

No. 689,027.

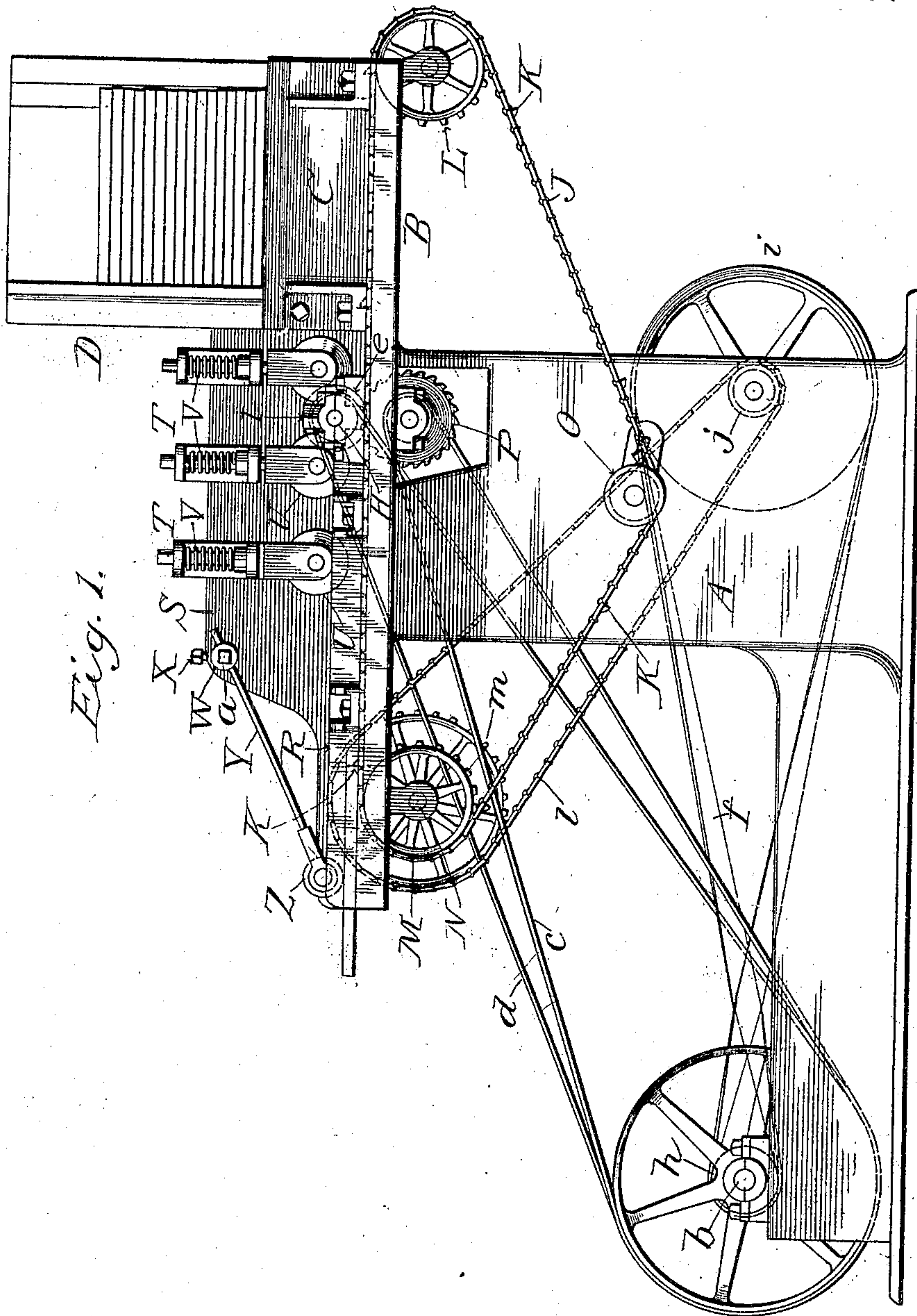
Patented Dec. 17, 1901.

R. SCHLEICHER.  
WOODWORKING MACHINE.

(Application filed Oct. 13, 1898.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses  
W. B. Burdine  
D. E. Burdine

Inventor:  
Robert Schleicher,  
by Dodge and Sons  
Attorneys

No. 689,027.

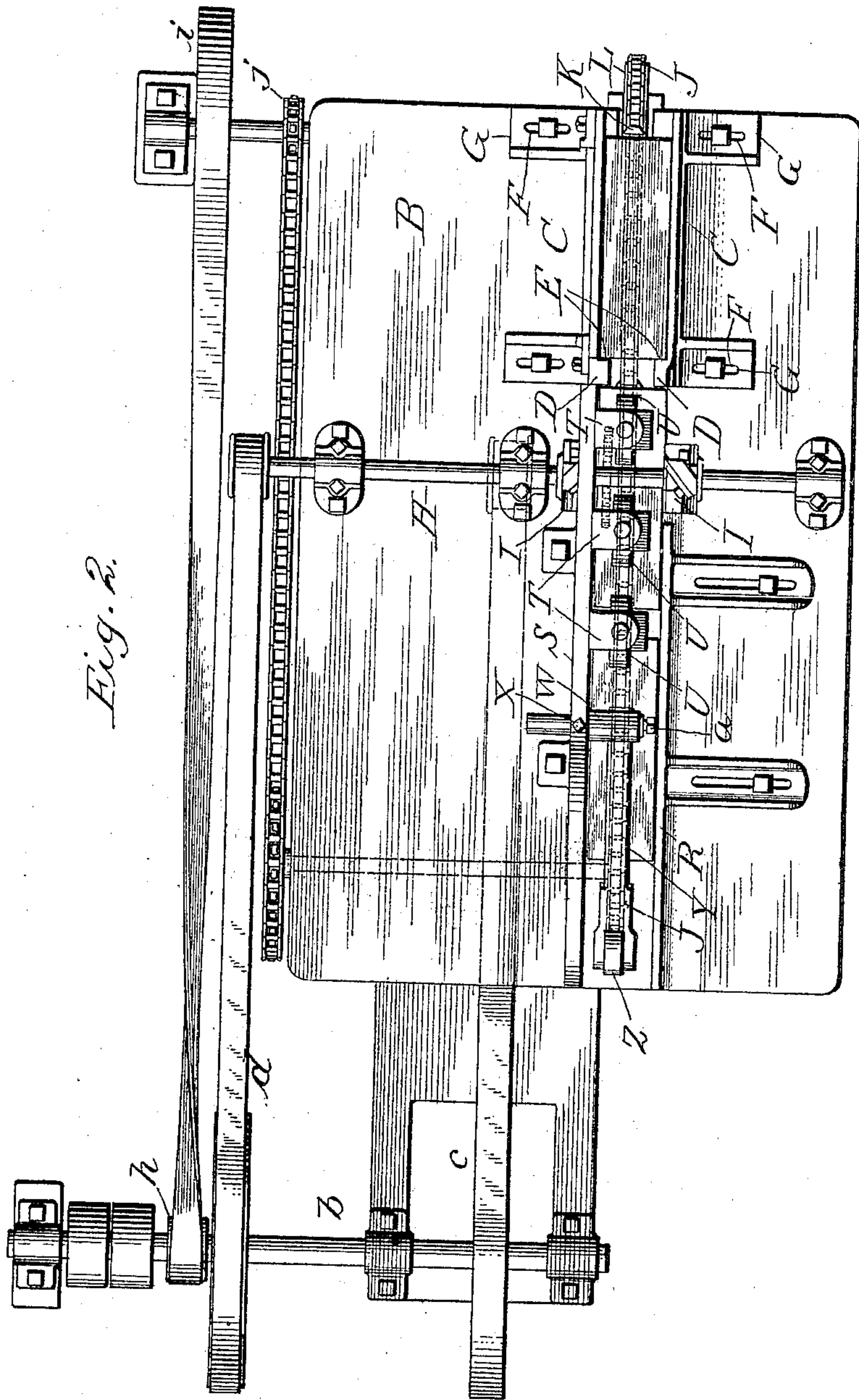
Patented Dec. 17, 1901.

R. SCHLEICHER.  
WOODWORKING MACHINE.

(Application filed Oct. 13, 1898.)

(No Model.)

3 Sheets—Sheet 2.



Witnesses  
*W. B. Burdine*  
*D. E. Burdine*

Inventor:  
*Robert Schleicher,*  
*by Dodge and Sons,*  
*Attorneys*



No. 689,027.

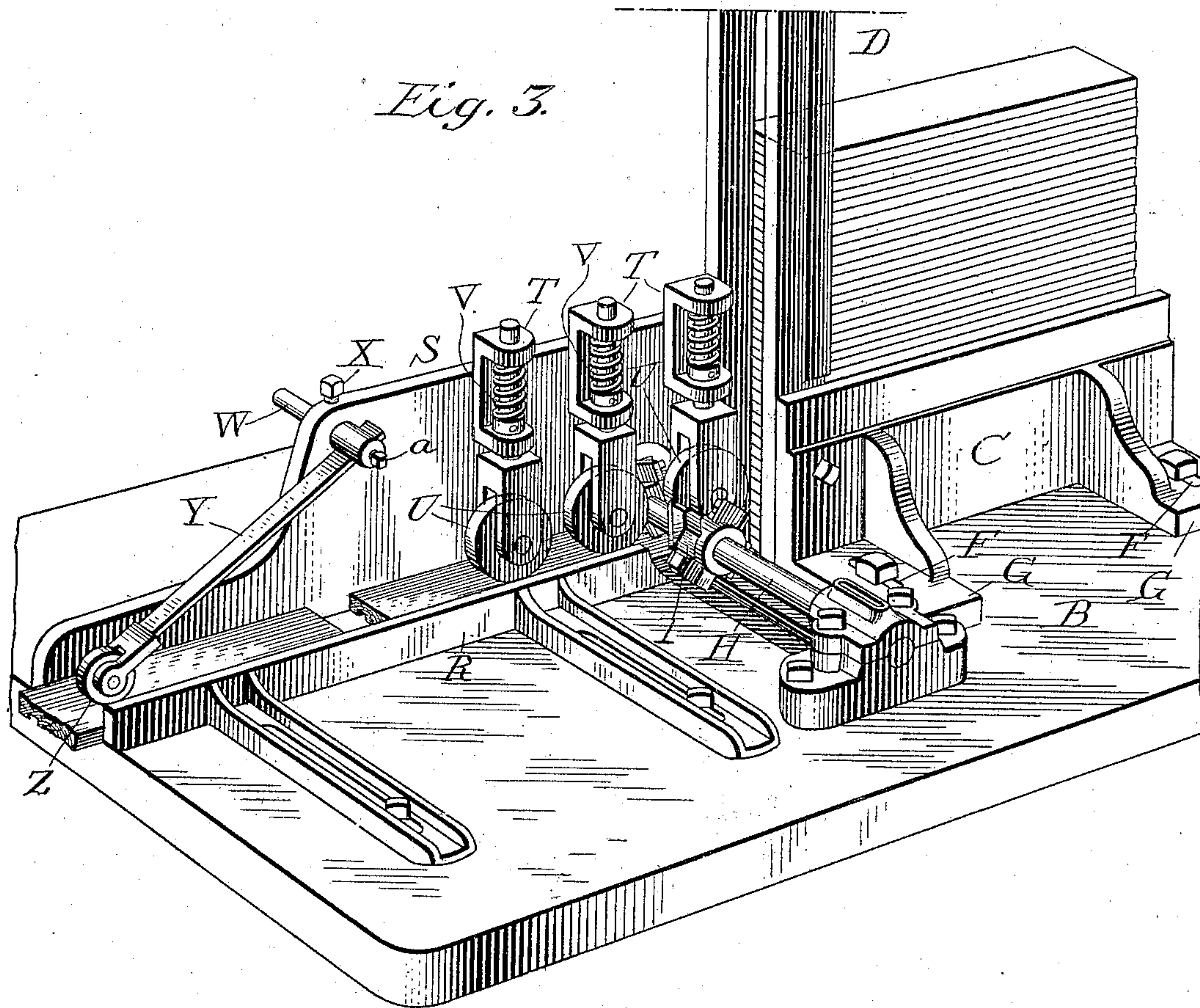
Patented Dec. 17, 1901.

R. SCHLEICHER.  
WOODWORKING MACHINE.

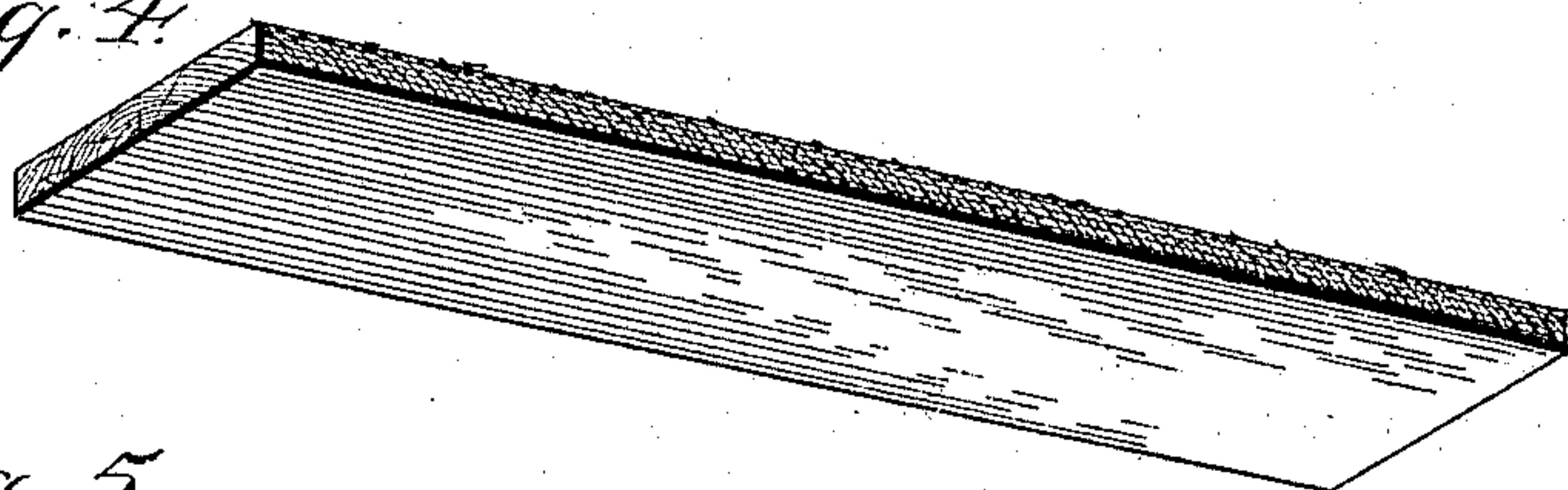
(Application filed Oct. 13, 1898.)

(No Model.)

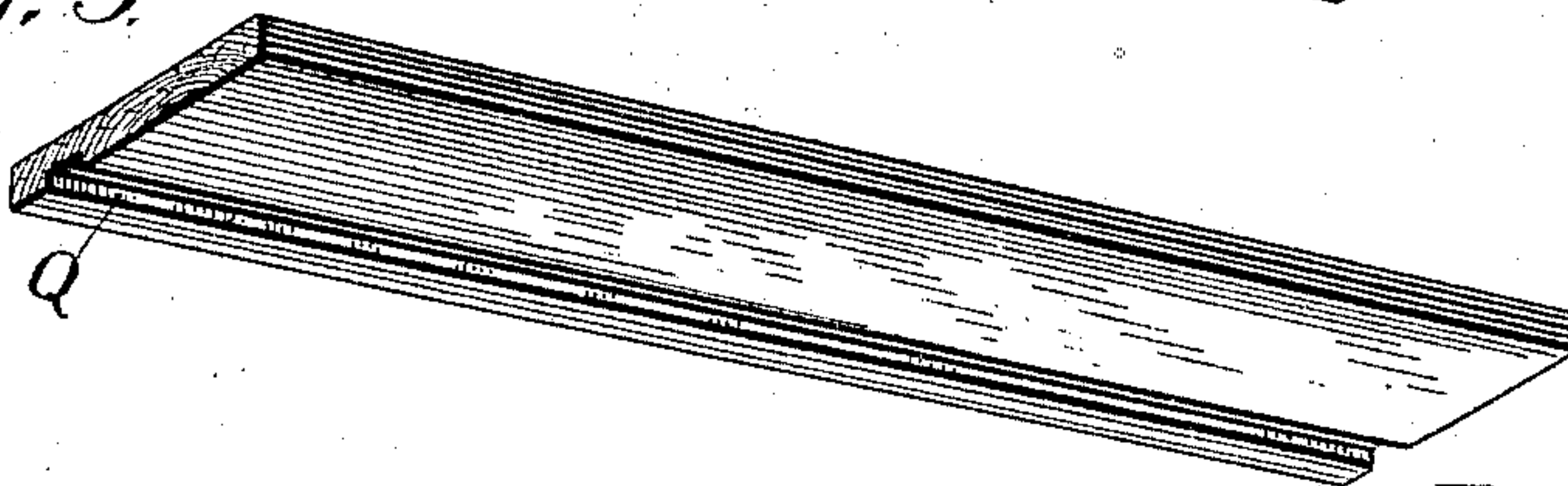
3 Sheets—Sheet 3.



*Fig. 4.*



*Fig. 5.*



Attest;  
W. E. Burdine  
D. E. Burdine

Inventor;  
Robert Schleicher,  
by Dodge & Sons  
Attys.



# UNITED STATES PATENT OFFICE.

ROBERT SCHLEICHER, OF LOUISVILLE, KENTUCKY.

## WOODWORKING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 689,027, dated December 17, 1901.

Application filed October 13, 1898. Serial No. 693,417. (No model)

*To all whom it may concern:*

Be it known that I, ROBERT SCHLEICHER, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Woodworking-Machines, of which the following is a specification.

My present invention pertains to improvements in machines for dressing lumber, the construction and advantages of which will be hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the machine; Fig. 2, a top plan view; Fig. 3, an enlarged perspective view of certain of the operative parts; Fig. 4, a perspective view of a strip of lumber before it is passed through the machine, and Fig. 5 a similar view showing the completed article.

The machine is constructed primarily for the finishing of strips designed to be used in boxes, though it is of course applicable to other work.

The object of the invention is to provide a machine which will take a strip having its two wide faces dressed, but with its edges or sides in the rough, and dress said sides simultaneously, at the same time forming a rabbet in one face of the material.

Referring to the drawings, A indicates the base of the machine, and B the horizontal table mounted thereon. At one end of the table there is placed an adjustable hopper or holder comprising the side walls or faces C, provided with vertical arms D at their forward ends, said arms, as will be seen upon reference to Fig. 2, being provided with a shoulder E to prevent the strips which are placed within the holder or chute from being fed forward except at the bottom or next to the bed-plate, where the arms are cut away to permit one strip to be fed forward upon the table.

As will be seen upon reference to Figs. 2 and 3, the side walls or members C of the chute or holder may be adjusted toward one another by simply loosening the retaining-bolt, which passes through suitable slots F, formed in the lugs or brackets G, extending from the members C.

Suitably journaled upon the bed directly in front of the arms D of the chute and at a

slight distance therefrom is a shaft H, having mounted upon it cutter-heads I, provided with suitable blades which are designed to act upon the edges of the strip which passes out between them from the chute or hopper. These cutter-heads may be adjusted back and forward upon the shaft H to accommodate any width of strip desired.

To feed the lowermost strip forward between the cutters I and out at the bottom of the chute, I employ a feed-chain J, having teeth K. The chain J passes about a sprocket-wheel L at the head of the machine, over the bed-plate B, in between the side walls of the chute along the bed-plate nearly to the opposite end of the bed, where it passes down through an opening around a sprocket-wheel M, mounted upon a shaft N, and thence around an idler O, adjustably mounted upon the base of the machine. By means of the idler O proper tension can be had upon the driving-chain.

P denotes a cutter designed to extend up through the bed of the table and preferably below the shaft H between the cutter-heads I. This cutter P forms the rabbet Q, Fig. 5, in the lower face of the strip.

To properly guide the strips as they pass out of the hopper or chute, I provide suitable abutments or guards R and S, which, like the hopper-walls, are adjustable toward and from each other. Guard S extends up quite a distance above the face of the bed and is provided with yokes T, in which are mounted rolls U, held down upon the work by springs V. One of these rolls U occupies a position between the uprights D of the chute and the cross-shaft H and securely holds the end of the strip down upon the bed-plate as it passes out of the chute, thereby insuring the cutting of the rabbet to the full depth at the beginning of the operation. There is also mounted in the guard S a rod or shaft W, which may be adjusted lengthwise and held in its adjusted position by a bolt X. Extending through the head of said rod or shaft is a spring-arm Y, carrying at its lower end a roll Z, the arm Y being adjustable through the head of the rod or stem and held in its adjusted position by a bolt *a*. The distance between the bearing-point of the roll Z and that of the roll U nearest thereto is de-



signed to be slightly less than the length of the strips being operated upon, so that the forward end of the strip shall pass beneath the roll Z before the other end of the strip has passed out beneath the roll U. By thus having one or the other of the rolls bearing at all times on the strip the strip is held down upon the feed-chain J with sufficient pressure to insure proper feed of the material being operated upon.

The main driving or power shaft is indicated by the reference-letter *b*, and extending from a pulley mounted thereon is a driving-belt *c*, which passes around a smaller pulley mounted upon the shaft upon which the cutter P is secured. A second belt *d* passes around a pulley *e*, mounted upon the shaft *b*, and imparts motion to the shaft H, as indicated in Figs. 1 and 2. A third belt *f* extends from a small pulley *h* upon shaft *b* around a larger pulley *i*, which is mounted upon a shaft *j*. Upon said shaft *j* there is secured a relatively small sprocket *k*, and from said sprocket motion is imparted by a sprocket-chain *l* to a large sprocket *m*, secured upon the shaft N.

From the connections just described it will be seen that a relatively high speed is imparted to the cutter-heads I and the rabbeting-cutter P, while a slow motion is imparted to the carrier-chain J.

In the operation of the machine the strips, such as indicated in Fig. 4, having their flat faces dressed, but with the edges rough, are placed or piled one upon another in the chute or hopper at the head of the machine, the forward ends of the strips bearing against the shoulder E of the uprights D. Motion is then imparted to the mechanism, when the feed-chain J will engage the lowermost strip and feed the same forward beneath the first roll U, over the rabbet-cutter P, and in between the edge-trimmers or cutter-heads I. The rabbet Q will be formed as indicated in Fig. 5, and the edges of the strip will also be dressed. As the first strip passes out of the chute or hopper the feed-chain will engage the next, which is forced downward by the weight of the blanks above, and the operation will continue so long as motion is imparted to the mechanism. The strips thus prepared are especially designed for making up boxes, more particularly boxes for packing tobacco, wherein it is absolutely essential that the parts or sides should be finished to a nicety in order that they may come together so close as to present a substantially moisture-tight joint. The machine has been employed for making strips for boxes of this character and has been found to work to advantage.

Having thus described my invention, what I claim is—

1. In a woodworking-machine; the combination of a base; a bed-plate mounted thereon; a hopper located at one end of the bed-plate and provided with adjustable side walls C and shouldered uprights D; a shaft H jour-

naled upon the bed-plate adjacent to said chute or hopper; rotary cutter-heads I mounted upon said shaft, said cutters being provided with cutting-blades to act upon the edges of the blanks; a rabbeting-cutter P having its upper edge extending slightly above the upper face of the bed-plate; guides R and S mounted upon the bed-plate; presser-rolls V; and means for feeding the blanks forward from the hopper.

2. In a woodworking-machine, the combination of a base and a bed-plate mounted thereon; a hopper located at one end thereof; shaft H journaled upon the bed-plate adjacent to the hopper; face cutter-heads I adjustably mounted upon said shaft; a rabbeting-cutter P having its upper edge extending slightly above the upper face of the bed-plate; guides for the blanks to be operated upon; means for feeding the blanks forward; presser-rolls U; and a presser-roll Z located at the tail end of the machine acting toward the bed thereof, substantially as and for the purpose described.

3. In a woodworking-machine, the combination of a base; a bed-plate mounted thereon; a hopper located at one end of the bed-plate and provided with adjustable side walls; shaft H mounted on the bed-plate adjacent to the hopper; face cutter-heads I adjustably mounted upon said shaft and adapted to act upon the edge of the blank; a rabbeting-cutter P; guides R and S adjustably mounted upon the bed-plate; presser-rolls U secured to said guide S; adjustable presser-roll Z; and a feed-chain J extending along the bed-plate between the walls of the hopper, substantially as and for the purpose described.

4. In a woodworking-machine, the combination of a suitable base; a bed-plate mounted thereon; a hopper located at one end of said bed-plate; a shaft H mounted on the bed-plate; face cutter-heads mounted upon said shaft and designed to act upon the edges of the blanks as they are fed from the hopper; a rabbeting-cutter designed to form a rabbet in one face of the blank; guides mounted upon the bed-plate; presser-rolls U designed to hold the blanks down upon the bed-plate intermediate the guides; a shaft W adjustably mounted in one of said guides; an arm Y extending through the head of said shaft; a roll Z carried at the outer end of said arm Y; and means for feeding the blanks from the hopper along the bed-plate between the cutters and below the presser-rolls, substantially as described.

5. In a woodworking-machine, the combination of a suitable bed-plate having an opening therein; a rabbeting-cutter located beneath the bed-plate and projecting through said opening; a hopper located at one end of the bed-plate, the side walls of said hopper being adjustable in a direction transverse to the line of travel of the material to be operated on; a shaft mounted on the upper face of the bed-plate adjacent to the delivery end of



said hopper; face-cutters adjustably mounted on said shaft and arranged to act on the edges of the blanks; means for withdrawing the blanks from the hopper and feeding them  
5 over and between the cutters; and means for holding said blanks in their proper position upon the bed-plate.

6. In a woodworking-machine, the combination of a suitable bed-plate having an opening therein; a rabbeting-cutter located below the bed-plate and having its upper edge projecting through the opening; a hopper located at one end of the bed-plate adjacent to said opening, the walls of the hopper being made adjustable; a shaft H mounted on  
15 the bed-plate; face cutter-heads adjustably

mounted upon said shaft and adapted to work upon the side edges of the blanks; a chain for feeding the blanks from the hopper to the cutters; a guard S extending up from the bed-plate; an adjustable guide R mounted upon the bed-plate; and means carried by the guard S adapted and arranged to bear upon the upper face of the blank as it is fed from the hopper over and between the cutters. 20

In witness whereof I hereunto set my hand in the presence of two witnesses. 25

ROBERT SCHLEICHER.

Witnesses:

C. C. MENGEL, Jr.,  
H. P. ROBERTS.