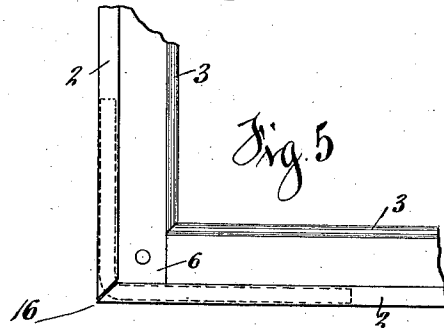
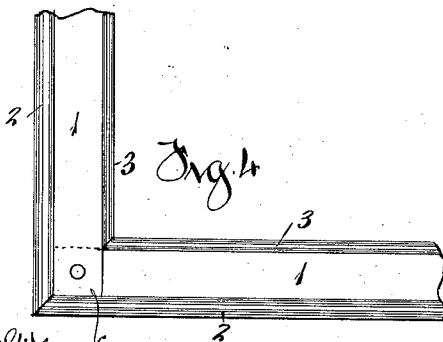
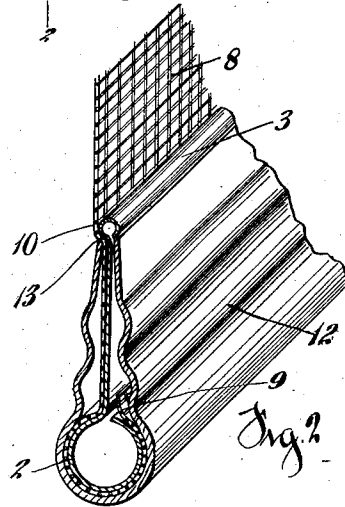
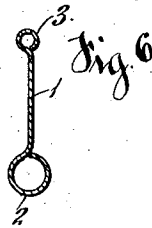
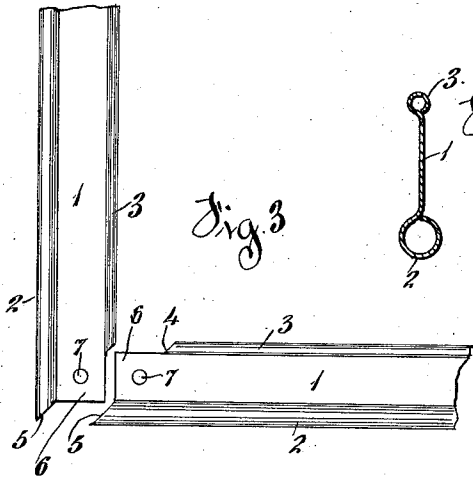
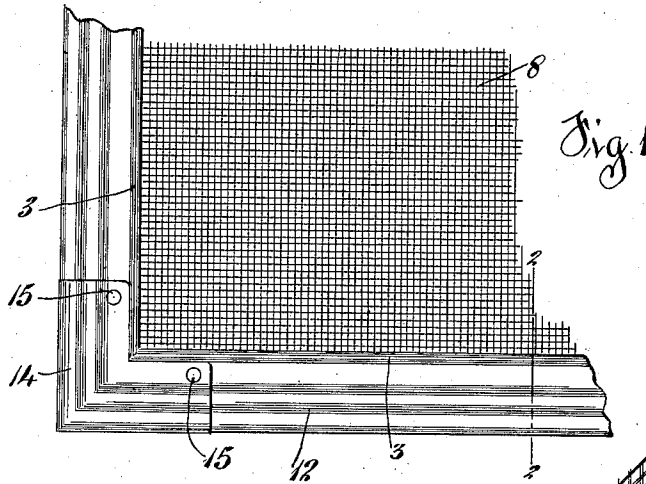


H. A. FABER.
WINDOW SCREEN.
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1,025,256.

Patented May 7, 1912.



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WINDOW-SCREEN.

1,025,256.

Specification of Letters Patent.

Patented May 7, 1912.

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To all whom it may concern:

Be it known that I, HENRY A. FABER, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Window-Screens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide metal frames for window screens which shall be strong and durable and readily and easily put together for any desired size of screen.

The purpose of the invention is to so construct the inner frame that the liability to sag and bend under the strain of the wire mesh when stretched across and held by the frame shall be entirely obviated, and in which the frame shall be so constructed that all liability of rain and moisture entering the frame molding along the bottom shall be largely avoided, and in which a construction is presented that can be readily and easily stiffened at the corners when desired, without the necessity of increasing the weight and thickness of the main frame.

Heretofore in metal window screens, the main frame has been formed from a metal rod over which the wire mesh is rolled, the main frame being subsequently covered by a metal molding clamped thereon, with angle plates at the corners to stiffen and finish the construction.

With frames of suitable size, the wire mesh is very liable to exert a strain especially on the middle portions of the frame, and cause the same to sag and bend. In the manufacture of such screens, the straightening out and adjusting such distorted or bent portions of the frame is a matter of some time and expense.

It is the special object of my invention to obviate the necessity of this extra labor, and to provide a construction in which this step in the process of manufacture may be entirely omitted.

In the drawings, Figure 1 is a plan view of one corner portion of my improved screen. Fig. 2 is a cross section, in perspective, of the same, taken on the lines 2, 2, of Fig. 1. Fig. 3 is a plan view of the main framework at one corner before fastening the parts together. Fig. 4 is a similar view, with the miter joints completed.

Fig. 5 is a similar view, showing the reinforcement of the corner. Fig. 6 is a transverse section of the main framework.

The main frame for holding the wire mesh for the screen is constructed of strips of sheet metal 1, of substantial width, which for the outer edge is bent into a circle to form a cylindrical tubular portion 2, and for its inner edge is formed with a bead 3. The ends of the inner and outer edges of these strips are mitered at 4, 5, where they are to be joined together, while the main body portions of the strips are extended at 6 to overlap when the mitered edges are placed together to form the joint, and the two portions of the frame for the corner are riveted together through the opening 7. This I find a very convenient method of forming the corner joint between the sections of the main frame, although other well known constructions of joints may be provided.

In the construction of window screens, the window openings vary in size, so that each screen has to be constructed of the exact size for the particular opening. Strips to form the main frames are therefore carried in stock, with one end mitered and the opposite end plain, so that when the size for the screen is fixed, the opposite ends may be cut so that the frame may be put together of the exact size. Having formed the frame in this way, the wire mesh 8 for the screen is cut of proper size and stretched over the frame, with the edges curved around the outer tubular portion 2 of the frame, as shown at 9 in Fig. 2. The bead 3 on the inner edge of the frame strips 1 is formed so as to project to one side of the plane of the strip, as shown in Fig. 6, and this portion of the bead is placed on the outside of the frame, so that the wire mesh will be partially curved around this bead, as shown at 10 in Fig. 2.

12 is the outer molding which forms the finish for the frame, which is previously formed and bent, so that it can be slipped over the tubular portion 2 of the main frame after the wire mesh is located in place, and the frame is then run through pressure rollers, and the molding clamped into place, with the inner edges 13 of the molding strip abutting against the inner edge of the bead 3, so that the bead forms the inner finish for the molding, as shown in Fig. 2.

It will be seen from this construction that

rain or moisture running down the surface of the wire mesh will be drawn off by the curve of the mesh at 10, and run down the outside of the screen instead of between the

5 two clamping plate portions of the molding. For the corners of the frame, I provide the usual corner plates 14, which are riveted at 15, 15 to the sides of the frame. When the frames are of a size to require

10 strengthening at the corners, I provide angle rods 16 for the corners, which are slipped into the tubular portions 2 of the main frame before the joint is driven together.

15 It will be evident from the foregoing construction, that, inasmuch as the wire mesh is stretched in the frame parallel with the body portion 1 thereof, the frame cannot bend under this strain of the wire. Therefore in the manufacture of the screen, it is

20 not necessary to straighten and adjust the frame after the wire has been stretched in place. The main frame can therefore be constructed of comparatively light sheet

25 metal without any liability of sagging or bending.

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

30 1. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched, and a molding strip embracing

35 the tubular edge and clamping the wire mesh upon the body portion thereof.

2. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular

40 outer edge over which the wire mesh is stretched adjacent to the beaded inner edge, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof.

45 3. In a window screen, the combination with the wire mesh, of a main frame com-

prising a flat body portion, with a tubular outer edge over which the wire mesh is stretched adjacent to the beaded inner edge, and a molding strip embracing the tubular

50 edge and clamping the wire mesh upon the body portion thereof, with the bead formed at one side of the plane of the body portion to form a ridge for the wire mesh to prevent moisture entering the molding.

55

4. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched, and a molding strip embracing

60 the tubular edge and clamping the wire mesh upon the body portion thereof, with the tubular portions of the main frame mitered and the body portions overlapping and riveted together to form the corners of

65 the main frame.

5. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is

70 stretched adjacent to the beaded inner edge, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof, with the tubular and beaded portions of the main frame mitered

75 and the body portions overlapping and riveted together to form the corners of the main frame.

6. In a window screen, the combination with the wire mesh, of a main frame com-

80 prising a flat body portion, with a tubular outer edge over which the wire mesh is stretched, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof, with

85 angle rods engaging within the tubular portions at the corners to stiffen the frame.

HENRY A. FABER.

Attest:

HORACE C. DRAKE,
WALTER A. FABER.