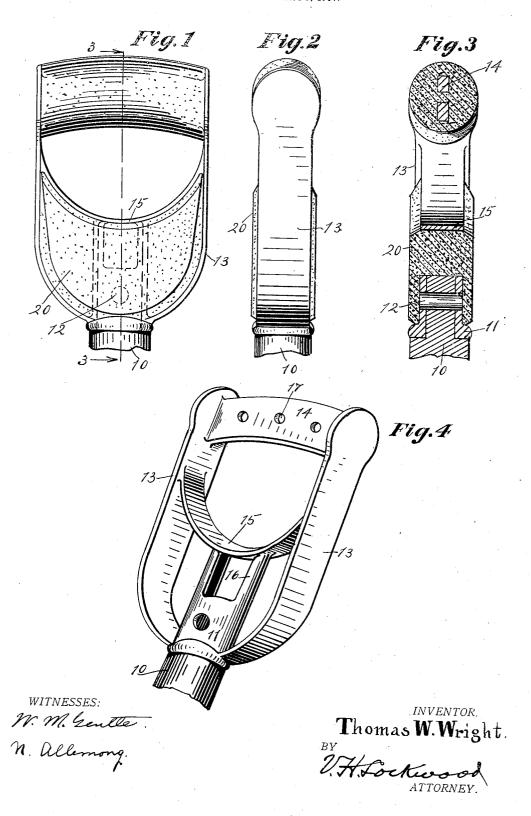
T. W. WRIGHT.
D-HANDLE.
APPLICATION FILED MAY 9, 1907.



## UNITED STATES PATENT OFFICE.

THOMAS W. WRIGHT, OF ANDERSON, INDIANA.

## D-HANDLE.

No. 865,471.

Specification of Letters Patent.

Patented Sept. 10, 1907,

Application filed May 9, 1907. Serial No. 372,797.

To all whom it may concern:

Be it known that I, THOMAS W. WRIGHT, of Anderson, county of Madison, and State of Indiana, have invented a certain new and useful D-Handle; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

This invention relates to an improved construction 10 of D-handles for spades, shovels, pitchforks and other

One object of this invention is to form the **D**-handle out of material other than a solid piece of wood, and independently of the stock, in order that the cost of 15 making such handles may be cheapened. To make the D-handle and stock integral requires much more wood than if the stock alone be made of wood and since the price of wood is high, a solid wood handle is rapidly becoming too expensive to make. In accomplishing this object I make a metal frame or skeleton

D-handle, and I preferably combine with such metal skeleton frame some suitable plastic material, such as wood pulp, papier-mâché or the like, so that the handle is light and strong and has many of the charac-25 teristics of a wooden handle, as it is easy on the hand

and otherwise agreeable to the person using it. The full nature of my invention will be understood

from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a plan view of the finished handle with a part of the stock for the implement partly broken away. Fig. 2 is a side elevation thereof. Fig. 3 is a central vertical section on the line 3-3 of Fig. 1. Fig. 4 is a perspective view of the 35 device before the plastic material is applied thereto.

The D-handle is made separate from the wooden stock 10 that forms a part of the implement. A metal skeleton frame is formed preferably of a malleable casting having a ferrule 11 adapted to fit over the end

40 of the stock and be secured thereto by a rivet 12. In connection with this ferrule a D is formed of the metal bar 13 that is integrally connected with the lower end of the ferrule and extends up to and is secured to each end of the metal cross bar 14. A substantially semi-

45 circular bar 15 is located between the bars, extending from said bars at a point just below the bar 14, and the lower central portion of the bar 15 is secured to the ferrule by the two connecting plates 16. The cross bar 14 has in it holes 17 for use in securing pieces

50 of wood or other material thereto for forming the hand grip.

In manufacture this skeleton D-handle, all parts of which are integral, is placed in a suitable mold and

wood pulp or other plastic material 20 is filled in between the bars 13 and 15 and about the ferrule and 55 also plates 16 and the cross bar 14. The plastic material is filled in around the bar 14 until it is substantially round but of the same general shape as the cross bars of ordinary wooden D-handles so that the same will be of the proper dimensions for convenient 60 gripping with the hand while in constant use. Likewise, the plastic material filled in between the bars 13 and 15 is of substantially the same thickness as the ferrule and of the corresponding portion of the ordinary wooden D-handle. This forms a very light, 65 strong and comfortable D-handle that is also cheap as compared with wooden D-handles.

I do not wish my invention to be limited to any particular kind of plastic material or other means applied to the skeleton frame for filling it out so it will 70 be comfortable to the hand while using it. Nor do I wish to be limited to the application of plastic material to both parts of the handle as some may prefer the D-handle to be a skeleton frame excepting the upper cross portion which is gripped by the hand. Nor do 75 I wish to be limited to any particular details of arrangement of the skeleton frame as its functions are to reinforce and hold the plastic material in place and give strength to the finished article. It is noticeable that this D handle will outlive one stock and therefore 80 can be transferred from one tool to another, if desired.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A D-handle consisting of a ferrule, a bar extending from each side thereof upwardly, a transversely extending 85 hand grip between the upper ends of said bars, a substantially semicircular bar between said side bars, and plastic material filled in and upon the frame thus formed for filling out and finishing the handle.

 $^{\circ}2$ . A D-handle consisting of a ferrule, a bar extending 90from each side thereof upward, a transversely extending hand grip between the upper ends of said bars, and a substantially semi-circular bar between said side bars, the lower end of said semi-circular bar being secured to the upper end of the ferrule.

3. A D-handle consisting of a ferrule, a bar extending from each side thereof upward, a transverse bar connecting the upper ends of said side bars, a substantially semicircular bar between said side bars, plates connecting the lower end of said semi-circular bar with the lower end of 100the ferrule, and plastic material filled in between the side bars and semi-circular bar and also about said transverse bar at the upper end, substantially as set forth.

In witness whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

THOMAS W. WRIGHT.

95

Witnesses:

HUGH HILL. SHERMAN MAKEPEACE.