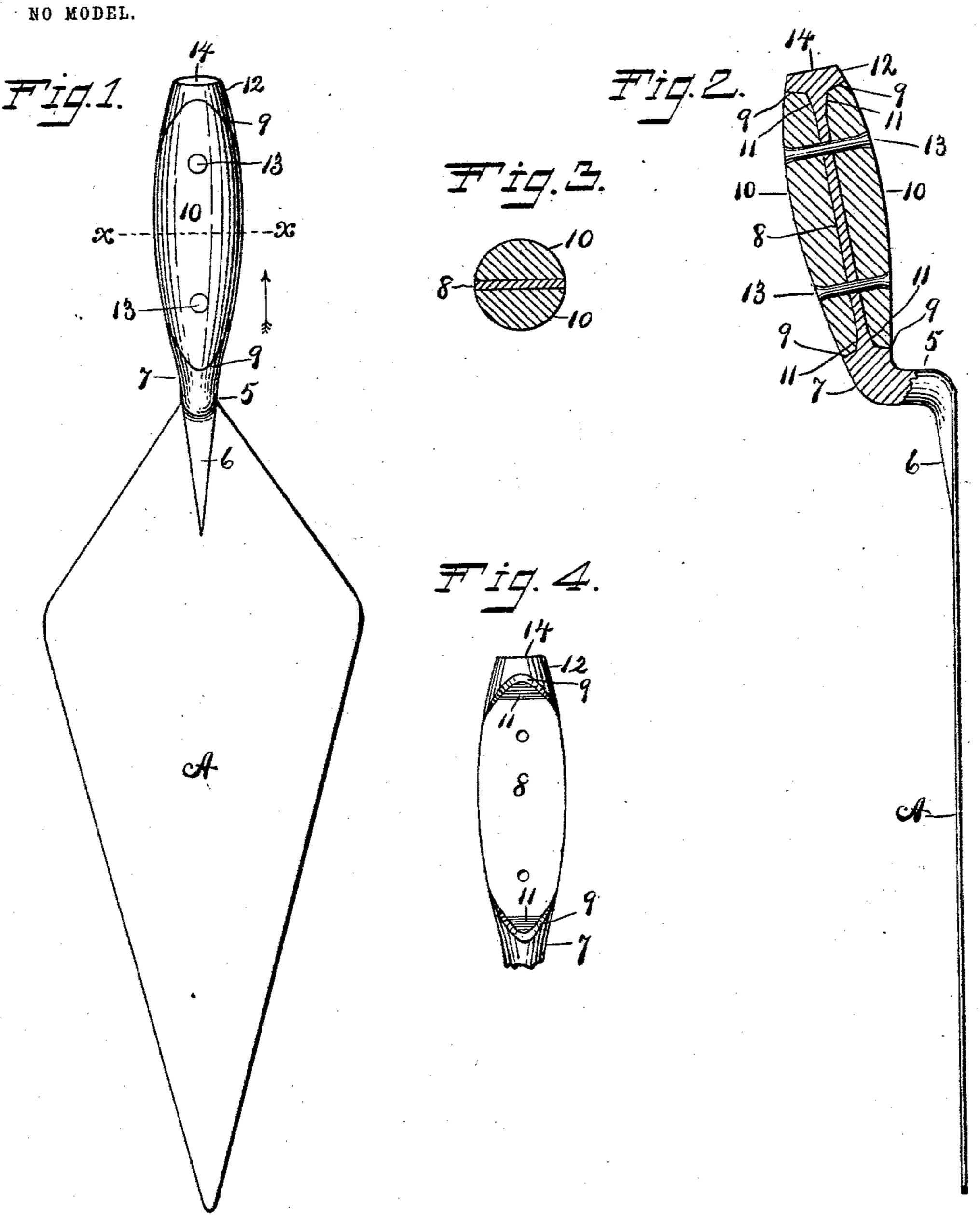
W. S. WARD. TROWEL. APPLICATION FILED AUG. 1, 1903.



United States Patent Office.

WILLIAM S. WARD, OF PLANTSVILLE, CONNECTICUT, ASSIGNOR TO THE H. D. SMITH AND COMPANY, OF PLANTSVILLE, CONNECTICUT.

TROWEL.

SPECIFICATION forming part of Letters Patent No. 745,544, dated December 1, 1903.

Application filed August 1, 1903. Serial No. 167,883. (No model.)

To all whom it may concern:

Beitknown that I, WILLIAM S. WARD, a citizen of the United States, residing at Plantsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Trowels, of which the following is a specification.

My invention relates to improvements in trowels, and the main object of my improvement is the production of a superior article, particularly with reference to efficiency and

durability.

In the accompanying drawings, Figure 1 is a plan view of my trowel. Fig. 2 is a sectional side elevation of the same. Fig. 3 is a transverse section of the handle portion on the line x of Fig.1. Fig.4 is a view showing the broad side of the handle-web and adjacent parts previously to securing the handle-scales thereto.

My improvement relates mainly to the handle and shank portion of the trowel. I have shown the same in connection with an ordinary form of blade A of a mason's trowel, which blade is forged integral with the blade-sup-25 port 6 and shank 5. The shank is preferably round in cross-section and extends at about right angles to the blade-support 6, into which support it merges at its blade end, while its opposite end merges into the tapering bolster 30 7, which is also preferably round in cross-section. The tapering bolster, shank, and bladesupport, taken together, have the usual elbow form in side view, as shown in Fig. 2, and the taper of the bolster extends continuously from 35 its larger end to its smaller end at that portion of the shank which stands at a right angle to the blade. In other words, the tapering bolster itself is bent or curved between its ends to form the angle of the handle and shank with-

out any break in the continuous taper of the said bolster. In continuation of the bolster there is a flat handle-web 8, with a shoulder 9 at their junction on the opposite flat sides of the said web. Instead of making this shoulder square across the handle-web I prefer to make it explorated by a shaped in side wiew.

make it substantially V-shaped in side view, so as to extend farther upon the handle-web near the edges than at the middle portion, as best shown in Fig. 4, so as to form a confining recess or pocket for the pointed ends of the

handle-scales 10. I also prefer to fill the deepest portion of this recess by a reinforce 11, between the base of the shoulder 9 and flat face of the handle-web, as shown in Figs. 2 and 4. At the upper end of the handle-web 8 is the 55 tapering butt 12, which merges into the web in the same way as does the bolster 7 and has the corresponding shoulder 9 and reinforce 11.

The handle-scales 10 are nearly semicircula. in cross-section and are placed on opposite 60 sides of the handle-web, with their ends fitted to the respective recesses that are bounded by the shoulders 9. The recesses serve to hold the handle-scales in place laterally and also tend to prevent the handle-scales from 65 splitting, the said scale being additionally secured in place by means of the rivets 13, which pass through holes in the said handle-scales and web. The combined handle-scales and web form a handle which is preferably round 70 in cross-section from end to end and into which round handle the larger end of the tapering bolster merges, the said bolster also merging at its smaller end into the shank without any angular corners or crevices.

The butt 12 is provided with a flat terminal face 14 for use in pounding down brick while laying or such other rapping or pounding as occasion may require.

I claim as my invention—

1. The herein-described trowel, having a blade, the blade-support, shank, bolster, handle-web and butt, all in one piece of forged metal with the separately-formed scales secured upon opposite sides of the said handle-85 web, substantially as described.

2. A trowel having the blade, blade-support, shank, tapering bolster, handle-web and tapering butt, and the handle-scales secured thereon, the said shank, bolster and solid 50 butt, and the combined handle-scales and web being of a round form in cross section and the said blade-support, shank, tapering bolster, handle-web and solid butt being all in one piece of forged metal.

3. A trowel having a blade, blade-support, shank, bolster, flat handle-web and butt, and the pointed handle-scales secured on the said web, the said bolster and butt having the shoulders 9 arranged in substantially **V** form 100

in side view and the pointed ends of the handle-scales being fitted thereto, substantially as described.

4. A trowel having a blade, blade-support, flat handle-web, and butt with shoulders 9 forming recesses in the confronting ends of the said bolster and butt, the deepest portion of each recess being filled by a reinforce 11,

and the handle-scales secured on the said web with their ends resting in the said recess and 10 covering the said reinforce.

WILLIAM S. WARD.

Witnesses:

JAMES SHEPARD, SHEFFIELD H. CLARKE.