

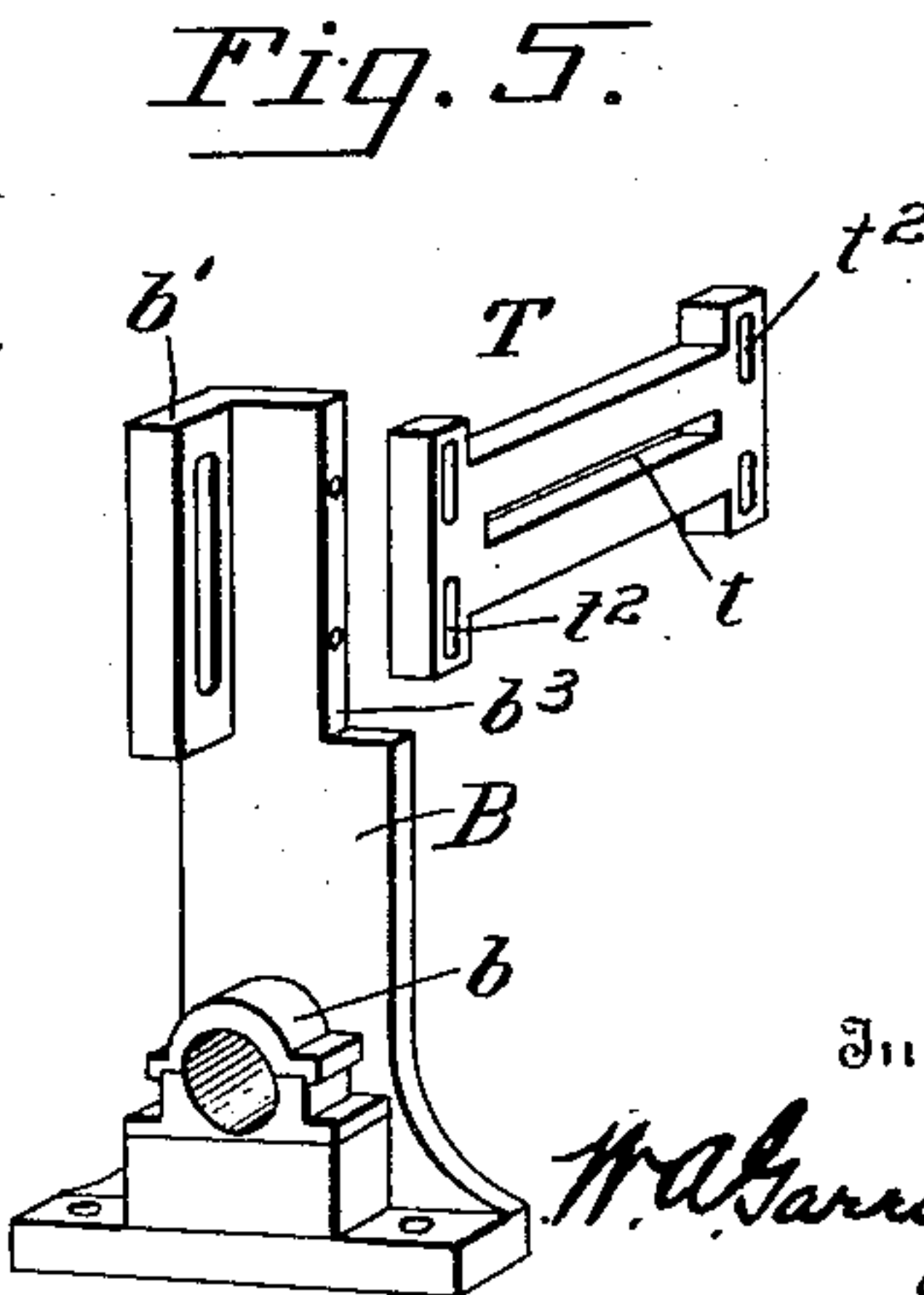
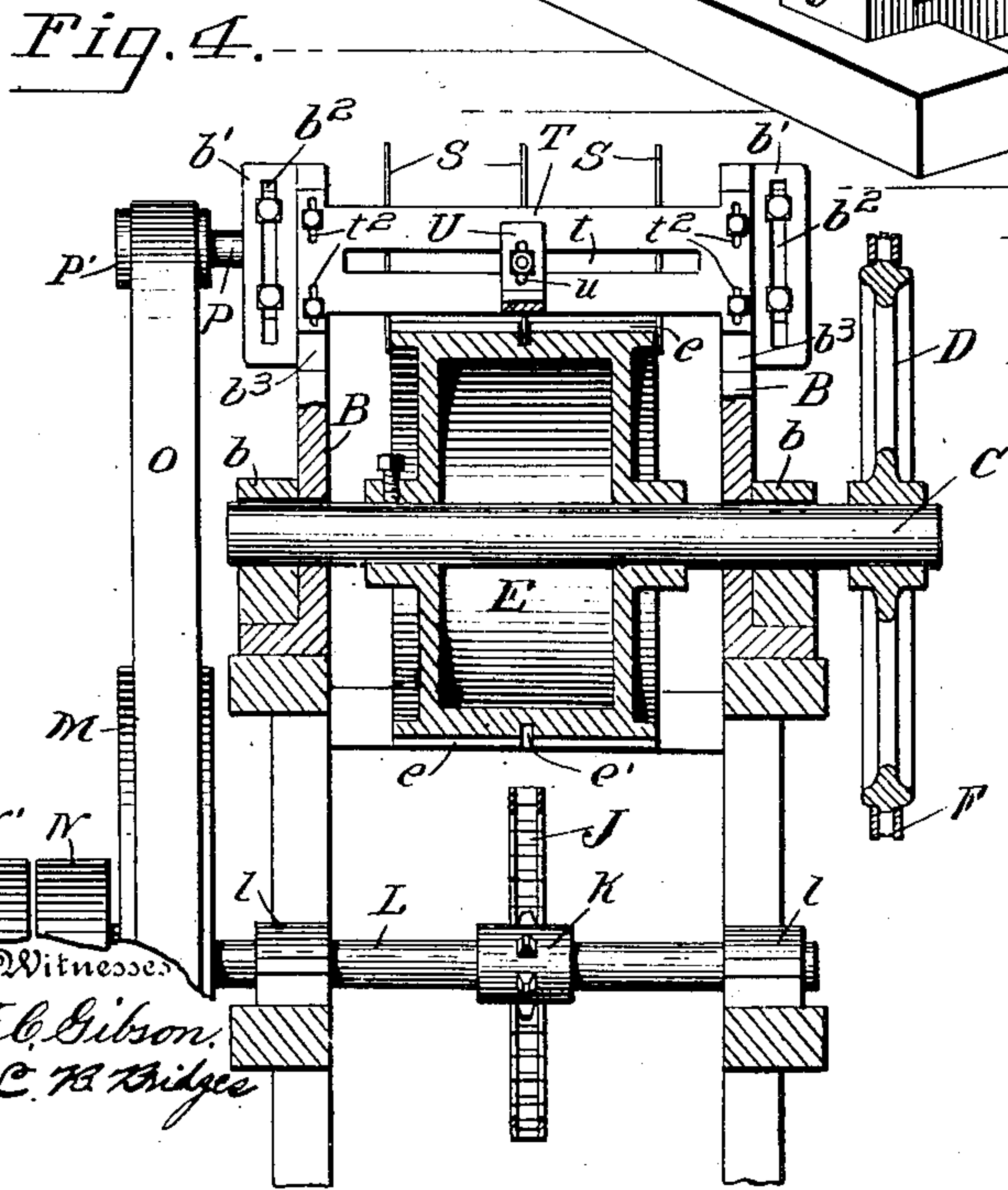
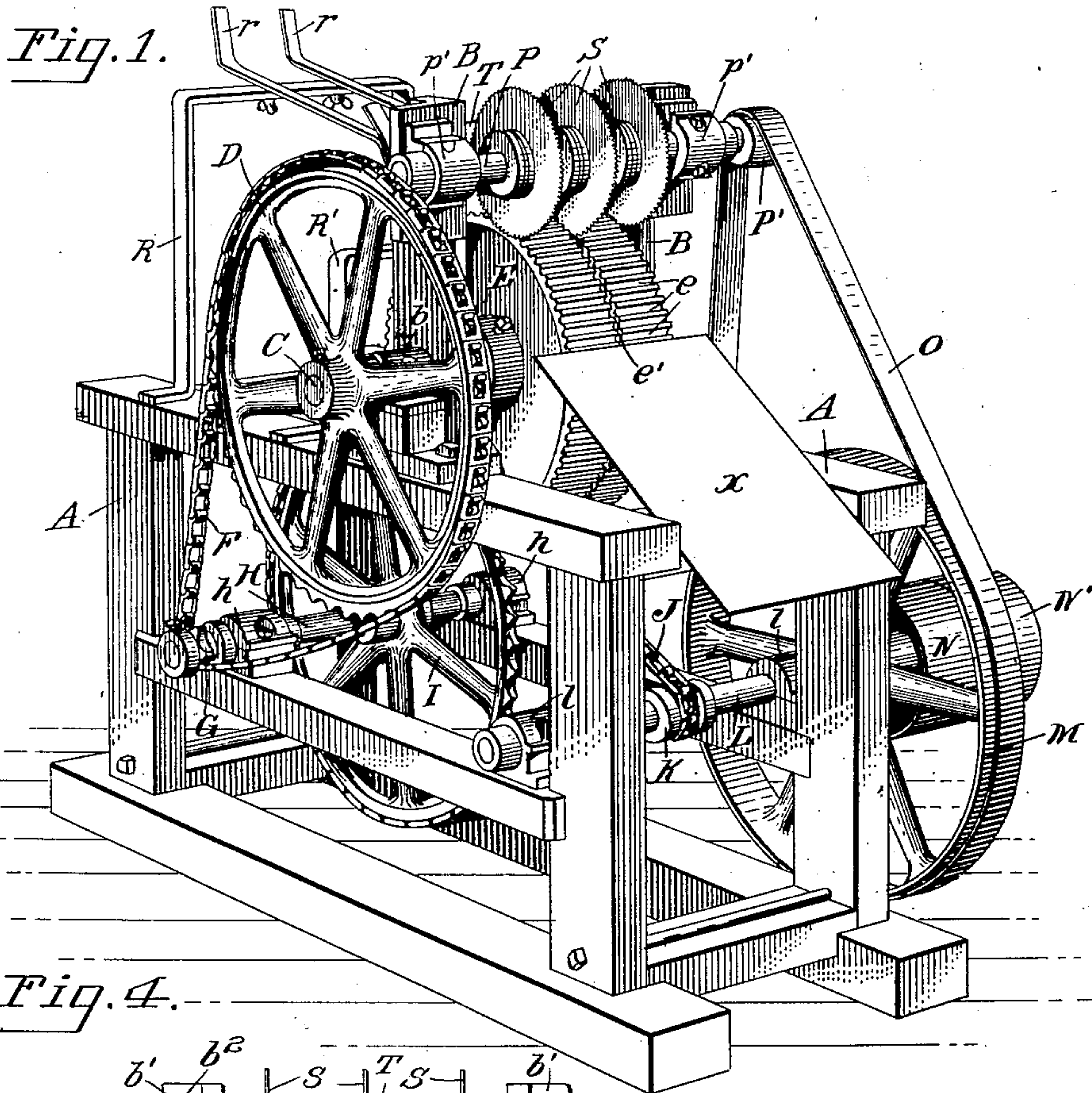
No. 824,641.

PATENTED JUNE 26, 1906.

W. A. GARRIGUS.
CUTTING MACHINE.

APPLICATION FILED AUG. 23, 1905.

2 SHEETS—SHEET 1.



Inventor,

W. A. Garrigus,

By Davis & Davis,

Attorneys.

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2 SHEETS—SHEET 2.

Fig. 2.

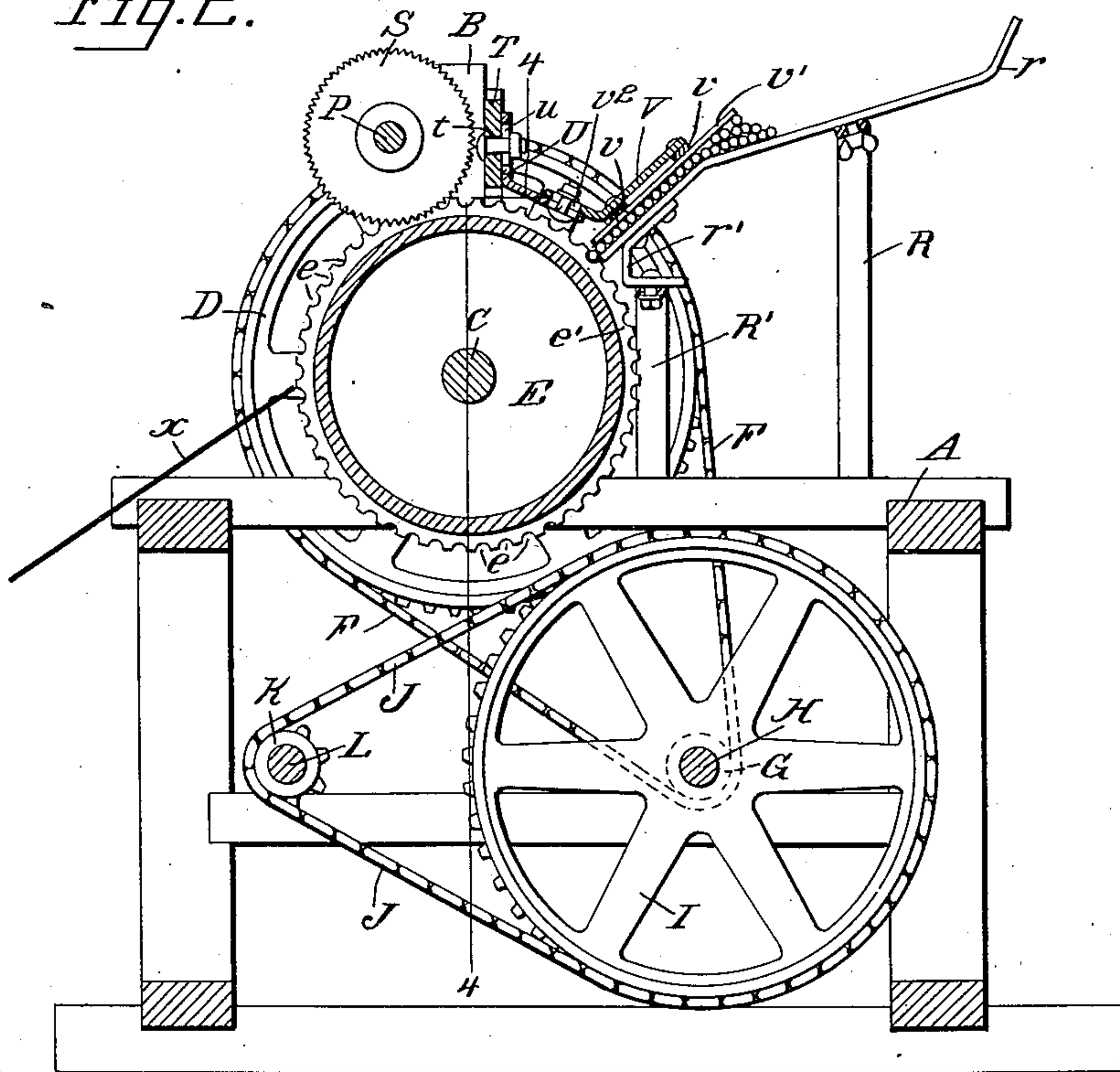
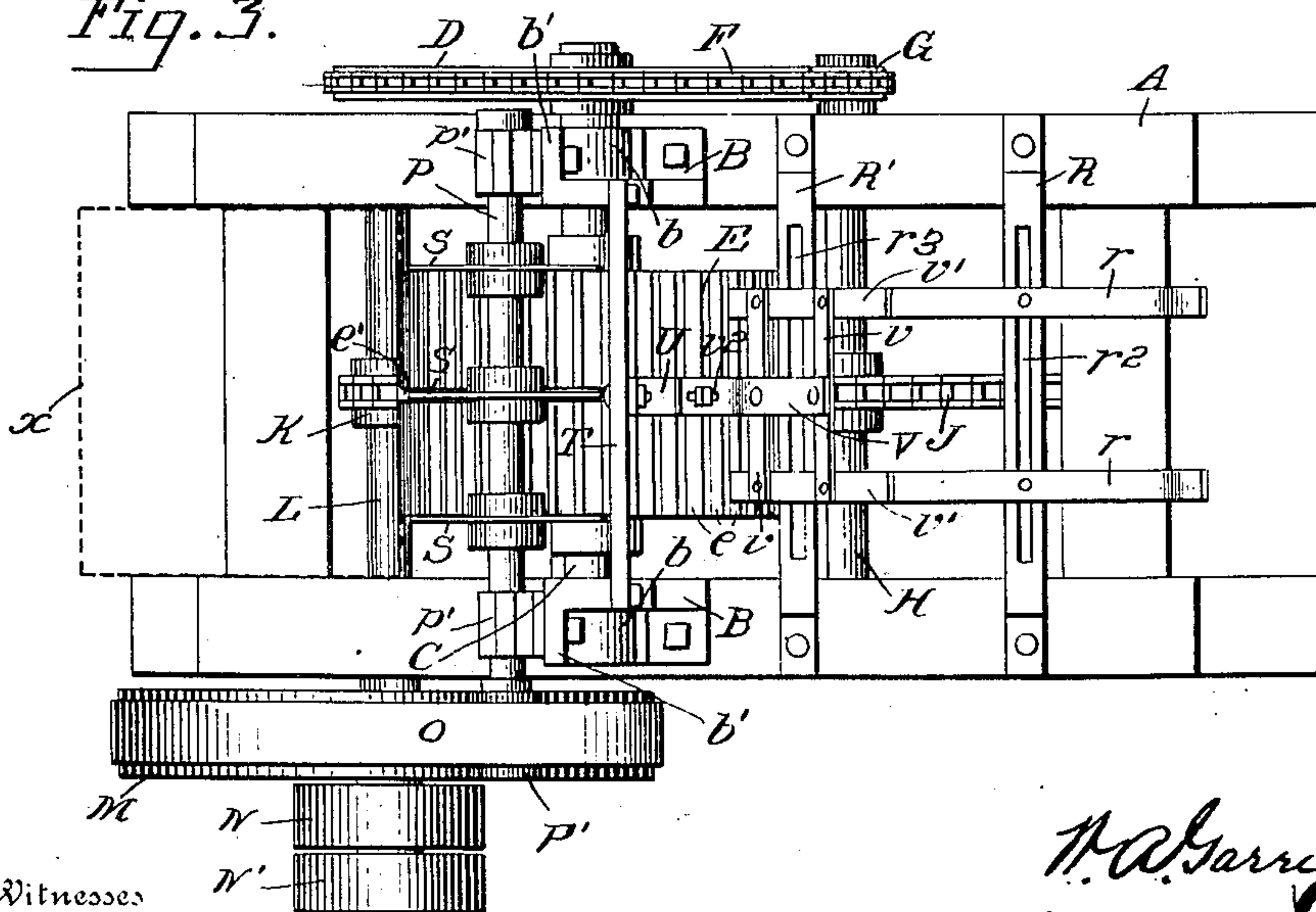


Fig. 3.



Witnesses
F. L. Gibson.
L. B. Bridges

Inventor,
W. A. Garrigus,
By Davis & Davis.
Attorneys

UNITED STATES PATENT OFFICE.

WALTER A. GARRIGUS, OF CHATTANOOGA, TENNESSEE, ASSIGNOR OF
ONE-HALF TO E. WATERHOUSE, OF CHATTANOOGA, TENNESSEE.

CUTTING-MACHINE.

No. 824,641.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed August 23, 1905. Serial No. 275,392.

To all whom it may concern:

Be it known that I, WALTER A. GARRIGUS, a citizen of the United States of America, and a resident of Chattanooga, county of Hamilton, State of Tennessee, have invented certain new and useful Improvements in Cutting-Machines, of which the following is a full and clear specification, reference being had to the accompanying drawings, in
10 which—

Figure 1 is a perspective view of my machine complete looking at the rear or discharge end thereof; Fig. 2, a vertical longitudinal section of the machine; Fig. 3, a plan view thereof, the delivery table or chute x being moved; Fig. 4, a vertical transverse section on the line 4-4 of Fig. 2, and Fig. 5 a detailed perspective view hereinafter described.

20 The object of this invention is to provide a simple automatic machine for cutting rods and bars into predetermined lengths, as more fully hereinafter set forth.

To the accomplishment of this object and
25 such others as may hereinafter appear, the invention consists of the parts and combination of parts hereinafter fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, in which the same reference characters designate like parts throughout the several views.

Referring to the drawings by reference characters, A designates the main frame upon which is erected a pair of uprights B, in which is journaled (in boxes b) the main shaft C, which latter carries at one end a large sprocket-wheel D and a feed-drum E. The
40 feed-drum is provided in its periphery with transverse grooves e of any suitable configuration in cross-section, these grooves lying close together and parallel with each other. A circumferential groove or slit e' is formed
45 in the periphery of the drum, so as to intersect all the grooves e . A sprocket-chain F connects the large wheel D with a smaller sprocket-wheel G, carried on the end of a shaft H, which shaft is journaled in boxes h
50 and in turn carries a large sprocket-wheel I. This sprocket-wheel I is connected by a chain J to a smaller sprocket K, carried by a transverse shaft L, this shaft being journaled in boxes l and carrying on one of its projecting

ends a large band-wheel M and two smaller
55 band-wheels N N', one of which latter is loose on the shaft. The band-wheel M is connected by a belt O to a pulley P', secured on the end of the saw-arbor P, this arbor being journaled in boxes p' , bolted adjustably to
60 wings or flanges b' , vertically slotted for the purpose of adjustment, these wings being carried by the standards B. Attached to the arbor P is a series of circular-saw cutters, which are so spaced on the arbor that the
65 central one works in the groove e' and the other to overlap and work close to the respective side edges of the feed-drum. The cutters may be adjustably mounted on the arbor in order that they may be set to suit drums of
70 various widths when it is desired to vary the length of the rods to be cut.

The front upper edges of the standards B are notched at b^3 for the reception of the respective ends of a cross-bar T, this cross-bar
75 being provided with vertical slots t^2 to enable it to be vertically adjusted and also with a longitudinal horizontal slot t . Bolted to the front face of the cross-bar T by means of a
80 bolt working in the slot t is an angle-iron U, whose lower end inclines forwardly and downwardly. The part of this bar U which lies against the front face of the bar T is vertically slotted, this slot crossing the slot t ,
85 and passing through these intersecting slots is an adjustable clamping-bolt. The end of the part U is longitudinally slotted to coincide with a longitudinal slot v^2 in another angle-iron V, whose forward portion inclines
90 upwardly and forwardly and has attached to it a pair of cross-bars v , these cross-bars in turn carrying a pair of parallel bars v' . These bars v' incline upwardly and forwardly in parallelism with the bars r , which constitute
95 the feed-table and which are bolted adjustably to a frame R, this frame being provided with a slot r^2 to permit the bars r to be adjusted to and from each other to accommodate rods of various widths. The lower ends
100 of these bars r are attached to brackets r' , which are adjustably bolted to a frame R', which is provided with a slot r^3 similar to the slot r^2 , so that the inner ends of the feed-table bars may be adjusted to correspond with the outer ends.

105 It will be observed that when power is applied to shaft L the belting and chains will impart a very slow movement to the drum

and a comparatively rapid movement to the rotary cutters. The rods to be cut into lengths are fed down the table, the bars v' serving to guide them singly to the feed-drum, and as the drum rotates the rods drop into the grooves therein and are carried backward under the rotating cutters, by which they are accurately and nicely severed into lengths. As the drum continues to rotate the severed rods drop onto the delivery-table x , which delivers them onto the floor or into a suitable receptacle. It will be observed that the table-bars r and the guide-bars v' serve as a sort of magazine for the rods to be cut and that the inclination of the table-bars and the magazine is sufficient to cause an automatic feeding of the rods, so that it is simply necessary to keep a sufficient quantity of the rods on the table to fill the magazine. It will be observed that the adjustment afforded by the slot u enables the guard-bars v' to be bodily adjusted to and from the drum and that the extensibility of the overlapped supporting-bars U and V enables the guard-bars to be bodily adjusted toward and from the table-bars, whereby the feed-channel may be accurately adjusted to suit rods of varying thicknesses.

It will be apparent to those skilled in the art that various mechanical embodiments of the invention are possible, and I therefore do not wish to be limited to the exact arrangement and construction shown.

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

1. In combination with a frame, a rotating drum provided with transverse grooves in its periphery, a shaft carrying cutters working

alongside of the respective ends of said drum, means for delivering the articles to be cut to the grooves in said drum, means for rotating the drum and the cutters, and means for feeding the articles into the grooves of the drum, this means consisting of a table inclining downwardly toward the face of the drum, a pair of bars supported above said table and inclining in the same direction and terminating near the periphery of the drum, and devices for supporting these bars, these devices consisting of a pair of plates overlapped and adjustably clamped together, one of the plates being fastened to said bars and the other one being adjustably attached to a part of the frame of the machine, substantially as set forth.

2. In a machine of the class set forth, the combination of a grooved drum, rotary cutters, means for simultaneously rotating the drum and the cutters, and means for feeding the articles, consisting of a table inclining downwardly toward the drum, guard-bars and supporting devices therefor, these guard-bars lying above and parallel to the table and terminating near the periphery of the drum and the supporting devices for these guard-bars being vertically adjustable and extensible, whereby the guard-bars may be bodily adjusted toward the drum and also toward the table, substantially as set forth.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 19th day of August, 1905.

WALTER A. GARRIGUS.

Witnesses:

J. A. LECLERCQ,
J. D. EAGAR, Jr.