This invention relates to floats for finishing the surface of concrete or for use under like circumstances and particularly to a float having a relatively large area and to be used for relatively large work.

The general object of the invention is to provide a float of this character which is light, simple in construction, which is rigid and which provides for an improved manner of attaching a handle to the float.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of a concrete float constructed in accordance with my invention;

Figure 2 is an enlarged cross section thereof.

Referring to the drawings, 10 designates a board which constitutes the bottom of the float which may have any desired dimensions. Thus for instance, the board may have a width of approximately six inches or more and a length of ten feet or more. It will be understood, however, that the dimensions of this board may be varied within very wide limits and that the above dimensions are merely given for illustration.

Attached to the board is a triangular metal body 11 preferably formed of a single sheet of metal bent so as to form a body which is triangular in cross section. To this end, one margin of the sheet is formed with the vertical flange 12.

The sheet is then bent downward and outward at 13 and then folded upon itself to form a double ply flange 15, then extended along the face of the board as at 16 and then again folded to form a double ply flange 17 and then extended upward as at 18 and the margin of the metal is bent over the flange 12 as at 19. The two plies of material will be held by a bolt 20. I do not wish to be limited to making this triangular body of one sheet of metal as it may be made of a plurality of sheets of metal engaged with each other by bolting, soldering or riveting. Screws spaced relatively short distances apart and designated 21 are disposed at intervals through the flanges 15 and 17 and extend into the flat board 10.

Disposed at the middle of the body 11 and projecting laterally therefrom is the triangular portion of sheet metal designated generally 22. This is preferably formed of a sheet of metal bent at its upper edge to provide a portion 23 extending parallel to the edge of the flange 12 and having a flange 24 resting against the folded metal 19 and bolted thereto by the bolt 20. The sides or wings of this member 22 extend downward and outward in divergent relation as shown in Figure 1 and at the lower edge are provided with a flange 25 through which screws 21 on that side may pass. Thus the bolt 20 and the screws 21 hold this pyramidal body 22 in place against the triangular body 11 and rigid therewith.

It will be seen that the body 22 is approximately pyramidal in form, though not an equi-lateral pyramid. At the apex of the pyramidal body, there is a projecting socket 26 into which a wooden handle may be inserted. It will be understood that the triangular body 11 is closed at its ends by metallic end pieces 27 which may be riveted to the side walls of the body 11.

In finishing concrete with a wooden float board, the face of the board that is in contact with the wet concrete has a wooden float face so placed that the wood portion thereof is under the pressure of the hand, and the float face is used for the purpose of finishing the surface of the concrete. The float used in this manner acts as a leveler or smoother for the concrete, and it is obtained by applying the face of the board to the concrete in a direct contact with the concrete, and at the same time applying pressure to the face of the board by the hand. The float used in this manner is therefore not only a leveler or smoother for the concrete, but it is also a leveler or smoother for the float face, and it is obtained by applying the face of the board to the concrete in a direct contact with the concrete, and at the same time applying pressure to the face of the board by the hand. The float used in this manner is therefore not only a leveler or smoother for the concrete, but it is also a leveler or smoother for the float face, and it is obtained by applying the face of the board to the concrete in a direct contact with the concrete, and at the same time applying pressure to the face of the board by the hand.
movements which it must stand in order to prevent the board from warping or twisting. The flange at the top is made of three plies in order to prevent any dirt or cement from passing through the crack which would be left if it were not made as shown. This extra ply of metal gives it more strength at the top which is very desirable.

The plates 27 at the ends of the triangular portion are used to keep out cement and dirt which if allowed to enter would increase the weight. The end plates also add to the rigidity at the end, thereby allowing the tapering of the ends of the metal top. This reduces the weight, eliminates an undesirable sharp corner and increases the efficiency and safety of the float.

The hollow pyramidal member 22 is used because it distributes the stresses over a longer portion of the float and holds the handle rigid relative to the float. The pyramidal member may vary considerably in dimensions, but the center line of the handle would be well above the center of gravity of the float body and placed at an angle a little above horizontal as this facilitates the operation of the float.

The advantage of this type of float over the ordinary type is that it can be used two or three construction seasons with no care except the changing of float boards when they are worn out, while an ordinary float does well to stay in useful shape a week and more often they have to be trued several times a day unless they are constructed very heavy.

I claim:

1. A concrete float comprising a float board, a hollow body of sheet metal attached to said board and triangular in cross section, the body having the same form in plan as the plan of the board and being attached to the board at short intervals around its entire perimeter, and a handle socket operatively supported upon said body adjacent its middle and extending laterally from said body.

2. A concrete float comprising a float board, a hollow body of sheet metal triangular in cross section, the body having the same form in plan as the plan of the board and being attached to the board at short intervals around its entire perimeter, and a handle socket operatively supported upon said body adjacent its middle and extending laterally from said body.

3. A concrete float comprising a float board, a hollow body of sheet metal attached to said board and extending substantially over the entire area of the top face of the float board and attached at short intervals to the float board, and a hollow sheet metal member attached to the body adjacent its middle and projecting laterally therefrom and having a handle socket at its outer end.

In testimony whereof I hereunto affix my signature.

BYRON R. SMITH.