

W. S. Colwell.
Stave-Machine.

N^o 73505

Patented Jan. 21, 1868.

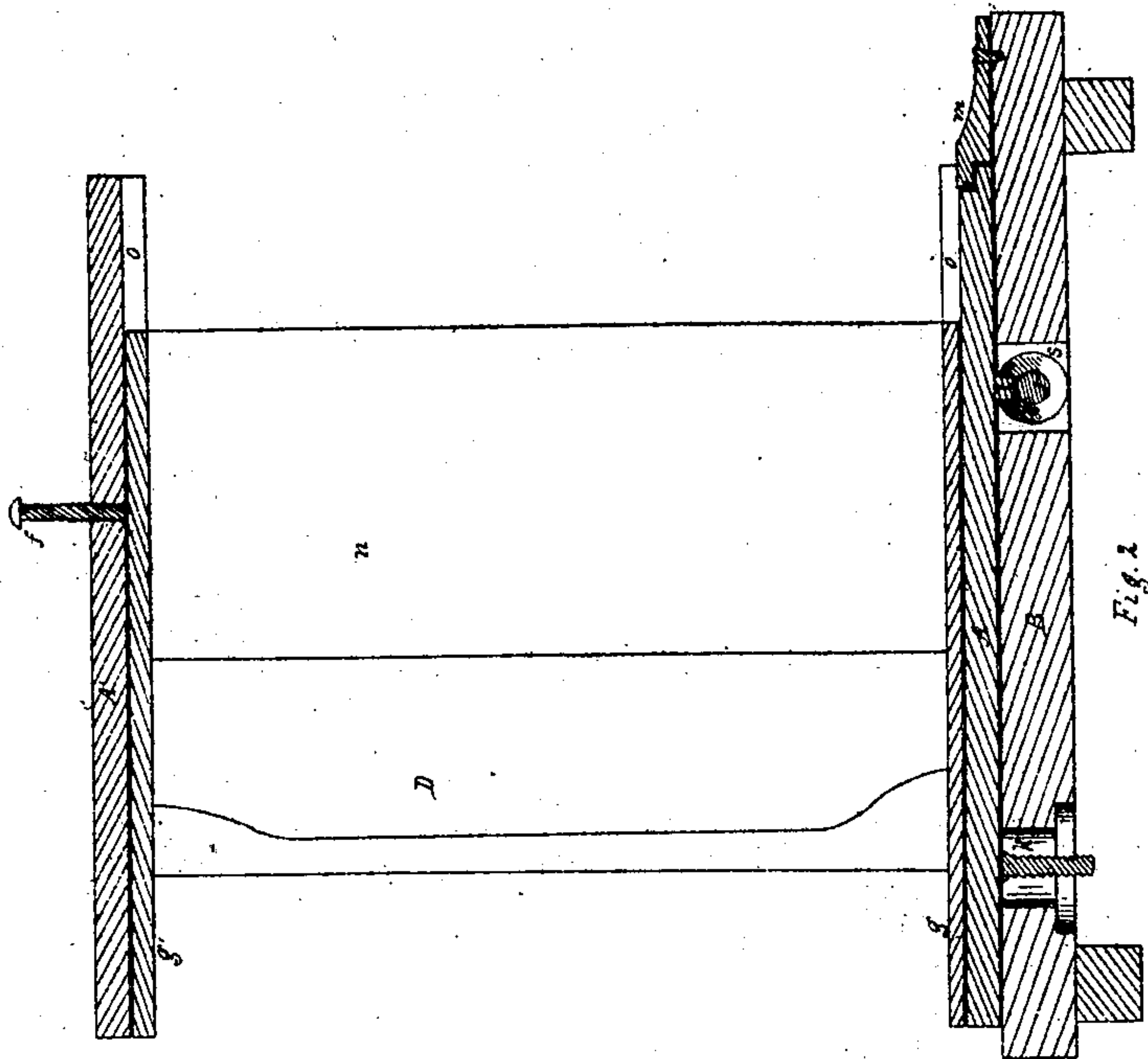


Fig. 2

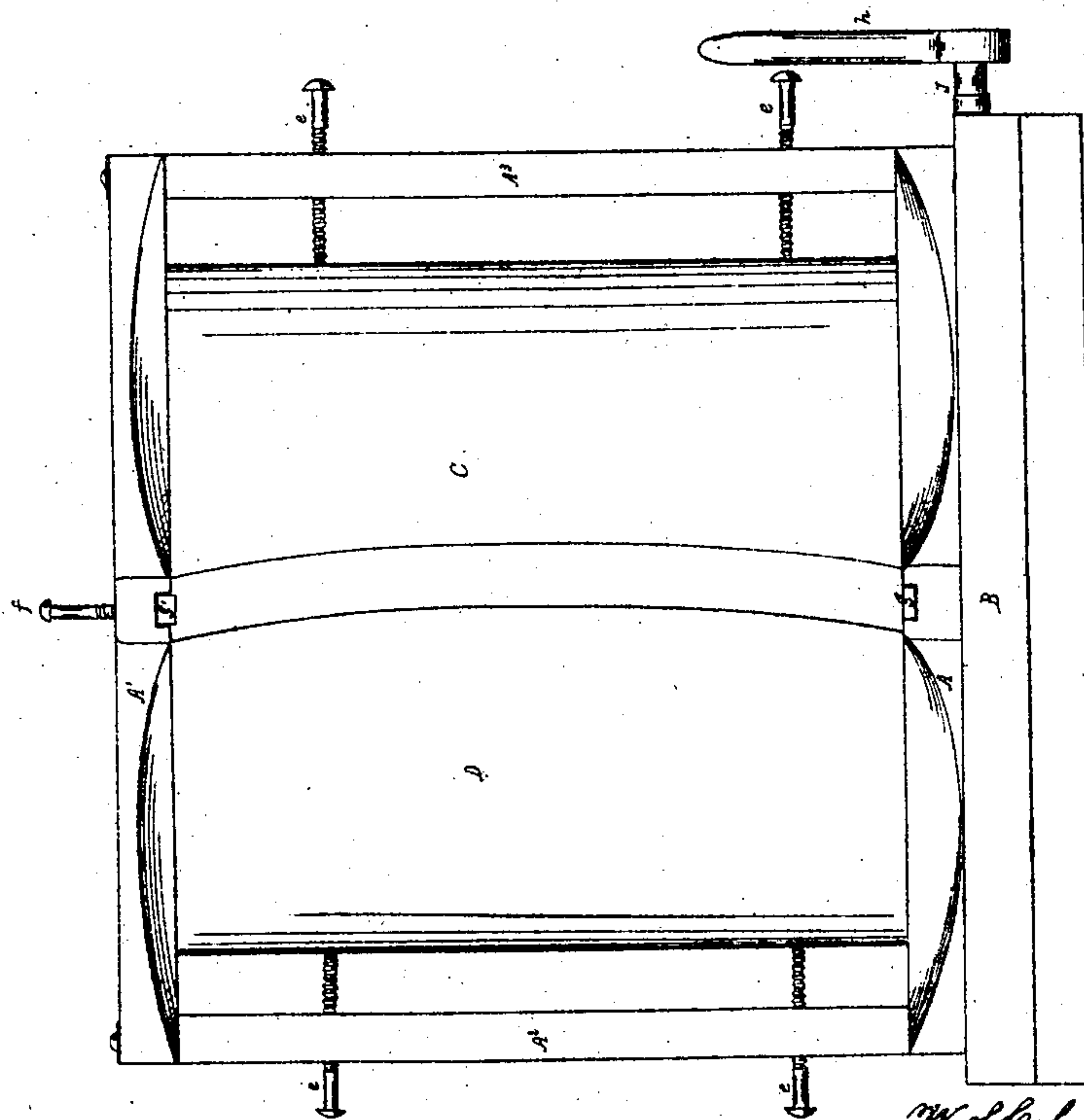


Fig. 1

Witnesses

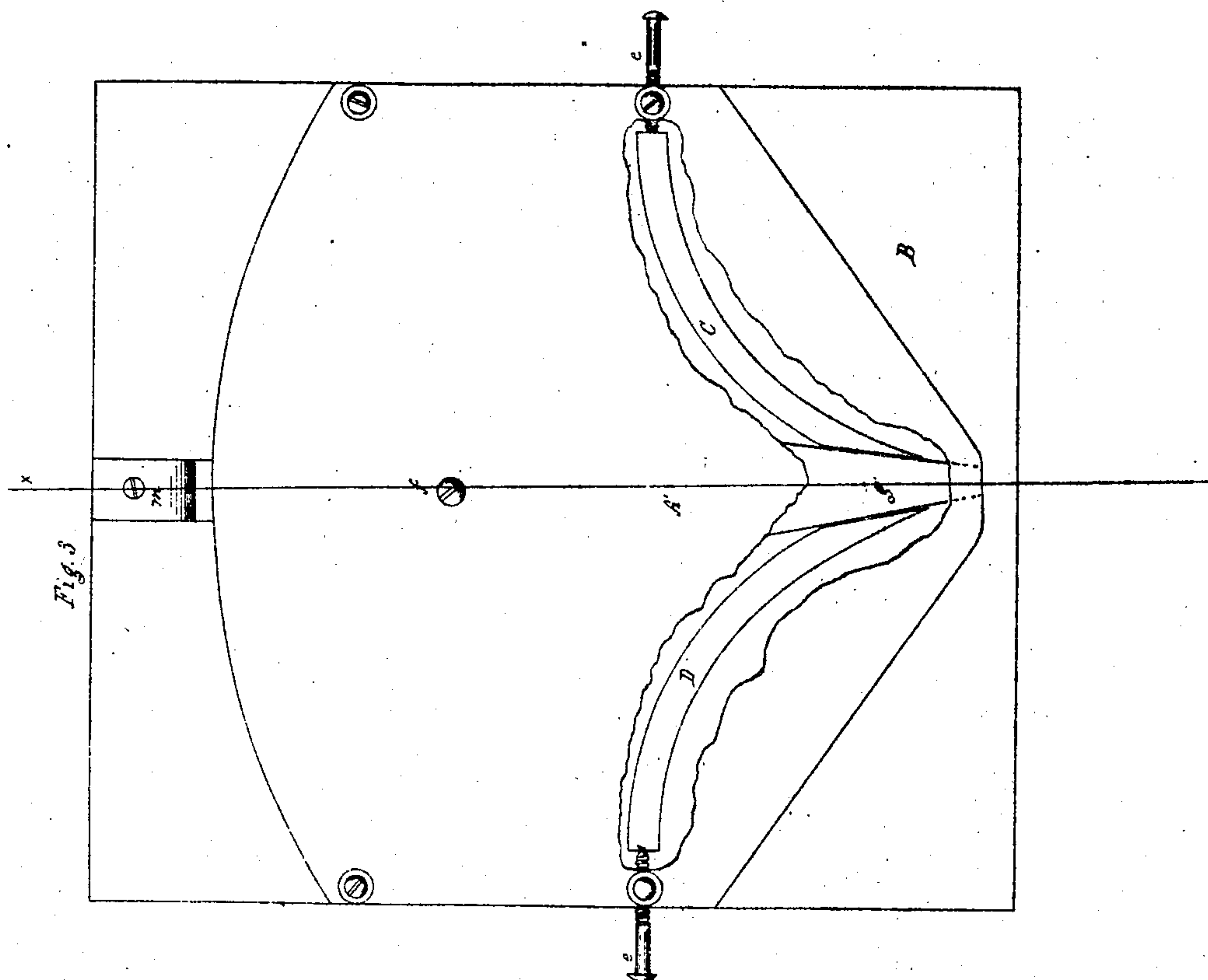
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Letters Patent No. 73,505, dated January 21, 1868.

IMPROVEMENT IN STAVE-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM S. COLWELL, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Cutting-Head for Stave-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in pivoting the cutting-head of a stave-machine, so that the point of pivot shall be on a plane with the cutting-edges of the knives, said cutting-head, with its pivot and knives, being constructed, arranged, and operating in the manner hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation. In the accompanying drawings, which form part of my specification—

Figure 1 represents a front elevation of my improvement in cutting heads for stave-machines.

Figure 2 is a section of the same cut through the line *z*.

Figure 3 is a top view of my improved cutting-head for stave-machines.

Figure 4 is a top view of the hollow wedge used for holding the knives in a fixed position.

The heads, which consist of the bottom piece *A*, top piece *A'*, and side pieces *A²* and *A³*, are provided with a pivot, *k*, which is fitted to an opening in the base-plate, marked *B*. On the back part of the plate *A* of the cutting-head is a pin, *i*, which is fitted in between the threads of the endless screw *J*, which is placed in a recess marked *S*, in the base-plate *B*. The bottom plate *A* and the top plate *A'* are provided with recesses, *O*, which serve as guides for the hollow wedge, which consists of side pieces *n*, bottom piece *g*, and top piece *g'*. (The form of the pieces *g* and *g'* is shown in fig. 4, sheet B.) The cutting-knives are of the form of a section of a tube or hollow cylinder; (the concave face of the knives face the work.) The cutting-edge of the knife *C* is made concave, and the cutting edge of the knife *D* is made convex. The manner of constructing the knives is clearly set forth in an application for Letters Patent which accompany this application. The ends of the knives *C* and *D* are fitted to grooves or recesses made in the plates *A* and *A'* of the cutting-head. The knives are adjusted and held in the desired position by means of the set-screws *e* and the hollow wedge, which is held in its proper position by the set-screw marked *f*. The back part of the cutting-head is held down by means of the piece *m*.

The operation of my improved cutting-head is as follows: Having adjusted the knives *C* and *D*, so that the desired space, *z*, between the knives will correspond to the thickness of the stave desired, the unformed and unshaved stave is forced against the cutting-edges of the knives in the usual manner, and by any known means. The cutting-edges of the knives are made to follow the desired line of the plane of the stave by turning the cutting-head on its pivot *k*, by means of the lever *h*, screw *J*, and pin *i*. By pivoting the cutting-head in the manner described, and moving the back part of it in the manner and by the means set forth, the cutting-edges of the knives are, with ease and certainty, controlled by the operator.

Having thus described the nature, construction, and operation of my improvement, what I claim as of my invention, is—

The hollow wedge, constructed as herein described, and used in connection with the knives *C* and *D* and set-screws *f* and *e*, in the manner and for the purpose herein set forth.

W. S. COLWELL.

Witnesses:

JAMES J. JOHNSTON,
A. B. CATE.