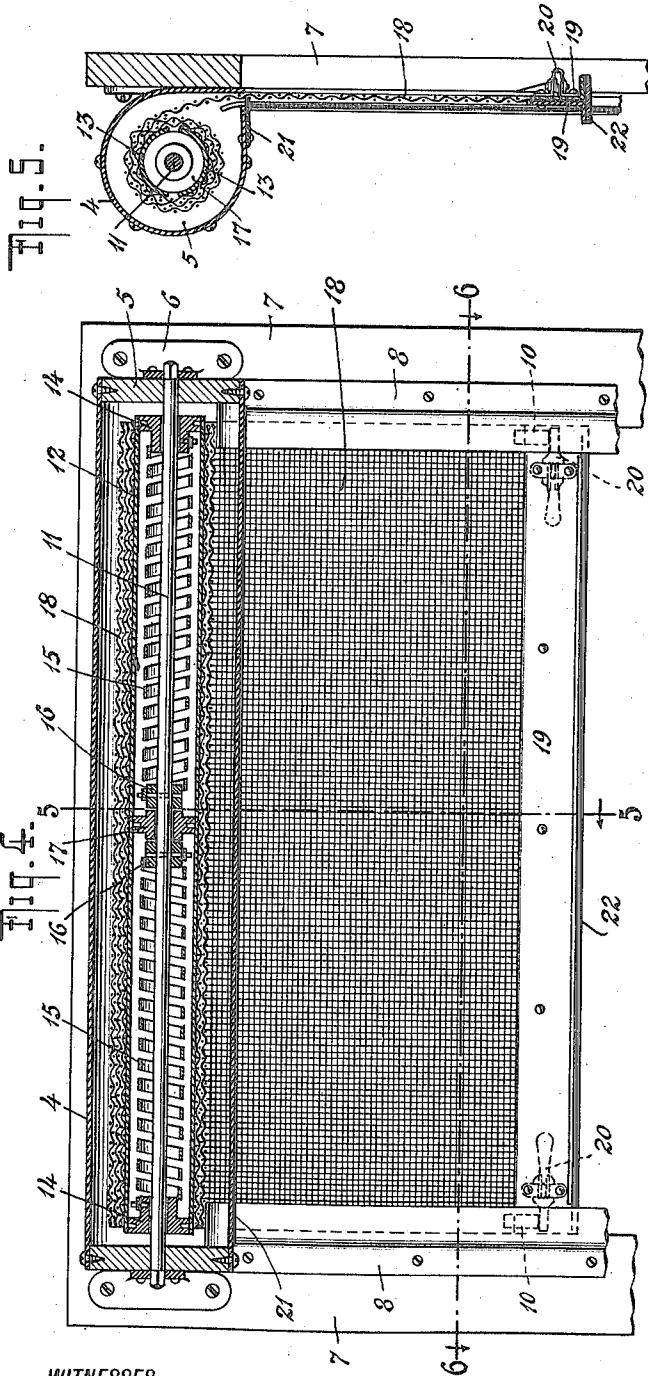
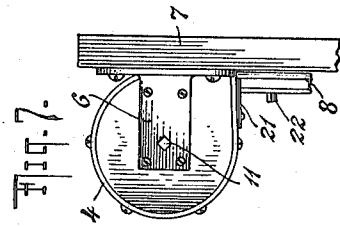
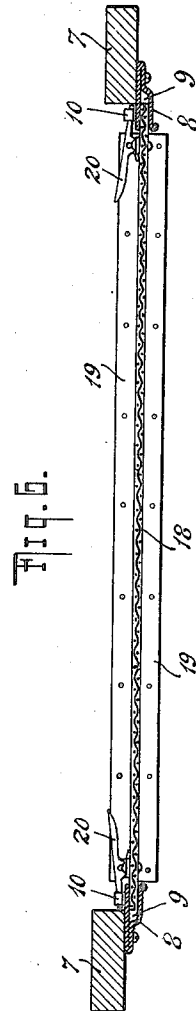


1,266,716.

F. ROLLAND.
FLY SCREEN.

APPLICATION FILED AUG. 18, 1916.

Patented May 21, 1918
2 SHEETS—SHEET 2.



WITNESSES

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2 SHEETS—SHEET 1.

Fig. 3.

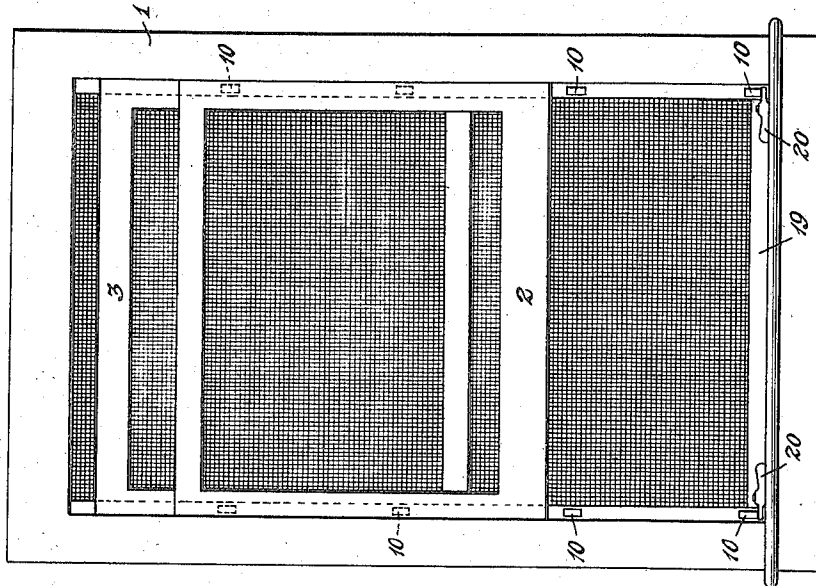


Fig. 2.

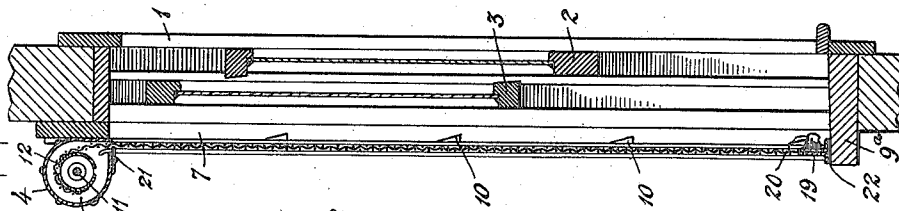
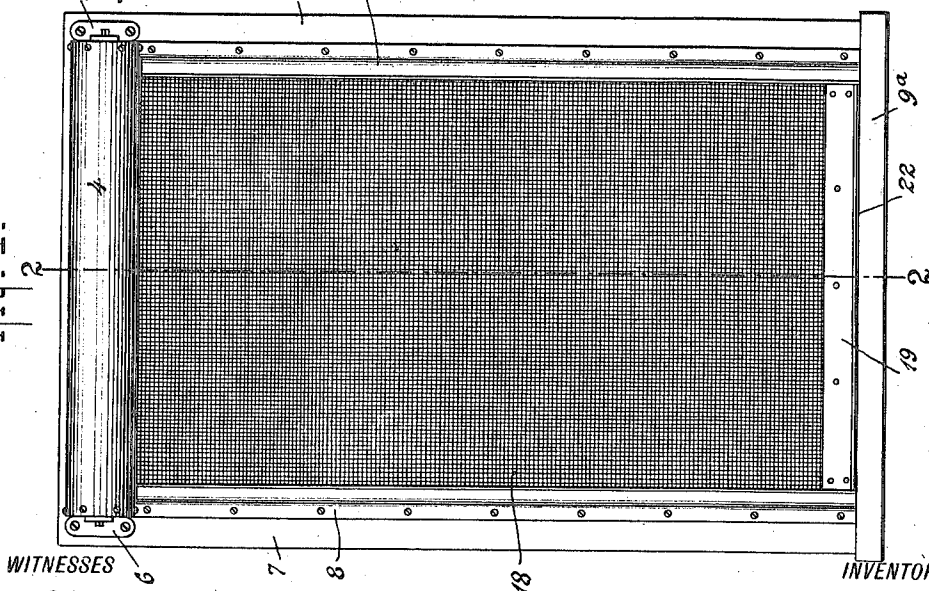


Fig. 1.



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FLY-SCREEN.

1,266,716.

Specification of Letters Patent. Patented May 21, 1918.

Application filed August 18, 1916. Serial No. 115,589.

To all whom it may concern:

Be it known that I, FRED ROLLAND, a subject of the German Emperor, residing in Long Island City, Queens county, State of New York, have invented certain new and useful Improvements in Fly-Screens, of which the following is a specification.

My invention relates to screens of wire netting and the like of the general type commonly used in windows of dwellings, office buildings and other edifices, for the purpose of excluding flies, mosquitos and insects generally.

My invention relates particularly to screens of the class specified which are adapted to be permanently mounted in position but are so arranged that in the winter time, when the screens are not needed, and when it is necessary to get at both sides of the window for cleaning or other purposes, the screen can be quickly and easily removed from in front of the window.

The object of my invention is to provide a screen of the class referred to which can be permanently mounted on the outside of a window in such a way that the screen proper can be rolled up at the end of the window when it is desired to have access to both sides of the window for cleaning and other purposes, or during the cold season when screens are no longer required. When thus rolled up the screen is protected from rain, snow, moist air, gases and the like.

A further object of my invention is to provide a screen as just described which can be permanently attached to buildings without detracting from their appearance and without in any way interfering with the usual operation of the window sashes.

My invention will be better understood by referring to the accompanying drawing in which Figure 1 represents an outside view of a window protected by a preferred form of my improved screen; Fig. 2 represents a section taken along the line 2—2 of Fig. 1; Fig. 3 represents an inside or rear view of the window shown in Fig. 1; Fig. 4 is a view, similar to Fig. 1, the lower half of the window being broken away, however, and the roller being shown in a central section; Fig. 5 is a section taken along the line 5—5 of Fig. 4; Fig. 6 is a section taken

along the line 6—6 of Fig. 4; and Fig. 7 is an end view of the upper part of Fig. 4 taken from the right.

In the drawings, the window casing 1 is represented as of the usual type provided with two sliding sashes 2 and 3. My improved screen is shown as permanently fastened upon the outside of this window casing and comprises a tubular housing 4 having ends 5, these ends being attached to brackets 6, which are themselves permanently attached to the exterior window frame 7 just above its opening. Facing each other on opposite sides of frame 7 is a pair of metal guide strips 8 having grooves 9 on the inner side thereof. These strips extend from the under side of housing 4 to the sill member 9^a of the window frame and are preferably attached to the side members of the frame by screws. These strips also extend inwardly into the opening of the window frame and are provided on their inner side with pairs of oppositely located locking lugs 10 having the shape of wedges with their thick ends down.

The housing 4 is provided with a shaft 11, the ends of which are squared off and fixedly held in corresponding openings provided in the brackets 6. This shaft carries a tubular roller 12 comprising a pair of substantially semi-circular segments 13 whose ends are attached to hubs 14 loosely mounted upon the shaft. To each of these hubs is fixed one end of a suitable helical spring 15, the inner ends of both springs being attached to hubs 16 which are themselves pinned or otherwise fixed to the shaft on each side of the center thereof. Between the two hubs 16 is a spacing disk 17 to which the roller 12 is fastened. This disk 17 fits loosely upon the shaft and prevents any longitudinal shifting of the roller.

The netting 18 should be of metal of any preferred mesh and is attached along its upper edge to the roller 12. Its width is substantially that of the opening of the window frame 7 so that the edges thereof extend well into the grooves 9 of the lateral strips 8. The lower edge of the netting is clamped fast between the vertical members of a pair of angle irons 19.

Pivottally attached spring locking mem-

bers 20 are disposed at each end of the inner angle iron 19 and have their outward ends normally pressing against the strips 8.

The operation of my improved screen is as follows: With the screen raised to its uppermost position, substantially the entire netting is rolled upon the roller 12. When in this position the springs 15 should have, preferably, but a small amount of tension. The lower horizontal members of angle irons 19 will rest against the lower side of the top member of the window frame and against the lower side of the housing 4 respectively, thus very completely closing the slot in the housing through which the netting is raised and lowered. To insure that the housing shall be still more tightly closed, when the netting is in this extreme upward position, a weather strip 21 may be attached to and across the lower part of the housing with its inner edge substantially in contact with the netting. This will prevent snow, rain, moist air and corroding gases from getting into the housing and injuring the netting.

The screen may be lowered from either side of the window by grasping the angle iron 19 and drawing the netting down. As the locking members 20 reach the locking lugs 10 they will ride up upon the inclined surfaces thereof and drop back beneath the base of the lugs so as to prevent the netting from rising unless the locks are suitably pressed by hand. When the netting is in its extreme lower position, the angle irons 19 will be against the base member of the window frame. In order to provide that there shall be no opening whatever between the bottom of the angle iron 19 and the base member of the window frame, I preferably attach a strip of felt 22 or some equivalent material to the under side of the angle iron. The locking lugs 10 being suitably located, this felt strip will be placed under a certain amount of pressure when the netting is completely lowered and the space will thus be filled.

As will have been seen, my improved screen is a permanent unitary structure which can be permanently attached to the window to be protected and left indefinitely. With the screen lowered, the window is perfectly protected from flies and insects. In this position the screen cannot be opened from the outside except by destroying the netting. When it is desired to wash the windows, the screen can be raised partially or completely by merely releasing the spring locks 20 and allowing the spring to draw the

netting upward. In the winter time and at all times when it is not necessary to screen the window, the screen may be raised to its uppermost position. When in this position the netting is completely inclosed by the housing 4 and protected thereby from snow, rain, moisture and corrosive gases.

I have shown my screen with the locking members 20 on the inner side thereof but if for any reason it should be preferred to control the screen from the outside rather than from the inside, these locking members could be placed on the outside of the screen. Similarly, while it will generally be preferred to place the screen as a whole on the outside of the window frame, it may, nevertheless, if desired, be equally well mounted on the inside. Also, if preferred, the housing 4 may be placed vertically against a lateral member of the window casing and the netting be moved sidewise instead of up and down.

The locking lugs 10 and spring locks 20 enable the net to be stopped only at certain predetermined positions. Any other usual arrangement may, however, be substituted for these locking lugs and spring locks, and if desired some arrangement may be employed for enabling the netting to be stopped anywhere within its limit of movement.

The tubular housing and guide strips are preferably fastened together as well as individually attached to the window casing. In this way the entire structure may be quickly attached or removed.

Having described my invention, I claim:—

In an article of the class described, in combination with a window casing, a tubular housing fixed to the outer side and above the opening thereof said housing having a narrow slot at the bottom and inner side, a shaft within said housing with its ends fixed to the ends of the housing, a roller rotatably mounted upon said shaft, a spring connecting said shaft and said roller, a strip of netting passing through the slot and having an edge fastened to the roller, guide strips at each side of the window casing with which the lateral edges of the netting are adapted to engage, means for preventing longitudinal movement of the roller and means for locking the netting in predetermined positions with reference to the window casing.

In testimony whereof I have hereunto set my hand.

FRED ROLLAND.

It is hereby certified that in Letters Patent No. 1,266,716, granted May 21, 1918, upon the application of Fred Rolland, of Long Island City, New York, for an improvement in "Fly-Screens," an error appears in the printed specification requiring correction as follows: Page 1, line 3, for the word "German" read *Austrian*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 15th day of October, A. D., 1918.

[SEAL.]

R. F. WHITEHEAD,

Acting Commissioner of Patents.

Cl. 156—39.