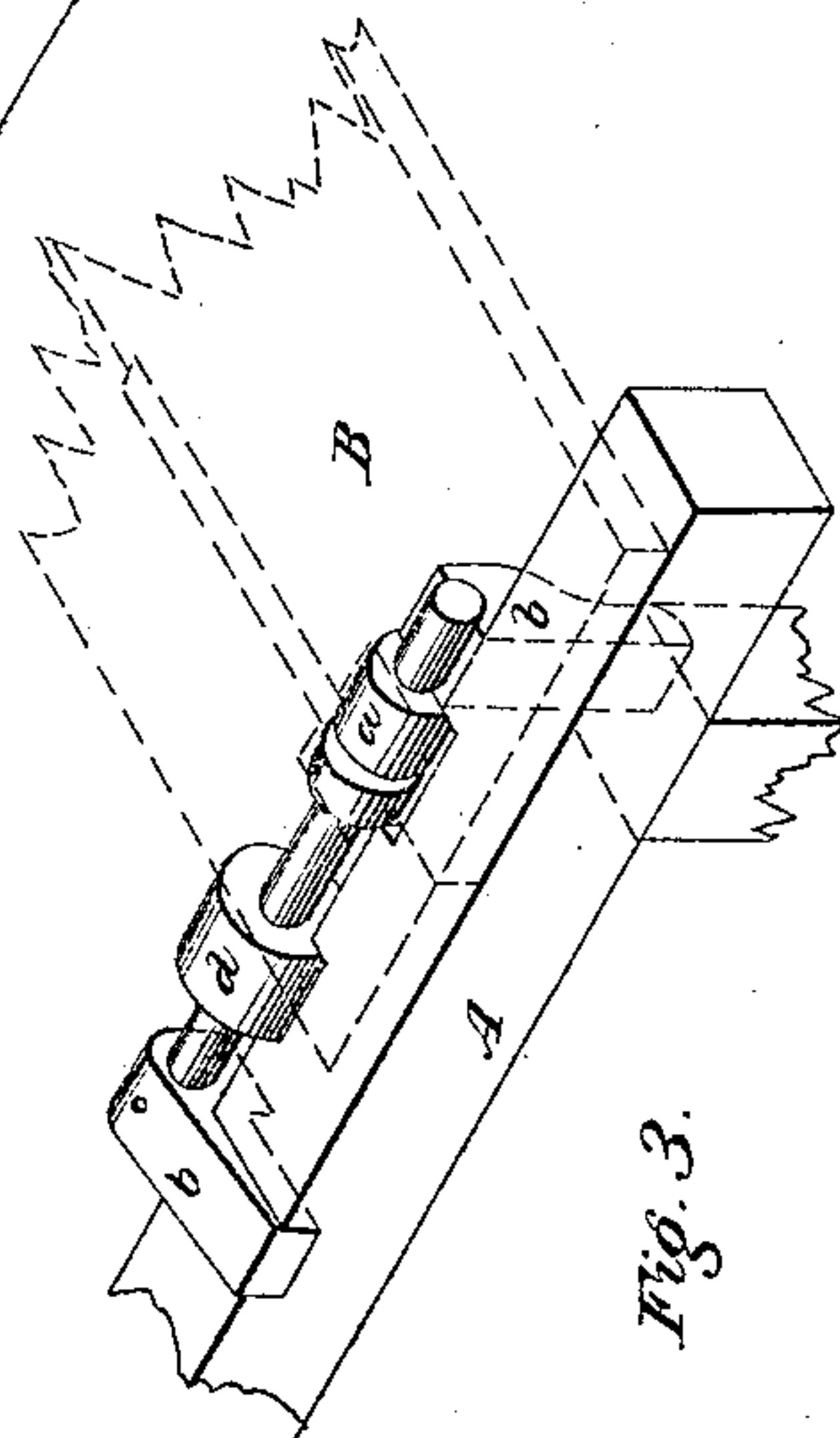
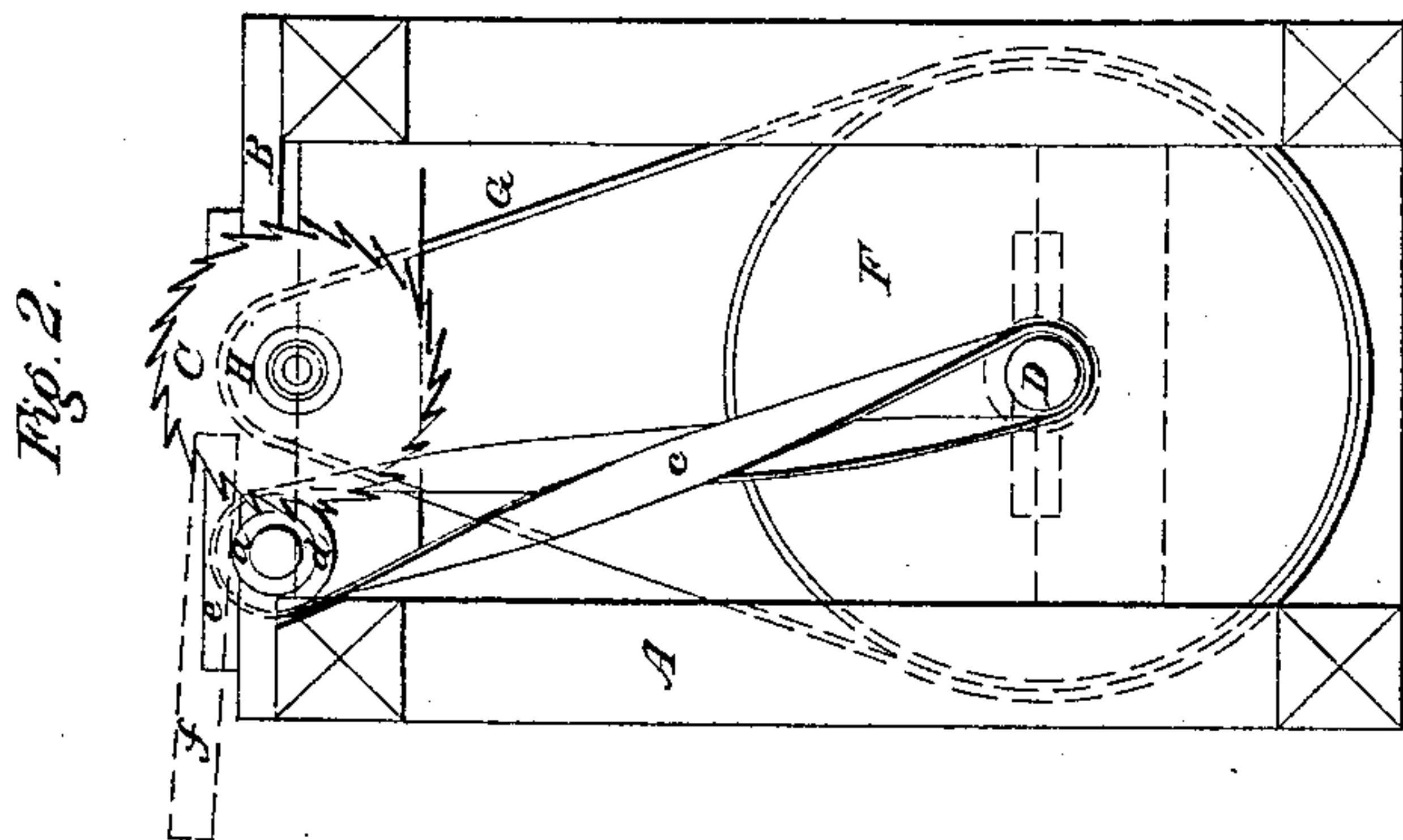
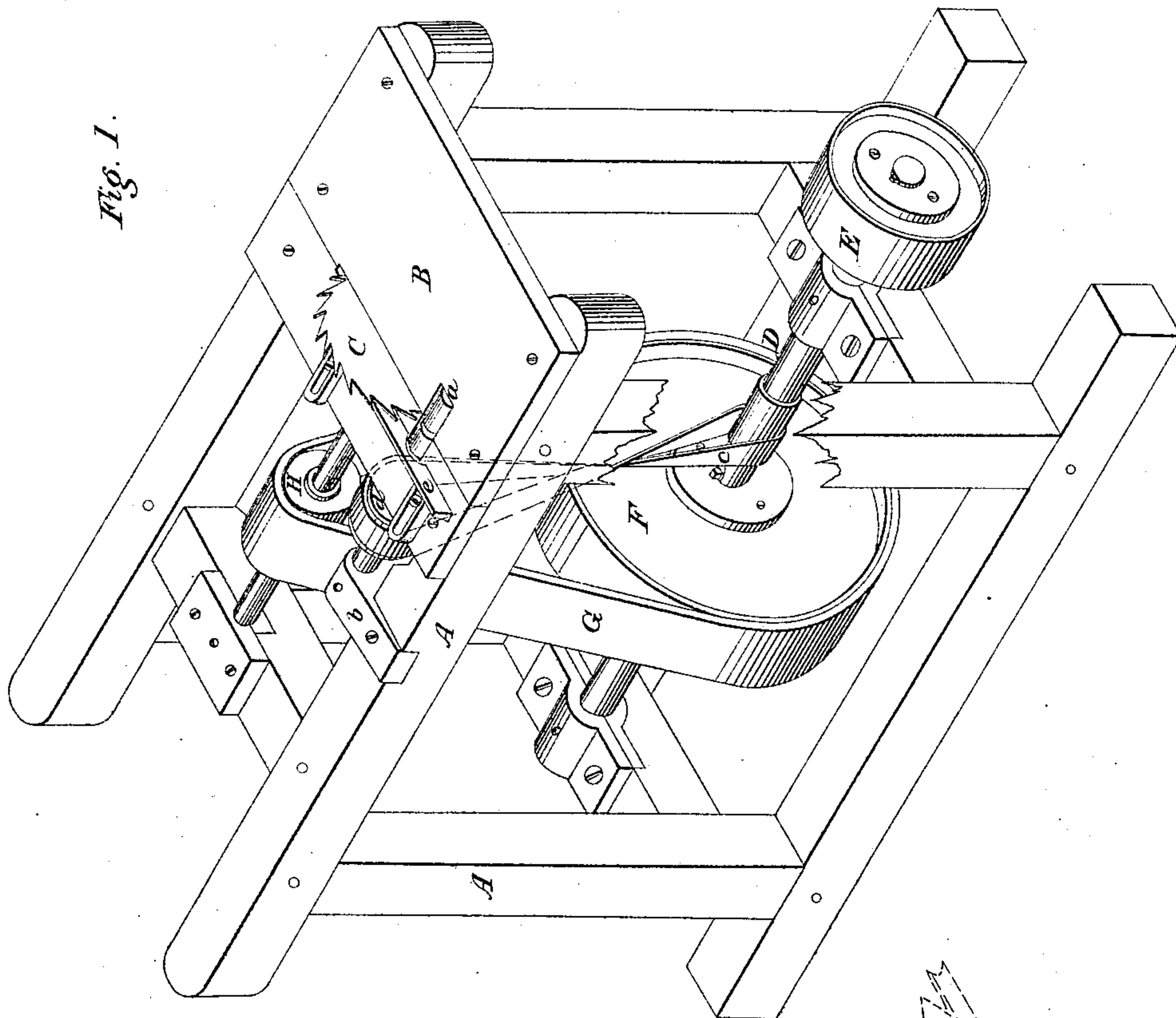


*J. Mutty,
Circular Sawing Machine.*

N^o 52,188.

Patented Jan. 23, 1866.



Witnesses.

*O. W. Porter
J. S. Mitchell*

Inventor.

John Mutty

UNITED STATES PATENT OFFICE.

JOHN MUTTY, OF BREWER, MAINE.

IMPROVEMENT IN FEED-ROLLERS TO CIRCULAR SAWS.

Specification forming part of Letters Patent No. 52,188, dated January 23, 1866.

To all whom it may concern:

Be it known that, I JOHN MUTTY, of Brewer, in the county of Penobscot and State of Maine, have invented a new and Improved Feed-Roller for Circular Saws; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a vertical section, and Fig. 3 is a detached perspective view of the roller.

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

The nature of my invention consists in attaching to stationary tables of circular saws a roller driven by power, and slightly raised above the level of the table, whereby it serves as a friction-roller to drive the lumber past the saw when being sawed. It is designed to obviate the severe labor of shoving lumber past the saw when sawed upon stationary tables, as is now done by manual labor alone.

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

A represents the saw-frame, with one of the pillars broken away to show the construction of the machinery. B is the table over which the lumber passes in the process of being sawed. C is the saw. D is the driving-shaft. E is the driving-pulley. F is the large saw-pulley. G is the driving-belt. H is the small saw-pulley, placed upon the saw shaft or arbor. All of the foregoing parts may be constructed in any of the usual methods or proportions.

a is the feeding-roller, held in position by bearings *b b*, attached to frame A. This roller is driven by the crossed belt *c*, which receives motion from shaft D, and imparts it to roller *a* by passing over pulley *d*, fixed upon continuation or shaft of roller *a*, as shown.

e is the adjustable guide by which the thickness of the lumber is determined.

f, Fig. 2, represents, by dotted lines, the bolt of lumber being fed past the saw by the action of the feeding-roller *a*. The mode of securing

the roller *a* to the frame A is shown in Fig. 3 the table forming upper part of the bearing next the saw.

The roller *a* should be placed close to the saw, and I deem it preferable to form a shallow groove in the roller, as is shown in the drawings, in which the periphery of the saw moves.

It will be apparent that in proportion to the force required to push the bolt of lumber when being sawed past the saw will be the pressure of the bolt upon the feeding-roller, caused by the resistance of the wood to the cutting action of the teeth of the saw, by reason of which fact the bite of roller *a* upon the bolt *f* is, in practice, always found fully sufficient to drive the largest bolt past the saw.

This method of feeding the lumber to the saw is applicable in all cases where a traveling table or carriage is not used, many kinds of small lumber being necessarily sawed upon stationary tables.

Among the advantages of my invention may be enumerated the facts, that it is readily and with trifling expense adapted to circular-sawing machines as usually constructed; second, it entirely obviates the most severe and exhausting labor attendant upon sawing laths, sash, door, and blind lumber, and all other kinds sawed upon fixed tables with circular saws, and with the same machine and operatives from one-third to one-half more lumber can be sawed than when feeding by hand, as has been practically demonstrated.

I do not claim the entire machine as described in this specification and shown in the annexed drawings; but

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

The grooved smooth-faced cylinder feed-roller, when used singly to feed the wood to be sawed to a circular saw and revolved by the means substantially as described, and for the purposes set forth.

JOHN MUTTY.

Witnesses:

T. W. PORTER,
H. L. MITCHELL.