

W. H. Doane,  
Making Stares.

No 34,353,

Patented Feb. 11, 1862.

Fig 2.

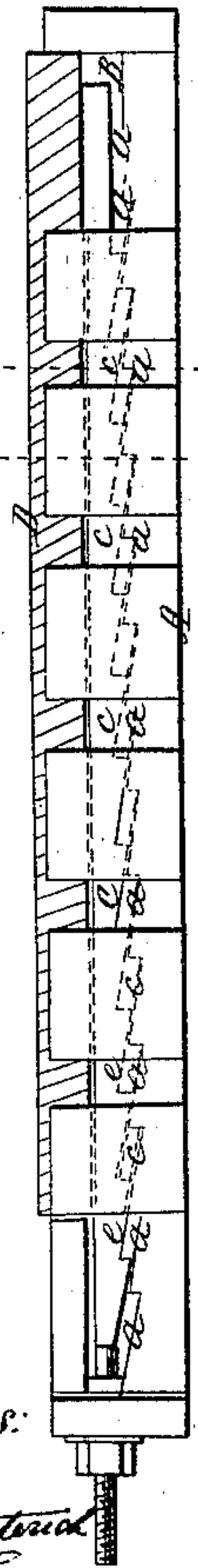


Fig 3.

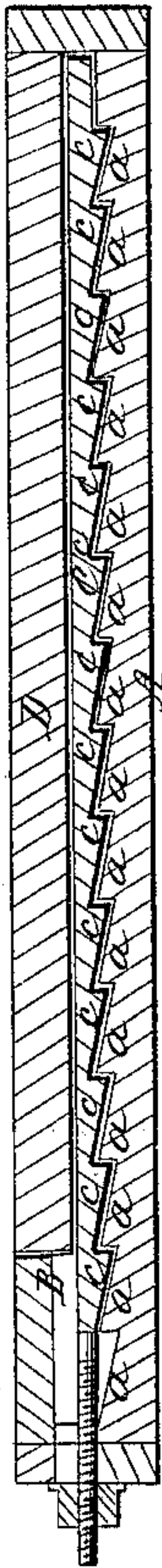


Fig 5.

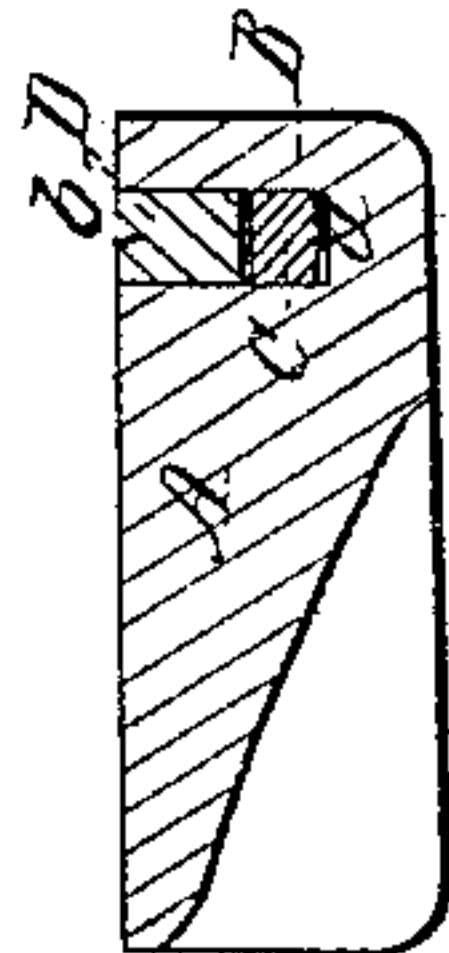


Fig 4.

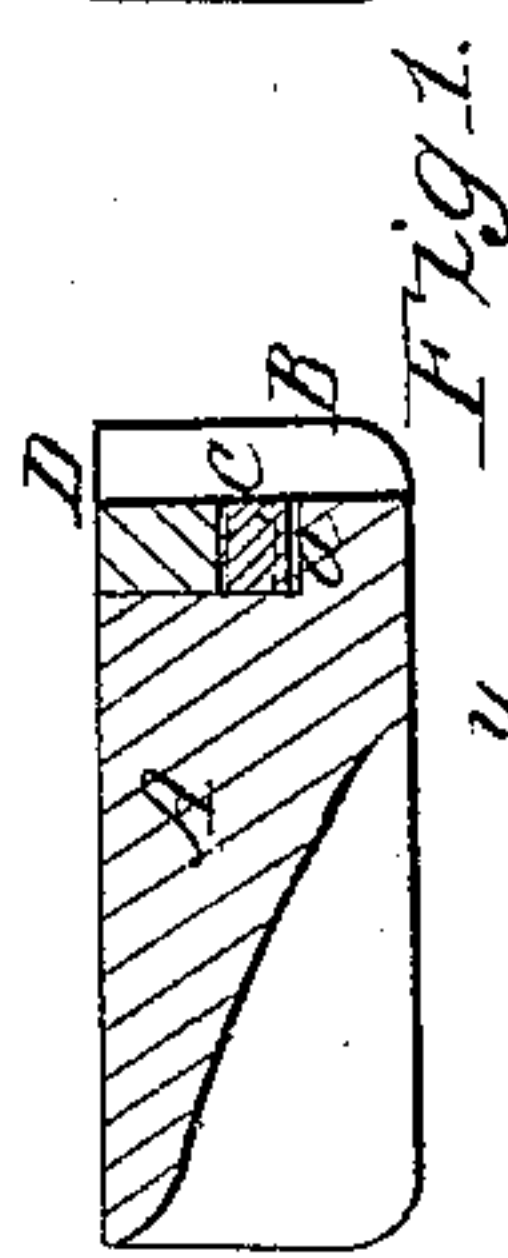


Fig 1.

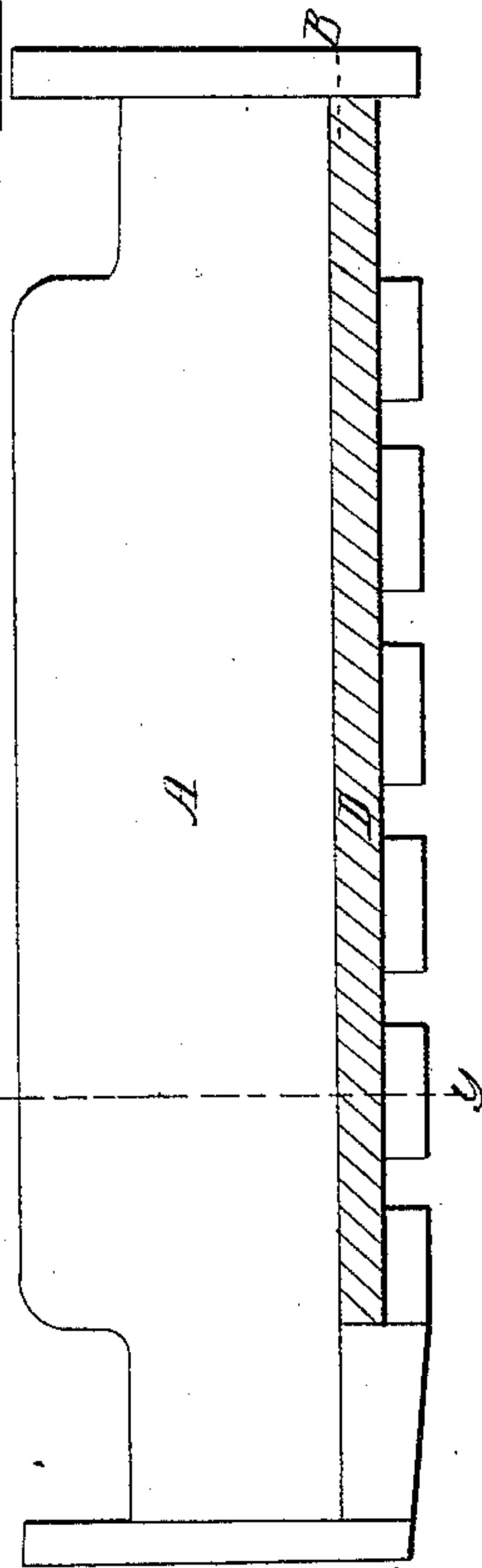
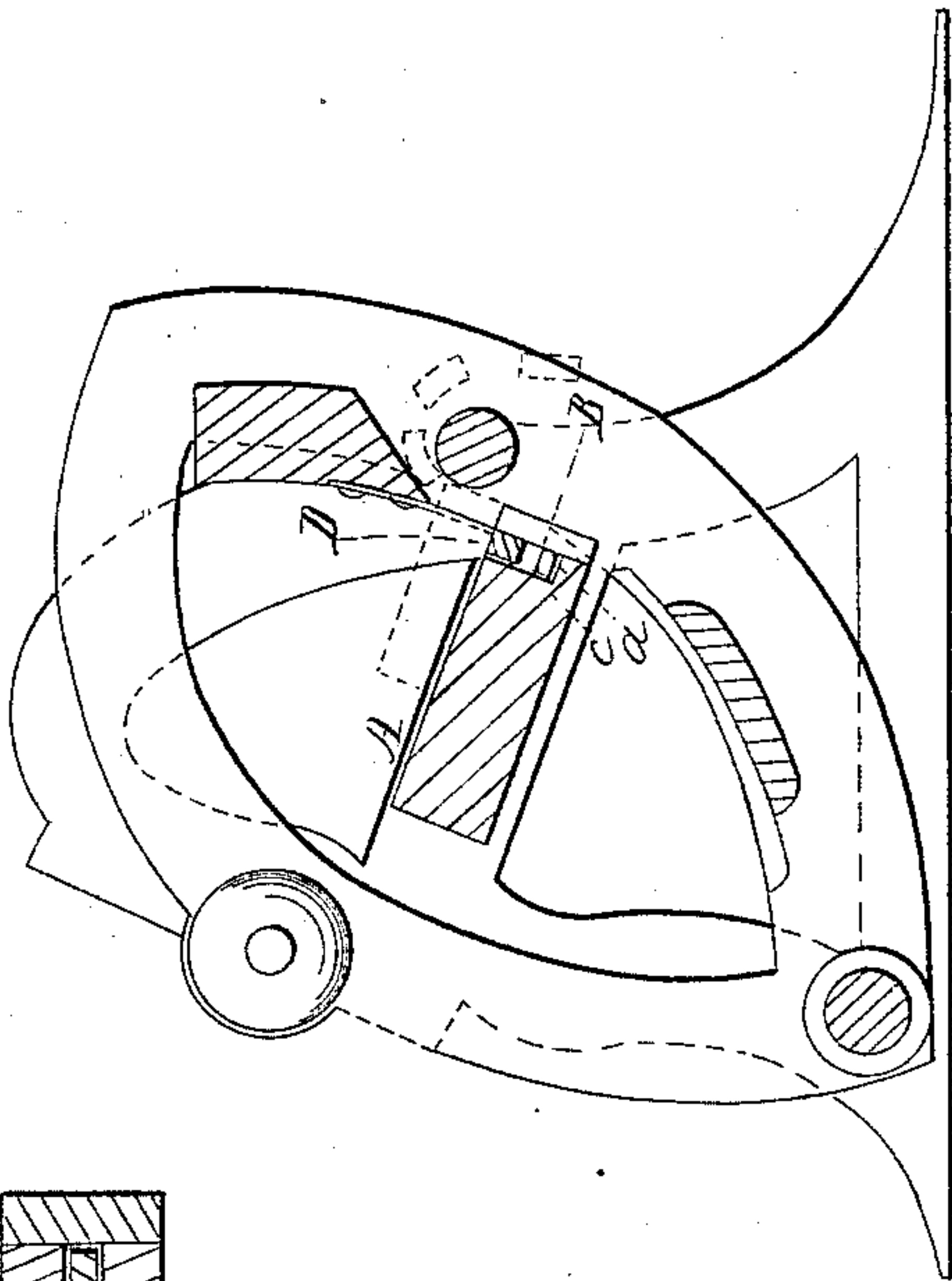


Fig 6



Witnesses:

Gustavus Detmold  
R. L. Cobbs.

Inventor:  
William H. Doane  
by his attorneys  
Robert W. Fenwick  
J. M. C. Lawrence



# UNITED STATES PATENT OFFICE.

WILLIAM H. DOANE, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN BED-PLATES OF STAVE-MACHINES.

Specification forming part of Letters Patent No. 34,353, dated February 11, 1862.

*To all whom it may concern:*

Be it known that I, WILLIAM H. DOANE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Bed-Plates of Stave-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top view of my improved bed-plate; Fig. 2, a rear edge view; Fig. 3, a vertical longitudinal section, and Figs. 4 and 5 vertical transverse sections of the same in the lines *y y* and *x x* of Fig. 1. Fig. 6 is a vertical section of the bed-plate as used in a stave-machine.

Similar letters of reference in each of the several figures indicate corresponding parts.

Before stating the nature of my invention I will remark that in all stave-cutting machines it is necessary to have some yielding substance for the knife to strike against to protect its edge, and also to cut the stave entirely off, and that my invention relates to the yielding or wearing portion of the bed-plate.

My invention consists in a stave-machine bed-plate, which is wrought or cast with a gutter having incline scarf notches in its bottom, in combination with a loosely-fitted wood or other pliable strip and an adjusting metal bar with scarf notches which incline in a reverse direction to those in the bed-plate gutter, substantially as hereinafter described.

The object of my invention is to obviate the necessity of providing a new wearing-strip when a V crease or incision of such depth as interferes with the effective operation is formed in the strip, my invention providing for the convenient and accurate level adjustment of the wearing-strip along its whole length, so that it may be planed off below the base of the crease or incision and level with the top of the bed-plate as often as may be necessary and deemed proper before substituting a new one. It is very essential to thus plane off the wearing-strip when from long use it has had a deep V-shaped crease or incision made in it, as such an incision renders the operation of the knife ineffective, the wood near the base of the

stave-block breaking over the incision before the knife gets through or cuts off the stave entirely with a clean cut.

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

A is the bed-plate, of ordinary form externally. It is cast with a gutter B in its upper side near its rear edge. The bottom of the gutter has inclined scarf notches *a a* cast in it, as shown in Fig. 3.

C is a cast or wrought iron bar with reversely-inclined scarf notches *c* on its under side. This bar fits in the gutter, and its notches just match those at the bottom of the gutter, and rise and fall longitudinally over them. One end of this bar is turned around and has a screw thread cut on it to receive a nut. The screw-threaded end protrudes through the frame, so that the adjustment of the bar may be conveniently effected.

D is the wood or other yielding strip, arranged snugly but freely in the gutter on top of the bar C, as shown in Figs. 3, 4, and 5. The top of the strip when in use, as shown in Fig. 6, is level with the bed-plate along its whole length.

It is obvious that if the knife repeatedly strikes the strip D, which it must do in cutting the staves entirely from a bolt, the strip will have an incision, such as shown at *b*, Fig. 5, cut in it. This incision in time grows larger and the knife breaks the wood near the base of the "bolt," rather than cutting through it with a clean cut, as it would did not the slit or incision exist in the strip. To remedy this difficulty, the nut at the end of the bar C is turned so as to move the bar C longitudinally. Thus moving the bar causes its incline notched portions to move over the inclined notched portions of the bottom of the gutter, and as the inclines oppose each other the bar of necessity rises, and as it rises elevates the wood strip D, as illustrated in Fig. 2. When the strip has thus been elevated level along its whole length above the top surface of the bed-plate, a plane is applied to it until it is planed down even with the bed-plate and all traces of the incision are destroyed. The operation of cutting the staves may now be proceeded with. It should have been stated that neither the bed-plate nor the strip require to

be removed from the machine, it simply being necessary to elevate the knife during the adjusting and planing operations. The strip is thus adjusted and planed off at such periods as may be necessary until it is worn out.

With my improvement all trouble and difficulty are overcome, and one strip of yielding material is made to last a considerable length of time.

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

A stave-machine bed-plate A, with a gutter B, and incline scarf notches *a a*, in combination with a loosely-fitted wood or yielding strip D, and an adjusting-bar C, with inclined scarf notches *c* on its under side, substantially in the manner and for the purpose herein described.

WILLIAM H. DOANE.

Witnesses:

C. C. T. BOGUE,  
C. D. WOLF.