

J. H. SEIBERLING.

Dies for Swaging Harvester Guards.

No. 158,810.

Patented Jan. 19, 1875.

Fig. 1.

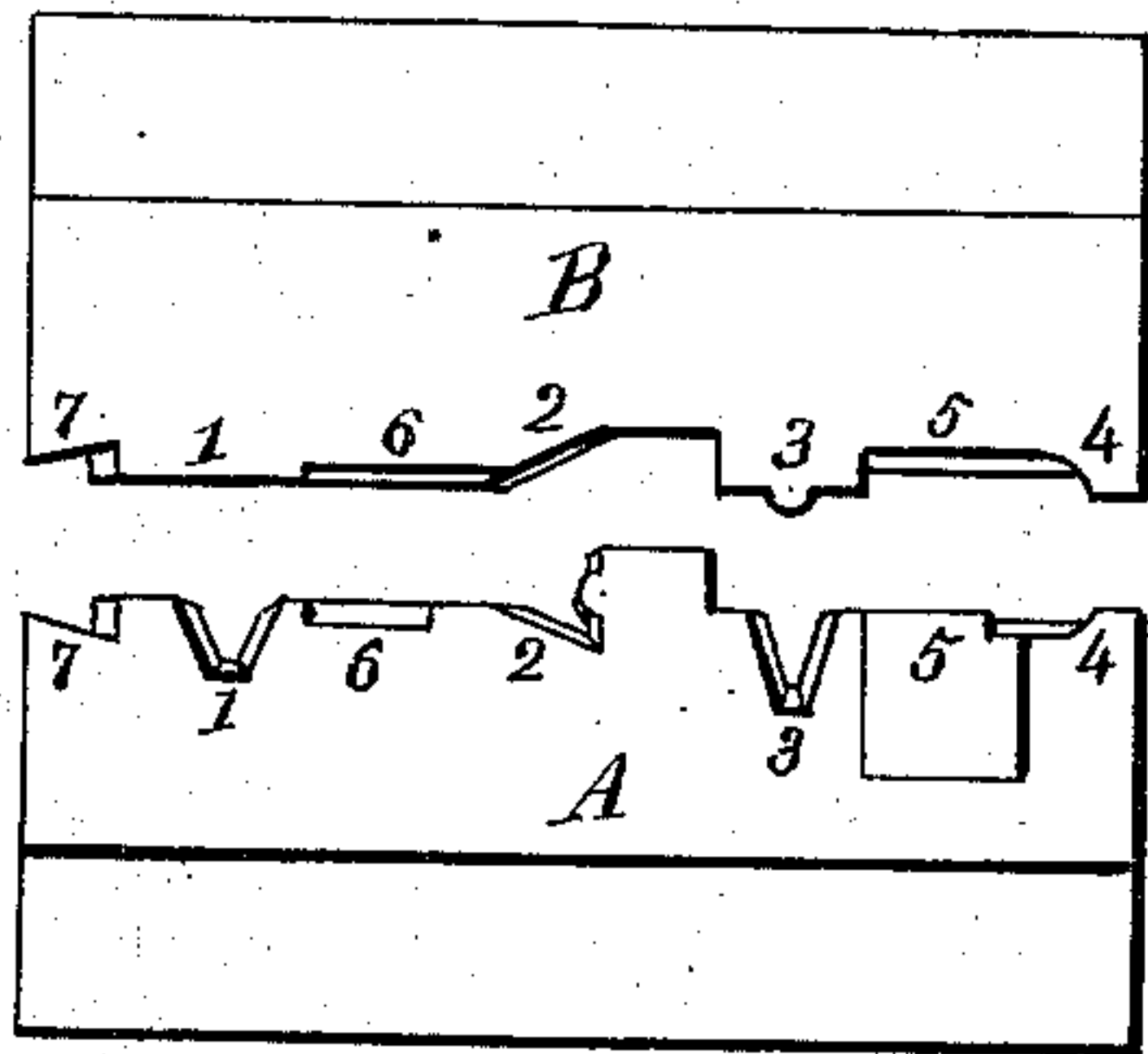


Fig. 2.

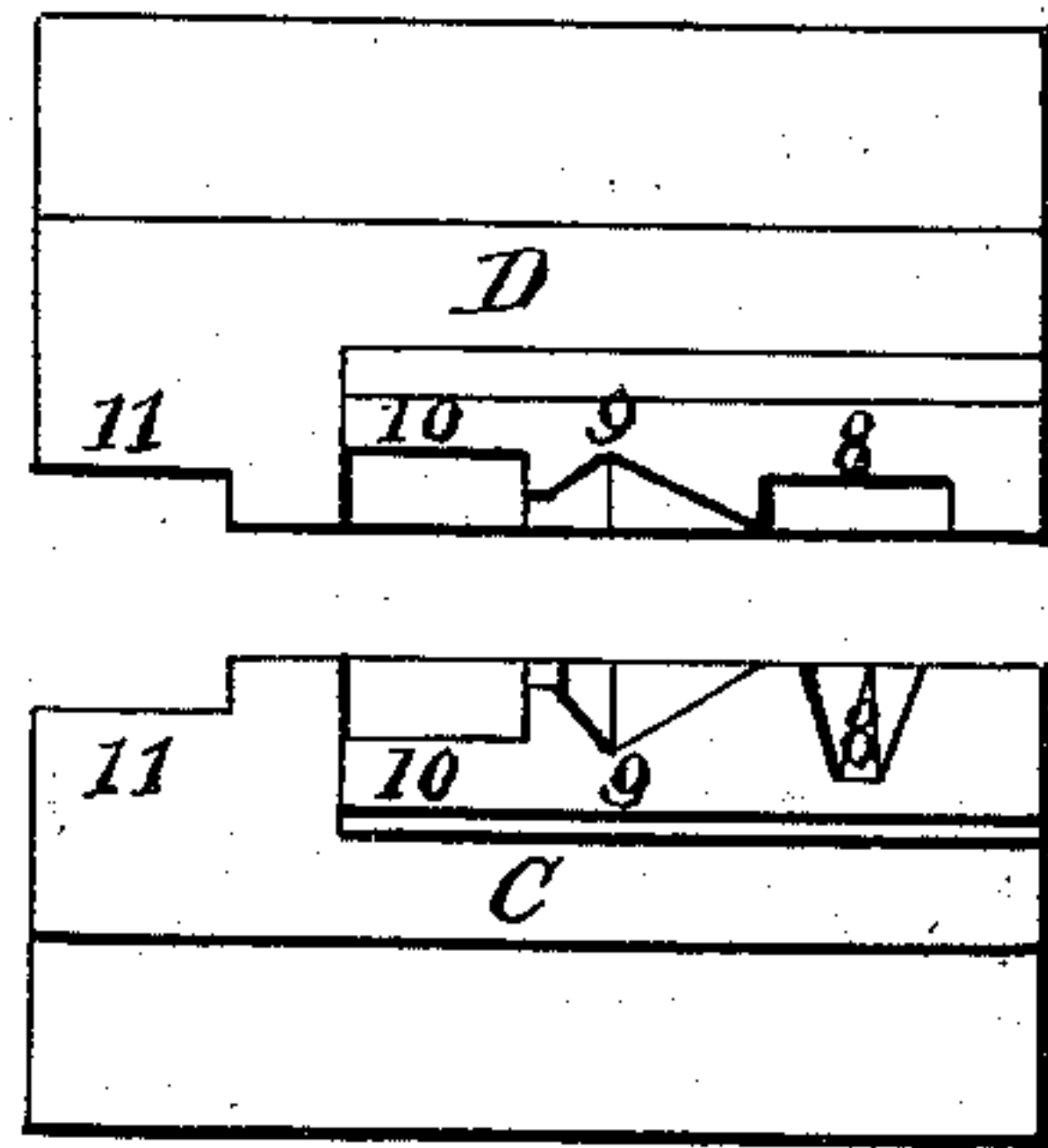


Fig. 3.

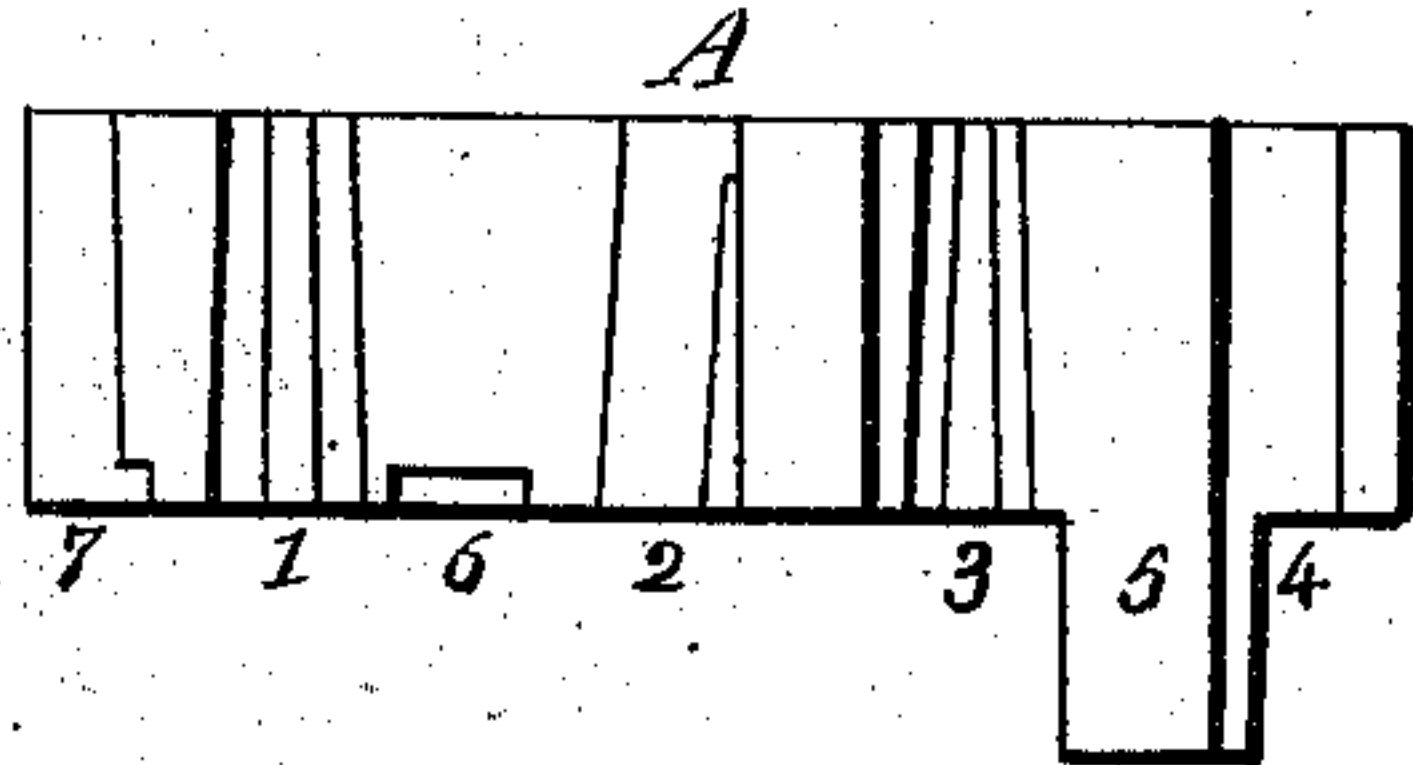


Fig. 4.

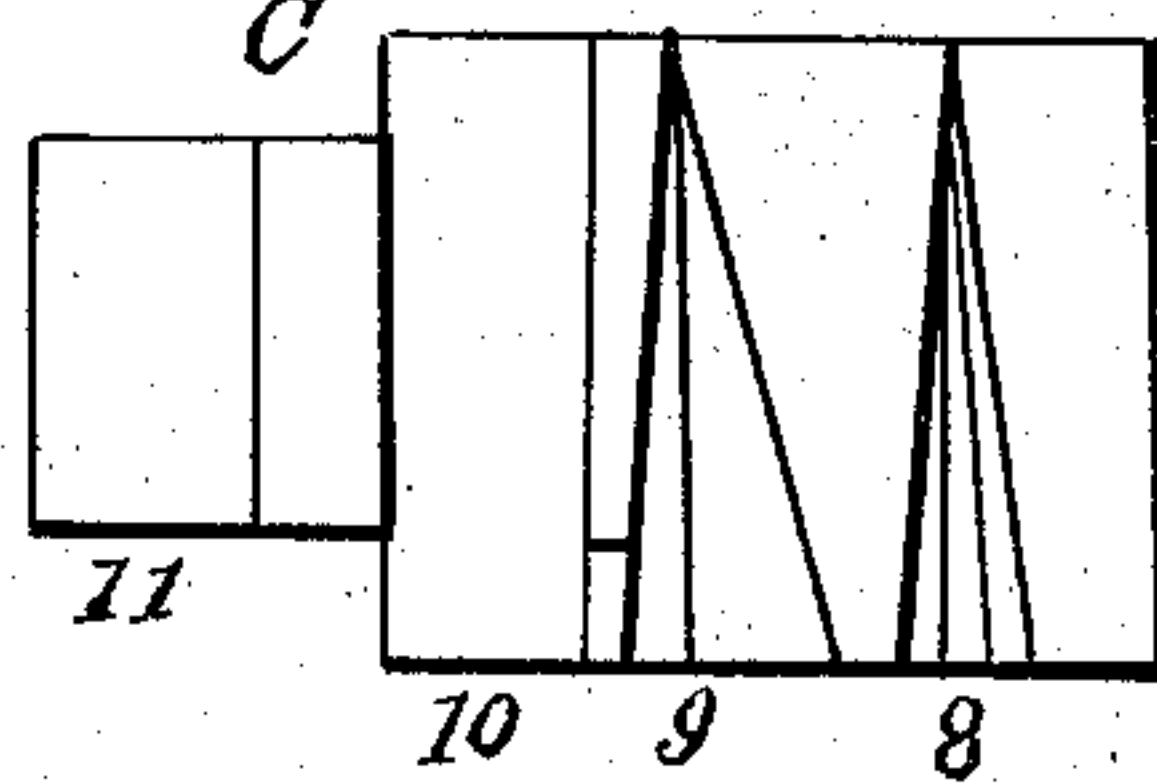


Fig. 5.

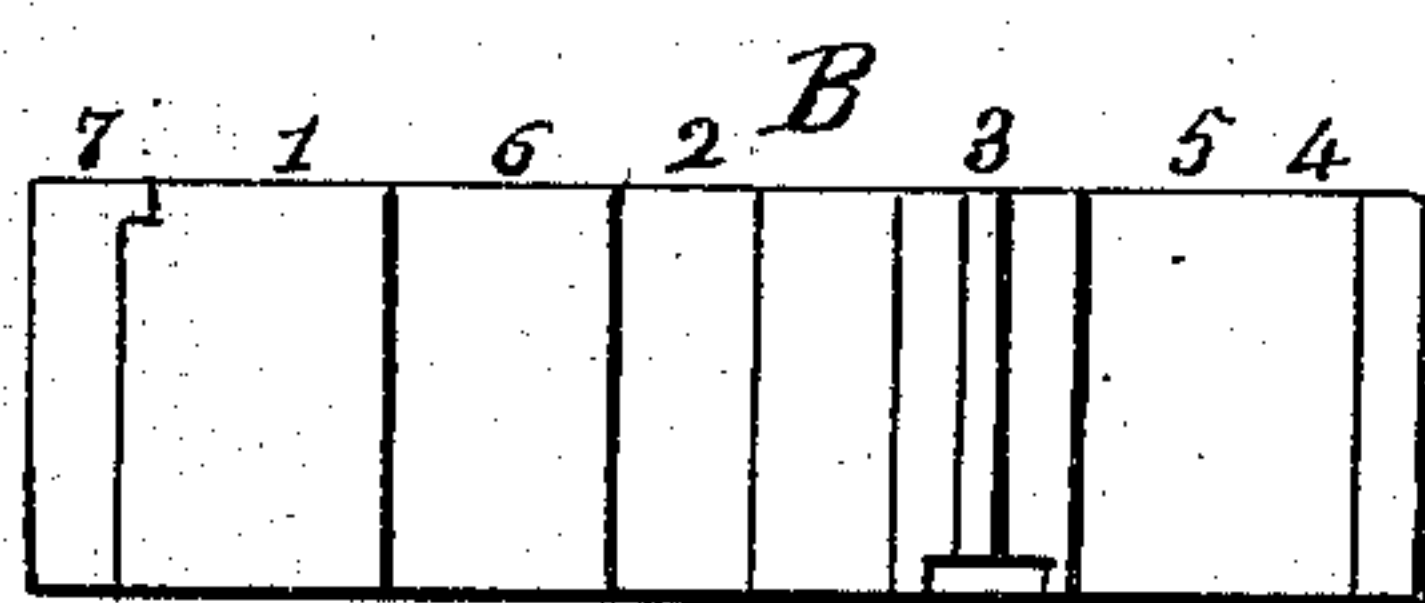


Fig. 6.

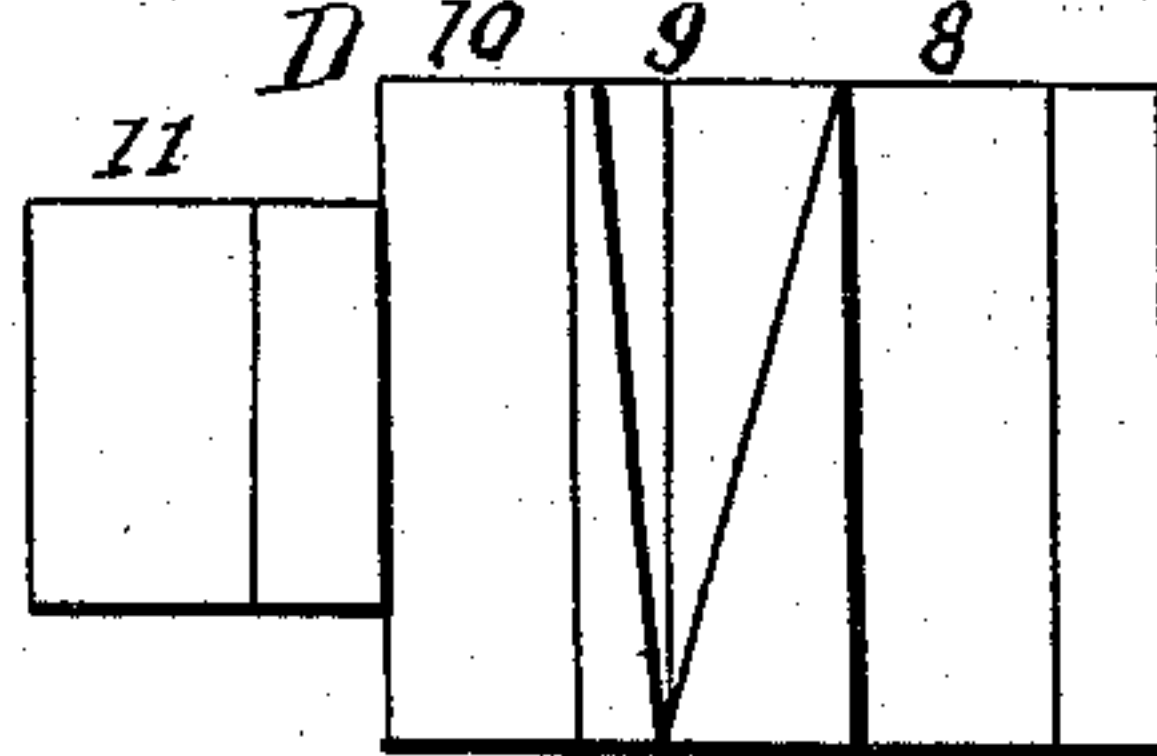


Fig. 9.



Fig. 8.

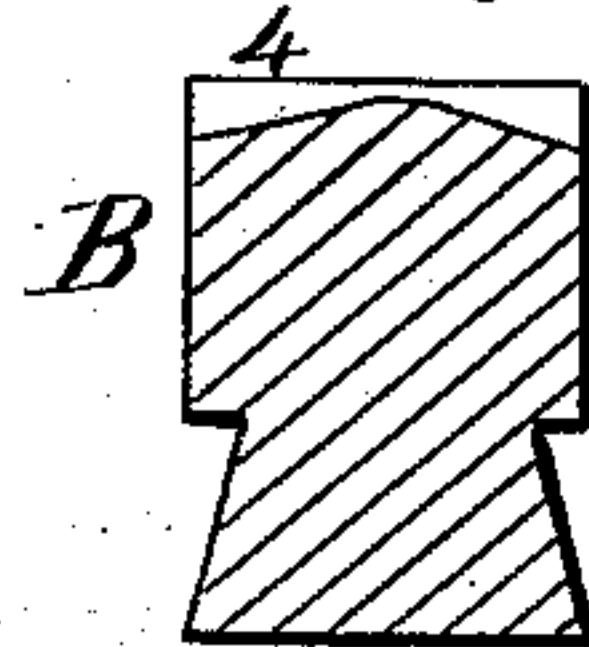


Fig. 10.

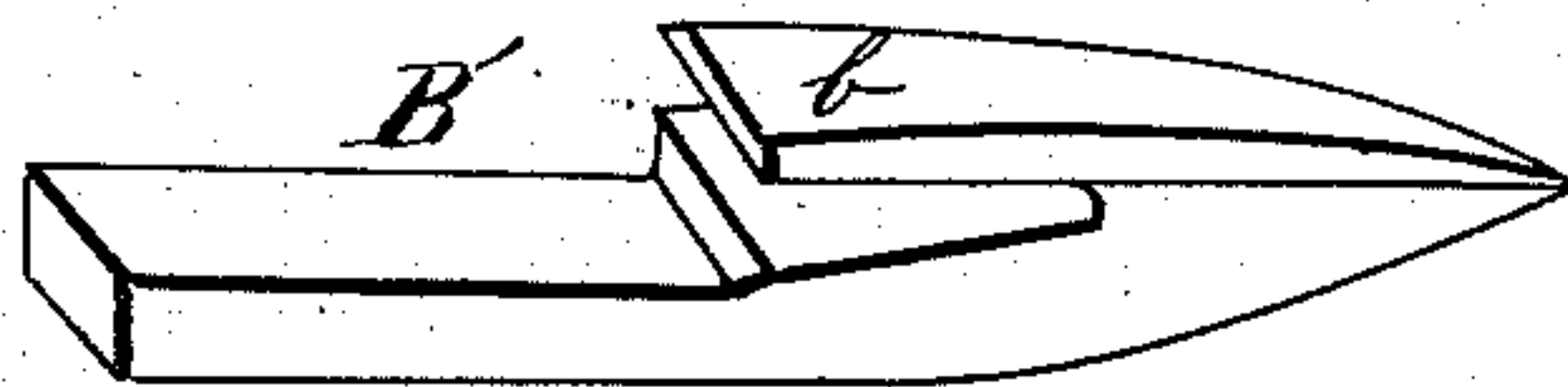
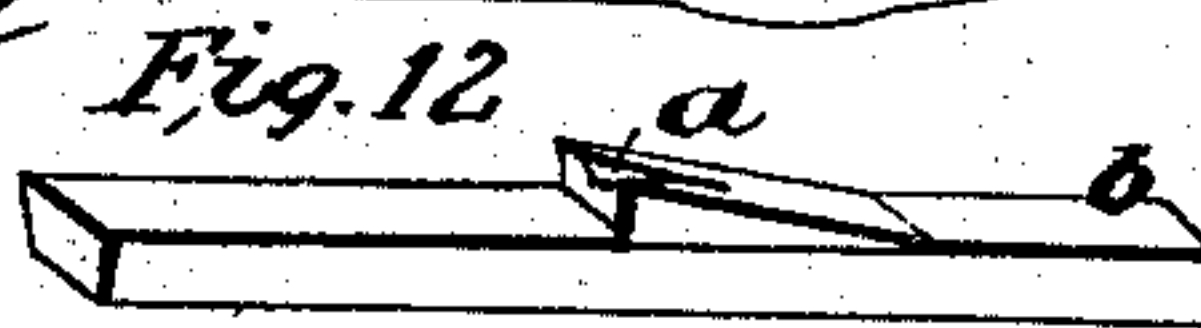


Fig. 11.



Fig. 12.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES H. SEIBERLING, OF DOYLESTOWN, (NEAR CHIPPEWA P. O.,) OHIO,
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IMPROVEMENT IN DIES FOR SWAGING HARVESTER-GUARDS.

Specification forming part of Letters Patent No. 158,810, dated January 19, 1875; application filed March 21, 1874.

To all whom it may concern:

Be it known that I, JAMES H. SEIBERLING, of Doylestown, (near Chippewa P. O.,) in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Dies for Making Guards of Harvesters, of which the following is a specification:

My invention consists of a new improvement in dies for making the guards of harvesters, which will be hereafter more fully described.

In the accompanying drawings, Figures 1 and 2 represent a side view of my improved dies or die-blocks. Figs. 3, 4, 5, and 6 are plan views of the working faces of the dies or die-blocks. Figs. 7 and 8 are vertical cross-sections of die-blocks; and Figs. 9, 10, 11, and 12 represent the guard itself.

To enable others to make harvester-guards by the use of my dies, the following description is given: The several dies are arranged transversely of the blocks A, B, C, and D, as seen in the drawings, and numbered from 1 to 11, the same figure being placed on the corresponding groove or die in both the upper and the lower block. But to be more particular, the bottom of dies or grooves 1, 2, and 3 of block A slope upward from front to rear, and the walls slightly converge toward the rear, in order thereby to impart the proper taper, as well as bevel, to the finger or harvester-guard. Of the corresponding dies or grooves in block B, the face of die 1 is plain and horizontal; die 2 is the same in shape, but reversed as in block A, and is similarly convergent, and die 3 is a surface non-convergent and flat or plain, except a rounded rib extending from front to rear.

The surfaces or walls of dies 4 and 5 of block B, and of die 4 of block A, approach each other, or converge from the front of the blocks to near their center, and also from the rear of the blocks to near the center, where the two opposing blocks nearly meet. But the surface of die 5 in block A is horizontal throughout, and is also extended in front beyond the main line of the block, as seen in Fig. 3 at groove 5. Die 6 (for shaping the lip of the finger or guard) has a plain horizontal surface in block A, except immediately in front, where

there is a notch to admit the shoulder of the blank from which the lip is drawn out. But the opposing surface of die 6 in block B is flat, and inclines from front to rear toward the block A. The rounded rib on the upper surface of die 3 in block B, Fig. 1, is designed to form the longitudinal groove in the steel cutting-face, as seen at *a*, Fig. 9, and a similar rib on the lateral wall of die 2 in block A is also used in shaping or preserving this groove while further shaping the blank, Fig. 9. Of die 7 the upper and lower walls diverge from front to rear, and are designed to swage or shape the two edges of the lip. Of die 8 the bottom and lateral walls in block C converge to a point at the rear, while the corresponding surface on block D is flat, and converges to a horizontal plane passing through the same point. The walls of die 9 are substantially alike on both blocks C and D. They converge from front to rear, and meet on the rear side of the blocks. In die 10 the upper and lower surfaces are both flat and incline, so as to meet each other at the rear side of the blocks. Die 11 is simply a rectangular notch or recess in or between both blocks C and D, the use of which, as well as all the other dies, will be well understood by those who are skilled in the manufacture of harvester-guards by the use of dies.

Take a piece of iron of suitable size and shape, as shown in Fig. 12 at *b*, and lay thereon a wedge of steel previously prepared, as seen at *a*, Fig. 12. Place these in the furnace, and take the first heat; then bring them between the dies A and B in groove 1, and thus weld the steel wedge in place upon the iron, after which the body of the guard is formed by using grooves 2 and 3, the concave on the face of the guard being formed in groove 3. Now, quickly pass to grooves 4, 5, 6, and 7, and thus draw out and form the lip of the guard, as shown at *b* in Fig. 9. Then, by the same heat, turn over the lip of the guards, as shown in Fig. 11. The guard is made thus far by a single heat, and very quickly. Secondly, take this blank 11, and with the second heat bring the blank between the dies C and D, and in grooves 8, 9, and 10 weld down the lip, and form the point of the guard, as shown in Fig.

10. The grooves 8 and 10 are also used for straightening the guard. Thus the guard is made ready for grinding, as shown in Fig. 10, by means of only two heats, and in a very short space of time.

The above description will enable those skilled in the art to make and use my improved dies.

I do not broadly claim the use of dies in the manufacture of harvester-guards; but I believe the above-described dies are new, and a great improvement in the manufacture of har-

vester-guards, and I may make some small change in the dies so long as they are substantially the same.

Having described my invention, I claim—

The improved series of dies herein described for making harvester-guards, substantially as set forth.

JAMES H. SEIBERLING.

Witnesses:

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