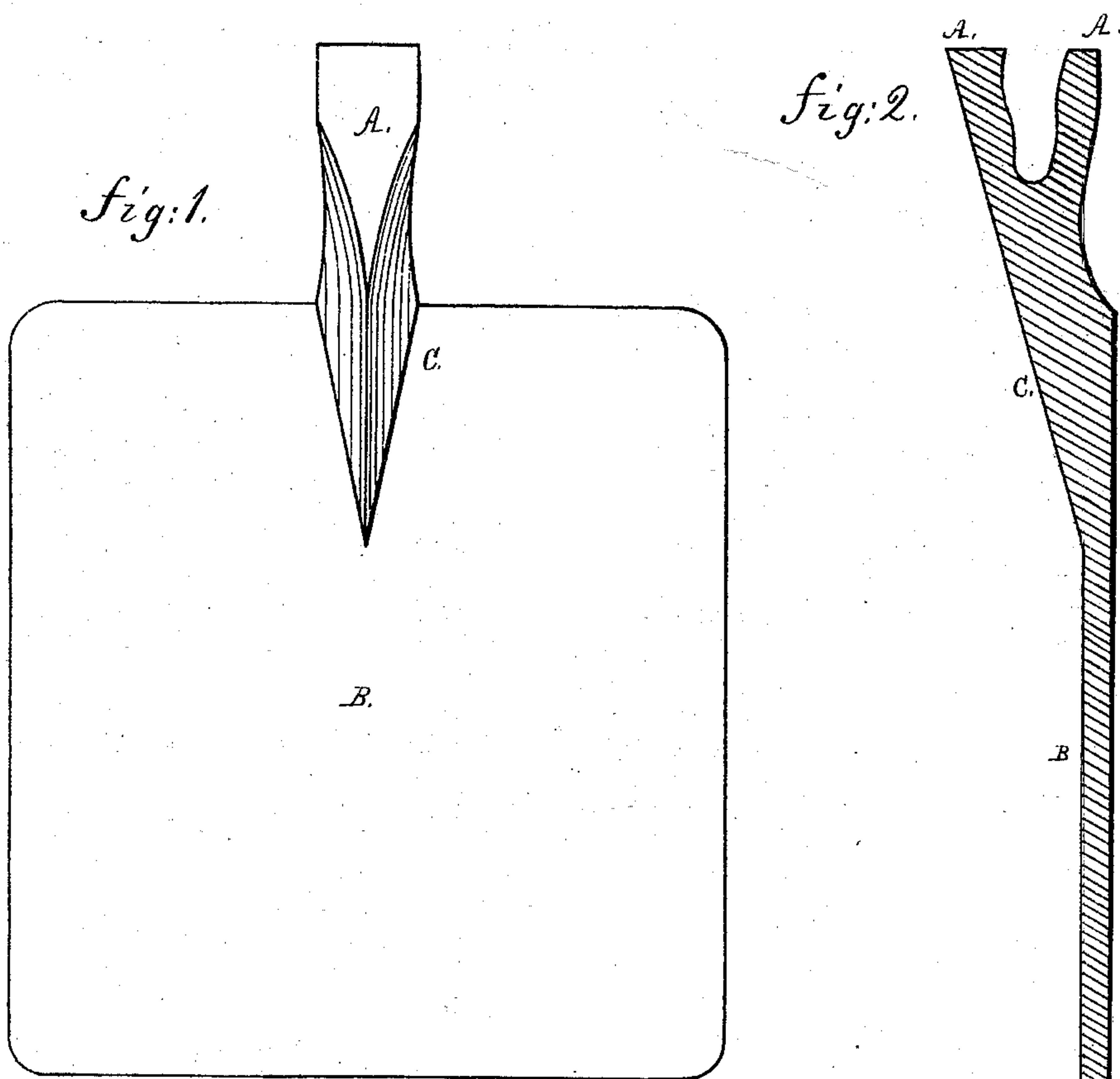


J. T. TYLER.  
Manufacture of Shovels.

No. 152,583.

Patented June 30, 1874.



Witnesses

A. C. Johnston  
James I. Johnston

Inventor

John T. Tyler

# UNITED STATES PATENT OFFICE.

JOHN T. TYLER, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN THE MANUFACTURE OF SHOVELS.

Specification forming part of Letters Patent No. **152,583**, dated June 20, 1874; application filed June 3, 1874.

*To all whom it may concern:*

Be it known that I, JOHN T. TYLER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in the Construction of Shovels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the method, hereinafter described, of constructing shovels with a socket for the handle entirely external to the blade proper, and a bayonet-formed solid rib upon it where the socket has generally been placed, said rib being integral with the blade, whereby strength and stiffness are imparted to it at the point where the shovel usually breaks, viz., at the socket, that part being, as it were, the fulcrum, and the use of rivets being dispensed with for securing the handle-straps to the blade.

To enable others skilled in the art to make and use my invention, I will proceed to describe more fully its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 is a top view or plan of the blank used in my mode of constructing shovels. Fig. 2 is a longitudinal section of the same.

A represents the parts of the blank which form the straps for the handle. B represents the part of the blank from which the shovel-blade is formed. C represents the bayonet-formed rib, which is solid, and gives strength and stiffness to the shovel at the point where it usually breaks off by long usage and heavy lifting, which is generally at or near the place indicated by the dotted line *x*. The first step in my method of constructing shovel-blades is to cast of steel the blanks in the form represented in the accompanying drawings. The second step in said method is to heat the said blanks to a forging degree; and the third step is forging the parts A and B to the desired thickness, after which the blade is finished in the usual manner. The blanks by suitable rolling device may be drawn down to the desired thickness.

What I claim as of my invention is—

The hereinbefore-described method of constructing shovels, viz., casting the blanks with the bayonet-formed rib C, and the external socket portion A, and subsequently heating said parts, and then reducing the blade and straps to the desired thickness by the forging process, as and for the purpose set forth.

JOHN T. TYLER.

Witnesses:

A. C. JOHNSTON,  
JAMES J. JOHNSTON.