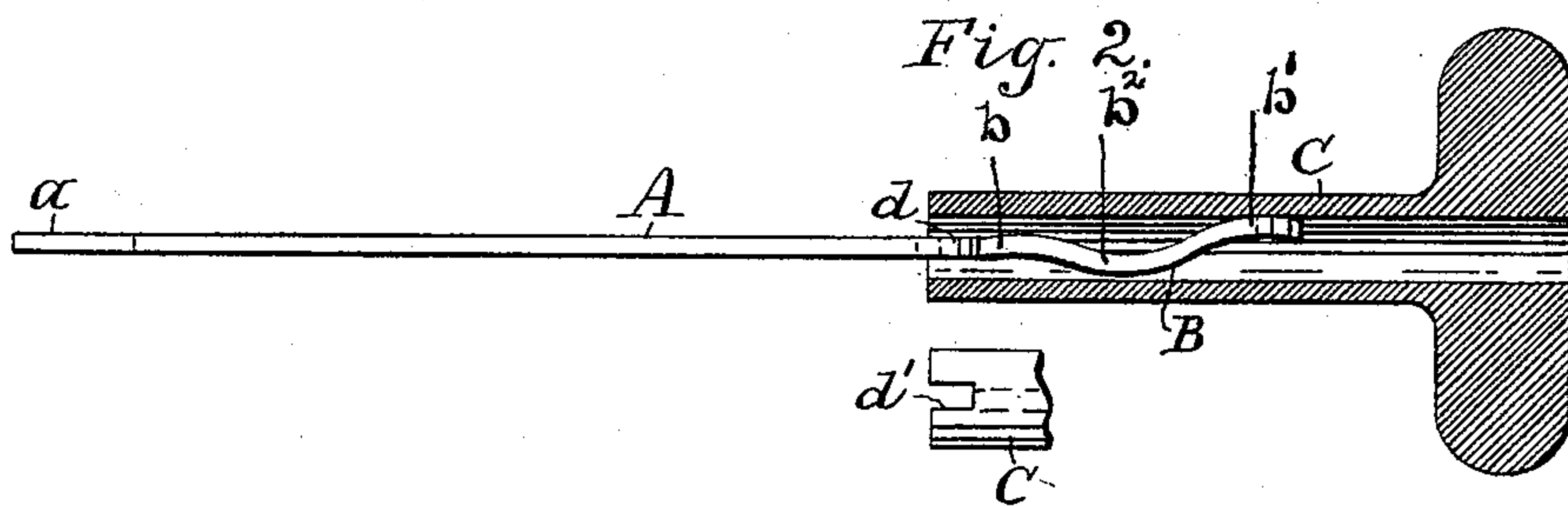
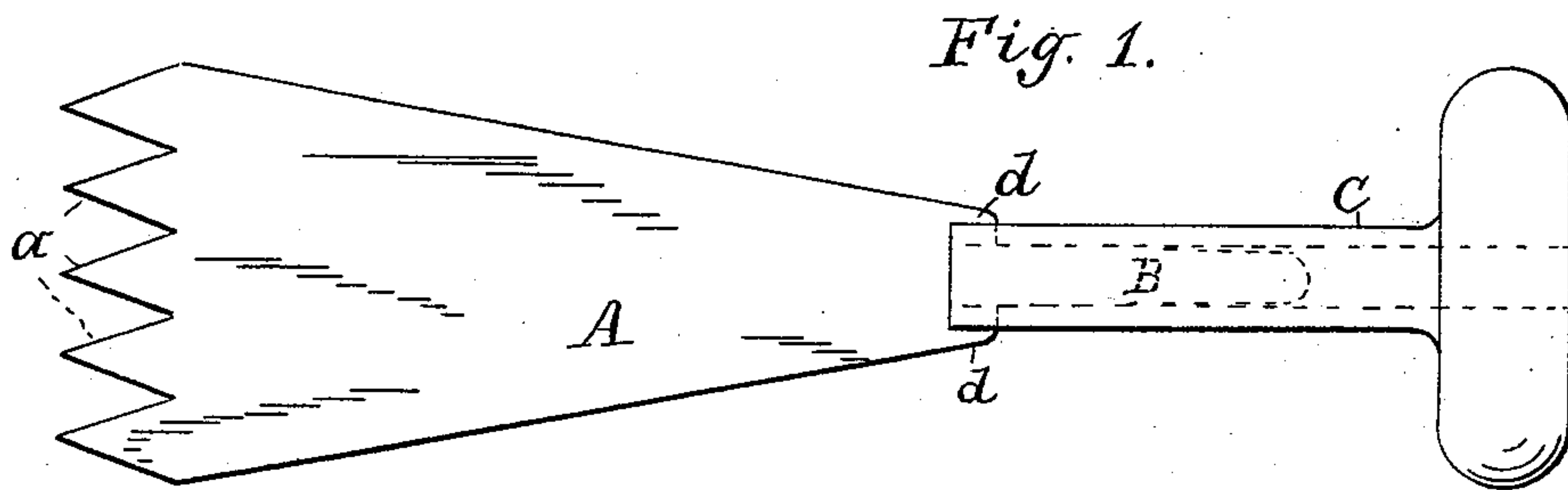


(No Model.)

W. L. FRISBIE.  
TOOL AND HANDLE.

No. 539,474.

Patented May 21, 1895.



Witnesses:

Mark W. Dewey  
A. S. Dewey.

Inventor.

William L. Frisbie  
By C. H. Duell  
his Attorney.

# UNITED STATES PATENT OFFICE.

WILLIAM L. FRISBIE, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE SYRACUSE SPECIALTY MANUFACTURING COMPANY, OF SAME PLACE.

## TOOL AND HANDLE.

SPECIFICATION forming part of Letters Patent No. 539,474, dated May 21, 1895.

Application filed October 10, 1894. Serial No. 525,481. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. FRISBIE, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Tools and Handles Therefor, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The invention relates to certain new and novel improvements in tools or implements, for various purposes, and the handles therefor; and the principal object is to provide a simple and effective means, whereby the handle may be rigidly and firmly attached to the tool.

With this object in view, the invention consists in providing a tool with a peculiarly shaped tang or shank which, when inserted in the handle, will be firmly held by the spring-tension of the tang acting upon the walls of the bore or socket in said handle.

In the accompanying drawings, Figure 1 represents a plan view of a tool embodying my invention; and Fig. 2, an edge view of the same, showing the handle in longitudinal section and a detached portion of the same in full lines.

Referring to the drawings, the letter A indicates the tool which, in this instance, is an ice-pick or breaker formed from a plate of steel, or other suitable metal, and provided at one end with a series of cutting-teeth *a*. The tool is provided with a tang or shank, B, of spring steel, or other suitable material possessing springy qualities. Said tang or shank is bow shape, that is to say, it is formed with straight flat portions *b* and *b'*, and an intermediate curved portion *b<sup>2</sup>*, the purpose of which will be hereinafter fully explained.

The letter C indicates the handle which may be of any desired external shape, said handle being provided with a bore or socket, *c*, extending partly or entirely therethrough and having parallel side walls. The inner end of said handle is preferably provided with a transverse slot, *d'*, adapted to receive the shoulders *d*, preferably formed on the tool, to prevent any possibility of the tool turning in its socket in the handle.

The tang of the tool is inserted in the bore or socket of the handle, and a sharp blow or a series of taps, given on the outer end of said handle, will force the tool in as far as the shoulders will permit, where it will be firmly held by the spring pressure of the curved portion of the tang against one side of the wall or walls of the bore or socket, as shown in Fig. 2.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tool or other implement having a metal tang or shank formed with a bow shaped intermediate portion, and provided with a handle having a bore or socket with parallel sides, substantially as specified.

2. The combination, with a handle having a bore or socket with parallel sides, of a tool or other implement having a metal tang or shank formed with straight portions *b* and *b'*, and an intermediate curved portion, substantially as specified.

In testimony whereof I have hereunto signed my name.

WILLIAM L. FRISBIE. [L. S.]

Witnesses:

H. M. SEAMANS,  
MARK W. DEWEY.