A. C. KLOPPING.
LEG LOCKING MEANS FOR FOLDABLE BED FRAMES OR THE LIKE.
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WITNESSES:

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By
His att'y.
UNITED STATES PATENT OFFICE.

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LEG-LOCKING MEANS FOR FOLDABLE BED-FRAMES OR THE LIKE.


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To all whom it may concern:

Be it known that I, ADOLPH C. KLOPPING, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Leg-Locking Means for Foldable Bed-Frames or the like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, referring to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to folding frames, such as are used in connection with bed-screens, and particularly to means for securing the section-supporting legs of such frames in folded relation to the sections against which they fold during at least a portion of the folding movements of the bed-frame.

The object of my invention is the provision of means of the character described, which is automatically operable to lock a leg and frame section in folded relation when the frame has been folded a predetermined extent and to automatically release the lock to permit an unfolding movement of the leg relative to its carrying section when the frame has reached a predetermined stage in its unfolding movements, whereby to enhance the practicability and commercial value of apparatus of this class.

The invention is fully described in the following specification, and while, in its broader aspect it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a davenport embodying the invention, with a part in section and with the bed-frame shown in partial folded position in full lines, and in complete unfolded and folded partial positions in dotted lines. Fig. 2 is an enlarged detail of a portion of a leg and bed-frame section in folded relation, equipped with my improved leg locking means, with such means in release position, and Fig. 3 is a top plan view thereof.

Referring to the drawings, 1 and 2 designate two sections of a folding bed-frame which sections are foldably connected at their adjacent ends by connecting links 3, or in any other suitable manner, and the outer section 1 has a supporting leg 4 pivoted to each side thereof, as at 5, for folding movement thereagainst, as indicated in the drawings.

Pivoted to the side of the section 1 with each leg 4, is a gravity catch-member 6 the catch end of which is disposed transversely of the section side and is adapted to work through a registering opening 7 in the leg 4 when such leg is folded against the section. The catch 6 is enlarged or weighted at one side of its pivot, as at 8, to adapt it to act by gravity to hold its nose in register with the leg opening 7 but out of hooked engagement with the wall of such opening when the leg and section are in substantially horizontal position, as best shown in Fig. 2, thus permitting the leg to be freely moved from its folded position relative to the section 1. The gravity movements of the catch 6 are limited in opposite directions by a stud 9 projecting from the associated section side through a slot 10 in the catch enlargement.

The pivot 11 of the catch is so disposed with relation to the enlarged portion thereof as to permit the catch to move by gravity into locking engagement with one wall of the opening 7 when the sections 1 and 2 have reached a predetermined point in their raising or folding movements toward the upright dotted line position of the bed-frame in Fig. 1, the catch 6 engaging the leg in due time to prevent a forward unfolding movement of the associated leg when such leg is in upright position with the folding bed-frame sections. The catch 6 remains in locked engagement with the leg during the remaining portion of a folding movement of the bed-frame, and also during a portion of an unfolding movement of such frame, or until the sections 1 and 2 have moved outward and downward beyond the point shown by the dotted line position at the left of Fig. 1. When the bed-frame sections have been lowered to the full line position shown in Fig. 1 the catch 6 will have moved by its gravity action to the leg releasing position shown so as to permit a free unfolding movement of the associated leg relative to the section 1.

It is thus evident that the leg locking means needs no attention on the part of the operator as it automatically operates to en-
gage and lock the leg in folded relation to the section 1 when the bed-frame has been folded a predetermined extent, and also automatically operates to release the leg when the bed-frame has been unfolded a predetermined extent, thus admirably adapting it for use in folding structures of this class in which the loose flopping of the section supporting legs during a folding or unfolding of the bed-frame is quite annoying.

While my improved leg locking means is shown only in connection with the outer supporting legs of the bed-frame, it is evident that it may be used in connection with other legs thereof, if desired.

I wish it understood that my invention is not limited to any specific construction or arrangement of the parts except in so far as such limitations are specified in the claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is—

1. The combination with a section of a folding frame, and a member carried by said section for pivotal folding movements relative thereto, of means movable with said member and section during the folding movements thereof and automatically operable independently of the relative movements of the member and section to lock and release the member with relation to said section when at different predetermined points in folding and unfolding movements of the frame.

2. The combination with a foldable multiple section frame, and a member carried by one of the frame sections for pivotal folding movements relative thereto, of means automatically operable by gravity action to secure said member and its carrying section in folded relation when the frame has been folded a predetermined extent and to release the leg relative to its carrying section when the frame has reached a predetermined point in an unfolding movement thereof.

3. The combination with a section of a foldable bed-frame, and a supporting leg carried by said section for folding movements thereagainst, of a latch member carried by said section and automatically operable to lock the leg and section in folded relation at a predetermined point in a folding movement of the frame and to release the leg to permit it to have free pivotal movements relative to said section when the frame has been unfolded a predetermined extent.

4. The combination with a section of a foldable multiple section bed-frame, and a supporting leg pivotally carried by said section and foldable thereagainst, said leg having an opening therein, of a latch member carried by said section for limited pivotal movements relative thereto with its nose positioned to project through the leg opening when the leg is in folded relation to its carrying section, said latch being movable by gravity action to coat with the wall of the leg opening to secure the leg in folded relation to its carrying section when the bed-frame has reached a predetermined point in a folding movement thereof and to release its locking engagement with the leg when the bed-frame has reached a predetermined point in an unfolding movement thereof.

In testimony whereof, I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

ADOLPH C. KLOPPING.

Witnesses:

C. W. OWEN,

F. E. AUL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patent. Washington, D. C."