

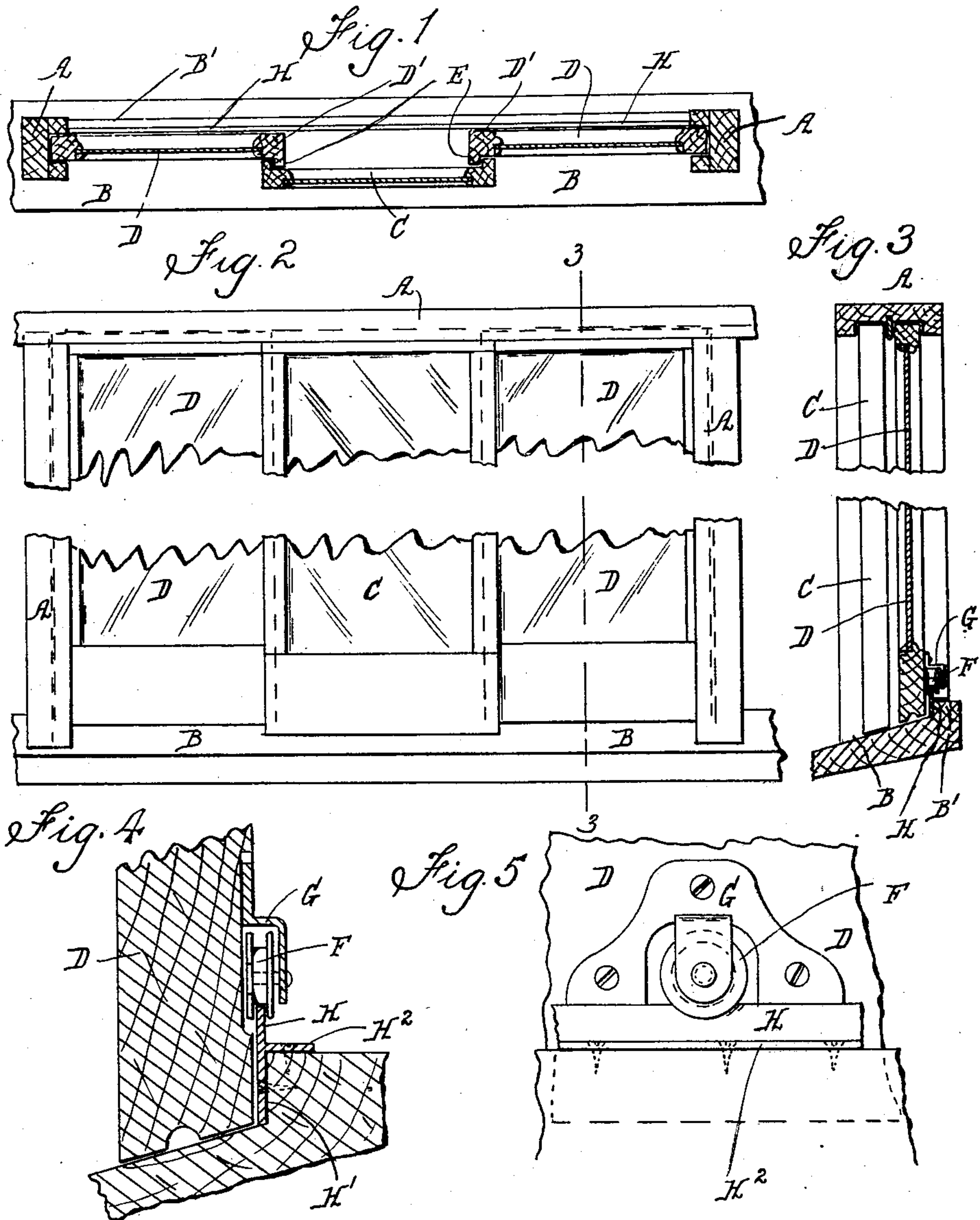
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SLIDING SASH WINDOW AND LIKE STRUCTURE

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UNITED STATES PATENT OFFICE

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SLIDING-SASH WINDOW AND LIKE STRUCTURE

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This invention relates to windows formed by horizontally sliding sashes, and it has been devised with the object of providing a construction that possesses advantages relating to the manner of mounting and operating the sashes to insure their easy running, and particularly to avoid the disability generally attached to this class of window under which water may lodge in the sash slides of the sill, causing them to become swollen and the sashes to jamb.

The invention consists broadly in the combination with a window framing having a sill made to slope downwards and outwards, of a fixed sash mounted in such framing and a sash or sashes mounted to slide laterally within the framing in relation to the fixed sash, each of which sliding sashes is carried upon rollers running on a runner guide bar affixed along the sill to keep the sash in position as it is thus moved.

The invention also embodies other features of construction that will be hereinafter referred to and explained fully in reference to the accompanying drawings, in which:—

Figure 1 is a horizontal section of a window constructed and mounted in accordance with the invention and in which a fixed sash is combined with a sliding sash disposed on each side thereof, the runner rollers of the sliding sashes being omitted.

Figure 2 is an outside elevation thereof.

Figure 3 is a vertical section of the window taken on line 3—3 of Figure 2.

Figure 4 is an enlarged cross sectional detail showing the means for mounting the sliding sash.

Figure 5 is an inside elevation of Figure 4.

In this invention, the window framing A is made in the manner customary to this class of window, saving that the sill B is formed with a slope downwards and outwards and is left unimpeded by runner guides in order that no lodgment of water is possible.

In the framing a fixed sash C is arranged, being disposed in the construction shown, at the middle of the framing. Two sliding sashes D are mounted in the framing, one on each side of the central fixed sash, and each of these is adapted to slide laterally in

a plane behind the line of the fixed sash and provided by the ledge B' of the sill, so that it may be slid more or less to overlap such fixed sash to leave an opening of variable size at its other edge. Each sliding sash is mounted to slide in a guided groove in the top of the frame A, and to fit at its outer edge into a recess formed in the side member of the frame, when the sash is closed. In addition, the inner side bar D' of each sliding sash frame and the corresponding side bar of the fixed sash frame, are rebated, as shown at E in Figure 1, to provide that when the sash is closed, an overlapping engagement is made to prevent ingress of rain between the faces.

The bottom of each sliding sash D is made with a slope that accords with the slope of the sill whereon it fits. The sash is supported by means of a number of roller wheels F disposed at intervals apart along the inner face of its bottom rail, each of which is journalled in a bracket G of approved design let into the surface of the sash rail and secured thereto. These roller wheels are grooved on their peripheries, and the grooves rest and fit upon the top edge of a metal rail H that extends along the sill and projects upwards therefrom, so that the engagement of the wheel groove with the rail will maintain the wheel in place and keep the sash in its proper plumb position, while it is sliding to and fro.

The said rail H is made, as shown in Figure 4, of a cross sectional shape according to which it has a vertical member H' extending down the outer face of the ledge B' in the sill, and a horizontal member H² extending across such ledge; the rail then being fastened by screws to the ledge. This vertical member thus forms a metal running face against which the face of the sash will slide as it runs to and fro, thereby reducing the wear and keeping the window tight.

It will readily be seen that the fixed sash may be combined with a single sliding sash disposed on one side thereof or other relative arrangements of fixed and sliding sashes may be provided for in each of which the sliding sash or sashes moves in relation to a fixed sash.

I claim:—

1. In a window, the combination of a frame having a downwardly and outwardly sloping sill formed with a ledge that runs longitudinally along its rear portion and is provided with a vertical front face; a sash mounted to slide laterally within the frame and having its bottom rail made with a slope that conforms directly with that of the sill and rests thereon; a metal guide rail secured to said sill and embodying co-planar upper and lower vertical members, the latter of which is secured flat against the vertical front face of the ledge, and a horizontal member intermediate the two vertical members which rests flat on and is secured to the top face of said ledge, the upper vertical member of the rail projecting above the said top face of the ledge to provide a track; and grooved rollers attached to the rear face of the bottom rail of the sash and straddling the upper edge of the track portion of the metal guide rail.

2. In a window, the combination of a frame having a sill formed with a ledge that runs longitudinally along its rear portion and is provided with a vertical front face; a sash mounted to slide laterally within the frame; a metal guide rail secured to said sill and embodying co-planar upper and lower vertical members, the latter of which is secured against the vertical front face of the ledge, and a horizontal member intermediate the two vertical members which rests flat on and is secured to the top face of said ledge, the upper vertical member of the rail projecting above the said top face of the ledge to provide a track; and grooved rollers attached to the rear face of the bottom rail of the sash and straddling the upper edge of the track portion of the metal guide rail.

In testimony whereof I affix my signature.

CHARLES MURRAY CRUICKSHANK.