

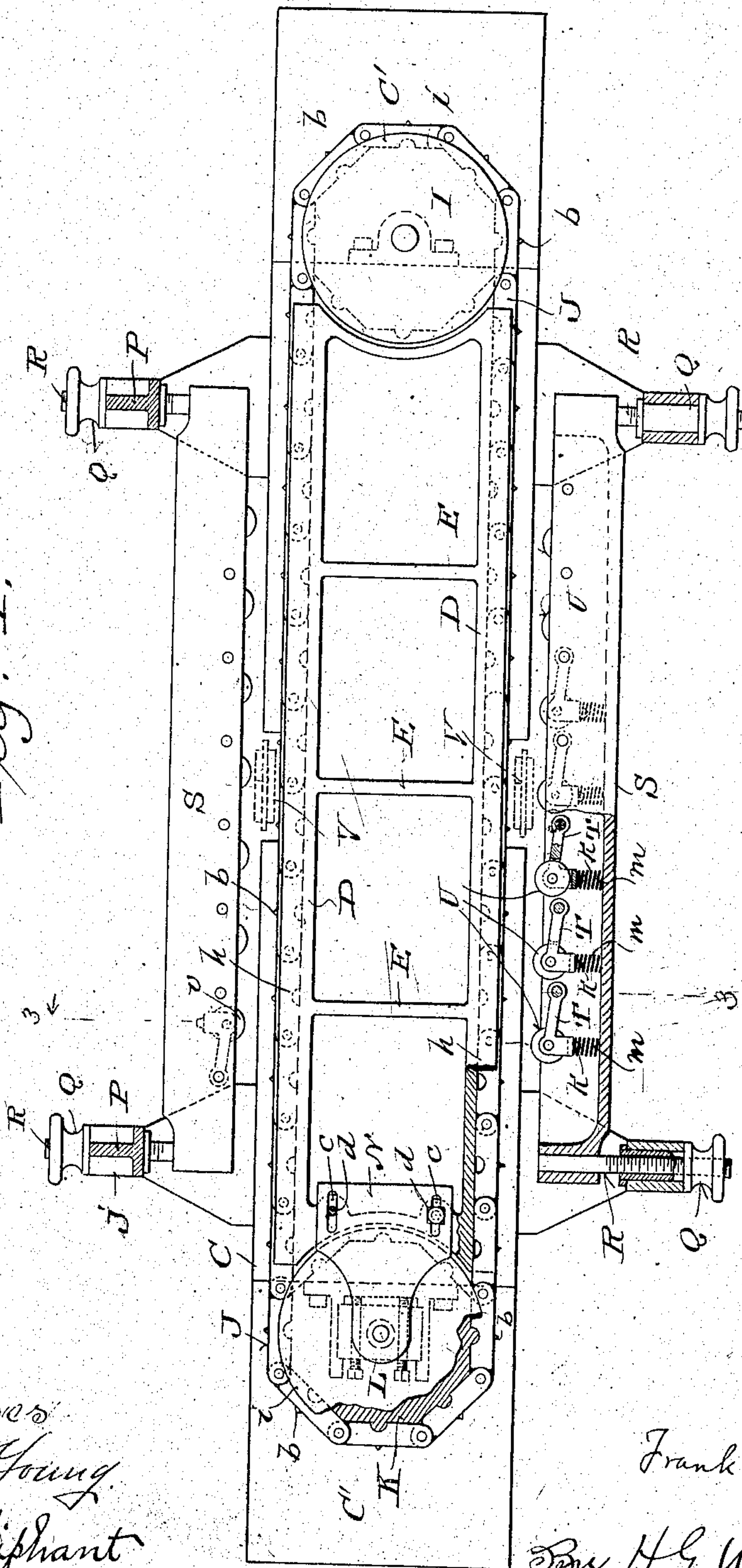
No. 816,079.

PATENTED MAR. 27, 1906.

F. DIEHL.
WOODWORKING MACHINE.
APPLICATION FILED NOV. 2, 1904.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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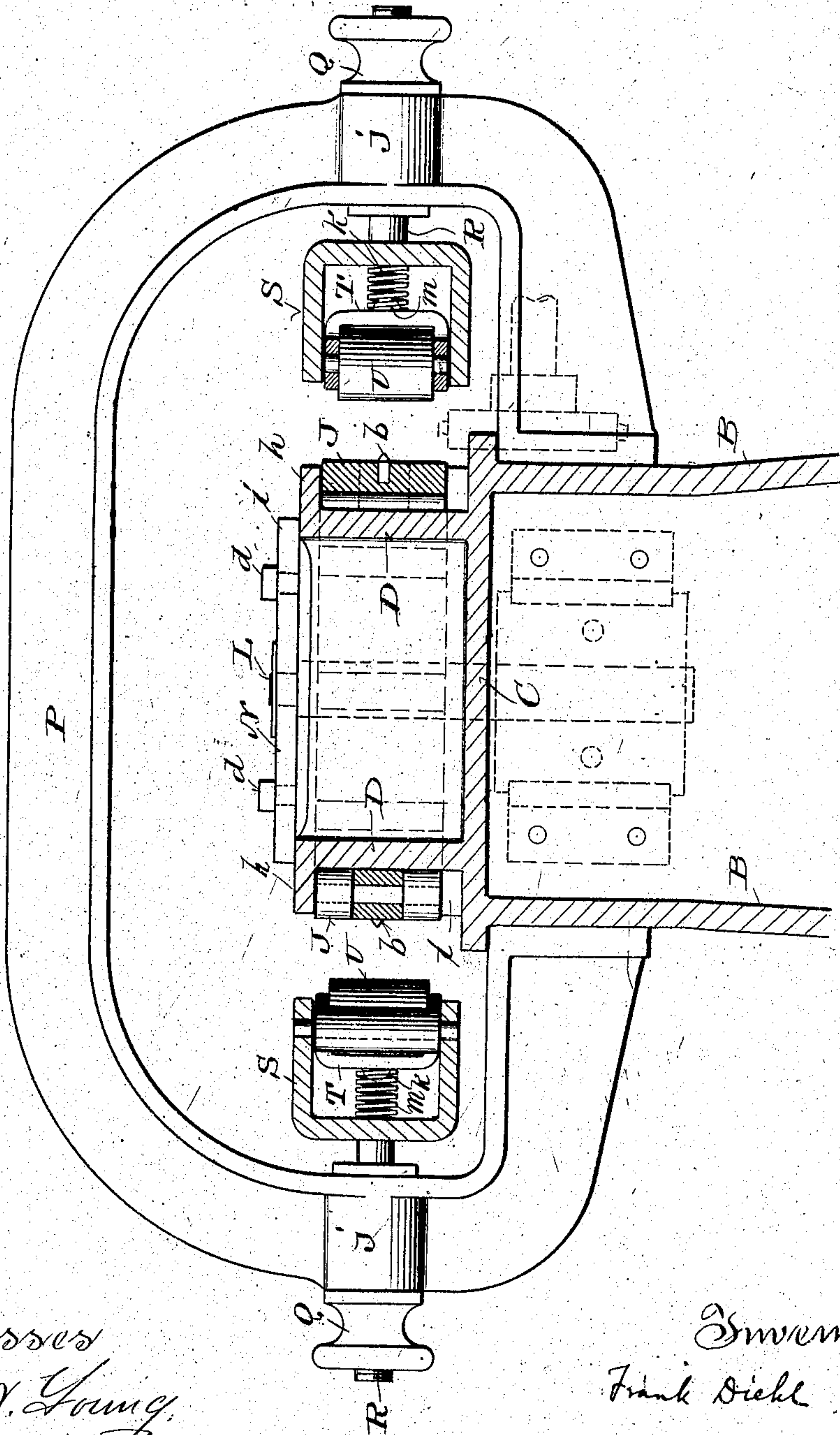
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3 SHEETS—SHEET 3.

Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK DIEHL, OF SHEBOYGAN FALLS, WISCONSIN, ASSIGNOR TO
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WOODWORKING-MACHINE.

No. 816,079.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed November 2, 1904. Serial No. 231,037.

To all whom it may concern:

Be it known that I, FRANK DIEHL, a citizen of the United States, and a resident of Sheboygan Falls, in the county of Sheboygan and State of Wisconsin, have invented certain new and useful Improvements in Woodworking-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

The invention consists in certain peculiarities of construction and combination of parts hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed, the object of said invention being to provide a simple economical woodworking-machine especially designed for jointing operations on short stuff, the pieces of which are successively fed edgewise along one side of the machine, then reversed and likewise fed back along the other side of said machine; but by mere change of cutter-heads the same machine is capable of being organized for a variety of woodworking operations.

Figure 1 of the drawings represents a plan view of a woodworking-machine in accordance with my invention, partly in horizontal section on various planes; Fig. 2, a side elevation of the machine partly broken away and in section; Fig. 3, a transverse sectional view of said machine, this view being indicated by lines 3-3 in Fig. 1; and Fig. 4, an elevation of a fragment of the machine.

Referring by letter to the drawings, A indicates a base having a pair of parallel standard extensions B, on which a bed-plate C is supported. Surmounting the bed-plate is a pair of parallel side bars D, and transverse braces E are arranged at suitable intervals apart between side bars to brace the same.

The assemblage of parts thus far described, be they integral, as herein shown, or separate pieces suitably connected, constitute the frame of the machine herein specified, and extensions C' of the bed-plate are provided in connection with said frame.

The horizontal main shaft F of the machine is bevel-gearred to another horizontal shaft G, and this shaft is likewise connected to a vertical shaft H, suitable bearings being provided for all the shafts. The shaft H extends through one of the bed-plate extensions C', and fast on its upper end is an angular pul-

ley I for an endless chain J, having the links thereof provided with outer spurs b, said chain being also run on another angular pulley K at the opposite end of the machine. The pulley K is an idler, the spindle L of which turns in a box M and a plate N, this plate being provided with longitudinal slots c, engaged by set-screws d, adjustable in an end brace between the side bars D, these screws being loosened when it is desirable to adjust the idler-pulley to compensate for slack in the chain, the box for the pulley-spindle being adjustable on wings e of a bracket that has the back f thereof made fast by any suitable means to the machine-frame under the bed-plate C of same. The adjustment of the box M is effected by screws g, that turn in said box against the back f of the aforesaid bracket, and the set-screws d are tightened to hold the pulley K in adjusted position. Upper outer lateral flanges h of the side bars D and pulley-flanges i prevent vertical displacement of the chain J, the straight stretches of which are parallel to said bars and backed by the same against lateral strain.

Made fast to the machine-frame are supports in the form of transverse arches P, provided with bearings j for adjusting-nuts Q, held by collars against longitudinal play in said bearings. The nuts are engaged by screw-threaded ends of stems R, rigid in the ends of housings S, that are parallel to the straight stretches of the spurred endless chain and open opposite the same. By manipulation of the nuts Q the housings S and parts in connection therewith are adjusted laterally of the machine in proportion to the thickness of the material operated upon. Pivotaly hung in each housing are a series of carriers T for antifriction-rollers U, and teats k of said carriers engage spiral springs m, that abut the sides of said housing, whereby a yielding pressure of the rollers is had upon material fed to the machine.

The longitudinal edges of the bed-plate C of the machine are recessed to obtain clearance for cutter-heads V, made fast to a shaft W, that extends transversely of the machine and is independently driven by any suitable means.

The material to be operated upon is fed in at one end of the machine between the spurred endless chain J and a series of rollers

U, said material being pressed tight against said chain by said rollers and moved along over a cutter-head V, designed for the desired trimming or shaping of one edge of the aforesaid material. At the other end of the machine the material is turned over and fed back between the chain and yielding presser-rollers to have its other edge trimmed or shaped by the other cutter-head.

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

1. A woodworking-machine comprising a suitable frame provided with parallel side bars having upper outer lateral flanges, an endless feed-chain having straight stretches thereof backed by said side bars to which they are parallel under the flanges of same, means for driving the chain, supports in connection with the frame, adjusting-nuts for which the supports are provided with bearings, housings having screw-threaded rigid stems engaging the nuts, spring-controlled pivotal carriers in the housings, antifriction-rollers hung in the carriers opposite said straight stretches of the chain, and cutter-heads arranged to operate from below the

material fed from opposite ends of the machine.

2. A woodworking-machine comprising a suitable frame provided with parallel upper side bars having upper outer lateral flanges, an endless feed-chain having straight stretches thereof backed by said side bars to which they are parallel under the flanges of same, means for driving the chain, transverse arches in connection with the frame, adjusting-nuts for which the arches are provided with bearings, housings having screw-threaded rigid stems engaging the nuts, spring-controlled pivotal carriers in the housings, antifriction-rollers hung in the carriers opposite said straight stretches of the chain, and cutter-heads arranged to operate from below on said material fed from opposite ends of the machine.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

FRANK DIEHL.

Witnesses:

N. E. OLIPHANT,
GEORGE FELBER.