

R. BEAN.
HARVESTER FINGER.

No. 27,515.

Patented Mar. 20, 1860.

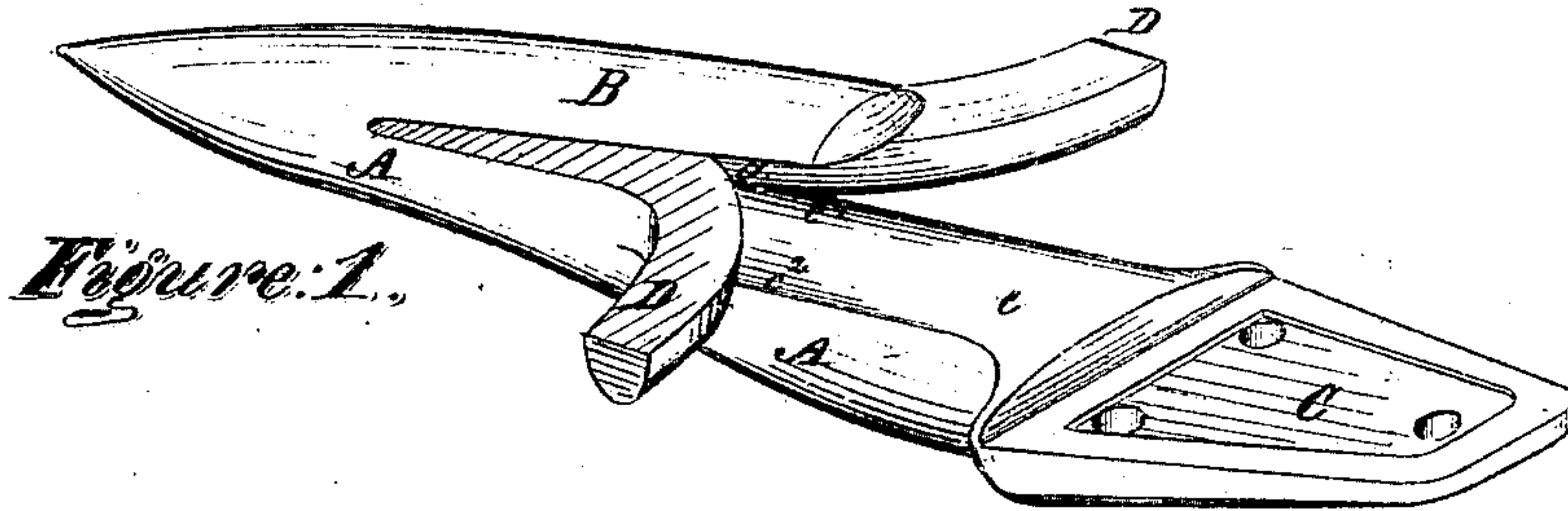


Figure 3.

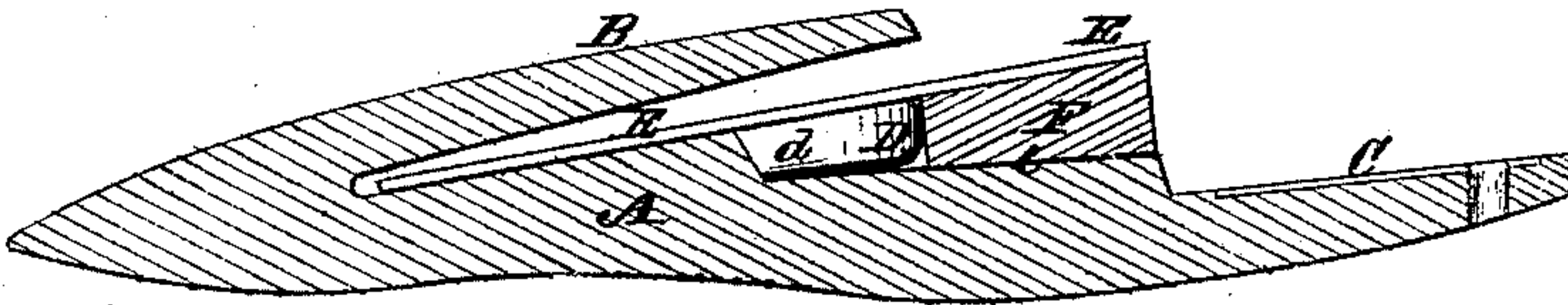


Figure 2.

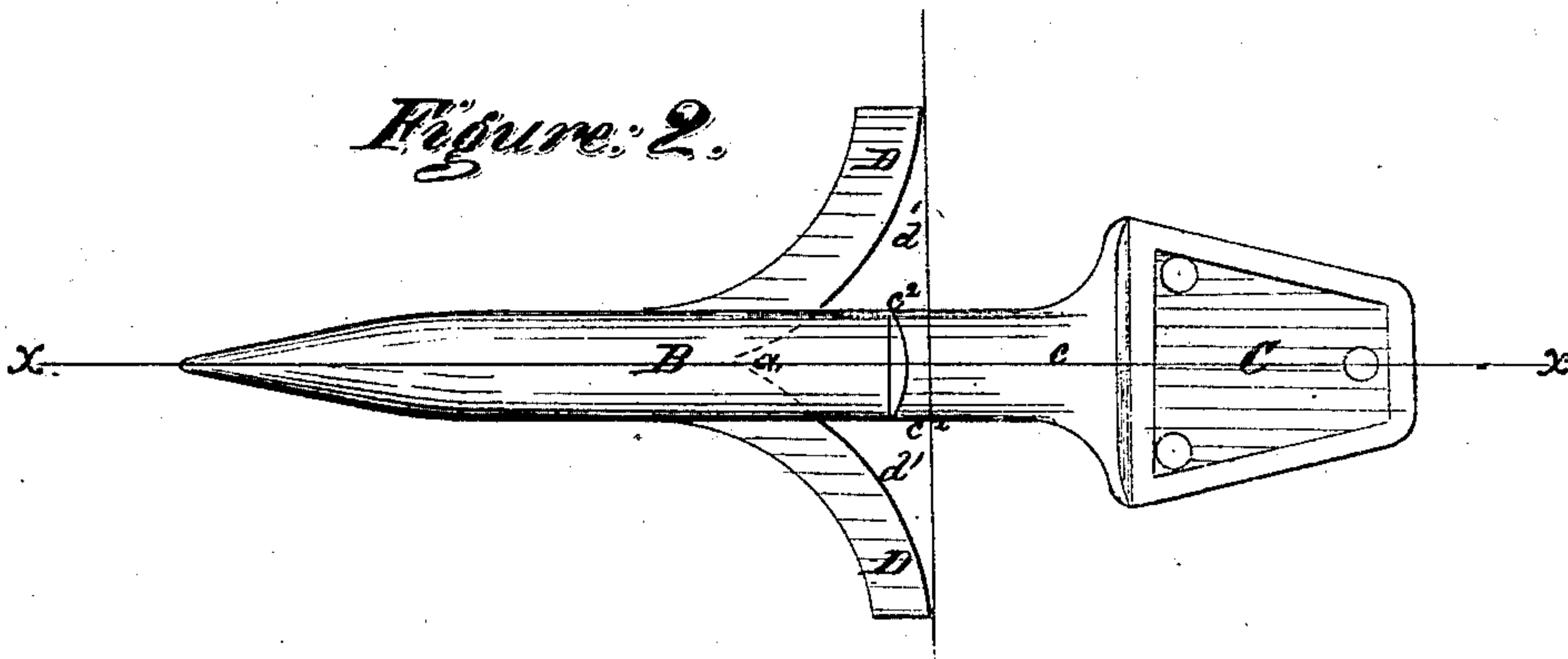
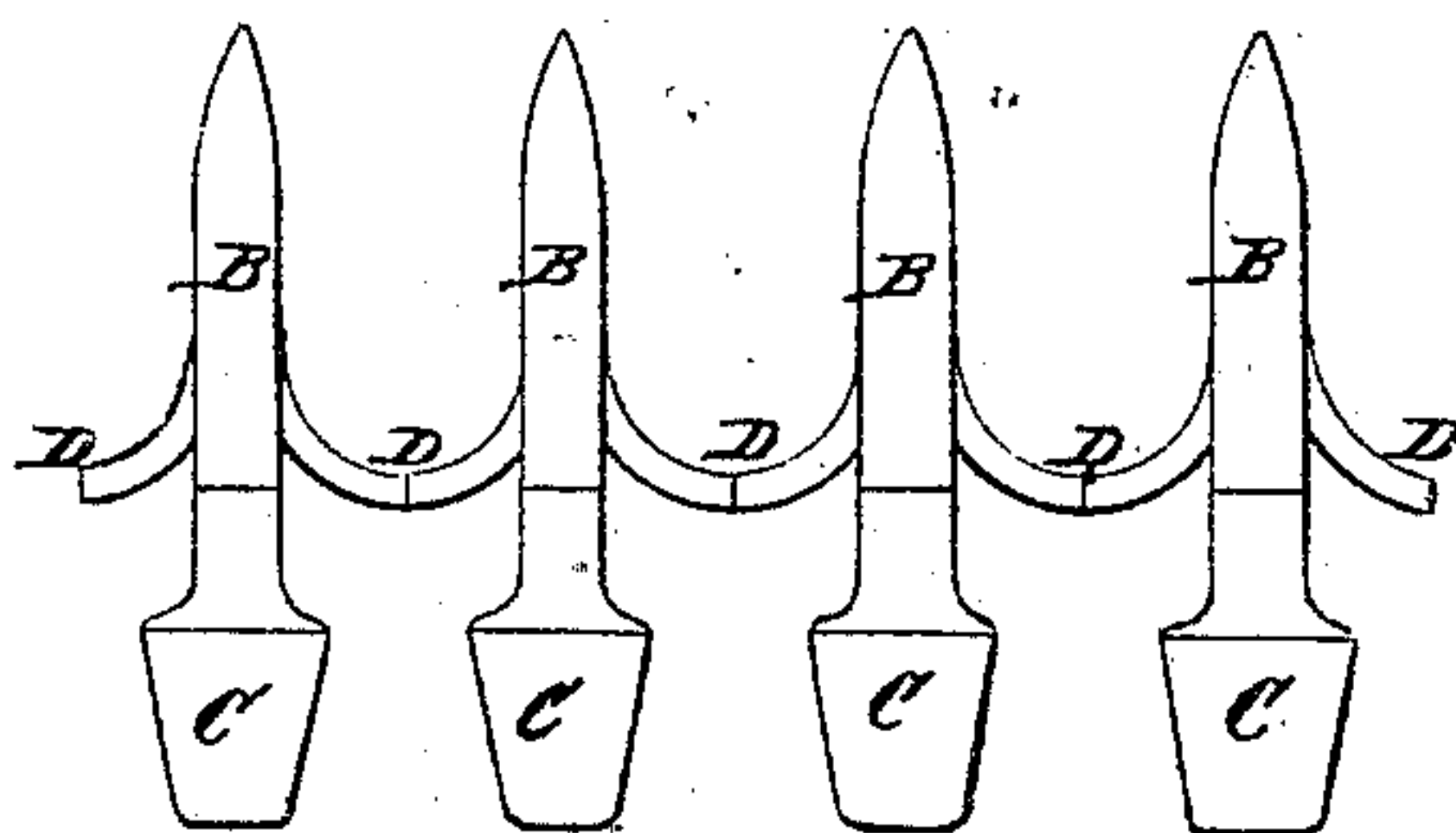


Figure 4.



UNITED STATES PATENT OFFICE.

ROBERT BEANS, OF JOHNSVILLE, PENNSYLVANIA.

IMPROVEMENT IN GUARD-FINGERS FOR HARVESTERS.

Specification forming part of Letters Patent No. 27,515, dated March 20, 1860.

To all whom it may concern:

Be it known that I, ROBERT BEANS, of the village of Johnsville, in the township of Warminster, in the county of Bucks and State of Pennsylvania, have invented a new and Improved Form of Guard-Finger for Harvesting-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

In the accompanying drawings, Figure 1 represents a perspective view of one of my improved fingers for harvesters. Fig. 2 represents a top view of the same. Fig. 3 represents a vertical section at xx of Fig. 2, with cutters; and Fig. 4 is a top view of a series of my improved fingers, showing the manner in which they are arranged together.

Similar letters denote the same parts in the different views.

A is the body of the guard; B, the lip or portion which extends back from the point of the finger over the cutters.

C is the tail by which the finger or guard is secured (by bolts) to the beams; and D are the curved wings which extend out on either side of the finger, and with their upper faces in the same plane as the upper face of the body of the guard A, or that surface on which the cutters slide and shear. By reference to the drawings it will be seen that all that portion of the finger which is back of the curved wings D D lies below the top surface of said wings, and also that said wings form a crotch at the center of the body of the guard at a . (See Figs. 1 and 2.)

E represents the cutters, and F their bar, as arranged in my improved fingers.

It will be seen that the bar F rests on the depressed portion c of the finger, (see Fig. 3,) while the cutters E, which are fastened on the upper side of the bar, rest on the upper surface of the lower part of the finger and the top surface of the wings D, leaving an unoccupied space at d between the under side of the cutters and that part of the top surface of the

depressed portion c of the finger which is not covered by the bar F.

It will be seen by reference to Figs. 1 and 2 that that portion of the depressed surface c of the finger which does not give bearing to the bar F is slightly rounded off on its edges or chamfered, as illustrated at c^2 .

It will be observed that the hollow space between the under side of the cutters E and the portion c of the finger and the rear edges of wings D is open or blank at d , (see Fig. 2, where the red line represents the front edge of the cutter-bar F;) and it will be understood that there is by this construction an open space afforded in advance of the cutter-bar, and between the under side of the cutters and the top surface of the guard-body, into which space all foreign matter which would be likely to choke up the cutters finds its way, and from which repository it is shuffled out by the motion of the cutter-bar and cutters at the openings d' .

The wings D are so formed that when the fingers are arranged on the beam their ends shall come into contact, and thus serve as braces to cause all the fingers to render mutual support to each other, and make the whole series more rigid and less liable to breakage of any of its members.

The shearing operation of the cutters on my improved finger is produced in the known method; but by the peculiar construction of the finger the cutting apparatus is rendered more desirable than any of those with which I am familiar, since an open space is afforded in advance of the cutter-bar, into which all matters which might otherwise clog the bar enter, and from which they may be discharged through openings $d' d'$.

At Fig. 4 is illustrated a series of my improved fingers (on a decreased scale) as arranged on the beam, from which may be seen the method in which they each render lateral support to the other.

I am aware that the finger or guard of harvesters has been so constructed as to have wings or portions extending out on either side

in such manner that the fingers shall all brace together as mine. I am also aware that the finger has been constructed with open spaces, and do not claim as of my invention either of such features of construction; but

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

Forming the guard with curved wings D extending on each side to serve as braces, and forming a crotch in their rear above the body

or depressed portion of the finger, leaving a space between the rear of the wings and the front of the cutter-bar, and the open spaces *d'* on each side of the finger, the whole arranged to operate as herein described, for the purpose set forth.

ROBERT BEANS.

Witnesses:

E. P. BURKE,

JAMES M. BAILEAU.