

No. 617,321.

Patented Jan. 10, 1899.

G. H. DAVIS.  
CURTAIN HOLDING DEVICE.

(Application filed Oct. 1, 1898.)

(No Model.)

Fig. 1.

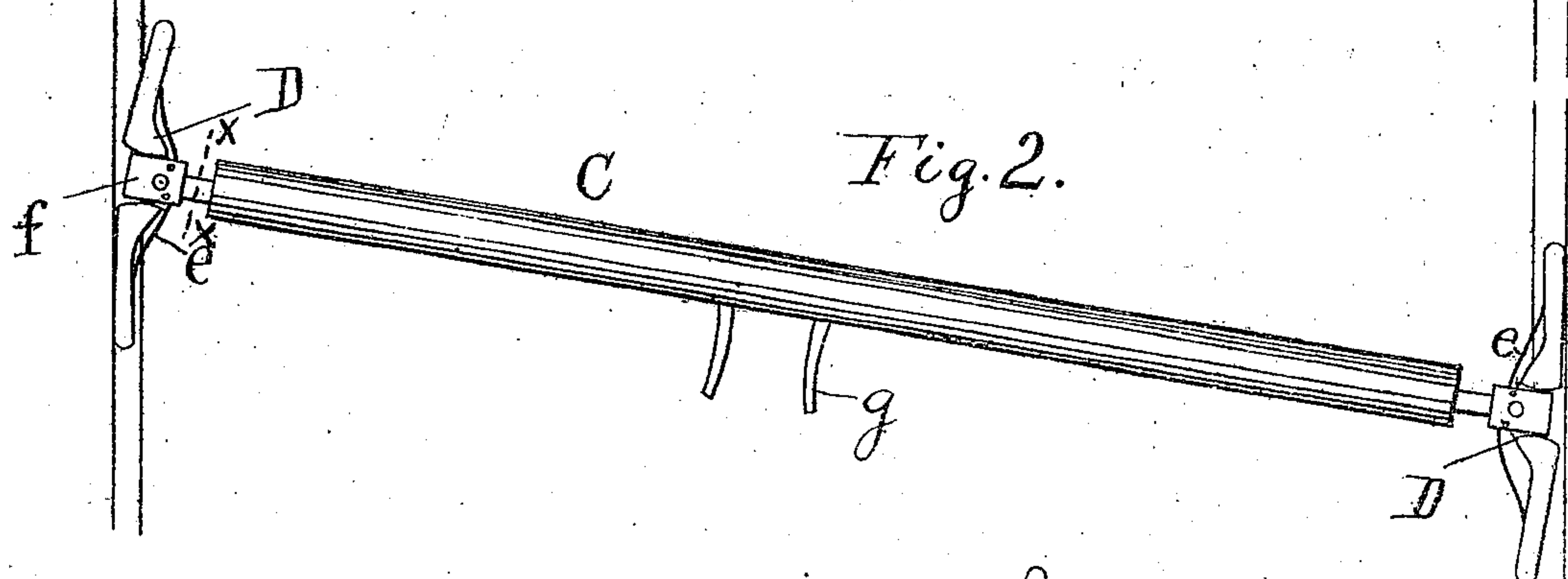
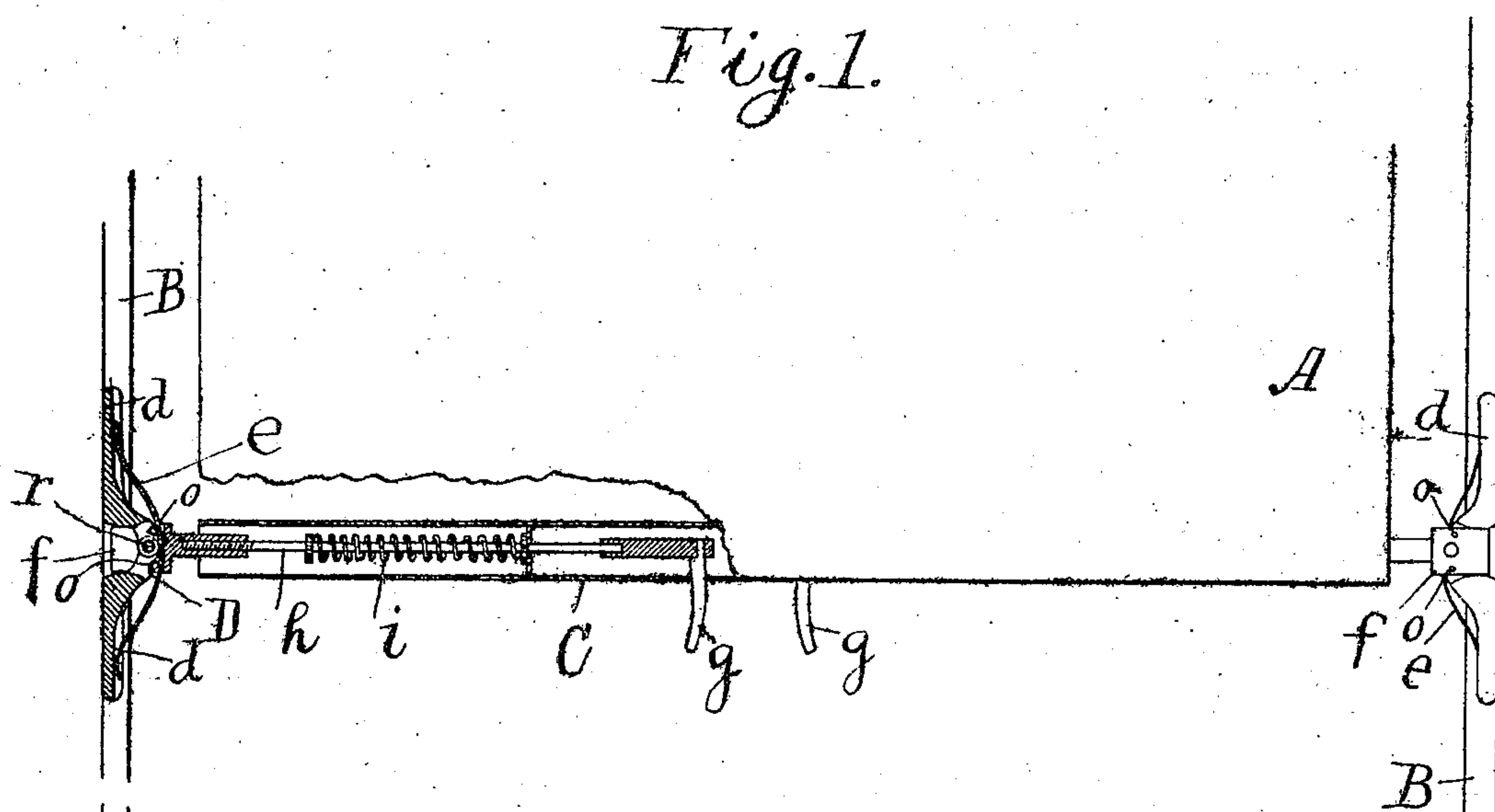
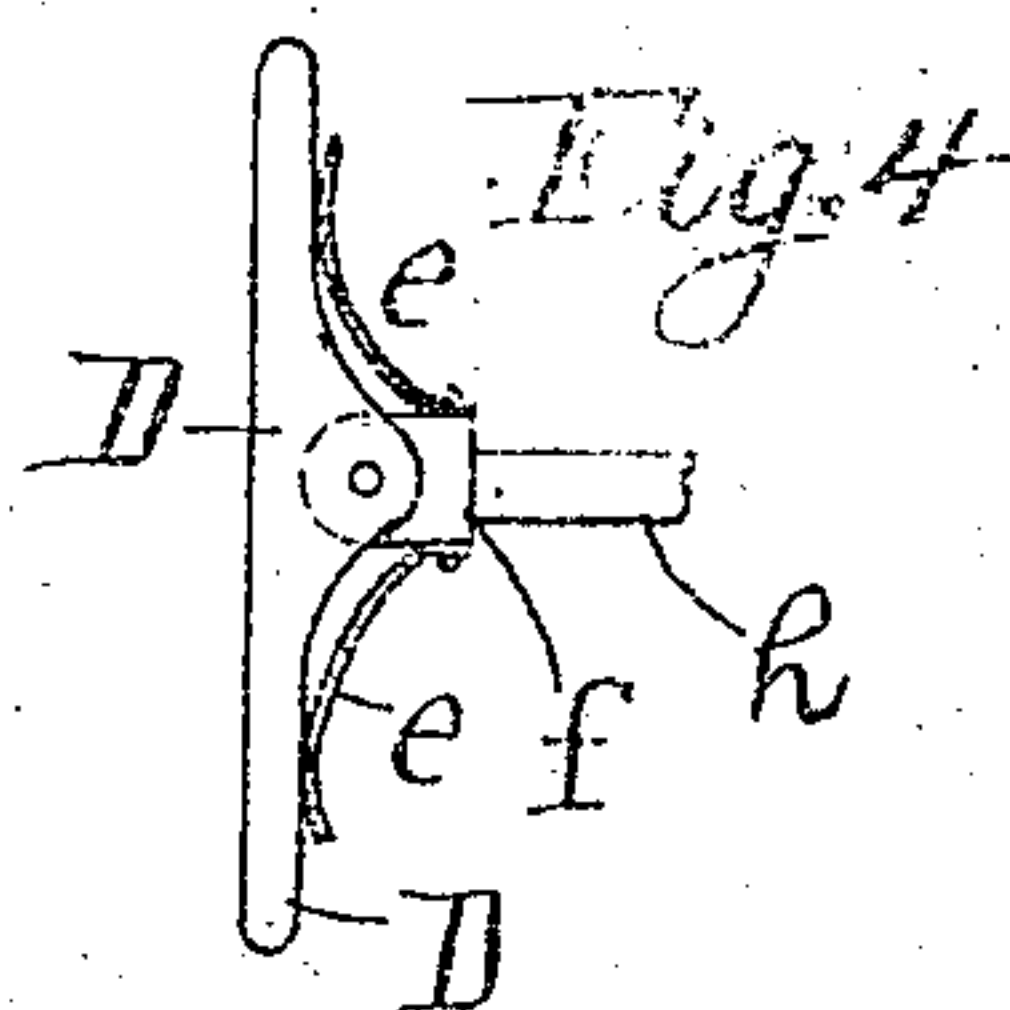
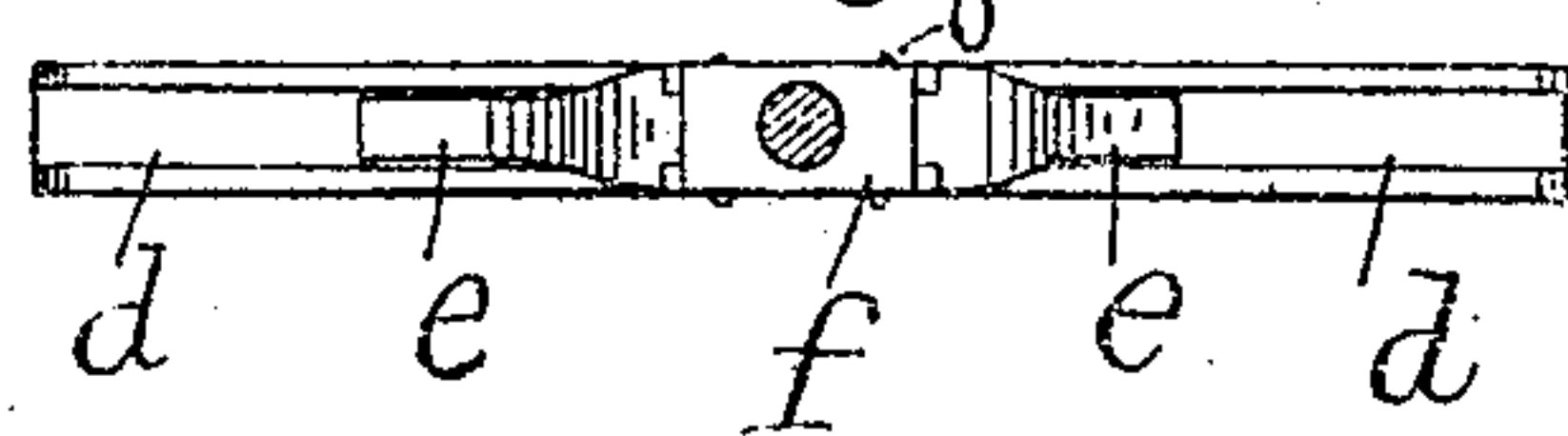


Fig. 3.



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# UNITED STATES PATENT OFFICE.

GEORGE H. DAVIS, OF PORTLAND, MAINE.

## CURTAIN-HOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 617,321, dated January 10, 1899.

Application filed October 1, 1898. Serial No. 692,415. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. DAVIS, a citizen of the United States of America, and a resident of Portland, Cumberland county, State of Maine, have invented certain new and useful Improvements in Curtain-Holding Devices, of which the following is a specification.

My invention relates to that well-known class of curtain-holding devices in which a friction-shoe is attached to the curtain-stick and pressed outward against the window-casing, thus holding the curtain against the upward pull of spring-roller fixture. The curtains are used extensively in street and railway cars and are generally provided with handles for retracting the friction-shoes; but the public in using them frequently disregard the handles and pull the curtains down or push them up, seizing the curtain-stick indifferently at the ends or in the middle. As a result of this use of the curtain there has been difficulty in keeping the friction-shoes in the vertical grooves of the casing where the curtain-stick was tilted out of a horizontal position; and my invention has for its object the correction of this error and the further object of producing a structure which will enable the curtain-stick to right itself or resume a horizontal position when it has been tilted in raising or lowering the curtain.

I illustrate my invention by means of the accompanying drawings, in which—

Figure 1 is a front elevation of the lower portion of a curtain with my holding device applied thereto, a portion being in section. Fig. 2 is a front elevation of the fixture alone, showing it out of level. Fig. 3 is a section on the line *x x* of Fig. 2, and Fig. 4 is a view of a modification.

A represents the lower end of the shade or curtain, the upper end of which is supposed to be provided with a spring-roller tending to exert a continuous upward pull.

B represents the casing of the window or other opening, and particularly the groove in the same, in which the friction-shoe D runs. The friction-shoe as I usually construct it is secured to the outer end of the spindle *h*, which is mounted in the hollow curtain-stick, one spindle being provided for each end of the curtain-stick, so that the friction-shoes

oppose each other. The spindle, with its friction-shoe, is forced outward against the casing to produce the necessary friction by means of the spiral spring *i*, and I show here handles *g g* for retracting the spindles, although my device will work equally well without such handles.

My invention resides in the construction of the friction-shoes D, which are pivoted to the head *f*, formed on the outer end of the spindle. The shoe D is preferably in two parts or sections *d d*—an upper and a lower section—pivoted by adjacent ends to the head *f* by pivot *r*. The head is held in a normal position at right angles to the curtain-stick by springs, which resist any tendency of either end to rotate inward about its pivot. In other words, when the curtain-stick is tilted so as to bring the shoe out of its normal right-angle position one end impinges against the casing and is pressed outward by its spring, while the other end is withdrawn somewhat from the casing. The effect of this is to practically do away with a portion of the friction on each shoe, and as the entire pull of the roller is exerted on the lower end of the curtain-stick, and consequently on the lower shoe, the latter is quickly raised to a position on a level with the other end and the curtain is readily righted. Another advantage besides that of self-righting is that when the curtain-stick tilts one end of the shoe always remains nearly flat in the bottom of the groove, and thus the fixture is difficult to get out of its place.

For the purpose of holding the block in its normal right-angle position I make use of a flat spring *e*, which is centrally secured to the head *f* by means of the pins *o*, and the two ends of the spring press outward against the inner surfaces of the two sections, resisting any tendency which they have to move inward about their pivots when the stick is tilted.

When I make use of spring-actuated spindles for holding the friction-shoes and for forcing them against the casing, as herein shown, the springs *e* are not usually designed to press against the sections *d* when the latter are in their normal positions. It is only when the curtain-stick is raised or lowered by one end and moved from its horizontal



position, so that one or the other of the sections is cramped or pushed inward, that the springs exert a pressure.

5 The spring-actuated spindle may be dispensed with and the friction-shoe attached directly to the end of the curtain-stick. In this case the springs *e* are adjusted to bear against the sections *d* when the latter are in their normal position for the purpose of furnishing friction to resist the pull of the curtain. The advantage of using a spiral spring in conjunction with the flat spring is that the former has more motion and enables the fixture to conform to greater inequalities in the width of the casing than is the case where the flat spring is alone depended on.

10 In Fig. 4 I show a modification in which the block is made in one piece instead of two. The springs *e*, as shown in this modification, are placed so that one bears against each end of the block and each spring is riveted to one side of the head *f*. The function of these springs is practically the same as the springs shown in the other figures of the drawings.

15 The device thus shown is capable of being successfully used without pinch-handles. It is difficult to throw it out of its grooves, and it forms a 'self-righting device' by which the curtain is always kept straight.

I claim—

1. In a curtain-holding device, the combination of a curtain-stick, an outwardly-pressed friction-shoe pivoted to the outer end of said curtain-stick and a spring acting against each end of said shoe tending to resist the inward rotation of said end about the pivot-point. 35

2. In a curtain-holding device, the combination of a curtain-stick, an outwardly-pressed friction-shoe, composed of an upper and a lower section pivoted at adjacent ends to the outer end of said curtain-stick and a spring acting on each section and tending to resist its inward rotation about its pivot. 40

3. In a curtain-holding device the combination of a curtain-stick, an outwardly-pressed friction-shoe composed of an upper and a lower section pivoted at adjacent ends to the outer end of said curtain-stick and a flat spring secured centrally to the spindle and having its ends bearing outward against the two sections. 45 50

Signed by me, at Portland, Maine, this 29th day of September, 1898.

GEORGE H. DAVIS.

Witnesses:

S. W. BATES,  
L. M. GODFREY.