

No. 743,448.

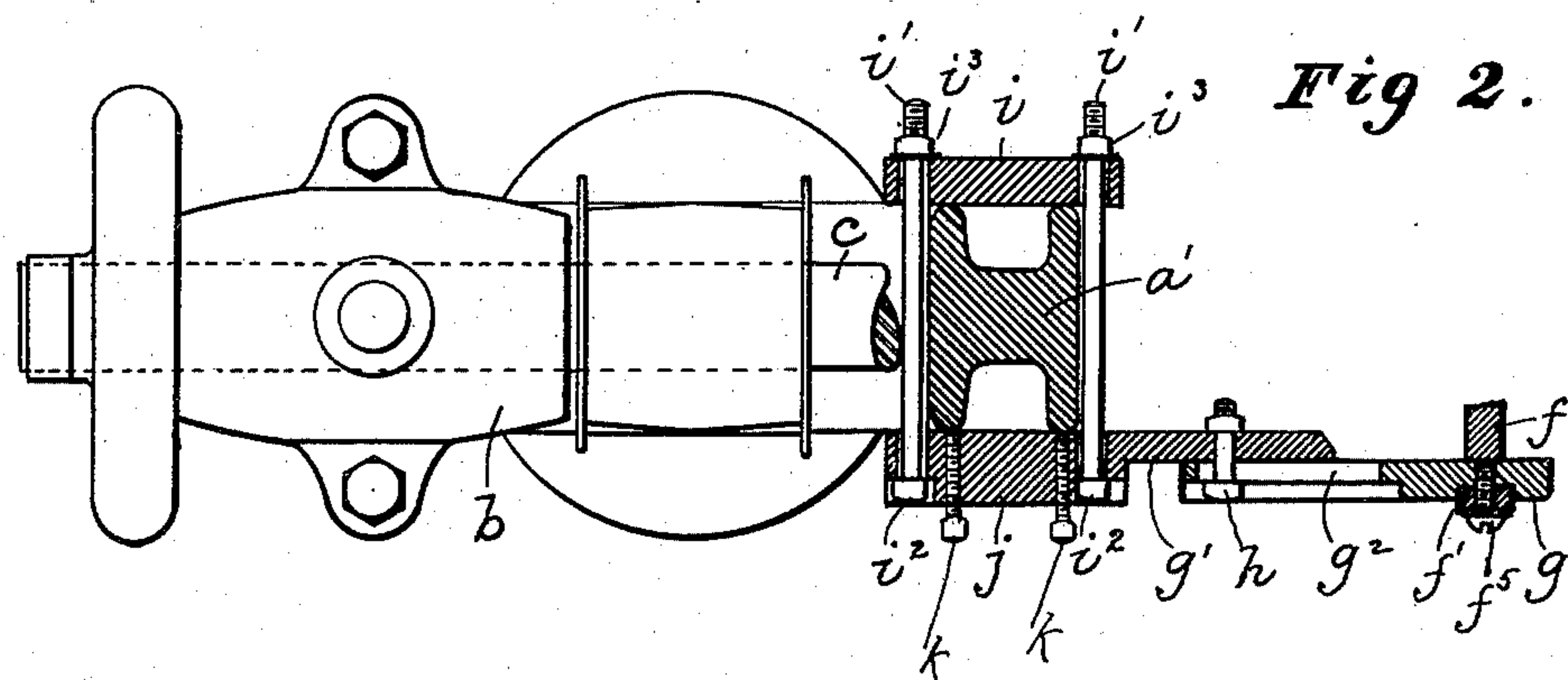
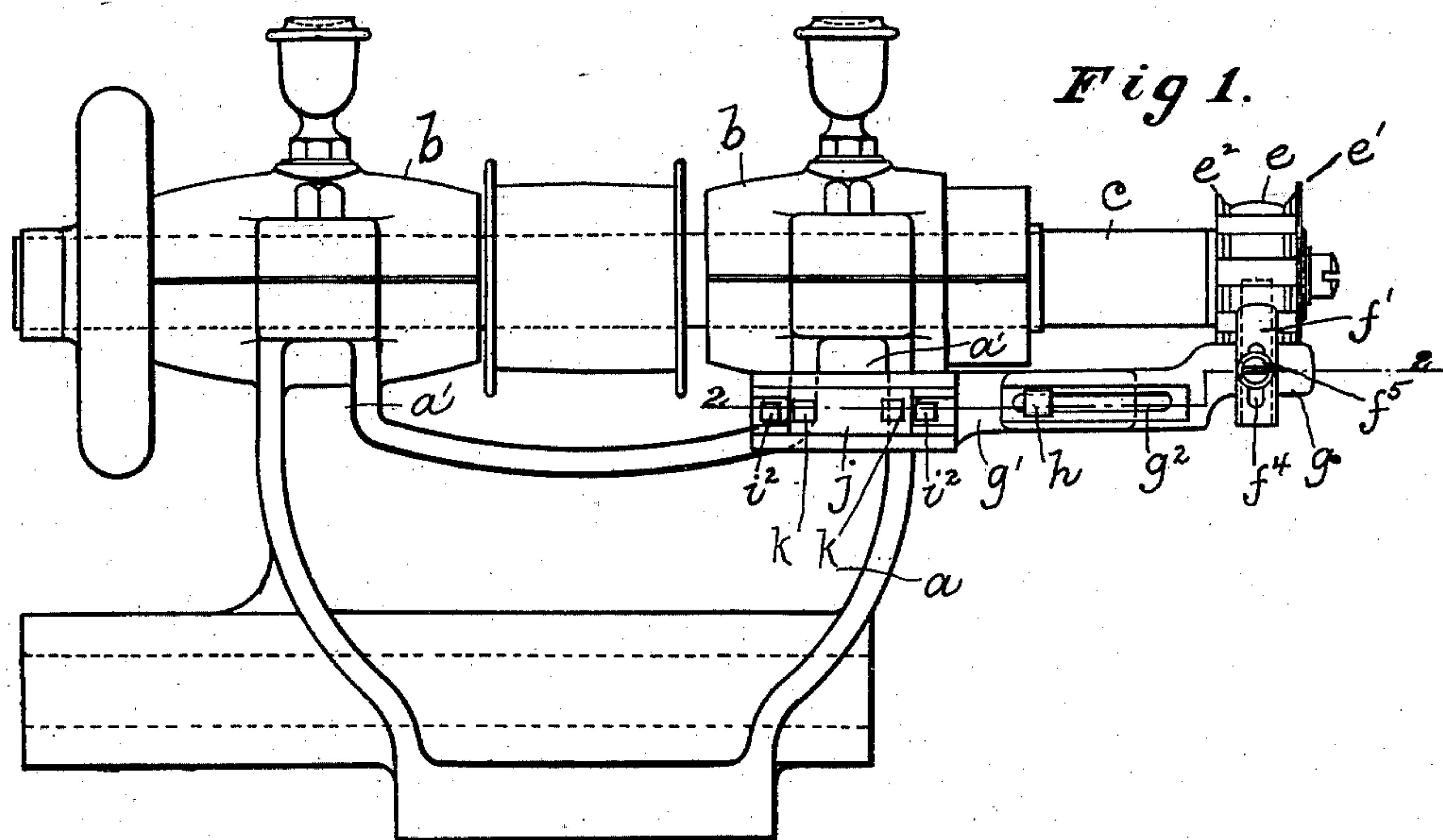
PATENTED NOV. 10, 1903.

F. L. CHAMPINE.
SOLE AND HEEL EDGE TRIMMING MACHINE.

APPLICATION FILED MAR. 11, 1901.

NO MODEL.

2 SHEETS--SHEET 1.



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2 SHEETS—SHEET 2.

Fig 4.

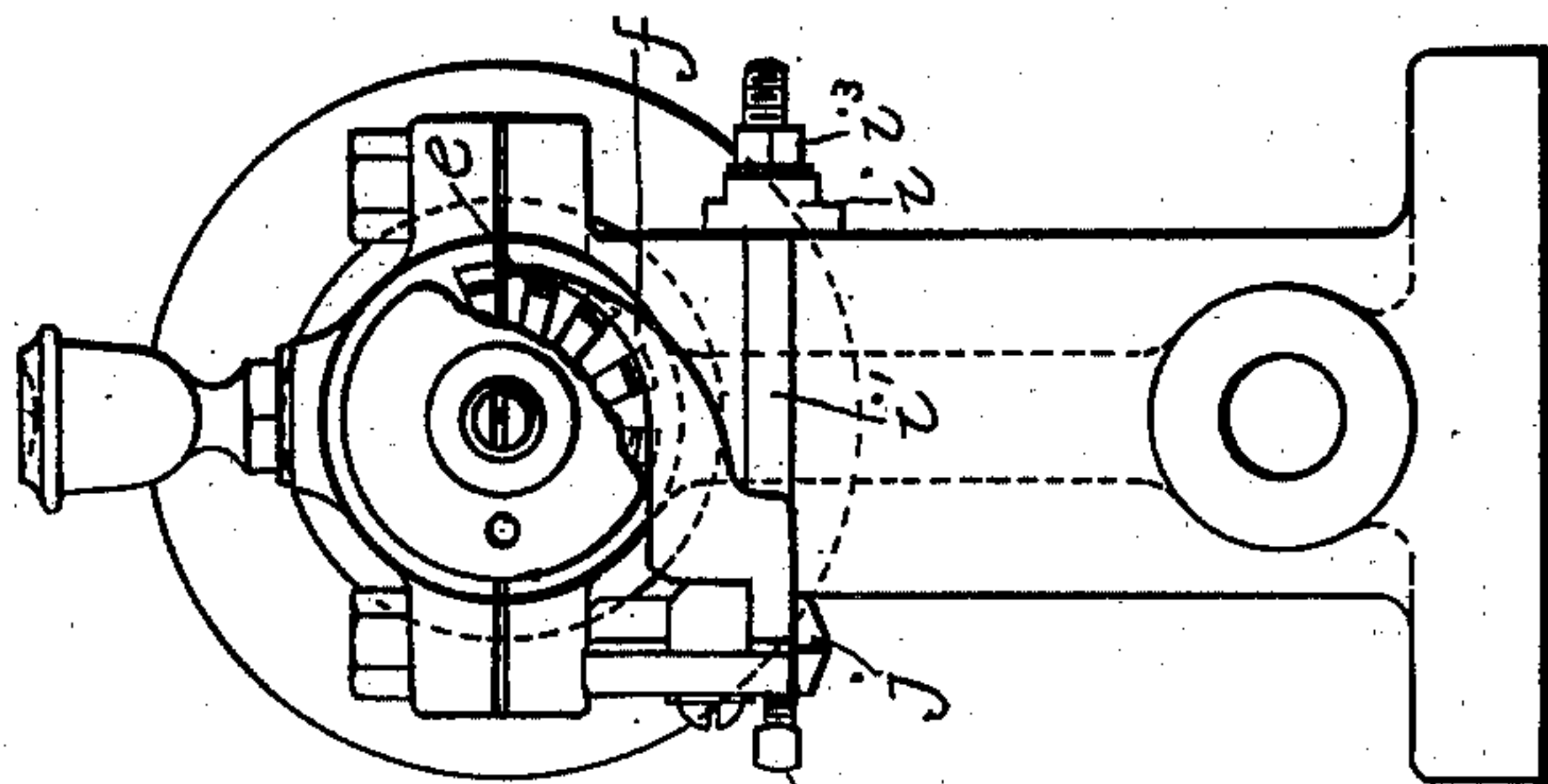


Fig 3.

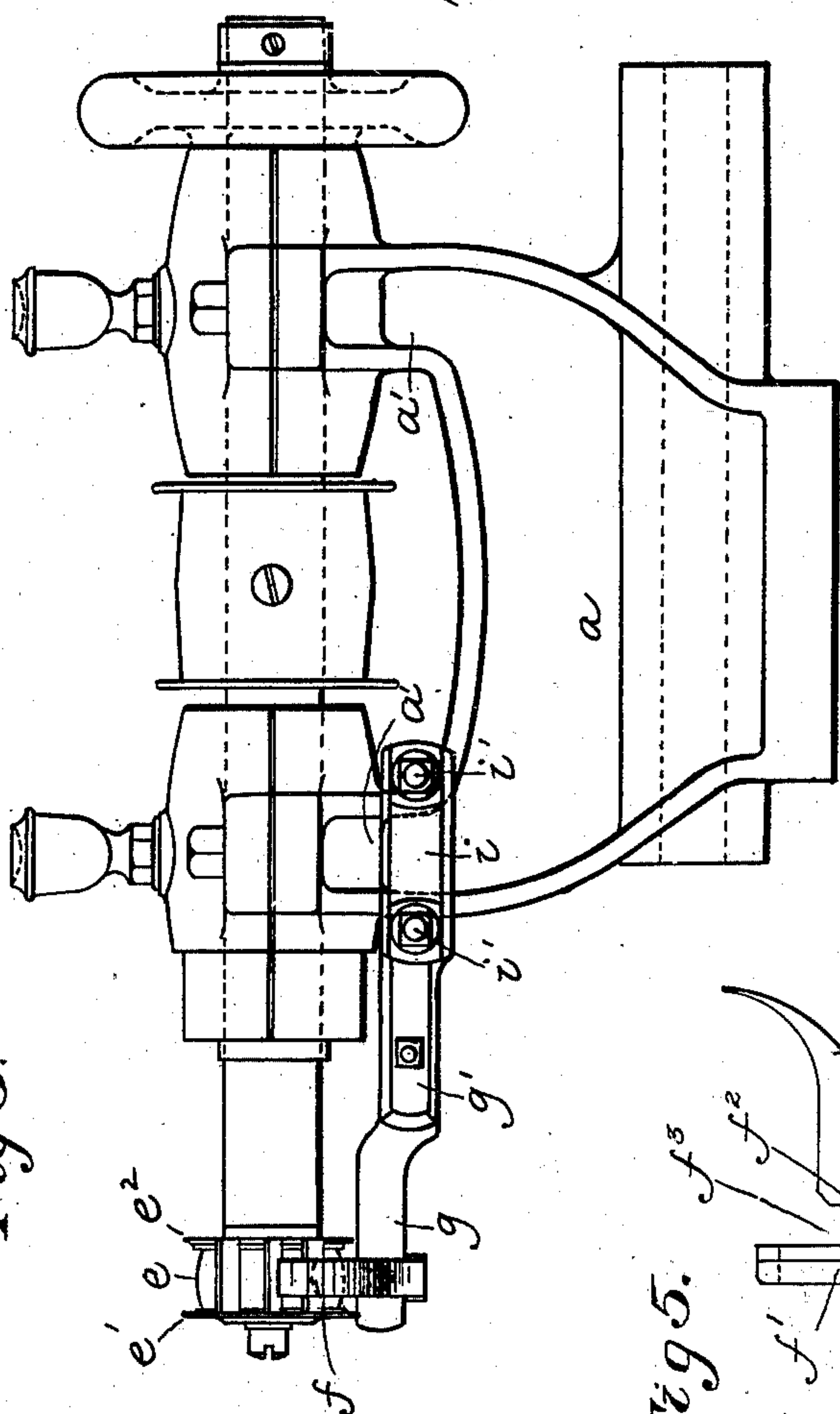


Fig 5.

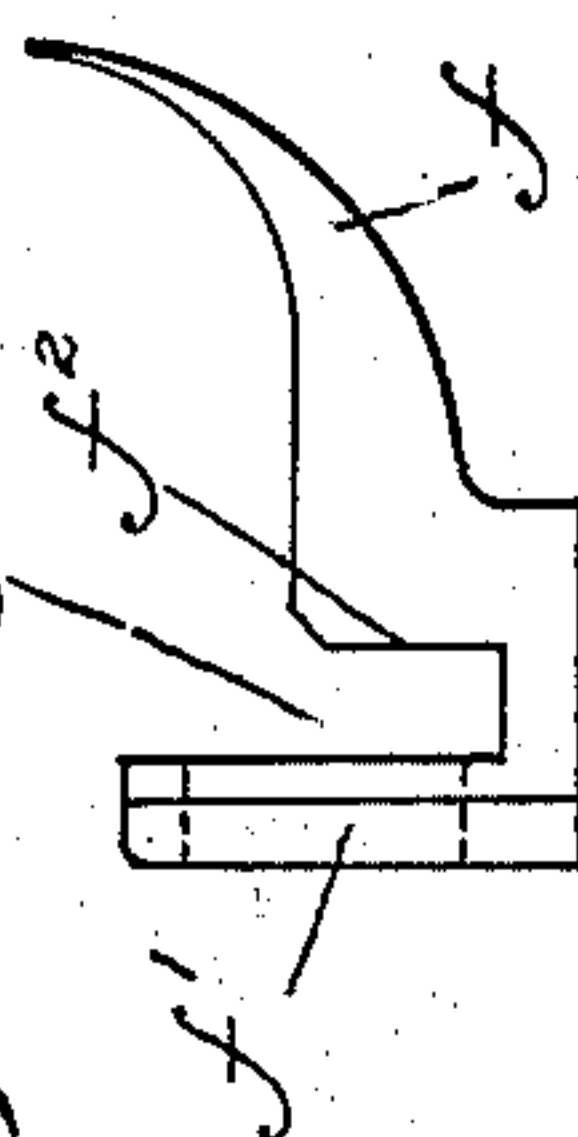
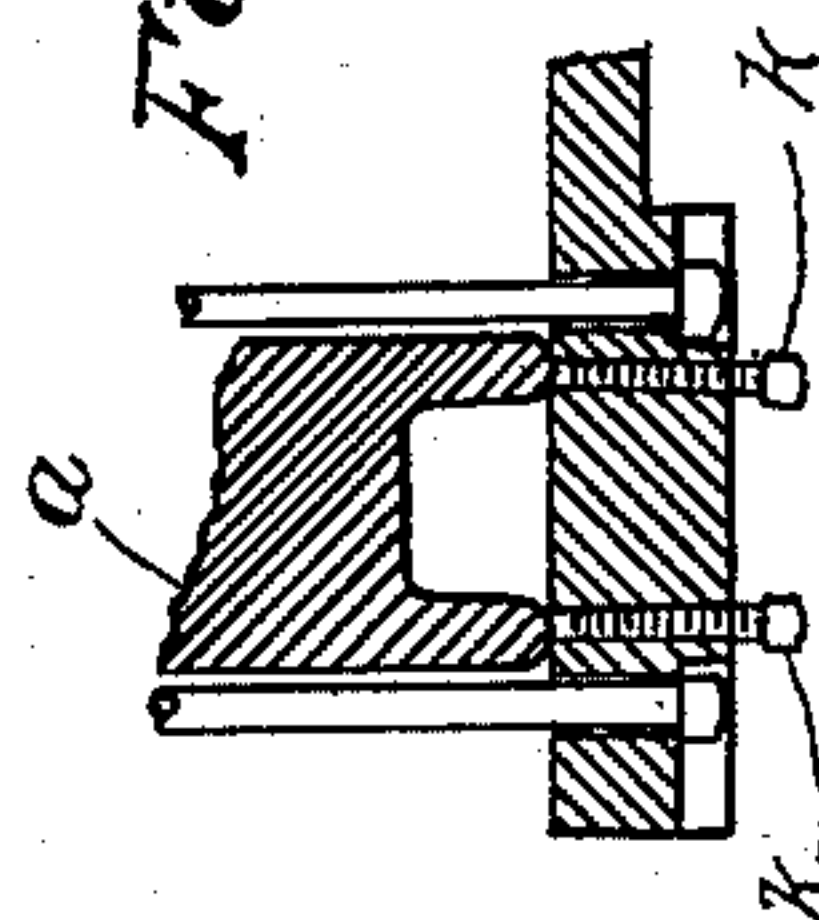


Fig 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK L. CHAMPINE, OF LYNN, MASSACHUSETTS.

SOLE AND HEEL EDGE TRIMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 743,448, dated November 10, 1903.

Application filed March 11, 1901. Serial No. 50,543. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK L. CHAMPINE, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sole and Heel Edge Trimming Machines, of which the following is a specification.

This invention has for its object to provide improved means for adjustably supporting a work rest or guard in operative relation to the rotary cutter of an edge-trimming machine; and it consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a rear elevation of the head of an edge-trimming machine provided with a rest embodying my invention. Fig. 2 represents a partial plan view and partial section of said head, the section being on the plane of line 2 2 of Fig. 1. Fig. 3 represents a front elevation, and Fig. 4 an end elevation. Fig. 5 represents a side view of the guard detached from its support or holder. Fig. 6 represents a view similar to a portion of Fig. 2, showing additional holding means hereinafter referred to.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* represents the supporting head or frame, having the usual bearings *b b*, in which is journaled the shaft *c*, carrying at one end the rotary cutter *e*. Said cutter may be of any suitable form and adapted to trim either a sole or a heel edge.

My invention comprises a rest *f*, which is a curved arm of the general form shown in Figs. 3 and 4, the rear portion of said arm being supported behind and below the shaft *c*, while the forward portion of the arm curves upwardly, its upper or work-supporting end being preferably reduced or tapered, as shown in Fig. 4, and standing in close proximity to the perimeter of the cutter *e*. As here shown, the guard *f* is located between the upper guard *e'* and the inner end *e''* of the cutter; but the guard may be located, if desired, at the outer side of the guard *e'* or in any suitable relation to the cutter. The rear end of the guard *f* is provided with an upwardly-projecting arm *f'*, which is separated from a shoulder *f''* on the guard by a slot or opening *f'''*, Fig. 5, formed to receive the outer mem-

ber of a telescopic arm which is composed of the outer member *g* and the inner member *g'*, said members being connected by a bolt *h*, passing through a slot *g''* in the outer member *g*. The arm *f'* on the guard has a slot *f''*, through which passes a screw *f'''*, which secures the arm *f'* to the member *g* of the telescopic arm. The member *g'* of the telescopic arm is clamped to one of the neck portions *a'*, connecting the body of the head or frame *a* with the bearings *b b*, by means of a clamping-bar *i*, bearing on the front side of said neck, and bolts *i'* *i''*, passing through said clamping-bar and having heads *i'''*, which bear upon the outer faces of sockets formed for their reception in the arm member *g'*, and nuts *i''''*, bearing upon the outer face of the clamping-bar *i*.

It will be seen that by the described construction the arm *f* is adapted to be adjusted as follows, namely: first, vertically by means of the slot *f''* and screw *f'''*, and, secondly, laterally or toward one end or the other of the cutter *e* by means of the slot *g''* and bolt *h*. The bolts *i'* with their nuts *i''* and clamping-bar *i* permit a slight oblique adjustment of the guard when the nut on one of the bolts is loosened and that on the other bolt is tightened, this operation throwing the telescopic arm *g g'* somewhat out of parallel with the shaft *c*. To sustain the guard when adjusted as last described, set-screws *k k* may be inserted in the member *g'* and arranged to bear on the neck *a'*, as shown in Fig. 6. It will be seen, therefore, that the guard can be conveniently adjusted to suit varying requirements of the work. The guard steadies and supports the work at a point in such relation to the cutter as to prevent a chattering action of the cutter.

The device can be applied as an attachment to any machine having a head of the general shape shown in Figs. 1 and 2, there being a large number of machines now in use in which the shaft-bearings *b b* are connected with the body of the head *a* by necks *a'*. The bolts *i' i''* and clamping-bar *i* and arm member *g'* constitute a clamp adapted for engagement with one of these necks without any change or adaptation of the latter. Hence the attachment can be readily applied without loss of time to many machines now in use.

The said neck or portion of the frame to which the clamp is attached is at one side of or eccentric to the shaft-bearing, and therefore when the clamp is adjusted relatively to said neck the rest supported or carried by said clamp is adjusted toward and from the axis of the cutter, as hereinbefore described. This would not be possible were a clamp mounted concentrically about the cutter-shaft.

The member g' is formed on a bar j , which constitutes a part of the clamp and bears on the rear side of the neck a' .

I claim—

1. A work-rest attachment for a trimming-machine, comprising a clamp adapted to embrace a portion of the head or frame of the machine at one side of the bearing of the cutter-shaft, said clamp having an arm-supporting member, an arm adjustably secured to the said member, the said clamp having provisions for holding the arm either in or out of parallelism with the shaft of the machine, and a rest supported by said arm.
2. A work-rest attachment for a trimming-machine comprising an arm member, a work-rest adjustably secured to said member, a clamping-bar, and bolts connecting the arm

member and clamping-bar, and adapted to adjustably secure the arm member to a portion of the head or frame of the machine at one side of the bearing of the cutter-shaft, said bolts being adapted to hold the arm member either in or out of parallelism with the shaft of the machine.

3. A work-rest attachment for a trimming-machine comprising the arm members $g g'$ adjustably connected to vary the length of the compound arm, a guard-rest f adjustably connected with the outer member g , a clamping-bar i , bolts $i' i'$ extending through the bar i and the arm member g' and provided with adjusting-nuts, and set-screws $k k$ extending through the arm member g' and adapted to bear upon a portion of the head or frame of the machine, said bolts and adjusting-nuts enabling the compound arm $g g'$ to be secured either in or out of parallelism with the shaft of the machine.

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

FREDERICK L. CHAMPINE.

Witnesses:

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A. D. HARRISON.