

No. 765,313.

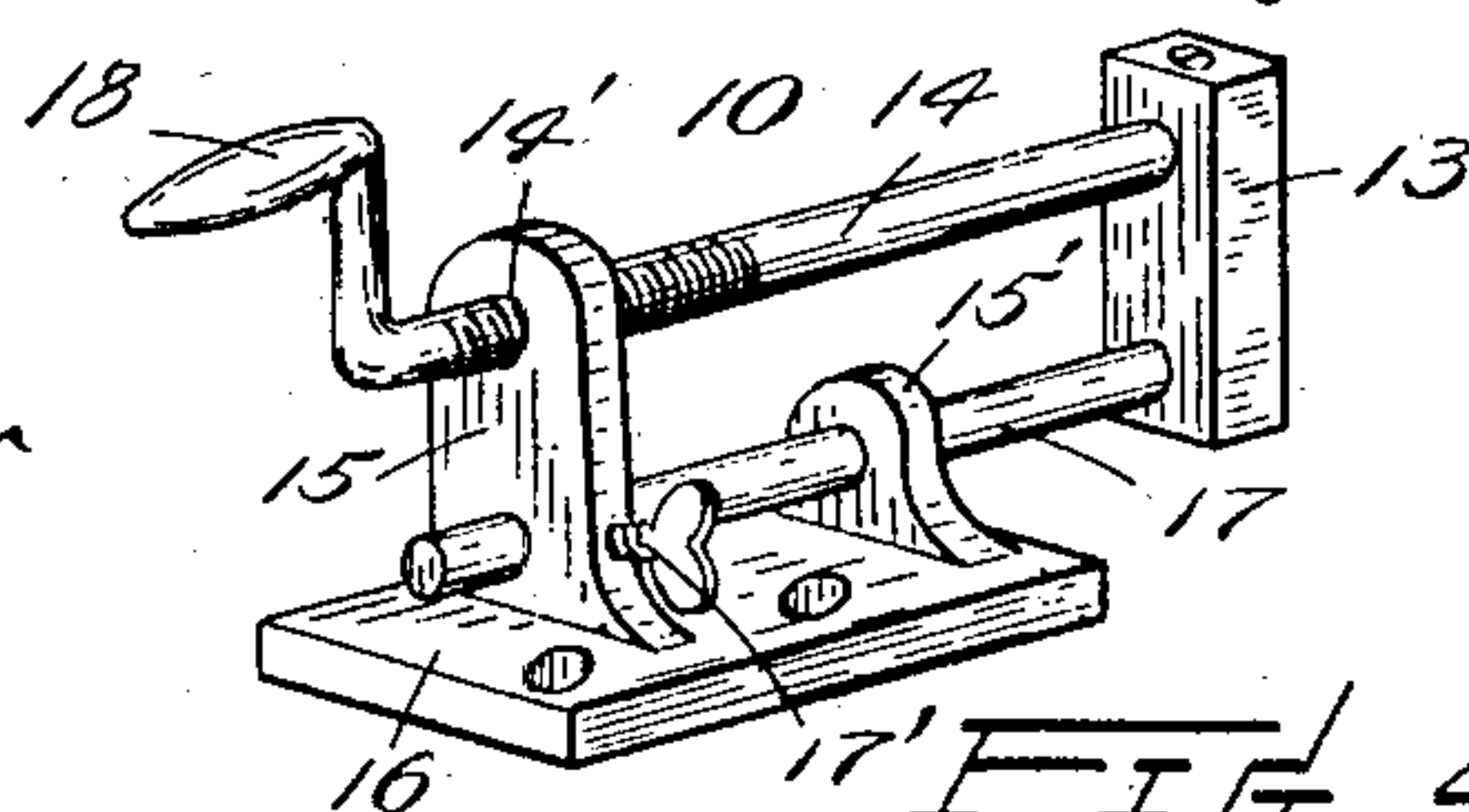
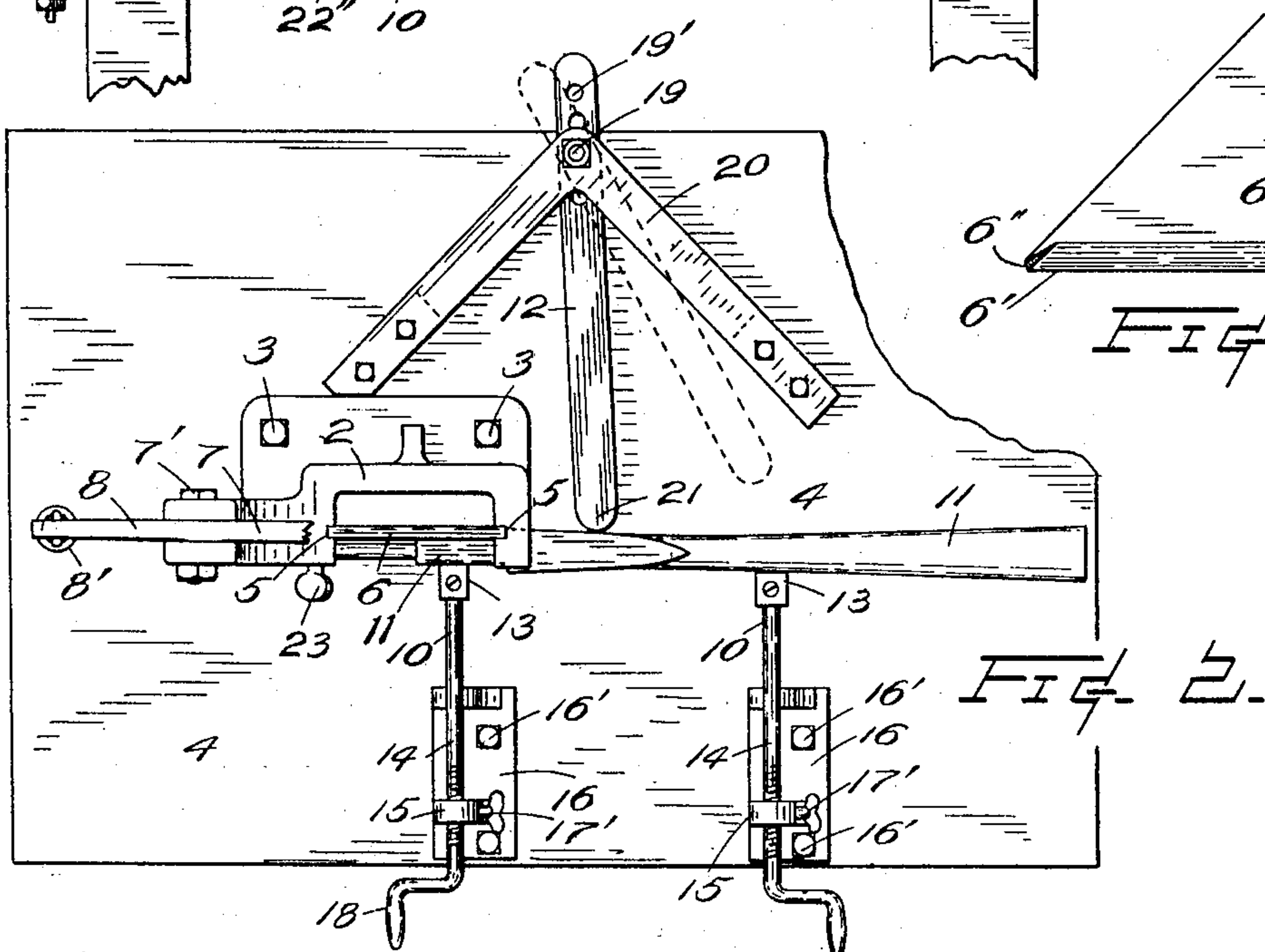
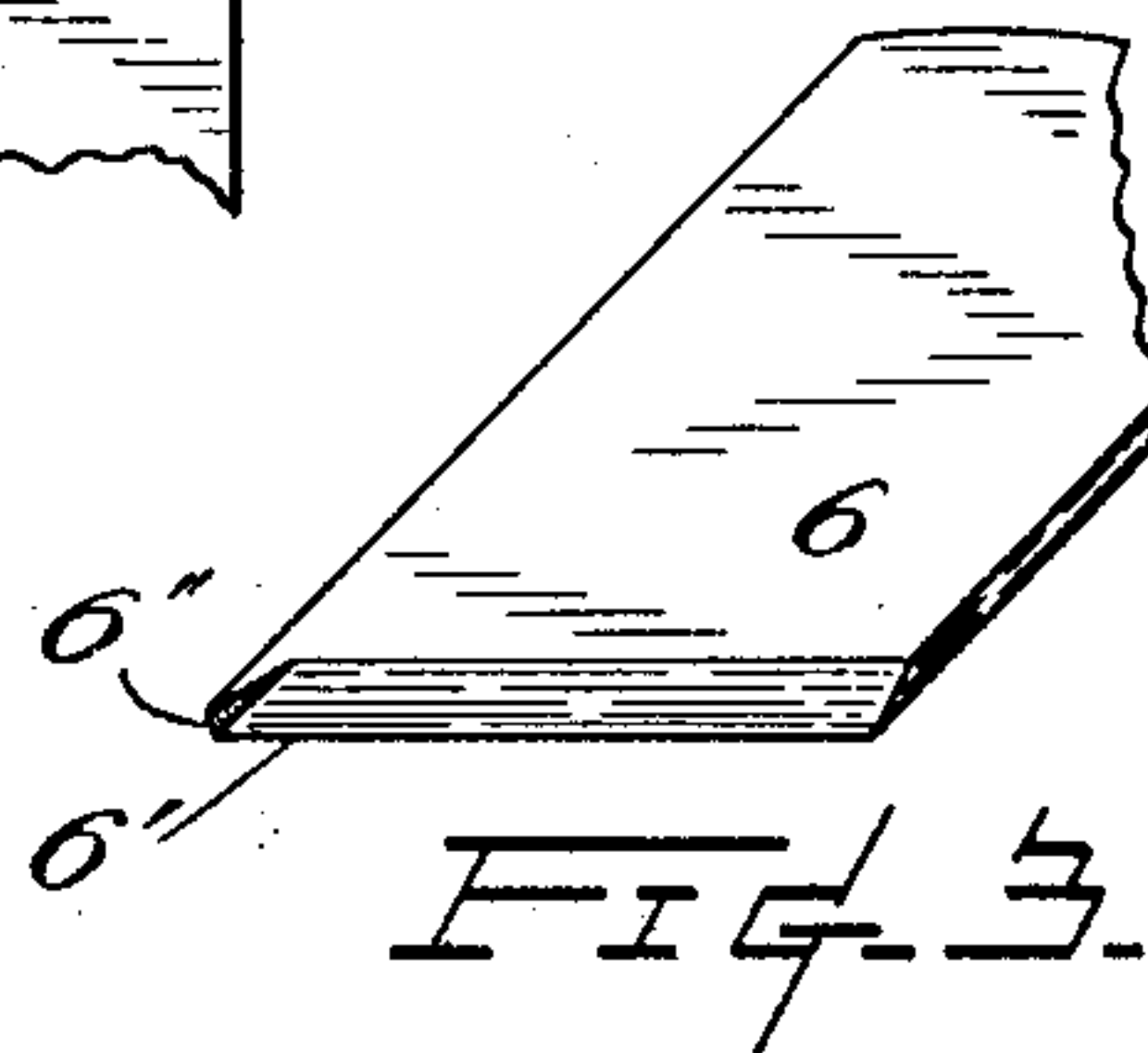
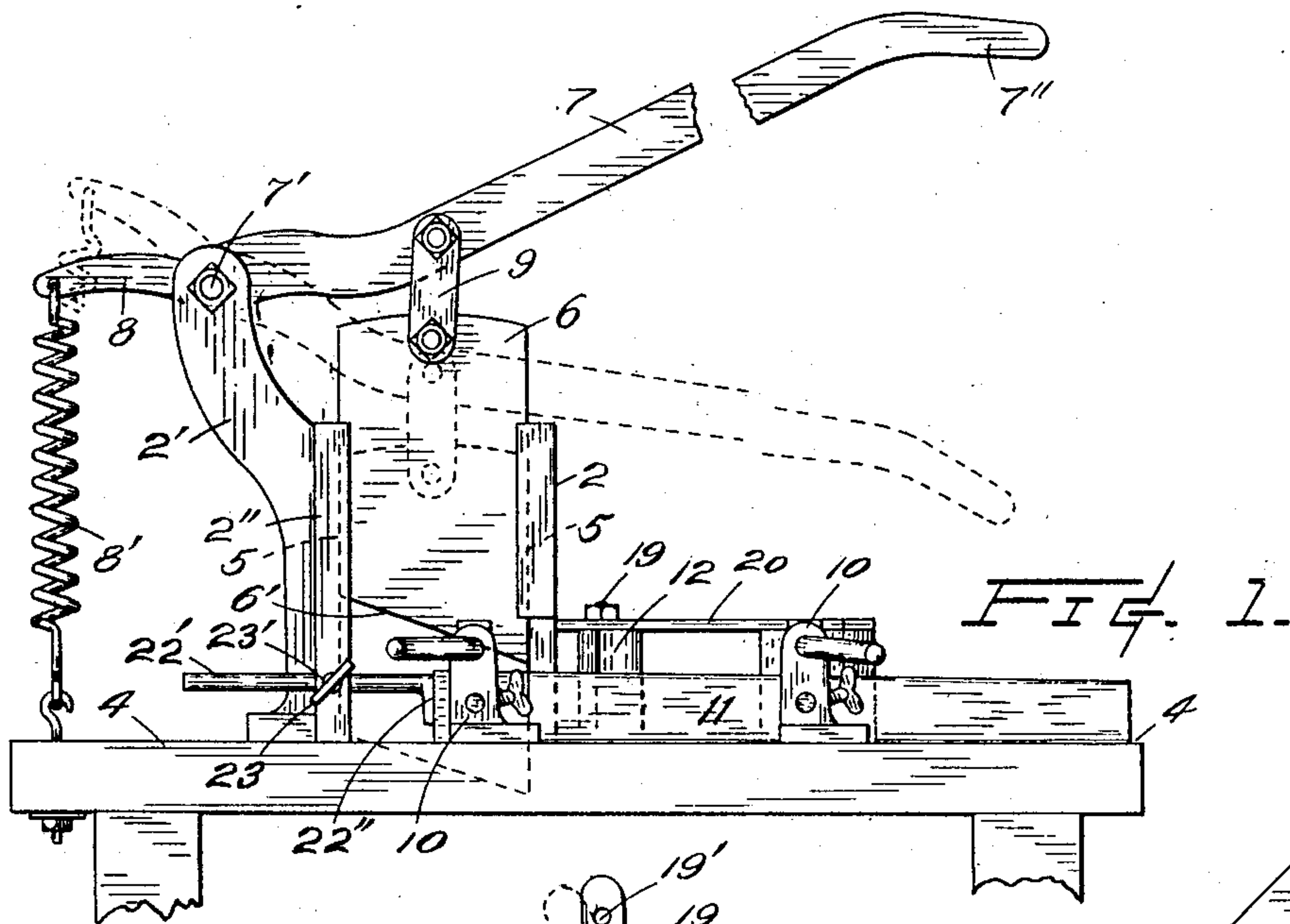
PATENTED JULY 19, 1904.

G. HANSEN.

### MACHINE FOR FACING THE TENONS OF WAGON SPOKES.

APPLICATION FILED JULY 20, 1903.

NO MODEL.



WITNESSES:

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FIG



# UNITED STATES PATENT OFFICE.

GEORGE HANSEN, OF SEATTLE, WASHINGTON.

## MACHINE FOR FACING THE TENONS OF WAGON-SPOKES.

SPECIFICATION forming part of Letters Patent No. 765,313, dated July 19, 1904.

Application filed July 20, 1903. Serial No. 166,236. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE HANSEN, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Machines for Facing the Tenons of Wagon-Spokes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to machines for trimming the faces of spoke-tenons; and the object of the invention is to produce a simple, inexpensive, and effective machine of this class by which the spoke-tenons can be expeditiously and accurately cut to fit the mortises of the wheel-hub in which they are to be placed. I attain this result by the construction hereinafter described, and illustrated in the accompanying drawings, in which—

20 Figure 1 is a front elevation of the machine. Fig. 2 is a plan thereof with the lever 7 broken away. Figs. 3 and 4 are perspective views, respectively, of the cutter-knife and one of the gage devices shown in the other views.

Referring to the said drawings by reference-numerals, 2 represents a frame which is rigidly secured by suitable bolts, such as 3, to a table 4 and is provided with oppositely-disposed vertical slots 5, forming guideways for a cutter-knife 6. The knife (see Figs. 1 and 3) is provided with a diagonal or slanting cutting edge 6', which terminates at its lower corner in a transversely-arranged cutting-lip 6". 7 is a lever fulcrumed at 7' to a bracket-arm 2' of the frame and extends across the frame, as clearly shown in Fig. 1, and its extremity is formed into a handle 7".

40 The arm 8, integral with the lever, projects in the opposite direction from the fulcrum and is connected to the table by an extensible spring 8'.

Intermediate the handle and fulcrum the lever is connected by a link 9 with the aforesaid knife, whereby the latter is forced down coincidently with the handle or raised by the resiliency of the spring when the handle is released.

50 The slot in the portion of the frame forming the fulcrum for the lever operating the

knife extends to or nearly to the table, while the opposite slot is shorter and terminates sufficiently above the table as to permit the spoke or other material to be cut to pass directly under the shorter slot and knife. Thus 55 it will be seen with this construction when the knife with the inclined cutting edge is directly over the material to be operated upon, and in starting the knife one has practically a point for a cutting edge to pierce the material and directly over the material and a gradual increase of resistance until the point has passed through the spoke in the downward movement of the knife.

10 represents gage devices against which 65 the spoke 11 (shown in position to have its tenon trimmed) is held by a clamp-lever 12. The gage devices each comprise a block 13, which is advanced or withdrawn from the work by an adjustment-screw 14, passing 70 through a screw-threaded aperture 14' of a standard 15, integral with a base-plate 16, fixedly secured to the table 4 by suitable fastenings, such as bolts 16'. The block 13 is prevented from rotating with the adjustment- 75 screw by means of a guide-rod 17, fixedly secured to the said block and extending through standards 15 and 15'. A thumb-screw 17', inserted in a corresponding aperture of standard 15, is provided to bear against the said 80 guide-bar for locking the same and the block to which it is attached to any set position. For convenience of manipulation I preferably provide a crank-handle 18 to each of the said adjustment-screws. The clamp-lever 12 85 is pivotally connected through any of a series of holes 19' positioned adjacent to one end by a pin or bolt 19 to a frame-support 20, secured to the table. The work is clamped by swinging the free end 21 of the lever 12 so as two 90 edge thereon and press the same against the aforementioned gage-blocks.

22 is a stop for predeterminately placing the work longitudinally of the table, so that the cut to be made upon the tenon and the 95 shoulder thereof will coincide with the position of the knife. The said stop preferably comprises a shank 22', extending through the web 2" of the frame and provided with a rectangular bend 22", whereby a larger area 100



is presented to the spoke end. The stop is secured to its set position by a clamp-screw 23, fitted into a screw-threaded aperture 23' of the frame.

5 The operation of the device is extremely simply and will readily be understood from the foregoing description, taken in connection with the drawings; but it may be pointed out that the gages capable of being independently  
10 set provide means for cutting tenons having parallel or tapering faces—for instance, by advancing or retracting either of the gages.

I do not wish to be understood as confining myself to the precise construction hereinbefore described—as, for instance, to the manner of operating the knife-actuating lever by hand—for a foot-pedal or other means may readily be substituted therefor.

20 Having described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a spoke-tenon trimmer, the combination of a horizontal table, of a vertical guide-frame having oppositely-disposed slots, one of  
25 which is shorter than the other, a bracket-arm made integral with said frame-section having the longer slot, a lever fulcrumed on said bracket-arm, a knife attached to said lever and reciprocating in said slots, transversely-  
30 arranged gage devices, means to clamp the work against said gage devices and a longitudinally-adjustable stop-gage passing through the lower end of the framework composing the longer slot, substantially as set forth.

35 2. In a spoke-tenon trimmer, the combina-

tion of a horizontal table, of a vertical guide-frame, having oppositely-disposed slots, a bracket-arm made integral with said frame, a lever fulcrumed on said bracket-arm one end of which is connected to the table by a spring  
40 and the other end having a handle, a knife connected to said lever and reciprocating in said slots, of gage devices consisting of standards, adjusting-screws passing through said standards having blocks at their ends and an  
45 adjustable pivoted clamping-lever cooperating with said adjustable block, substantially as set forth.

3. In a spoke-tenon trimmer, the combination of a table of a guide-frame at right angles  
50 thereto having oppositely-disposed slots, a bracket-arm made integral with said frame, a lever fulcrumed on said bracket-arm one end of which is connected to the table by a spring  
55 and the other end having a handle, a knife provided with an inclined edge terminating in a rectangular lip connected to said lever and reciprocating in said vertical slots, of  
60 gage devices consisting of standards, adjusting devices passing through said standards, an adjustable pivoted clamping-lever cooperating with said adjusting devices, and an adjustable stop, substantially as set forth.

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

GEORGE HANSEN.

Witnesses:

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HENRY S. NOON.