

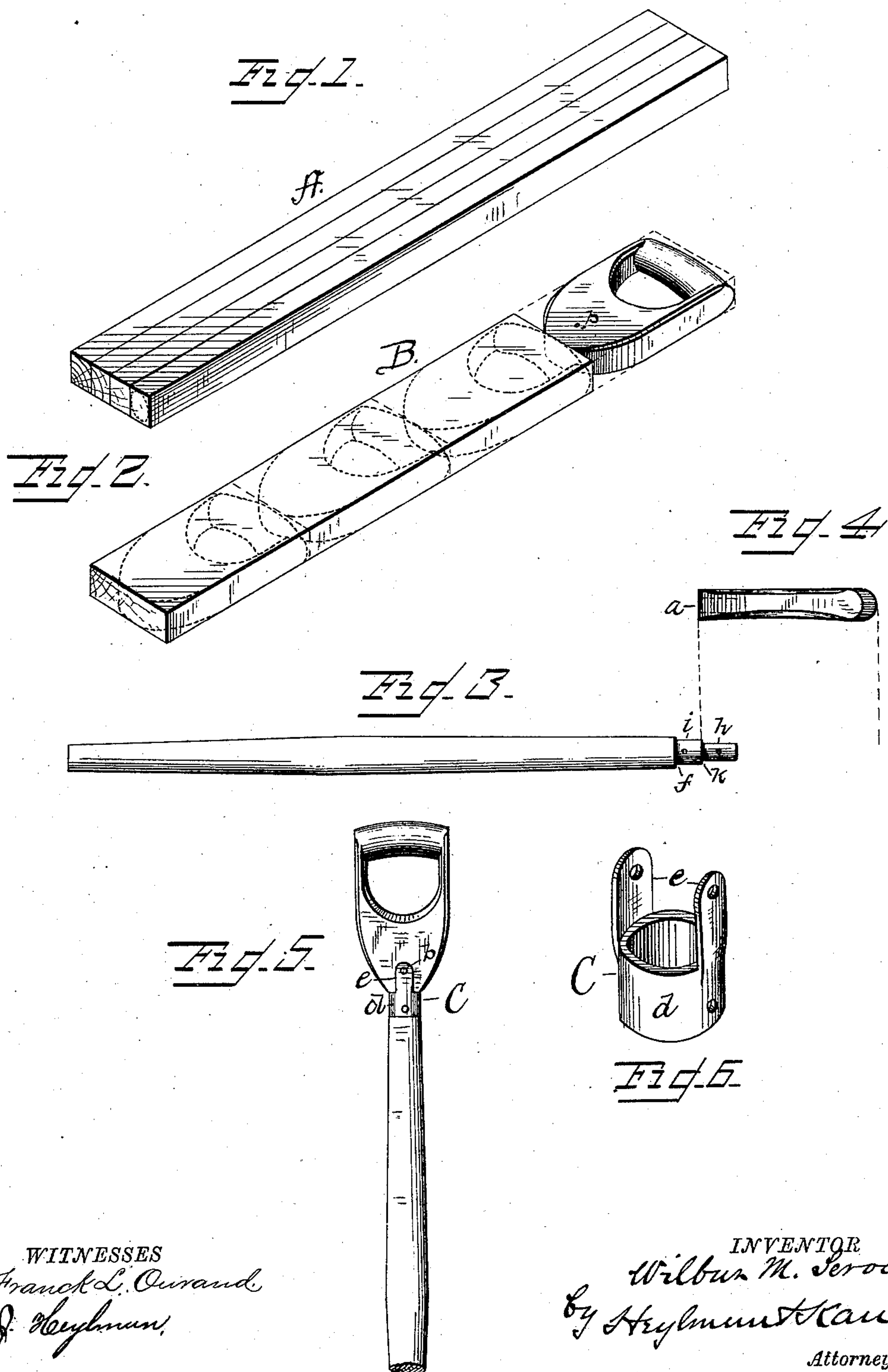
(Model.)

W. M. SERVISS.

HANDLE FOR AGRICULTURAL IMPLEMENTS AND METHOD OF MAKING
THE SAME.

No. 302,435.

Patented July 22, 1884.



WITNESSES
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HANDLE FOR AGRICULTURAL IMPLEMENTS AND METHOD OF MAKING THE SAME.

SPECIFICATION forming part of Letters Patent No. 302,435, dated July 22, 1884.

Application filed March 31, 1883. (Model.)

To all whom it may concern:

Be it known that I, WILBUR M. SERVISS, a citizen of the United States of America, residing at Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Handles for Agricultural Implements and in Methods of Making the Same; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the manufacture of wooden handles for shovels, spades, forks, and the like.

In the method commonly employed to manufacture D-handles formed of a single piece of wood for shovels, spades, scoops, and forks, there is a great waste of material, more than half of the stock being sawed and turned away before the completion of the handle. This waste causes loss to the manufacturer, and is also a source of material depletion of valuable forests growths. There also exists great difficulty in selecting and supplying the timber requisite and suitable for making a D-head and shank of a single piece, since the timber must necessarily be large enough to form the head from, and be as far as possible without flaw or cracks. There also is encountered in the manufacture trouble in supplying the trade with handles of various lengths having D-head.

It is the object of my invention, which relates to improvements in D-handles for shovels, &c., to obviate these existing difficulties and disadvantages by providing a wooden D-head which is formed separate from the handle, and which is united with and secured to the shank by suitable fastening means.

My invention therefore consists in the method of manufacturing wooden D-handles, as will be hereinafter more fully set forth.

My invention further consists in a wooden D hand-grasp or head for shovels, &c., formed with a socket or mortise wholly within the body of the head to receive and retain the handle or shank.

My invention further consists in a wooden hand-grasp or head for shovels, &c., formed with a socket or mortise and a handle-shank, in combination with a metallic connecting-

ferrule formed with upward-extending side lugs, for the purposes hereinafter set forth.

My invention further consists in the novel construction and combination of parts, as will be hereinafter more fully set forth and specifically claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of the blank for the handle-shank. Fig. 2 is a plan view of the blank for the D hand-grasp or head in progressive steps of manufacture. Fig. 3 is a view of a turned-up handle-shank. Fig. 4 is a view of a finished D hand-grasp or head. Fig. 5 is a view of a complete handle ready for trade, and Fig. 6 is a view of the ferrule.

In the manufacture of handles according to my method two pieces of suitable timber of a given length, width, and thickness are laid off, as seen in Figs. 1 and 2, the letter A representing the laid-off blanks for the shanks, and the letter B representing the laid-off blanks for the D hand-grasp or head or ends of the handles. These pieces are divided into sections, each of a size to produce its respective part, as seen in Figs. 3 and 4, with very little waste of stock. The D head or hand-grasp is formed substantially of the usual configuration, and preferably of the "standard" trade form, because of the general acceptance of that form as the best by the trade. In the lower central portion of the head is formed the socket or mortise *a*, to receive the tenon formed on the end of the shank or handle-piece, and also with a transverse perforation, *b*, for the passage of fastening means through the lugs of the connecting-ferrule, hereinafter described.

The letter C represents the metallic connecting-ferrule, formed preferably with the cylindrical body *d*, and provided or formed with the upward-extending side lugs, *e*. The body of this ferrule fits down over a tenon formed on the end of the handle, and rests against a shoulder, *f*, and the lugs *e* extend either about the cheek of the D head or hand-grasp, or, as shown, and preferably, on the face and back. The ferrule is secured by a rivet or other suitable fastening means on the handle, and the lugs are also secured to the D head or hand-grasp by rivets, screws, or bolts. The lugs *e* may be so arranged in connecting with the

body of the ferrule as to be set back from the inside of the body the thickness of the metal, more or less, in order to allow the lugs and head to be fitted together nicely; or, if desired, the lugs may be flush with the inside of the body and be let in level or flush with the wood of the head. Preferably the lugs *e* are cast or made as an integral part of the ferrule, and formed on a level or run to a feather-edge on the outside, and likewise the lower end of the ferrule is preferably made beveled to run down over a beveled shoulder on the shank, or may be made square to fit a square shoulder on the shank. The shank or main handle is formed at the upper end with the shouldered tenons *h i*, perforated to receive fastening means. The tenon *h* is made to snugly fit the socket or mortise in the end of the **D** head or hand-grasp, and the tenon *i* is made to fit the bore of the ferrule. The shoulders *f k* may be made square or beveled to suit a corresponding formation in the socket and ferrule.

In attaching the **D** hand-grasp or head to the main handle or shank the tenon entering the socket may be dipped in glue or cement and then forced home, whereby the parts will become firmly fixed in place.

To unite the parts the handle or shank is fitted to and inserted in the ferrule, and then the **D** hand-grasp or head fitted on the tenon, and the lugs and ferrule further secured by proper fastening means, as stated.

It will be readily seen that by manufacturing the **D** head or hand-grasp separately, and with the socket or mortise, it can be adapted to any desired length of handle or shank; also, that a much larger proportion of the timber is utilized in heads and shanks, thereby largely increasing the number of perfect heads and good handles to be obtained from a cord of timber. In case either the head or the shank becomes cracked, checked, or broken, so that it requires replacement, it may be quickly and cheaply replaced by adjusting in place of the broken part a new one.

It is obvious that the tenon on the end of the handle or shank may be made of such length as to admit the passage through it of the transverse bolt or rivet usually passed through the head from side to side by the manufacturer of shovels as ordinarily made, thus securing or lending additional fastening to the parts.

I claim the right to vary the construction of parts without departing from the spirit of the invention.

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

1. The improvement in the art of manufacturing wooden **D** hand-grasps for shovels and similar implements, the same consisting in taking a piece of timber or blank of a given length, width, and thickness, laying the same off for a plurality of handle-heads with hand-grasps, then dividing the laid-off parts and shaping them for attachment to the stock or shank, as described.

2. The improvement in the art or method of manufacturing a wooden **D**-handle without much waste of stock, which consists in taking a wooden blank of a given length, width, and thickness, laying the same off for the heads of the **D**-handle, then forming an opening for the hand-grasp, and then shaping the same, also taking a wooden blank of a given length and thickness and then shaping the same for the shank, and finally connecting these parts together, substantially as described.

3. As an article of manufacture, the wooden **D** hand-grasp or head for shovels and like implements, made of one piece, and formed with a central socket in the lower end, wholly within the body of the head, and adapted to receive the upper end of the implement shank, substantially as described.

4. In a tool-handle, the combination of a shank formed at its upper end with shouldered tenons, a ferrule with ears, and a wooden **D** hand-grasp with fastening devices, said parts being combined substantially as shown and described.

5. As an improved article of manufacture, the handle for shovels, forks, and similar implements, consisting of the wooden **D** head or hand-grasp **A**, formed with a central socket or mortise on the lower end, the metallic ferrule **B**, with upward-extending side lugs, and the handle-shank **C**, formed with the tenons on the end, the whole arranged and combined substantially as and for the purpose set forth.

6. The combination of the wooden **D** hand-grasp or head, made of one piece, and formed with a central socket in the lower end, wholly within the body of the head, in combination with a shank or handle formed with a shouldered tenon adapted to fit within the socket within the hand-grasp, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILBUR M. SERVISS.

Witnesses:

EDGAR L. GOLDTHWAIT,
GARRY D. CUSTER.