A. G. BAGNALL.

SASH CORD ATTACHMENT.

APPLICATION FILED FEB. 6, 1911.

999,292. Patented Aug. 1, 1911.

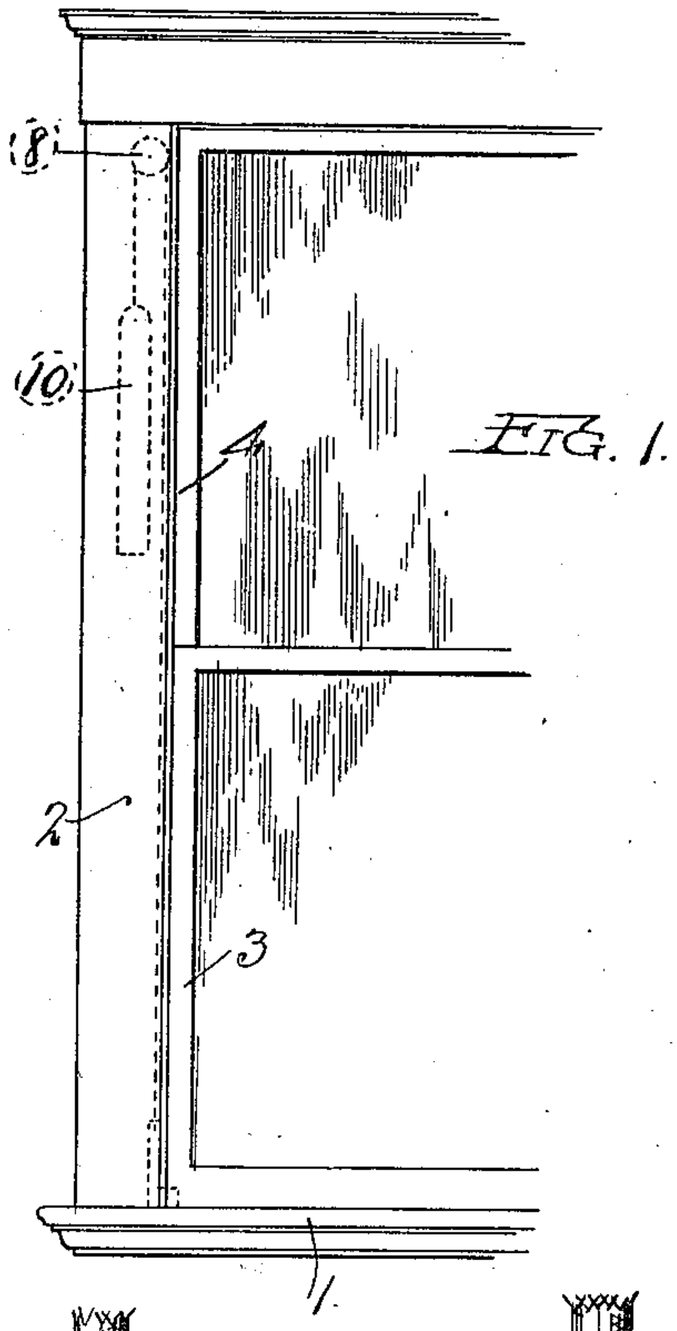

FIG. 1.

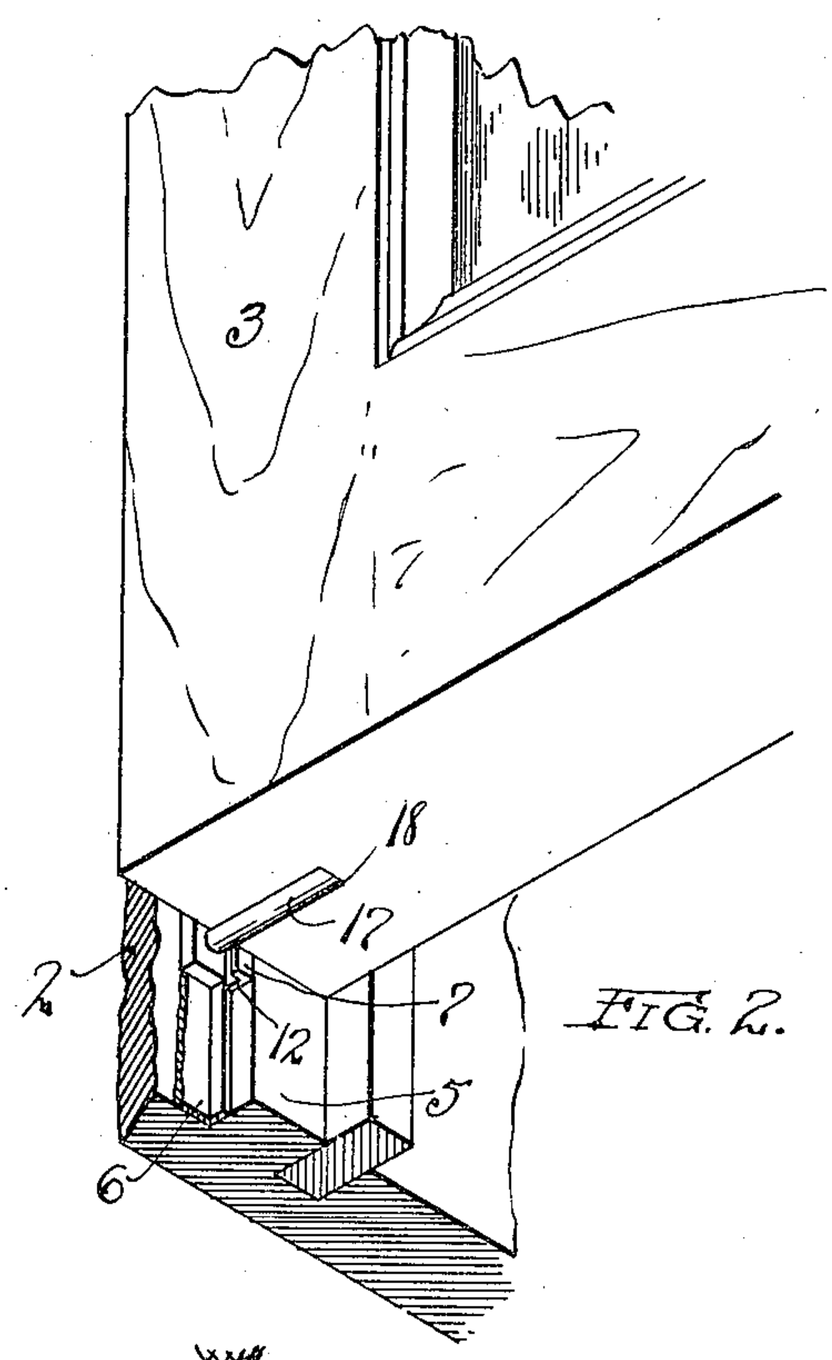

FIG. 2.

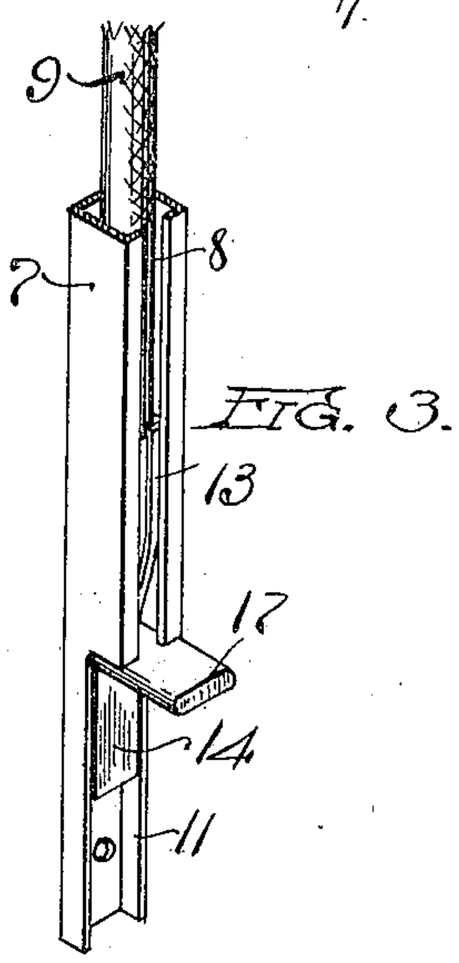

FIG. 3.

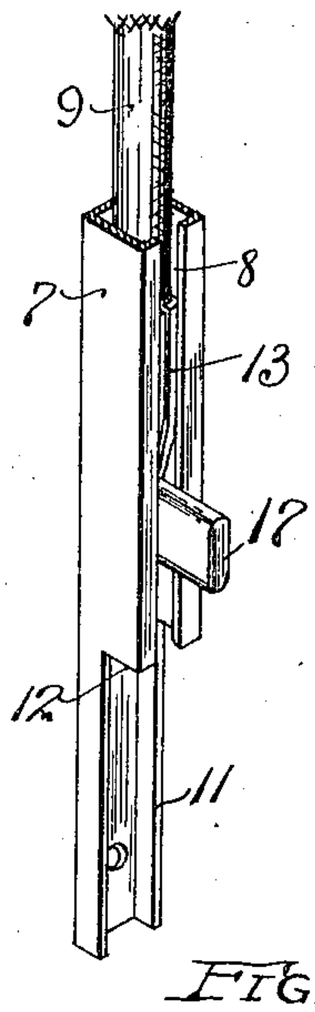

FIG. 4.

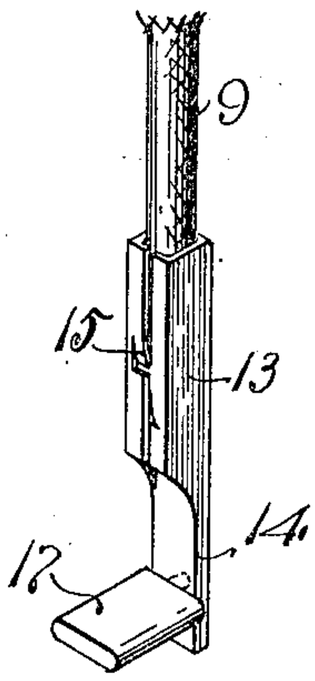

FIG. 5.

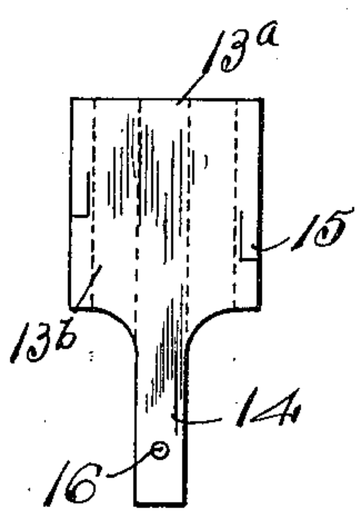

FIG. 6.

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SASH-CORD ATTACHMENT.

999,292. Specification of Letters Patent. Patented Aug. 1, 1911.

Application filed February 6, 1911. Serial No. 606,804.

To all whom it may concern:

Be it known that I, ARTHUR G. BAGNALL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Sash-Cord Attachments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to windows and especially to the means for attaching the sash cord to the slidable sash, and has for its object the provision of a sash cord attachment which shall be susceptible of cheap and rapid manufacture and easy installation, and shall permit the ready and convenient removal of the window sash for purposes of cleaning or repairing.

A further object is the provision of a device which shall shield and cover up the unsightly sash cord, and shall hold the sash cord in a fixed position after the removal of the sash so as to permit the ready replacement of the same.

Further objects and advantages of my invention will be made apparent from the following description and claims.

One embodiment of my invention is illustrated in the drawings accompanying and forming a part of this specification, in which:

Figure 1 is a partial elevation of a window equipped with my improved sash cord attachment; Fig. 2 is a detail perspective view looking upwardly at the lower part of a partially raised sash and showing a portion of the casing and guide; Fig. 3 is a perspective view of a part of the guide showing the runner or slide in locked position; Fig. 4 is a similar view showing the runner or slide in slidable position; Fig. 5 a perspective view of the slide showing its attachment to the cord; and Fig. 6 a development of the blank from which the slide or runner is manufactured.

Describing the parts by reference characters, 1 indicates the sill of the window, 2 one of the side members of the casing and 3 and 4 the slidable sash. I have illustrated my attachment in connection with the lower sash only, though it is obvious that the same can be and will, in fact, be used in connection with the upper sash in exactly the same manner. Each side member of the casing is formed with a guide-way in which the sash is slidably mounted, according to the usual construction, and a vertical groove 6 is formed therein to receive the guide or channel member 7. This member is preferably made in the form of a rectangular metallic tube having in its front face a longitudinal slot 8 and is of a depth to fit snugly in the groove 6, and extends substantially the full height of the casing as shown in Fig. 1. The usual pulley is let into the upper end of the side member and a sash cord 9 is concealed in the guide, passes over the pulley, and is attached to the usual counterweight 10. The lower end of this guide is partially cut away as shown at 11 so as to form a pair of abrupt shoulders 12 for a purpose hereinafter referred to. Carried inside this guide and fitting snugly therein is the runner or slide 13, which is preferably stamped from a single blank 13^a and has an upper tubular portion closely embracing the cord 9 and a lower flat extension 14. The tubular portion is preferably made by bending up and around the cord the lateral ears 13^b which are integral with the blank, and the thickness of the metal is preferably substantially equal to the depth of the cutaway portion of the guide, as shown in Fig. 3. The cord engaging portion of this slide or runner is provided with inwardly projecting tongues or prongs 15 which may be conveniently punched from the blank itself and serve to grip the cord and hold it securely in engagement with the runner or slide. The extension 14 is provided with a perforation 16 in which is pivoted a button 17 which has a width substantially equal to the width of the groove 6, a thickness sufficiently small to permit it to slide freely along the slot 8 when turned into vertical position as shown in Fig. 4, and a length to cause it to extend a substantial distance into the path of the sash 3. This button is preferably made of brass or malleable iron and has a stud on its end which is inserted through the perforation 16 and upset so as to hold the button securely but rotatably in place. The rear end of the button is otherwise smooth and square so as to form a solid seat against the extension 14. The lower end of each of the side rails of the sash is formed with a vertical notch or recess 18 adapted to receive this button.

The operation of the device will probably be clear from the foregoing description.

The cord is entirely concealed within the

guide 7 and is securely attached to the sash by means of the button 17. The sash can be raised and lowered in the usual manner, the button 17 and guide 7 coöperating in keeping the window in the middle of its guide-way. In case it be desired to remove the sash, the guide strips are removed and the sash turned downwardly to a horizontal position after which it is drawn inwardly out of the casing. The button 17 now being turned into the position shown in Fig. 3, the cord 9 cannot be retracted to the top of the casing but is locked in position thus permitting the sash to be readily replaced. It is obvious that many minor changes can be made in detail matters without affecting my invention, for example, the guide 7 may be made in other shapes than rectangular, or the slide 13 can be made from a solid block, or can have the cord attached thereto in a different manner. Besides other counterbalancing means than the weight 10 can be employed, such as a spring either connected with the cord or with the pulley, or a chain might be used in place of the cord. All such modifications I consider within the scope of my invention so far as they also fall within the terms of the claims annexed hereto, and are not disclosed in the prior art.

Having thus described my invention, what I claim is;

1. The combination, with a window casing having a vertical guide-way therein and a sash slidably mounted in said guide-way, said casing having a groove formed therein in the bottom of said guide-way, of a channeled metallic guide member in said groove, a slide or runner slidably mounted in said guide member and having a button secured thereto and extending outwardly into engagement with said sash, a pulley at the top of said casing, and a cord secured to said slide or runner and passing over said pulley and having retracting means at its other end, said cord being substantially concealed inside said guide member.

2. The combination, with a window casing having a vertical guide-way therein and a sash slidably mounted in said guide-way, said casing having a groove formed therein in the bottom of said guide-way, of a channeled metallic guide member in said groove, a slide or runner slidably mounted in said guide member and having a button pivoted thereto and extending outwardly into engagement with said sash, means for locking said slide or runner against movement when said button is turned, a pulley at the top of said casing, and a cord secured to said slide or runner and passing over said pulley and having retracting means at its upper end, said cord extending longitudinally inside said guide member.

3. The combination, with a window casing having therein a vertical guide-way and a sash slidably mounted in said guide-way, said casing having a groove in said guide-way, of a tubular guide in said groove and having a longitudinal slot in its exposed face, a slide or runner in said guide and having a button secured thereto and projecting through said slot, a cord concealed in said guide and secured to said slide or runner, said cord having retracting means adapted to counterbalance the weight of said sash, and said sash having a notch or recess at its lower end receiving said button.

4. The combination, with a window casing having therein a vertical guide-way and a sash slidably mounted in said guide-way, said casing having a groove in said guide-way, of a tubular guide in said groove and having a longitudinal slot in its exposed face, a slide or runner in said guide and having a button pivoted thereto and projecting through said slot, a cord concealed in said guide and secured to said slide or runner, said cord having retracting means adapted to counterbalance the weight of said sash and said sash having a notch or recess at its lower end receiving said button, and means whereby said slide or runner may be locked in position when said button is turned from the vertical to a horizontal position.

5. The combination, with a window casing having a vertical guide-way therein and a sash slidably mounted in said guide-way, of a tubular metallic guide secured in the bottom of said guide-way and having a longitudinal slot in its outer face, said guide having a portion thereof cut away to provide a downwardly facing abrupt shoulder, a slide or runner in said guide and having a button pivoted thereto, said button being of a thickness to permit it to project slidably through said slot when turned in a vertical position, and of a width to engage said shoulder when turned into horizontal position, and flexible tension means concealed in said guide and connected to counter weighting means for balancing said sash, said sash having at its lower end a vertical notch or recess adapted to receive said button.

6. The combination, with a window casing having a vertical guide-way therein and a sash slidably mounted in said guide-way, of a tubular metallic guide of substantially rectangular cross-section secured in the bottom of said guide-way with its front face substantially flush with the bottom of said guide-way, said front face having a longitudinal slot in its outer face, the width of said slot being less than the inside width of said guide, said guide having a portion thereof cutaway to provide a downwardly facing abrupt shoulder, a slide or runner

in said guide and having a button pivoted thereto, said button being of a thickness to permit it to project slidably through said slot when turned in a vertical position, and of a width to contact with said shoulder when turned into horizontal position, and flexible tension means concealed in said guide and connected to counterweighting means for balancing said sash, said sash having at its lower end a vertical notch or recess adapted to receive said button.

7. A sash cord attachment comprising, in combination, a plate having at its upper end a pair of lateral ears embracing and securely gripping the sash cord, and having at its lower end a flat extension, a button pivoted to said extension on a substantially horizontal axis and adapted to engage the sash, and means permitting the free movement of said attachment along the casing when the button is turned into vertical position, and preventing such movement when the button is turned into horizontal position.

8. A sash cord attachment comprising in combination, a plate having at its upper end a pair of lateral ears embracing and securely gripping the sash cord, said ears having inwardly projecting tongues engaging said cord, a button pivoted to the lower part of said plate on a substantially horizontal axis and adapted to engage the sash, and means permitting the free movement of said attachment along the casing when the button is turned into vertical position, and preventing such movement when the button is turned into horizontal position.

9. The combination, with a window casing having a vertical guide-way therein and a sash slidably mounted in said guide-way, said casing having a longitudinal groove in said guide-way, of a tubular guide in said groove and having its front face substantially flush with the bottom of said guide-way, said guide having a longitudinal slot in its exposed face, and a portion of said guide being cut away to provide a downwardly facing abrupt shoulder, a slide or runner in said guide and having a button pivoted thereto and adapted to project through said slot and to slide freely therealong when turned into vertical position, said button being of a width to permit it to be turned into horizontal position and to engage said shoulder when brought opposite the cutaway portion of said guide, a sash cord attached to said slide or runner and concealed in said guide and having means counterbalancing the weight of said sash, said sash having at its lower end a longitudinal notch or recess receiving said button.

10. The combination, with a window casing having a vertical guide-way therein and a sash slidably mounted in said guide-way, said casing having a longitudinal groove in said guide-way, of a tubular guide in said groove and having a flat front face substantially flush with the bottom of said guide-way, said guide having a longitudinal slot in its exposed face, and a portion of the lower end of said guide being partially cutaway to provide an open channel and a downwardly facing abrupt shoulder, a slide or runner in said guide and having a cord receiving portion closely fitting the interior of said guide and a flat extension below said cord receiving portion, the thickness of said extension being not less than the depth of said channel, a button pivoted thereto and adapted to project through said slot and to slide freely therealong when turned into vertical position, said button being of a width not greater than the width of the groove whereby it may be turned into horizontal position to engage said shoulder when brought opposite the cutaway portion of said guide, a sash cord attached to said slide or runner and concealed in said guide, and having means counterbalancing the weight of said sash, said sash having at its lower end a longitudinal notch or recess receiving said button.

11. In a device for the purpose described, in combination, a tubular guide member adapted to be applied to a window casing and having a longitudinal slot in its front wall, a slide or runner adapted to slide in said guide and having a pivoted button adapted to extend through said slot and to engage the sash, a portion of the front of said guide being cutaway to form a downwardly facing shoulder and to permit said button to be turned transversely to said slot, and said slide or runner being formed for attachment to the sash cord.

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

ARTHUR G. BAGNALL.

Witnesses:
HAROLD E. SMITH,
J. A. TAYLOR.