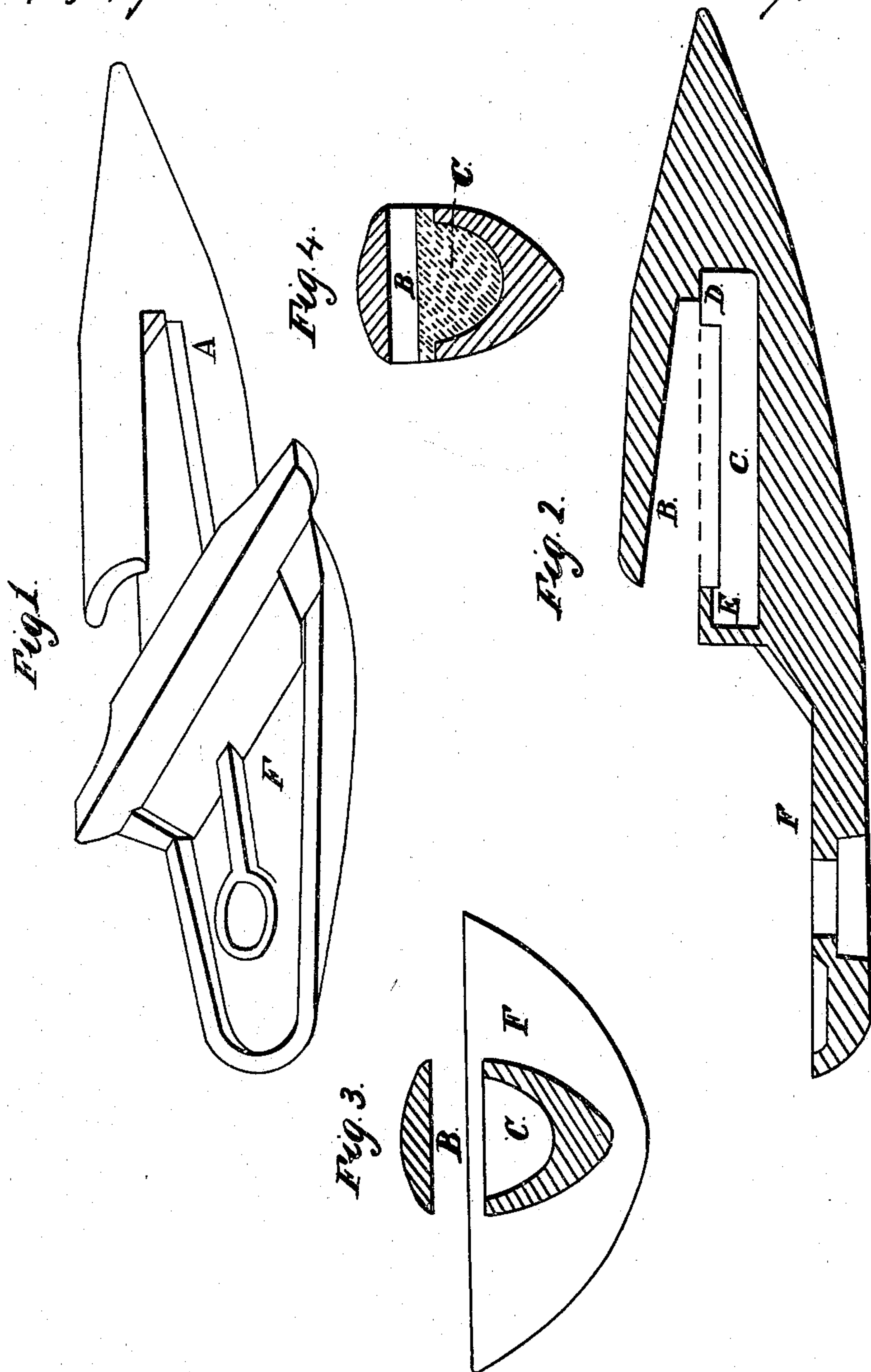


A. Winterburn.
Harvester Cutting App's.
N^o 48,473. Patented Jun. 27, 1865.



Witnesses
A. S. Kelley
Francis Woods

Inventor
Andrew Winterburn

UNITED STATES PATENT OFFICE.

ANDREW WINTERBURN, OF ALBANY, NEW YORK.

GUARD-FINGER FOR REAPING-MACHINES.

Specification forming part of Letters Patent No. 48,473, dated June 27, 1865.

To all whom it may concern:

Be it known that I, ANDREW WINTERBURN, of Albany, in the county of Albany and State of New York, have invented a new and useful Improvement in the Construction of Guard-Fingers or Knife-Guards for Mowing or Reaping Machines, which are simple in construction, more durable, and manufactured at far less cost than others, and possess further advantages, which will be set forth in the following specification.

The nature of my invention consists in constructing a guard-finger or knife-guard with a chamber or cavity under the slot or opening in the same, (through which the knives or cutters play,) and subsequently casting into said chamber or cavity white iron, which is poured against a chill that fills said slot or opening, thereby producing the hardest known surface for the knives or cutters to slide upon, and keeping the cutting-edges from wearing away or becoming dull from friction or obstructions, (which is the case with other guard-fingers, even when filled with steel,) while at the same time said guard-fingers or knife-guards may be made of the toughest malleable or gray iron, which, if chilled in the first process of casting, might become brittle. Even when the bearing surface is filled with steel the edges have to be pounded down or riveted, which is a tedious process, and they are liable to be sprung loose afterward, while by my arrangement of filling the chamber or cavity by casting white iron in the same an even and uniform surface is produced in all.

The manner of molding and casting the white chilled iron into the chamber or cavity is accomplished in the following manner: A duplicate pattern provided with points to receive the chill is molded and withdrawn, and the guard-finger or knife-guard is then laid in the impression made by said duplicate pattern, with the chamber or cavity open and ready to receive the white iron, which is poured in after the flask is closed.

I have tested my invention by manufacturing many guard-fingers or knife-guards, which give the satisfactory results mentioned.

Having thus set forth the nature of my improvement, and to enable others skilled in the art to make and use the same, I will now describe it and certify that the accompanying drawings are a full and correct representation of the same, like letters corresponding with like parts.

Figure 1 represents a perspective view of the guard-finger or knife-guard. Fig. 2 is a longitudinal section of the same, showing the chamber or cavity. Fig. 3 is a transverse section of the same through the chamber or cavity, represented empty; Fig. 4, the same looking toward the point, represented filled.

A is the guard-finger or knife-guard; B, the slot or opening in the same through which the knives or cutters play; C, the chamber or cavity cast in the same, projecting beyond the slot or opening B, and forming a shoulder, D, at the forward end and toward the point of said guard-finger or knife-guard A, and a shoulder, E, projecting beyond the back end of slot or opening B, to keep the white iron in its place, which runs up against a chill-plate, level with the lower side of slot or opening B, (indicated by red dotted lines in section, Fig. 2;) F, the flange which secures the guard-finger or knife-guard to the finger-bar.

What I claim as my invention, and desire to secure by Letters Patent, is—

Constructing the guard-finger or knife-guard A with the chamber or cavity B and casting hard metal in said cavity or chamber, substantially in the manner and for the purpose described.

ANDREW WINTERBURN.

Witnesses:

W. S. KELLEY,
FRANCIS H. WOODS.