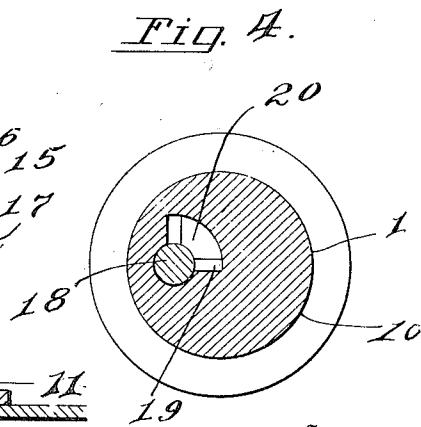
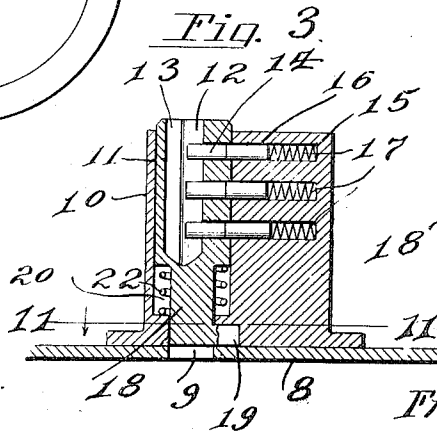
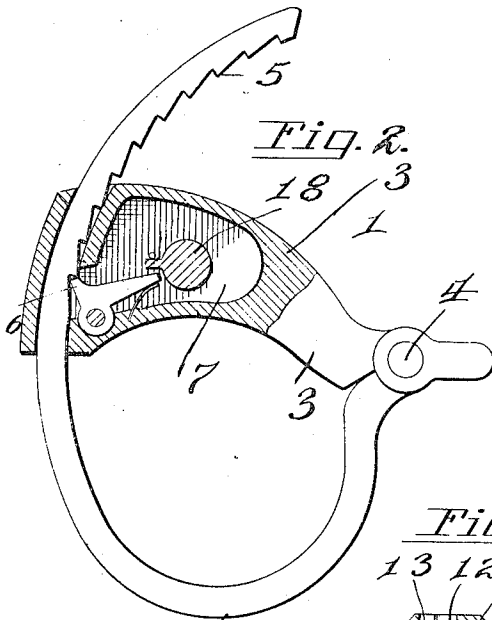
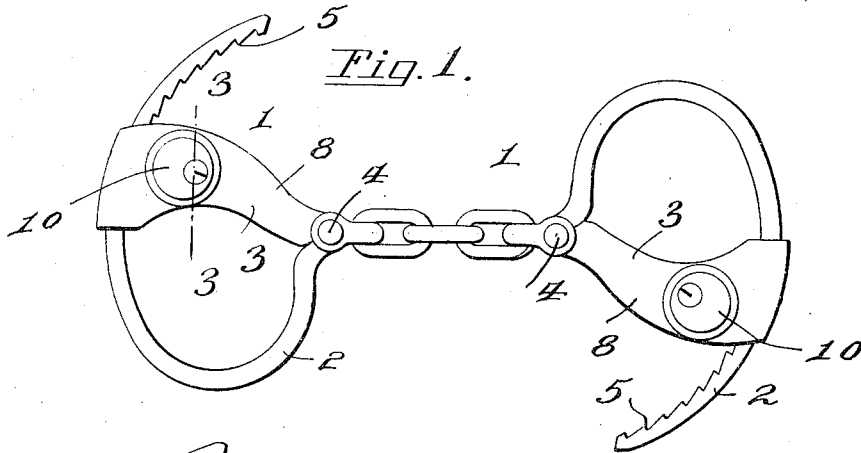


F. B. WIDMAYER.
HANDCUFF.
APPLICATION FILED JAN. 28, 1909.

985,560.

Patented Feb. 28, 1911.



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Witnesses

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FRANK B. WIDMAYER, OF NEW YORK, N. Y.

HANDCUFF.

985,560.

Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed January 28, 1909. Serial No. 474,667.

To all whom it may concern:

Be it known that I, FRANK B. WIDMAYER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Handcuffs, of which the following is a specification.

This invention relates to improved locks for hand-cuffs or similar manacles and resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

The primary object of the invention is to provide a locking device whereby the hasp of the cuff cannot be swung open except by a person having a proper key and understanding the manner of positioning the bit of an auxiliary lock within the key-hole opening of the hand cuff.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of a cuff or manacle provided with my improvement. Fig. 2 is a similar view of one of the manacles taken upon an enlarged scale and illustrating its central portion or chamber in section to illustrate the hasp locking mechanism. Fig. 3 is a transverse sectional view upon the line 3—3 of Fig. 1. Fig. 4 is a horizontal sectional view upon the line 11—11 of Fig. 3.

In the accompanying drawings the numeral 1 designates a hand-cuff. This cuff or manacle may be constructed of any particular or desired formation, and it is to be understood that I do not lay any claim to the cuff except in combination with the improved locking mechanism hereinafter to be set forth. The cuff 1 herein illustrated is of that class commonly employed by police officials and in order to clearly set forth the improvement, a brief description of the said cuff is deemed necessary.

The numeral 2 designates the shackle member of the cuff which is provided with the usual teeth and which has one of its ends pivotally connected with the body 3 as at 4. The teeth 5 of the shackle member are adapted to be engaged by the tooth 6 of a spring-pressed dog which is positioned within a chamber 7 formed by the body. The upper wall of the said chamber is provided with a slot or opening 9 arranged di-

rectly above the dog 6, while surrounding this opening and connected with the upper outer wall of the chamber is a cylinder 10. This cylinder 10 is provided with a bore 11 which is positioned directly above the key-hole opening 9. The bore is adapted for the reception of a barrel 12 which is provided with the usual key opening 13 adapted for the reception of a removable key, which in this instance it has not been deemed necessary to illustrate. The barrel 12 is provided with a plurality of spaced openings arranged at a substantially right angle to the bore thereof, and the cylinder 10 is also provided with suitable bores or depressions 15 alining with the openings in the barrel. The openings within the barrel and cylinder are adapted for the reception of sliding pins 14 and 16, and the pins are normally forced outward from their bores into engagement with the openings provided in the barrel and also caused to contact the pins 14 of the said barrel through the medium of suitable springs 17. The barrel 12, below the key opening 13, is provided with a reduced extension 18, and this extension has its end provided with a bit 19. This bit 19 is normally positioned within a segmental chamber 20 formed in the lower portion of the cylinder, which is positioned directly above the key-hole opening 9 provided in the casing 8 of the cuff. The reduced portion of the barrel as well as the bit formed thereon is of a size adapted to snugly pass through the key-hole slot when the bit is to be forced downwardly within the chamber 7 so as to allow the bit to contact with the dog 6 to swing the latter out of engagement with the teeth of the hasp, in a manner presently to be described. This cylinder 10 is provided with an offset or shoulder directly above the segmental chamber, and surrounding the reduced portion of the barrel and having one of its end convolutions contacting the shoulder provided upon the cylinder 10 and its opposite convolution engaging the shoulder of the barrel 12 is a helical spring 22, which is adapted to normally force the barrel 12 upwardly so as to have its openings alining with the openings of the cylinder and to bring the pins of the cylinder into engagement with the pins of the barrel.

Briefly stated, the operation of the device is as follows: A notched key is inserted within the opening 13 of the barrel 12 so as

to force the pins 14 against the spring-pressed pins 16 to allow for the rotation of the barrel. When the barrel is rotated so as to bring the bit into alinement with the opening 9, the barrel is forced downwardly and rotated so as to swing the tooth of the dog 6 out of contact with the teeth 5 of the shackle member 2, thus allowing the shackle to be swung free of the body member.

10 When the shackle member has been opened the key is rotated in an opposite direction so as to bring the bit below the key-hole opening 9, when the pressure of the spring 22 will cause the barrel to move upwardly

15 from the chamber 7 of the body of the shackle within the segmental chamber 20, the said upward movement being limited by the offset provided by the cylinder directly above the segmental chamber. By a free rotation of the key the pin members 16 will

20 be brought into proper alinement with the openings provided by the barrel.

Having thus fully described the invention, what I claim as new is:—

25 In combination with a hand cuff having a

pivoted shackle and means for locking the shackle within the body of the cuff, said body being provided with a key-hole opening adjacent to said locking means, of a pin lock connected with the cuff, the barrel of the pin lock having its lower portion reduced and formed with an offset bit adapted to operate said locking means, the cylinder of the lock being provided with a segmental chamber normally adapted for the reception of the bit, and said chamber communicating with the key-hole opening of the cuff, a resilient element for the barrel to force the same upwardly so that its pins

30 the bit is normally sustained within the segmental opening, substantially as and for the purpose set forth.

35 40

In testimony whereof I affix my signature in presence of two witnesses.

FRANK B. WIDMAYER.

Witnesses:

HARRY ALLAPP,
CHARLES RUCK.