

GEORGE W. PASSEL.

Improvement in Tenoning Machines.

No. 116,089.

Patented June 20, 1871.

Fig. 1.

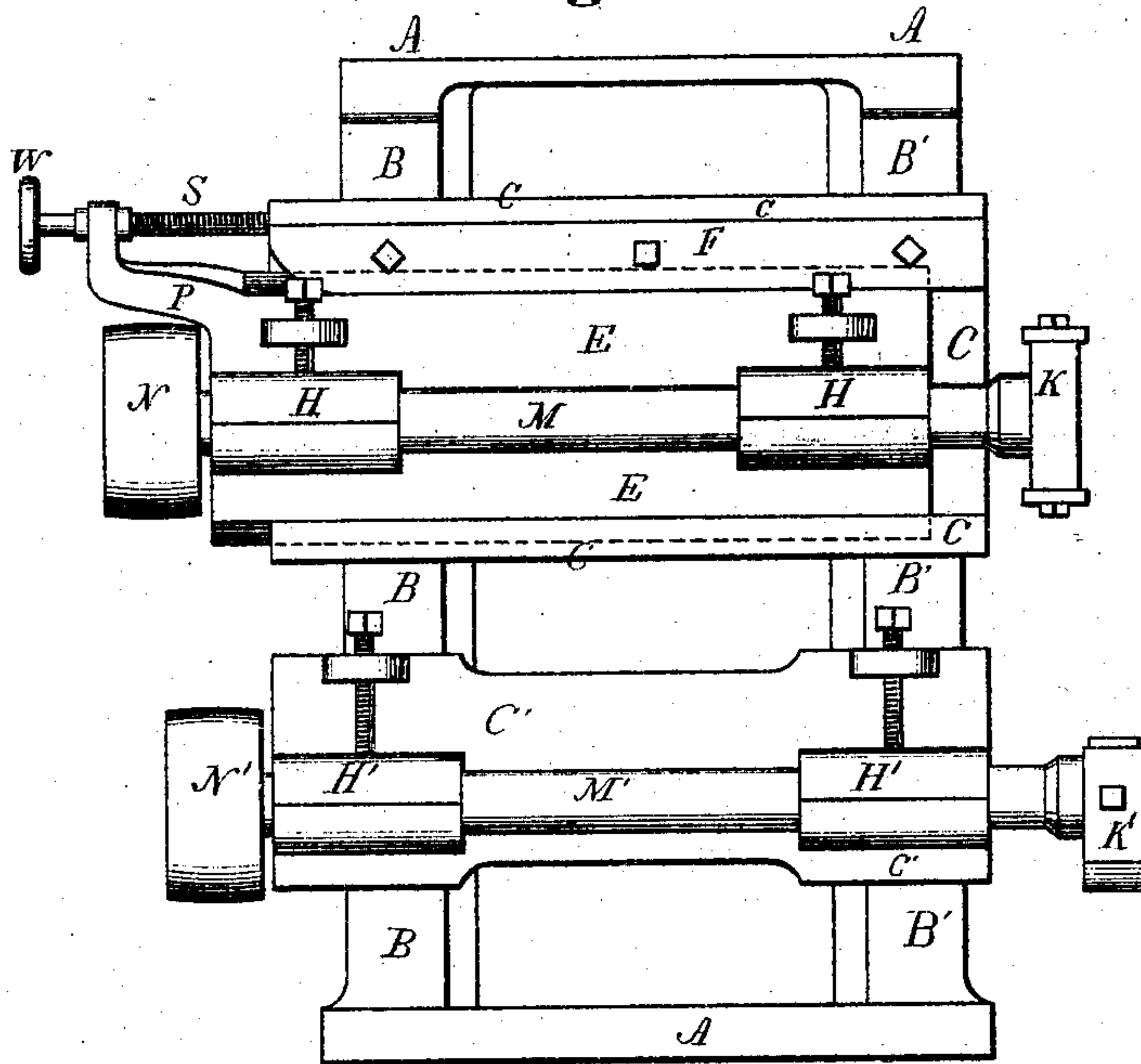


Fig. 2.

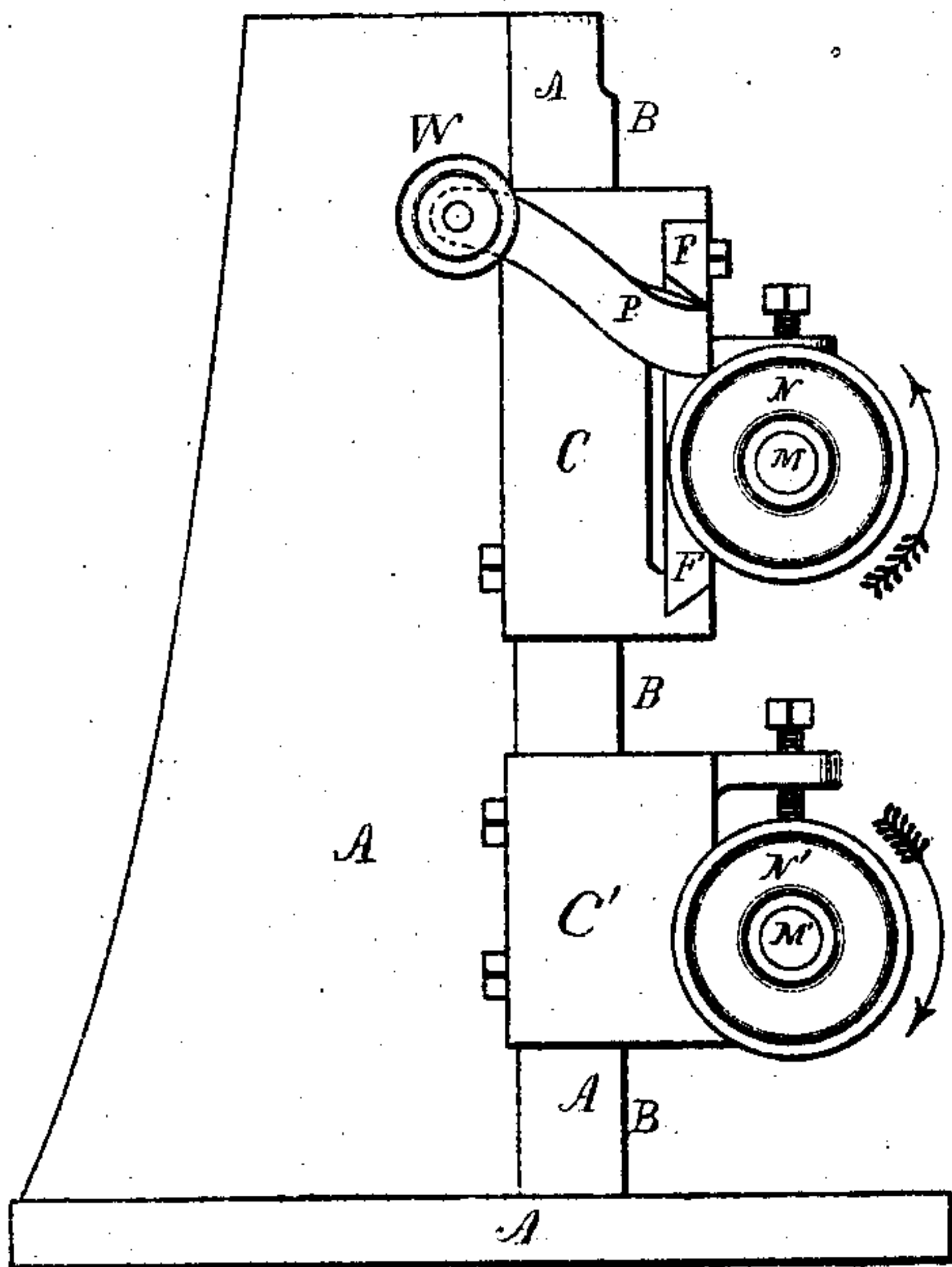
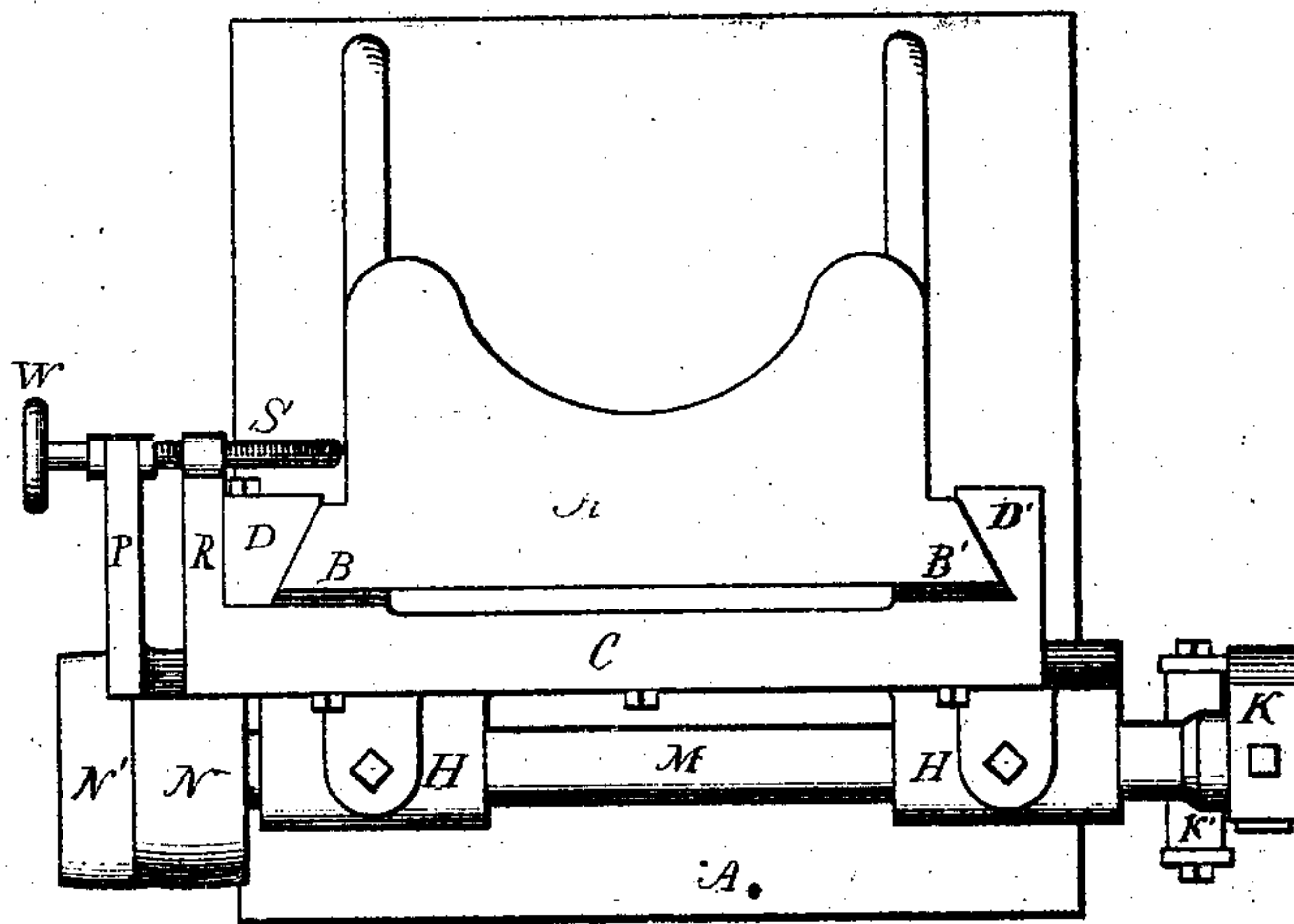


Fig. 3.



INVENTOR

Geo W. Passel

Attest
Geo. H. Bayman.
M. L. H. H. H.

UNITED STATES PATENT OFFICE.

GEORGE W. PASSEL, OF CINCINNATI, OHIO, ASSIGNOR TO J. A. FAY & CO.,
OF SAME PLACE.

IMPROVEMENT IN TENONING-MACHINES.

Specification forming part of Letters Patent No. 116,089, dated June 20, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. PASSEL, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Tenoning-Machines, of which the following is a specification:

My invention consists in an adjustment for giving lateral motion to the cutter-heads of a tenoning-machine and their operating-shafts, when said shafts are belted at the side of the machine, opposite to which the cutter-heads are located.

In the accompanying drawing, to which reference is hereby made, Figure 1 is the front elevation of machine embodying my invention. Fig. 2 is a side elevation, and Fig. 3 is a plan of the same.

General Description.

A is the frame of the tenoning-machine. B B' are the front faces of this frame, made smooth and straight. C C' are frames which slide vertically upon B B', and are secured to B B' by devices, as D D', overlapping the sides of A. C and C' slide independently of each other, and are elevated or depressed by a separate suitable device. The shaft M' revolves in the journals H' H' attached to the sliding frame C'. E is a secondary frame sliding laterally in frame C, and secured to C by suitable devices. (See Fig. 2.) P is an arm of the frame E, elevated enough to clear the pulley N. Through the end of this arm, which is bent back at a right an-

gle to main part of the arm, passes a screw, T, turning in a socket in the arm P, while its thread engages a female screw in a shoulder, R, of the frame C. This screw is operated by a hand-wheel, W. The journals H H are attached to frame E, and contain the bearings in which shaft M revolves. K K' are the cutter-heads, operated by their respective shafts. K is attached to shaft M, and K' to shaft M'. N is a pulley attached to that end of shaft M opposite to where cutter-head K' is, and operating shaft M. N' is a pulley attached to that end of shaft M' opposite to where cutter K' is and operating shaft M'. Neither of these pulleys is between the journals of its respective shaft, but are beyond said journals. It is apparent that this arrangement of the pulleys gives the operator double the space he has hitherto had for operating the machine, and no longer crowds him up against the cutter-heads and timber while raising or depressing the vertically-sliding frames. The belts also can be adjusted to the pulleys N N' without cutting or untying, which is a desideratum in the use of tenoning-machines.

What I claim as new is—

The combination, in a tenoning-machine, of the cutter-heads and shafts, when belted at the side of the machine, and when both or either of them are made laterally and vertically adjustable, substantially as described.

Witnesses:

GEO. W. PASSEL.

WM. G. HOSEA,
J. D. COX.