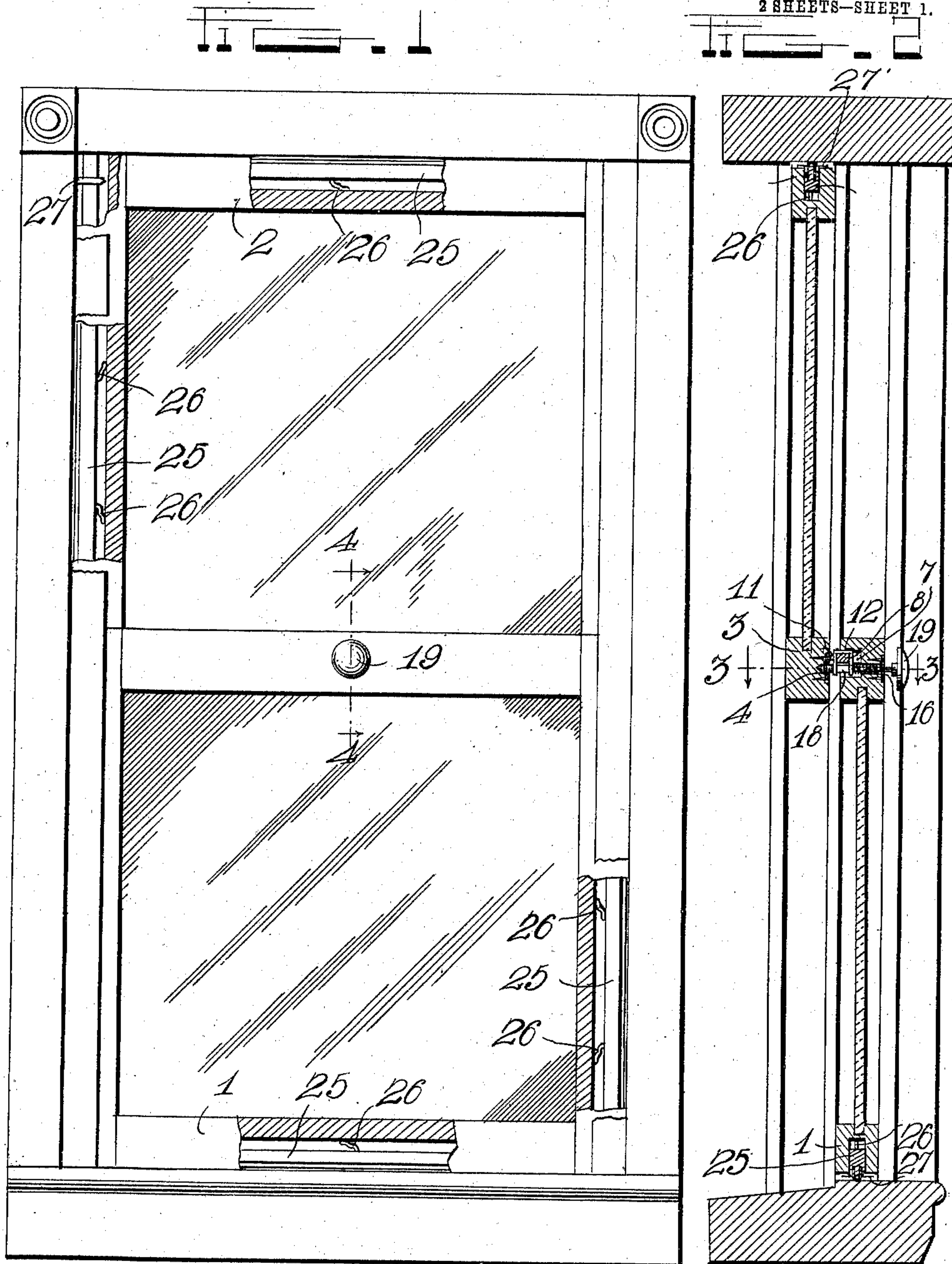


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SASH LOCK.  
APPLICATION FILED MAY 2, 1910.

966,939.

Patented Aug. 9, 1910.

2 SHEETS—SHEET 1.



Witnesses  
C. P. Hardy  
C. H. Griesbauer.

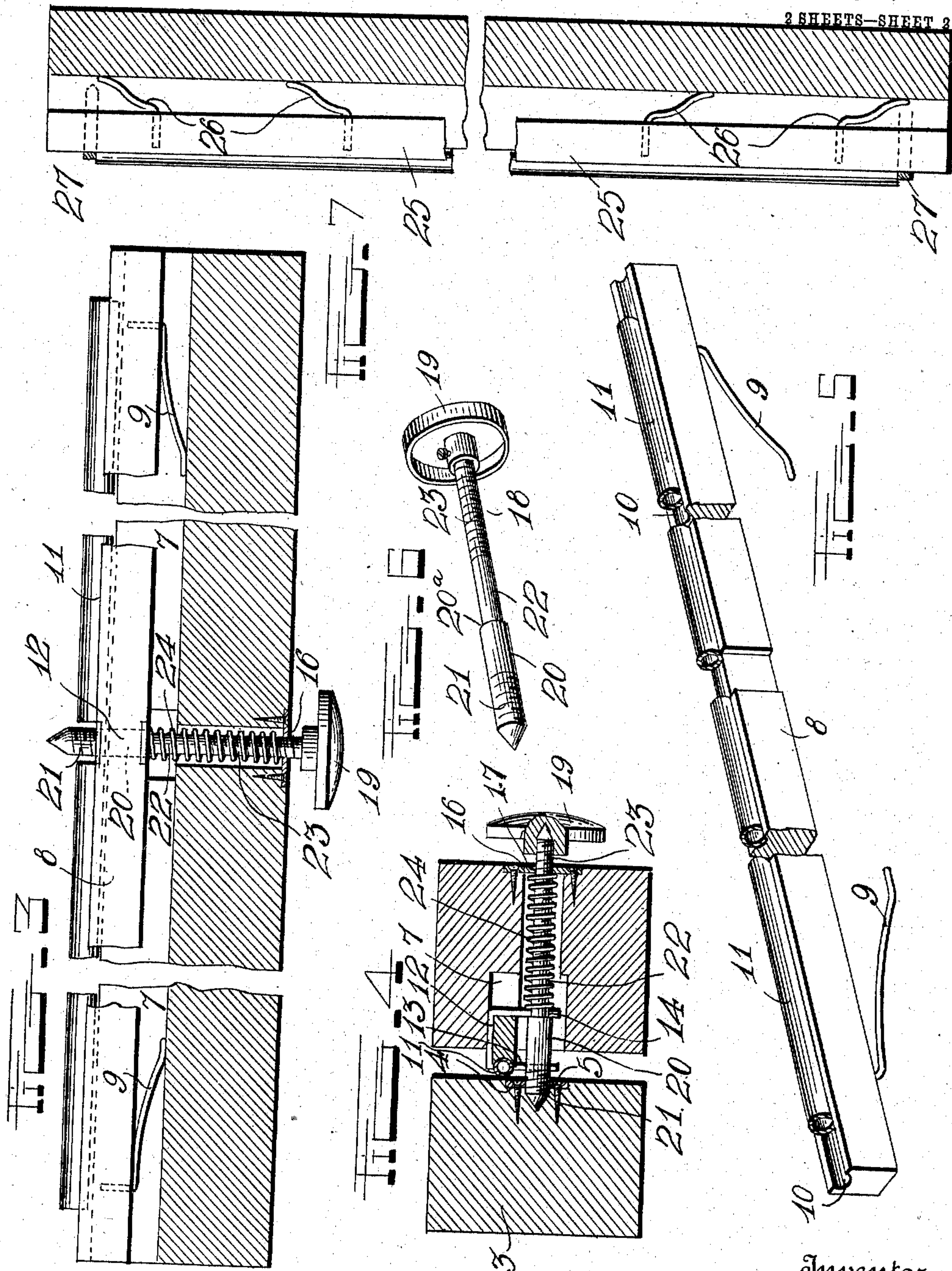
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# UNITED STATES PATENT OFFICE.

JAMES V. MITCHELL, OF MARTINSVILLE, INDIANA.

## SASH-LOCK.

966,939.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed May 2, 1910. Serial No. 558,952.

*To all whom it may concern:*

Be it known that I, JAMES V. MITCHELL, a citizen of the United States, residing at Martinsville, in the county of Morgan and State of Indiana, have invented certain new and useful Improvements in Sash-Locks; 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.

This invention relates to improvements in combined sash locks and weather strips.

One object of the invention is to provide an improved construction of sash lock adapted to be applied to the meeting rails of the upper and lower sash of a window whereby the same are securely locked together.

Another object is to provide a weather strip actuated by the sash lock to form an air and dust tight closure between the upper and lower sashes of the window.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a front elevation of a window frame and sash parts being broken away and in section to illustrate the construction and arrangement of the weather strips along the top, bottom and sides of the sash; Fig. 2 is a central vertical sectional view of the same; Fig. 3 is a horizontal sectional view through the upper rail of the lower sash on the line 3—3 of Fig. 2; Fig. 4 is an enlarged central vertical sectional view through the meeting ends of the upper and lower sash and the locking mechanism arranged therein taken on the line 4—4 of Fig. 1; Fig. 5 is a detail perspective view of the weather strip for closing the space between the meeting rails of the sash; Fig. 6 is a similar view of the sash locking screw; and, Fig. 7 is a detail fragmentary view of the side rail of one of the window sashes showing the construction and arrangement of the weather strip therein.

Referring more particularly to the drawings 1 denotes the lower sash and 2 the upper sash of a window. In the lower rail 3 of the upper sash preferably midway between the opposite ends of the rail is arranged a locking plate 4 in which is formed a cen-

trally disposed threaded passage 5. The plate 4 is mortised or set into the rail 3 and secured by screws or other suitable fastening devices so that the outer surface of the plate is flush with the adjacent surface of the rail.

In the inner side of the rail 6 of the lower sash is formed a longitudinally disposed groove or channel 7 in which is seated a weather strip 8. The strip 8 has secured to its inner edge a series of projecting springs 9 which are engaged with the inner wall of the groove 7 and serve to project or force the strip outwardly and into operative engagement with the adjacent surface of the rail 3 of the upper sash thereby forming an air and dust tight closure for the space between said rails of the upper and lower sashes. The strip 8 has formed in its inner edge a groove 10 in which is secured a flexible packing strip which is here shown and which is preferably in the form of an elastic tube 11 the outer portion of which projects a suitable distance beyond the outer edge of the strip as shown. The packing strip 11 is of less length than the weather strip and the ends of said packing strip terminate a suitable distance from the ends of the packing strip thus preventing the packing strip from coming into contact with the stop strips of the window frame.

Around the weather strip 8 midway between its ends is arranged a clip 12 said clip being mortised or set into the strip and secured thereto in any suitable manner. The lower ends of the clip project a slight distance below the lower side of the strip 8 and in said projecting ends of the clip are formed smooth passages 13 and 14. The passage 13 in one of said ends is of greater diameter than the passage 14 in the opposite end and the purpose of said passages will be hereinafter described. The projecting ends of the clip 12 are adapted to work in a recess formed in the inner side of the strip 6 thus permitting the weather strip to be retracted or drawn into the groove 7 of the strip 6.

In the outer side or edge of the rail 6 of the lower sash is arranged a plate 16 having a threaded passage 17 formed therein. The plate 16 is preferably mortised or set into the adjacent side of the rail 6 and is secured in any suitable manner. Operatively engaged with the threaded passage 17 in the plate 16 is a combined strip operating and sash locking screw 18 said screw having on



its outer end an operating head 19 which is preferably detachably secured to the end of the screw 18 by a set screw or other suitable fastening device. The screw 18 is provided with an enlarged outer end. The inner portion of said enlarged end is smooth as shown at 20 while the outer portion 21 of said end is threaded. The inner reduced or smaller part of the screw is smooth for a portion of its length adjacent to the smooth portion 20 as shown at 22 while between said portions 22 and the head the screw is threaded as shown at 23. In engaging the screw with the weather strip and with the plate 16 in the sash rail 6 the head is first removed from the screw and the smaller end of the latter inserted through the apertures 13 and 14 in the ends of the clip 12 after which a coiled spring 24 is engaged with the reduced portion of the screw. The end of the screw is then passed through the aperture 17 in the plate 16 and the threads 23 engaged with the threads in said aperture after which the head 19 is applied to the screw and the latter thus turned in one direction or the other to project or retract the screw. When the screw is thus arranged the smooth enlarged portion 20 has a sliding engagement with the aperture 13 in the clip 12 while the reduced smooth portion 22 has a sliding engagement with the small passage 14 in said clip. By thus connecting the clip with the screw said clip and the weather strip will be retracted by the engagement of the shoulder 20<sup>a</sup> formed by the enlarged portion 20 with the projecting end of the clip 12 having the smaller aperture 14. When the screw is turned in the opposite direction the spring 24 on the screw together with the springs 9 on the strip will force the latter outwardly thus engaging the packing strip 11 with the adjacent side of the sash rail 3 thus closing the space between said rail and the upper rail of the lower sash. The inner end of the screw when the latter is turned in the direction for drawing the screw inwardly will after the weather strip has been released engage the threaded aperture 5 in the plate 4 of the lower rail 2 of the upper sash thereby securely locking the sashes together and preventing the opening of either of the same.

In addition to the weather strip 8 I also preferably provide similarly constructed weather strips 25 which are arranged in suitable grooves or channels formed in the outer edges of the top, bottom and side rails of the sash whereby the cracks or spaces between said edges and the adjacent parts of the window frame will be covered. The strips 25 are projected to operative position by two or more springs 26 constructed and arranged similarly to the springs 9 in the strips 8. The outward movement of the strips 25 is limited by staples 27 which are

engaged with the ends of the strips and driven into the adjacent portions of the sash rails as shown.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention what I claim is:

1. In a combined sash lock and weather strip, a locking screw having an operative engagement with the meeting rail of one sash and adapted to be screwed into engagement with the adjacent rail of the opposite sash whereby said sashes are locked together, a weather strip arranged in one of said rails and adapted to be projected and retracted into operative engagement with the adjoining rail by the movement of said screw.

2. In a combined weather strip and sash lock a locking screw having a threaded engagement with the meeting rail of one sash and adapted to be screwed into operative engagement with the adjoining rail of the other sash whereby said sashes are locked, a shoulder formed on said screw, a weather strip having a sliding engagement with the rail carrying said screw, a clip secured to said strip and adapted to be engaged by the shoulder on said screw whereby the strip is retracted and springs to project said strip to an operative position to close the space between said rails.

3. In a combined sash lock and weather strip a locking screw having a threaded engagement with the meeting rail of one of the sashes said screw having an enlarged outer end one portion of which is threaded and the other smoothed and a reduced inner portion having smoothed and threaded surfaces, a shoulder formed by the enlarged outer end of the screw, a head detachably secured to the inner end of the reduced portion of the screw, a locking plate arranged in the adjoining rail of the other sash said plate having a threaded aperture adapted to receive the enlarged threaded end of said screw whereby the sashes are locked together, a weather strip having a sliding engagement with the rail carrying said screw, a clip secured to said strip said clip having a large and a small aperture formed in its projecting ends to receive the smoothed portion of said screw whereby the shoulder formed thereon is adapted to retract said strip when the screw is turned in one direction and to release the strip when the screw is turned in the opposite direction, a spring



arranged on said screw to engage said clip  
and force the strip outwardly to an opera-  
tive position and a series of springs secured  
to said strip and also adapted to force the  
5 same outwardly to a closed position when  
released by the screw.

In testimony whereof I have hereunto set

my hand in presence of two subscribing  
witnesses.

JAMES V. MITCHELL.

Witnesses:

CHARLES ISENHOWER,  
GEORGE M. ISENHOWER.