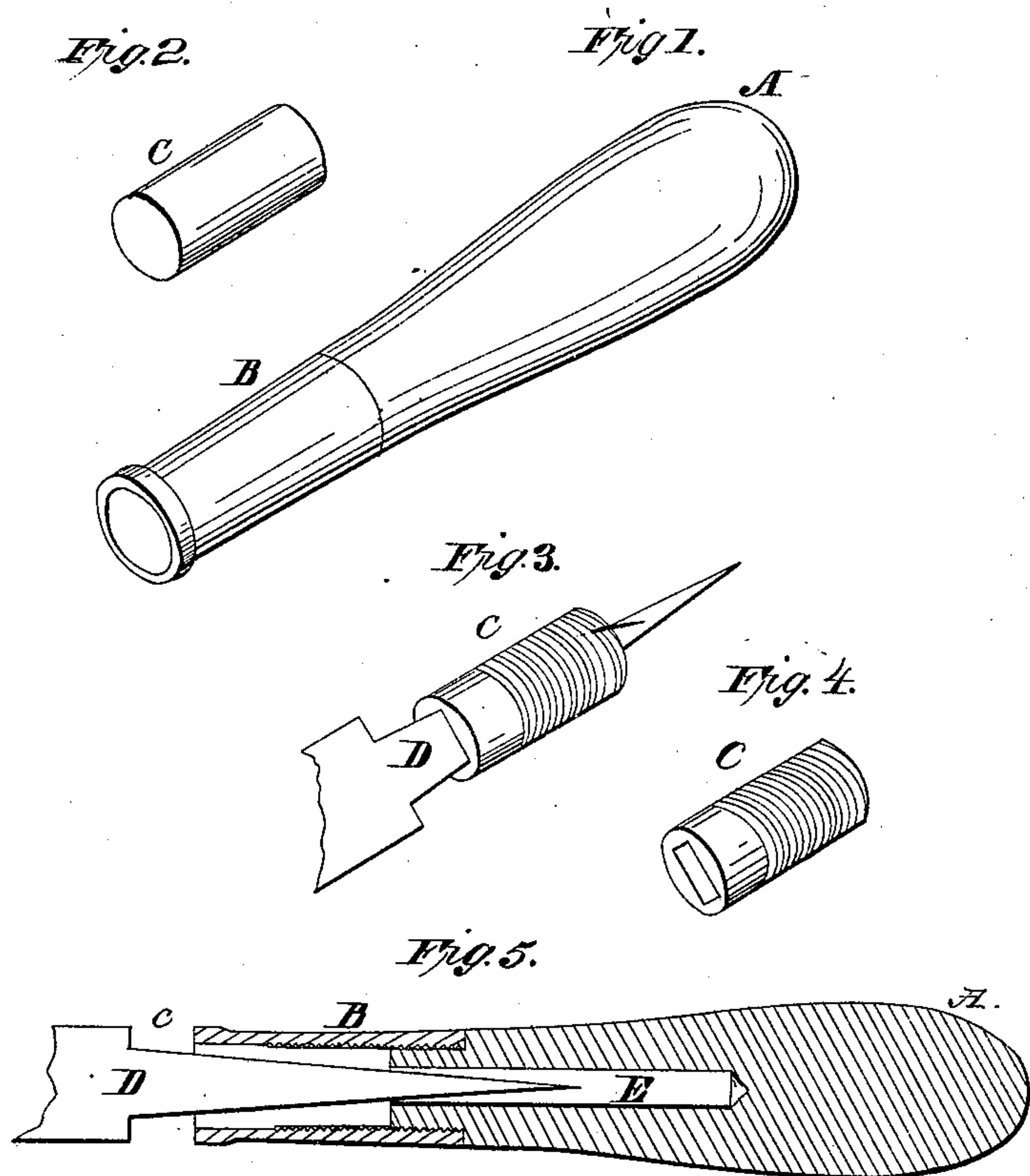


B. Boardman,

File Handle,

No 84,529,

Patented Dec. 1, 1868.



Witnesses:
Albert S. Bolles.
Mr. Wait.

Inventor:
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United States Patent Office.

BYRON BOARDMAN, OF NORWICH, CONNECTICUT.

Letters Patent No. 84,529, dated December 1, 1868.

IMPROVEMENT IN HANDLES FOR FILES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, BYRON BOARDMAN, of Norwich, in the county of New London, and State of Connecticut, have invented a new and useful Improvement in Handles for Files and other instruments; 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.

Figure 1 is a perspective view of the handle proper, with tube attached.

Figure 2 shows the cylinder detached.

Figures 3 and 4 represent the cylinder, after being expanded by driving in the tang of a file.

Figure 5 is a longitudinal section of the handle complete, with the tang of a file inserted.

A is the handle proper.

B is the tube or socket.

C is the cylinder or plug.

D is the tang of a file.

E is a cavity in the handle, to receive the tang.

The nature of my invention consists in forming a handle for a file or other instrument, with a metallic tube or socket, B, secured to and projecting from the end of the handle proper, into which a plug or cylinder, C, of wood, or other yielding substance, is inserted, for the purpose of securing the shank of such instrument to the handle.

The tube should be tapped or threaded a portion of its length, and screwed firmly upon the handle A. The projecting portion of tube or socket is then filled, by driving in a piece of wood or other yielding substance. The tang may then be driven in, which will form its own cavity, and embed itself in the plug.

The tang, acting as a double wedge, causes the plug to expand and fill the socket, and, by forcing it outward against the thread, or other inequalities of the interior of the tube or socket, the whole will be firmly retained in place.

The projecting portion of the socket may be of any convenient shape, as the plug will assume the dimensions of the socket when inserted in place. But I prefer the cylindrical form, which may be tapped or threaded, to facilitate the removal of the plug, when impaired by use, as the tang, in entering, will spread

the plug into the thread of the tube, and it may then be removed by unscrewing.

The following advantages over the ordinary handle are secured :

It is well known by mechanics that soft wood for the ordinary handle, will retain its hold upon the shank of a file much better than the harder kinds. But the handle is easily split asunder by driving in the tang, notwithstanding the ferrule upon its end, while the handle is liable to become bruised and defaced by use, and will soon become foul, by accumulating upon its surface an adhesive coating of oil and dirt, making it very unsightly.

If hard wood is used for the handle, it is more difficult to fit to the shank, and will not retain so good a hold upon the tang of a file when fitted, while it is still liable to split, owing to its less yielding nature, especially when it is shifted upon shanks of varying shapes.

With my improvement, the handle proper may be made of hard wood, which is not so liable to get bruised or become foul by use, while it may have the advantage of a softer substance for retaining the tang, and, owing to its yielding nature, will accommodate itself to the varying proportions of the different tangs, when it is desired to shift or to replace the old file for a new one.

All the advantages of both hard and soft-wood handles are thus secured, without the disadvantages of either.

And, as the tang of the instrument is not designed to come in contact with the handle proper, the liability of splitting is effectually avoided.

I do not claim the use of a wooden plug, for the purpose of securing the tang of an instrument to the handle, irrespective of its form and mode of application to the socket, as it has before been used in a conical form in combination with an adjustable tube; but

What I do claim as new, and desire to secure by Letters Patent, is—

The cylindrical ferrule B, handle A, and plug C, when each part is constructed and arranged, with relation to the others, to operate in the manner and for the purpose substantially as described.

Witnesses: BYRON BOARDMAN.

ALBERT S. BOLLES,

JNO. T. WAIT.