

(No Model.)

C. A. MAYNARD.
TOOL SHANK.

No. 565,910.

Patented Aug. 18, 1896.

Fig. I.

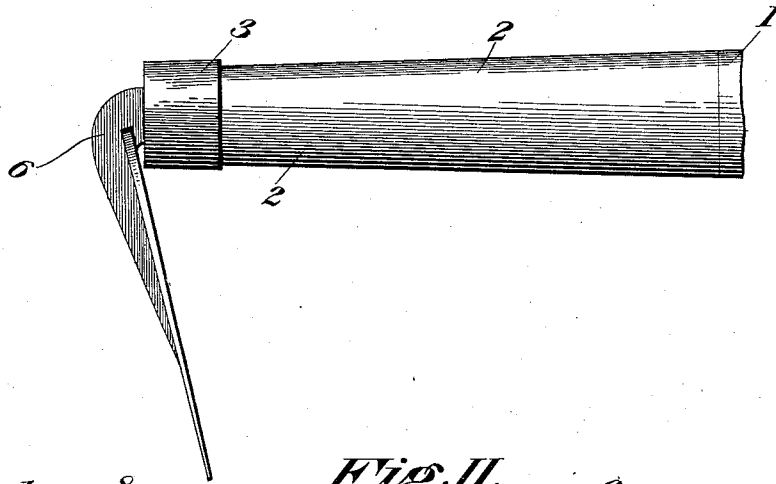


Fig. II.

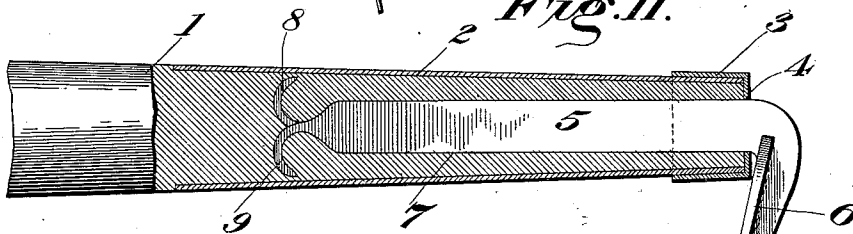


Fig. IV.

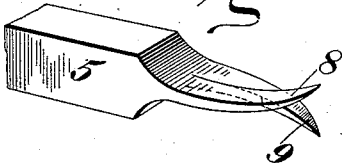
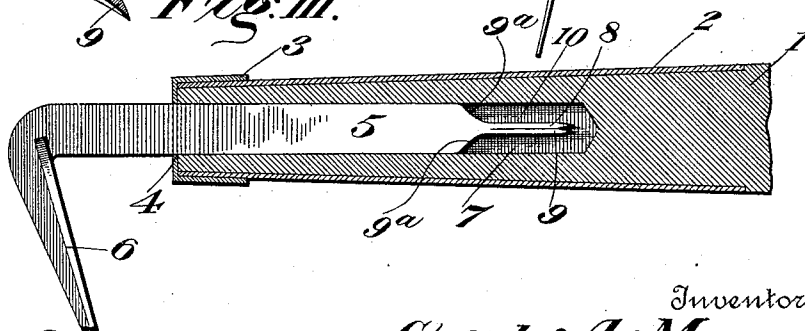


Fig. III.



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TOOL-SHANK.

SPECIFICATION forming part of Letters Patent No. 565,910, dated August 18, 1896.

Application filed December 20, 1894. Serial No. 532,474. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. MAYNARD, of Northampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Tool-Shanks, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce improved tool-shanks whereby the strength and durability of the union of the parts are improved and the appearance of the completed tool is rendered neater and more workmanlike.

In the accompanying drawings, Figure I is a side elevation of a hoe and a portion of a handle secured thereto by my device. Fig. II is a longitudinal vertical section thereof, showing one form of fastener. Fig. III is a similar view of the handle and the tang of the hoe partly inserted previous to being driven into place. Fig. IV is a view of a modified double fastener.

In the foregoing drawings I have illustrated my invention with reference to a hoe, but that is designed to show only one species of the class to which it is applicable.

Referring to the figures on the drawings, 1 indicates a hoe-handle, preferably made of wood and of any suitable and ordinary design.

2 is a metallic ferrule that surrounds and protects one end of the handle.

3 is a cap, ferrule, or thimble which surrounds the outer end of the ferrule 2, that affords additional protection and provides a finish for it.

Both ferrules may be secured in place in any suitable and ordinary manner.

The closed end of the thimble 3 is provided with a central aperture 4 of suitable dimensions to admit the tang 5 of the implement.

In the drawings, a hoe-blade 6 is shown as secured to the tang and constituting the particular tool shown for example.

7 indicates an elongated aperture in the end of the handle 1, that may be conveniently

made by boring, and which, preferably before the thimble 3 is applied, is formed in the end of the handle. In length it should be comparatively considerably shorter than the ferrule 2 and in diameter it should be equal to or nearly equal to the diameter of the aperture 4 in the end of the thimble. The end of the tang is split or bifurcated, as shown in Figs. II and III or as shown in Fig. IV, in order to form clenchers 8 and 9. The office of the clenchers and the dimensions of the handle are such that as compared to the tang they should be composed of considerably less metal than the tang. In other words, the tang should be exceedingly strong and rigid, while the clenchers should be somewhat pliable, in order that they may be separated to clench into the wood of the handle at the bottom of the aperture 4 without requiring too great a force to drive them and without exerting too great a splitting strain upon the wood of the handle which receives them. At the same time they should be of sufficient strength to properly secure, when set in position, the tang within the handle.

For the foregoing reasons it is preferable to form the tang with slanting terminal shoulders 9^a, that define the reduced end of the tang, the clenchers being formed in this reduced end.

In practice, the parts having been preferably constructed and assembled as shown in Fig. III of the drawings, the tang is driven home into the aperture 7. As soon as the previously comparatively straight or slightly-curved clenchers strike the bottom of the aperture they are, upon impact given to the head of the tang, deflected in opposite directions until when the tang is driven in place they form curved or bent retaining-pieces, as illustrated in Fig. II, that are completely hidden from view from the outside, are not liable to wear in use, and which firmly and securely retain the tang in the required position.

I do not desire to limit myself to the relative shapes of the tang and the aperture which receives it, nor to any special form for the

bottom of the aperture against which the
clenchers strike when the tang is driven in
place.

What I claim is—

- 5 The combination with a handle and elongated aperture in the end thereof, of an implement-tang and a bifurcated end thereon reduced to form exterior shoulders adapted to abut against the bottom of the aperture

when the reduced end has been driven into 10
and deflected by the same, substantially as
specified.

In testimony of all which I have hereunto
subscribed my name.

CHARLES A. MAYNARD.

Witnesses:

OLIVER WALKER,
GEO. L. METCALF.