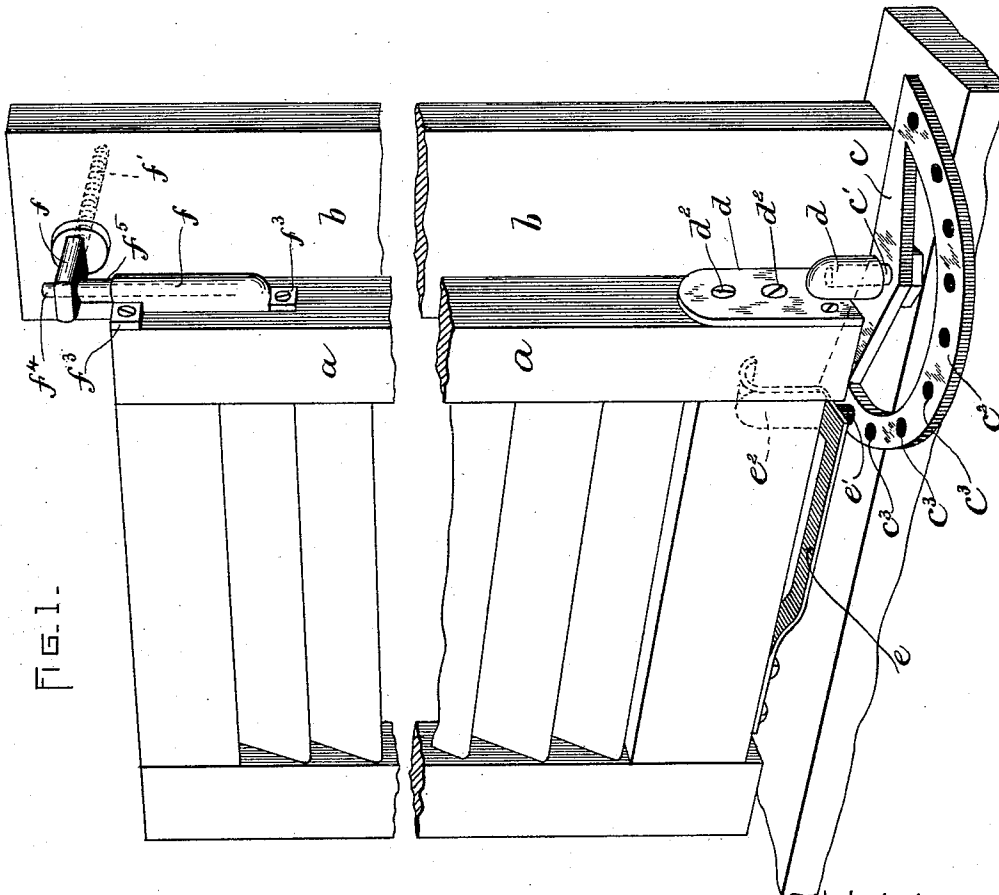
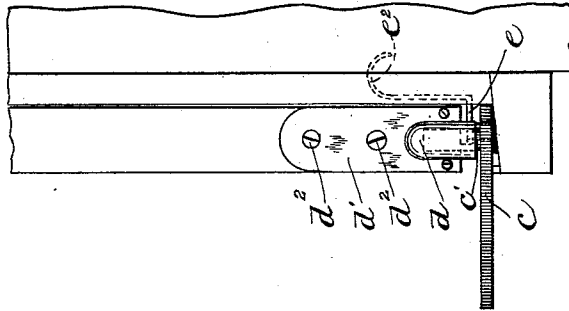
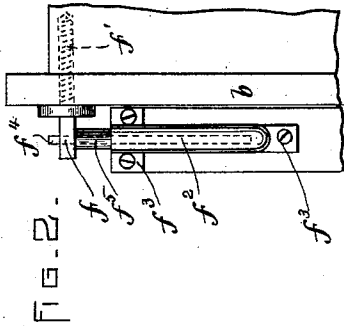


(No Model.)

A. J. AVERY.
BLIND HINGE.

No. 484,351.

Patented Oct. 11, 1892.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANDREW J. AVERY, OF LYNN, MASSACHUSETTS.

BLIND-HINGE.

SPECIFICATION forming part of Letters Patent No. 484,351, dated October 11, 1892.

Application filed March 19, 1892. Serial No. 425,545. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. AVERY, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Window-Blinds, of which the following is a specification.

This invention relates to means for hinging a window-blind to a window-casing, and for holding the blind in various positions, such as in a closed position, an open position, and at a series of intermediate positions.

The invention has for its object to provide an improved construction of top hinge adapted to co-operate with a suitable bottom hinge and a spring attached to the blind, in preventing vertical play or movement of the blind, as well as to permit the ready removal of the blind, when desired.

To these ends the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming part of this specification, Figure 1 represents a perspective view of a blind and a portion of its casing provided with my improvements. Fig. 2 represents an edge view of the same.

The same letters of reference indicate the same parts in both the figures.

In the drawings, *a* represents a window blind or shutter of ordinary construction, and *b* represents the casing.

The bottom hinge of the blind is composed of two general parts or members—namely, a frame or plate *c*, having an upwardly-projecting pintle or stud *c'*, and a socket *d*, formed to receive said pintle and made in one piece with a plate *d'*, adapted to be attached by screws *d''* or other suitable fastening means to the edge of the blind *a*. The plate *c* is attached to the sill portion of the window-casing in any suitable way—such as by screws or bolts—in a substantially-horizontal position, the stud or pintle *c'* being in the proper position to act as one of the centers on which the blind swings. The plate *c* is provided with a curved portion or extension *c''*, having a series of orifices *c'''*, which are concentric with the stud or pintle *c'*.

e represents a spring which is attached at one end to the bottom rail of the blind and is provided at its free end with a pin or tooth *e'*, adapted to engage with either of the ori-

fices *c'''*, and thus hold the blind in as many different positions as there are orifices, the said orifices being arranged so that when the pin *e'* is engaged with the orifice at one end of the series the blind will be closed, as shown in Fig. 1, and when said stud is engaged with the orifice at the opposite end of the series the blind will be open against the side of the building, the other orifices holding the blind in various intermediate positions.

The spring *e* is provided with a handle *e''*, (shown in dotted lines in Fig. 1,) said handle being formed on or attached to the free end of the spring and arranged at the inner side of the blind when the latter is closed, so that a person within the building can readily reach said handle for the purpose of raising the spring and the pin *e'* out of engagement with the plate *c''*.

The upper hinge of the blind is composed of a member *f*, affixed to the window-casing, said member comprising an ear or plate, which is formed on a screw-threaded shank *f'*, adapted to be screwed into the casing, a socket *f''*, having ears *f'''*, adapted to be screwed to the edge of the blind, a pin *f''''*, adapted to be inserted in the socket *f''* and to pass through a hole in the ear *f*, said pin being removable from said socket and ear, and a loose sleeve or collar *f'''*, interposed between the upper end of the socket *f''* and the under side of the ear *f*, the pin *f''''* passing through said sleeve. When the blind is in place, the upper end of the socket *f''* is separated from the under side of ear *f* by a vertical space sufficient to permit the removal of the lower pintle *c'* from its socket by an upward movement of the blind when sleeve *f'''* is removed. It will be seen that the ear *f*, affixed to the window-casing, constitutes the bearing in which the pin *f''''* oscillates, said pin being in line with the pintle *c'* of the lower hinge. The spring *e* at the bottom of the blind, pressing downwardly upon the plate *c''*, has a tendency to press the blind upwardly, and thus press the sleeve or collar *f'''* closely against the under surface of the ear *f*, and the spring may act in this way either by bearing directly on the plate *c''* or through the pin or tooth *e'*, the latter transmitting the downward pressure of the spring by bearing on the sides of the orifices in the plate *c''*, so that said pressure has a tendency

to force the blind upwardly. The sleeve f^5 , therefore, limits the upward movement of the blind by the spring, the said spring co-operating with the ear f , socket f^2 , and sleeve f^5 in preventing free vertical play of the blind. Hence rattling of the blind in its hinges is entirely obviated. When it is desired to remove the blind from its hinges, the pin f^4 is withdrawn by an upward movement from the socket f^2 , sleeve f^5 , and ear f , thus releasing the sleeve f^5 , the removal of which permits the blind to be raised far enough to withdraw the bottom pintle c' from its socket.

It will be seen that by the described construction of the hinges it will be impossible for the blind to be separated from its hinges by an upward movement, it being necessary before the removal of the blind to withdraw the pin f^4 . It will also be seen that the plate c , with its curved extension c^2 and pintle c' , combines in one piece a hinged member and a fastening member, so that by the act of attaching the said plate to the sill of the window-casing I at once locate the fixed member of the bottom hinge and the fastening member that co-operates with the fastening device or spring on the blind.

The plate d' , used as the means for securing the socket d to the blind, constitutes a stay or protecting-piece for the edge of the blind, as will be readily seen.

I claim—

1. A blind-hinge comprising a socket adapt-

ed to be attached to the upper portion of the blind and open at its upper end, a pin loosely inserted in said socket and projecting upwardly therefrom, an ear adapted for attachment to a window-casing and provided with an orifice to receive said pin, and a sleeve or collar placed loosely on the pin between the socket and ear, said sleeve bearing on the upper end of the socket and on the under side of the ear and preventing movement of the socket toward the ear, the removal of the pin and socket permitting said movement, as set forth.

2. The combination of a window-casing, a blind having a top hinge comprising an ear or perforated member affixed to the casing, a socket affixed to the blind, a pin removably inserted in said socket and projecting upwardly therefrom sufficiently to pass through the ear, the upper end of the socket being separated from the under side of the ear by a space, a loose sleeve or collar on the pin between the socket and the ear, and means for holding the parts together, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of March, A. D. 1892.

ANDREW J. AVERY.

Witnesses:

C. F. BROWN,
A. D. HARRISON.