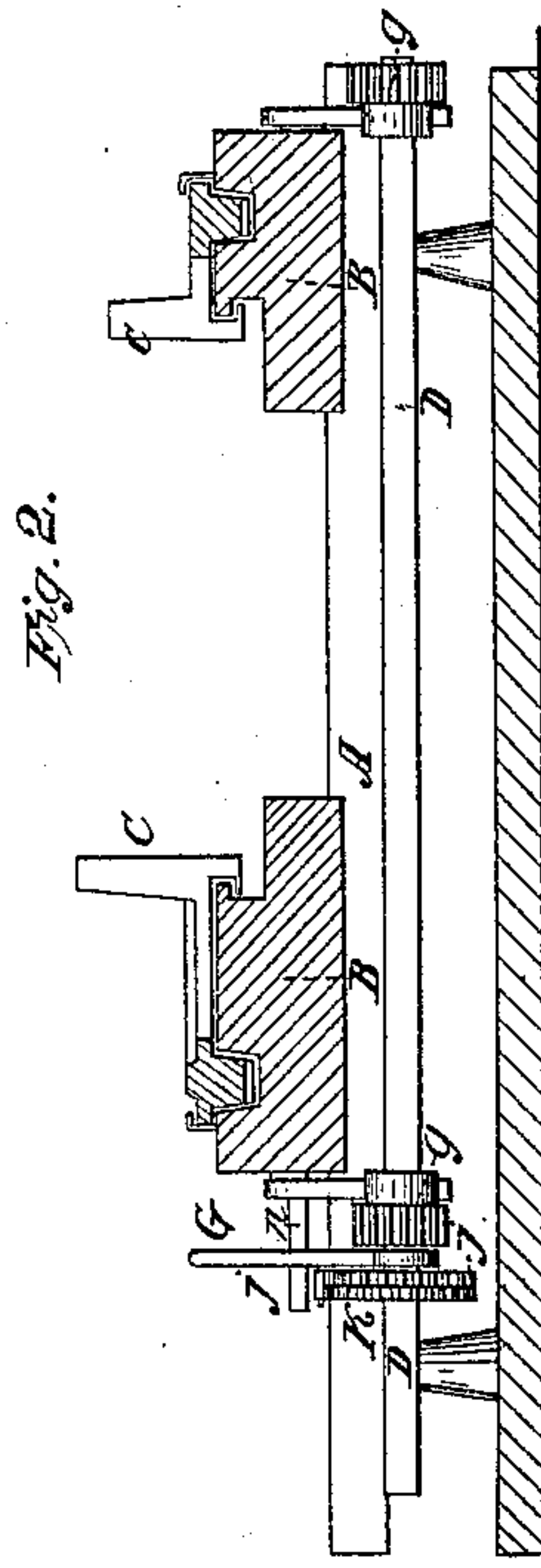
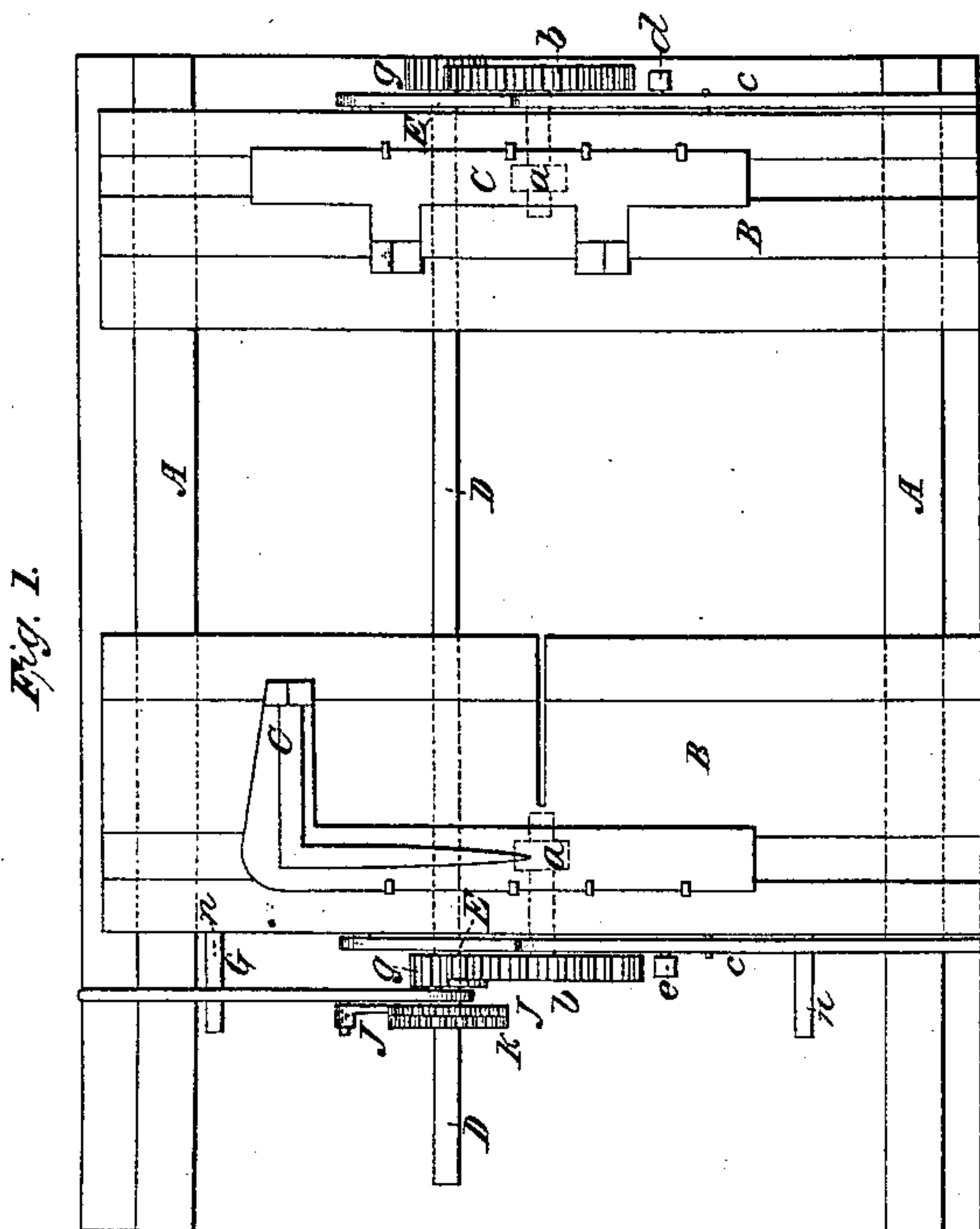
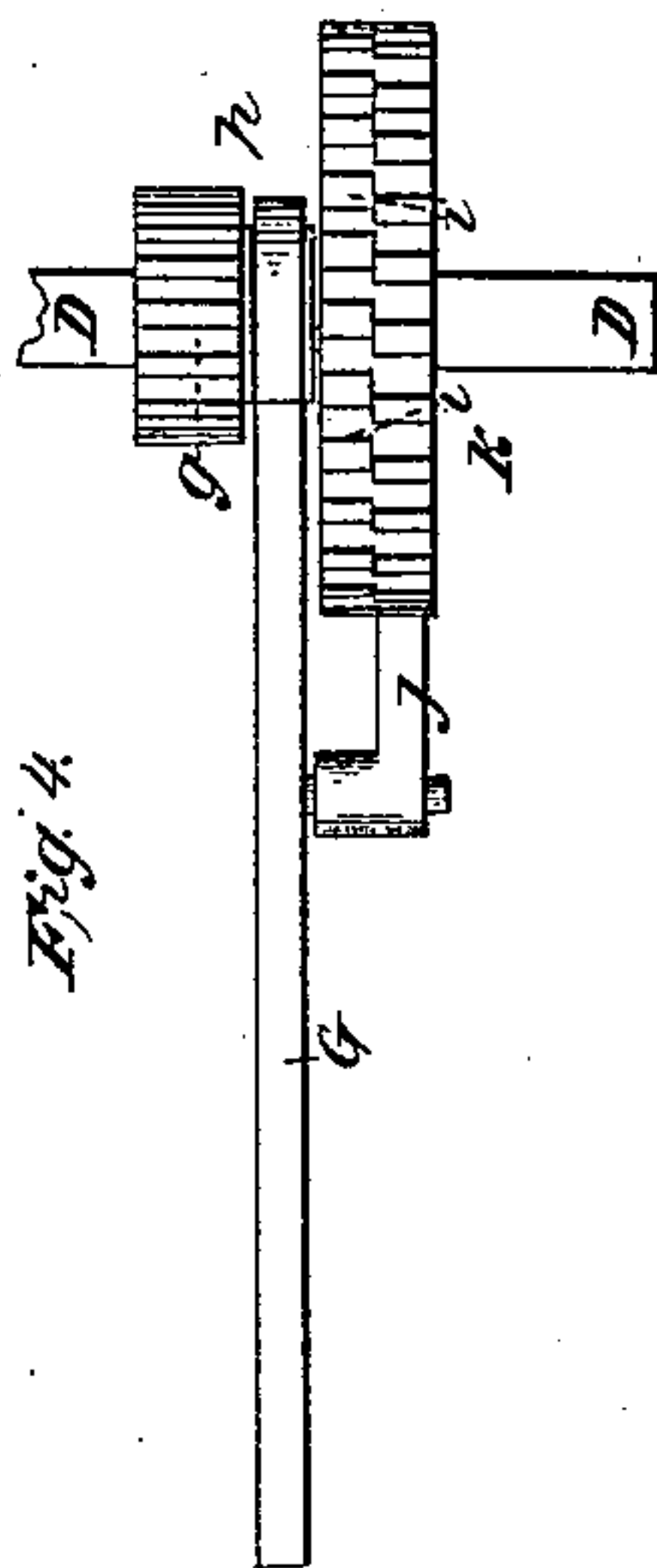
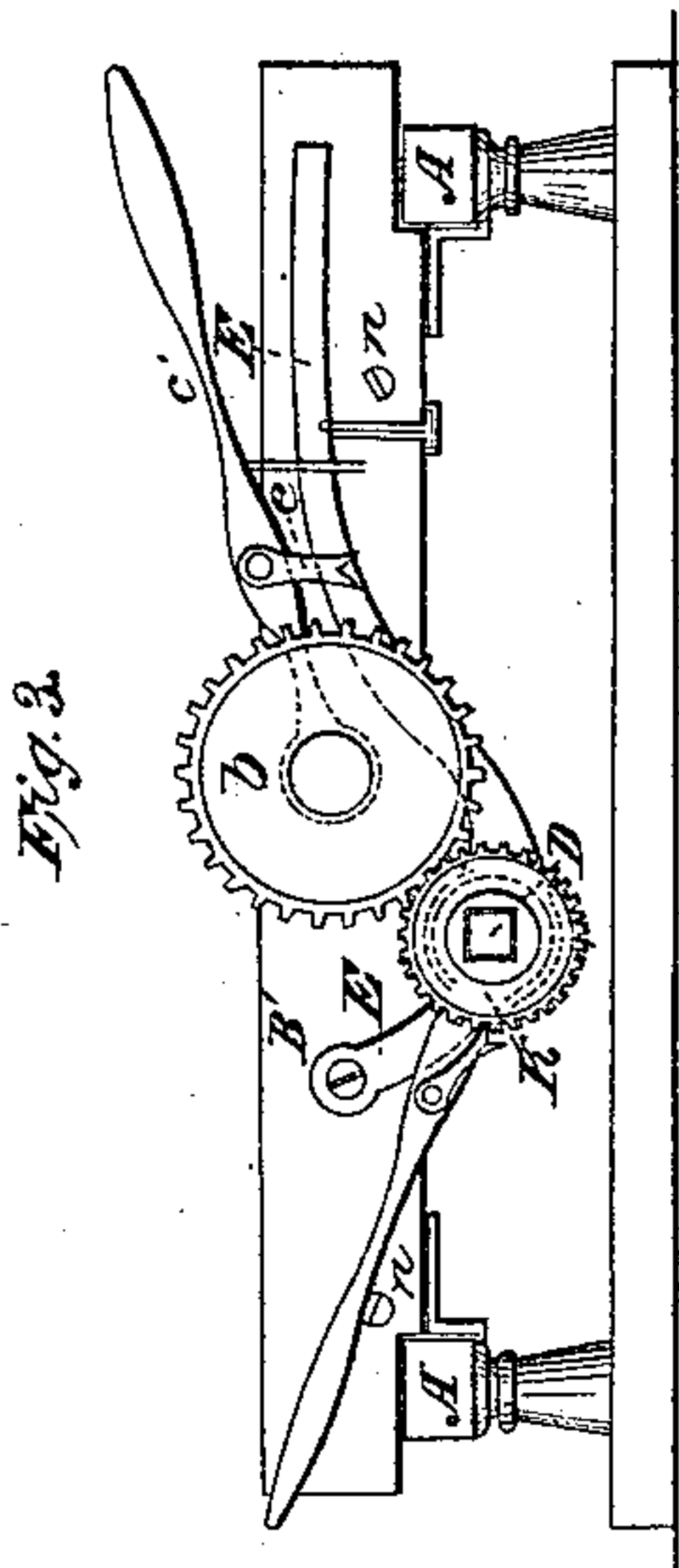


D. C. Baughman,

Saw-Mill Head-Block,

N^o 53,393.

Patented Mar. 27, 1866.



Witnesses:

R. T. Campbell
Edw. Schaff

Inventor:

D. C. Baughman
by Atty.
Wm. Finck & Son

UNITED STATES PATENT OFFICE.

D. C. BAUGHMAN, OF FORT SENECA, OHIO.

IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

Specification forming part of Letters Patent No. 53,393, dated March 27, 1866.

To all whom it may concern:

Be it known that I, D. C. BAUGHMAN, of Fort Seneca, Seneca county, State of Ohio, have invented an Improvement on Lumber-Sawing Machinery; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the head-blocks and the devices for adjusting them. Fig. 2 is a longitudinal section taken in a vertical plane through the machine. Fig. 3 is an elevation of one side of the machine, showing the adjusting-lever and its gage-wheel. Fig. 4 is an enlarged top view of the gage-wheel and its adjusting-lever and pawl.

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

This invention relates to an improvement on the apparatus for adjusting logs up to the saw in saw-mills, which was secured to me by Letters Patent bearing date January 12, 1864; and it consists in a means for facilitating an accurate adjustment of the logs up to the saw, so that boards can be sawed of any given thickness desired, as will be hereinafter described.

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

In the accompanying drawings, A A represent two horizontal and parallel ways, upon which two beams, B B', are supported. The beam B' is movable upon said ways, but the beam B is secured upon them. C C' are two traveling heads applied to their respective blocks or beams B B', so as to be capable of moving in a direction at right angles to the line of the supporting-ways A A. These heads are constructed so as to receive between them the log to be sawed into boards, which log is suitably secured to them, so that it can be adjusted bodily up to the saw by adjusting these heads.

Two pinion spur-wheels, *a a*, (shown in dotted lines, Fig. 1,) engage with teeth which are formed on the bottoms of the adjustable heads or log-holders C C', and by rotating these pinions the heads can be moved any required distance, either backward or forward. The short shafts of said pinions *a a* carry on their outer ends large spur-wheels *b b*, and also

pawl-levers *c c'*, carrying pawls *d* and *e*. By adjusting these pawls *d* and *e* on one side or the other of their respective levers they will engage with the teeth of the spur-wheels *b b* and admit of these wheels being turned either toward the right or toward the left, according to the direction in which it may be desired to adjust the log. By means of the two levers *c c'* the ends of the log can be adjusted separately and the log set squarely or obliquely upon its head and tail blocks B B'.

Beneath the spur-wheels *b b* is a square shaft, D, extending beneath both blocks B B', and having its bearings in levers E E. This shaft D carries two pinion spur-wheels, *g g*, which can be made to engage with their respective spur-wheels *b b* by elevating the long arms of the levers E. When the pinions *g g* are in gear with the spur-wheels *b b* both log-holders C C' can be adjusted simultaneously by rotating the square shaft D.

The square shaft D is adjusted by means of a vibrating lever, G, which moves about a cylindrical collar or hub, *h*, (shown in Fig. 4,) which lever has a pawl, *j*, pivoted to it, that can be set so as to operate upon the teeth of a gage-wheel, K, when this lever is moved backward or forward. The gage-wheel K has two sets of teeth on its circumference, varying in size and number. The inner set of teeth, *i i*, may number, say, twenty-seven, and the outside row may number twenty-six, so that when it is desired to saw boards of a full inch in thickness the pawl *j* is arranged as shown in Fig. 1, or so as to engage with the teeth *i i*; and when it is desired to saw a scant inch the pawl *j* is adjusted as shown in Fig. 4, so as to engage with the outside row of teeth, numbering two. All that is required, therefore, to change from a plump to a scant inch is to reverse the pawl *j* so as to engage with either one or the other set of teeth on the wheel K.

On each side of the gage-wheel K, and projecting from the movable block B', is a stop-pin, *n*, upon which the lever G rests when it is brought down after each vibration.

The pawl *j*, like the other pawls above described, has its free end formed so that it will engage with the teeth of its wheel whether the lever G be moved so as to turn the shaft D toward the right or toward the left.

The shaft D may be made square, or it may

be made round with a key-tenon, the object being to prevent its wheels from turning upon it and to allow the block B' to be adjusted toward or from the block B, according to the length of log which it is desired to confine between the adjustable log-holders C C'.

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

The application to the shaft D of a ratchet gage-wheel, K, having upon its circumference two sets of teeth varying in number, in combination with the lever G and reversible pawl j, substantially as described.

D. C. BAUGHMAN.

Witnesses:

A. C. MURRY,

S. BRIGHTWARDE.