No. 839,041. PATENTED DEC. 13, 1906.

C. M. SCHWAB.

DEVICE FOR RAISING BED SPRINGS.

APPLICATION FILED SEPT. 7, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

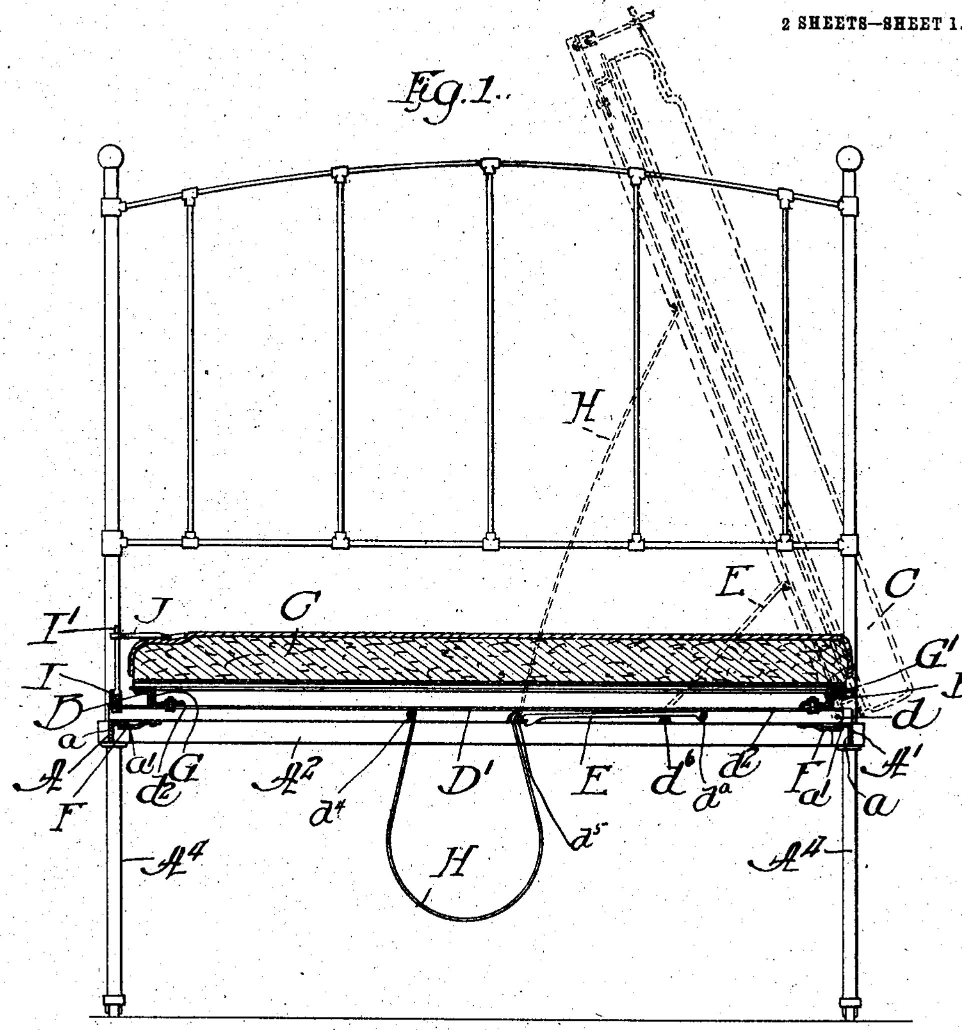
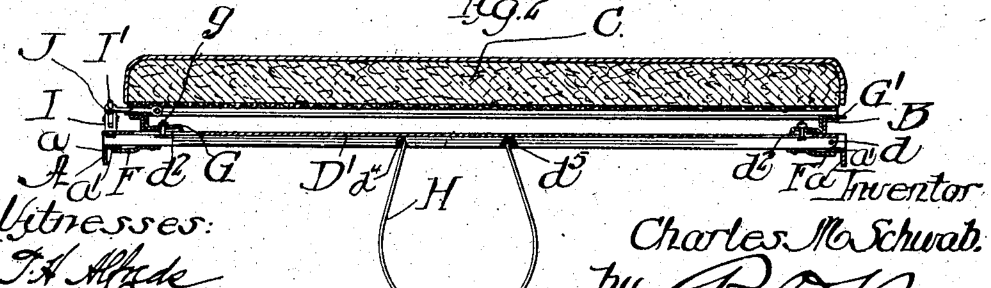


Fig. 2



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No. 839,041. PATENTED DEC. 18, 1906.

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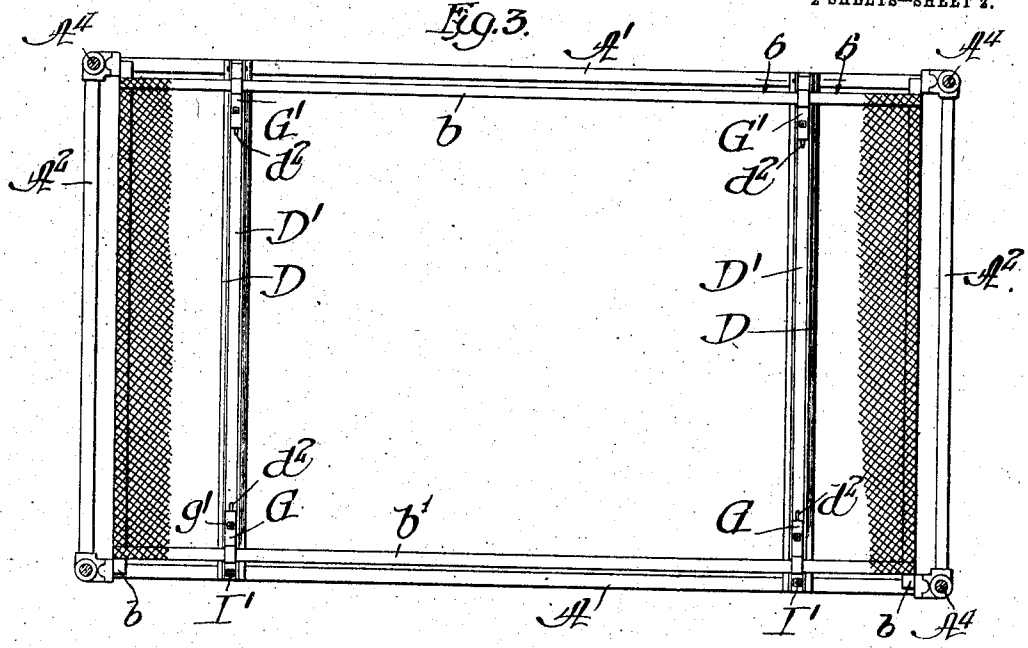
2 SHEETS—SHEET 2.

Fig. 3.



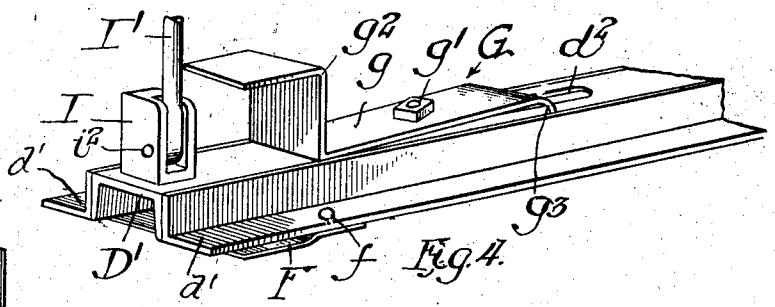


Fig. 4.

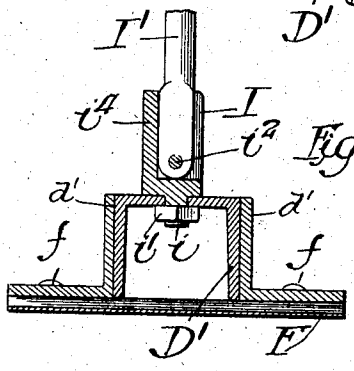


Fig. 5.

Fig. 6.

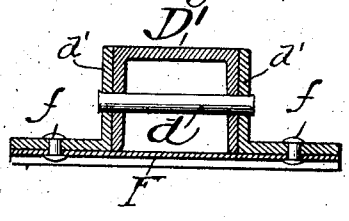
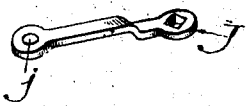


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES M. SCHWAB, OF OAK PARK, ILLINOIS.

DEVICE FOR RAISING BED-SPRINGS.

No. 839,041. Specification of Letters Patent. Patented Dec. 18, 1906.

Application filed September 7, 1906. Serial No. 333,635.

To all whom it may concern:

Be it known that I, CHARLES M. SCHWAB, a citizen of the United States, and a resident of Oak Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Devices for Raising Bed-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a novel device for swinging or raising a bed-spring or such a spring and a mattress upwardly on one side edge thereof to permit a person to sweep or clean the floor beneath the bed without moving the bedstead.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a transverse section of a bedstead, the bed-spring, and mattress thereon, illustrating the application of my invention thereto. Fig. 2 is a similar section of said parts, showing the raising or holding device that is located at the end of the bedstead remote from that shown in Fig. 1. Fig. 3 is an essential plan view of a bedstead with the bed-spring frame thereon, showing the two parts of my raising device. Fig. 4 is a perspective view illustrating one end of one of said raising and holding devices. Fig. 5 is a transverse section taken on line 5 5 of Fig. 4. Fig. 6 is an enlarged section taken on line 6 6 of Fig. 3. Fig. 7 is a bar constituting part of the device for clamping the mattress on the spring-frame when raised.

The approved embodiment of my invention shown in the drawings accompanying my application is shown as illustrating a practical application thereof; but it will be understood that the invention may assume many different and varied structures within the scope of the claims, which are appended hereto. The following detailed description of my invention as applied to the graphic illustration thereof is not to be regarded as restrictive to the scope or application of my invention.

The horizontal side and end members of the bedstead-frame A A′ A^2 A^3, as well as the corner-posts or standards A^4 thereof, possess no peculiar characteristics so far as this invention is concerned. Said side and end members comprise angle-bars wherein the webs *a* are disposed vertically and the flanges *a′* are disposed horizontally inwardly. Likewise the illustrated bed-spring B and mattress C are such as those as are in common use.

My novel device for raising and supporting a bed-spring in an inclined raised position, as illustrated in dotted lines in Fig. 1, consists in general terms of two stationary bars D D, Fig. 3, located one at each end of the bedstead and extending between and fastened to the side rails of the bedstead and two rising and falling bars D′ D′, each lying longitudinally on one of the stationary bars and hinged to said bars at the rear side of the bedstead by hinge-pins *d*. The said bed-spring frame is attached at its sides to both ends of said rising and falling bars, and the bed-spring and mattress are supported on said rising and falling bars, so that when the front ends of said bars are swung upwardly the bed-spring and mattress are likewise swung upwardly about the rear side margin thereof, as shown in dotted lines in Fig. 1, and means, as the swinging latch E, is provided for holding the same in their upper positions. Said latch is hinged to its associated swinging bar by a transverse pin d^a.

The fixed bars are shown as made with upwardly-opening grooves to receive the swinging bars. Conveniently the fixed bars are each composed of two angle-bars *d′ d′*, Figs. 4, 5, and 6, between the vertical flanges of which is formed the groove to receive the swinging bar. Said bars *d′* are fastened together at their ends by plates F, attached to the bars by rivets *f*, extending through the webs of the bars, as shown more clearly in Figs. 5 and 6. The connecting-plates F are offset downwardly to provide notches which receive the flanges *a′* of the side rails of the bedstead, this arrangement constituting one convenient means of fastening the bars D reliably in place.

The swinging members or bars D′ are shown as made of channel-bars and fit closely within and fill the grooves of the fixed bars D. The hinge-pins *d*, which connect the rear ends of said bars, extend through the flanges of said angle and channel bars, as shown in

Fig. 6. The hinge-pins *d* are located closely adjacent to the ends of the stationary or fixed bars, so as to adapt the device to bedsteads and springs of slightly-varying widths.

The bed-spring frame, comprising the connected end and side bars *b b'*, respectively, are supported on the swinging bars D' and are fastened thereto by fastening devices in the nature of clamp-hooks, wherein *g g*, Fig. 4, comprise the shank members, fastened to the swinging bars by the bolts *g'*, and g^2 g^2 the hook members, which hook over the side rails *b' b'* of the spring-frame. The clamping-bolts *g* extend through longitudinal slots d^2 of the bars D', thereby adapting the device to spring-frames of different widths. In order to increase the effectiveness of the clamping-hooks and also to adapt the same to spring-frames having side bars of different depths, the inner ends of the shanks *g* are provided with downwardly-turned terminal lugs g^3, Fig. 4, this arrangement tending to throw the hooked end of the clamp downwardly. Said clamp-hooks serve to hold the spring-frame and mattress from slipping endwise relatively to the bedstead.

Two pairs of bars, each pair including a stationary and a swinging bar, are preferably employed, one pair located near each end of the bed, so as to hold both ends of the spring-frame and mattress up without tendency of the upwardly-tilted parts to twist out of shape and position.

Springs H are employed to assist in raising the swinging bars D' and the superposed spring-frame and mattress and for also limiting the upwardly-swinging movement of said parts. The said springs, as herein shown, are of general U form, with their bowed or closed portions depending downwardly. One end of each spring is attached to its swinging bar D' by a transverse pin d^4, and the other end of said spring is fixed to its stationary bar D by a like pin d^5. The springs are of such strength as to lift a portion only of the weight supported by the swinging bars of each pair. Two springs are employed, one at each end of the bed, to enable the spring-frame and mattress to be raised uniformly at both ends. A single swinging latch E, however, is employed, inasmuch as the use of the single latch enables the parts to be readily released to lower the spring-frame and mattress. The said latch E is notched at its free end to engage a transverse pin d^6, carried by the associated fixed bar D, by which the latch is held in its locking position. The flanges of the channel-bar swinging member D', to which the latch is hinged, are notched to pass over said pins d^4 and the pins d^5, by which the rear ends of the springs are fixed to the grooved stationary bar of each pair of bars.

In practice the bedstead is permanently equipped with the device described, and the bed-spring and mattress are swung upwardly by grasping the bed-spring frame near the longitudinal center thereof.

In order to hold the mattress from slipping off of the bed-spring, I may provide an adjustable clamping device, made as follows:

I designates a rotative or swinging block that is rotatively mounted in the outer end of each swinging bar and extends upwardly therefrom. Each of said blocks is provided with a screw-threaded stud *i*, Fig. 5, that extends downwardly through an opening in the web of the associated swinging bar D' and is held in place by a nut *i'*. I I' designate rods that are hinged at their ower ends by pins i^2 in sockets of said blocks, each of said sockets being open at one side and closed at its other side by a wall i^4. The said wall i^4 limits the swinging movement of the rod I' in one direction and holds the same when engaged therewith upright.

J J designate bars each provided at one end with an opening *j*, adapted to be loosely slipped over the rod I' and to overlap the side of the mattress when the rod I' is upright and the bar is swung inwardly, as shown in Fig. 1. By slipping the apertured end of the bar downwardly over the rod when so engaged at its inner end with the mattress the friction between the rod and the bar prevents the latter from slipping upwardly, whereby the bar produces a clamping action on the mattress.

When the clamping device is out of use, the rod I' is swung downwardly and thence horizontally inwardly, as permitted by the rotative mounting of the block I, whereby the said rod I' and bar J may be concealed beneath the mattress, as shown in Fig. 2. Conveniently the clamping-bar J may take the form of a wrench adapted for use in and about the device for assembling the same.

In some instances it may be convenient to make the stationary bars D permanent parts of the bedstead, in which event the swinging bars D' and the manner of mounting the same will be modified to suit the requirement. The slotting of the stationary bars D provides, as herein shown, seats for the swinging bars D; but the more important purpose of the construction is to give proper freedom of action to the raising-springs and to guide said springs back to place when the bars are returned.

I claim as my invention—

1. In a device for the purpose set forth, two swinging bars extending between the side rails of a bedstead, one at each end thereof, means for fastening thereto a bed-spring frame and supporting it thereon, and means for holding the frame and bars in an upwardly-tilted position.

2. In a device for the purpose set forth, two

swinging bars extending between the side rails of a bedstead, one at each end thereof, means for fastening thereto a bed-spring frame and supporting it thereon, springs applied to assist raising the bars and the parts supported thereby, and means for holding the frame and bars in an upwardly-tilted position.

3. In a device for the purpose set forth, two swinging bars extending between the side rails of a bedstead, one at each end thereof, means for fastening a bed-spring frame thereto and supporting it thereon, means carried by said bars for clamping a mattress supported on the spring-frame to said frame, and means for holding the frame and bars in an upwardly-tilted position.

4. In a device for the purpose set forth, two swinging bars extended between the side rails of a bedstead, one at each end thereof, means for fastening a bed-spring frame thereto and supporting it thereon, and a swinging latch for holding the frame and bar in an upwardly-tilted position.

5. In a device for the purpose set forth, two swinging bars extending between the side rails of the bedstead, one at each end thereof, means for fastening a bed-spring frame thereto and supporting it thereon, a spring applied to each bar for assisting to swing the bar and its load upwardly, and a latch applied to one of the bars for holding both bars and the spring-frame in an upwardly-tilted position.

6. In a device for the purpose set forth, two pairs of bars adapted to extend between the side rails of a bedstead, one pair at each end thereof, the lower bar of each pair adapted to be detachably fixed to the said side rails, and the upper bars being hinged at one side of the bed to the lower bars, means for fastening a bed-spring frame to said swinging bars, and means for holding said swinging bars and their load in an upwardly-tilted position.

7. In a device for the purpose set forth, two pairs of bars adapted to extend between the side rails of a bedstead, one pair at each end thereof, the lower bar of each pair adapted to be detachably fixed to the said side rails, and the upper bars being hinged at one side of the bed to the lower bars, means for fastening a bed-spring frame to said swinging bars, springs for assisting to swing the bars and their supported load upwardly, and means for holding said swinging bars and their load in an upwardly-tilted position.

8. In a device for the purpose set forth, two pairs of bars adapted to extend between the side rails of a bedstead, one pair at each end thereof, the lower bar of each pair adapted to be detachably fixed to the said side rails, and the upper bars being hinged at one side of the bed to the lower bars, clamping-hooks carried by the swinging bars for detachably fastening the bed-spring frame to said swinging bars, and means for holding said swinging bars and their load in an upwardly-tilted position.

9. In a device for the purpose set forth, two pairs of bars adapted to extend between the side rails of a bedstead, one pair at each end thereof, the lower bar of each pair adapted to be detachably fixed to the said side rails, and the upper bars being hinged at one side of the bed to the lower bars, clamping-hooks carried by the swinging bars and adjustable longitudinally thereon for detachably fastening the bed-spring frame to said swinging bars, and means for holding said swinging bars and their load in an upwardly-tilted position.

10. A device for the purpose set forth, comprising a stationary bar, a swinging bar hinged at one end to one end of the stationary bar and overlying the same, means carried by the swinging bar for fastening a bed-spring frame thereto, and a latch for holding the swinging bar in its upper position.

11. A device for the purpose set forth, comprising a stationary bar, a swinging bar hinged at one end to one end of the stationary bar and overlying the same, means carried by the swinging bar for fastening a bed-spring frame thereto, a spring applied to assist raising the swinging bar upwardly, and a latch for holding the swinging bar in its upper position.

12. A device for the purpose set forth, comprising a stationary bar, a bar overlying the same and hinged at one end to one end of the stationary bar, clamping-hooks carried by the ends of said swinging bar, and a latch for holding the swinging bar in its uppermost position.

13. A device for the purpose set forth, comprising a stationary bar, a bar hinged at one end to the stationary bar and overlying the same, means for fastening a bed-spring frame to the swinging bar and a spring applied to assist raising the swinging bar and acting to limit its raising movement.

14. A device for the purpose set forth, comprising a stationary bar having an upwardly-opening longitudinal groove, a swinging bar fitting in said groove and hinged at one end to one end of said stationary bar, means for fastening a bed-spring frame to the swinging bar and means for holding the swinging bar in its upper position.

15. A device for the purpose set forth, comprising a stationary bar, a bar overlying the same and hinged at one end to one end of the stationary bar, clamping-hooks carried by the ends of said swinging bar, means for adjusting said clamping-hooks longitudinally of said swinging bar, and a latch for holding the swinging bar in its uppermost position.

16. A device for the purpose set forth, comprising a stationary bar, a swinging bar hinged at one end to one end of the station-

ary bar and overlying the same, means carried by the swinging bar for fastening a bed-spring frame thereto, a mattress-clamping device carried by the outer end of said swinging bar, and a latch for holding the swinging bar in its upper position.

In testimony that I claim the foregoing as my invention I affix my signature, in the presence of two witnesses, this 30th day of August, A. D. 1906.

CHARLES M. SCHWAB.

Witnesses:
W. L. HALL,
GEORGE R. WILKINS.