No. 620,296. Patented Feb. 28, 1899.

J. C. FLEMING.

WINDOW SASH.

(Application filed Sept. 27, 1898.)

(No Model.)

Fig. 1.

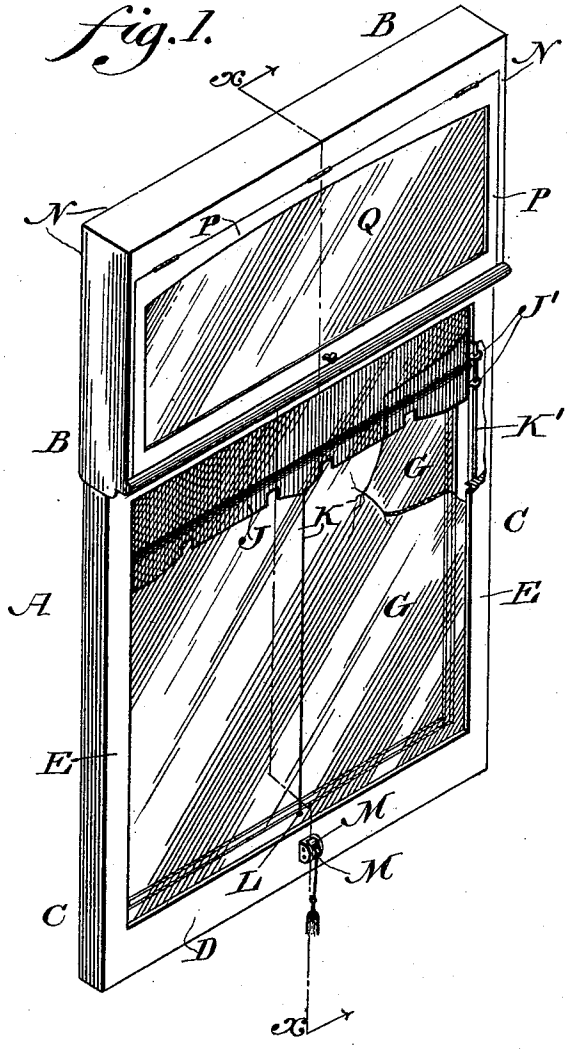
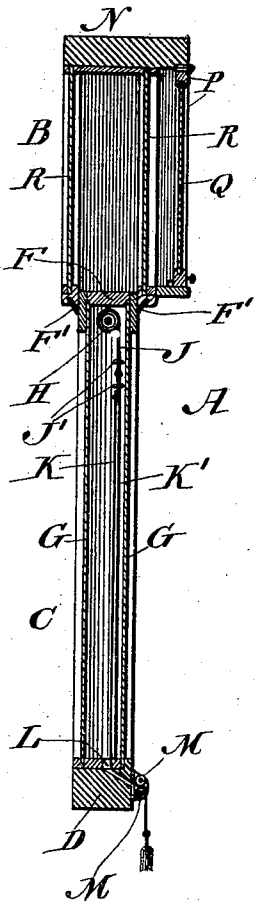



Fig. 2.




Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN C. FLEMING, OF PHILADELPHIA, PENNSYLVANIA.

## WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 620,296, dated February 28, 1899.

Application filed September 27, 1898. Serial No. 691,987. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. FLEMING, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Window-Sashes, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved construction of window-sash which is especially adapted to act as a partial non-conductor of heat and cold by reason of the employment of a plurality of sheets of glass in a single sash, having an air-space therebetween, provision being also made for preventing the window from getting opaque or covered with moisture in winter by preventing the condensing of vapor on the surface of the inside of the glass.

My invention is further adapted for use as an advertising medium, the upper portion thereof being intended for this purpose and also as a space for the lower sash to slide into when desired, said upper portion having a single sheet of glass located on the outside thereof and one or more sheets on the inside sash, or vice versa, when so desired, said lower sash being adapted to be readily raised when desired.

One of the advantages attained by the employment of an outside sash and glass as contemplated in the present invention is that it prevents dust and dirt from remaining on the top of the lower sash and permits the inside sash to be readily seen by the occupant of the coach or car, and as a result the advertising matter located upon the upper portion becomes more attractive and noticeable.

My invention further consists in locating a blind, shade, or screen between the panes of glass contained within the lower sash, whereby said blinds or screens are ordinarily inaccessible and are therefore kept clean and rendered less liable to injury or to become unsightly, said blinds or screens being further adapted to be made very attractive when so desired by using an opaque material of the different shades and colors agreeable to the eye, which latter function is especially advantageous to people traveling during snowy weather or in the glare of the sun.

By my invention a window can be readily adjusted to stores or dwelling-houses and is a great improvement over windows heretofore constructed, in which one pane of glass has been used in each sash, which necessitates the lifting of each sash, thereby exposing the same to dirt and dust.

To the above ends my invention consists in a movable lower window-sash having a plurality of panes of glass secured therein and a shade, screen, or blind contained in the space between said panes, said movable sash being adapted to be raised into an upper stationary casing or frame consisting of an inside sash containing one or more panes of glass and an outer sash containing one pane of glass.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a perspective view of a window-sash embodying my invention, a portion of the sash being broken away. Fig. 2 represents a section on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a window-sash, the same consisting of an upper stationary frame B and a lower movable sash C, the latter consisting of a lower strip D, the upright sides E, and the top strip F, the above parts serving to hold in place the panes or sheets of glass or other transparent material G.

H designates a shade-roller contained in the upper portion of the space between the panes of glass G, said roller having a shade, screen, or blind J mounted thereon, from which latter depends the cord or other connection K, which passes through an opening L in the lower strip D, said connection being passed between two rollers M, which are suitably supported upon the strip D.

The stationary upper casing B consists of a frame N, having the panes of glass R secured therein, the lower sash C being freely movable into the space between said panes R.

P designates a frame or door hinged to the inside portion of the upper stationary frame N, said frame P having a pane of glass or other similar material Q secured therein and being locked or secured in closed position in any suitable manner.

On each side of the lower movable sash C is located an upright steel or other rod K′, on which are adapted to move and be guided thereby the eyes J′, which are preferably two in number and are attached to the shade J on either side thereof.

F′ designates rubber strips which are attached to the lower portion of the upper stationary frame or casing B and are adapted to contact with the movable sash C, so as to form a good joint therebetween.

The operation is as follows: The lower movable sash C is shown in normal position, and it will be evident that the same can be readily raised toward the upper frame into the space between the panes of glass R R. By reason of the location of the shade, screen, or blind between the panes of glass G of the lower movable sash C it will be evident that the same will be protected from injury and will be less liable to become soiled or unsightly. The space between the pane of glass R and the movable frame P is adapted for advertising purposes, the desired advertising matter being readily inserted into place when the door or frame P is opened, and said matter can be interchanged or replaced with great facility, as is evident.

If desired, I can utilize the shade or blind J on either side for advertising purposes, and I may also paint upon either or both sides of said shades landscapes or other pleasing objects. It will also be apparent that although I may prefer the upper frame M is stationary it may be expedient in some instances to make the same movable, so that the upper frame, as well as the lower sash, can both be moved relative to each other.

It will of course be understood that the panes of glass in the upper frame and lower movable sash may be placed closer to each other than shown in Fig. 2, and the proportionate or relative dimensions of said frame and sash may be varied, as desired, and that other changes may be made by those skilled in the art which will come within the scope of my invention; and I do not therefore desire to be limited in every instance to the exact construction I have herein shown and described.

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

1. The combination of an upper stationary frame having two or more panes of glass therein, and a lower movable sash having a plurality of panes of glass therein, said lower sash being adapted to be raised into the space between the panes of glass of said upper frame.

2. In a device of the character named, an upper stationary frame having a plurality of panes of glass located therein, a lower movable sash adapted to be raised into the space between said panes of glass, said lower sash having a plurality of panes of glass therein, a hinged transparent frame or door secured in said upper frame and a shade mounted in the lower movable sash and located between the panes of glass therein.

3. In a device of the character named, an upper frame having a plurality of transparent panes of glass therein, a movable frame or door hinged to said upper frame, the space between said movable frame and one of said panes of glass being adapted to have advertising matter located therein, a lower movable sash having a plurality of panes of glass therein, the space between said panes having a roller located therein, said roller carrying a shade and a connection leading from said shade through an opening in the lower portion of the movable sash.

4. A lower movable sash, a plurality of panes of glass therein, a roller located in the space between said panes of glass, a shade supported on said roller, upright rods at each side of said shade, eyes attached to the latter and movable on said rods, an upper stationary frame having a plurality of panes of glass secured therein, said lower sash being capable of being raised into the space between said panes and a hinged door attached to said upper stationary frame, the space between said door and the adjacent pane of glass being adapted to have advertising material inserted therein.

5. A lower movable sash, a plurality of panes of glass therein, a roller located in the space between said panes of glass, a shade supported on said roller, upright rods at each side of said shade, eyes attached to the latter and movable on said rods, an upper frame having a plurality of panes of glass secured therein, said lower sash being capable of being raised into the space between said panes and a hinged door attached to said upper frame, the space between said door and the adjacent pane of glass being adapted to have advertising material inserted therein.

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