

J. DARLING.
CURTAIN FIXTURE.
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932,252.

Patented Aug. 24, 1909.

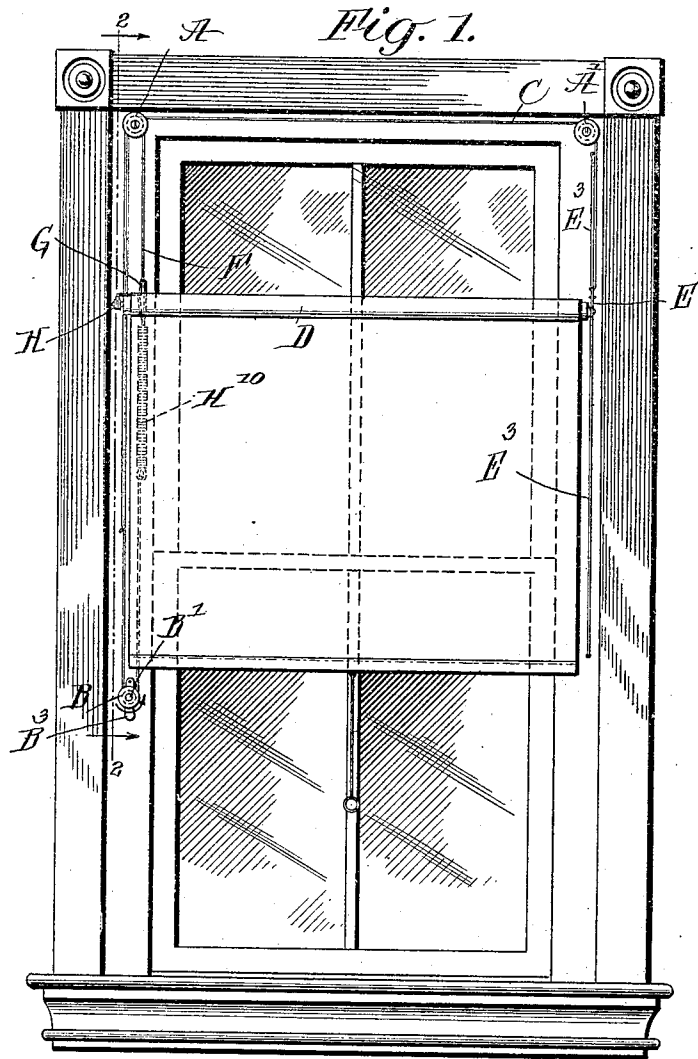


Fig. 1.

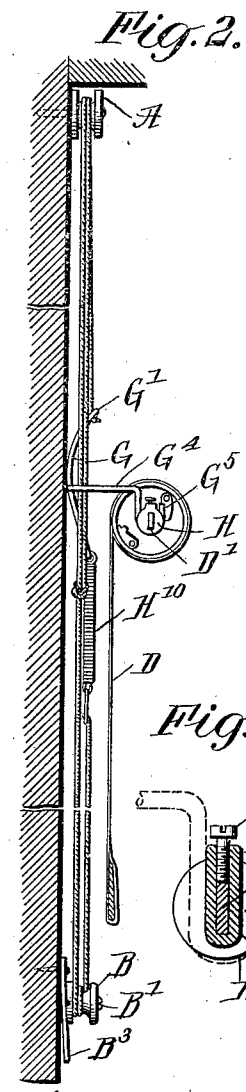


Fig. 2.

Fig. 3.

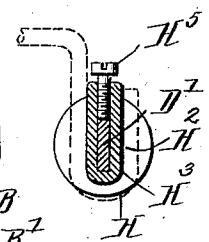
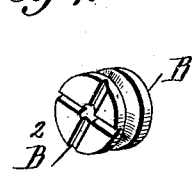
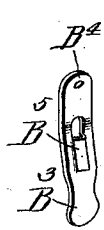
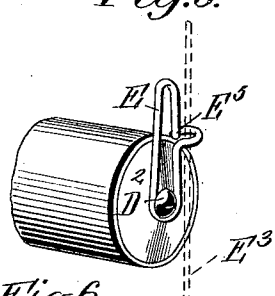
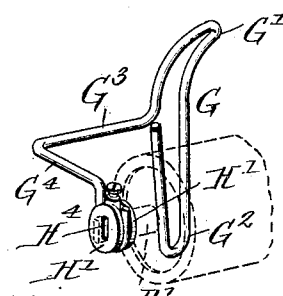


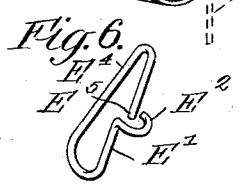
Fig. 4.

Fig. 5.

Fig. 7.



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CURTAIN-FIXTURE.

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To all whom it may concern:

Be it known that I, JOSEPH DARLING, a citizen of the United States, and a resident of Chicora, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification.

This invention is an improvement in curtain fixtures and particularly in that class of fixtures illustrated in my former patent No. 556,255, of March 10, 1896; and my present invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawings, Figure 1 is a face view of a window provided with my improvement. Fig. 2 is a sectional view on about line 2—2 of Fig. 1. Fig. 3 is a vertical longitudinal section of the stud bushing showing the vertically flattened intermediate portion thereof. Fig. 4 is a detail perspective view of the main roller supporting bracket, with the stud bushing in place, and the curtain roller in dotted lines. Fig. 5 is a detail perspective view of the bracket for the end of the roller opposite the main bracket. Fig. 6 is a detail perspective view of said bracket, and Fig. 7 illustrates the tension roller and the detent plate therefor.

In carrying out my invention I employ guide rollers A at the upper opposite corners of the window frame and a tension roller B, and the curtain cord C is disposed over the said rollers as shown in Fig. 1. The curtain D is wound on a roller of the Hartshorn or similar automatic type and is provided with a spring stud D' as usual, the other end of the roller being carried in a bracket E supported on the cord C, which is carried up over the roller A', thence across and over the roller A and connected with a belt like cord F which loops over the roller A and over the tension roller B, the latter being arranged about midway between the bottom and top of the frame as best shown in Fig. 1. One end of the cord F is secured to one arm of the main bracket G, while its other end is secured to the opposite arm of the said bracket so that the cord as it is drawn in one or the other direction will raise and lower the bracket G and will also raise and lower the bracket E by means of

the cord C, thus raising and lowering the curtain roller without interfering with the winding and unwinding of the curtain upon its roller as usual in Hartshorn rollers. In long windows ordinarily the weight of the curtain will be sufficient to hold the cord comparatively taut, but in short windows a spring H may be utilized whenever necessary.

The main bracket G is preferably bent from wire having an upright portion provided at its opposite ends with loops G', G², to receive the knotted ends of the cords and also having a lateral outwardly projecting arm G³ with the arm G bent at its extremity into hook form at G⁵ to receive the stud bushing H for the stud D' of the shade roller. This bushing H has the end heads H' and is grooved in its opposite sides at H² forming the intermediate portion H³, which is flattened vertically to fit in the hook G⁵ of the main bracket and be held from turning therein, the heads H' preventing any displacement of the bushing in the direction of length of the shade rollers whose stud D' is held in the opening H⁴ of the bushing by a screw H⁵ as shown in Figs. 3 and 4 of the drawings.

It will be noticed that my bracket G includes an arm G³ which extends laterally inward beyond the seat for the stud bushing H in order to arrange the loops G' and G² for connection with the operating cords at a point in beyond the end of the curtain roller so the said cords will be covered and excluded from view by the shade when the latter is opened as will be understood from Fig. 1 of the drawings. This inwardly projecting portion G³ of the bracket renders it desirable to provide some means for the connection of the bracket with the shade roller stud to prevent canting of the bracket under stress at its upper or lower ends in such manner as to cause the bracket to bind over against the end of the shade roller, or to interfere with the operation of the pawls of the spring roller. This result I accomplish by forming the stud bushing H with the grooves in its opposite sides at H², forming the intermediate portion H³ which is flattened vertically to fit in the hook G⁵ of the main bracket and the flanges on opposite sides of the grooves operate to prevent the

objectionable canting of the bracket as before described. It will also be noticed that the stud bushing is provided at its top with a screw H⁵ which enables it to operate efficiently upon roller studs of different sizes and to be rigidly secured to said studs without regard to the slight variations found in the sizes of the different studs from time to time.

10 This construction is simple, inexpensive and permits the convenient utilization in my invention of the ordinary curtain rollers on the market and provides for securing the same in the hook bracket in such manner as
15 to prevent any accidental displacement of the shade when applied for use.

At its end opposite the stud D', the shade roller has a headed stud D² which is held within the bracket E. This bracket E is preferably bent from wire and has a lower
20 loop E' to receive the stud D, the rearwardly deflected end E² bent into eye form and adapted to receive a guide rod E³ secured to the window frame as will be understood
25 from Fig. 1 and dotted lines Fig. 5, and the upper end of the bracket E is slotted at E⁴ to receive the knotted end of the cord C and the extremity E⁵ of the wire from the bracket rests normally in close proximity to
30 the extremity of the hook portion E² of the bracket as shown in Figs. 5 and 6 to operate as a keeper to prevent the accidental displacement of the bracket from the rod E³ and yet to permit the forcible application of
35 the bracket to the said rod whenever desired.

The tension roller B is mounted on a shaft B' and is provided at its inner end with grooves B², which cooperate with a pawl plate B⁴ secured at one end at B⁴ to the window frame and springing outwardly at its
40 other end to set its tooth B⁵ into and out of engagement with the grooved end of the tension roller. This tooth B⁵ it will be noticed is inclined in the direction of revolution of
45 the roller B so that it acts as a ratchet pawl permitting the roller to turn freely in the direction indicated by the arrow in Fig. 1, and locking the roller from turning in the opposite direction until the tooth B⁵ is moved
50 out of the seats or grooves B² in the roller B. These grooves B² it will be noticed have a square side or wall and a sloping wall so that the roller with the pawl plate forms a pawl and ratchet construction as will be understood from Fig. 7 of the drawings.

I claim—

1. A curtain fixture substantially as described, comprising a main bracket having an upwardly opening hook and also having
60 a lateral inwardly projecting portion for connection with the operating cords combined with a shade roller having a spring stud, and a stud bushing having an opening receiving the said stud, and a screw securing

the stud in said opening, the said bushing
65 having end heads and being grooved in its opposite sides between said heads forming an intermediate portion which is flattened vertically and fitted within the hook of the
70 bracket whereby to prevent the stud bushing from turning in the said hook, the end heads of the bushing forming flanges projecting at the opposite sides of the hook to prevent the displacement of the stud bushing in the direction of length of the
75 roller, and also to prevent the canting of the bracket and a support for the other end of the roller, substantially as set forth.

2. In a curtain fixture, a stud bushing having an opening for the spring stud of a
80 roller, a screw for securing the said stud in the bushing, the bushing having end heads and being grooved in its opposite sides between the said heads forming a vertically flattened intermediate portion, all substantially as and for the purposes set forth.

3. In a curtain fixture, a bracket bent from wire and having a lower loop for a shade stud, and an upper loop for the connection of the supporting cord and said wire having
90 its extremity midway between its upper and lower ends disposed to form a rearwardly bent eye to operate along a guide rod on the window frame, and the other extremity of the wire lying adjacent to the opening of
95 said eye to form a keeper or tongue for the said eye, substantially as set forth.

4. A main bracket having a stud seat provided with an upright portion and having a lateral portion extending inwardly from said
100 seat for connection with the operating cords, and a stud bushing fitting in said seat and having in its opposite sides grooves, said grooves forming an intermediate portion of the stud which is flattened vertically, and
105 the said grooves receiving the upright portion of the said seat whereby such bushing will prevent the bracket from canting by the stress on the cords exerted in connection with said lateral inwardly projecting portion of the bracket substantially as and for the purposes as set forth.

5. A main bracket having a stud seat provided with an upright portion, and a lateral portion extending inwardly from said seat
115 for connection with the operating cords, a stud bushing fitting in said seat and having in its opposite sides grooves receiving the upright portion of the seat whereby the stud bushing will prevent the bracket from canting by the stress on the cords exerted in connection with the lateral inwardly projecting portion of the bracket, and a screw turning through the upper side of the stud bushing to engage with a roller stud, substantially as
120 set forth.

6. A curtain fixture substantially as described comprising a bracket having a lower

loop for a shade and an upper loop for the connection of the supporting cord and having its extremity midway between its upper and lower ends disposed to form a rear-
5 wardly bent eye to operate along a guide rod on the window frame, with its other extremity lying adjacent to the opening of said

eye to form a keeper or tongue therefor, substantially as set forth.

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Witnesses:

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