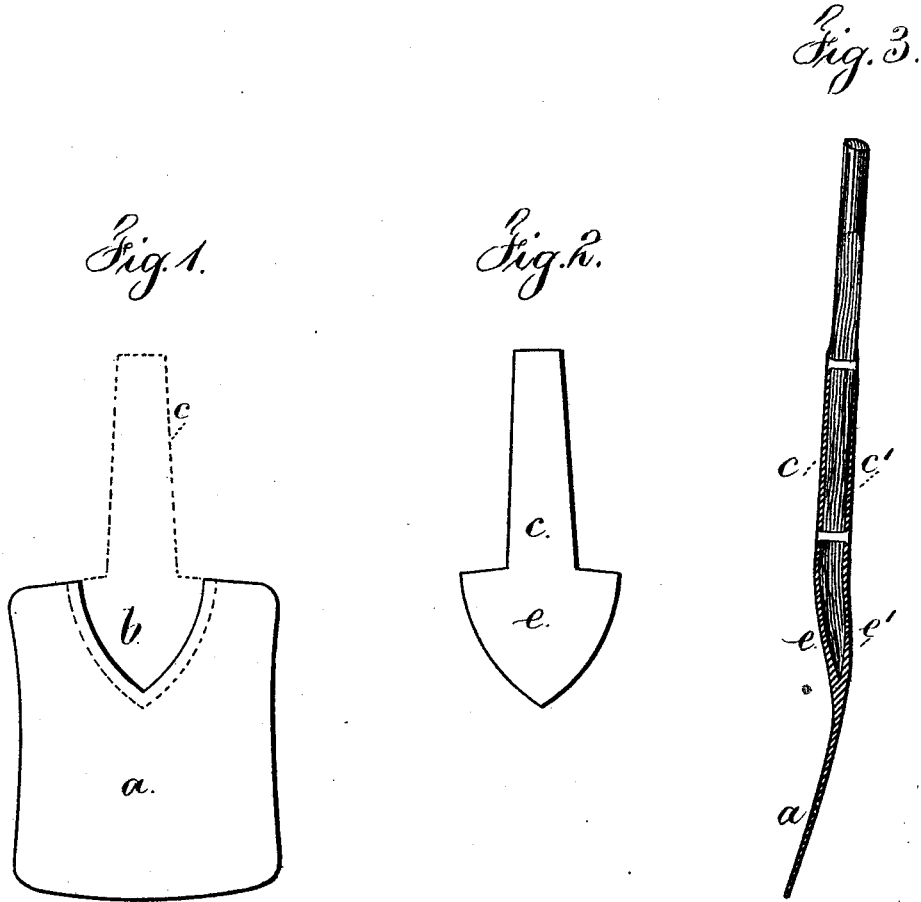


J. PARADIS.
Manufacture of Shovels and Spades.

No. 206,747.

Patented Aug. 6, 1878.



Witnesses
Chas. H. Smith
Geo. D. Pinckney

Inventor
Joseph Paradis.
per Lemuel W. Perrell.
att'y

UNITED STATES PATENT OFFICE.

JOSEPH PARADIS, OF LONGUEIL, QUEBEC, ASSIGNOR TO HIMSELF AND
IODOIN & CO., OF MONTREAL, CANADA.

IMPROVEMENT IN THE MANUFACTURE OF SHOVELS AND SPADES.

Specification forming part of Letters Patent No. **206,747**, dated August 6, 1878; application filed
February 1, 1878.

To all whom it may concern:

Be it known that I, JOSEPH PARADIS, of Longueil, in the Province of Quebec, Dominion of Canada, have invented an Improvement in the Manufacture of Shovels and Spades, of which the following is a specification:

In the manufacture of shovels the blade has usually been cut out with a strap extending upwardly from the edge, and to this blade a separate strap has been attached, the heart-shaped end being either welded or riveted. In cutting the blade and strap from one piece of metal there has been considerable loss from scrap, and the straps could only be of the same metal and thickness as the blade.

In my improvement I cut a notch in the upper part of the blade and apply two separate straps, one at each side of the blade, and weld the heart-shaped portions of the edges to the surfaces of the blade adjacent to the notch. By this improvement the straps can be of different metal and thickness from the blade, and a stronger spade or shovel is obtained.

In the drawing, Figure 1 represents the blade of the shovel, showing the form in which the sheet-metal blank is cut out. Fig. 2 represents one of the straps, and Fig. 3 shows the shovel complete by a sectional view.

The blade *a* is of the size and shape of outline adapted to the shovel or spade that is to be made. There is a notch cut at *b* in the mid-

dle of the upper part of the blade. The straps *c c'* are of usual length, and at the lower end, *e e'*, of each strap there is a heart-shaped termination of a size larger than the notch or opening *b*, in order that, when the heart-shaped ends *e e'* of the straps *c c'* are laid one at each side of the blade, the surfaces in contact lap, and are to be welded by one operation to permanently connect the same, and thereby the metal of the blade and of the heart-shaped ends of the straps are united into one, and not only is the upper part of the shovel strengthened, but the space is left into which the end of the wooden handle is inserted, the straps being spread and rounded sufficiently for the insertion of such handle.

I claim as my invention—

The method herein specified of manufacturing shovels and spades, consisting in cutting an opening in the upper part of the blade, applying the heart-shaped ends of the straps so as to lap at their edges upon the blade at both sides, and uniting the parts by one welding operation, as set forth.

Signed by me this 29th day of December, 1877.

JOSEPH PARADIS.

Witnesses:

J. L. COUTLEE,
F. A. M. FOUCHER.

Correction of Letters Patent No. 206,747.

It is hereby certified that in Letters Patent No. 206,747, granted August 6, 1878, to Joseph Paradis and Jodoin & Co., assignees of Joseph Paradis, for an improvement in the Manufacture of Shovels and Spades, the residence of the said Joseph Paradis was erroneously written and printed "Longueil" instead of *Longueil*, and the name of the last named assignees erroneously written and printed "Jodoin & Co." instead of *Jodoin & Co.*; that the proper corrections have been made in the files and records of the Patent Office and are hereby made in said Letters Patent.

Signed, countersigned, and sealed this 8th day of March, A. D. 1881.

[SEAL.]

A. BELL,
Acting Secretary of the Interior.

Countersigned:

E. M. MARBLE,
Commissioner of Patents.