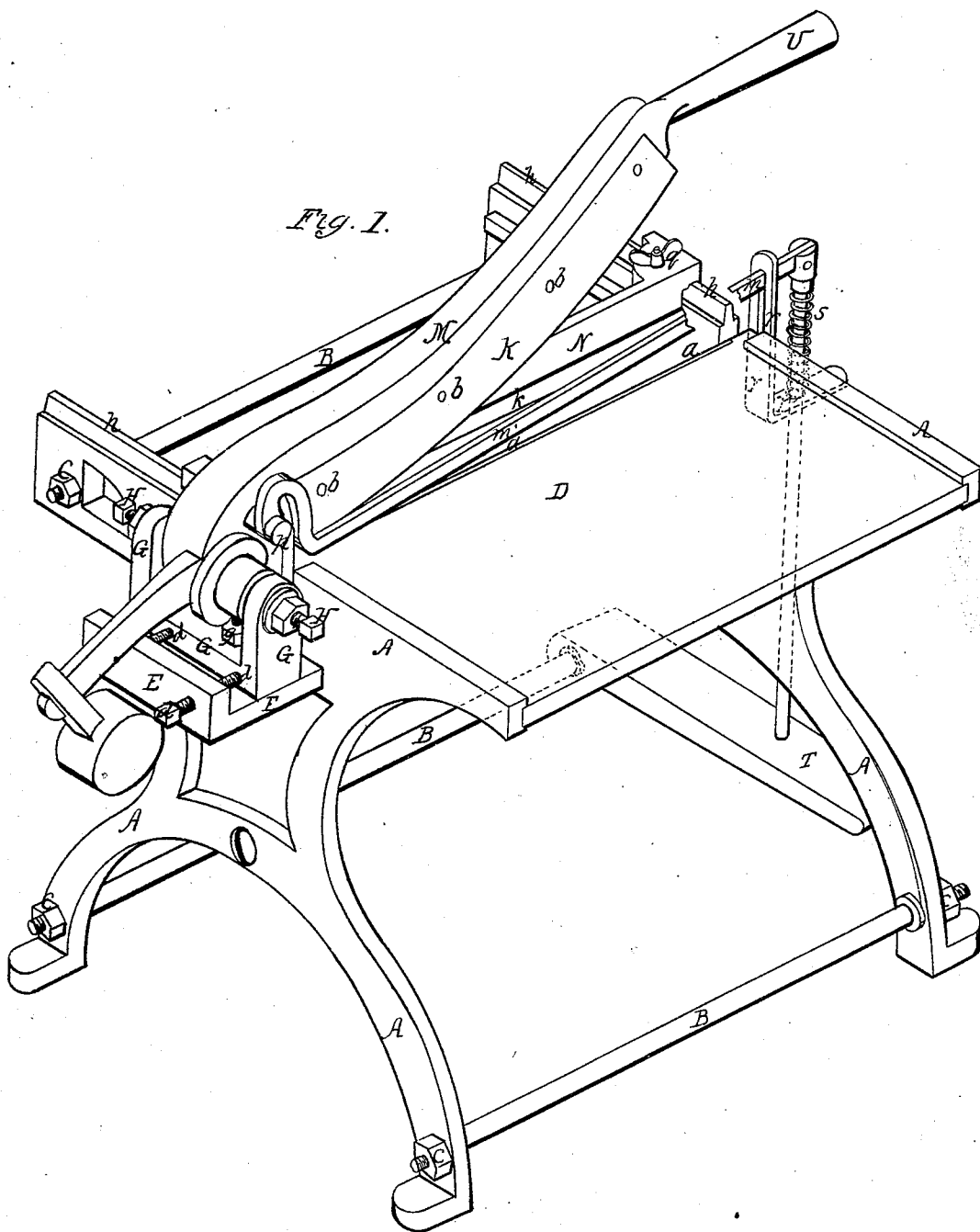


J. Toulmin. Sheet 1 of 2 Sheets.
Book Binders' Shears.
Nº 18,065. Patented Aug. 25, 1857.

Fig. 1.



J. Toulmin. Sheet 2. of 5.
Book Binders' Shears.
No. 18065. Patented Aug. 25, 1857.

Fig. 2.

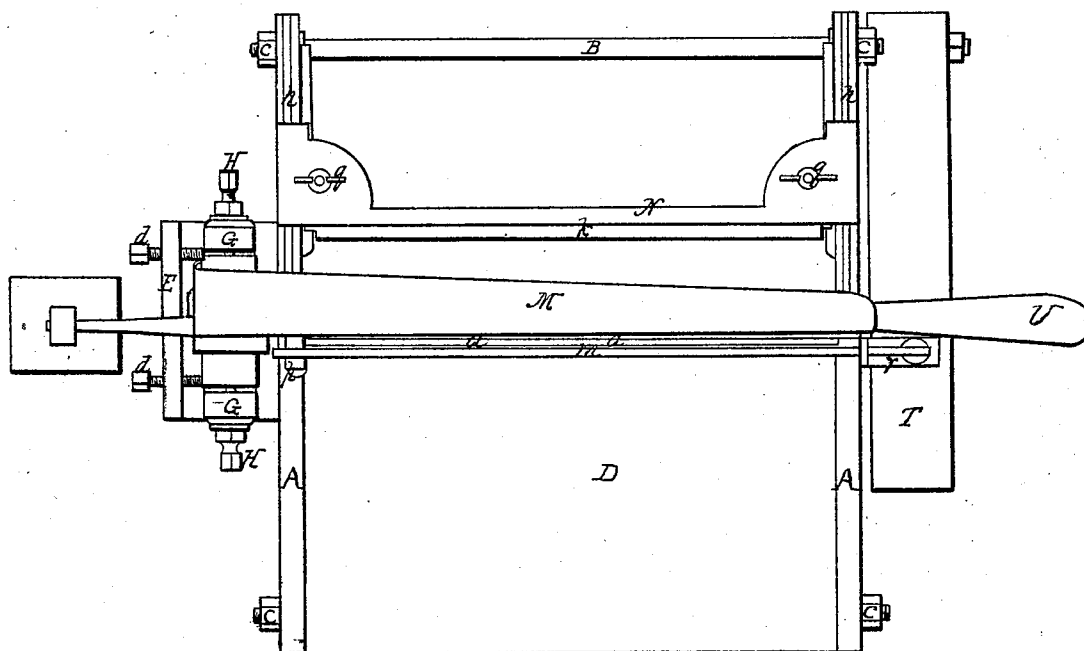
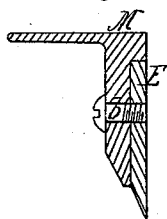


Fig. 3.



UNITED STATES PATENT OFFICE.

JOHN TOULMIN, OF NEW WORCESTER, MASSACHUSETTS.

VIBRATING SHEARS.

Specification of Letters Patent No. 18,065, dated August 25, 1857.

To all whom it may concern:

Be it known that I, JOHN TOULMIN, of New Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Vibrating Shears for Bookbinders or for Cutting Bank-Notes, Paper, or other Material; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of the frame table and shears, with the movable part raised. Fig. 2 represents a top view of the entire apparatus. Fig. 3 represents a cross section through the movable blade.

The nature of my invention consists in the manner of hanging the movable blade of a pair of shears, so that the position of said blade can be adjusted with the greatest accuracy, whereby the shears can be constantly kept in good cutting order.

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

A, represents the frame of the machine the two parts of which are rigidly connected by means of rods B, and nuts C. The frame serves to support a table D, on which the paper to be cut is placed, and to the inner end of which the stationary cutting blade *a* is secured.

E represents a bracket formed on the outside of one of the frames A, which serves to support the pillar block G, and the pillar block is secured to said bracket by means of screw bolts and nuts *g*, the screw bolts passing through slots in the bottom plate of said pillar block. The points of the center screws H, which pass through the uprights of the pillar block G, serve as bearings for the movable lever M, to which the blade K, is secured and the lever and blade can be vibrated on said bearings, which together with the stationary blade *a* constitute the shears for cutting paper or other material; the blade K is secured to the lever or back M by means of screws *b*, in the manner represented in Fig. 3. The lever M together with blade K, can be adjusted in two different directions. By unscrewing the nuts *g*, the pillar block G, rests loosely on the bracket E, and by operating the set screws *d* the position of the pillar block together with lever M, and blade K, can be adjusted with the greatest accuracy so as to

set the blades K and *a* in proper shearing position. The pillar block G being again firmly secured to the bracket E, by tightening screw nuts *g*, the blade K, can now be brought up close to blade *a* by operating the screws H, to the points of which the lever M, is hung. Thus it will be seen that the cutting blades of these shears can be readily set should they come apart by constant use or grinding.

N, represents a slide gage which can be moved on the rails *h*, and which can be secured to the frame in any desired position by means of the clamping screws *q*; the front part *k*, of said gage serves to support the outer edge of the paper to be cut; *m* represents a clamp bar which is pivoted to the bracket at *p*, and which is retained in an elevated position by the action of spiral spring *s*, the lower end of which rests on the horizontal foot of piece *r* while the upper end bears against the end of the bar *m*.

In using these shears the paper or material to be cut is placed upon the table D, and under the clamp *m*, and the gage N, being adjusted and secured in the proper position by screws *q*, the edge of the paper is brought up to the gage N, and by depressing treadle T, which is pivoted to rod B, the rod *m* is forced down clamping the paper on the table, and the paper can now be cut by operating the shears by means of handle U.

Should the movable blade K, require more or less inclination to the stationary blade or more or less shear as it is termed:— It can be done by the devices herein described, without cramping or twisting any of the journals, and the motion of the traveling blade is as free under such an adjustment, as though it were parallel with the stationary blade.

Having thus fully described the nature of my invention, what I claim therein as new and desire to secure by Letters Patent is—

Hanging the movable blade of a pair of shears by two adjustable center pivots upon an adjustable pillar block substantially in the manner described, and for the purpose of so adjusting the movable blade of said shears as to give it the most effectual shearing position in relation to the stationary blade as set forth.

JOHN TOULMIN.

Witnesses:

P. C. BACON,
HENRY BACON.