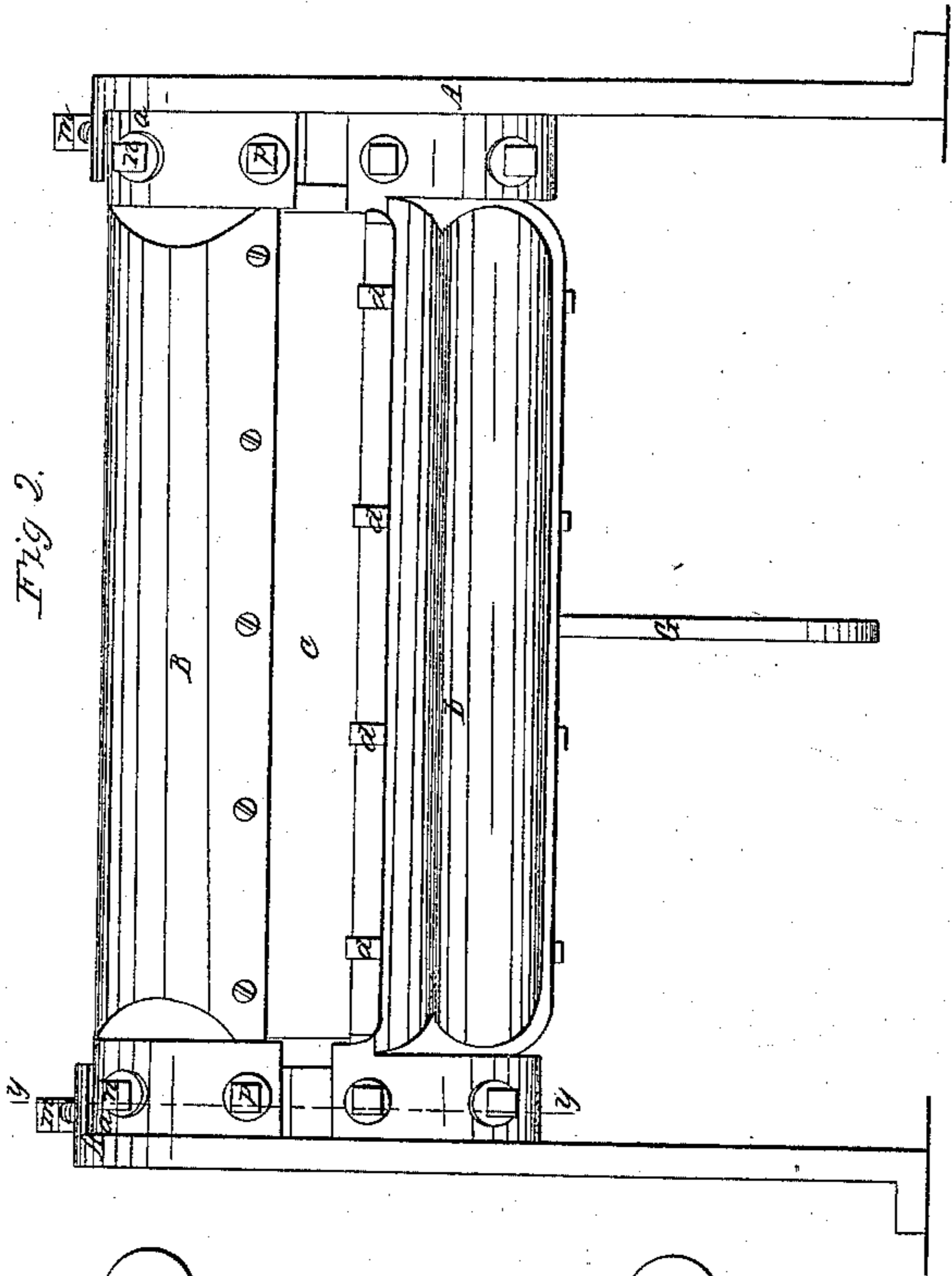


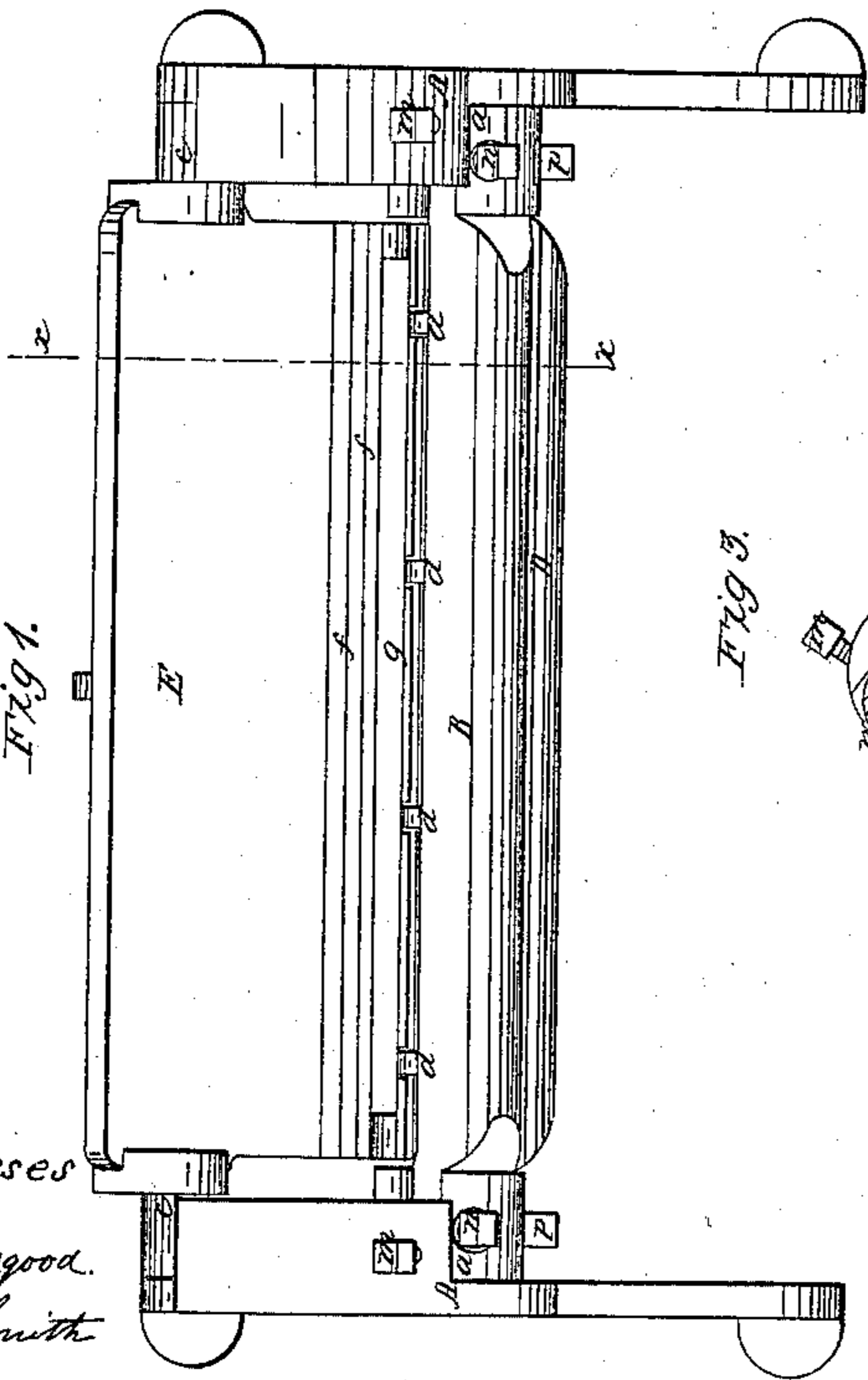
*W. Sisson,*  
*Making Staves.*

*N<sup>o</sup> 33,370.*

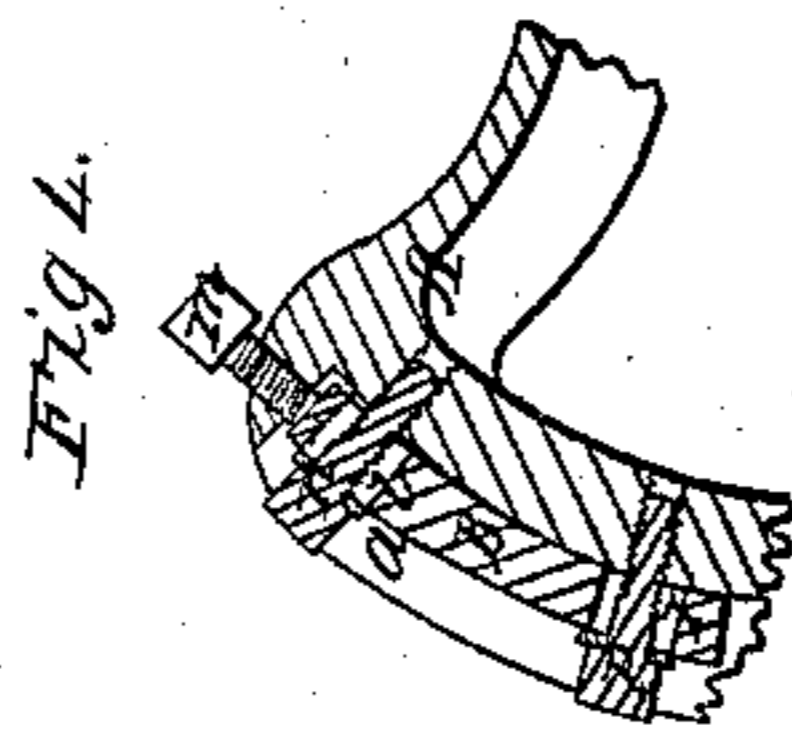
*Patented Sep. 24, 1861.*



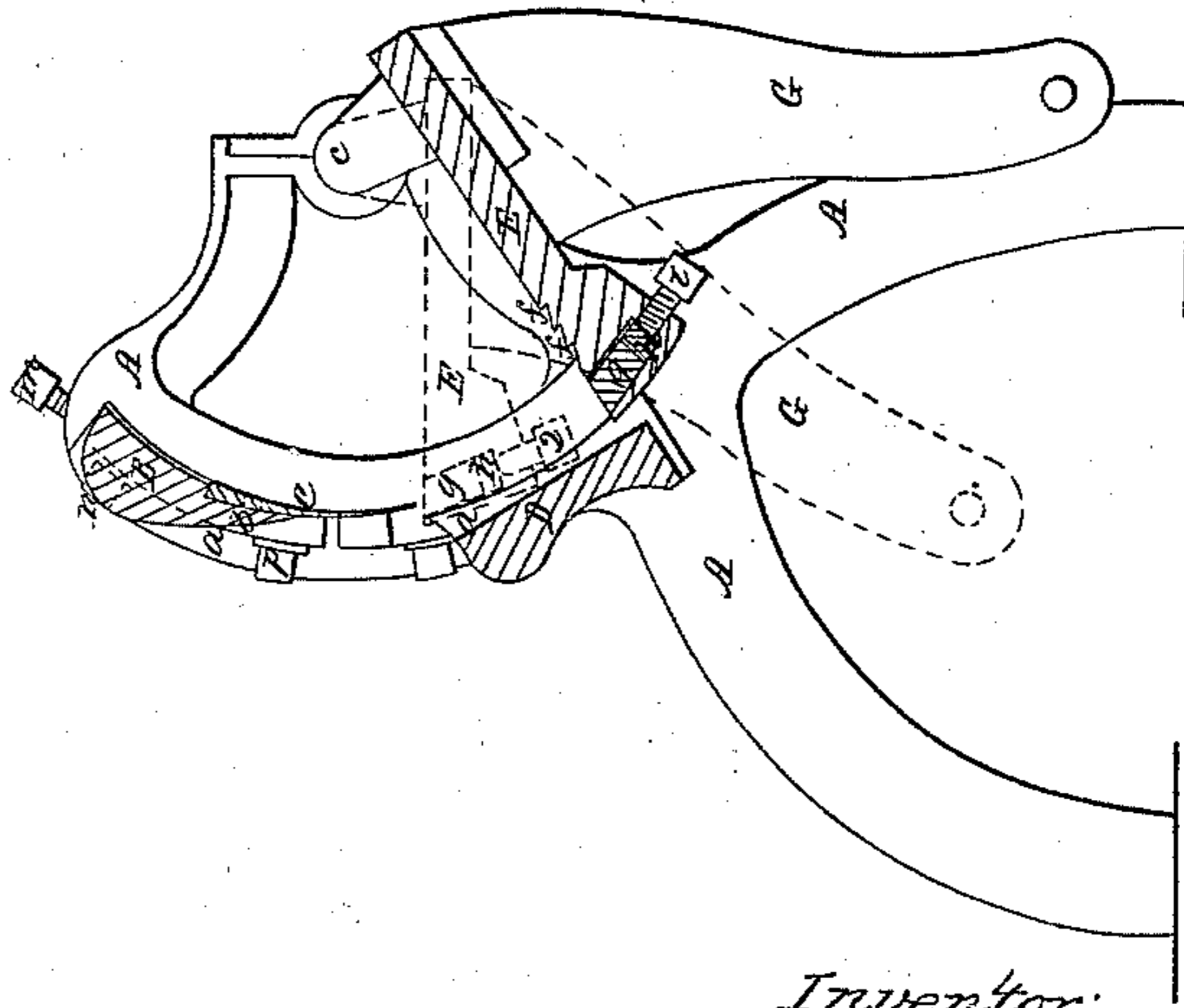
*Fig 2.*



*Fig 1.*



*Fig 4.*



*Fig 3.*

*Witnesses*  
*R. F. Cogood.*  
*E. N. Smith*

*Inventor:*  
*William Sisson*  
*By his attorney*  
*J. S. Brown*

# UNITED STATES PATENT OFFICE.

WILLIAM SISSON, OF FULTON, NEW YORK.

## IMPROVEMENT IN STAVE-MACHINES.

Specification forming part of Letters Patent No. 33,370, dated September 24, 1861.

*To all whom it may concern:*

Be it known that I, WILLIAM SISSON, of Fulton, in the county of Oswego and State of New York, have invented a new and Improved Machine for Cutting Staves from the Bolts; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a plan of the machine; Fig. 2, a rear elevation thereof; Fig. 3, a transverse vertical section of the same in the plane indicated by the line *x x*, Fig. 1; Fig. 4, a partial section in the plane indicated by the line *y y*, Fig. 2.

Like letters designate corresponding parts in all the figures.

The frame is composed of two strong end stands A A, generally of cast-iron and of suitable shape to answer the purpose intended. These end stands are connected by the knife-stock B and the guide bar or plate D, which are firmly bolted thereto at the ends. In the front parts of the end stands also are pivoted the journals *c c* of the vibratory bed E, substantially as represented.

The knife C is stationary, and is firmly secured to the knife-stock B by screws *b b* or otherwise. The inner surface of the knife and of its stock is nearly or exactly concentric with the journals *c c*, the centers on which the bed E vibrates. The knife-stock B is peculiarly attached to the end frames A A, so that the edge of the knife may be adjusted accurately down to the work as it wears away by use, and still be held firmly to the work without deranging the concentricity of the knife with the center of the bed's motion. There are notches *a a* in the end frames or stands A A, so formed as to have the interior surface of the knife-stock fit over concentric or nearly concentric flanges and have flanges above at the upper edge for receiving the screws *m m* to adjust the knife-stock edgewise. There are two other adjusting-screws *n p* for each end of the knife-stock. These extend through oblong slots *l r*, Fig. 4, in the knife-stock, so as to allow the edgewise adjustment effected by the screws *m m*. The whole arrangement is most clearly shown in Fig. 4. Thus the screws *m m* serve to adjust the edge of the knife down to the desired po-

sition. Then the screws *p p* are tightened, so as to hold the edge of the knife very securely in its place, and finally the screws *n n* are tightened till the stock is firmly fastened to the frame.

The vibratory movement is communicated to the bed E by a connecting-rod or pitman jointed to the projecting bar G of the bed. The extent of vibration should be sufficient to cut the widest staves required to be made, about as in the two positions indicated in Fig. 3. The back side or edge of the bed is notched, so as to pass over a set of rib-guides *d d*, projecting from the front side of the guide bar or plate D. The form and position of the rib-guides are concentric with the movement of the bed E, which vibrates over them. They present smooth and narrow surfaces for the stave bolt or block to rest against, while the open spaces between them and behind the bed E allow all splinters and chips to fall through and escape without clogging the machine.

The upper surface of the bed, whereon the bolts or blocks rest, is generally notched or furrowed, as at *f f*, so as to prevent their slipping from their proper position. Along the line where the bed comes in contact with the edge of the knife C a deep groove is made in the bed. Within this groove at the bottom is placed an iron or other strong plate or bar *h*, Fig. 3, and upon this is placed a strip or strips of wood *g*, so as to fill the groove to the surface of the bed and have the ends of the grains at the top for the knife C to cut against. Beneath the bar or plate *h* is a suitable number of adjusting-screws *i i* to support it firmly throughout its whole length. Then as the surface of the wooden strip *g* becomes too much chopped or worn away the screws *i i* are turned so as to drive the strip upward, to be planed off and present an unimpaired surface to the knife. This is repeated as often as necessary or desirable, and when one strip of wood is worn away another is inserted in its stead.

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

1. The rib-guides *d d*, arranged in combination with the bed E, substantially in the manner and for the purpose specified.

2. The employment of the strip or strips *g*

of wood inserted with the ends of the grains upward in a groove of the bed, upon and in combination with a firm supporting-bar *h*, which is adjustable up and down by set-screws *i i* or their equivalents, substantially as and for the purpose herein specified.

In witness that the above is a true speci-

cation of my improved stave-machine I hereunto set my hand this 2d day of November, 1859.

WILLIAM SISSON.

Witnesses:

PHILIP HART,

O. O. SHUMWAY.