

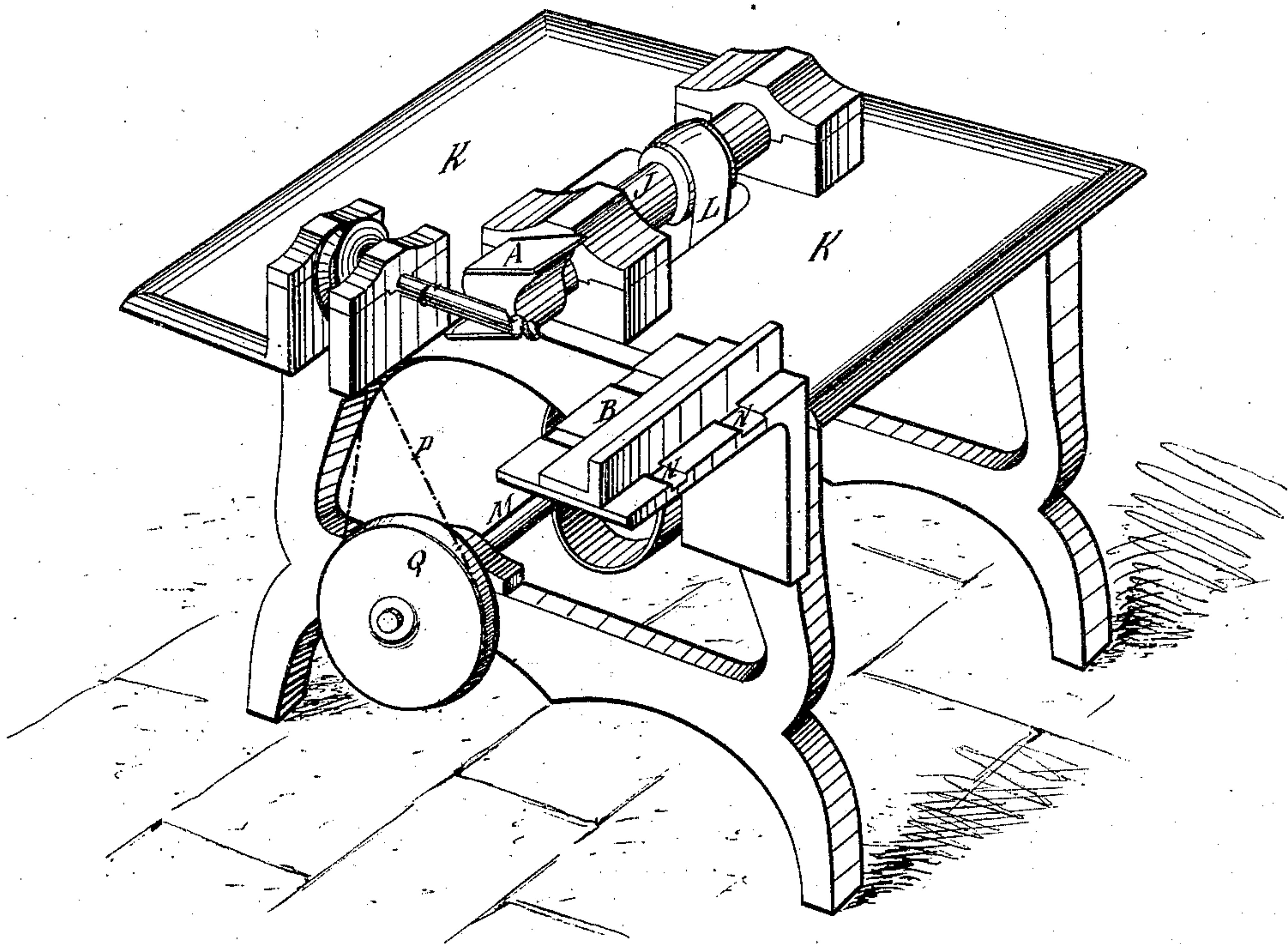
2 Sheets--Sheet 1.

**A. PHILIPP & F. L. BLAKELY.**  
**Relishing-Machines.**

No. 153,980

Patented Aug. 11, 1874.

*Fig. 1*



**WITNESSES:**

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*Chadwick*

**INVENTOR:**

*A. Philipp*  
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**ATTORNEYS**

A. PHILIPP & F. L. BLAKELY.

Relishing-Machines.

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fig. 2

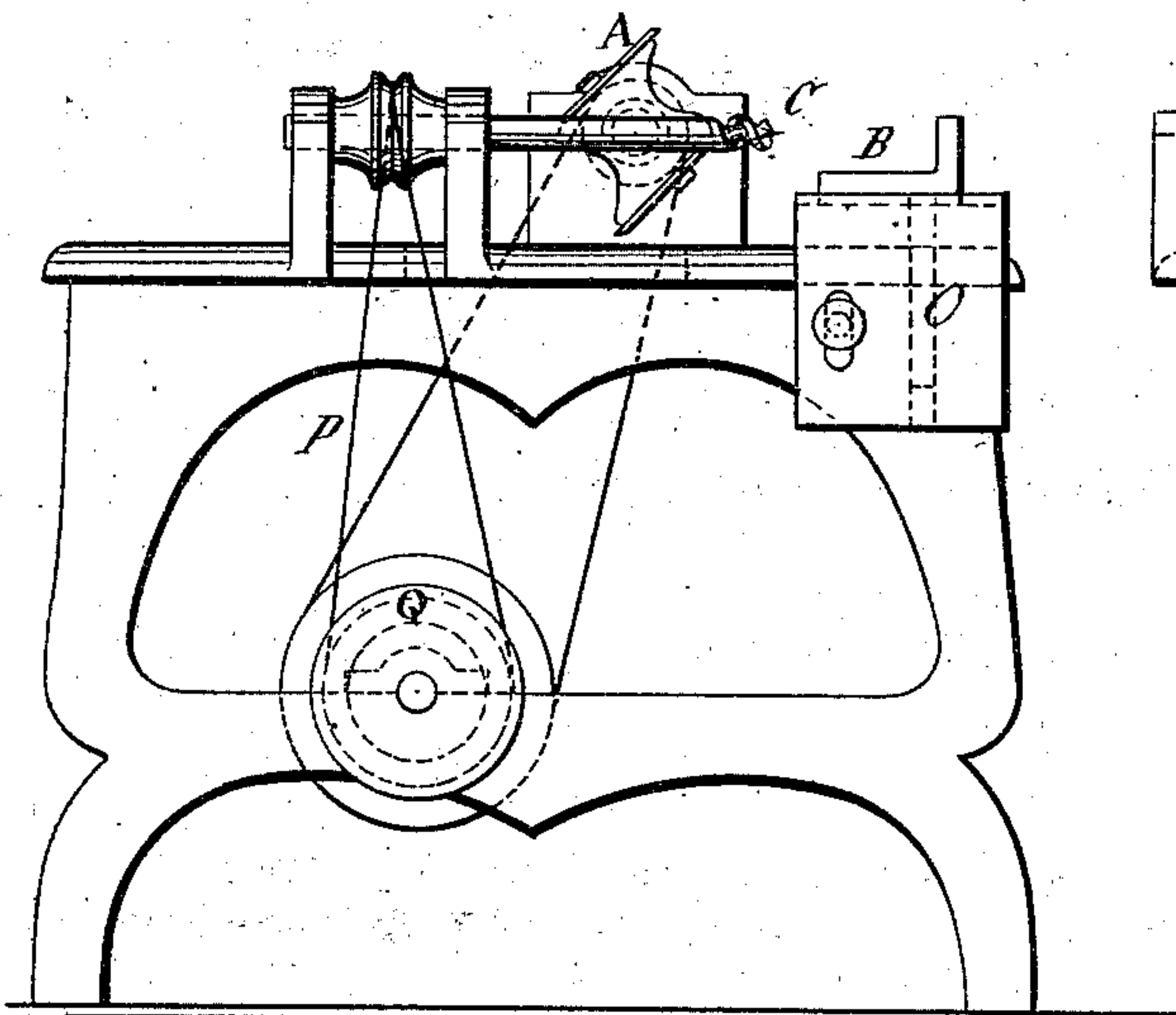


fig. 3

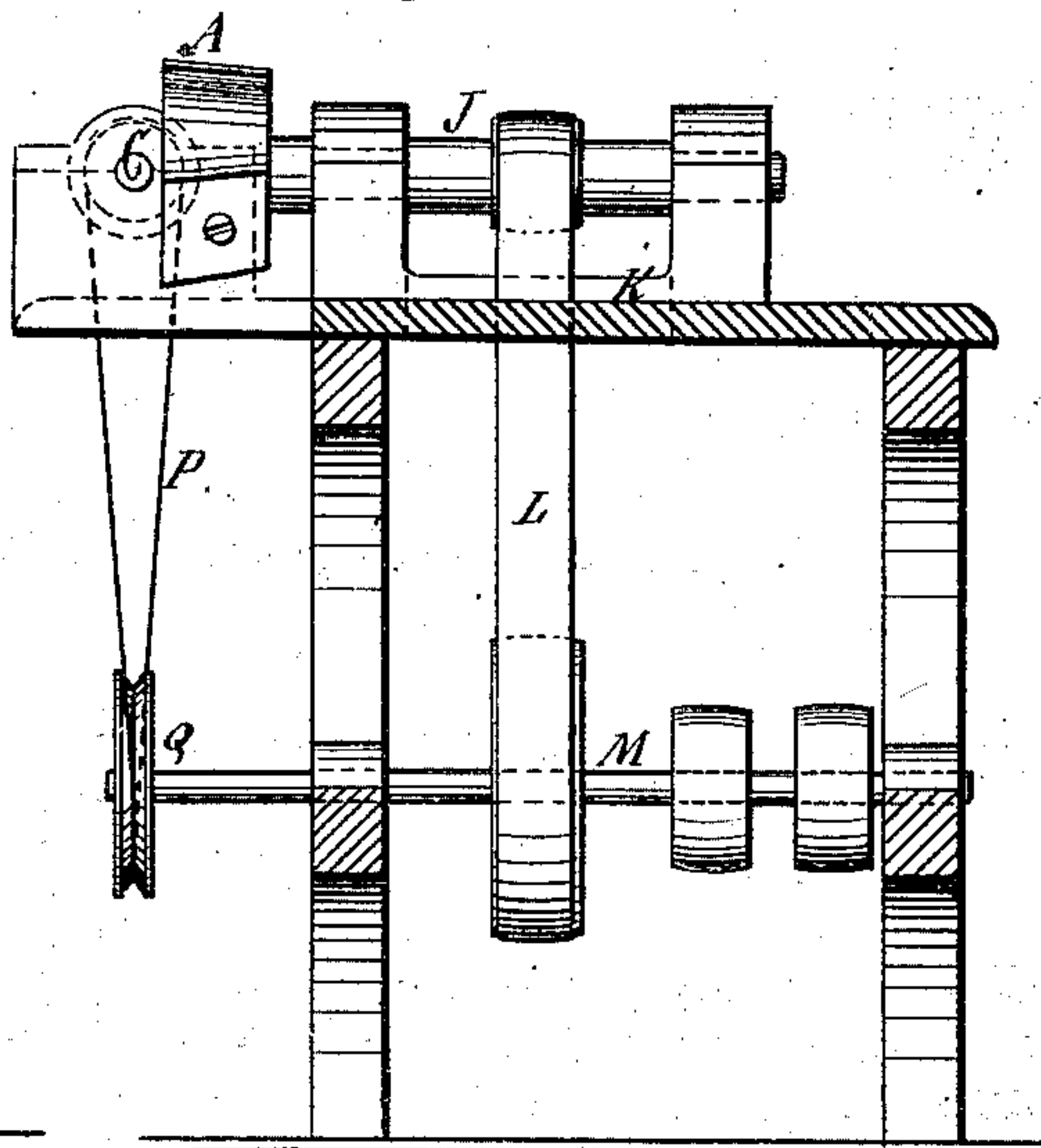


fig. 4

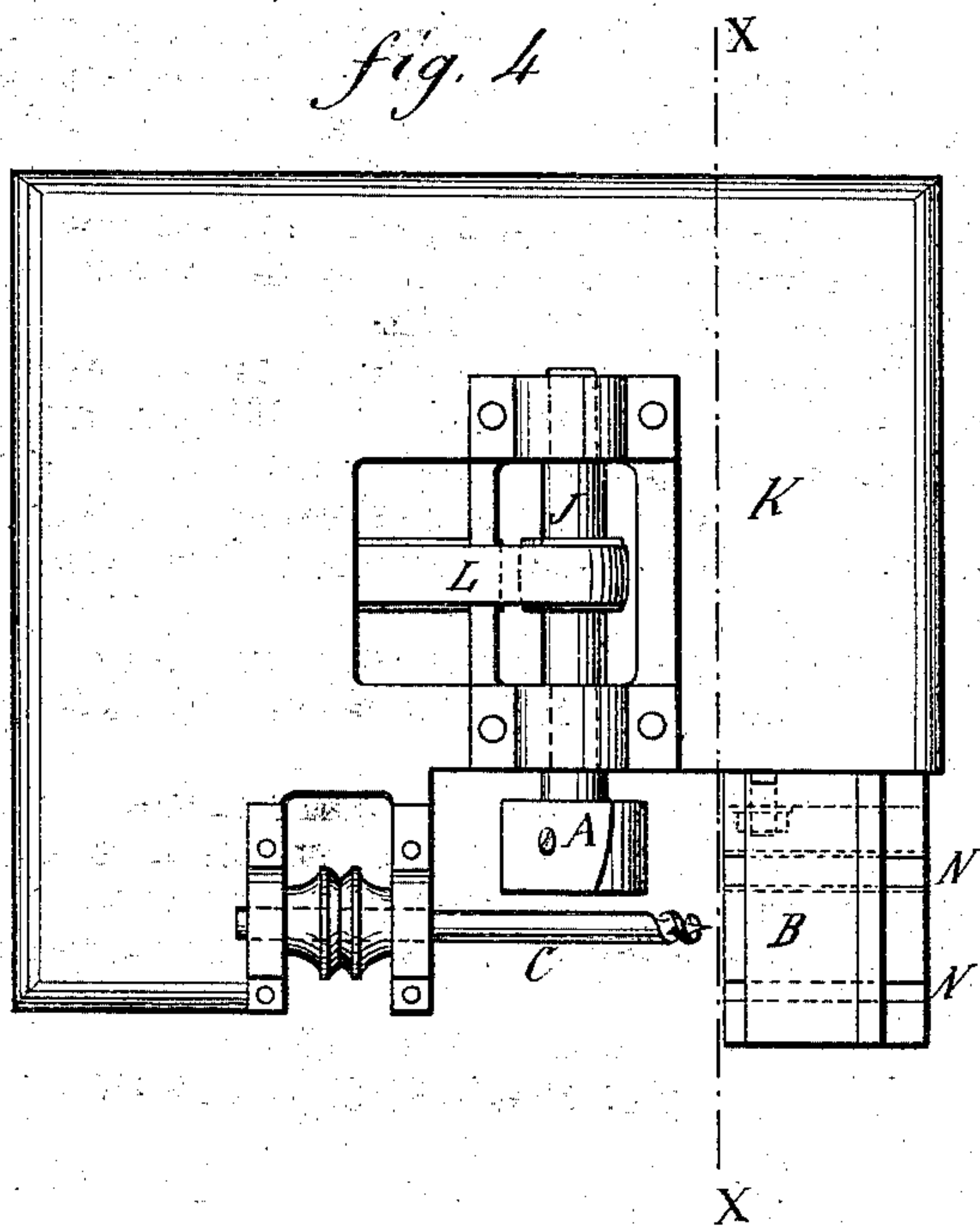


fig. 5

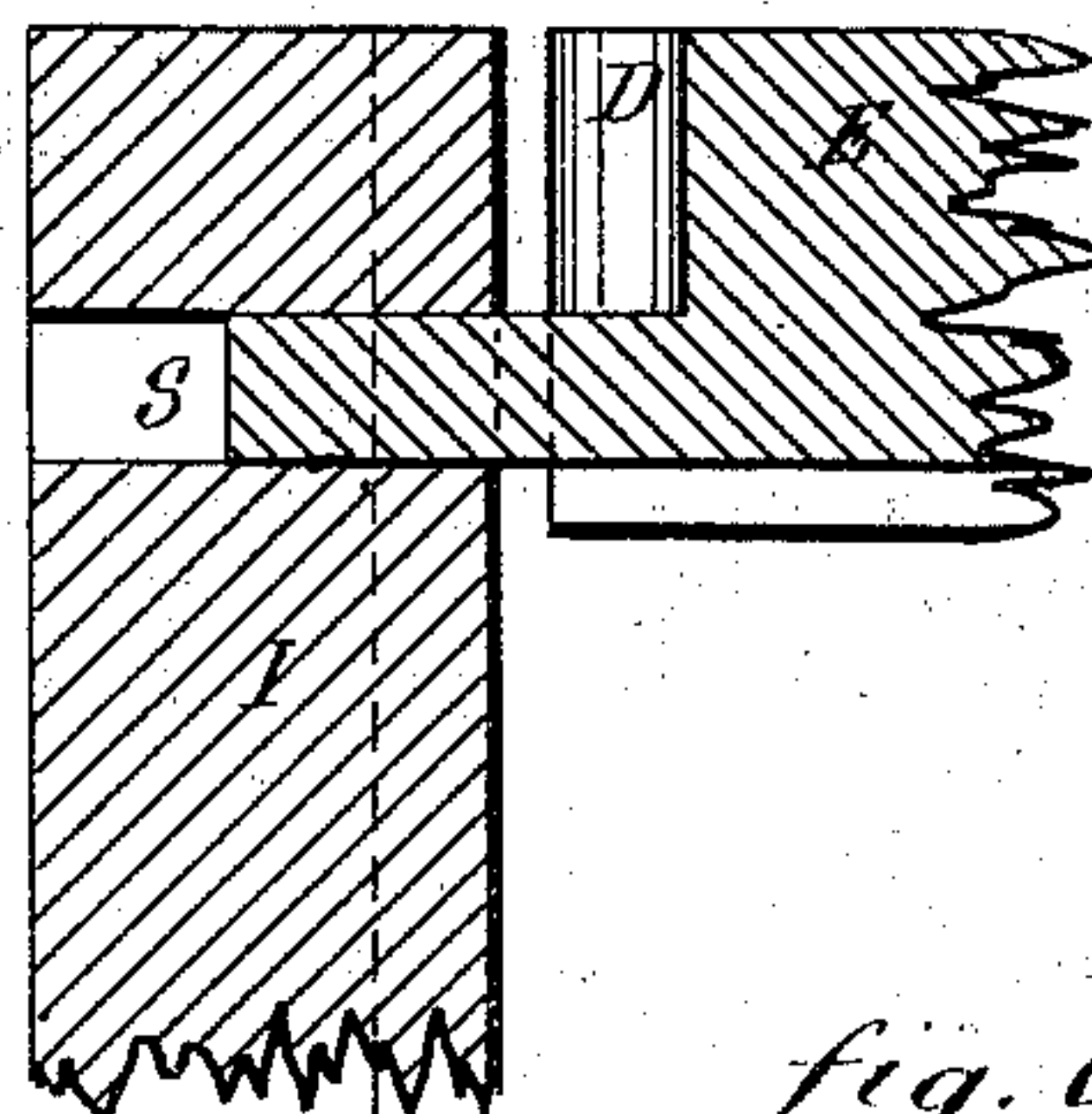
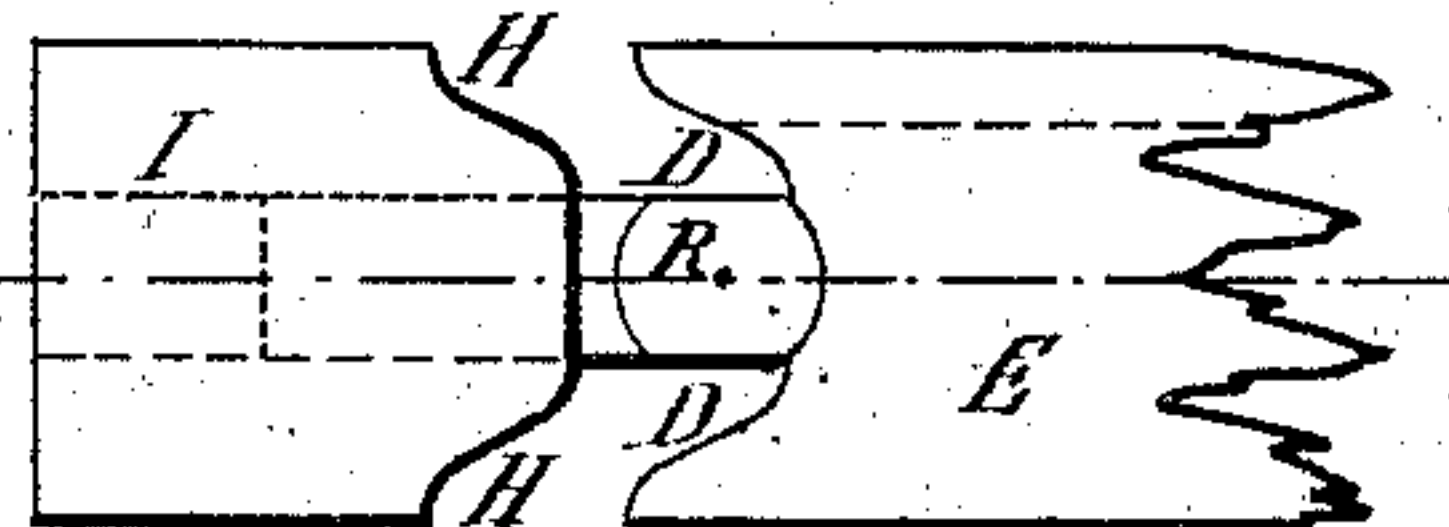


fig. 6



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# UNITED STATES PATENT OFFICE.

ALBERT PHILIPP AND FREDERICK L. BLAKELY, OF CLINTON, IOWA.

## IMPROVEMENT IN RELISHING-MACHINES.

Specification forming part of Letters Patent No. **153,980**, dated August 11, 1874; application filed May 9, 1874.

*To all whom it may concern:*

Be it known that we, ALBERT PHILIPP and FREDERICK L. BLAKELY, of Clinton, in the county of Clinton and State of Iowa, have invented a new and Improved Relishing-Machine for Window-Sash, Blind-Rails, &c., of which the following is a specification:

Our invention is designed to provide a simple and efficient machine to cut the tenons of sash, blind, and door rails, and other frames, and at the same time cut out the recess between the ogee-shoulders of the tenon, where the cutter cannot work without destroying the shoulders, to reduce width of the tenons to fit the mortises.

Figure 1 is a perspective view of our improved machine. Fig. 2 is a side elevation. Fig. 3 is a sectional elevation taken on the line *x x* of Fig. 4. Fig. 4 is a plan view. Fig. 5 is a horizontal section of a joint of a sash or blind frame, showing the narrowed tenon and the recess; and Fig. 6 is a side elevation of Fig. 5.

Similar letters of reference indicate corresponding parts.

A represents a rotary cutter mounted on a horizontal shaft, J, on a frame or bench, K, and driven by a belt, L, from a driving-pulley, M. B is the work-holding table for holding the rails to be relished. It is arranged on ways N, on a vertically adjustable table, O,

to slide toward and from the rotary cutter; and C is a boring-tool arranged alongside of the end of the cutter at right angles to its axis, but in the same horizontal plane. It is driven by a belt, P, from a pulley, Q, on the driving-shaft. This boring-tool is for cutting out the recess R between the ogee projecting shoulders D, where the cutter cannot work, while the cutter dresses off the rest of the tenon between the boring-tool and the end in the process of reducing it to the width required for fitting the mortise S.

The table O is to be adjusted up and down to adapt it for holding rails of different thicknesses at the proper height relatively to the boring-tool and cutter to be presented to them, so that the boring-tool will work to the center of the tenon.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The cutting-head A, in combination with boring-tool C, placed at right angles to it, and the vertically and horizontally adjustable table O, substantially as and for the purpose specified.

ALBERT PHILIPP.

FREDERICK L. BLAKELY.

Witnesses:

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J. S. DARLING.