

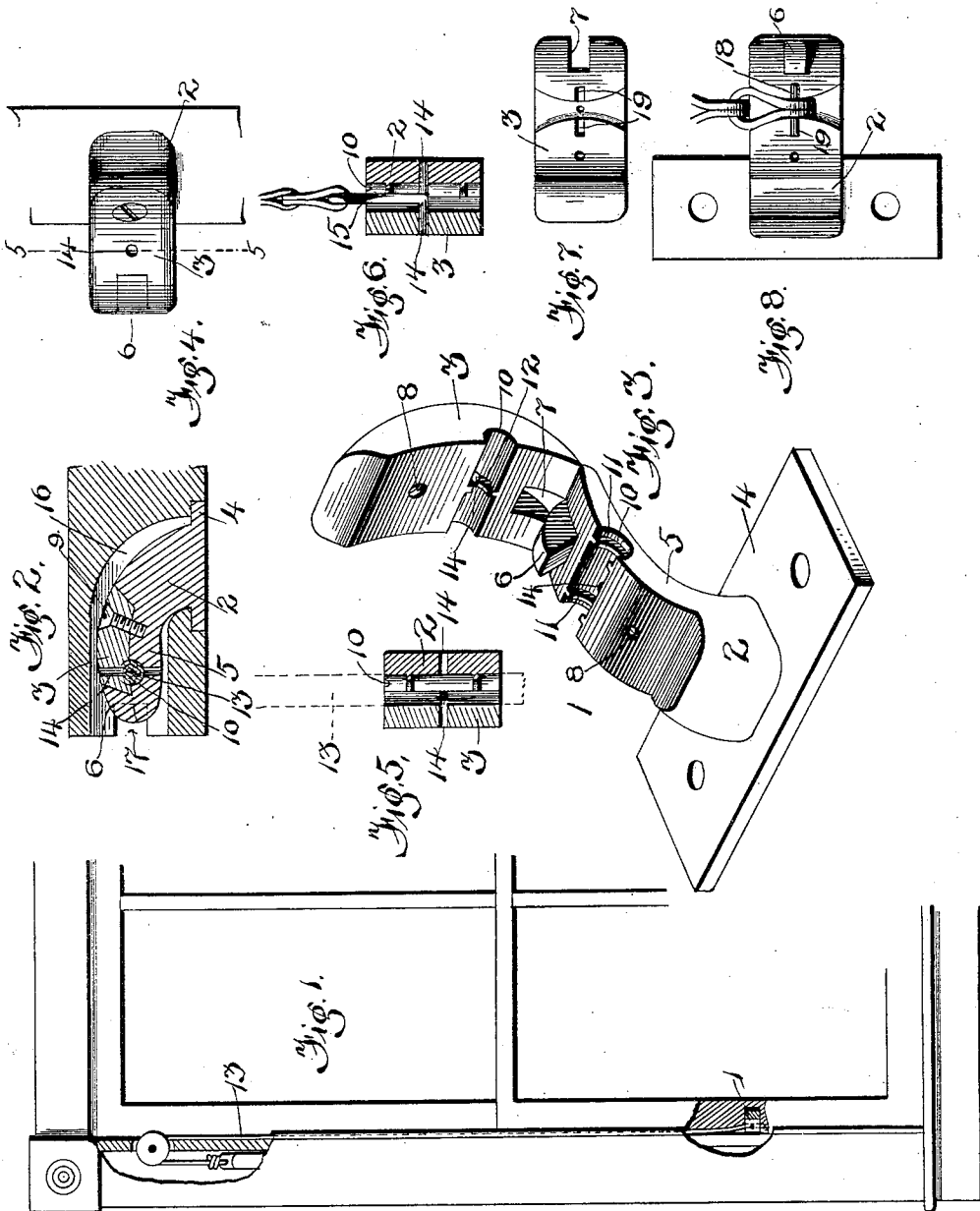
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J. F. COLLINS.
SASH CORD FASTENER.

(Application filed May 26, 1900.)

(No Model.)



Witnesses:

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SASH-CORD FASTENER.

SPECIFICATION forming part of Letters Patent No. 655,607, dated August 7, 1900.

Application filed May 26, 1900. Serial No. 18,117. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. COLLINS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Sash-Cord Fasteners; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in sash-cord fasteners.

One object of my invention is to facilitate the attaching of the sash-cord, from which the balancing-weight is suspended, to the sash in such a manner that neither the stop-beads, parting-strips, nor the sashes need be removed for attaching the cord or chain.

A further object is to provide a construction of this character which will also secure the cord or chain in position in such manner that the connection between the cord or chain and the fastener will be in substantial alinement with the path of movement of the cord, preventing any tendency of the cord to "crock" and thus be weakened.

A further object is to provide a construction which can be readily applied or removed, which is simple and efficient in operation, durable in construction, which may be used in connection with either chain or cord, and which can be manufactured at small cost.

To these and other ends, the nature of which will hereinafter appear, my said invention consists in the improved combination and construction of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically pointed out in the appended claims.

Referring to the drawings, in which similar numerals of reference indicate similar parts in all of the views, Figure 1 is a face view of a portion of a window, parts of which are broken away to better show the arrangement. Fig. 2 is a horizontal sectional view taken through the sash and through the fastener, showing the manner in which the fastener is secured in position. Fig. 3 is a perspective

view of the fastener, the two members being shown as separated, showing the formation of the cord-groove and its rib arrangement. Fig. 4 is a top plan view of the fastener. Fig. 5 is a sectional view through the fastener, on the line 5 5 of Fig. 4, showing the manner in which the cord is held in position between the clamping-ribs. Fig. 6 is a similar view showing the manner in which a chain is secured to the fastener. Figs. 7 and 8 are views showing the configuration of a modified interior arrangement especially applicable for the securing of chains.

In securing either cord or chains to window-sashes provision must be made for the ready removal of the sash or of the cord from the sash and preferably without the necessity of removing any portion of the framing—such as the stop-beads, &c.—or of the sash; but, in addition, the arrangement should be such that the cord or chain, when in position in the fastener, should lead into the cord-groove without changing its direction. In other words, the fastening should be such as will allow the cord to pass therein in a direction continuous with the path of movement of the cord, the opening to receive the cord being in alinement with the path of movement of the sash. To allow of the removal of the cord without the necessity of removing the sash, it is necessary that the fastener be secured in such position that access thereto may be readily had, this position being preferably the face of the side rail of the sash itself. In addition to the above requisite features, however, it is necessary that provision be made for securely but removably fastening the cord in position, either by clamping or otherwise, in order that the balancing-weight will be unable to withdraw the cord or chain from its position in the fastener. In the constructions now to be described all of these features are presented, forming a construction which allows the cord to be readily removed from the sash as well as from the fastener itself, which connects the cord or chain without the formation of breaks or bends, and which securely secures the cord or chain in position.

Referring first to Figs. 1 to 5 of the drawings, 1 designates the fastener, formed of the members 2 and 3. The member 2 consists,

essentially, of the securing-plate 4, having suitable screw-holes, and the curved portion 5, formed with or otherwise secured to the securing-plate 4. The curved portion 5 is formed substantially as shown in Fig. 3, having the greater portion of its length of less thickness than the portion adjacent to the securing-plate, the upper surface being substantially flat, being adapted to receive a similar face formed on the member 3, said faces being adapted when the fastener is secured together to abut, in which position the two members form a substantially-continuous curved body portion which extends to a point some distance beyond the edge of the securing-plate and on a different plane therefrom. The members 2 and 3 therefore form a sectional fastener extending laterally and on a different plane from the securing-plate. As shown, the portion 5 is provided at its outer end with a hook-like projection 6, which has its inner face formed at an angle to the face of the portion, said projection being adapted to enter and fit a suitable recess 7, formed in the member 3, having a configuration which will retain said projection in position.

The projection 6 and the recess 7, in connection with suitable screw-threaded openings 8, formed in the member 3 and portion 5, said openings being adapted to receive a screw 9, form the means for securing the two members together in proper manner, and in such securing together the angular face of the projection serves the purpose of a fulcrum when a cord is being fastened, the fulcrum-point being automatically regulated while the screw is being driven home, thus causing the faces of the member 3 and portion 5 to approach substantially equal at all points, the openings 8 being arranged at a suitable angle in order that the forcing of the screw "home" and the angle of the face of the projection will mutually cooperate to provide this result. In other words, said projection and recess and the screw 9 and its opening serve to hold the clamping-sections parallel with each other during the closing movement.

10 designates an opening formed through the body portion, said opening extending vertically therethrough, (when in operative position,) said opening extending into both the member 3 and the portion 5, as shown. Formed on the member 3 and portion 5 and extending into the opening 10 are ribs 11 and 12, each rib extending around one-half of the periphery of said opening, the ribs 11 (two in number) being formed near the opposite ends of the opening and on the portion 5, while the rib 12 is formed substantially midway of the length of the opening and on the member 3. The opening 10 and the ribs 11 and 12 serve to receive and securely clamp the cord in position in the following manner:

As shown in Fig. 5, the cord 13 (shown in dotted lines in said figure) rests within the opening 10, the ribs 11 and 12 contacting with and partially compressing the cord in the im-

mediate vicinity of the ribs. To secure the cord in this position, the members 2 and 3 are separated and the cord 13 laid in the half of the opening formed on the member 2. The member 3 is then placed in position (the projection 6 being passed within the recess 7) and the screw 9 started. This causes the cord to be pressed tightly against the face of the ribs alternately from opposite sides, the screwing home of the screw forcing the entire face of said ribs to substantially indent the surface of the rope and causing said cord to assume a substantial curvature through the opening 10, said cord retaining its initial and proper position in said opening during the clamping movement, being entirely surrounded by the clamping-sections. When in this position, a withdrawal of the cord will be substantially impossible, each curve of the cord reducing any tendency to allow of such withdrawal.

As shown in the drawings, the members 2 and 3 are provided with openings 14, arranged at right angles to the opening 10 and passing therethrough substantially midway of its length. These openings are provided for the purpose of attaching a chain to the fastener instead of a cord. To allow of this, I provide a suitable link 15, (shown in Fig. 6,) which link is secured to the lower link of the chain, the free ends of the link 15 being extended in opposite directions and at an angle to the link, said free ends being adapted to be passed into the openings 14, as shown in Fig. 6. In this manner the link 15 forms substantially a continuation of the chain proper.

In securing the fastener in position an opening 16 is made in the side rail of the sash, said opening extending to the front face, as shown in Fig. 2, said opening extending inwardly from the edge of the rail and at substantial right angles to the cord-groove 17. If desired, a mortise may be made in the face of the side rail to receive the plate 4, thus presenting a flush surface for the side rail. Owing to the fact that the sash is held in position within a suitable groove formed by the stop and parting beads it will be apparent that the fastener must be inserted away from the edge of the side rail, said point being necessarily to one side of the cord-groove. For this reason I have formed the body portion curved, as shown, so that when in position the opening 10 will be in substantial alinement with the cord-groove. As the opening 16 is curved, it will be readily understood that after the cord 12 (which is first drawn through the opening 16 and secured in position in the opening 10) is fastened the body portion is inserted, the curved portion of the opening 16 guiding it until the plate 4 has reached its proper position, when it is secured in suitable manner, as by screws. In removing the fastener the fastening-screws are removed and the fastener withdrawn, the cord being removed by removing the screw 9. By this construction it will be seen that the opening 10 is in alinement with the path of movement

of the cord, so that the pull exerted by the weight is directly on the fastener, there being no bends necessary nor guideways formed for the passage of the cord before entering the cord-groove. This prevents wear on the cord both outside of and within the fastener, the curvature and the binding of the ribs on the cord holding the latter securely fastened and in proper position.

In the modification shown in Figs. 7 and 8 the opening 10 is of different configuration, being adapted to receive one end of the chain-link, a stop 18 passing through the opening in the link and resting within suitable grooves 19, formed in the members 2 and 3, as shown in Fig. 8. The remaining construction, however, is similar to the construction and configuration of the remaining figures of the drawings.

I wish it understood that in claiming the invention in using the word "cord" I include both cord and chain, and I also desire to state that I do not limit myself to the exact construction set forth, but reserve the right to use modifications which may fall within the scope of the claims.

Having thus described my invention, what I claim as new is—

1. A sash-cord fastener comprising a secur-

ing face-plate; a body portion formed thereon and extending in a plane at an angle to said plate, said body portion being curved and formed of two sections removably secured together; a cord-receiving opening formed between said sections and extending vertically therethrough and transversely to the length of the body portion; and means for removably securing said sections together to clamp said cord between the same.

2. A sash-cord fastener comprising a body portion formed in sections, one of said sections having a projection the rear face of which is formed angular, the opposing member or section having a recess adapted to receive said projection a cord-groove extending through said body portion and formed within both sections, and screw-threaded openings formed in said sections, said openings being adapted to receive a screw, said screw and said angular face coacting to cause said sections to approach equally at all points to secure the cord within said opening.

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

JAMES F. COLLINS.

Witnesses:

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FRANK D. BLACKSTONE.