

No. 614,224.

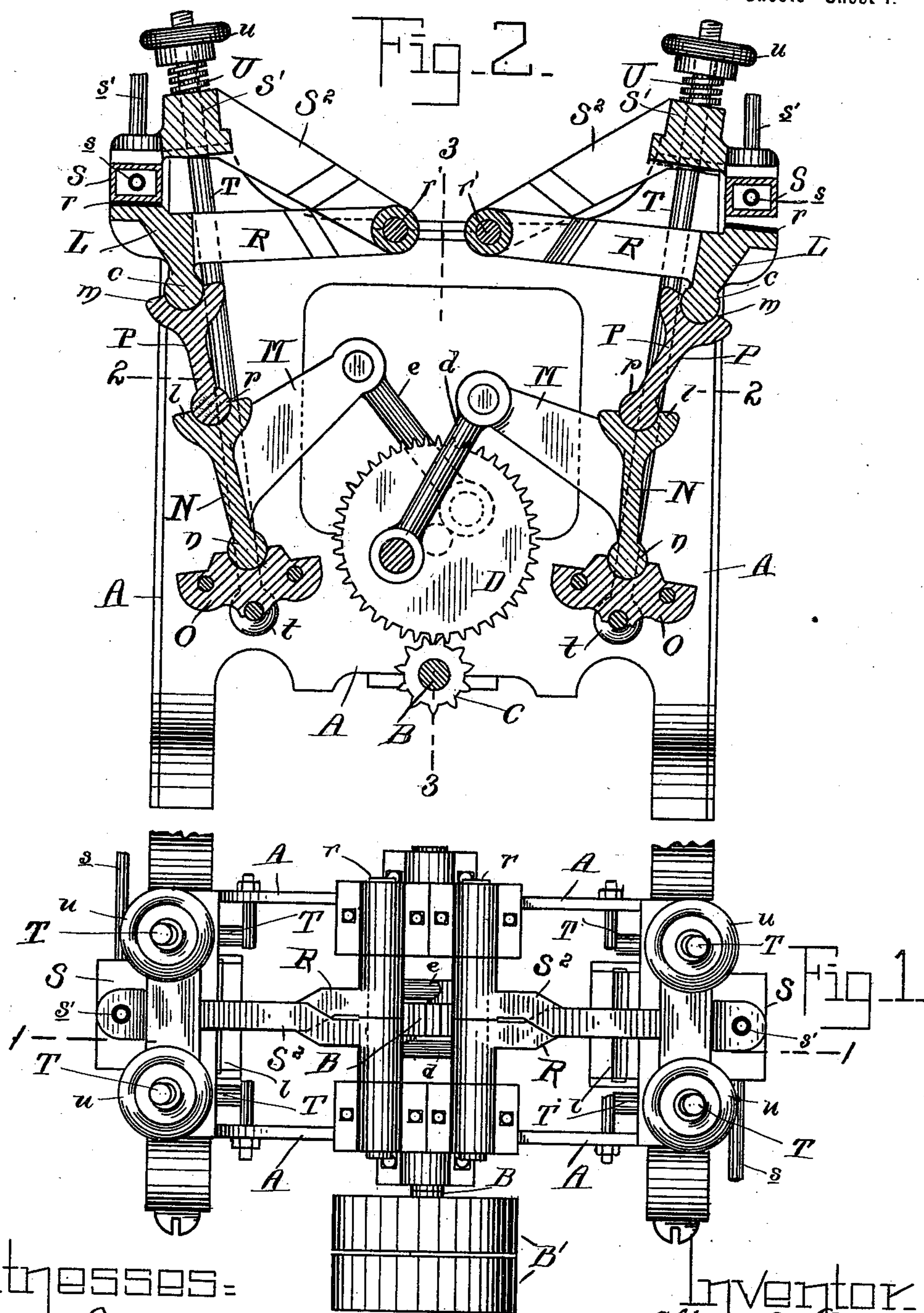
Patented Nov. 15, 1898.

A. E. GRANT.
MACHINE FOR IRONING POINTS OF COLLARS.

(Application filed Mar. 11, 1897.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:
John Paterson
Fred. H. Wetmore,

Inventor:
Albert E. Grant
Ward Cameron
Attys

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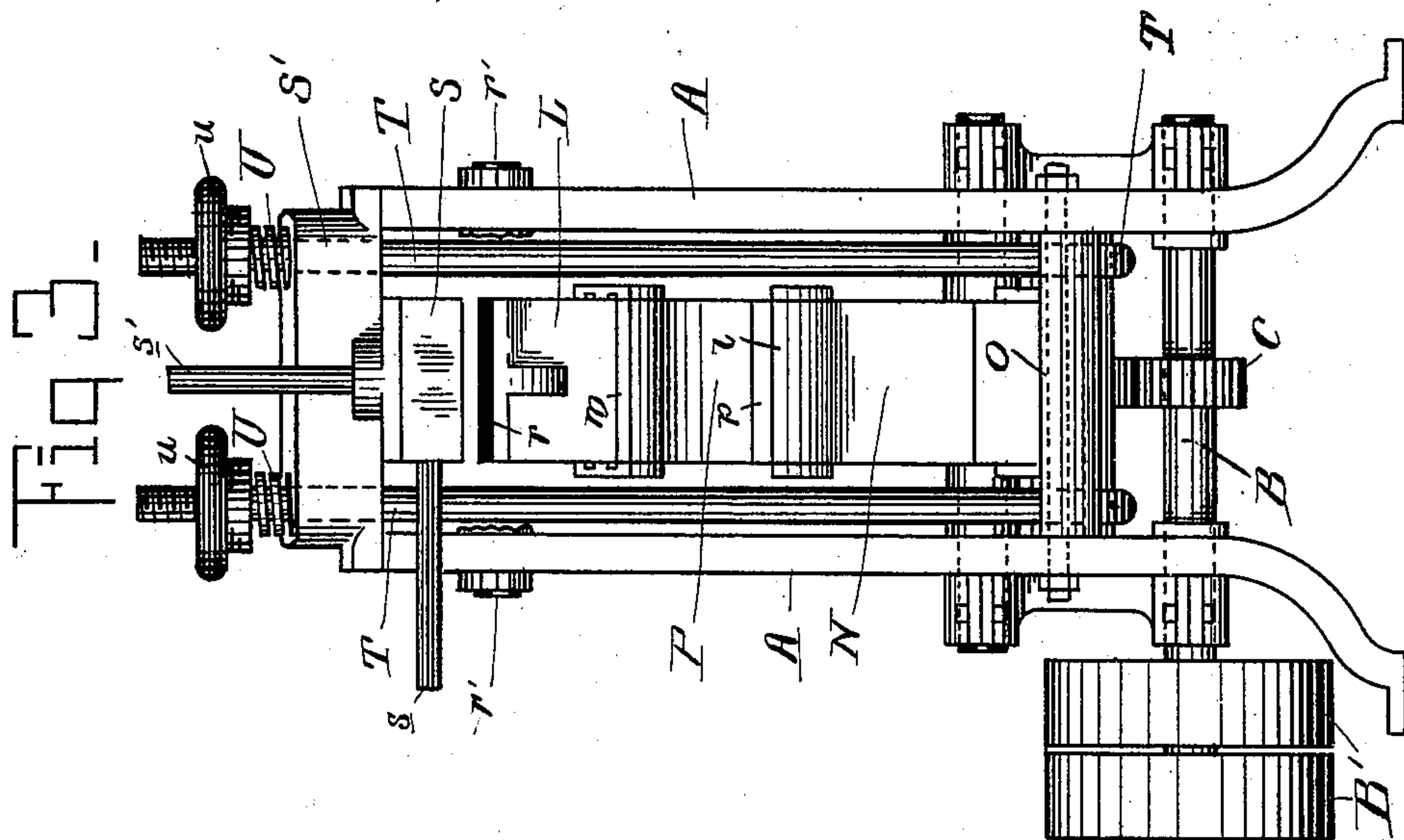
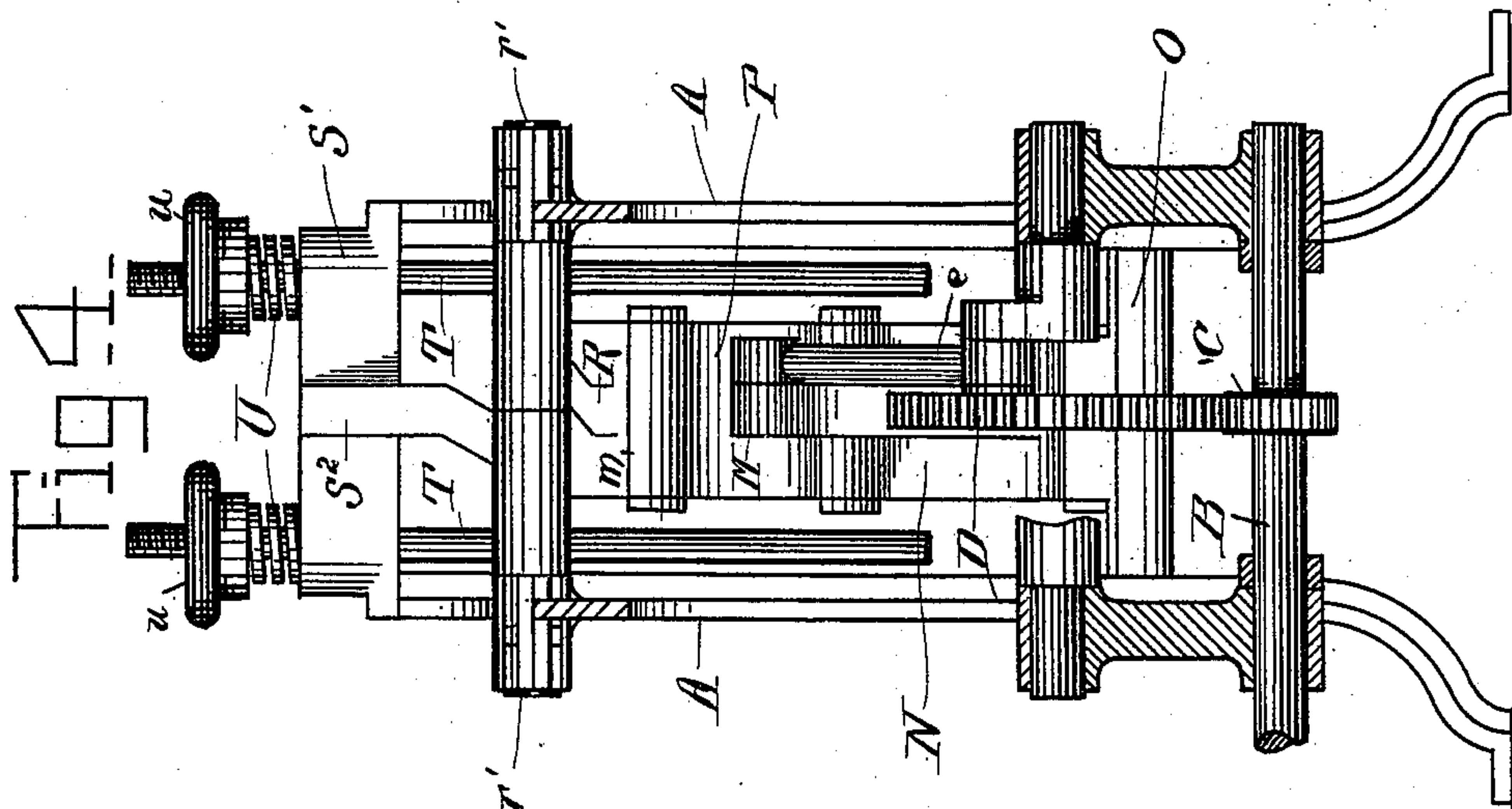
A. E. GRANT.

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(Application filed Mar. 11, 1897.)

(No Model.)

3 Sheets—Sheet 2.



Witnesses:
Grace T. Many.
Wm. Erwin.

Inventor
Albert E. Grant
by Ward Cameron.
Atty's.

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Fig. 5.

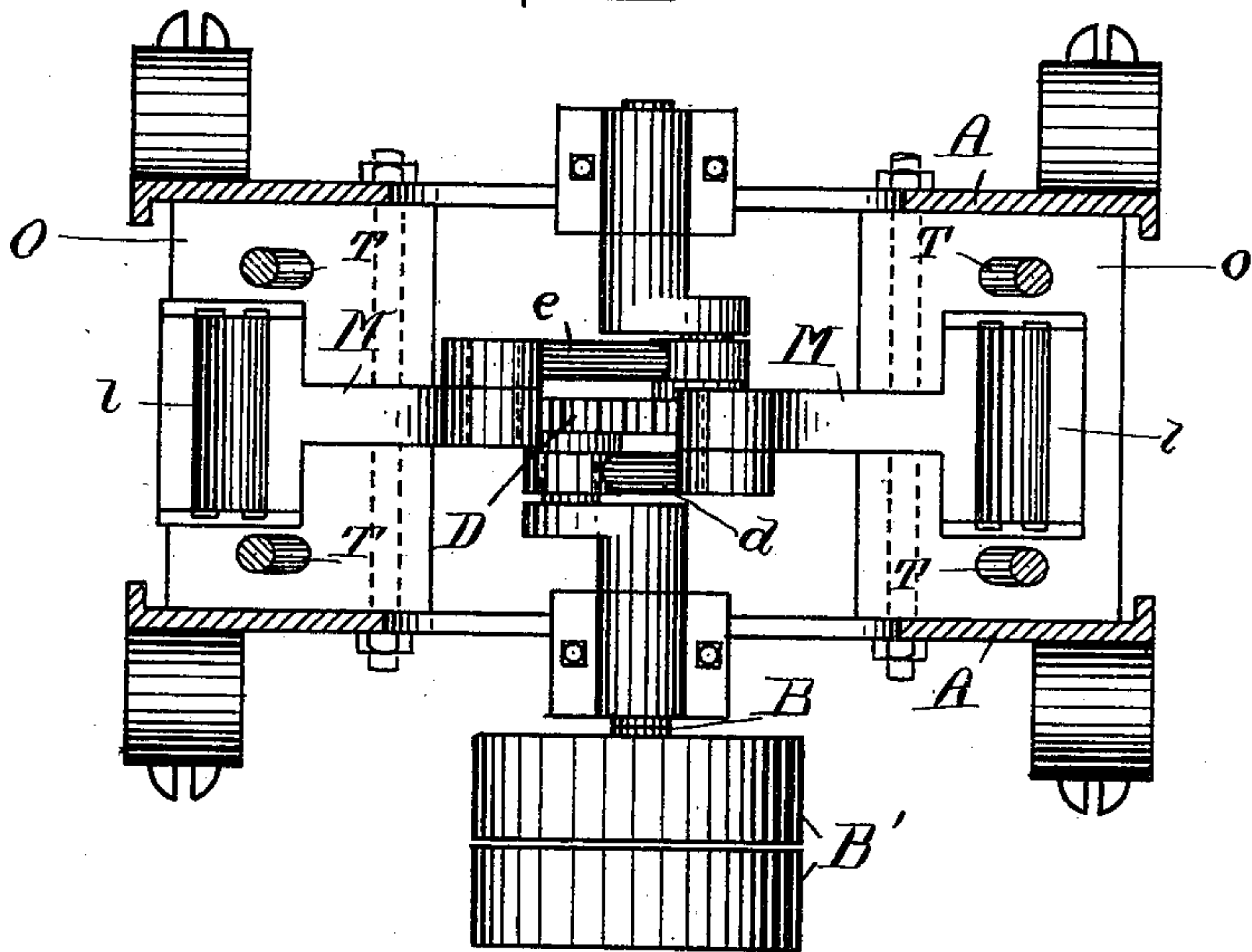


Fig. 6.

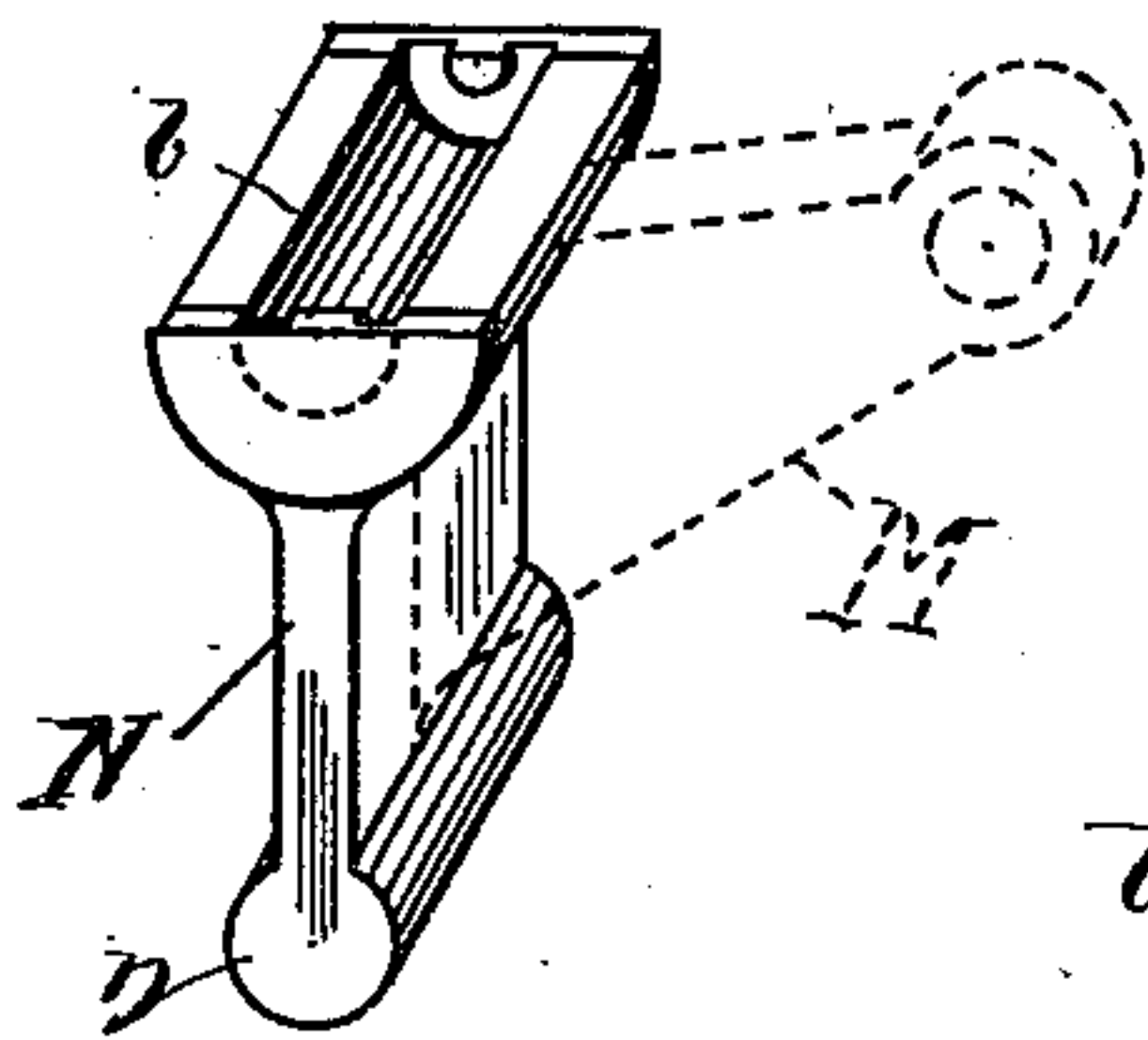


Fig. 7.

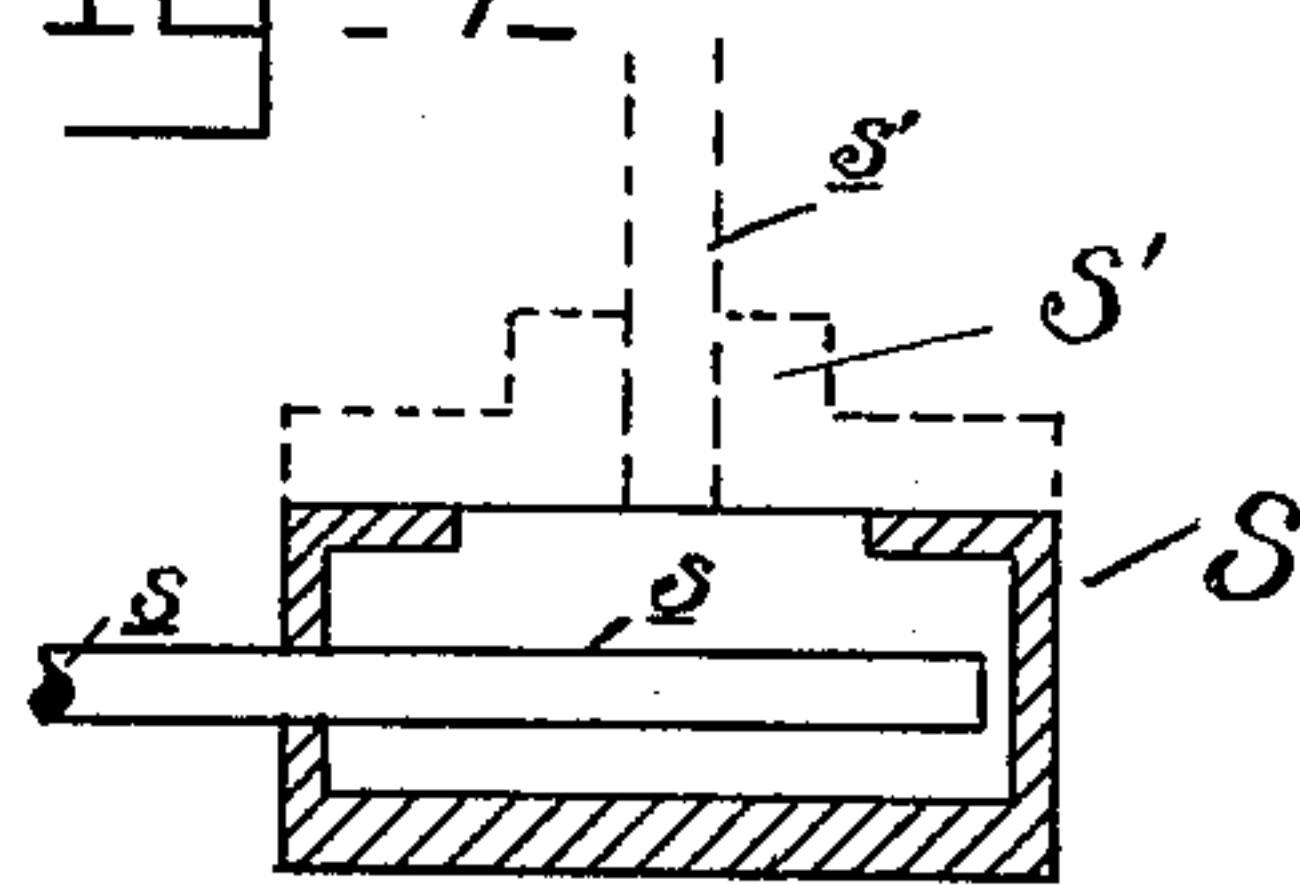
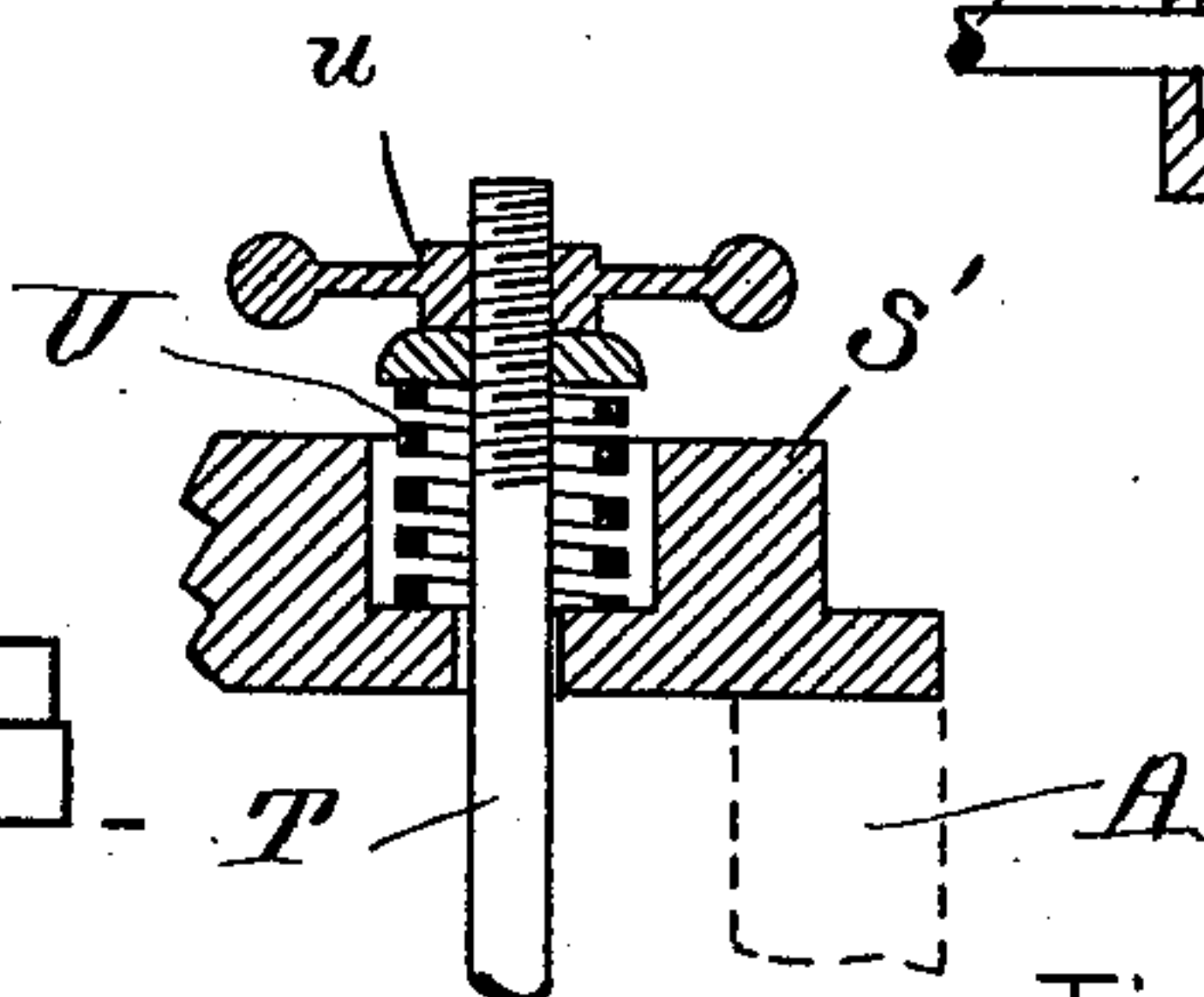


Fig. 8.



Witnesses:

John Paterson
Fred. H. Wetmore.

Inventor.

Albert E. Grant

by Ward Cameron.

Attys.

UNITED STATES PATENT OFFICE.

ALBERT E. GRANT, OF TROY, NEW YORK.

MACHINE FOR IRONING POINTS OF COLLARS.

SPECIFICATION forming part of Letters Patent No. 614,224, dated November 15, 1898.

Application filed March 11, 1897. Serial No. 627,048. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. GRANT, a citizen of the United States, residing at the city of Troy, county of Rensselaer, State of New York, have invented a new and useful Improvement in Machines for Ironing the Points of Collars, of which the following is a specification.

My invention relates to laundry machinery; and the object of my invention is to produce a machine by the operation of which the points or turned-over portions of a collar may be pressed and ironed on the reverse side, consisting of the mechanism hereinafter more particularly described and claimed. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan. Fig. 2 is a section along the line 1 1 on Fig. 1. Fig. 3 is an end elevation. Fig. 4 is a section along the line 3 3 on Fig. 2. Fig. 5 is a section along the line 2 2 on Fig. 2. Fig. 6 is a detail view of the joint-arm M. Fig. 7 is a detail view of the burner, and Fig. 8 is a detail view of the yielding mechanism.

Similar letters refer to similar parts throughout the several views.

In the usual manner of laundering collars they are ironed and polished upon one side only. When it is desired to have the point rolled over or bent down, it is necessary to polish and iron the reverse side, that being the side which will be exposed. In order to accomplish this, it is necessary that there should be force or power applied to the collar or the iron, and in order that this may be accomplished quickly and positively I have provided a machine which may be constructed in such a manner that two or more operatives may iron collars therewith simultaneously.

The frame A supports a shaft B, having pulleys B' and a gear C mounted thereon. The gear C meshes with the gear D, to which is attached eccentrically on opposite sides of said gear and opposite sides of the center thereof the crank-arms *d* *e*, respectively. Each of said crank-arms connects with a joint-arm M, respectively. Said joint-arms M are in the form of a bell-crank lever substantially. The portion N thereof arranged at an angle to that portion attached to the crank-arm is

provided at one end with a cylindrically-formed roller-shaped portion *n*, adapted to engage with a bearing O, secured to the frame A, said bearing corresponding in concavity with the convexity of said portion *n*, making a knuckle-joint with said joint-arm. The opposite end of the portion N is provided with a bearing *l*, similar to that at O, within which is placed a link P, having at one end a cylindrical roller-shaped portion *p*, similar to *n*, and adapted to engage with the bearing *l*, the link P having at its opposite end a bearing *m*, similar to the bearing *l*, in which engages the roller-shaped end *c* of the arm L, which arm L is attached to the pivoted arm R, which arm R carries a cushion *r*, of felt or other material, upon which the collar-point is placed to be ironed. The arm R is pivoted to the spindle *r'*, so that the movement of the crank-arm *d* setting in motion the joint-arm M the link P will raise and lower the cushion *r*.

I arrange the iron S, within which a gas-pipe protrudes and through the top of which a vent *s'* communicates, thus providing a means for heating the iron. The iron S is connected to the casting S', through which the rods T pass. Each rod extends toward the bottom of the frame A and has a pivotal bearing at *t*, allowing for a slight vibratory motion of the rod. Within the casting S' and surrounding each rod T, I place a spring U, held in position by a hand-nut *u*, threaded to engage with threads on the end of the rod T. The casting S' is also rigidly connected to the arm S², which is pivoted on the spindle *r'*, which carries the arm R as well. Thus the pressure exerted between the cushion *r* and the iron S may be regulated by the springs U, and there is provided between said cushion and iron a yielding elastic pressure by means of said springs.

The operation of my invention is as follows: The gear D being put in motion, the crank-arm *d*, when in the position shown in Fig. 2, withdraws the cushion *r* at the right side of said figure from the iron S. As the gear D revolves the joint-arm M is pushed outward, straightens, brings the link P in a line with the portion N of the arm M, forces upward the arm R, and thus the cushion *r*, until it assumes the position shown at the left of Fig. 2.

I thus have two ironing devices, one on each

side of the machine and preferably so arranged that when contact between the iron and the cushion on one side is made it is separated on the other side. The point of the collar is placed on the cushion and held in position until the cushion has been raised by the operation of the machine and the iron brought in contact with the collar-point, ironing the same. The collar is then removed and the opposite point inserted.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for ironing the points of collars, a gear, means for applying power thereto, a crank-arm eccentrically secured to said gear, a joint-arm attached to said crank-arm, a portion of said joint-arm having a bearing in a bracket attached to the framework of the machine, a link having a bearing in said joint-arm and engaging with a lug secured to a pivoted arm carrying a rest for the collar, an iron, means for heating the same, a casting carrying said iron suitably supported, rods passing through said casting, a spring on each

rod having a seat in said casting, and a nut engaging with threads on each rod for the purpose of adjusting said spring, all substantially as described and for the purpose set forth.

2. In an ironing-machine, an iron, a means for heating the same, a yielding elastic adjustable connection with said iron, a movable support for work to be ironed beneath said iron, a gear, means for applying power thereto, a crank-arm secured to said gear, a pivotally-supported joint-arm attached to said crank-arm, a link, a cylindrical roller-shaped portion on said link adapted to engage with a bearing in said joint-arm, an arm secured to or forming a part of the movable support for the work, and a cylindrical-shaped portion on said last-mentioned arm engaging with a bearing in said link, substantially as described and for the purpose set forth.

ALBERT E. GRANT.

Witnesses:

JOHN PATERSON,
FRED H. WETMORE.