Dec. 31, 1935. R. BENZENBERG 2,026,119

WINDOW CONSTRUCTION

Filed Sept. 3, 1935

Fig. 2

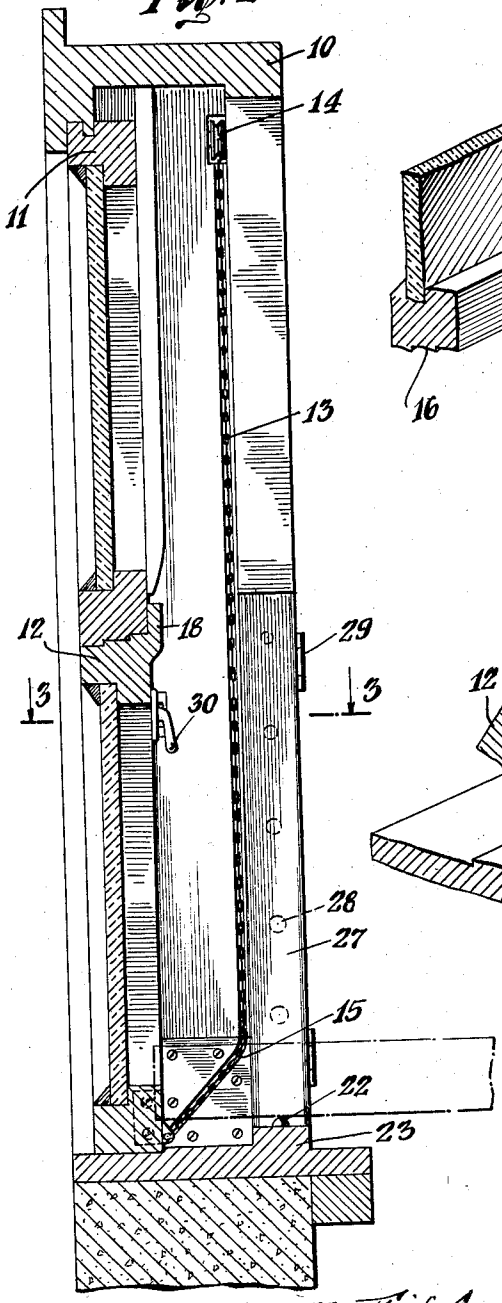


Fig. 1

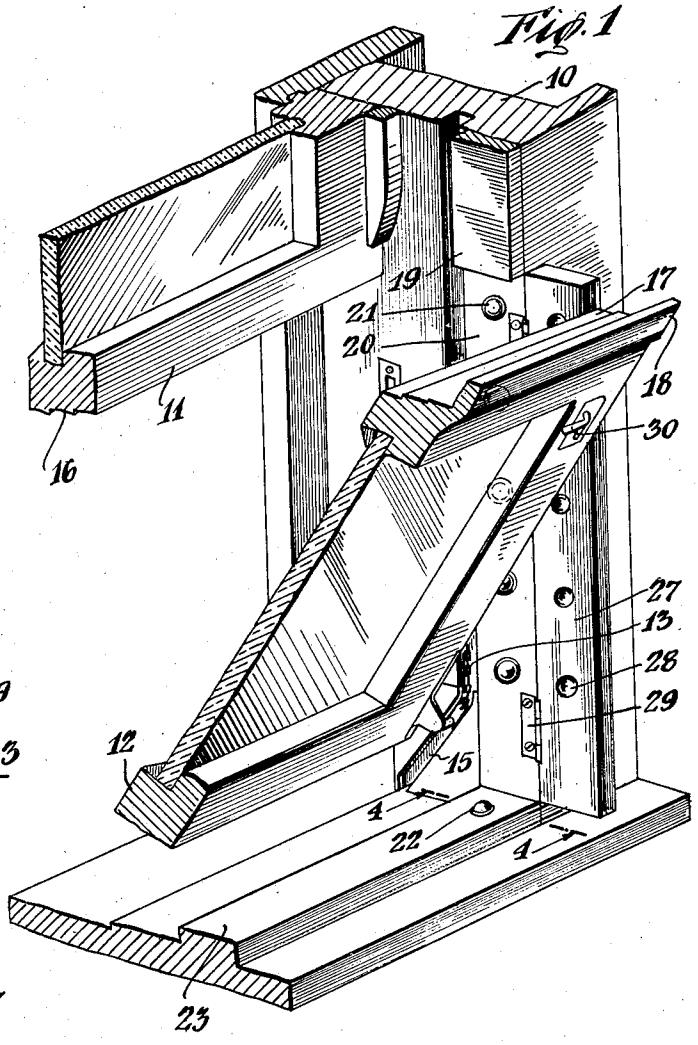


Fig. 3

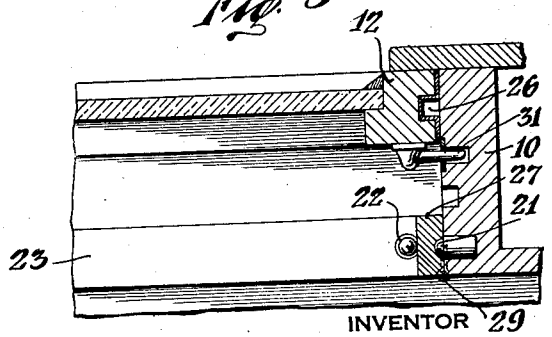
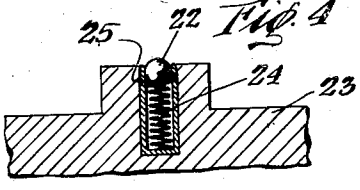


Fig. 4



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WINDOW CONSTRUCTION

Rudolf Benzenberg, New York, N. Y.

Application September 3, 1935, Serial No. 38,910

1 Claim. (Cl. 20—42)

My invention relates to improvements in windows, particularly in window constructions in which the sashes are tiltable at an angle to the window frame and to one another, and it is the principal object of my invention to provide spring controlled, shock-absorbing, substantially bullet-shaped catches in the window frame engaging specially shaped grooves in the sash frames and having varying resisting power or strength and size to compensate for the increase in weight which they have to support during the various stages of the step by step movement of the tilting sashes, caused by the variations in the angles of inclination.

Another object of my invention is the provision of such compensating devices for the upper as well as for the lower window sash of simple and inexpensive construction, yet durable and highly efficient in operation.

A further object of my invention is the provision of a cover for the spring controlled substantially bullet-shaped catches which is hingedly secured to the window frame and provided on its inner face with suitable depressions for the reception of the catches, said cover normally held in the catch protecting position by the engagement of a spring-controlled substantially bullet-shaped catch suitably arranged in the window sill and engaging a socket in the lower edge of the cover when closed, while in the open position of the cover this catch presents a suitable support for the sash frame.

These and other objects and advantages of my invention will become more fully known as the description thereof proceeds, and will then be specifically defined in the appended claim.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 shows in fragmentary, sectional perspective view a window construction according to my invention.

Fig. 2 is a longitudinal section through a window construction embodying my invention.

Fig. 3 is a section on line 3—3 of Figure 2.

Fig. 4 is a section on line 4—4 of Figure 1.

As illustrated, my improved window construction includes the customary window casing or frame 10 in which the window sashes 11 and 12 are slidably mounted suspended from chains 13 guided over rollers 14 and within suitable angular grooves 15. It will be understood that the window may have any other of the conventional constructions suitable for the application of my invention. The sash frames, as illustrated by way of example are of the vertically engaging type provided with steps 16, 17 at their meeting frame bars, the upper frame bar for the lower sash having an upstanding and projecting rail 18 formed therewith for engagement with the lower frame bar of the upper sash to provide a tight closure at the point of engagement of both sashes.

According to my invention I provide in the guard or guide strips 19 for the sashes a cut-away or depressed portion 20, and within the same a plurality of substantially bullet-shaped catches 21 increasing in size from the top towards the bottom of the window frame. These catches are best illustrated in Figure 4, which, while showing such a catch in the window sill, will also illustrate the construction of the catches 21 which therefor consist each of a substantially bullet-shaped body 22 supported by means of a spring 24 within a socket 25 in the window sill 23. The springs vary in sizes and tension.

The catches 21 engage in specially shaped grooves 26 formed in the side bars of the window sash frames and are held in this engagement during the tilting of the sashes by their springs 24.

A cover 27 having a plurality of catch receiving depressions 28 formed in its inner face, is hingedly secured, as at 29 to the window frame and normally covers the catches 21 so as not to interfere with the up and down sliding of the sashes, the cover in this position is locked by the engagement of the catch 22 in the window sill in a suitable socket within the lower edge of the cover. In the open position of the cover, this catch 22 or the pair thereof will tend to support the entirely lowered sash frame, as best shown in Figure 1.

Suitable handles 30 operating latches 31 serve to facilitate the operation of the sashes and to lock the same against movement.

The operation and use of my invention will be entirely understood from the above description thereof by having simultaneous reference to the drawing, and it will be clear that the catches by their increase in size from the top towards the bottom of the window frame will positively engage and lock the tilting sash in its successive angular positions and thus compensate for the increase in weight they have to support during the step by step lowering of the sash to finally find an additional support by the catch in the window sill. The hinge cover when swung inwardly about its hinges will engage the catches in its depressions and cover the same thus presenting a smooth outer face.

It will be understood that I have described and shown the preferred form of my invention only as one example of the many possible ways to practically construct the same, and that I may make such changes in the general arrangement and in the construction of the minor details of my invention as come within the scope of the appended claim, without departure from the spirit of my invention and the principles involved.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent is:

In a window construction including tiltable and grooved sashes, covers hingedly secured to the window frame and provided with a plurality of depressions in their inner faces, a plurality of spring controlled, shock absorbing buffers of varying size and strength located in suitable depressions of the window frame projecting therefrom and adapted to engage in the depressions of said covers when the same is swung about its hinges against the window frame, and a spring operated buffer in the window sill adapted to engage a depression in the lower edge of said covers when swung home to lock the same in this position to present the customary window construction.

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