

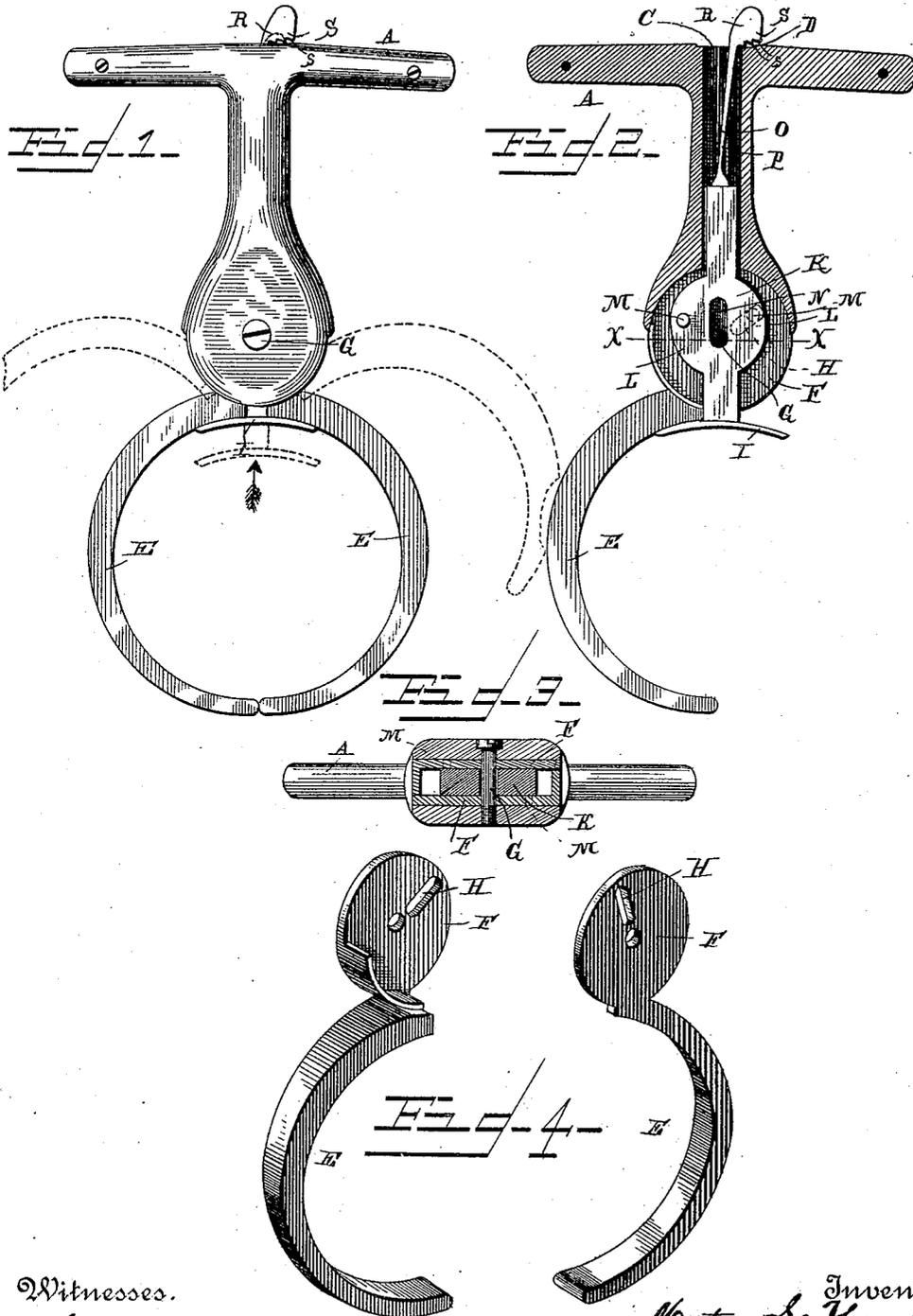
(No Model.)

M. S. THOMAS & S. T. SMITH.

HANDCUFF.

No. 395,016.

Patented Dec. 25, 1888.



Witnesses.

*Henry S. Dietrich,*

*C. E. Hoyle*

Inventors,

*Merton S. Thomas*

*Silas T. Smith*

By their Attorneys

*C. A. Snow & Co.*

# UNITED STATES PATENT OFFICE.

MERTON S. THOMAS AND SILAS T. SMITH, OF SAVONA, NEW YORK.

## HANDCUFF.

SPECIFICATION forming part of Letters Patent No. 395,016, dated December 25, 1888.

Application filed November 25, 1887. Serial No. 256,143. (No model.)

*To all whom it may concern:*

Be it known that we, MERTON S. THOMAS and SILAS T. SMITH, citizens of the United States, residing at Savona, in the county of Steuben and State of New York, have invented a new and useful Improvement in Handcuffs, of which the following is a specification.

Our invention relates to improvements in handcuffs; and it consists in certain novel features, hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of the device. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section, on line *xx* of Fig. 2. Fig. 4 is a detail view of the pivoted jaws detached.

Referring by letter to the drawings, A designates the tubular handle, having an aperture, C, at the inner end, which is provided on one side with a shoulder, D, the purpose of which is hereinafter explained.

E E represent the jaws of the device, provided at their inner ends with the disks F F, which are pivoted at their central points upon the transverse pivot-screw G. These disks are provided with radial slots H H, hereinafter mentioned.

I designates a contact-plate, which is arranged between the jaws E E at their inner ends, and is attached to the outer end of the operating-shaft K. The said shaft is disposed within the tubular handle and operates between the disks F F, being provided with a longitudinal slot, N, to receive and slide on the pivot-screw G. This shaft is provided within the handle with the lateral ears L L, which operate between the disks and are provided with the studs M M, which engage in the slots H H.

It will be readily seen that any longitudinal movement of the shaft K will cause a motion of the jaws either toward or from each other, and the motion of the said jaws will, further, be simultaneous. If the contact-plate I is depressed or forced in the direction indicated by the arrow in Fig. 1, the jaws will be closed; but if the shaft is operated in the opposite direction the jaws will be opened.

O represents a pawl, which is attached to the inner end of the shaft K, and it consists of the spring P and the thumb-hold R on the free end of the spring. This thumb-hold projects beyond the inner end of the handle

when the jaws are closed, and it is provided with a shoulder, S, which is caused by the spring P to automatically engage the side of the aperture C when in the said extended position. This shoulder is beveled outwardly, as clearly shown in the drawings, and is provided with a series of teeth or serrations, *s s*, which engage successively with the shoulder D at the side of the aperture C. The object of this beveled shoulder, provided with teeth or serrations, will be readily seen. As the jaws are forced together by the gradual depression of the contact-plate, the extremity of the shoulder S will pass beyond the edge of the aperture C and the first tooth or serration will engage the shoulder D. Thus the jaws will be securely locked and prevented from reopening; but they are not prevented from closing still further. As the jaws continue to be forced together, the second tooth or serration *s* will engage the shoulder D and the jaws will be again locked in the new position. Thus the jaws may be locked in any desired position from reopening; but their motion toward each other is only stopped when their ends come in contact.

The operation of the device will now be clearly seen. To apply the handcuff, place the opened jaws over the wrist and cause the latter to press upon the contact-plate, thereby closing the jaws and causing them to be locked as they close. To reopen the jaws, press the thumb-hold laterally to disengage the teeth or serrations from the shoulder D and press the thumb-hold outward or toward the jaws. Being attached to the shaft K, the pressure upon the thumb-hold will operate the said shaft and cause the jaws to be moved.

From the above description it will be seen that the handcuffs are operated entirely by the thumb-hold at the inner end of the handle, so that the hand which grasps the said handle need not be removed or the other hand employed to operate the device. When the locking means for the jaws are attached to the outer or free extremities of the latter, the operator must employ both hands to open the handcuffs, and, further, the appearance of the device is rendered clumsy by this arrangement.

Although no springs are used in this device to close the jaws, the latter, owing to the ar-

rangement of the operating-shaft and the radial slots in the inner ends of the jaws, close with a snap when the contact-plate is depressed.

5 The spring-pawl herein described may be formed integral with and as a continuation of the inner end of the operating-shaft, as shown in the accompanying drawings.

Having thus described our invention, we claim—

10 1. In a handcuff, the combination of the handle A, the jaws pivoted to the handle and provided with slots H H at their pivotal ends, the contact-plate located between the jaws  
15 and having the operating-shaft K, provided with studs operating in the said slots, all constructed and arranged substantially as described.

2. The combination of the tubular handle, 20 the jaws pivoted thereto, the shaft sliding in the handle and connected to the jaws to operate the same, and a contact-plate on the end of the shaft between the jaws, as set forth.

3. In a handcuff, the combination, with the 25 tubular handle having the shoulder D and the jaws pivoted to the handle, of the shaft K, connected to the inner ends of the jaws and having the contact-plate I between the jaws, and the pawl O, attached to the shaft K and  
30 provided with a series of teeth or serrations to engage the shoulder D, whereby the jaws may be successively locked in various positions as the contact-plate is depressed, substantially as and for the purpose specified.

4. The herein-described handcuff, comprising the tubular handle A, having a shoulder, 35 D, at its inner end, the jaws E E, having disks F F on their inner ends, which are mounted on the transverse pivot G and provided with the radial slots H H, the operating-shaft K, 40 provided with the longitudinal slot N, operating on the said pivot and having the contact-plate I on its outer end between the jaws, the ears L L on the sides of the shaft between the disks F, and having the studs M M, oper- 45 ating in the slots H H, and the pawl O, attached to the inner end of the said shaft and comprising the spring P, and the thumb-hold R, which is adapted to project beyond the end  
50 of the handle and engage the shoulder D when the jaws are closed, substantially as and for the purpose specified.

5. In a handcuff, the handle A, the pivoted jaws E, and a longitudinally-sliding shaft, K, 55 to operate the jaws, provided with a contact-plate, I, to close the jaws, and also having a thumb-hold projecting beyond the handle to unlock the jaws, as set forth.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures 60 in presence of two witnesses.

MERTON S. THOMAS.  
SILAS T. SMITH.

Witnesses:

MINNIE ORCUTT,  
MARY MALLORY.