

No. 740,845.

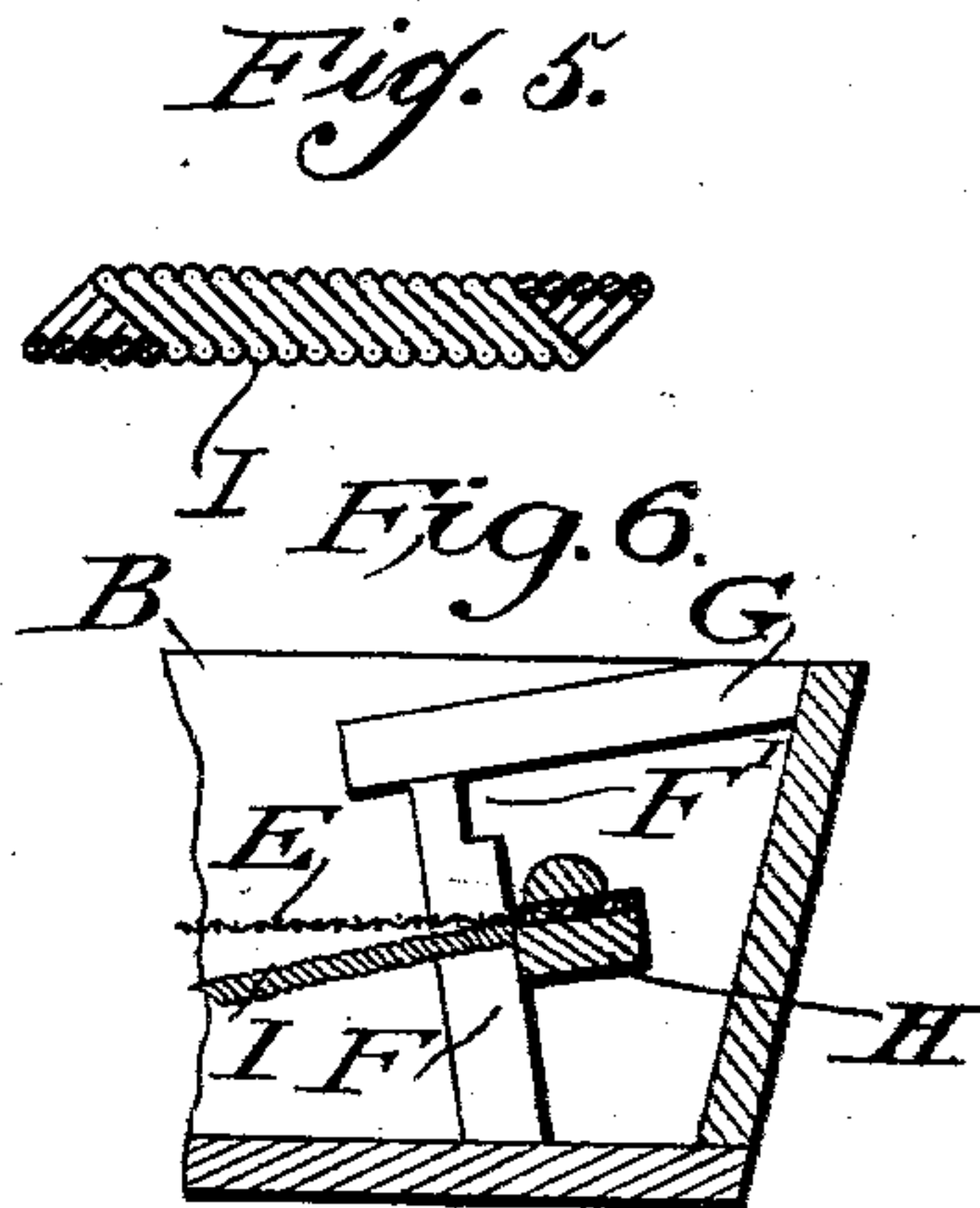
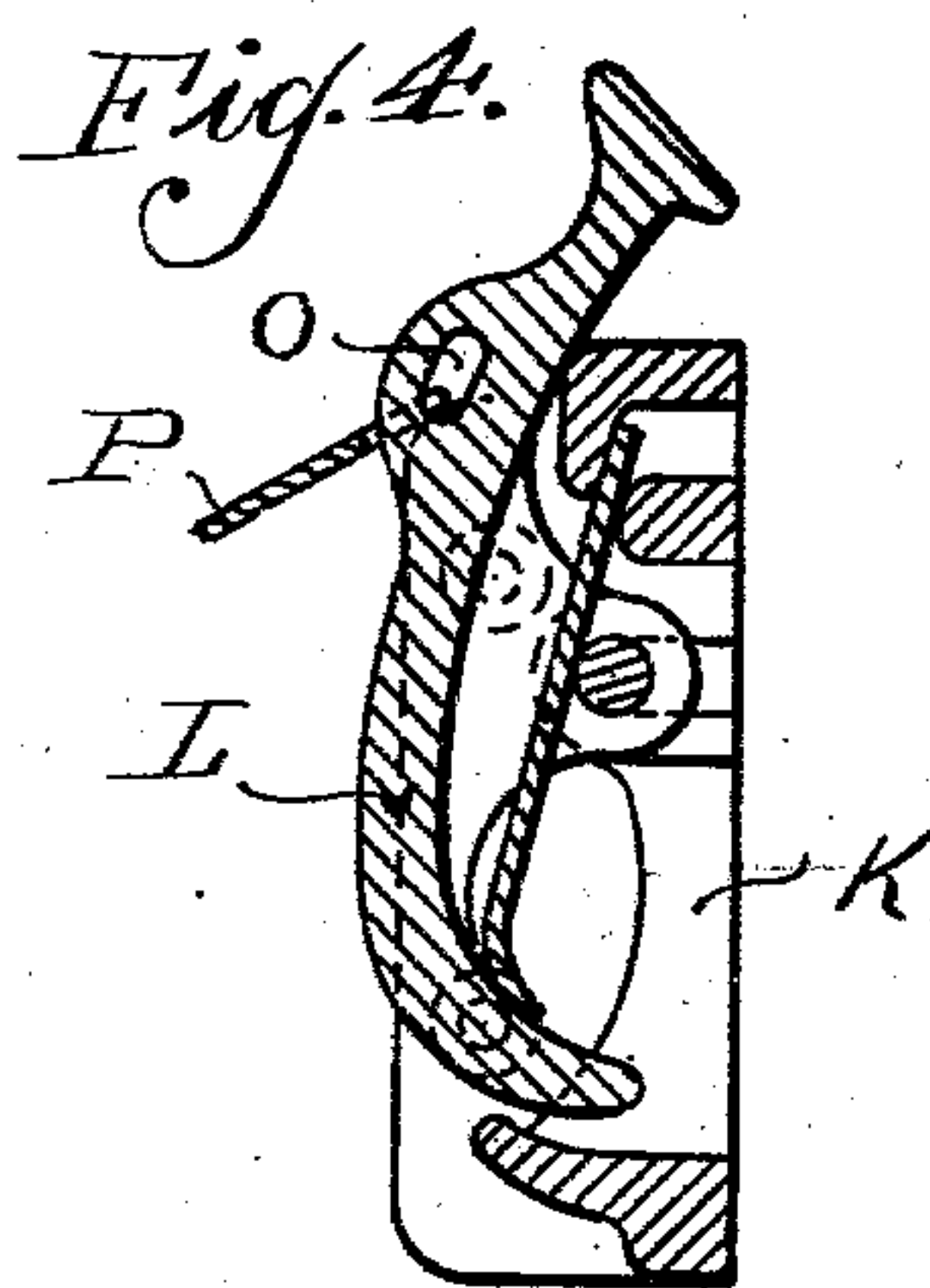
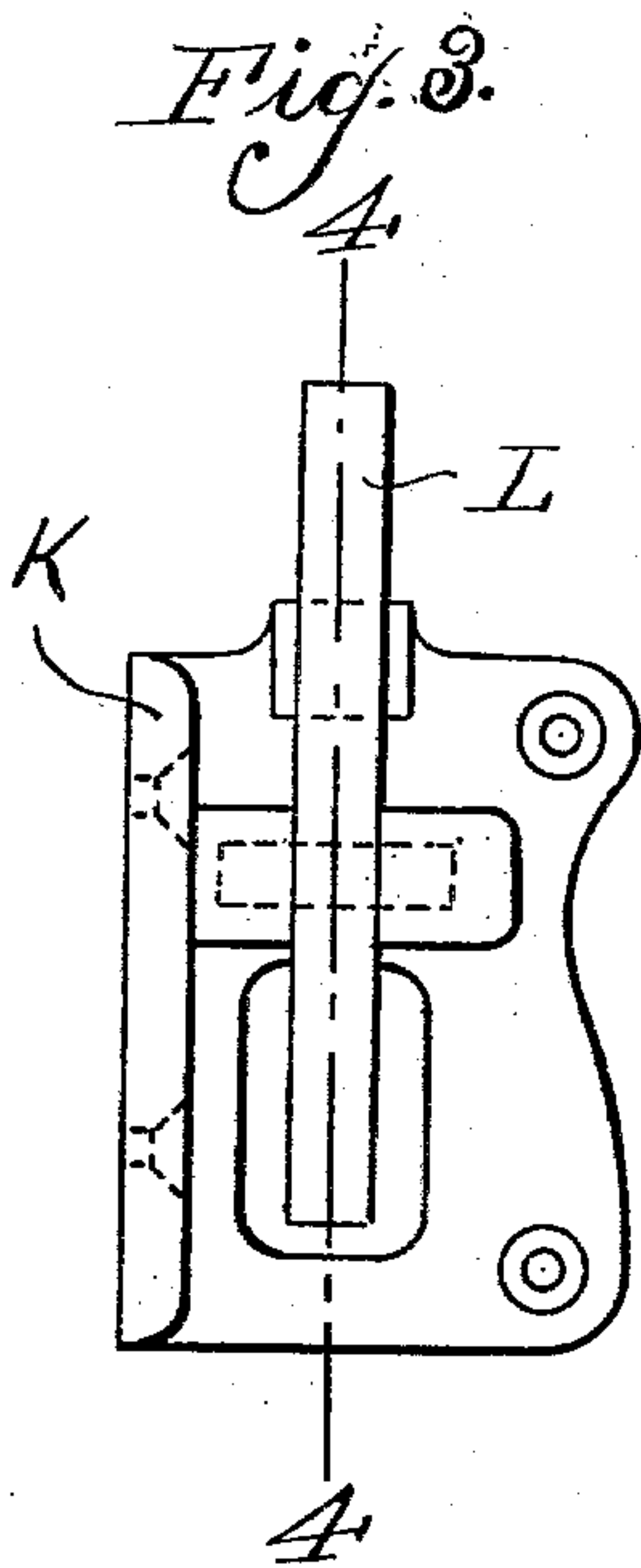
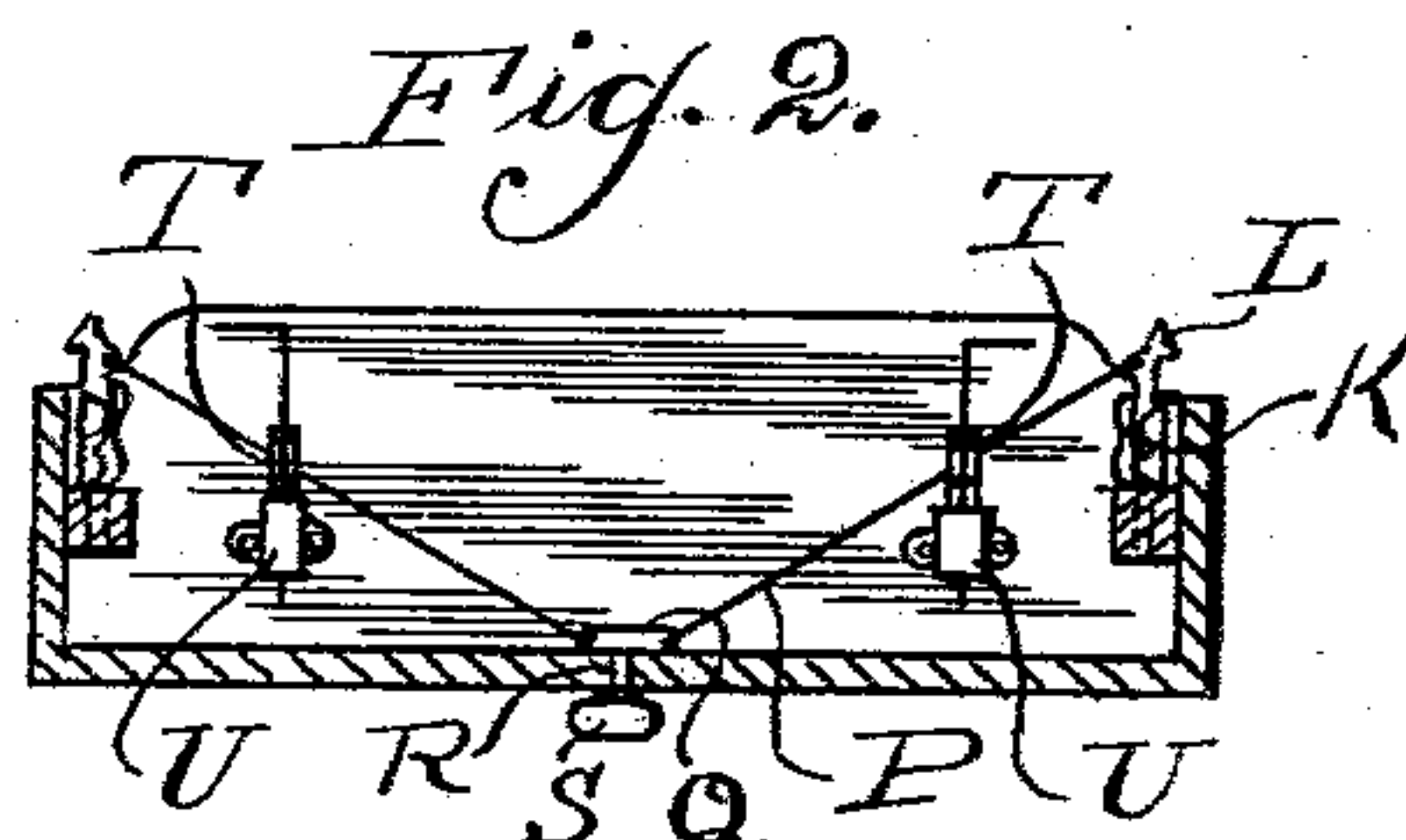
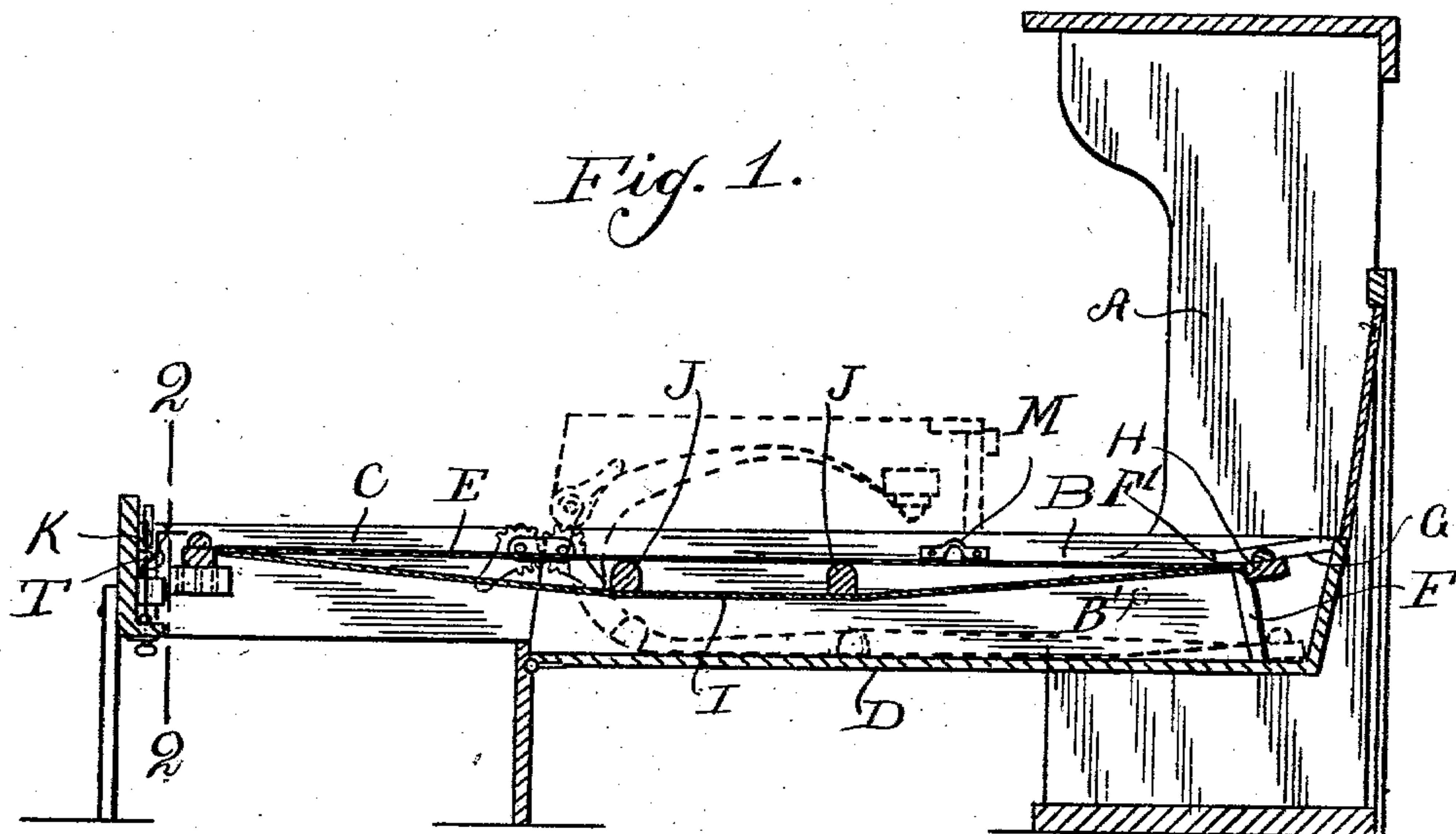
PATENTED OCT. 6, 1903.

C. L. GAMER.

FOLDING BED.

APPLICATION FILED JAN. 2, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES L. GAMER, OF CHICAGO, ILLINOIS.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 740,845, dated October 6, 1903.

Application filed January 2, 1903. Serial No. 137,505. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. GAMER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Beds; 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.

My invention relates to a novel construction in a folding bed, the object being to provide a bed in which the space for the bedclothes and mattress is increased both when the bed is open and when it is closed; and it consists in the novel features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a central longitudinal section of a folding bed constructed in accordance with my invention. Fig. 2 is a transverse section of same on the line 2 2 of Fig. 1. Fig. 3 is a view in elevation of a spring-catch employed in connection with the bed. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a fragmentary detail view of a section of one of the springs used to support the middle portion of the wire mattress. Fig. 6 is an enlarged fragmentary detail view of the head portion of the body portion of the bed.

In the construction of folding beds it is desirable that as much room as possible be provided for the bedclothing, both when the bed is open and when it is closed, as this prevents crowding and is essential to the proper operation of the bed and the various operative parts of same. Every inch of space saved effects economy in the cost of construction and the space occupied.

My said bed comprises the head portion or cabinet A, in which is pivoted the bed-body B by means of the pivots B', the latter having a pivoted foot portion C, which is adapted to fold over upon the body portion B and with same swing into the head portion or cabinet A to fold the bed, the said body portion B having a bottom panel D, forming a fanciful front for said cabinet A when the bed is closed. Secured at one end in the outer or free end of said foot portion C is a

woven-wire mattress E, which extends parallel with the upper edges of the side rails of the bed, but below the pivot between the body portion B and foot portion C, the other end of said mattress E being movably mounted in the head end of said body portion B in such a manner that when said foot portion C is folded upon said body portion B the said head end of the mattress will drop down upon the panel D, as indicated in dotted lines in Fig. 1, and when said foot portion C is turned back to the position shown in full lines the said head end of said mattress will first be raised to the desired level and subsequently brought to the necessary tension to enable it to support the weight of the occupant. In the instance illustrated this is accomplished by means of two inclined guides F, secured to the side rails at the head end of said body portion B, provided with recesses F' at their upper ends and stops G above the upper ends of same, said guides serving as slides on which the end bar H of said mattress E moves, being caused by drawing said mattress at the foot end to move upwardly until it strikes said stops G and enters said recesses F'. After said bar H has thus been drawn upwardly by the downward movement of the foot portion C the continuation of said movement serves to bring the mattress E to a tension which serves finally to hold said foot portion in the position shown in full lines in Fig. 1 by reason of the fact that such tension is exerted below the plane of the pivot between the body and foot portions of the bed. By thus dropping the head end portion of said mattress E the space for the bedclothing is obviously increased and compression of same in closing the bed is prevented.

As the middle portion of the mattress E is subjected to the greatest weight and is obviously the most yielding portion, it is necessary to support said middle portion; but in so doing it is necessary to employ devices which occupy very little space and will not interfere with the folding of the bed nor act to compress the bedding when the bed is closed. Such support must also obviously be yielding. To this end I provide a plurality of yielding cords I, secured at their ends to the end bars of the mattress E and supporting a plurality of transverse slats J, which bear

upon the lower face of the mattress E at the middle portion thereof. The said yielding cords I are preferably spiral springs of light wire, each of said springs being composed of a number of wires lying side by side and forming a spring compounded of a number of springs. By this means the said cords I are rendered very stiff and capable of a very high tension, so as to effectually support the said middle portion of said mattress E.

In closing the bed it is necessary to lock the foot portion C upon the body portion B in the position shown in dotted lines in Fig. 1, as otherwise the pressure of the folded bed-clothes would prevent proper fit of the entire bed proper in the head portion or cabinet A. To this end locking devices are commonly used; but such locking devices as heretofore constructed occupied so much room in the foot end of the bed as to crowd the hair mattress or necessitate greater length of the bed. To overcome this difficulty and simultaneously strengthen and brace the joints between the footboard and side rails of the bed, I provide corner-plate castings K, in one leaf of each of which a spring-actuated catch L is pivotally mounted, said catches L being adapted to engage plates M, secured to the side rails of the body portion B. The said plates K are secured to the side rails and footboard on their inner faces, thus bringing the catches L as close as possible into the corners, and thus out of the way of the hair mattress. Each of said catches L is provided above its pivot with an eyelet O, by means of which each is connected by a wire P with one end of a transverse arm Q on the end of a shaft R, journaled in a transverse plate below the footboard and carrying a handle S at its other end, by means of which said shaft R is turned. By turning said shaft R the said catches L are turned against the action of the springs controlling same, and thus release the foot portion C with relation to the body portion B. The said wires P extend parallel with and very close to the footboard, and to further guide the same they are passed through loops T on the mattress clamp-plates U on said footboard.

A folding bed constructed as above is very compact and efficient, every inch of available space being utilized, thus facilitating compactness to the utmost.

I claim as my invention—

1. In a folding bed, the combination with the bed-body having a pivoted foot portion, of inclined guides secured to the side rails of one portion of said bed-body, a wire mattress rigidly secured at one end in the other portion of said bed-body and having the end bar of its other end engaging said guides and movable thereon to raise and lower said end, said movable end of said mattress being raised and

lowered by the movements of said foot portion.

2. In a folding bed, the combination with the bed-body having a pivoted foot portion adapted to be folded over upon said bed-body, of corner-plates in said foot portion secured to the side rails and footboard thereof, spring-actuated latches pivotally secured to one leaf of each of said corner-plates, projections on the side rails of the bed-body adapted to be engaged by said latches to lock said foot portion in its folded position on said bed-body, and a revoluble crank member carried by said foot portion and connected with said latches for actuating the latter to release said foot portion.

3. In a folding bed, the combination with the bed-body having a pivoted foot portion adapted to be folded over upon said bed-body, of corner-plates in said foot portion secured to the side rails and footboard thereof, spring-actuated latches pivotally secured to one leaf of each of said corner-plates, projections on the side rails of the bed-body adapted to be engaged by said latches to lock said foot portion in its folded position on said bed-body, a revoluble member mounted in said foot portion, wires connecting same with said latches, and guides on the footboard of said foot portion through which said wires pass, said revoluble member being adapted to turn said latches against the action of the springs engaging the latter to release said foot portion.

4. In a folding bed, the combination with the bed-body having a pivoted foot portion, of a woven-wire mattress rigidly secured at one end in one of said members and vertically movable at its other end in the other thereof, and means for locking said movable end at the upper limit of its movement, substantially as described.

5. In a folding bed, the combination with a bed-body having a pivoted foot portion, of inclined guides secured to the side rails of one portion of said bed-body, recesses in the upper ends of said guide-rails, a stop above same, a woven-wire mattress rigidly secured at one end in one of said members and having the end bar of its other end engaging said guide-rails and movable thereon to raise and lower said end, said movable end bar of said mattress being raised and lowered by the movements of said foot portion and adapted to enter said recesses in said guide-rails upon reaching the upper limit of its movement to lock the same.

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

CHARLES L. GAMER.

Witnesses:

RUDOLPH WM. LOTZ,
E. F. WILSON.