

No. 715,164.

Patented Dec. 2, 1902.

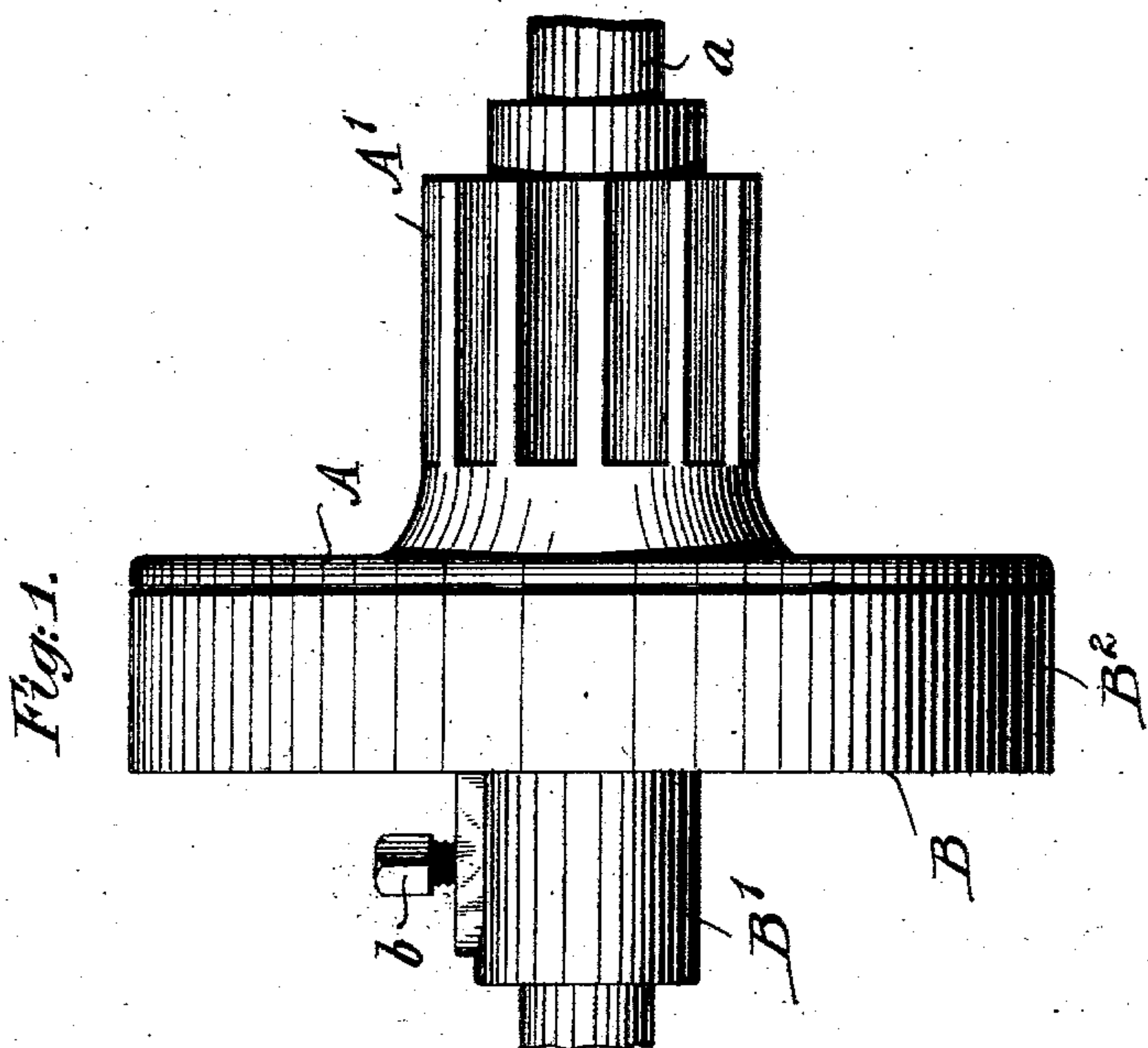
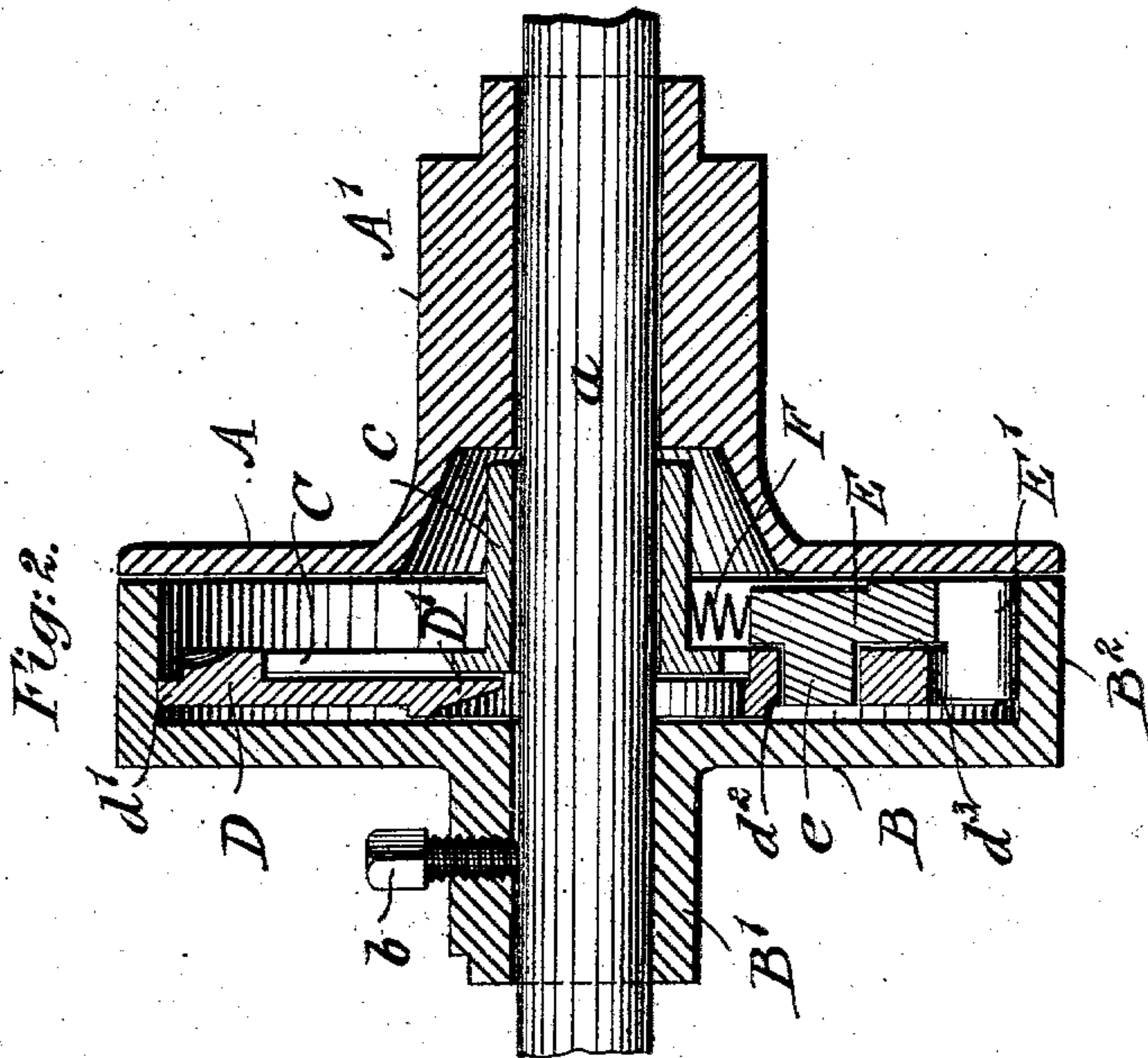
M. SLOTKIN.

POWER TRANSMITTING MECHANISM.

(Application filed May 6, 1902.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

Walter Wollheim
C. Bradley

INVENTOR

Mayer Slotkin.
BY Laurence Viles
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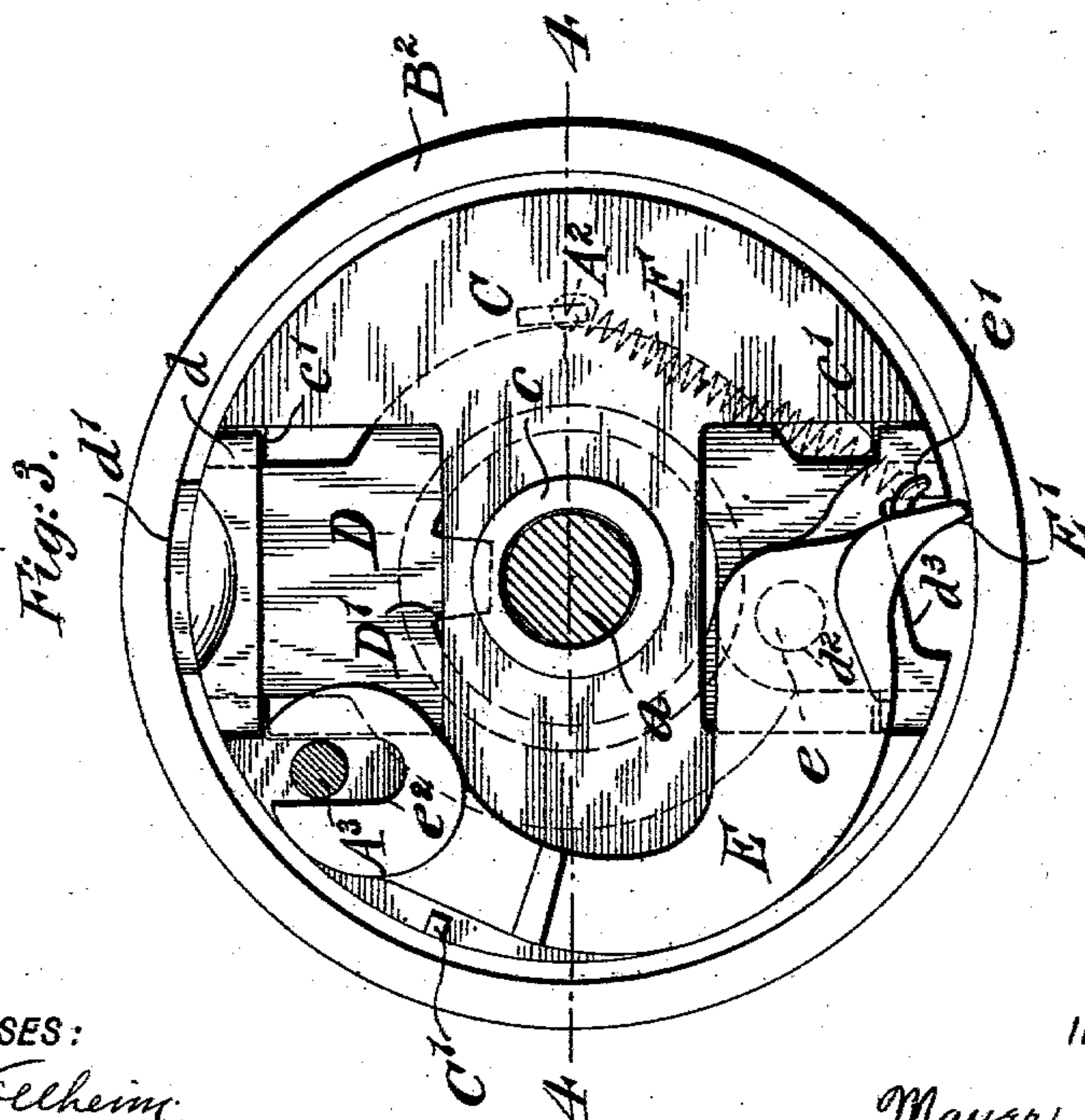
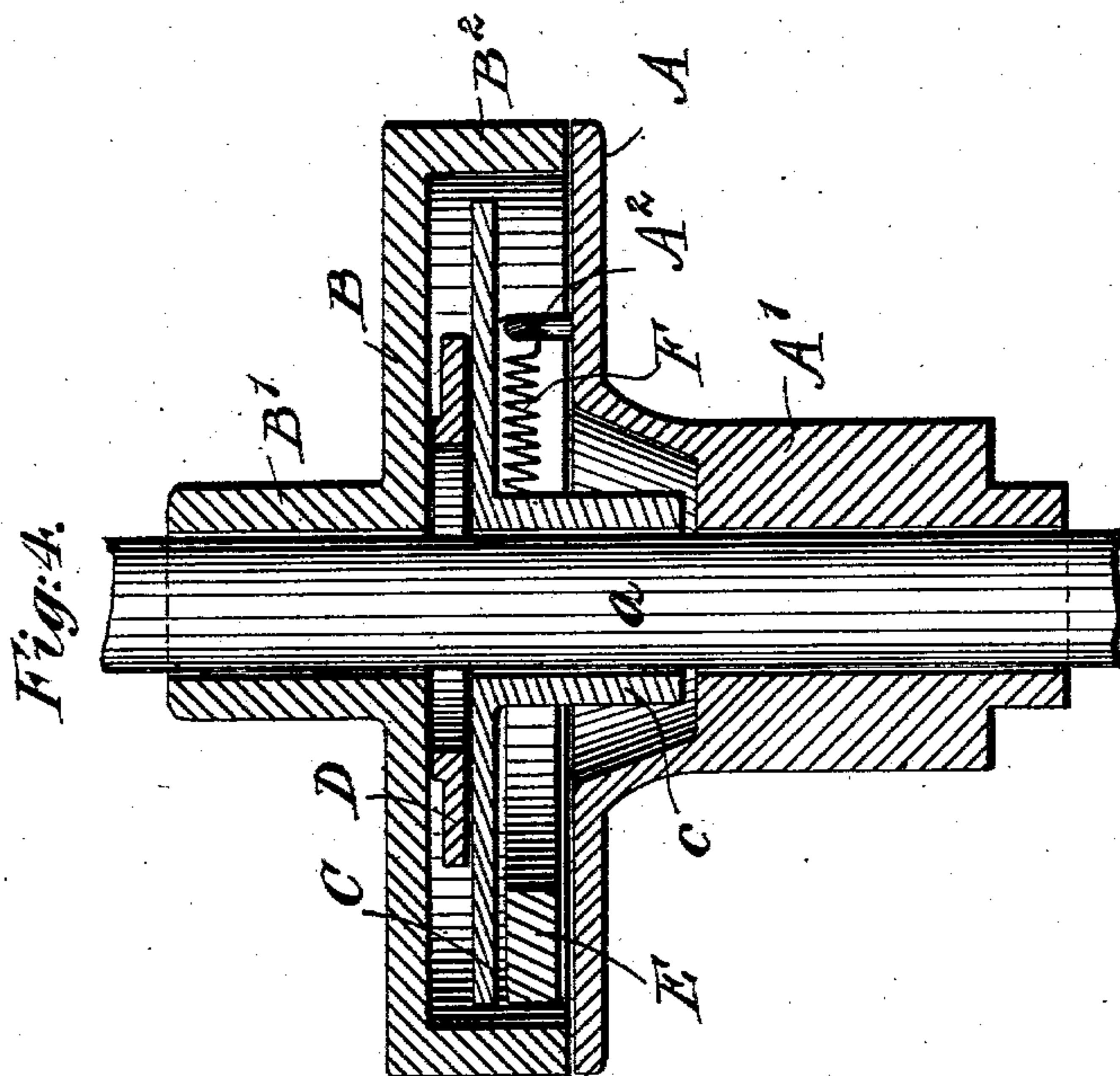
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UNITED STATES PATENT OFFICE.

MAYER SLOTKIN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JULIUS PRAGLIN, OF NEW YORK, N. Y.

POWER-TRANSMITTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 715,164, dated December 2, 1902.

Application filed May 6, 1902. - Serial No. 106,141. (No model.)

To all whom it may concern:

Be it known that I, MAYER SLOTKIN, a citizen of the United States, residing in New York, borough of Manhattan, and State of New York, have invented certain new and useful Improvements in Power-Transmitting Mechanisms, of which the following is a specification.

This invention relates to a power-transmitting mechanism, and relates particularly to a power-transmitting clutch for which Letters Patent, No. 474,934, dated May 17, 1892, were granted to Edwin Winans, in which the improvements reside in the construction of the parts so as to render the operation of the clutch more positive and reliable.

To this end the invention consists of a power-transmitting clutch comprising a power-imparting member, a power-receiving member having a circumferential flange, a carrying-plate, a sliding grip guided on said carrying-plate, a spring-controlled operating-lever pivotally mounted on said sliding grip, said lever being connected with said power-imparting member for actuating said sliding grip to frictionally engage the flange of said power-receiving member, a stop provided on said carrying-plate to prevent the body of said lever from contacting with said flange, and a shaft for said members, as will be more fully described hereinafter, and finally pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of a clutch embodying my improvements. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a view of the clutch with the power-imparting member removed; and Fig. 4 is a longitudinal section on line 4-4, Fig. 3.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the power-imparting member which is provided with a pinion portion A' that forms a sleeve for loosely mounting said member upon the shaft *a*, and in contact with the power-imparting member A is rigidly secured, by means of a set-screw *b*, the power-receiving member B, said set-screw passing through a sleeve portion B' of the power-receiving member. These members form a housing or casing in which the parts of the clutch are removably assem-

bled. Arranged concentrically in the casing or particularly in the receiving member is the carrying-plate C, that is provided with a central sleeve *c*, through which the shaft *a* passes. The plate C slidably carries a sliding grip D, which is guided by the lugs *c'* of the carrying-plate engaging the lugs *d* at the ends of said sliding grip D. The sliding grip D is provided at one end with a shoe *d'*, that is adapted to frictionally engage the interior surface of the flange B² of the power-receiving member, and at the other end is provided an aperture *d*², and adjacent the aperture the sliding grip is provided with a recess *d*³ in its end.

A lever E is pivotally mounted at one end upon the sliding grip D by means of a lug *e* being received in the aperture *d*². This pivot end of the lever E is provided with a projection E', which is disposed in the recess *d*³ of the sliding grip, and upon this projection is provided a hook *e'*, to which is connected a spring F, that is connected with the hook A² of the power-imparting member A. The upper end of the lever E is provided with a slot *e*², which is adapted to engage the thrust-lug A³, projecting from the interior surface of the power-imparting member A. Adjacent the upper end of the lever E the carrying-plate C is provided with a stop C', which is adapted to limit the motion of the lever E, so as not to contact with the flange B² of the power-receiving member. The lower end of the sliding grip D is maintained out of contact with the interior surface of the flange B² by means of a lug D', that is limited by its impinging upon the shaft *a*.

The device is operated as follows: Motion is imparted from the power-imparting member A to the lever E through the lug A³ engaging the slotted end of the lever, the direction of the motion being away from the lug C'. This motion being about the lug *e* as a center causes the projection E' of the lever to move into contact with the interior surface of the flange B², so as to cause the sliding grip D to be thrust longitudinally, so that the shoe *d'* at the opposite end thereof will frictionally engage the interior surface of the flange B² of the power-receiving member B, as shown in Figs. 2 and 3, this frictional engagement

continuing as long as power is imparted through the member A to the lever E. The lever E, by means of the spring F, is maintained in contact with the stop C' of the carrying-plate C, in which position the sliding grip is maintained out of engagement with the interior surface of the flange B², so that the power-imparting member can rotate in opposite directions. By means of pivotally mounting the lever E the contact of the projection E' with the interior surface of the flange B² is more positive, causing the frictional engagement of the shoe d' with said flange to be of a highly-reliable character, and the stop C' also prevents the lever from moving outwardly to too great an extent, and thereby press against the flange B² and interfere with the rearward revolution of the power-receiving member.

20 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, in a power-transmitting mechanism, of a power-imparting member, a power-receiving member, a carrying-plate, a sliding grip guided on said carrying-plate, said sliding grip having an aperture at one end, an operating-lever provided with a pivot-lug, said lug being received in the aperture of said sliding grip, a spring connected at one end with said operating-lever and at its opposite end with said power-imparting member, said power-imparting member actuating said lever and operating said sliding grip, a stop provided on said carrying-plate, and a shaft for carrying said members, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MAYER SLOTKIN.

Witnesses:

PAUL GOEPEL,
C. BRADWAY.