

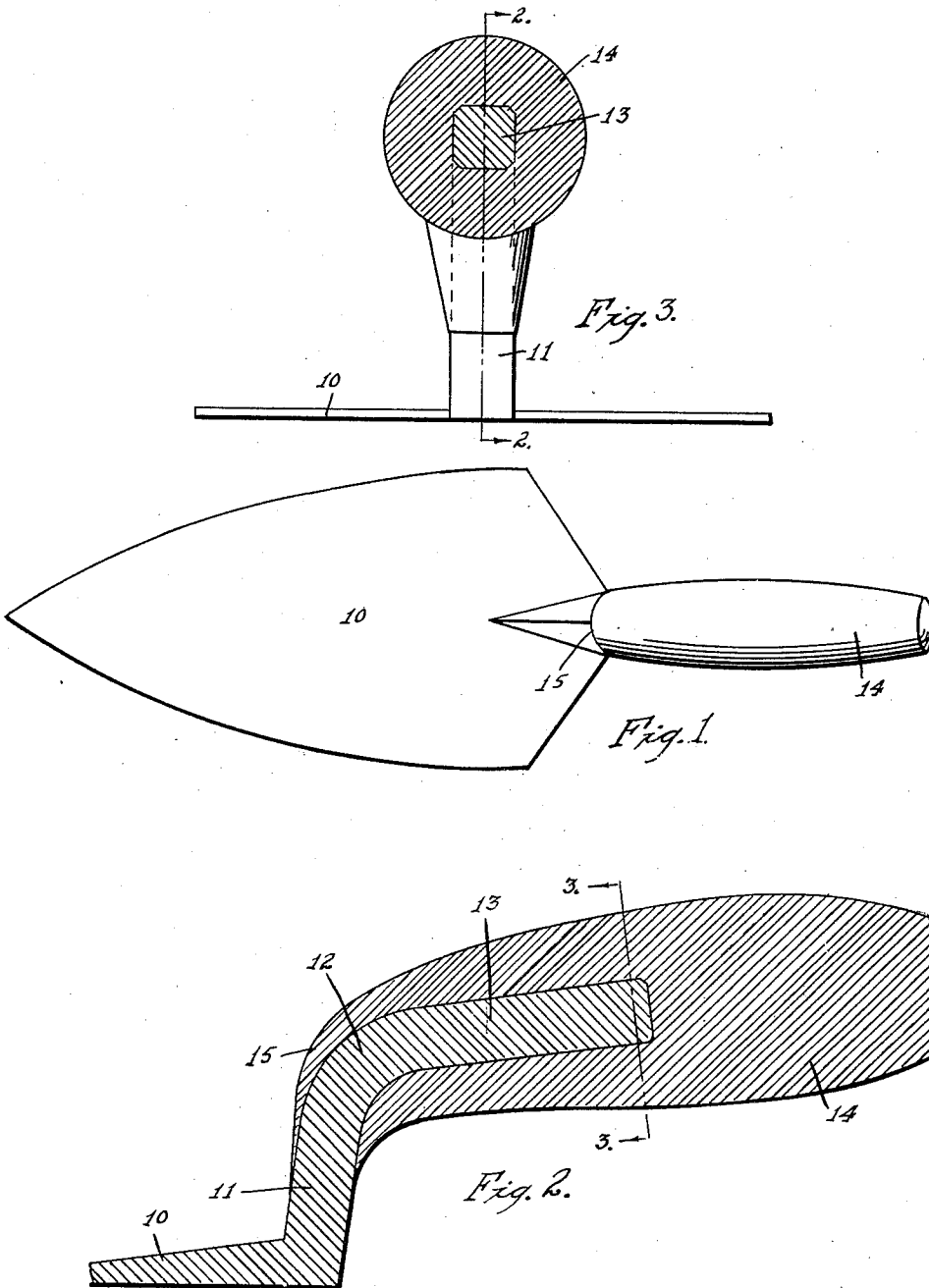
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HANDLE FOR TROWELS

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## UNITED STATES PATENT OFFICE

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## HANDLE FOR TROWELS

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The object of my invention is to provide a handle of simple, durable and inexpensive construction, which may be readily, quickly and cheaply applied to a trowel tang or the like in such a manner that when applied, it will be held relative to the trowel tang against both longitudinal and lateral movement, and at the same time form with the trowel tang at the point where the end of the handle surrounds the tang a smooth joint which may be readily and easily grasped by the operator and the trowel used in a convenient and easy manner.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which:

Figure 1 shows a plan view of a trowel having my improved handle applied thereto.

Figure 2 shows an enlarged, longitudinal, sectional view of the handle and part of the trowel; and

Figure 3 shows a sectional view on the line 3—3 of Figure 2.

Referring to the accompanying drawings, I have used the reference numeral 10 to indicate generally the trowel. In the manufacture of trowels it is customary to have formed integral with one end thereof a tang, which tang has a part 11 which extends substantially straight upwardly from the trowel body, and then is formed with a nearly right angle curve at 12, and which then extends beyond the curved portion in a straight line at 13. This trowel and tang portion are of the kind now in common use.

Heretofore it has been customary to apply to the straight portion 13 of the tang a wooden handle with a metal ferrule on the end thereof adjacent to the curved portion 12. It sometimes happens with trowels of the kind now in common use that the handle becomes loosened and slides longitudinally on the straight portion of the tang, or turns laterally on the straight portion, and when this has once started, it is a matter of great difficulty to again firmly and immovably connect

the handle to the tang. Furthermore, in use the operator of a trowel customarily places his fingers against the curved portion 12 of the tang, or the part 11 of the tang, and hence with the wooden handle and ferrule construction there is necessarily an irregular and uneven structure at the point where the end of the ferrule comes close to the curved portion 12 of the tang, and this is objectionable in use and causes unnecessary friction on the operator's fingers.

In order to overcome the difficulties mentioned, I have provided a handle comprising a grip portion 14 and a curved tapered extension 15, which curved tapered portion completely encloses the curved portion 12 of the tang and extends beyond it to a point overlapping the tang portion 11, and which is tapered to a thin edge at the point where the handle ends on the tang member 11. It is obvious that by having the integral end of the handle extended downwardly and surrounding the curved portion 12 and the straight portion 11 of the tang, the handle cannot move longitudinally of the straight portion 13 of the tang. Furthermore, this same extension of the handle by encircling the curved portion 12 and the straight portion 11 of the tang positively prevents lateral or twisting movement of the handle relative to the tang. Hence, it is not necessary with this handle construction to provide any means other than the handle itself to firmly and immovably unite the handle to the tang, even though the handle does not firmly adhere to the material of which the tang is formed.

My improved handle is preferably formed of a material such for instance as a phenolic condensation product, and is moulded to the tang.

I do not desire to be understood as limiting my invention to the use of material known as phenolic condensation product which becomes rigid when subjected to normal atmospheric temperatures for this purpose. There are various other substances now available on the market which become plastic enough under similar circumstances to be employed for this purpose.

In some instances, the handle forming ma-

terial is subjected to temperatures to bring it to plastic condition, and then the entire handle is formed and applied to the tang in one baking operation.

I claim as my invention:

5 An improved trowel comprising a blade, a tang formed integral with the blade and extended upwardly and rearwardly, a handle formed of moldable material and molded to cover the rearwardly extending portion and  
10 the upper end of the upwardly extending portion of said tang, the lower end of the downwardly extending portion of said handle being tapered to the diameter of the adjacent tang portion, whereby the handle will  
15 be held rigidly against rotatable and longitudinal movement of the rearwardly extending portion, and whereby the upwardly extending portion of the tang will be covered by said molded portion to protect the op-  
20 erator's hand from engagement with the tang, and to provide means whereby the tang and the adjoining handle portion may be easily and quickly cleaned.

25 Des Moines, Iowa, June 24, 1927.

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