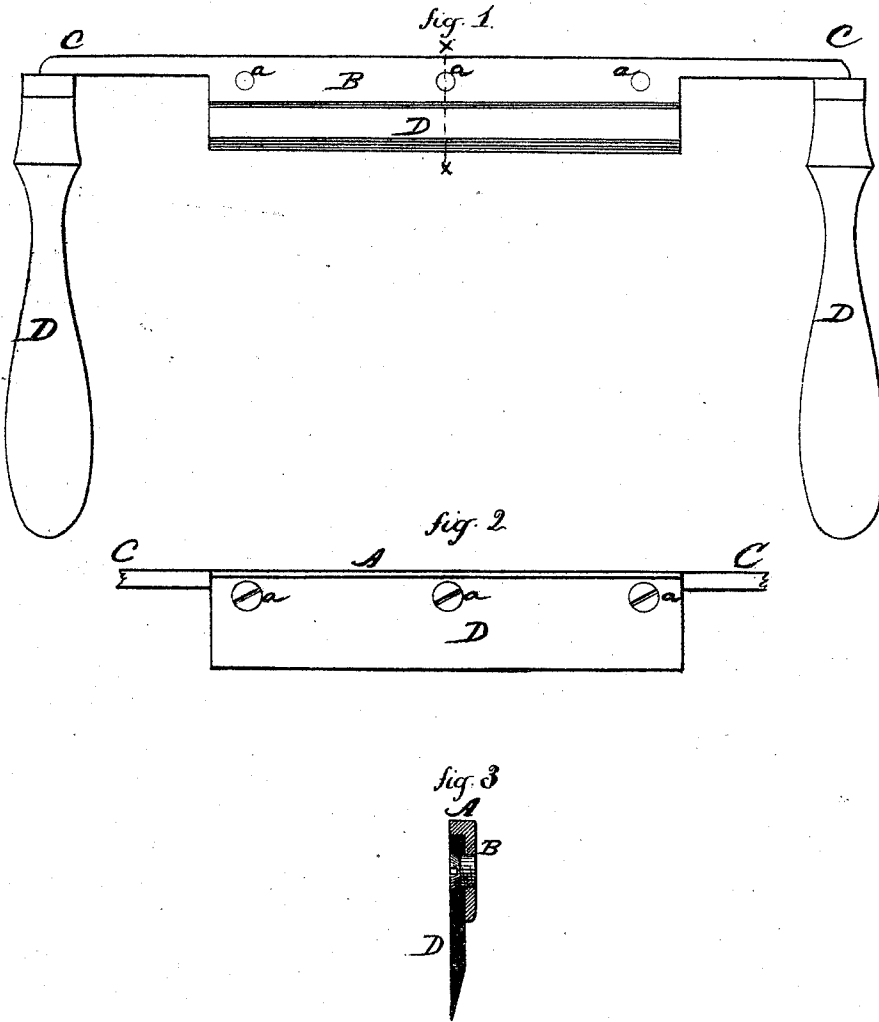


H. C. SMITH.

Improvement in Drawing-Knives.

No. 128,821.

Patented July 9, 1872.



Witnesses.

J. H. Shumway
A. J. Tibbitts

Harrison C. Smith
Inventor

By his Atty.

Wm. E. Earle

UNITED STATES PATENT OFFICE.

HARRESON C. SMITH, OF WESTVILLE, CONNECTICUT.

IMPROVEMENT IN DRAWING-KNIVES.

Specification forming part of Letters Patent No. 128,821, dated July 9, 1872.

To all whom it may concern:

Be it known that I, HARRESON C. SMITH, of Westville, in the county of New Haven and State of Connecticut, have invented a new Improvement in Drawing-Knives; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a front view; Fig. 2, a reverse view; and in Fig. 3, a transverse section on line *x x*.

This invention relates to an improvement in the tool known as a drawing-knife, the object being to strengthen the blade and also to allow of its removal and the insertion of a new blade, in order that the workman having become familiar with one knife may retain the same when the blade is worn by removing the old blade and putting in a new one, the handles and back, upon which the "hang" of the blade depends, remaining the same, and also to allow of different classes of blades in the same handles, if desired. This invention consists in constructing a back with a raised flange, which, with the back, forms a seat and support for the blade, the said blade secured to the back by rivets, screws, or otherwise, and the said back provided with shanks and handles in the usual manner for drawing-knives.

A is the back; B, a flange, which projects forward from the back, so that with the back it forms nearly a right angle. At either end of the back a shank, C, is formed, to which the handles D are attached in the usual man-

ner. D is the blade formed from steel and fitted into the seat formed by the back A and flange B, as seen in Fig. 3, and is there secured by screws *a*, or their equivalents. The back may be formed from malleable iron or wrought metal, and is therefore cheap in its construction. The blade D may be formed from sheet metal and tempered previous to being set into the back. In tempering the blades are liable to crack, and therefore easily break when in use. This construction avoids that difficulty, the strength of the back remaining constant, although the blade may be cracked, and the blade being tempered throughout will not grow softer as it wears away, as in knives of common construction, where steel and iron are combined.

If the workman desires different blades for the same frame, it is a simple matter to remove one and insert another, and when one blade is worn out the frame is still good to receive a second, and thus a mechanic having become accustomed to the "hang" of one knife renews the blade without changing in any degree the tool.

I do not wish to be understood as broadly claiming a detachable blade in a drawing-knife, as such, I am aware, is not new.

I claim as my invention—

A drawing-knife, formed by the back and flange A B, upon which the blade D is set and secured, substantially in the manner described.

HARRESON C. SMITH.

Witnesses:

A. J. TIBBITS,
JOHN H. SHUMWAY.