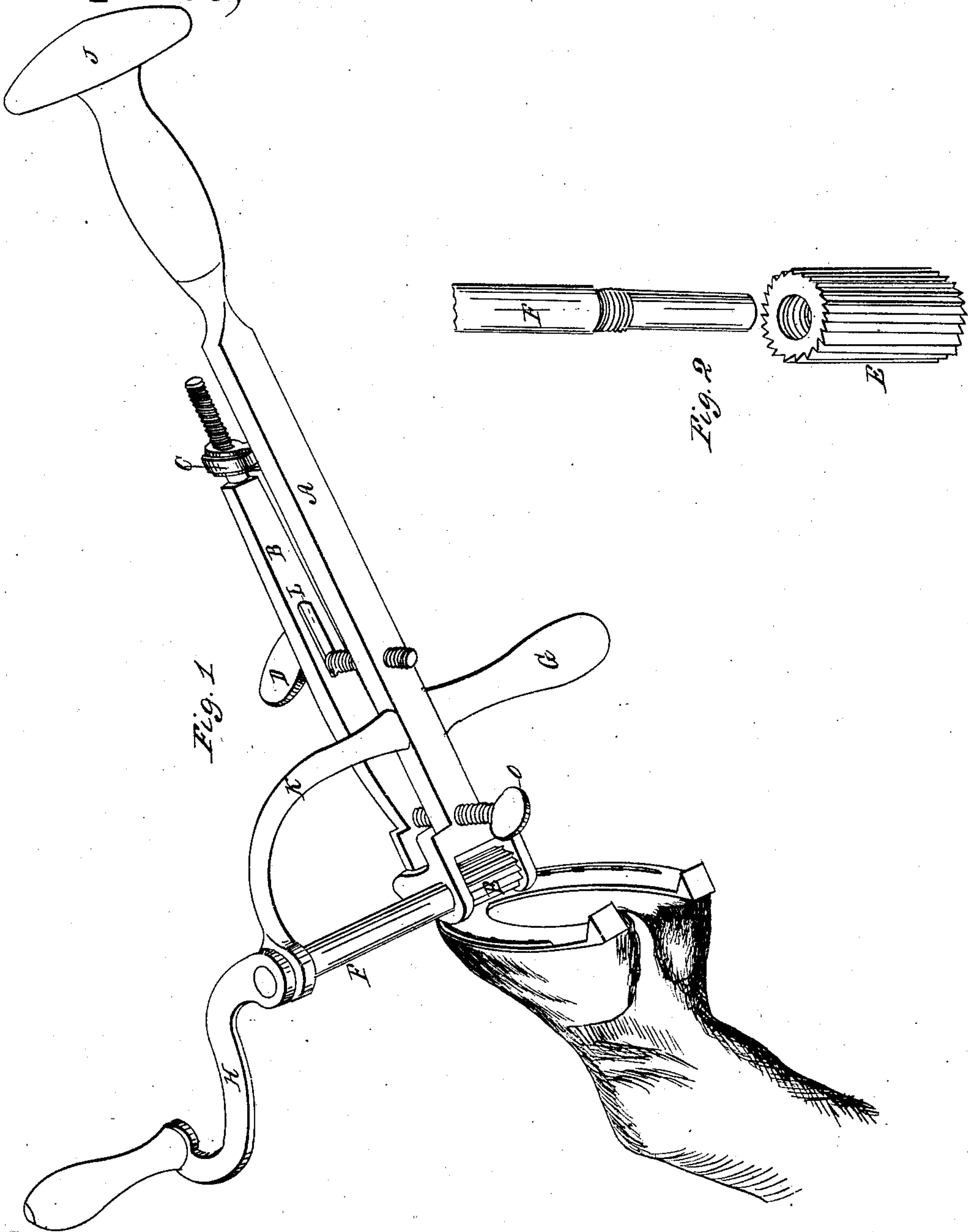


E. A. Bushnell,

Horseshoe-Calk Sharpenener.

N^o 55,617.

Patented June 19, 1866.



Witnesses;
Hiram Barber
John F. Randolph

Inventor;
Ensign A. Bushnell

UNITED STATES PATENT OFFICE.

ENSIGN A. BUSHNELL, OF DODGE COUNTY, WISCONSIN.

IMPROVED MACHINE FOR SHARPENING HORSESHOE-CALKS.

Specification forming part of Letters Patent No. 55,617, dated June 19, 1866.

To all whom it may concern:

Be it known that I, ENSIGN A. BUSHNELL, of the county of Dodge, State of Wisconsin, have invented a new and useful Machine for Sharpening the Calks of Horseshoes without removing from the animal's foot; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machine, and Fig. 2 is a sectional view of the shaft and burr, the same letters representing the same parts in both figures.

Letter A represents the main stock of the machine. B represents a spring attached to the stock. C represents a screw on the spring to adjust its length in use. D represents a thumb-screw to hold the spring in position, and O another screw to protect the spring from coming in contact with the burr. E represents the burr, and F the shaft to which the burr is attached. G represents the handle, H the crank, and K the arm holding end of shaft, and J the head of the stock.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the main stock of iron, or of iron and wood, as may be preferred, with the head like that of a blacksmith's butteris, the other end having projecting sides, through which the shaft F runs, and between which the burr is placed, the sides projecting downward

to form guides to hold the spring in position and prevent any lateral motion of the same.

The spring is fastened to the under side of the stock by a standard, which is mortised to admit the adjustable screw C to operate in the mortise in moving the spring backward and forward in adjusting it to the length of the calk to be operated on.

The screw D holds the spring at the desired distance from the burr to admit the calk, and the screw C prevents the spring coming in contact with the burr.

The handle G is attached to the stock to enable the operator to hold it steadily with his left hand when in use, the other end being extended and forming a curved arm, that holds the end of the shaft F.

The burr E is made of highly-tempered cast-steel, with parallel teeth cut on its surface and extending its whole length.

In use the head of the stock J rests against the body of the operator, he holding it firmly with the left hand grasping the handle G, and the calk to be sharpened is placed between the end of the spring and the burr, which is revolved by the crank in the right hand till it is brought to the desired condition.

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

The arrangement of all the parts, as herein set forth, as and for the purposes described.

ENSIGN A. BUSHNELL.

Attest:

HIRAM BARBER,
J. F. RANDOLPH.