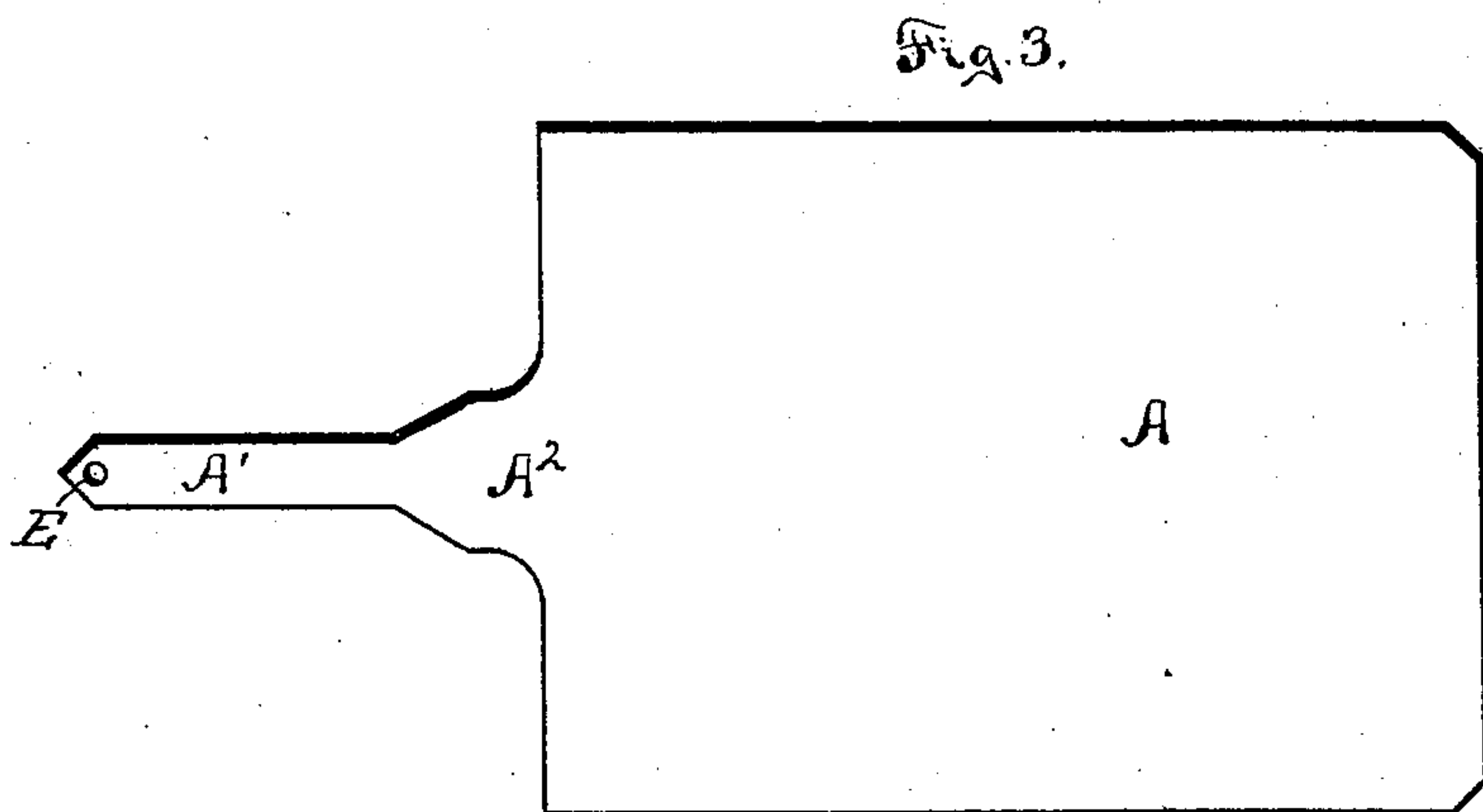
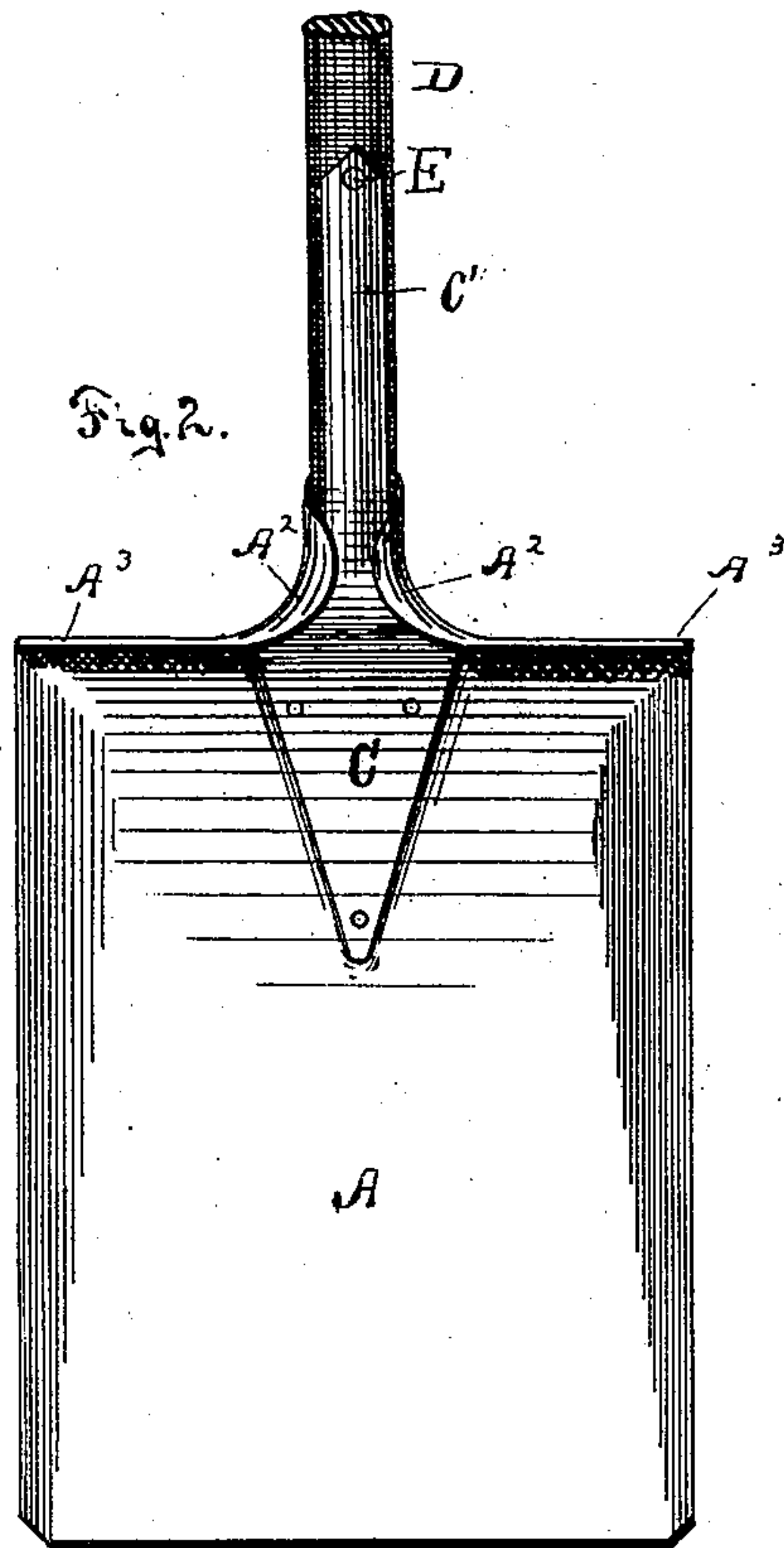
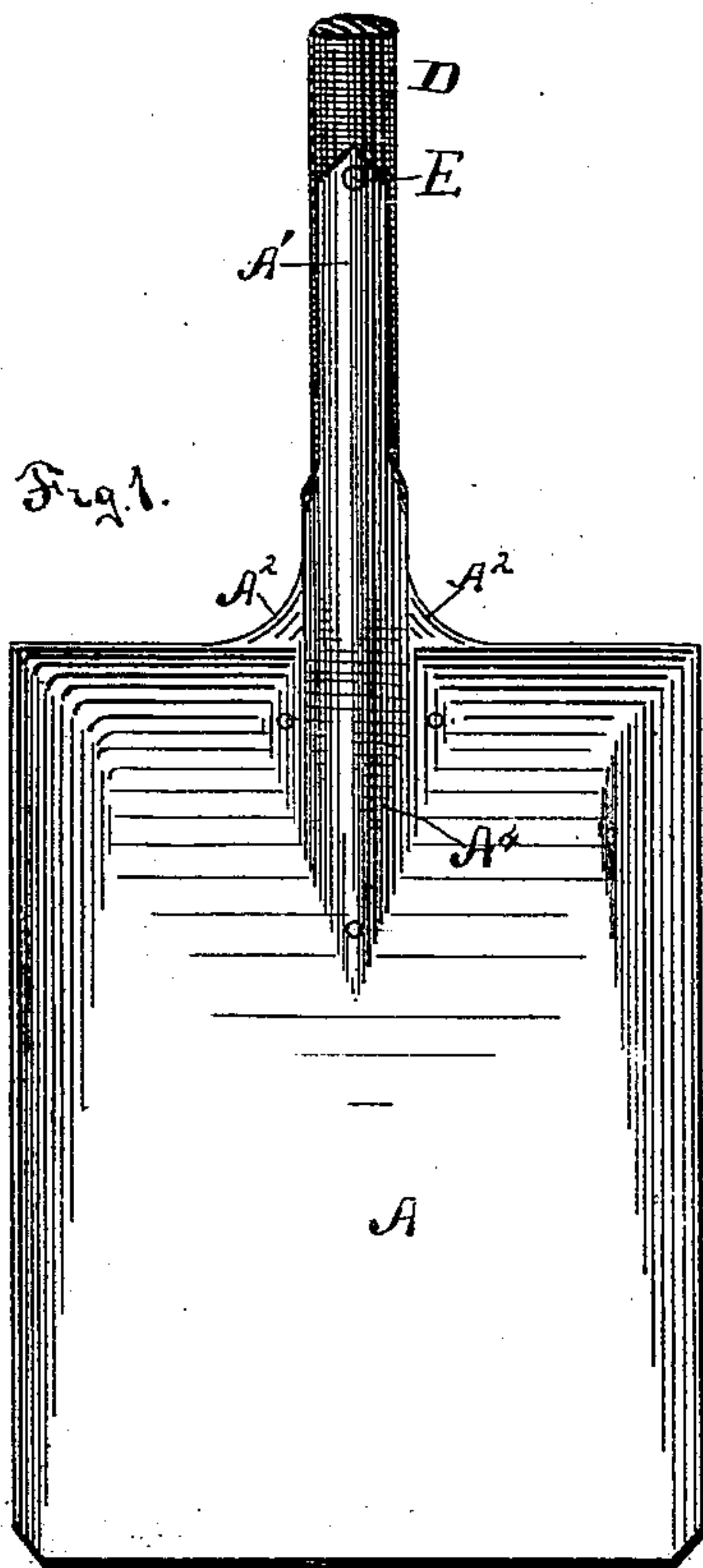


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Shovel, Spade, or Fork.

No. 226,493.

Patented April 13, 1880.



WITNESSES

Frank M. Faber
Willard Trickett.

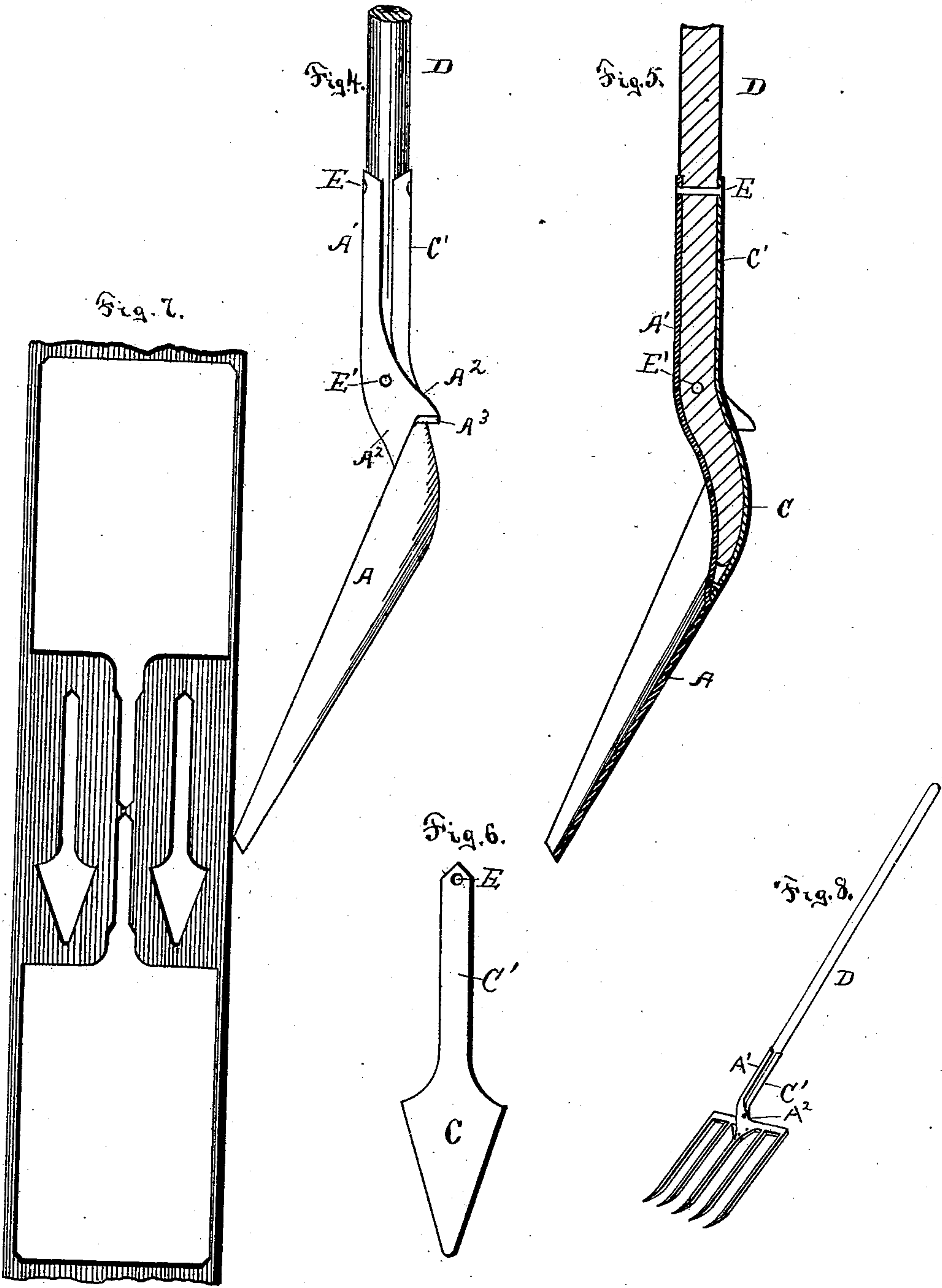
INVENTOR

William Chisholm
By Leggett & Leggett
ATTORNEYS

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WITNESSES

Frank M. Jabs
Willard Fracker

INVENTOR

William Chisholm
By Leggett & Leggett. ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM CHISHOLM, OF CLEVELAND, OHIO.

SHOVEL, SPADE, OR FORK.

SPECIFICATION forming part of Letters Patent No. 226,493, dated April 13, 1880.

Application filed February 9, 1880.

To all whom it may concern:

Be it known that I, WILLIAM CHISHOLM, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Shovels, Spades, or Forks; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to shovels and to a method of constructing the same from sheet metal in a cheap, simple, and effective manner.

While I have declared my invention to relate to shovels, I wish it to be understood that it is not confined strictly to the manufacture of these implements, as it is equally applicable to the construction of spades, scoops, and forks, as will hereinafter more fully appear.

In the drawings, Figure 1 is a view of the front or lifting face of a shovel constructed according to my invention. Fig. 2 is a view of the reverse face of the same shovel. Fig. 3 is a developed plan view of the pattern from which the shovel-blade and its tang are constructed. Fig. 4 is a view, in side elevation, of the shovel shown in Fig. 1. Fig. 5 is a view, in longitudinal section, of this shovel, showing its construction. Fig. 6 is a developed plan view of the pad and its tang employed in this device. Fig. 7 is a diagram illustrating my manner of cutting, from a single sheet and at one operation, the blades and pads of two shovels. Fig. 8 represents a fork constructed according to my invention.

In the said drawings, A is the shovel-blade. A' is its tang. C is the pad, and C' its tang. D is the handle.

It will be observed, as shown in Figs. 1, 2, 4, and 5 of the drawings, that the blade A is cupped in the usual well-known manner suitable for shovels, and that it has at its middle upper portion a raised angular portion, A⁴, beneath which the lower end of the handle fits; also that its tang A' is shaped to correspond with the surface of the handle to which it is attached.

All this shaping I prefer to accomplish by means of a die at a single operation, although, as to any specific mechanism for shaping the

different parts constituting my shovel I do not limit myself in any degree.

The pad C and its tang C', I prefer also to shape with dies. When properly shaped they are placed together in relative position, (shown in Figs. 1, 2, 4, and 5,) when they may be welded, riveted, or brazed together. Prior to being united, however, the tangs A' C' should be drawn out—that is, hammered thinner and longer—for the double purpose of occupying more space, and thereby extending their bracing effects, and also to make them thinner, so that they shall not require to be embedded so deeply into the handle.

After the pad and blade have been united, as already stated, the tapering shank A² is bent or folded around in such a manner as to embrace the handle and pad in the manner clearly illustrated in Fig. 2 of the drawings. At the same time, if desired, a flange, A³, may be turned upon the upper edge of the shovel to accommodate the pressure of the foot. This flange also serves very materially to stiffen the shovel-blade.

I do not, in all cases, propose to use this flange, however, as in some classes of implements it would not be desired; but for all farm-shovels or shovels intended for general use this flange construction is required.

The handle is inserted and attached by being placed between the tangs of the blade and pad, as indicated in the drawings, and when thus placed roller-pressure is brought to bear in such a manner that the tangs are pressed into the wood until nearly or quite flush with its surface. The rivets E E' are now applied, and it will be observed that they are passed through the handle at substantially right angles to each other. This manner of passing the rivets prevents any tendency of splitting the lower end of the handle, as each rivet is pulling against the splitting tendency of the other. The advantage of this construction is too obvious to require more than mere mention.

I have illustrated in Fig. 7 of the drawings (which shows a metallic plate from which patterns for two shovels have been cut and removed) my preferred manner of producing from a single sheet of metal patterns for two shovel blades and pads. This, while being a cheap and convenient method of utilizing the

metal from which the patterns are cut, does not constitute an essential part of my invention.

I have now described how a shovel is made according to my invention. It is evident that
5 spades, forks, &c., can be constructed according to said invention as well as the shovel just specified; and Fig. 8 of the drawings illustrates in a sufficient manner the applicability of said invention.

10 What I claim is—

In a shovel, spade, or fork, the combination, with a handle, of a body or blade having a tang formed integral therewith and bent upward or forward and secured to the front or
15 lifting face of the handle, and a separate and

independent pad provided with a tang, said pad being secured to the rear surface of the body or blade, and the tang secured to the rear side of the handle, the body or blade being formed with a shank portion, A², which
20 is folded around the upper portion of the pad, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM CHISHOLM.

Witnesses:

JNO. CROWELL, Jr.,
LEVERETT L. LEGGETT.