Dec. 13, 1927. 1,652,973

F. M. BOWERS

HAND SHIELD FOR ELECTRIC WELDING

Filed March 18, 1925 2 Sheets-Sheet 1

Fig. 1.

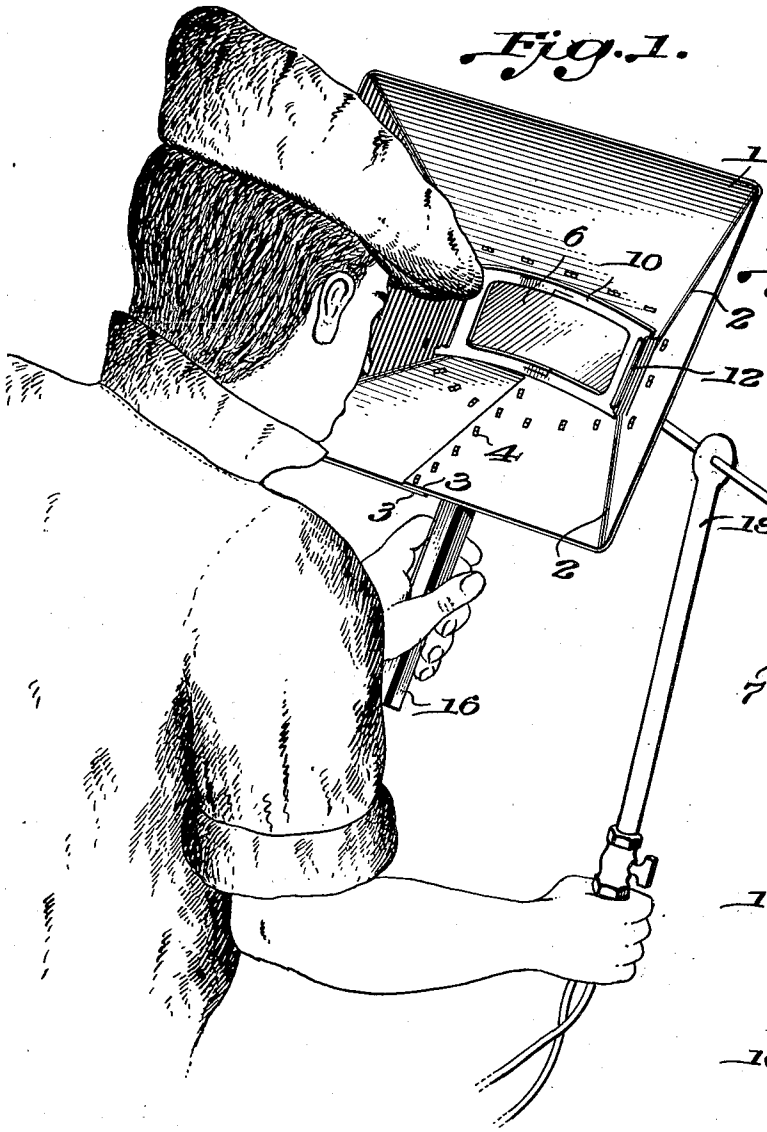
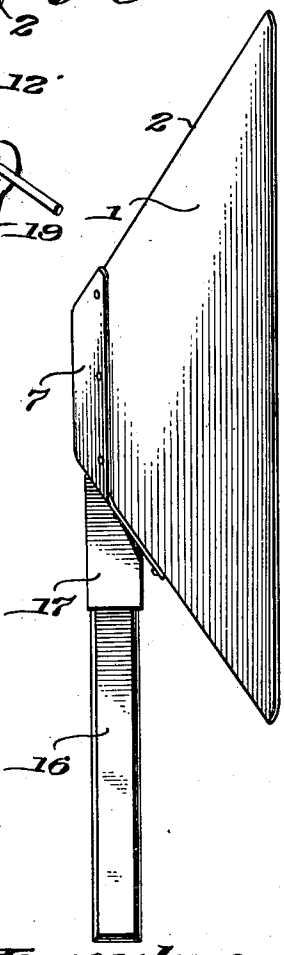


Fig. 2.



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his Atty.
By

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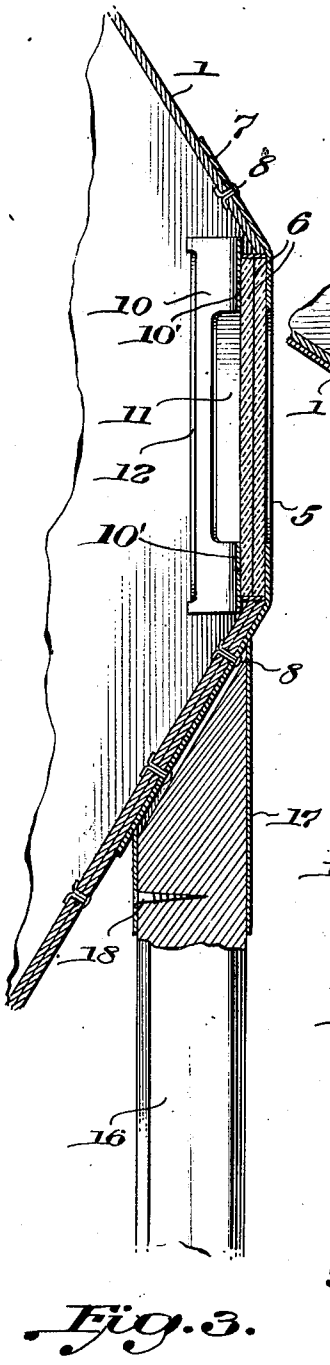


Fig. 3.

Fig. 4.

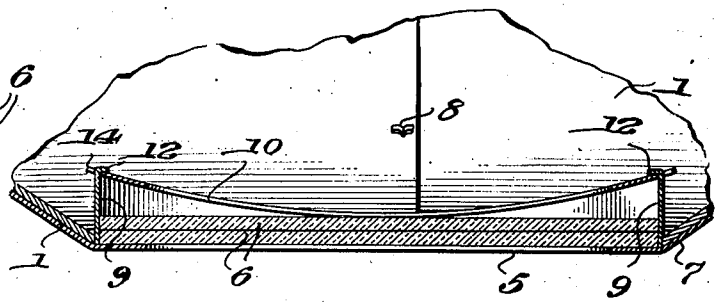


Fig. 5.

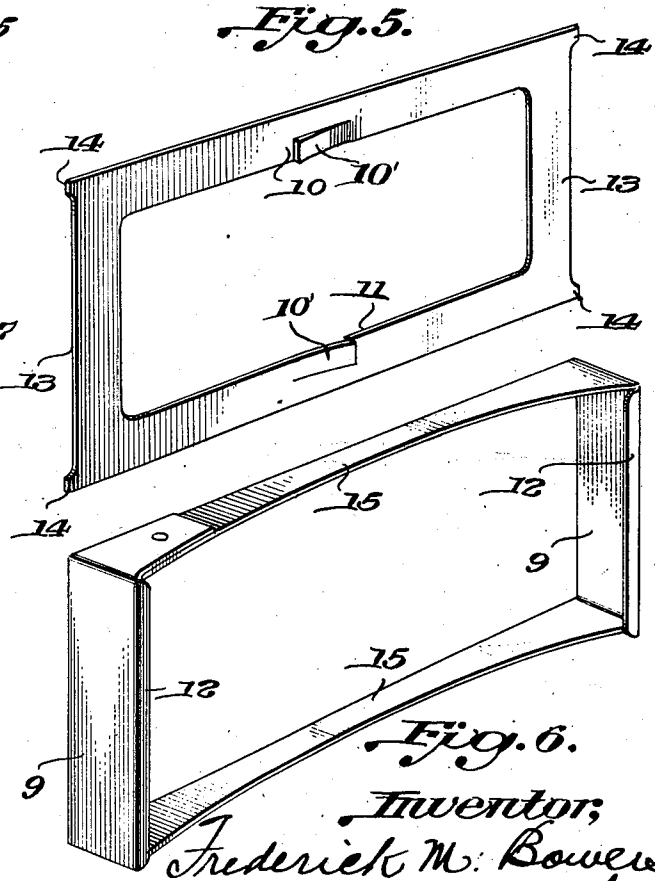


Fig. 6.

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Patented Dec. 13, 1927. 1,652,973

UNITED STATES PATENT OFFICE.

FREDERICK M. BOWERS, OF CHESTER, PENNSYLVANIA.

HAND SHIELD FOR ELECTRIC WELDING.

Application filed March 18, 1925. Serial No. 16,486.

My invention relates to an improvement in hand shields for electric welding.

An object is to provide a portable shield that can be easily held in the right position and moved into different positions at will to suit the comfort and convenience of the user.

The invention is made of suitable non-inflammable or insulating material of a general pyramidal form, with an opening at the center flanked inside and out with a metal framing and adapted to receive removably a colored glass.

It further consists in features that will be included in the general description and set forth in the claims.

In the accompanying drawings:

Fig. 1 is a view in perspective;

Fig. 2 is a side view;

Fig. 3 is an enlarged vertical section;

Fig. 4 is a horizontal section; and

Figs. 5 and 6 are details.

The shield is preferably made of a single piece 1 of non-inflammable, non-conducting material, such, for example, as fibre, bent at the four corners 2 and fashioned into pyramidal form with the edges 3 brought together and fastened by rivets 4 or in any other approved manner. An opening 5 is formed at the center, and this is covered over by glasses 6, preferably colored. The opening is flanked by a framework 7, preferably of sheet-metal on the outside, and this is held by rivets or other means 8. A sheet-metal frame 9 inside forms a receptacle for the glasses 6, and a flexible spring follower 10 having an opening 11 therein corresponding with the opening 5 in the shield is removably held over the glasses by the flanges 12 at opposite ends of the frame 9 beneath which the outer edges 13 extend. The spring 10 has the spring prongs 10′ extending outwardly therefrom for engaging the glasses and holding them firmly in their proper position within the frame. The lugs 14 at the corners prevent the follower from sliding out of place. The horizontal edges 15 of the frame 9 are curved inwardly. The follower is sufficiently long so that it is bowed inwardly, conforming to the curvature and bearing at the center against the glasses as shown in Fig. 4, whereby to hold the latter removably in place, but with sufficient firmness and rigidity to keep it tight.

A handle 16 is held in the socket 17 by a screw or rivet or equivalent means 18. This handle is preferably square to prevent turning in operator's hand.

The operator grasps in one hand and holds the shield before his eyes, while manipulating the welding electrode 19 with the other hand, as illustrated in Fig. 1. In this way, he is always able to move it into the desired position for the work he is doing, and in this way he can move it closer or further from his face and eyes or twist it or otherwise adjust it to suit the requirements.

An article of this character is light, durable, portable, and in many instances is far better adapted for the work than the helmet used for this purpose.

I claim:

1. A lens holder including a frame, a lens mounted in said frame, a spring follower carried by the frame for holding the lens in proper position therein, and laterally bent spring prongs extending outwardly from said follower and normally engaging the lens to hold said lens firmly in position.

2. A lens holder including a frame having the rear edges thereof curved in a substantially concave form, a lens mounted in the frame, and a spring follower carried by the supporting frame and conforming to the curved rear edges thereof for holding the lens in position, said spring follower having laterally bent spring prongs extending outwardly therefrom and normally engaging the lens to hold the same firmly in position.

In testimony whereof I affix my signature.

FREDERICK M. BOWERS.