C. TRAUT.

SCREEN.

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1,187,402.

Patented June 13, 1916.

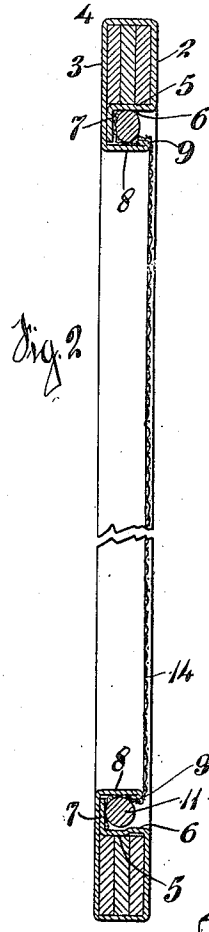

Fig. 2

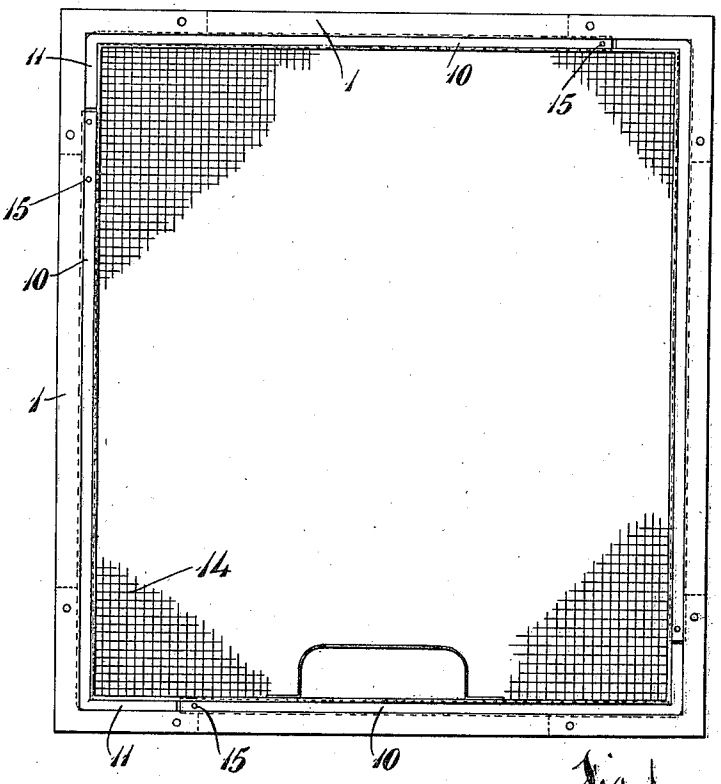

Fig. 1

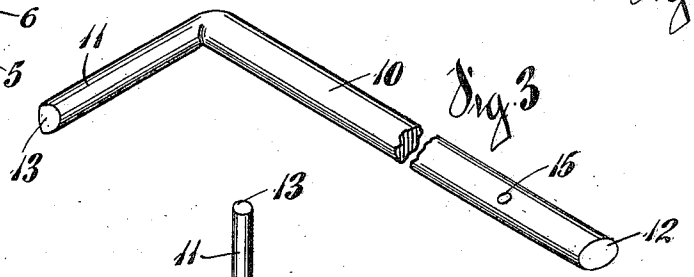

Fig. 3

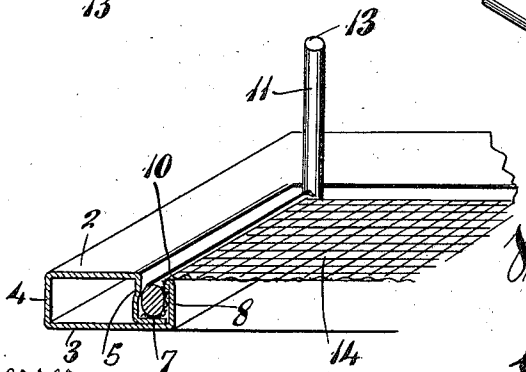

Fig. 4

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UNITED STATES PATENT OFFICE.

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SCREEN.

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To all whom it may concern:

Be it known that I, CLIFFORD TRAUT, a citizen of the United States, and a resident of the city of Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Screens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

In the art of wire screen making, and in that branch of it, all metal screen making, there has been some attempt at providing a rewirable molding for the wire mesh of the screen. In the metal moldings, channels have been provided to receive spring retaining strips, which wedge the screening in place, but can be removed to put in new wire. These strips are slit tubes or the like and liable to be bent out of shape upon removal. Also the channels, as above referred to, are made of single ply metal whereby a solid retaining strip or spline can be used, the channel expanding at the mouth to receive the parts.

It is the object of this invention to take a further step in the art, and provide a rewirable metal screen in which all the parts may be solid and stiff, thereby doing away with the chance of putting out a screen, ostensibly rewirable, but in fact weakened in structure and liable to such warping and bending that rewiring is impossible.

This object is accomplished by that certain structure to be hereinafter specifically pointed out and claimed, whereby a special shaped spline does away with the necessity of compressible or expandible parts.

In the drawings, Figure 1 is a front elevation of a screen. Fig. 2 is a vertical section through the screen on a larger scale, taken near the side thereof. Fig. 3 is a perspective view of one of the splines. Fig. 4 is a perspective view of one screen corner with the spline in process of insertion.

The screen has moldings 1, adapted to dovetail at the corners and suitably brazed at the joints. These moldings are of like structure, being formed of a single strip bent to form a tubular frame piece having sides 2, 3, and ends 4, 5. The edge forming the end 5 is indented at 6 to form a shoulder and bent at right angles at 7. The side 3 is extended along the portion 7, and bent at right angles to form the inner wall 8 of the channel 5, 7, 8. At the inner edge of the channel wall 8 is placed a bead 9.

The spline or retaining strip is preferably of solid metal structure, with a long portion 10, of oval cross section, and an end portion 11, at right angles, approximately circular in cross section, or with the long diameter of the oval somewhat reduced. There are preferably four of these splines, one for each side of the screen, and as the short ends are to lie over the long ends in mounting the wire screening, there are bevels 12 on the tip of each long end, and bevels 13 on the tip of each short end, the latter bevel being the undercut one.

In mounting the wire mesh 14, it is laid over the screen, with its four edges lying over the channel 5, 7, 8. The splines are then taken, with the short arms perpendicular to the screen, and the narrow way of the ovals of the long portions of the splines presented to the channels, and without any forcing pressed into the channels together with the screening. The short arms are then turned down bringing the long arms to a position inside of the channels which presents the long way of the oval to the channel (Fig. 2). Inasmuch as the short arm is circular, or of reduced diameter for the long diameter, when pressed inwardly it will snap by the bead 9 and shoulder at 6. The splines will lap over each other owing to the bevels mentioned, and will remain in place.

To remove the splines for rewiring, all that is required is to lift up the short arm which will rotate the spline to permit its ready withdrawal from the channel, but with long splines the spline might itself twist. Accordingly holes or sockets 15 are formed in the long arms, to receive a pin, so that the spline can be turned at the same time that the short arm is raised.

It will be understood that the kind of channel provided is not of strict importance. Any channel smaller at the mouth than at the base would be sufficient. Also a spline which was not solid, so long as it approximated in shape those above described, would still embody this invention. The reason why solid, not springing parts have been called for, is because with the invention here, it is possible for the first time to use solid parts instead of parts weakened by coring out to make them removable.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent, is:

1. In a screen, a channel portion around said screen small at the mouth, wire mesh screening, a retaining strip of oval cross section to wedge the screening in the channel, and means for turning the spline after its insertion in the channel, for the purpose described.

2. In a screen, a framework therefor, a channel in said framework for the screening, said channel being made small at the mouth, and a spline for said channel of oval cross section to wedge the screening in the channel, and means on said spline for turning it after its insertion in the channel, for the purpose described.

3. In a screen, a framework therefor provided with a channel for holding the screening and a spline of a shape to enter said channel when turned in one direction but not in the other directions, and means on said spline for turning it after its insertion in the channel, for the purpose described.

4. In a screen, a framework therefor provided with a channel for holding the screening and a spline of a shape to enter said channel when turned in one direction but not in the other directions, and an arm at right angles to said spline for turning it after its insertion in the channel, for the purpose described.

5. In a screen, a framework therefor provided with a channel for holding the screening and a spline of a shape to enter said channel when turned in one direction but not in the other directions, and an arm at right angles to said spline and adapted to fit the adjacent channel of the screen for turning it after its insertion in the channel, for the purpose described.

6. In a screen, a framework therefor provided with channels for holding the screening and a set of splines of a shape to enter said channels when turned in one direction but not in other directions, cut away bevels on one end of the spline, angle extensions at the other ends, to fit the channel corners, and of a size to enter said channels broadside, and undercut bevels on the extension ends to lap the bevels on the adjacent spline ends, all as and for the purpose described.

7. In a screen, a framework therefor provided with channels for holding the screening and a set of splines of a shape to enter said channels when turned in one direction but not in other directions, cut away bevels on one end of the spline, angle extensions at the other ends to fit the channel corners, and of a size to enter said channels broadside, and undercut bevels on the extension ends to lap the bevels on the adjacent spline ends, and sockets in the splines cut in at an angle to the angle of the extensions, all as and for the purpose described.

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Witnesses:
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