

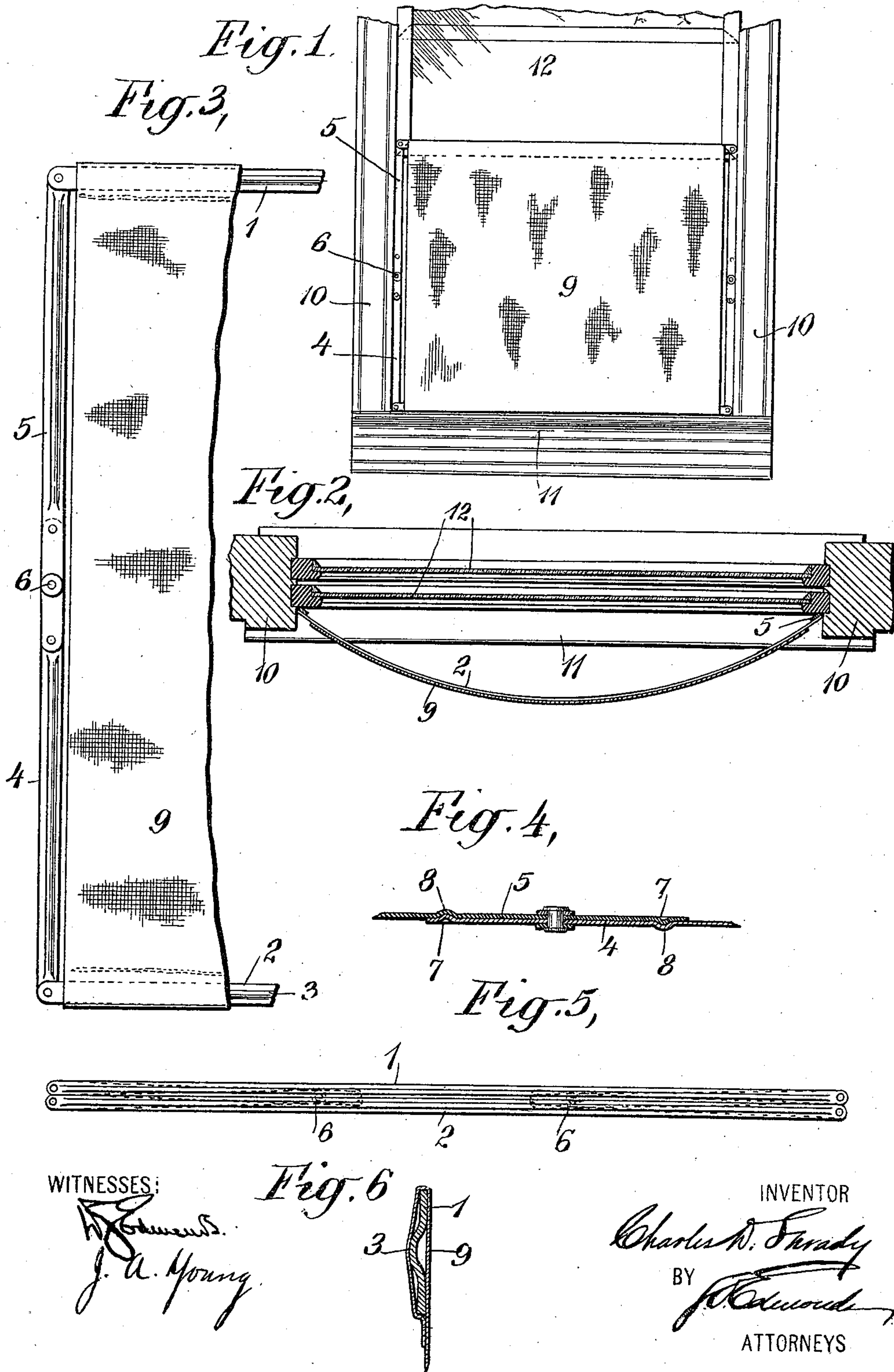
C. D. SHRADY.

SCREEN.

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975,470.

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UNITED STATES PATENT OFFICE.

CHARLES D. SHRADY, OF ALLENTOWN, PENNSYLVANIA.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES D. SHRADY, a citizen of the United States, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Screens, of which the following is a specification.

This invention is directed to the provision of an improved form of screen adapted for insertion in a window or other frame and so constructed that it will exclude light and at the same time permit the free entrance of air through the window opening.

The object of the invention is to provide a screen having the essential characteristics that it will exclude light while permitting air to enter, and that it may be quickly and easily mounted in and removed from its position in the window or other opening.

These being the principal objects of the invention, other objects are to so construct the screen that it may be manufactured at very low cost, that wear and breakage will be reduced to a minimum, and that the screen shall be suitable for use in window-frames varying considerably in width.

Many persons find that they are unable to sleep in a light room and such persons are usually awakened early in the morning by the entrance of light through the window or windows of the room, and are unable to get to sleep again; and if the ordinary window shades are employed to exclude light from the room, they would prevent air from entering the room to a very objectionable extent. Furthermore, persons are frequently awakened or kept awake by light entering a room through the transom from a hall or adjoining room.

In accordance with my invention, I provide a screen so constructed that it may be readily inserted in the frame of a window or transom, and that it will serve to exclude the light and at the same time permit the air to enter freely so as to give good ventilation within the room.

An important characteristic of the screen is the ease with which it may be inserted in a frame and removed from its position in the frame, and the fact that no attachments on the window-frame are required. This feature of the screen makes it suitable for use wherever desired, so that a traveler may carry one of the screens with him and use it in his room without any preparation for its use having been previously made.

The screen of my invention in its preferred form is provided with certain parts having a spring action such that by their own elasticity they will serve to hold the screen in position. The screen is provided with a material through which the light will not pass as, for instance, a closely woven fabric; and it is so constructed that it will not lie close to the window and its frame, as, for instance, with its lower edge adjacent to the sill of the frame and its upper edge adjacent to the lower edge of the window-sash, for the reason that in such position the screen would objectionably obstruct the entrance of air into the room. Instead, the screen is so made that the major portion thereof will be spaced away from the adjacent portions of the window so that air may pass freely into the room over and under the screen. Preferably, the screen is so made that it may be folded into a compact form for convenience in transportation.

In the form of my invention which I prefer to employ, I provide a rectangular frame made of sheet-metal parts and a cover for this frame consisting of a closely woven, dark colored fabric. The longitudinal members of the frame are sheet-metal strips possessing considerable elasticity so that they may be readily bowed. The end members of the frame are formed in two parts, which are pivotally connected, the ends of these members being also pivotally connected to the longitudinal members of the frame. In this way, when it is desired to fold the screen in a compact form, the two parts of each of the end members may be moved relatively about the pivotal connections thereof so that the two longitudinal members will lie side by side, whereupon the fabric of the screen may be wrapped around the metallic members of the frame. Such a screen may be readily inserted in a window-frame by merely bowing the longitudinal members thereof sufficiently to permit of moving the end members of the frame between the side members of a window-frame and then allowing the end members of the frame of the screen to move outwardly into coaction with the side members of the window-frame, whereupon the screen will be properly held in position. In this position the central portion of the screen will be considerably displaced from the plane of the window because of the bowing of the screen, and therefore air may pass freely

over and under the screen and the entrance of light will be effectually precluded by the screen.

I have illustrated the preferred embodiment of my invention in the accompanying drawings, in which—

Figure 1 is a front view of a window-frame having my improved screen applied thereto; Fig. 2 is a transverse section through the window and its frame, the screen being shown in section; Fig. 3 is an elevation of one end of the screen; Fig. 4 is a detail view in section of one of the end members of the frame of the screen; Fig. 5 is a view in elevation showing the frame in its folded condition; and Fig. 6 is a detail view in section hereinafter referred to.

Referring to these drawings, 1 and 2 indicate the longitudinal members of the frame of the screen, these being formed of sheet-metal strips, preferably corrugated lengthwise as shown at 3, Fig. 6. The end of the members 1 and 2 are pivotally connected to the ends of the end members of the frame. Each of these end members consists of two corrugated sheet-metal parts 4 and 5 which are pivotally connected at 6. The members 4 and 5 are extended beyond the pivotal connection thereof so as to provide means for locking them in alinement. A simple method of effecting this locking is to provide cooperating projections 7 and depressions 8 (Fig. 4) on the two parts so that, when the latter are brought into alinement, the two projections will enter the two depressions. The rectangular frame thus constructed supports a covering 9 consisting of any suitable flexible material which will preclude the passage of light there-through, preferably, a closely woven, dark colored fabric.

Figs. 1 and 2 show the screen as applied to a window-frame, the latter having side members 10 and a sill 11 and vertically movable windows 12. The screen is inserted in the frame of the window by bowing it in the direction of its width, and then allowing the end members of the frame of the screen to move outwardly into coaction with the side members 10 of the window-frame, whereupon the screen will be held in position in the manner shown in Fig. 2. It will be appreciated that the construction employed thus permits of readily mounting the screen in the desired position and removing it therefrom, and that the screen may thus be positioned notwithstanding variations of a considerable degree in the width of the window-frame. When the screen is so po-

sitioned, it will effectually prevent the entrance of light but it will effectually prevent the entrance of light but it will not obstruct the passage of air through the window opening as it will be seen in Fig. 2 that the central portion of the screen is spaced apart from the plane of the window a considerable distance and therefore air may pass freely over and under the screen.

A screen made as above described may be manufactured at very low cost, since it consists only of a frame formed of sheet-metal parts and a covering supported thereby. Furthermore, it is not required that the frame of the window be specially constructed to receive the screen or provided with attaching devices, so that the screen is adaptable for use in any window-frame. Furthermore, when the screen is not in use, it may be folded to compact form in the manner indicated in Fig. 5, by turning the two parts of each of the end members upon their pivotal connection until these two parts and the two longitudinal members of the frame lie substantially parallel to each other and close together, whereupon these parts of the frame may be wrapped up in the fabric of the screen.

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

1. The combination of a window-frame having a window therein and a screen consisting of a rectangular supporting-frame and an opaque covering thereon, said screen coacting with the adjacent faces of the side-members of the window-frame to removably support the screen therein with a portion of the screen displaced laterally from the frame of the window, substantially as set forth.

2. The combination of a window-frame having a window therein and a screen consisting of a rectangular supporting-frame the longitudinal members of which are resilient and an opaque covering mounted thereon, said screen coacting with the adjacent faces of the side-members of the window-frame to removably support the screen therein and said resilient members of the supporting-frame being bowed away from the plane of the window, substantially as set forth.

This specification signed and witnessed this 4th day of September, 1909.

CHARLES D. SHRADY.

Witnesses:

ELLA M. SNYDER,
ELIZABETH H. SHRADY.