N. CAMPBELL.

CURTAIN-FIXTURES.

No. 183,129. Patented Oct. 10, 1876.

Fig. 1.

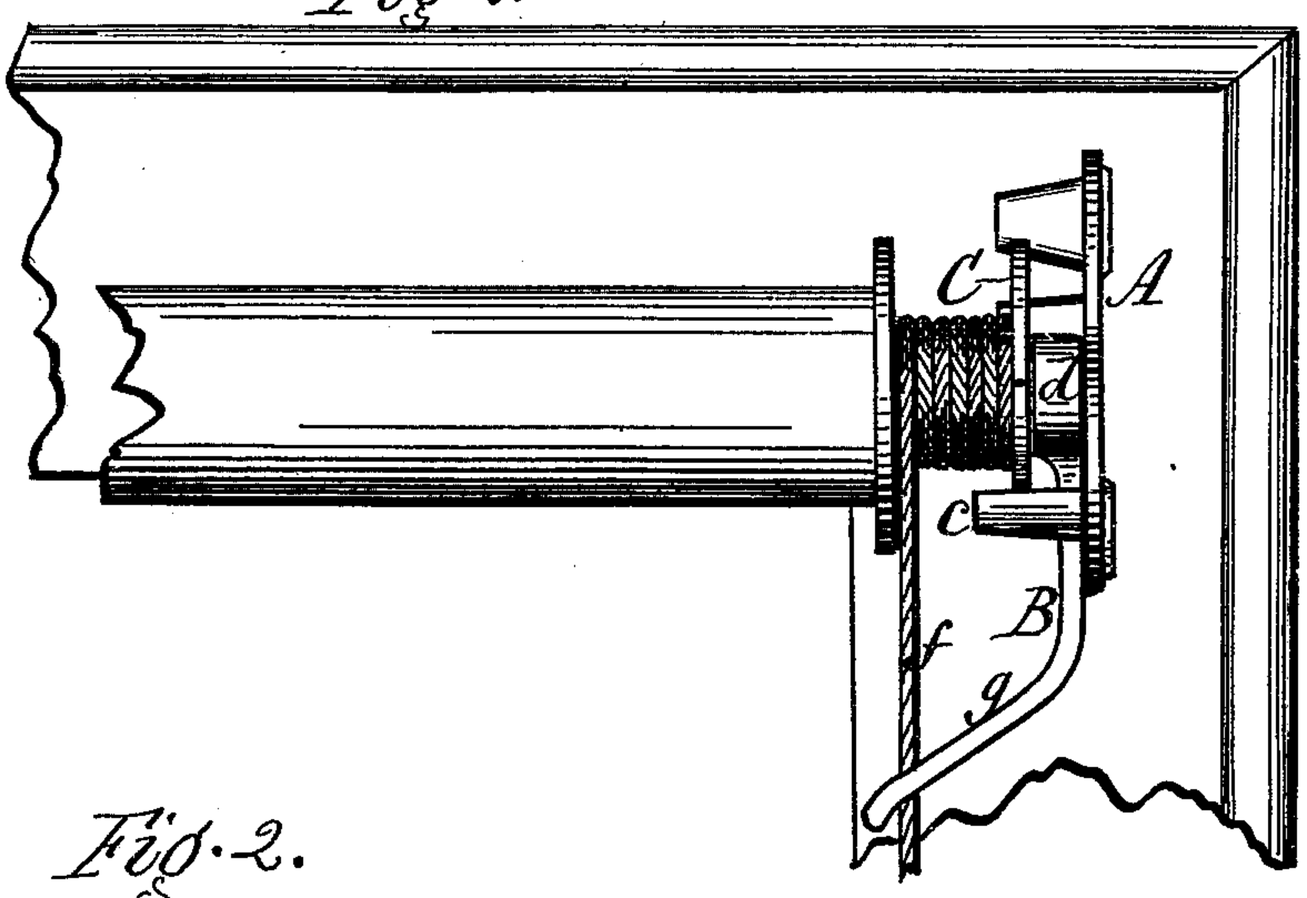


Fig. 2.

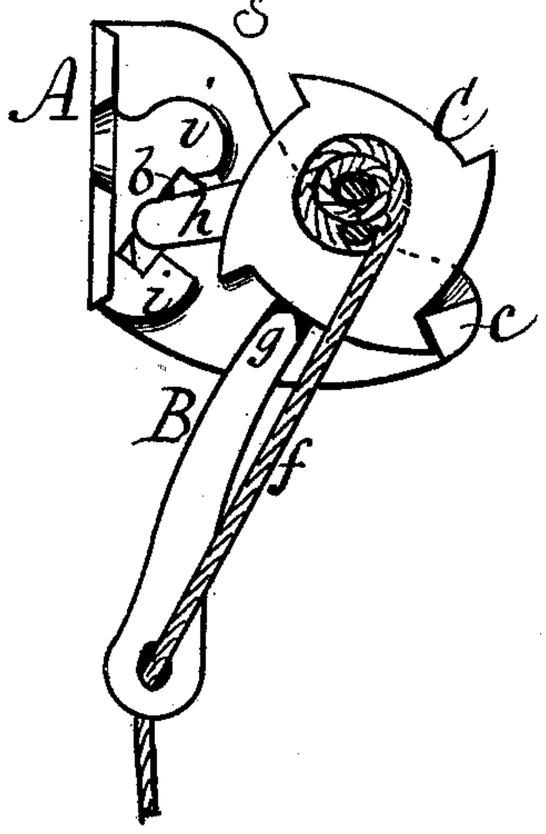


Fig. 3.

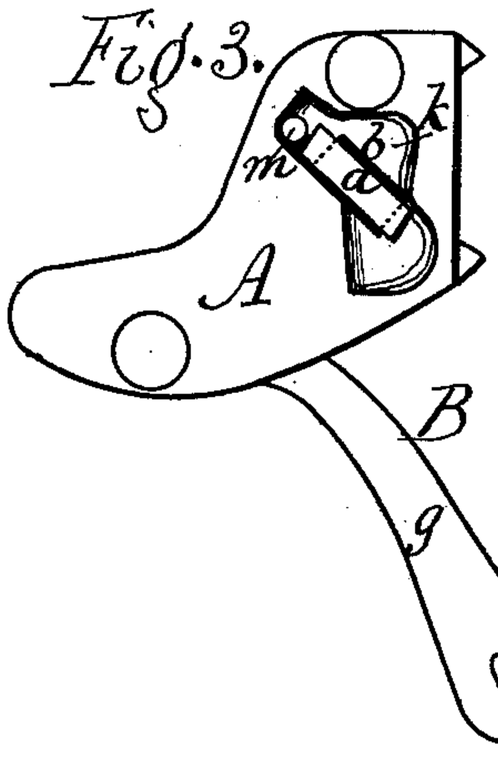


Fig. 4.

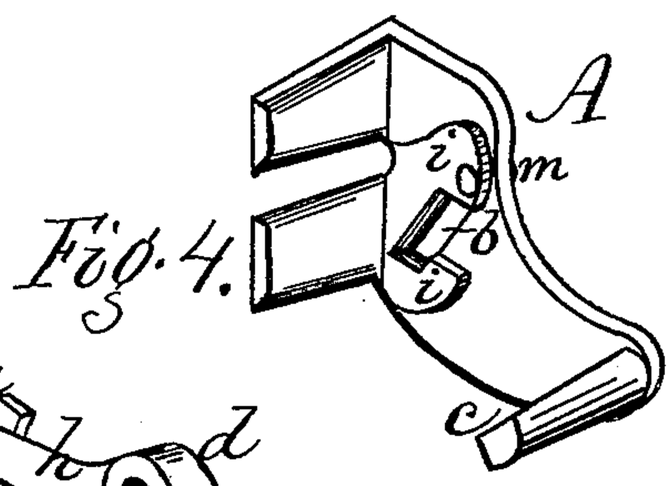
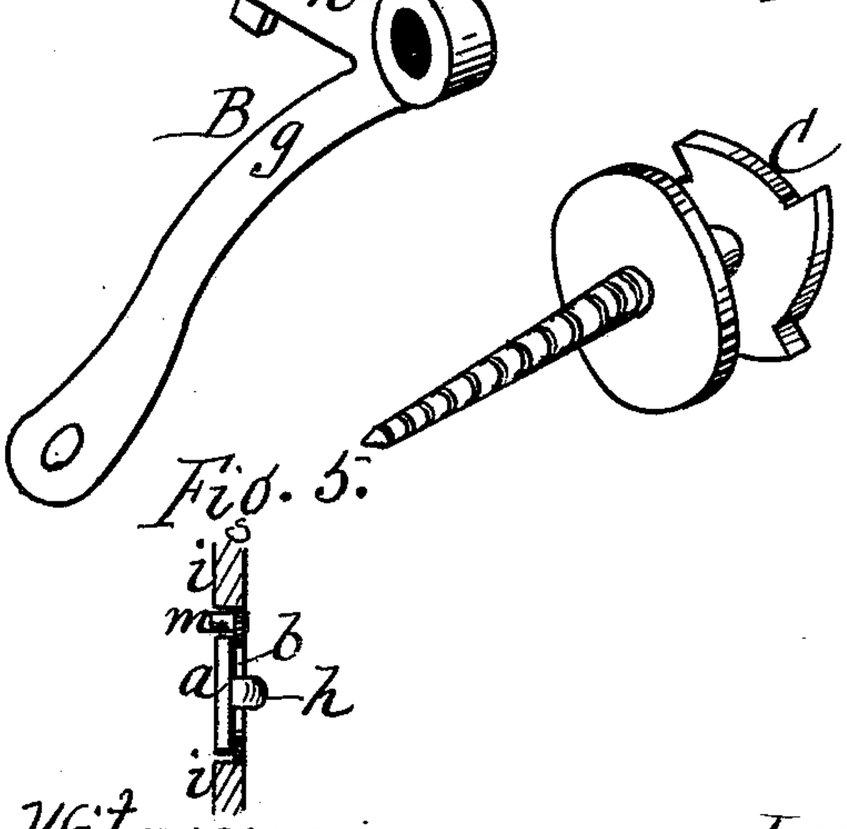


Fig. 5.



Witnesses.
E. B. Scott.
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NATHAN CAMPBELL, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **183,129**, dated October 10, 1876; application filed January 6, 1876.

To all whom it may concern:

Be it known that I, NATHAN CAMPBELL, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, refence being had to the accompanying drawings, in which—

Figure 1 is a front elevation, showing my improvement applied to a window. Fig. 2 is a side elevation of the fixture. Fig. 3 is a side elevation of the bracket looking upon the opposite side from Fig. 2. Fig. 4 is a perspective view of the parts detached. Fig. 5 is a section of a portion of the bracket, showing the engagement of the bit with its socket.

My invention relates to that class of curtain-fixtures in which the roller is attached to a swinging lever for engaging the ratchet with, or disengaging it from, a fixed stop on the bracket.

It is an improvement upon the patent issued to me May 16, 1871, and is designed to make the ratchet more effective under the draw of the cord, and therefore more sure in its engaging and disengaging action with the stop. To this end my invention consists of an elbow-lever of peculiar construction, having its connection with the bracket between the stop, and the back of the bracket, whereby the ratchet is located inside the stop and engages outward against it; also of a bit and socket forming the joint, so arranged that the bit may be seated by inserting one end, then dropping it into the socket, and finally inserting a pin over the end of the bit, by which means the lever and bracket cannot be accidentally separated, but will always retain their connection.

A represents the bracket. B is the lever. C is the ratchet. The lever is connected with the bracket by a loose joint, consisting of a bit, *a*, which rests in a socket or slot, *b*. The ratchet (attached to the end of the curtain-roller) has its journal-bearing within or upon the lever, so that as the latter is swung outward the teeth of the ratchet are disengaged from the fixed stop *c* of the bracket, and the curtain can then fall. Thus far the construction is similar to that in my patent before referred to. The lever B is made of elbow-form, as shown. This carries the journal-bearing *d* out nearly over the ratchet-stop *c* of the bracket, while the inner end has its connection with the bracket between said stop and the foot of the bracket, and preferably near the latter. By this means an elbow is formed which raises the bearing *d* by a very slight movement of the long end of the lever. The motion is multiplied by the length of the elbow. Hence, a slight motion of the cord *f* will be sure to raise the ratchet from its engagement with the stop *c*. Heretofore the joint of the lever has rested over, or nearly over, the stop, and the lever has been made curved, and a comparatively small raising-movement of the ratchet is produced by drawing the cord. On this account it is somewhat uncertain in action. The long arm of the lever B may either pass down between the stop and the back of the bracket, or it may pass outside the stop—the result will be the same in either case. This elbow form of the lever furnishes a broad bearing of its two arms, *g h*, against the flat face of the bracket, having the rear end of the arm *h* projecting back of the slot and bearing on the bracket, so that there will be little tendency to rock, twist, or get out of place. The arms *g h* are preferably set at an acute angle, as shown.

In this construction it will be noticed that the ratchet stands inside the stop *c*, and acts outwardly or backwardly in engaging with the stop; whereas, in the old style the ratchet is outside the stop and it acts downwardly in engaging with it. My device is much more secure in its engagement, especially as the curtain is liable to be blown when the window is opened, and this only tightens the connection. Where the engagement is downward, the tendency is to detach if the curtain is is blown. By thus locating the ratchet inside, there is also less projection into the room and the curtain fits closer to its place against the window-casing.

The bit *a* and socket *b* are of the square or rectangular form shown, and the bit stands sufficiently inward from the arm *h* to rest on the inside of the bracket, while the arm rests outside against the face. The outside of the

bracket surrounding the socket has a projecting boss or cheek, *i*, and the interior, Fig. 3, has a corresponding depression, *k*. The length of the socket *b* is somewhat less than that of the bit. To insert the bit it is turned up or inclined, so that one end will enter the socket angularly and pass in by the back side of the socket. The other end can then be passed in bodily by turning the lever down, and the bit then dropped, which seats it, and a loose pin, *m*, is then inserted over the top of the bit when it is turned in coincidence with the socket. This prevents any disengagement till the pin is removed. The bit then holds against the edges of socket, and the depression *k* is made of such size and shape as to allow the bit to turn to accommodate the movements of the lever.

Heretofore much trouble has been experienced from the disconnection of the lever and bracket in packing and transportation. In this improvement I design to always keep the bracket and lever connected when once fitted together. This I do by fitting the bit in the socket and then securing it by the pin *m*. Whenever it is desired to detach the parts it can be done by disconnecting the pin. This obviates a very great difficulty in this class of loose-jointed curtain-fixtures. The engagement of the bit with the socket might be made by forming side notches in the socket, with side lugs on the bit entering the notches, and then dropping the bit down; or by forming the notches in the bit, and lugs projecting from the inner edge of the socket in a similar way. The pin would serve to hold the bit down when once entered.

Having thus described my invention, I do not claim, broadly, a lever with a ratchet hung thereto engaging with a fixed stop of the bracket; but

What I claim is—

1. The elbow-lever B, constructed with the two arms *g h*, its connection with the bracket being situated between the fixed stop *c*, and the back of the bracket, as herein shown and described, and for the purpose specified.

2. In a curtain-fixture, the bit *a*, and socket *b*, the socket constructed shorter than the bit, the bracket having the depression *k* in the back to contain the bit, and a boss, *i*, on its front to serve as a stop to the lever, as and for the purpose specified.

3. The combination, with the bit *a* and socket *b* of the pin *m*, as and for the purpose specified.

4. The combination, with the lever of a curtain-fixture, of the check-pieces *i i* on the bracket, forming stops to gage the movement of the lever in its upward and downward throw, as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

N. CAMPBELL.

Witnesses:

E. B. SCOTT,

LOUIS SPAHN.