

(No Model.)

2 Sheets—Sheet 1.

J. D. JOHNSTON.
CATCH FOR WINDOW BLINDS.

No. 536,834.

Patented Apr. 2, 1895.

Fig. 1.

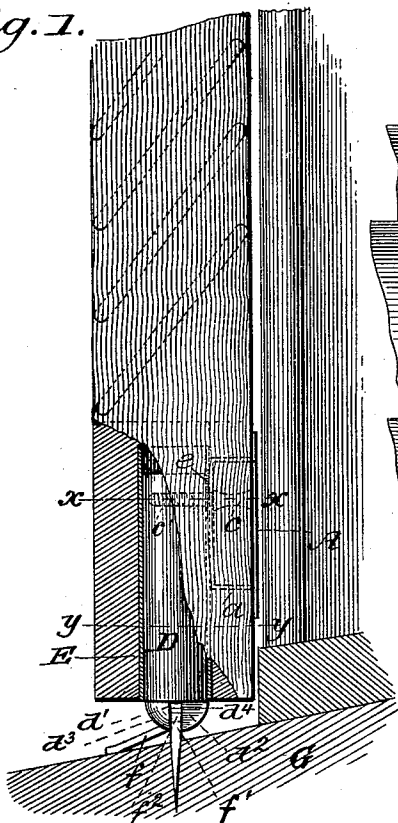


Fig. 2.

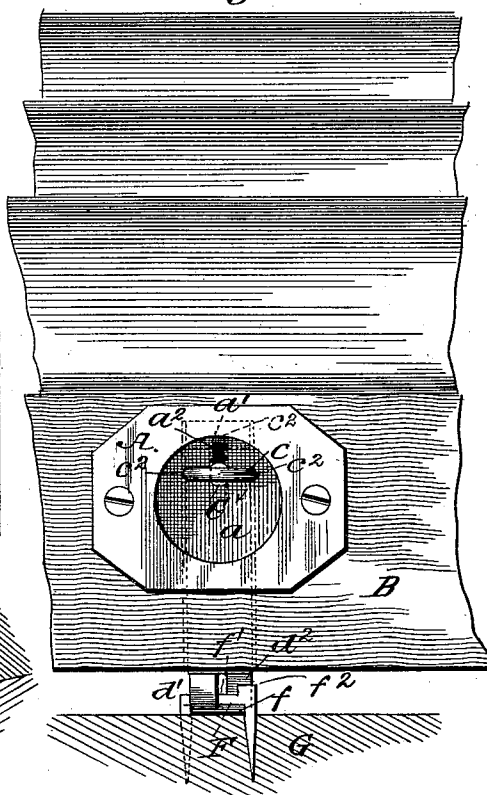


Fig. 3.

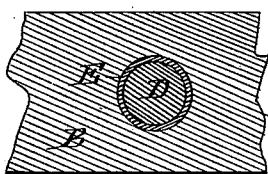
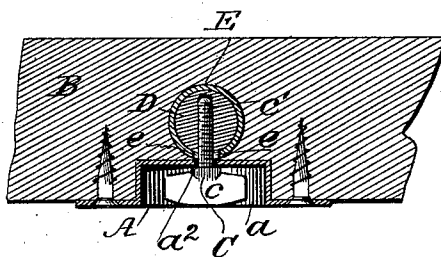


Fig. 4.



WITNESSES:
A. E. Diesterich,
C. F. Shepard.

INVENTOR
John D. Johnston
BY *J. R. Little*,
his ATTORNEY.

(No Model.)

2 Sheets—Sheet 2.

J. D. JOHNSTON.
CATCH FOR WINDOW BLINDS.

No. 536,834.

Patented Apr. 2, 1895.

Fig. 5.

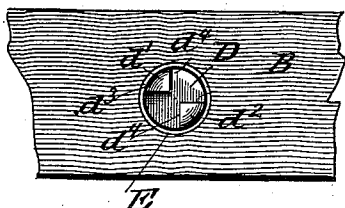


Fig. 6.

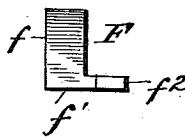


Fig. 7.

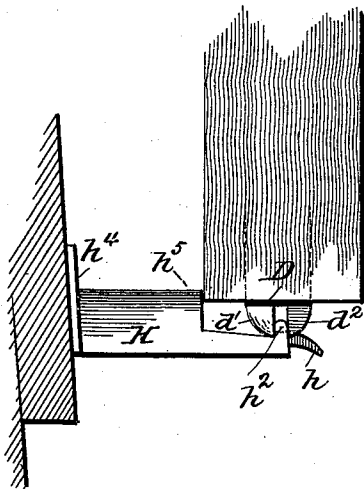


Fig. 9.

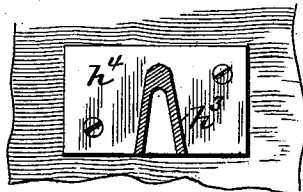
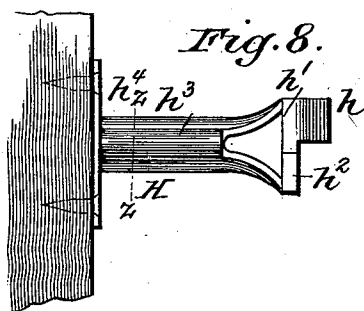


Fig. 8.



WITNESSES:
A. E. Dieterich
W. Shepard

INVENTOR
John D. Johnston
BY *J. R. Little*
his ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN DIXON JOHNSTON, OF NEWPORT, RHODE ISLAND.

CATCH FOR WINDOW-BLINDS.

SPECIFICATION forming part of Letters Patent No. 536,834, dated April 2, 1895.

Application filed October 9, 1894. Serial No. 525,407. (No model.)

To all whom it may concern:

Be it known that I, JOHN DIXON JOHNSTON, a citizen of the United States, residing at Newport, in the county of Newport and State of Rhode Island, have invented certain new and useful Improvements in Catches for Window-Blinds; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to automatic catches for outside window blinds, and it has particular relation to an improved automatic catch of this character which will be flush with the surface of the blind.

The object of my invention is to provide a simple and improved flush automatic catch which will possess advantages in point of effectiveness, positive action, durability, adaptability, ease of operation, and general efficiency.

My improved catch is especially adapted for effective and convenient use when fly screens are used at the window. The catch mechanism being flush with the inside face of the blind, the raising or lowering of the flyscreen may be conveniently effected without interference, when the blind is closed. It will also be observed that in my improved flush construction and arrangement there is no part of the catch mechanism exposed at the outside of the blind when the latter is in closed position, and that when the blind is open the exposed mechanism at the inner face presents a neat appearance and embodies no portions projecting beyond the surface of the blind.

In the drawings—Figure 1 is an elevation partly in section, showing the blind secured in closed position. Fig. 2 is an inside face view of the construction and mechanism shown in Fig. 1. Fig. 3 is a detail horizontal sectional view, taken on the line $x-x$, Fig. 1. Fig. 4 is a corresponding view, taken on the line $y-y$, Fig. 2. Fig. 5 is a detail plan view showing the bottom edge of the blind. Fig. 6 is a detail plan view of the stool staple. Fig. 7 is an elevation, showing the blind secured in open position. Fig. 8 is a detail plan view of the outside securing catch. Fig. 9 is a transverse sectional view, taken on the line $z-z$, Fig. 8.

Corresponding parts in all the figures are denoted by the same letters of reference.

Referring to the drawings, A designates a metallic plate which is secured to the inner face of the bottom rail, B, of the blind and is provided with a depressed portion, a , preferably circular or cylindrical in contour, which enters a corresponding recess formed in the rail B and provides a socket or cup for the handle or head, c , of the operating pin or stud, C. The pin C comprises a threaded shank, c' , which screws into a vertically-operating barrel or catch, D, and has the transverse head c accommodated in the socket of the plate A. When the catch mechanism is not locked, the handle or head c is in horizontal position, as shown in Fig. 2, which permits vertical movement of the catch barrel D, but when it is desired to lock the blind in closed position the handle or head c is turned up to the vertical position shown in dotted lines in Fig. 2, when the end, c^2 , of the handle c will strike against the apex, a' , of the cylindrical wall of the socket a and the catch barrel will be locked against vertical movement. When thus in locked position, it will be noted that the catch cannot be raised by prying under the lower edge, and none of the catch mechanism is exposed at the outer face of the blind. To facilitate the locking and operation of the head c the ends c^2 c^2 are preferably beveled, as shown.

The catch barrel D consists of a cylindrical barrel or body into the upper portion of which is screwed the pin C, two projecting catches or studs, d' and d^2 , respectively, being provided at the bottom and diametrically arranged so that they will be on opposite sides and at opposite ends of an imaginary line passing transversely across the barrel. The catches or projections d' and d^2 normally project below the bottom of the blind and are respectively provided with a beveled face, d^3 , and a rear shoulder, d^4 .

The catch barrel D operates in a cylindrical tubular shell, E, which is seated in a corresponding vertical bore in the bottom rail B of the blind. The shell or casing E is provided with a slot, e , to permit operation of the pin C, and a slot, a^2 , is correspondingly provided in the plate A to permit vertical movement of the operating pin C. Thus, by raising the

pin C the catch barrel may be lifted from engagement with the catch staples or securing devices, and the pin also serves to limit the downward movement of the catch barrel.

5 F designates the stool staple, which is preferably of approximately U-shape and is secured to the stool or sill, G. The stool staple comprises an inclined arm, f , leading to a shoulder or wall, f' , at the side of which latter is provided a raised shoulder or wall, f^2 ,
10 preferably about one-eighth of an inch higher than the adjoining portion f' . When the blind is closed the catch or projection d^2 will ride over the incline f and drop back of the
15 shoulder f' , thus preventing outward movement of the blind, while the catch or projection d' will strike against the raised wall f^2 and thus stop the blind at the proper point and prevent inward movement of the blind.

20 H designates the catch or securing device which is designed for holding the blind in open position. This device has an outer end substantially corresponding to the stool staple F and comprising an incline, h , leading to a
25 wall, h' , at the side of which is formed a higher wall or shoulder, h^2 . Thus, when the blind is secured in open position the catch or projection d' rides over the incline h and drops back of the shoulder h' , while the catch
30 or projection d^2 abuts against the raised wall or portion h^2 . The outer operating structure of the device H is carried by a rib or body portion, h^3 , preferably of an inverted V-shape in cross section, and carried by a plate, h^4 , secured to the side of the building. In the rib
35 h^3 may be formed a stop, h^5 , which may operate as a stop, in conjunction with the raised wall h^2 , to limit the movement of the blind.

40 The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains.

My improvements provide a flush automatic catch mechanism in which projections at either the inner or outer faces of the blind
45 are obviated and in which there is no exposed mechanism at the outer face of the blind.

To apply my improved mechanism in position, it is simply necessary to bore a vertical hole or recess in the bottom rail B of the blind
50 and then bore another hole or recess from the inside to said vertical bore. The tubular shell or casing is then driven in the vertical bore until its lower edge is flush with the bottom of the blind, and the plate A is secured
55 in position. The catch barrel D is then inserted in the shell and the pin C connected with it, when the device is in complete position for effective operation.

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

1. In a window blind catch mechanism, the stool staple or securing device comprising the incline leading to a shoulder or wall at the side of which is provided a higher stop shoulder or wall, substantially as set forth. 65

2. In a window blind catch mechanism of the class described, a vertically-moving catch barrel provided at its bottom with the diametrically arranged catches or projections, d' 70 d^2 , arranged at opposite sides and on opposite ends of a transverse central line and provided with the inclined faces and the relatively-arranged shoulders, substantially as set forth.

3. In a window blind catch mechanism, the combination, with a stool staple or securing device comprising an incline leading to a shoulder or wall and having a higher shoulder or wall at the side of the latter, of a vertically-moving catch barrel provided at its bottom with opposite relatively-arranged catches or projections adapted to respectively and relatively engage the shoulder or wall at the end of the incline and the higher shoulder or wall at the side thereof, substantially as and 85 for the purpose set forth.

4. In a window blind catch mechanism of the class described, the combination, with a vertically moving catch barrel, of an operating pin or stud projecting from said barrel 90 and having a transverse handle or head accommodated in a cylindrical or circular socket or recess at the inner face of the blind and adapted to be turned so that its end engages the wall of said socket, substantially as and 95 for the purpose set forth.

5. An improved window blind catch of the class described, comprising the vertically-moving catch barrel housed within a tubular barrel or casing set in a bore in the blind, 100 and means for operating said catch barrel, the catch barrel being provided at its projecting bottom end with the oppositely-inclined noses or projections, d' and d^2 , out of alignment with each other, in combination with the 105 inclined keeper having at one side the vertical projection or shoulder, f^2 , forming a part of its upper portion, substantially as and for the purpose set forth.

In testimony whereof I affix my signature 110 in presence of two witnesses.

JOHN DIXON JOHNSTON.

Witnesses:

ARTHUR A. PECKHAM,
DARIUS BAKER.