

No. 815,028.

PATENTED MAR. 13, 1906.

G. MORRIS.  
SAWING MACHINE.  
APPLICATION FILED MAR. 8, 1906.

2 SHEETS—SHEET 1.

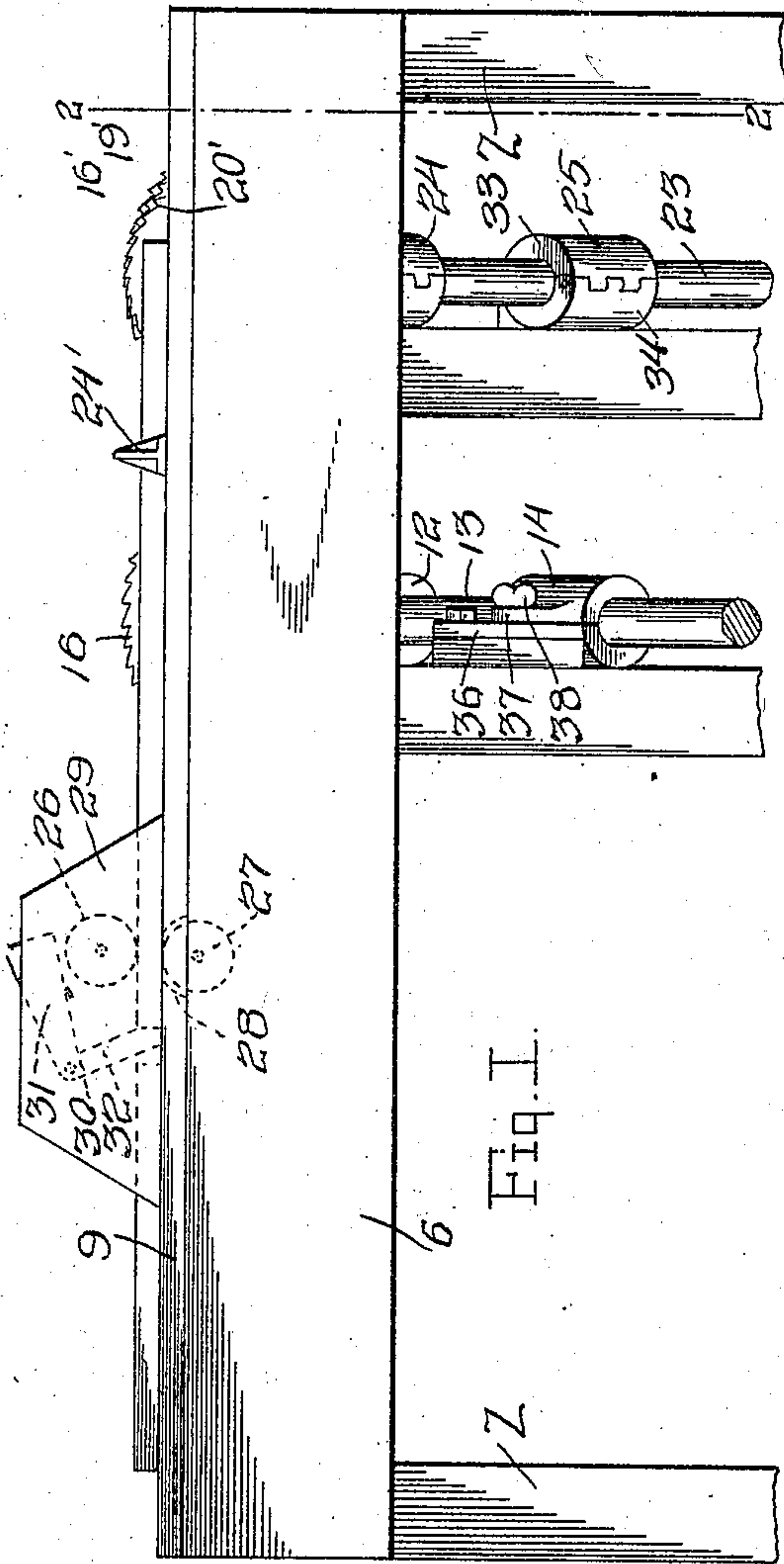


Fig. 1.

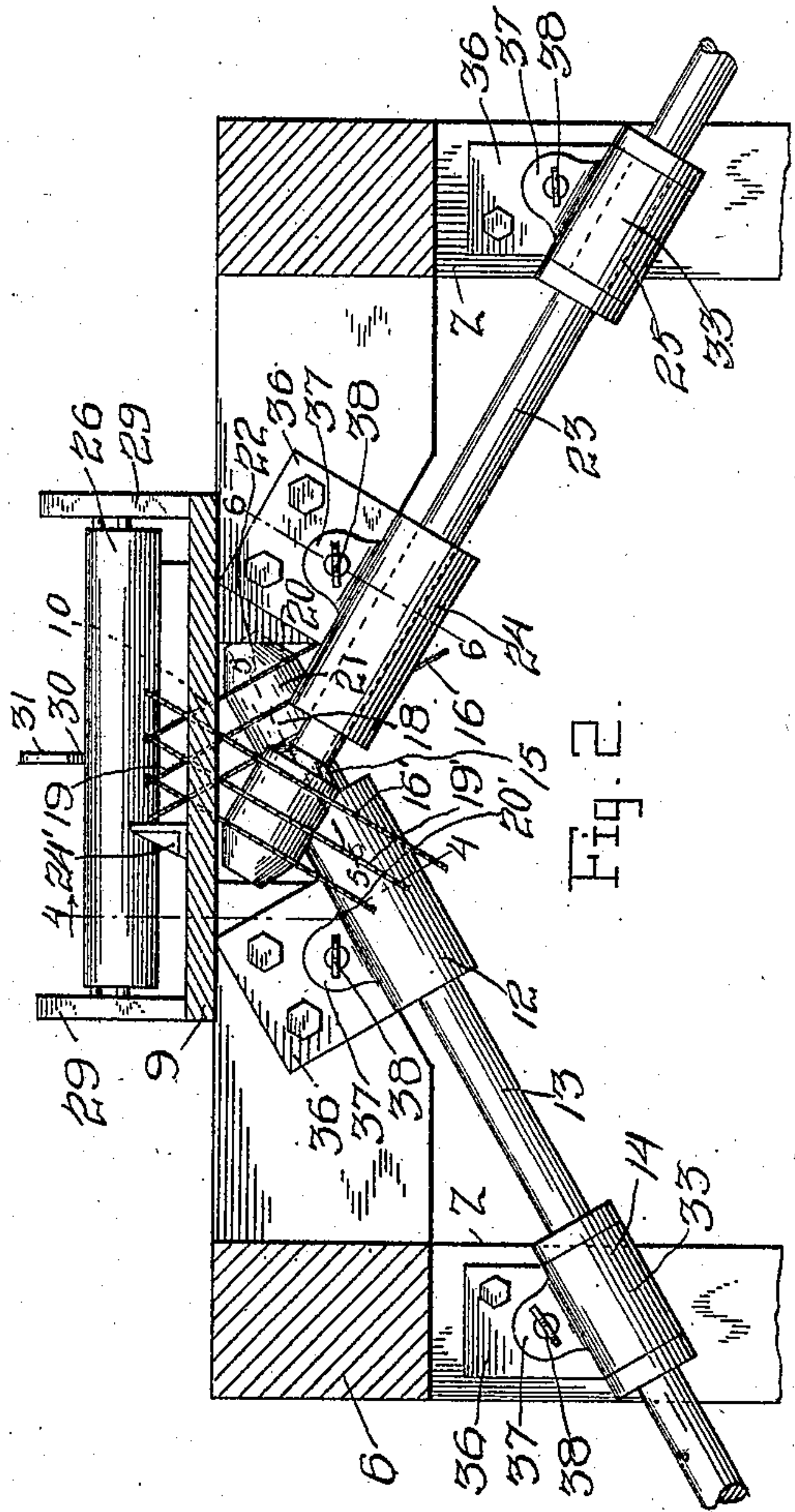


Fig. 2.

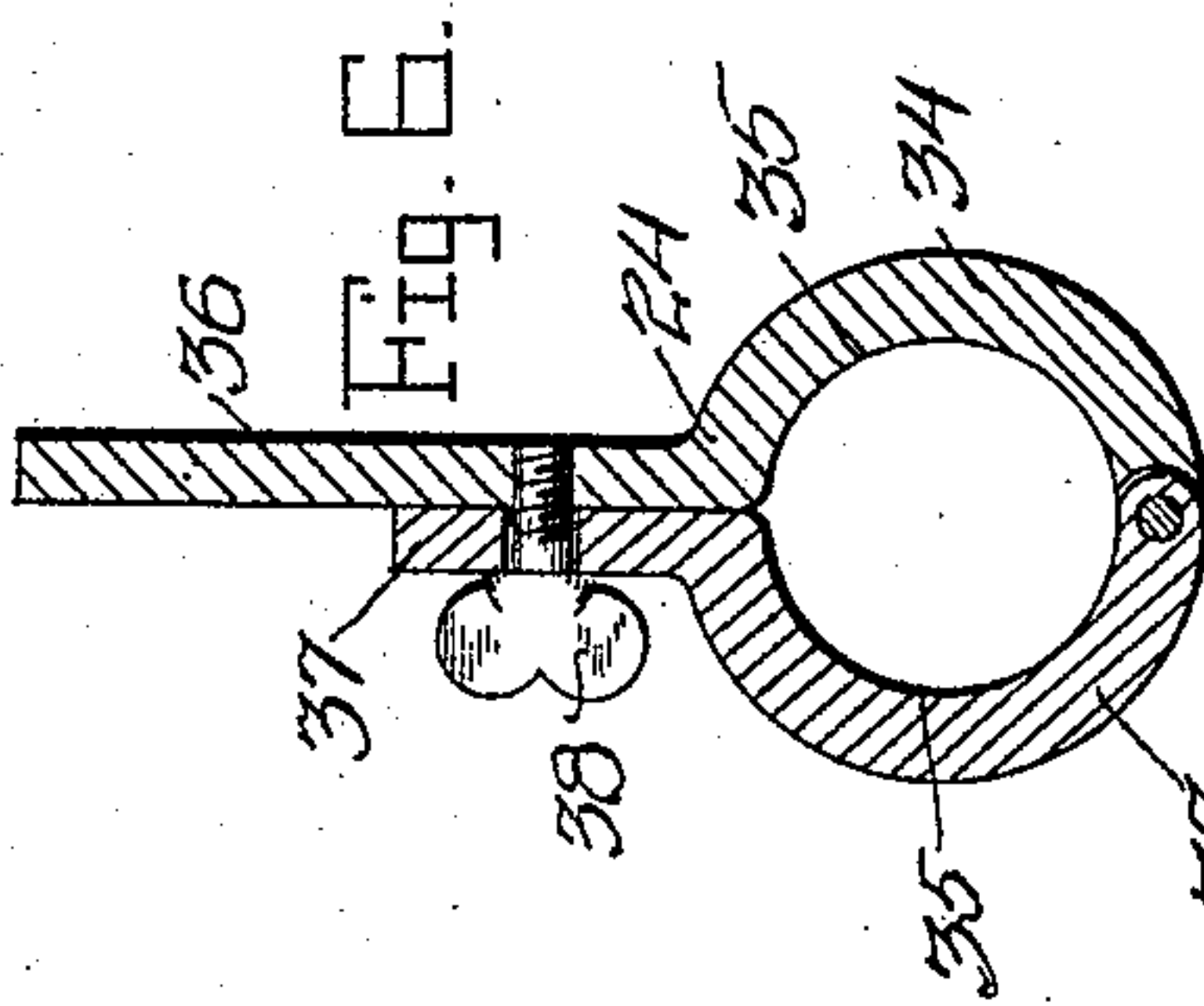


Fig. 3.

Witnesses  
G. H. Reichenbach.  
E. M. Galford

Inventor  
G. Morris.  
Charles Chandler  
Attorneys

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2 SHEETS—SHEET 2.

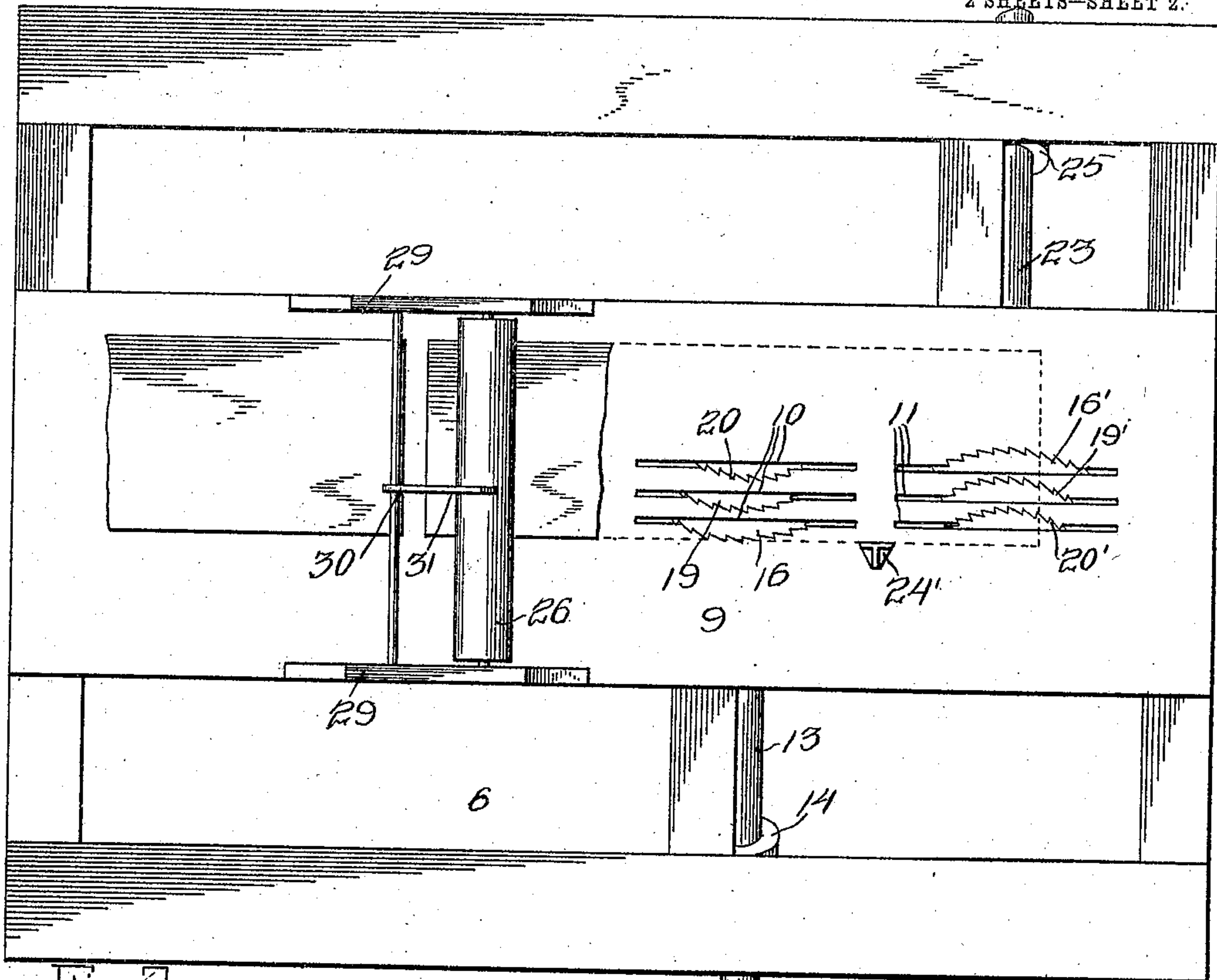


Fig. 3.

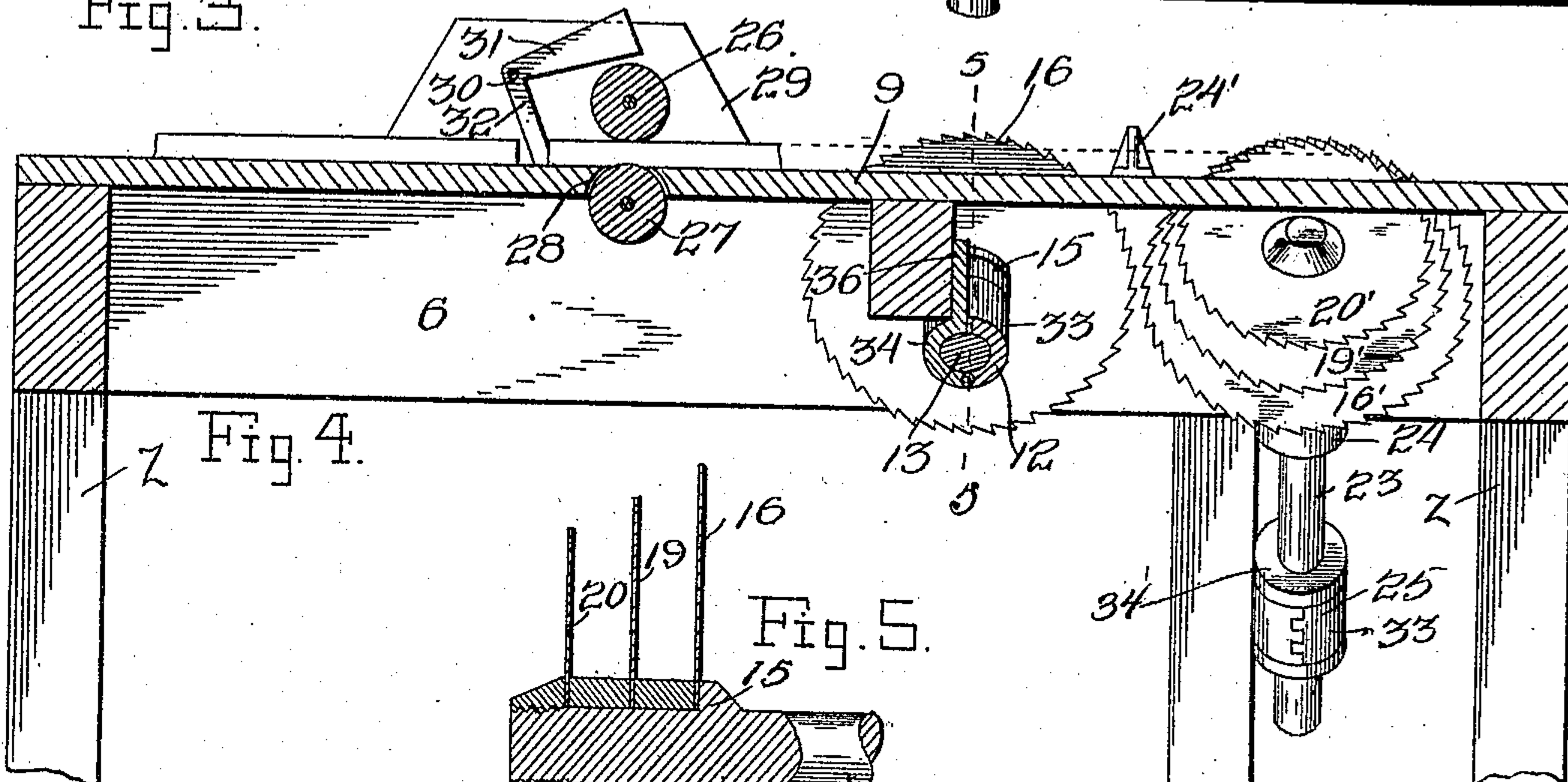


Fig. 4.

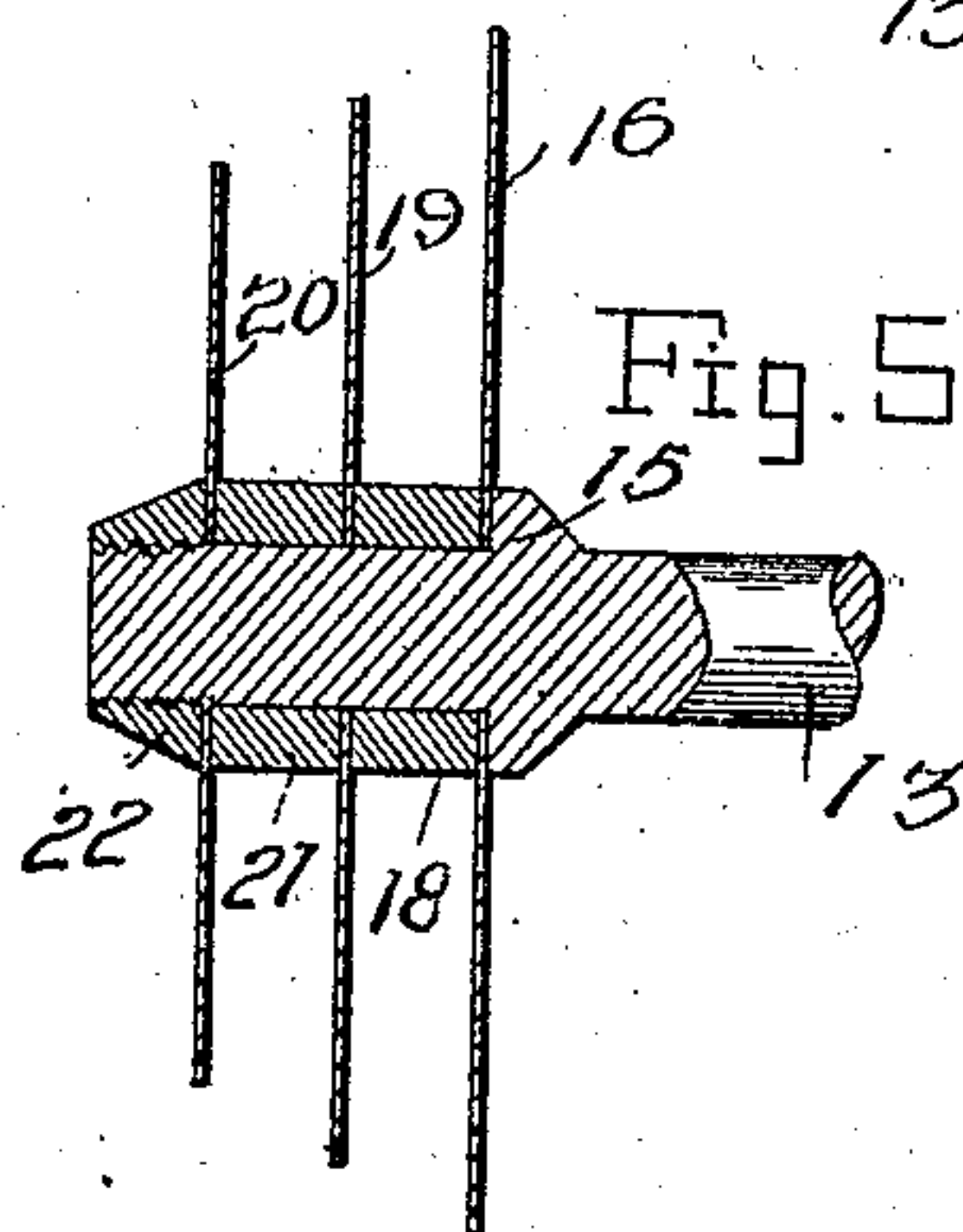


Fig. 5.

Witnesses  
C. K. Reichenbach.  
E. M. Colford

Inventor  
G. Morris, by  
Charles Canale  
Attorneys.



# UNITED STATES PATENT OFFICE.

GEORGE MORRIS, OF FRUITHURST, ALABAMA, ASSIGNOR OF ONE-THIRD  
TO LEE FRAZIER, OF LAWRENCEBURG, TENNESSEE.

## SAWING-MACHINE.

No. 815,028.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed March 8, 1905. Serial No. 248,976.

*To all whom it may concern:*

Be it known that I, GEORGE MORRIS, a citizen of the United States, residing at Fruithurst, in the county of Cleburne, State of Alabama, have invented certain new and useful Improvements in Sawing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to saws, and more particularly to mechanically-operated saws, and has for its object to provide a machine which will cut a plurality of cross-sectionally triangular strips simultaneously.

A further object is to provide an arrangement of parts which, being simple, will insure efficient operation of the machine.

Another object is to provide means for preventing backward movement of the board which is being cut after it is released by the person feeding the machine.

Other objects and advantages will be apparent from the following description, and it will be understood that modifications of the specific construction shown may be made and any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts of the several views, Figure 1 is a side elevation of the present invention. Fig. 2 is a transverse section taken just forwardly of the saws on line 2 2 of Fig. 1. Fig. 3 is a top plan view. Fig. 4 is a section taken on line 4 4 of Fig. 2. Fig. 5 is a detail section through one of the saw-heads, taken on line 5 5 of Figs. 2 and 4. Fig. 6 is a transverse section of one of the bearings, taken on line 6 6 of Fig. 2.

Referring now to the drawings, the present invention comprises a supporting-frame 6, upon which there is mounted a bed-plate 9. The plate 9 is provided with a plurality of longitudinally-extending slots 10, which open through the upper and lower faces of the plate and which extend parallel to each other and at an angle of approximately forty-five degrees to the horizontal faces of the plate. A second series of slots 11 are formed through the plate forwardly of the slots 10, these slots 11 being similar to the slots 10, but extending at an angle opposite to that of the slots

10, and the slots 11 are so disposed that the openings of the slots through the faces of the bed-plate 9 are in pairs longitudinally of the plate.

Disposed in the frame beneath the plate 9 there is a bearing 12, which extends at an angle to the plate, and journaled in this bearing there is a shaft 13, which is also journaled in a similar bearing 14, disposed at one side of the frame, the shaft extending outwardly of the frame and being arranged at its outer end for connection with a source of power to be revolved thereby. The shaft 13 slants downwardly toward its outer end, as shown, and extends at right angles to the slots 10, its upper end intersecting the planes of these slots, and formed adjacent to the upper end of the shaft there is a laterally-extending flange 15. A circular saw 16 is provided and has a central passage in which the shaft is engaged, said saw resting against the flange 15. Engaged with the shaft beyond the saw 16 there is a collar 18, and resting against this collar there is a second saw 19, which is also engaged with the shaft. A third saw 20 is also engaged with the shaft and is held in spaced relation to the saw 19 by a collar 21, which is similar to the collar 18 and which is engaged with the shaft between the saws. The shaft projects beyond the saw 20 and has engaged therewith a cap 22 to prevent disengagement of the saws and collars from the shaft.

The saws 16, 19, and 20 are so spaced and so disposed that they lie in the slots 10 and extend beyond the upper face of the bed-plate 9, the slots 10 being equal in number to the saws, as shown. The three saws are of different sizes, the saw 16 being the largest, while the saw 20 is the smallest, and the proportion is such that the edges of the saws which project through the slots lie in a common horizontal plane.

A second shaft 23 is journaled in bearings 24 and 25, which are similar to the bearings 12 and 14, the shaft 23 being disposed forwardly of the shaft 13 and being disposed oppositely thereto. The shaft 23 is provided with saws 16', 19', and 20', corresponding to the saws 16, 19, and 20 of the shaft 13, and these saws project through the slots 11, the planes of the saws 16' and 20', 19 and 19', and 16 and 20' intersecting at the upper surface of the plate 9, and the saws project a



sufficient distance above the plate 9 to cause the planes of the saws 19 and 20' and those of the saws 19' and 20 to intersect above the plate.

5 It will thus be apparent that a board brought into engagement with the saws will be cut diagonally in one direction by the saws of the shaft 13 into a plurality of strips which will have the form of a rhomboid in  
10 cross-sections and that these strips will then be cut by the saws of the shaft 23, the result being a plurality of cross-sectionally triangular strips. An edge-guide 24' is adjustably mounted upon the bed-plate 9, and mount-  
15 ed rearwardly of the saws there are a pair of vertically-spaced guide-rollers 26 and 27, the latter being disposed with its upper portion in a slot 28, formed transversely through the bed-plate 9 and projecting above the upper  
20 face of the latter, and these rollers receive therebetween the board to be cut. The roller 26 is journaled at its ends in brackets 29, disposed one at each side of the bed-plate 9, and journaled transversely between these  
25 brackets rearwardly of the rollers there is a stop 30, which consists of two arms 31 and 32, extending at an angle to each other, and this stop is pivoted at the meeting-point of its arms and is movable upon its pivot to bring  
30 the free end of its arm 32 into and out of engagement with the bed-plate, in engagement with which it is held normally by gravity. It will thus be seen that when a board is being sawed the free end of the arm 32 will rest  
35 thereupon and that when it passes the stop the arm 32 will come into engagement with the bed-plate and will lie rearwardly of the board to prevent its being forced back by the action of the saws.

40 The bed-plate 9 is removable, and the bearings 12, 14, 24, and 25 are so arranged that the shafts may be easily disengaged therefrom for the attachment of different-sized saws thereto for sawing strips of different sizes,  
45 and it will be understood that correspondingly-slotted bed-plates will be used in connection with the different-sized saws.

The bearings each consist of two hinged sections 33 and 34, provided with channels

35, which are semicircular in cross-section 50 and which cooperate to form the shaft-receiving passages. The sections 34 are provided with laterally-extending attaching-plates 36, secured to legs Z, which form a portion of the frame 6, while the sections 33 are provided 55 with laterally-extending plates 37, which lie upon the plates 36 when the bearings are in position to hold the shafts therewithin, the plates 36 and 37 being held in engagement with each other by a thumb-bolt 38, engaged 60 therein.

The feeding-roller is run by friction, thereby making it adjustable without having to stop the mechanism. The shafts of the saws are adjustable, so that strips of any size and 65 angle can be cut.

What is claimed is—

A machine of the class described comprising a frame including legs, a slotted bed-plate removably disposed upon the frame, 70 bearings secured to the legs, each of said bearings including a section having a laterally-extending attaching-plate, and a section hinged to the first-named section for movement into and out of position for coop- 75 eration therewith to receive a shaft, the second section having the plate thereof arranged to rest against the attaching-plate when said section is in operative position, means engaged in the two plates for holding 80 the sections in operative position, shafts removably journaled in the bearings and intersecting the planes of each other at one end, said shafts having flanges thereon adjacent to said ends, saws engaged with the 85 shafts, spacing-collars engaged with the shafts between the saws of each shaft, one saw of each shaft resting against the flange thereof, and caps removably engaged with the shafts and arranged to hold the saws 90 thereupon, said saws projecting through the slots of the bed-plate.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE MORRIS.

Witnesses:

Z. J. ROBERTSON,  
T. F. ROBERTSON.