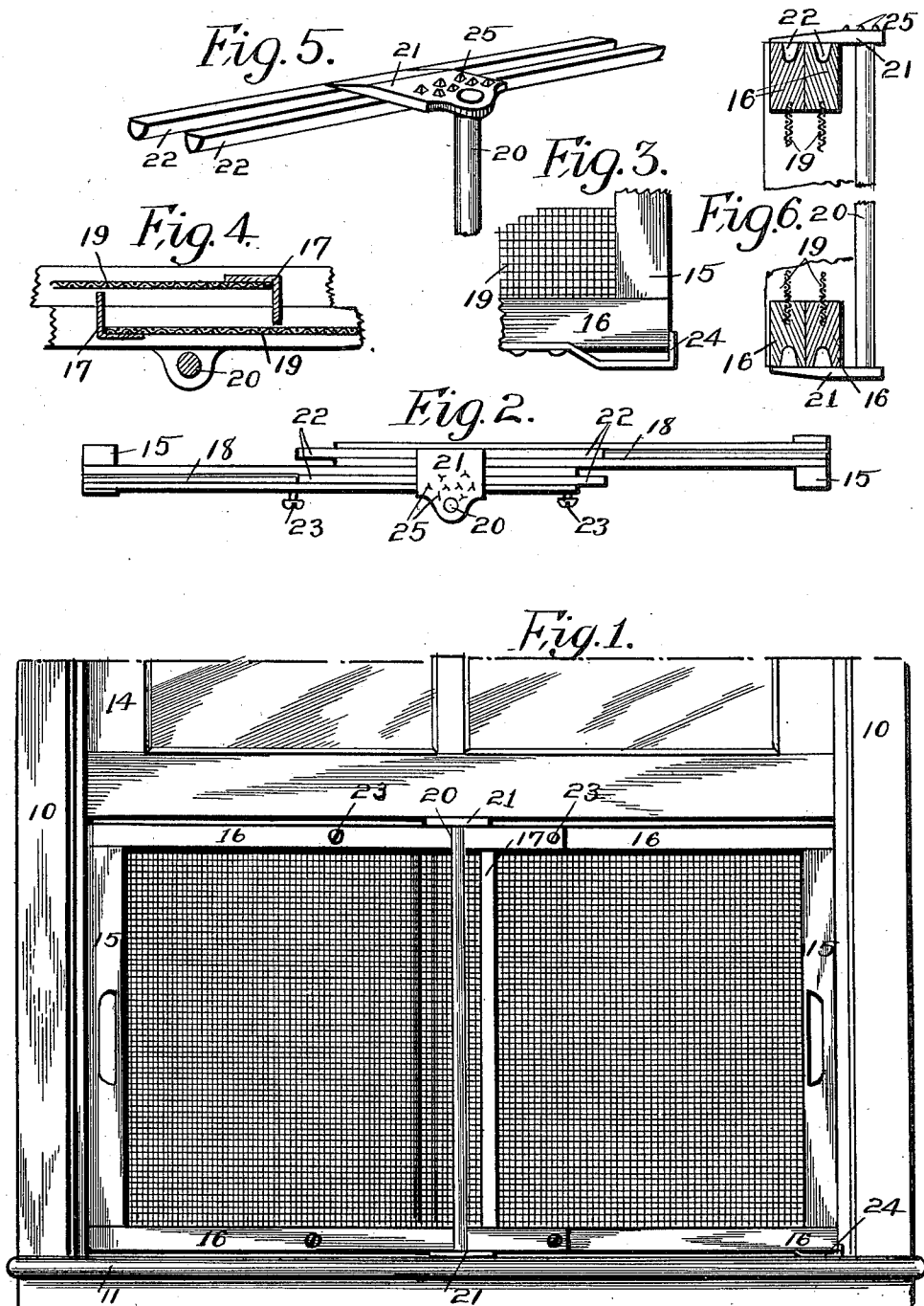


T. B. FORD.
ADJUSTABLE WINDOW SCREEN.
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1,023,780.

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE WINDOW-SCREEN.

1,023,780.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS B. FORD, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a certain new and useful Adjustable Window-Screen, of which the following is a specification.

The object of my invention is to provide an adjustable screen for windows and similar openings, of simple, durable and inexpensive construction, composed of parts arranged to slide longitudinally with relation to each other, making the screen adaptable for windows of different width, which screen is easily placed in or removed from a window.

A further object is to provide an adjustable or collapsible screen made in parts, which may be easily and readily taken apart and packed in compact form for storage or transportation.

My screen is provided with a central brace or support, designed to rest on its lower end on the frame of a window, and to receive the weight of a window sash at its upper end, thereby relieving the movable parts of the screen from such weight, which central support is provided at its ends with bars which are slidably received in grooves in the upper and lower edges of the movable parts of the screen.

My invention consists in certain details, in the arrangement, construction, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a side elevation of a window equipped with my improved adjustable screen. Fig. 2 shows a top or plan view of my improved screen. Fig. 3 shows a detail view of one of the lower corners of my screen, showing the spring device for preventing the tilting of the screen. Fig. 4 shows a detail, sectional, central, horizontal view of the central portion of my screen in its position when in position for use. Fig. 5 shows a perspective view of one end of the central brace or support with the parts connected therewith. Fig. 6 shows a detail, transverse, sectional view of my improved screen, the central portion of the screen being removed.

In the accompanying drawings, I have used the reference numeral 10 to indicate

the upright members of a window frame or casing, and the numeral 11 to indicate the horizontal member at the lower end of such a casing. In the frame or casing is mounted a sash 14.

My improved adjustable window screen is composed of two sections, each of which is provided with a rectangular frame composed of one end member 15 and upper and lower horizontal members 16, which are preferably of wood and a second upright end member 17 which will be hereinafter more fully described. In the outer edges of each of the horizontal members 16, is a longitudinal groove 18. In the frame above mentioned, of each section of my screen, is a screen fabric 19, which may be of ordinary screen wire. The end members 17 are composed of angle bars of tin or other suitable material, and are arranged so that when the sections of my screen are placed together as hereinafter described, one flange of each end member 17 will extend approximately to the fabric 19 of the other section, as clearly shown in Fig. 4.

I mount the two sections of my screen, hereinbefore described, to permit said sections to slide longitudinally with each other in the following manner: I provide an upright supporting member 20. At each end of said member 20 is secured a plate 21, extending at right angles from said supporting member 20. The plates 21 are parallel with each other. On the lower side of the upper plate 21 and on the upper side of the lower plate 21, I secure parallel bars 22 spaced apart from each other, and beveled, or otherwise shaped to fit the longitudinal grooves 18 in the members 16. The two screen sections hereinbefore described, are designed to be placed in parallel planes with their ends adjacent to and overlapping, as shown in Figs. 1, 2 and 4 with the bars 22 nearest the upright member 20, received in the grooves 18 of one of the screen sections, and with the bars 22 farthest removed from the upright member 20 received in the grooves 18 of the other section. One flange of each of the upright members 17 is arranged to extend toward the screen fabric of the other section, as shown in Fig. 4. The upright member 20 is of such length that the opposite members 22 will slide freely in the grooves 18, formed in the members 16, as shown in Fig. 6. It will be seen that when one pair of the opposite

bars 22, is received in the grooves of one section of my screen, and the other pair of opposite bars 22 is received in the grooves in the other section, the respective sections
 5 may be readily moved longitudinally with relation to each other, the relative position of the bars 22 and the members 16 being shown in Fig. 2. It may be noted in this connection, that the length of the bars 22
 10 is less than that of the members 16.

When the parts of the screen are assembled as shown in Fig. 2, and the sections are moved longitudinally in opposite directions toward their extended position, the flanges
 15 of the respective upright members 17 engage each other so that the members 16 cannot be removed from the bars 22 except by sliding both sections of the screen in the same direction until both of the upright
 20 members 17 pass the same ends of the bars 22. To prevent such a separation of the parts ordinarily, I detachably secure to members 16, of one of the sections of my screen, screws 23 or the like, at proper points
 25 to engage the upright member 20, and limit the movement of the members 16 of that section with relation to the supporting member 20. Certain features of the construction of my device, will be described in explaining the practical operation of my
 30 screen in the following paragraphs.

In the assembling and practical use of my improved adjustable screen, I place one of the screen sections adjacent to the ends of
 35 the bars 22 nearest the supporting member 20 and slide the section longitudinally with the said bars received in the grooves 18. I slide the said section on the bars 22 until the end member 17 extends beyond the other
 40 ends of the bars 22. I then place the other screen sections at said other ends of the other pair of bars 22 and slide the last mentioned section longitudinally, with the last mentioned pair of bars 22 received in the
 45 grooves 19. Assuming that the screen sections and the supporting member 20, and the plates 21 are in the position shown in Fig. 2, with the inner ends of the screen sections overlapping each other, and assuming
 50 that the screen section on the left side of said figure was the one first mounted on the bars 22 according to the above description, I then place the detachable screws 23 or the like in proper position. It is understood that when the screen sections are
 55 mounted on the bars 22, one flange of the upright member 17 of each section extends toward the other section as shown in Fig. 4. My screen being assembled and ready for use, and assuming that it is to be used with an ordinary window, arranged to slide vertically, I raise the sash 14 and place the screen in the opening beneath the sash with
 60 the lower plate of the supporting member 20, resting on the lower end of the frame

in the middle thereof. I then lower the window sash until it rests on the upper plate 21. In this connection, it is to be
 noted that I preferably provide the plates 21 with sharpened lugs 25, for obvious purposes. I preferably provide at the outer,
 70 lower edges of the screen section, springs 24 spaced apart from the members 16 at such distance as to prevent tilting of the screen sections longitudinally. I then move
 75 the screen sections in opposite directions toward their extended position as shown in Fig. 1. The plates 21 are made preferably thin so as to leave small cracks between the members 16 and the parts of the window.

It will be seen that my improved adjustable screen has a number of advantages. It is of cheap, durable, and simple construction, made of parts which are easily repaired or replaced, which can be moved to
 85 its collapsed position, and will then be in comparatively small space, and can be extended to fit windows of various sizes. When desired, the detachable screws 23 can be removed and the screen sections removed
 90 from the bars 22 for packing, for storage or transportation. The supporting member 20 receives the weight of the window sash and the construction of the plates 21 and the bars 22 is such as to permit the free sliding
 95 movement of the screen sections, even though the window sash 14 is of considerable weight. The construction of the upright members 17 closes the space between the screen fabric of the two sections and prevents the ingress of flies or the like.

I claim as my invention:

1. In a device of the class described, an upright supporting member designed to rest on the bottom of a window frame, under
 105 a raised sash, two screen sections slidably mounted on said upright member to move in parallel planes, longitudinally with relation to each other.

2. In a device of the class described, an upright supporting member, parallel plates
 110 extending at right angles from each end thereof, parallel horizontal bars secured to each plate, two screen sections slidably mounted on said plates to move in parallel
 115 planes longitudinally with relation to each other.

3. In a device of the class described, an upright supporting member, parallel plates
 120 extending at right angles from each end thereof, parallel bars secured to each plate, two screen sections having upright end members and parallel horizontal members connecting the upper and lower ends of the respective end members, said horizontal
 125 members being provided with grooves in which the respective bars on each of said plates are received to permit said screen sections to slide freely in parallel planes longitudinally with relation to each other.

4. In a device of the class described, an upright supporting member designed to rest on the bottom of a window frame, under a raised sash, two screen sections slidingly mounted on said upright member to move in parallel planes, longitudinally with relation to each other, each of said screen sections being comprised of two upright end members, parallel horizontal members connecting the upper and lower ends of the respective end members, and screen fabric, one of said end members of each section being an angle bar with one flange extending at right angles to said screen fabric, toward the vertical plane of the other section.

5. In a device of the class described, an upright supporting member, parallel plates extending at right angles from each end thereof, parallel bars secured to each plate, two screen sections having upright end members and parallel horizontal members connecting the upper and lower ends of the respective end members, said horizontal members being provided with grooves in which the respective bars on each of said plates are received to permit said screen sections to slide freely, in parallel planes

longitudinally with relation to each other, and means for preventing the tilting of said screen sections when in their extended positions.

6. In a device of the class described, an upright supporting member, parallel plates extending at right angles from each end thereof, parallel bars secured to each plate, two screen sections having upright end members and parallel horizontal members connecting the upper and lower ends of the respective end members, said horizontal members being provided with grooves in which the respective bars on each of said plates are received to permit said screen sections to slide freely in parallel planes longitudinally with relation to each other, said bars being shorter than the said screen members, removable means for limiting the sliding movement of one of said screen members with relation to said supporting member.

Des Moines, Iowa, December 12, 1911.

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Witnesses:

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