April 13, 1937. L. I. GOLDBLATT 2,076,836

IMPLEMENT HANDLE

Filed Nov. 30, 1936

Fig. 1.

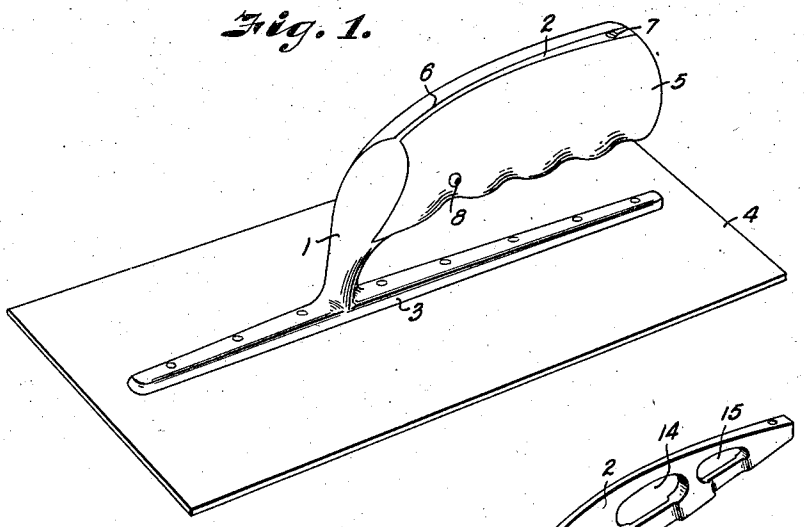


Fig. 2.

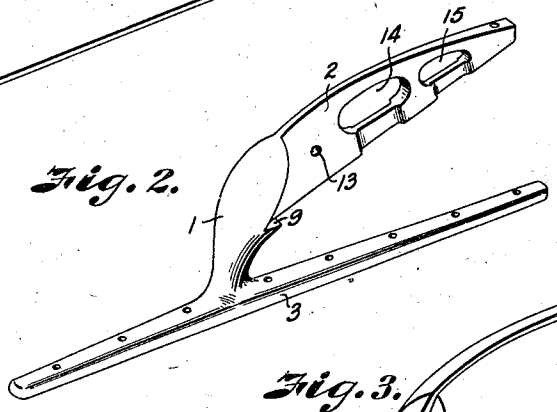


Fig. 3.

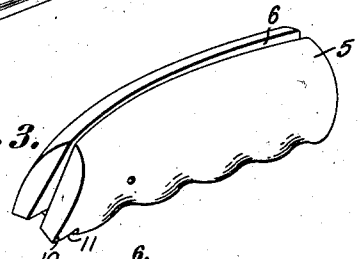


Fig. 4.

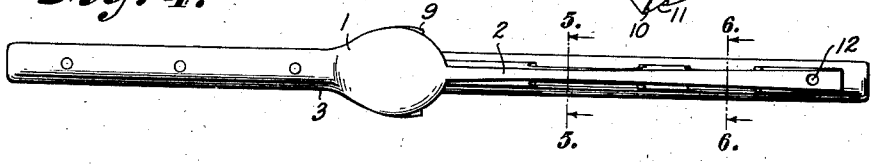


Fig. 5.

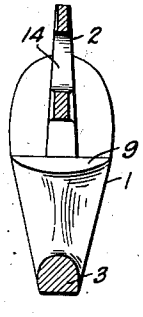


Fig. 6.

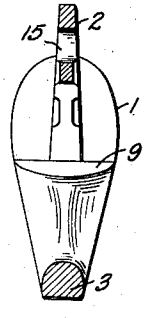
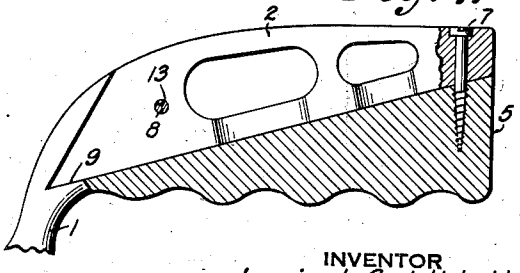


Fig. 7.



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Patented Apr. 13, 1937 2,076,836

UNITED STATES PATENT OFFICE

2,076,836

IMPLEMENT HANDLE

Louis I. Goldblatt, Kansas City, Mo.

Application November 30, 1936, Serial No. 113,295

3 Claims. (Cl. 16—110)

My invention relates to implement handles, and more particularly to a handle for plasterers' trowels.

Handles for plasterers' trowels have been attached by means of an axial, longitudinal opening made in the handle through which extended a metallic member. This metallic member was usually a circular cross-section and had its end projecting beyond the handle. This end was threaded and was adapted to receive a securing nut to prevent the handle from moving longitudinally off of the metal core. The metal core was in turn either attached to or made integral with the attaching piece to which the trowel face was secured. The handle, when new, was held against rotation with respect to the core by means of friction. After the trowel had been in use for a period of time, the handle would become loose and tend to rotate. It could be tightened at first by means of the nut at the end of the core but after a time it would be practically impossible to tighten it, with the result that accurate work could not be achieved. In plasterers' trowels, as in many other implements, the skill of the workman is exercised by the position of the implement with respect to the handle. In plasterers' trowels, for example, the relative position of the trowel face to the handle is especially important. In use there is considerable force tending to rotate the handle, and if the handle is not substantially rigidly secured to the trowel the trowel becomes practically worthless for use.

In the trowels of the prior art, little attention has been paid to the balance of the trowel as determined by the relative position of the handle with respect to the trowel face and the shape of the attaching post of the handle.

One object of my invention is to provide an implement handle in which the handle is rigidly and accurately positioned in such a manner that it will remain in a fixed relative position to the implement.

Another object of my invention is to provide a plasterer's trowel assembly in which the handle and attaching post are positioned at substantially the center of gravity.

Other and further objects of my invention will appear from the following description.

In the accompanying drawing, which forms a part of the instant specification and which is to be read in conjunction therewith and in which like reference numerals are used to indicate like parts in the various views,

Fig. 1 is a perspective view of a plasterer's trowel equipped with an implement handle of my invention.

Fig. 2 is a perspective view of the attaching post and handle core with the handle removed.

Fig. 3 is a perspective view of the handle adapted to be used with the handle core shown in Fig. 2.

Fig. 4 is a plan view of the attaching post and handle core shown in Fig. 2.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a sectional view on the line 6—6 of Fig. 4.

Fig. 7 is a longitudinal sectional view through the handle and handle core.

In general, my invention contemplates the provision of a handle-receiving member or handle core, which may be made integral with or secured to the implement in any suitable manner. For example, in a plasterer's trowel the trowel post, the trowel face carrying member and handle core are made of one piece. The trowel post is rearwardly inclined or "streamlined" and carries integral therewith a fin-like member, which is formed generally with trapezoidal cross-section. The fin member has a straight lower edge and a curved upper edge, the upper edge corresponding with the shape of the handle. The handle is made out of any suitable material and is provided with a slot corresponding generally with the cross-sectional shape of the fin except that the inclination of the sides of the slot of the handle is slightly greater than the inclination of the sides of the fin, so that when the handle is slid home into position a wedging action will take place tending to hold the handle in position on the fin. The trowel post is provided with a shoulder and the handle is provided with a horizontal surface adapted to engage said shoulder when the handle is positioned. Suitable fastening means are provided for preventing the relative movement of the handle and the fin after the handle is in position.

More particularly, referring now to the drawing, a trowel post 1, which is rearwardly inclined or "streamlined" and provided with a broadened face upon which the thumb of the plasterer may rest, is formed integral with a fin 2 and a trowel face attaching member 3 to which the trowel face 4 is secured in any suitable manner. A handle 5 is secured to the fin 2 by means of a slot 6 formed in the handle 5. The handle may be further secured to the fin by means of screw 7 and pin 8. The trowel post 1 is made

with a reentrant portion 9 having a surface extending substantially longitudinally, as can readily be seen by reference to Fig. 2. The handle 5 is provided with a projection 10 having its lower face 11 conforming with the reentrant portion 9. The fin 2 is formed of a substantially trapezoidal cross-section, as can readily be seen by reference to Figures 5 and 6. The slot 6 in the handle is formed to conform generally with the cross-sectional shape of the fin. Longitudinal sections of the fin 2 taken in planes generally parallel to the trowel face would be substantially rectangular. Similar longitudinal sections of the slot would be substantially trapezoids, with the base toward the trowel post, that is, the side walls of the slot of the handle taper gradually toward the rear, so that when the handle is slid home on the fin there will be a slight wedging action tending to hold the trowel handle frictionally in place. In order to avoid undue stress upon the trowel handle, I secure the handle at its rear end by means of a screw 7 adapted to pass through the fin through an opening 12 therein and screw into the handle 5, as can readily be seen by reference to Fig. 7. A rivet 8 may be passed through a hole to an opening 13 provided in the fin, as can readily be seen by reference to Fig. 1. The projection 10 of the handle interfits with the reentrant portion 9, so that the surface 11 will ride upon the shoulder of the reentrant portion and prevent rotation of the handle around a horizontal, transverse axis. The depth of the fin prevents rotation around the longitudinal axis while the length of the fin prevents rotation around a vertical axis. In the trowels of the prior art, the core member prevented rotation of the handle around a vertical axis and around a horizontal, transverse axis. Only friction prevented rotation around a longitudinal axis. In some implement handles of the prior art, two-piece handles were resorted to to obtain a handle which would be secured against rotation around a longitudinal axis. The two-piece handles were secured by rivets which ultimately would work loose and involved a costly assembly operation. It is to be noted that the handle of my trowel is made of a single piece and rigidity around three axes is obtained by means of my assembly. The slight tapering of the handle slot longitudinally with respect to the handle fin rigidly places the handle in a predetermined position to the implement to which it is attached. The shoulder and the coacting reentrant portion and the screw 7 prevent rotation around a horizontal, transverse axis, and the rivet 8 aids in this action.

It will be observed that I have accomplished the objects of my invention. I have provided an implement handle which is rigidly and accurately positioned in such a manner that it will remain in a fixed relative position to the implement and will not become loose or detached in use. In practice, the handle may be made out of any suitable material, such as wood, fibre, pressed paper, leather, phenol condensation products, bone, horn or hard rubber. The fin may be provided with lightening holes 14 and 15.

It is to be understood that while I have described my handle construction chiefly with respect to a plasterer's trowel, it may be used on any implement.

It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and sub-combinations. This is contemplated by and is within the scope of my claims. It is further obvious that various changes may be made in details within the scope of my claims without departing from the spirit of my invention. It is, therefore, to be understood that my invention is not to be limited to the specific details shown and described.

Having thus described my invention, what I claim is:

1. In an implement, a handle, means for attaching the handle to the implement including a fin extending into the handle, said fin being of substantially trapezoidal cross-section.

2. In an implement, a handle, means for attaching the handle to the implement including a fin, said fin being of substantially trapezoidal cross-section, a slot of substantially trapezoidal cross-section formed in said handle, said fin being adapted to fit into said slot thereby positioning said handle on said fin.

3. In a plasterer's trowel, a trowel post formed with an integral fin and a reentrant portion, a handle formed with a slot adapted to receive said fin and a toe adapted to seat in said reentrant portion, and means for preventing movement of said fin out of said slot.

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