

P. KRUGER.
HANDCUFF.

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1,342,334.

Patented June 1, 1920.

Fig. 1.

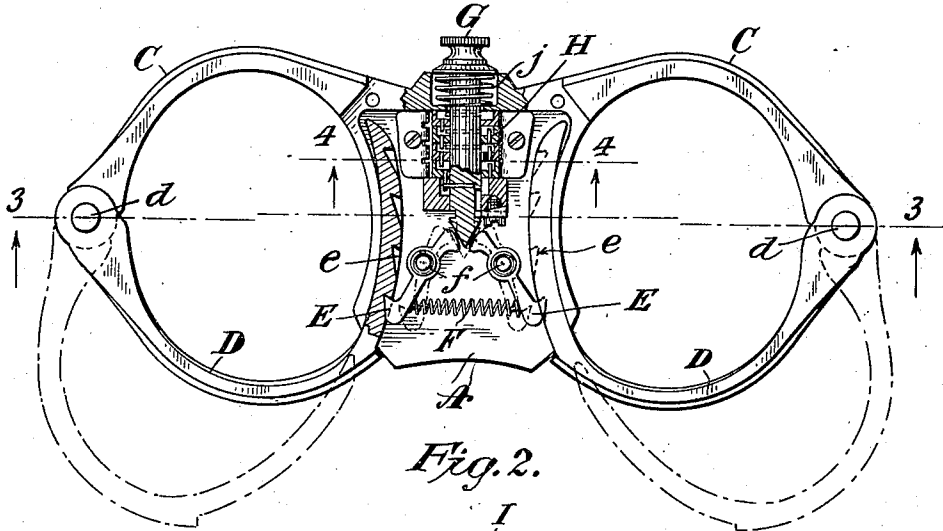


Fig. 2.

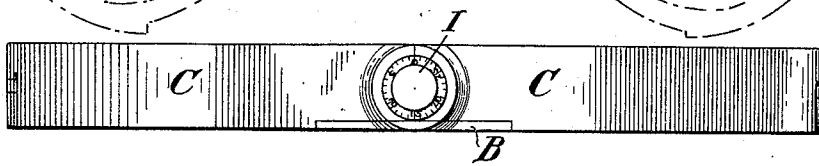


Fig. 3.

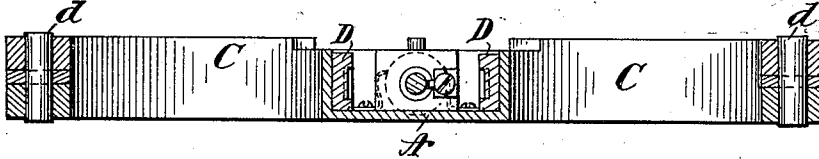


Fig. 4.

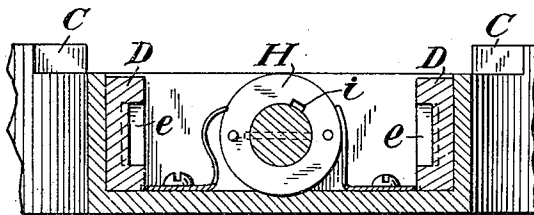


Fig. 5.

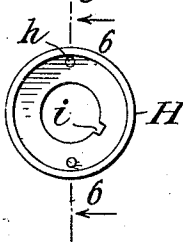
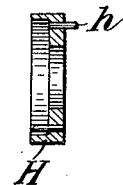


Fig. 6.



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PAUL KRUGER, OF CHARLESTON, WEST VIRGINIA.

HANDCUFF.

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To all whom it may concern:

Be it known that I, PAUL KRUGER, a citizen of the United States, and a resident of Charleston, Kanawha county, and State of West Virginia, have invented certain new and useful Improvements in Handcuffs, of which the following is a specification.

The object of my invention is to provide a handcuff of such construction that it does not require a key to lock it and unlock it; in fact, cannot be locked and unlocked by means of a key or similar implement, but the locking and unlocking are under the control of a combination lock which can only be operated by a person who knows the combination.

The insecurity of handcuffs such as are commonly used, lies partly in the easy manner in which a duplicate key or a false key can be obtained and used in freeing the wrists of the handcuffed persons.

One great advantage of my invention is found in the fact that while it is quite possible to steal a handcuff key from a keeper or policeman, it is impossible to steal the combination from his mind.

To this end, my invention consists broadly in a handcuff which comprises one or more operable and closable sleeves or cuffs, means inaccessibly located within the body of the handcuff, whereby said sleeves may be locked in a closed position, and a combination locking device which operates said otherwise inaccessible means.

Various types of combination locks may be adopted according to the size of the handcuffs, and the location of the locking and releasing means without departing from my invention.

One form of my combination lock handcuff, is shown in the accompanying drawings in which:

Figure 1 is a plan partly in section with the front plate removed, and showing the handcuffs locked.

Fig. 2 is an end view of the upper portion of Fig. 1, with the plate in place.

Fig. 3 is a vertical cross-section on plane of line 3, 3 of Fig. 1.

Fig. 4 is an enlarged vertical cross-section on plane of line 4, 4 of Fig. 1.

Fig. 5 is an enlarged elevation of one of the tumblers of the combination lock.

Fig. 6 is a horizontal cross-section on plane of line 6, 6 of Fig. 5.

Same letters indicate similar parts in the different figures.

A is the body of the handcuff, which is preferably made hollow to receive the locking and releasing device. This body is preferably provided with a plate or cover, B, (Fig. 2,) which is only to be removed when something is wrong with the interior mechanism. Obviously the cover is riveted or otherwise secured in place, so that it cannot be tampered with.

Projecting from the body portion A, are the half cuff portions C—which are preferably made integral with the body portion A—, as it is sufficient to have only half of the entire cuff openable as shown in dotted lines in Fig. 1. The swinging half of each cuff D is pivoted by a rivet *d*, to what may be called fixed portion of the cuff, and around this pivot this half swings between the closed or locked position shown in full lines in Fig. 1, and the opened position shown in dotted lines in said figure. In fact the swing is much longer than as shown in dotted lines as may be readily understood, so that the wrists may easily pass through the opening thus made. That part of the swinging portion D, which is designed to enter and be held inside the body portion A is preferably provided with notches *e* which are engaged by the pawls E inside said body portion. These pawls are pivoted inside the body portion A as it *f*, and are normally held in their spread or engaging position by the spring F. A number of notches is provided to provide differently adjusted openings when the links are locked, as occasion may require.

G, is the operating pin of a combination lock by which the displacement of the pawls E for locking or releasing the cuffs is effected. This combination lock as shown, is of the three tumbler type. The structure of these tumblers H with their pins *h* and recesses *i*, (see Figs. 4, 5 and 6) are of any usual and convenient construction; and it would be readily understood that by turn-

ing the pin G around the dial I, in accordance with the combination for which this lock is set, a point is finally reached, when the three tumblers are so related to each other, that the pin is free to be pushed inwardly. This displaces the two pawls E into the position shown in dotted lines in Fig. 1, thus releasing the notched cuff portions D and permitting the cuffs to be opened.

A coiled spring surrounding the stem G, normally keeps the pin in outward position by the resilient force of the spring.

The operation of my improved handcuff is extremely simple. It consists simply in setting the combination lock up so as to respond to a selected combination of turns and figures. In this position the pawls are ready to catch the notches of the cuff portions D and lock them against any outward pull. When it is desired to unlock the cuff, the

combination has to be set up and the pin pushed inwardly, with sufficient force to displace the pawls.

I claim:

A hand-cuff which comprises a control body portion, containing a combination lock and fastening means adapted to be locked and unlocked thereby;—and a pair of jointed sleeves, one portion of which is rigidly secured to said body portion and the other portion of which is swingingly pivoted to said rigid portion;—said fastening means comprising a pair of spring-controlled locking fingers and a barbed, sliding pin controlled by said combination lock and adapted to operate said locking fingers to release said sleeves when occasion requires.

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Witnesses:

A. J. CURRY,
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