No. 693,664. Patented Feb. 18, 1902.

J. H. MILANS.

# HOLDING FIXTURE FOR SPRING ACTUATED SHADES.

(Application filed May 25, 1901.)

(No Model.)

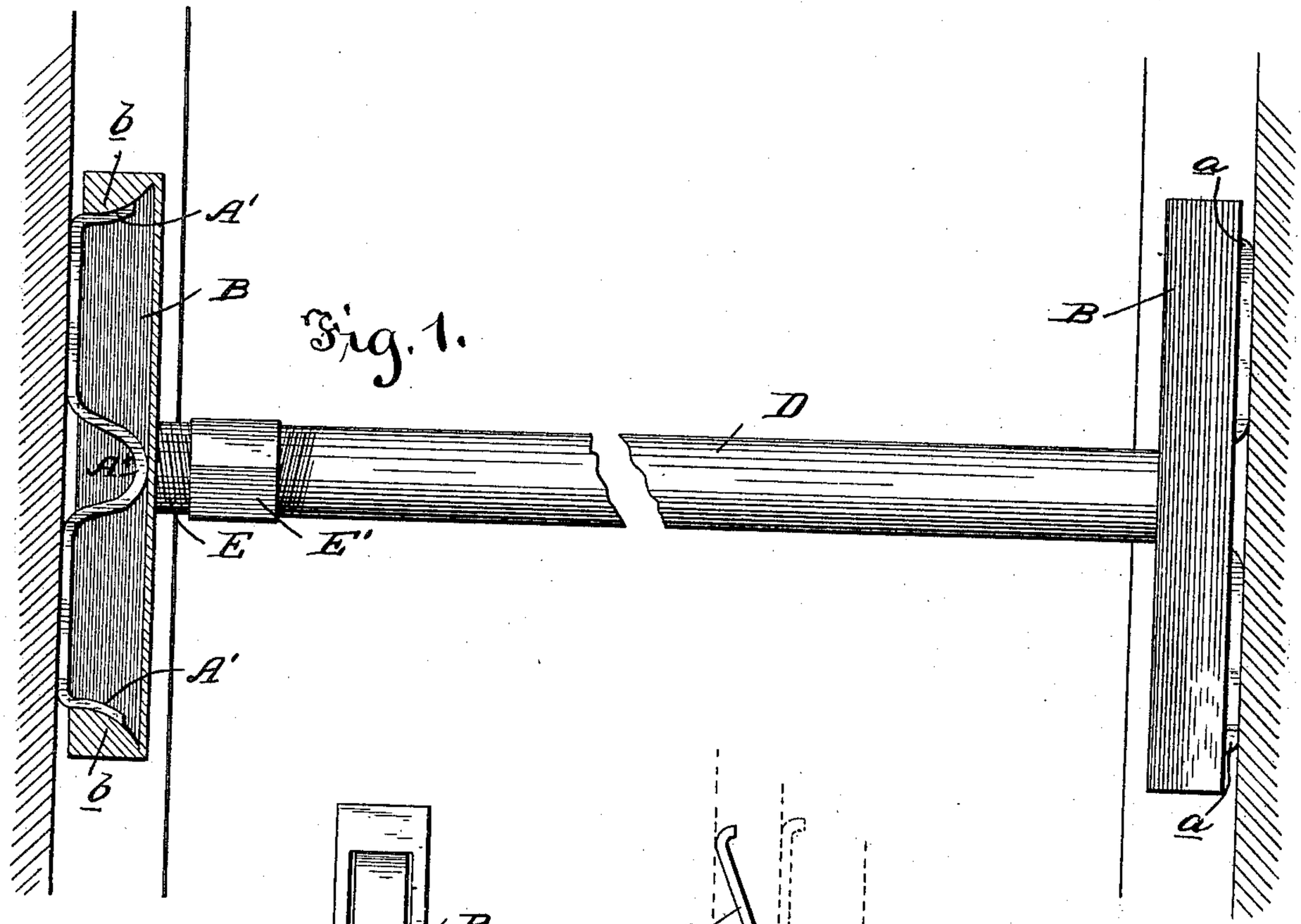


Fig. 1.

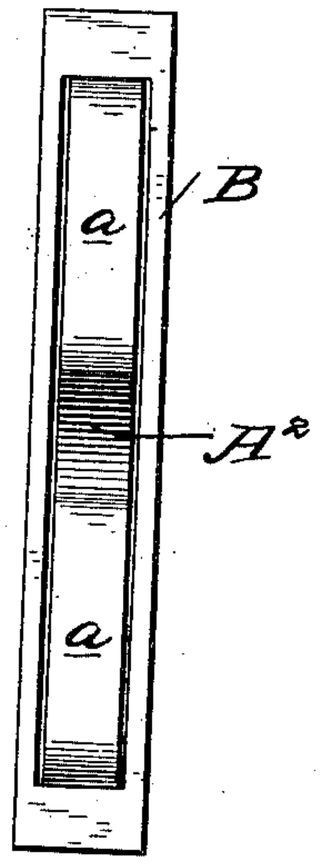


Fig. 2.

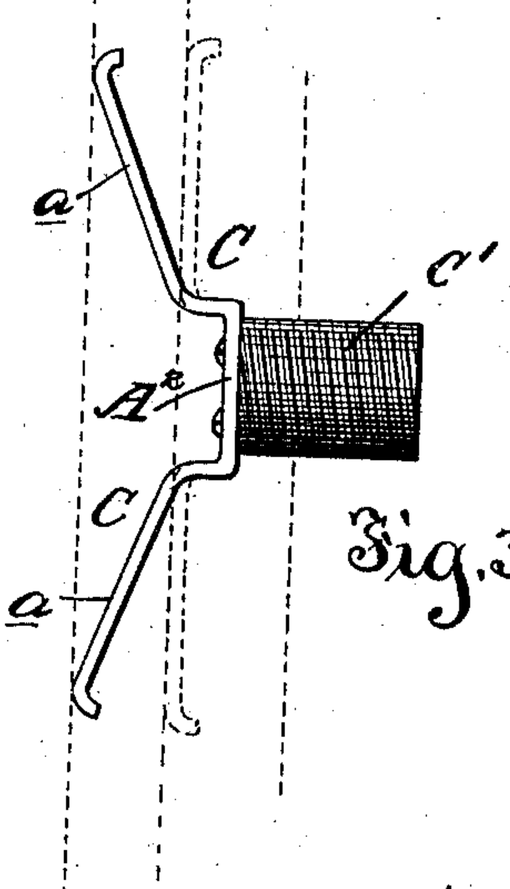


Fig. 3.

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## HOLDING-FIXTURE FOR SPRING-ACTUATED SHADES.

SPECIFICATION forming part of Letters Patent No. 693,664, dated February 18, 1902.

Application filed May 25, 1901. Serial No. 61,894. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH H. MILANS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Holding-Fixtures for Spring-Actuated Shades; 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.

This invention relates to an improvement in holding-fixtures for spring-actuated shades; and it is embodied in the construction presently to be described, and defined in the claims.

The invention relates more particularly to that type of fixture wherein the friction head or shoe is carried directly by the stick as distinguished from those wherein spring-actuated rods are employed, which rods carry the shoes or heads. The invention may, however, be employed with the rod type of fixture.

The object of the present invention is to provide a fixture which within certain limits will successfully adjust itself to the varying conditions of guide-posts or window-frames, one which will permit of an easy adjustment as to length, and a fixture of exceeding simplicity, although possessing the requisites of a successful and satisfactory device.

In the drawings is shown a convenient form of fixture embodying the invention, although the general principles can be embodied in other forms and structures without departing from the invention.

Figure 1 is a side elevation of the fixture, showing parts in vertical section. Fig. 2 is an edge view of one of the heads. Fig. 3 is a side elevation of a modified form.

An important feature in friction-holding heads is to secure an extended friction-surface and to distribute the pressure exerted by the spring throughout the extended surface as distinguished from those wherein the pressure is exerted on relatively small surfaces. To accomplish this important result, I employ conveniently a long narrow spring A, having flat elongated portions *a*. This spring is conveniently carried by a box or shell B, having its upper and lower walls flanged, as at *b*, forming inclined surfaces, thus making the opening in the outer face of the shell less in length than that of the base of the chamber. With the inclined surface of the flanges *b* the inturned ends A′ of the spring A engage, the length of the parts A′ being conveniently slightly less than that of the ends *b*. At the center of spring A is a central curved crimp $A^2$ intermediate the friction-surfaces *a*, which may be stated as forming a pivoted point or fulcrum limiting the in movement of the center of the spring. The normal tendency of the ends of the spring from the crimp is to spring outward, and this tendency is resisted by the ends *b*, which, however, permit of the friction-surfaces projecting beyond the edge of the shell, so that a frictional engagement can be readily had and any irregularity in the casing compensated for. Also this construction prevents sticking in wet weather, as the spring friction-surfaces are permitted considerable play, owing to the curved sides of the crimp yielding to pressure.

In Fig. 3 I have shown a modified form of spring C, the same being represented as attached directly to a lug C′, adapted to be secured to a curtain-stick, the elongated flat surfaces being, however, present.

To lengthen or shorten the stick D and to connect the shell B to the same, I secure a lug or nipple E to the shell and form left-handed threads thereon. On the end of the stick right-hand threads are formed, and these two threaded portions are united by a threaded sleeve or nut E′, having right and left threads, so that by turning the nut the parts will be drawn toward or forced from each other. This construction needs be applied at one end only, the opposite shell being attached directly to the stick. When the fixture has been properly applied to a window-frame, the threaded nut E is employed to adjust the tension of the yieldable heads. This is of great advantage, inasmuch as such adjustment can be made without removing the fixture from its guiding-grooves.

While no curtain is shown, it is to be un-

derstood that the fixture is intended for use with that type of shade which has a constantly-acting spring-roller.

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

1. In a holding device for spring-actuated shades, the combination with a stick, of a friction-spring at the end of the stick having oppositely-arranged elongated flat friction-engaging surfaces and a crimp between the surfaces.

2. In a holding device for spring-actuated shades, the combination with a stick, of a friction device carried by the end of the stick consisting of elongated substantially flat spring portions and an intermediate inwardly-extending connecting portion the normal tendency of the flat portions being to project outward.

3. The combination with a shade-stick, of a head having a contracted opening secured to said stick, a spring friction device carried by said head and adapted to project slightly without the opening therein, and means for adjusting the tension of the spring friction device, substantially as described.

4. The combination with a shade-stick, of yieldable friction-heads, and means for varying the length of the stick to adjust the tension of the friction-heads, substantially as described.

5. In a holding device for spring-actuated shades, the combination with a stick, of a hollow head carried thereby, and provided with an opening at one side, an elongated spring within the head having an engaging portion adapted to project slightly without the opening therein at a point intermediate of the ends thereof, and means for adjusting the tension of the spring.

6. A holding device for shades, comprising a hollow head, a friction-spring carried by said head having an intermediate contacting surface, and means engaging the ends of the spring to prevent the withdrawal of the same from the head, substantially as described.

7. A friction-head for shade-holding fixtures comprising a spring having a depressed central portion, and elongated substantially straight portions extending in opposite directions from said depressed central portion.

8. A friction-head for shade-holding fixtures comprising a shell opening outwardly, and a metallic spring held within said shell and adapted to project at opposite ends slightly beyond the plane of the outer surface thereof.

9. A shade-holding fixture comprising oppositely-disposed elongated yieldable heads, a divided stick connected thereto, and an adjustable device connected to the adjacent ends of said division adapted to regulate the tension of said yieldable heads, substantially as described.

10. In combination with suitable guiding-grooves, a shade-holding fixture comprising a stick adapted to be carried by a shade, elongated yieldable friction-heads at the opposite ends of said stick exerting a constant pressure in said grooves, and adjustable means for regulating the degree of such pressure without withdrawing the fixture from its grooves, substantially as described.

11. A holding device for shades, comprising a head, a friction-spring carried by said head having an intermediate contacting surface, and means engaging the respective ends of the spring to prevent the same springing away from the head, substantially as described.

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

JOSEPH H. MILANS.

Witnesses:
CALVIN T. MILANS,
GEO. T. MAY, Jr.