H. L. FRANKE.

FLY SCREEN.

APPLICATION FILED OCT. 18, 1909.

969,777. Patented Sept. 13, 1910.

Fig. 2.

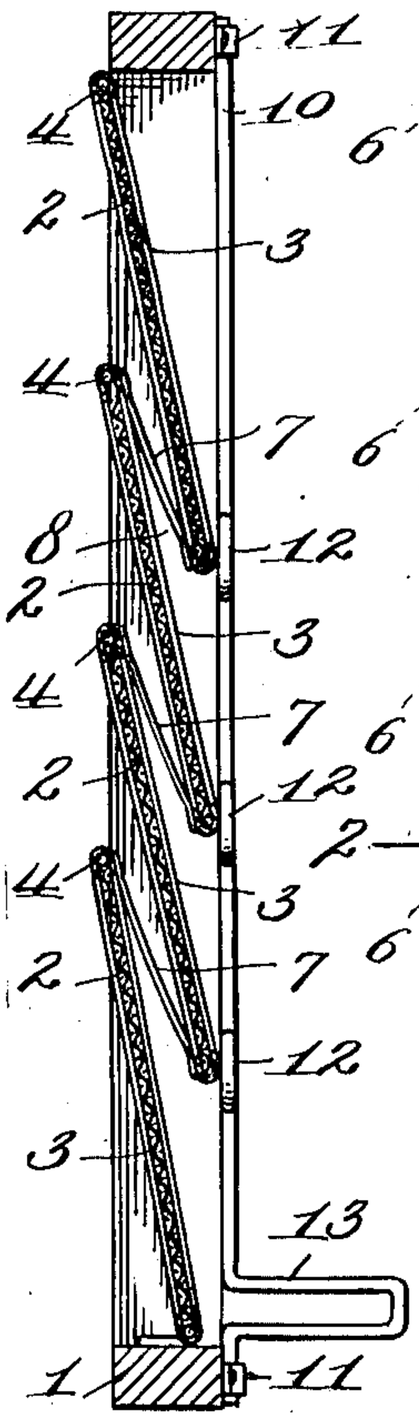


Fig. 1

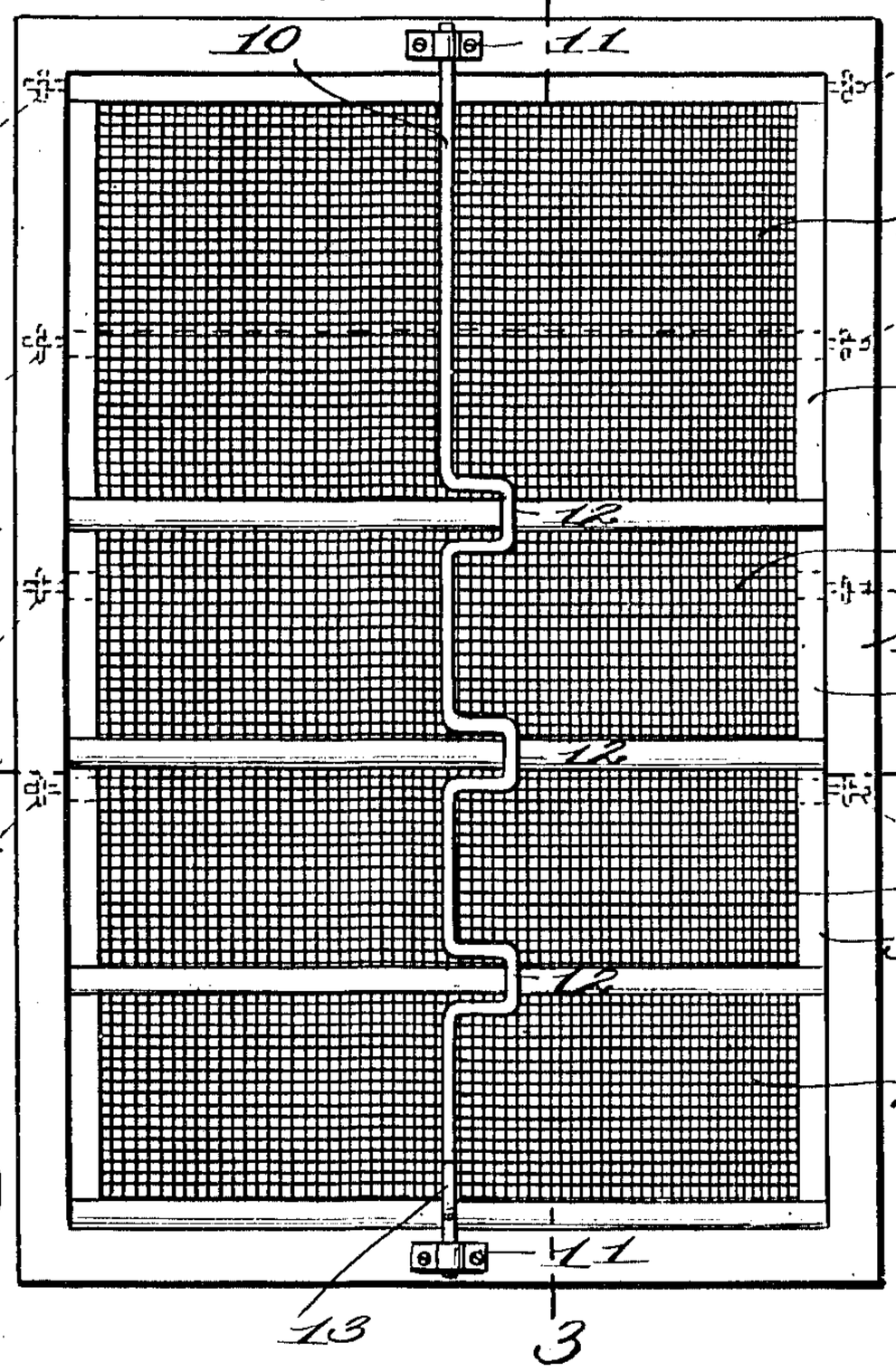


Fig. 3.

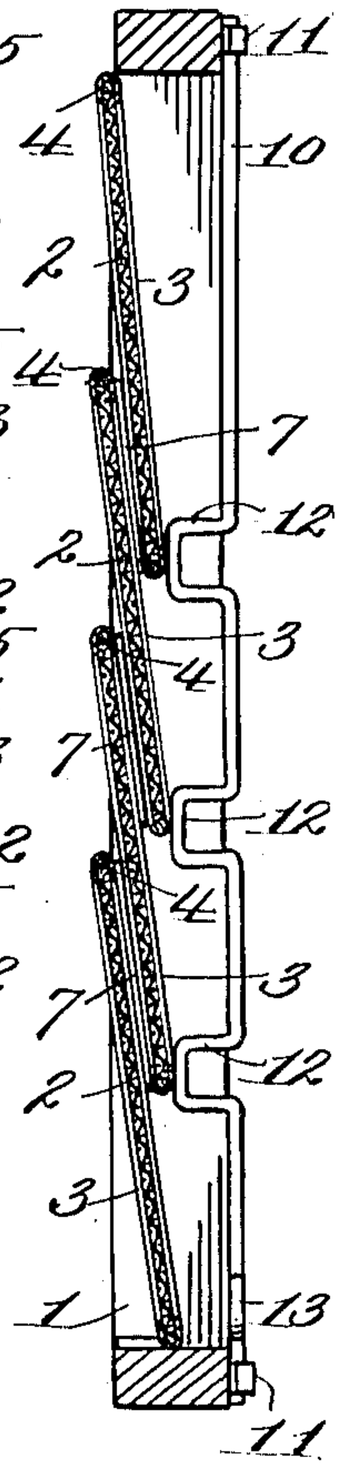
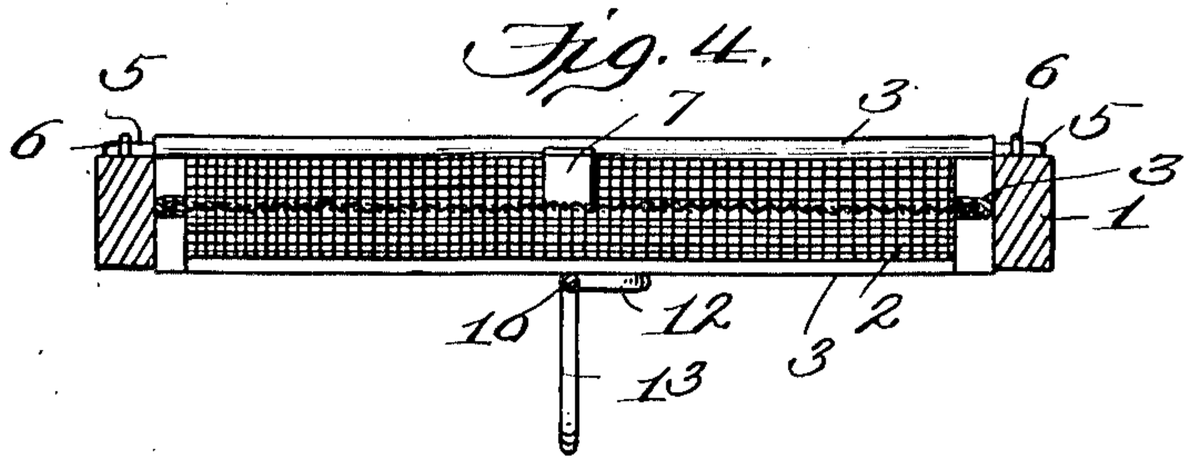


Fig. 4.



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UNITED STATES PATENT OFFICE.

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FLY-SCREEN.

969,777. Specification of Letters Patent. Patented Sept. 13, 1910.

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To all whom it may concern:

Be it known that I, HERMAN L. FRANKE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fly-Screens, of which the following is a specification.

My invention relates to fly screens, and its principle object, briefly stated, comprehends the production of a device of the above character so constructed that flies within the room may make their exit through the screen, but at the same time prevent the entrance of flies or other insects from the outside.

In the drawings which illustrate the preferred form of my invention, and in which like reference numerals indicate corresponding parts throughout the several views—Figure 1 is an elevation of the inside of the screen. Fig. 2 is a vertical sectional view taken on the line 3—3 of Fig. 1. Fig. 3 is a similar view showing the several sections of the screen closed, and Fig. 4 is a transverse sectional view taken on the line 2—2 of Fig. 1.

Referring specifically to the drawings, 1 indicates the frame of the screen which may be of any desired construction and has pivotally mounted to the side bars thereof a number of screen sections 2 which form the screen proper. These screen sections are of counterpart construction and each comprises a frame 3 formed of sheet metal which is clamped over the edges of the screen material. The frames 3 are rectangular in form and are of such length that they extend entirely across the inside of the frame 1 and have their ends work snugly against the inner side of the side bars of said frame 1. Passing longitudinally through the upper edge of each of the frames 3 is a rod 4 which projects a short distance beyond each side of the frame, as at 5, said projecting ends 5 adapted to be pivotally mounted adjacent the outer faces of the side bars of the frame 1 by means of staples 6, or the like.

As will be seen by referring to Figs. 2 and 3 the sections 2 are so arranged that each section will overlap the section therebeneath a suitable distance, and are normally held in spaced relation to each other by means of flat springs 7, one being fastened to the lower edge of all but the lowermost of the frames 3 of the sections 2 at about the middle thereof, and extending upwardly and bearing against the upper edge of the frame 3 of the adjacent section. It will thus be seen that the sections are spaced apart thereby forming free open passages 8 through which flies within the room may escape. It being unnecessary to swing the lowermost of the sections 2, said section is made stationary within the frame 1, its lower edge being fastened to the end bar of said frame near its inner edge, by any suitable means.

To close the sections at night against the entrance of mosquitos or other insects, I provide the frame 1 with a rotatable member 10 mounted at each of its ends in suitable brackets 11 on the inner side of the end bars of said frame 1, intermediate their ends. Portions of the members 10 are offset as at 12, said offset portions 12 being normally in line with the lower edge of each of the frames 3 of the sections 2, except the lowermost. The member 10 is also offset near its lower end, as at 13, said offset portion 13 being formed at right angles to the offset portions 12, and serving as an operating handle.

To illustrate the use of my improved screen it will be stated that observation has shown that the tendency of a fly alighting on a screen or other object is, in nearly all cases, to crawl upwardly. Therefore, should any flies alight on the inside of the screen sections 2 they will crawl upwardly through the open passage 8 to the outside, but a fly alighting on the outside of the sections will not crawl downwardly through the passage 8 and enter the room. Practical tests have proven this. However, at night it is best to close the sections, because a light burning in the room will attract mosquitos and various other insects which may, in some cases, find their way through the passages 8. To close the sections all that is necessary to do is to give the member 10 a quarter turn, by means of the handle 13, which will cause the offset portions 12 to engage the lower edges of the frames 3 and swing the sections 2 inwardly against the tension of the springs 7 until the sections fit tightly against one another, thereby forming practically a solid screen. (See Fig. 3.) When the member 10 is turned back again the springs 7 will swing the sections 2 outwardly to normal position.

While I have shown my invention as ap-

plied to a window screen it will be understood that it may also be used as a door screen and no limitation is implied by reason of the particular structure shown.

I claim:

In a fly screen, the combination with a plurality of screen sections each thereof forming a complete frame and pivotally mounted at their upper edges to, and adapted to swing within a main frame in overlapping relation, springs carried by the lower edges of all but the lowermost of the sections and bearing against the upper edges of the adjacent section thereabove, to maintain the sections in spaced relation, and a rotatable member having offset portions in line with the lower edges of the frame of the sections, whereby when said member is turned it will press the sections together against the tension of the springs.

In testimony whereof I affix my signature, in presence of two witnesses.

HERMAN L. FRANKE.

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