spring for forcing the lever into locking position, and means for locking the pawl in a position to prevent the spring from acting to move the lever, said means comprising a second lever pivotally connected with said spring, the spring being in position normally to move the second lever into locking position.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

JAMES F. CARBERRY.

Witnesses:

ALBERT E. FAY,
C. FORREST WESSON.