

No. 742,229.

PATENTED OCT. 27, 1903.

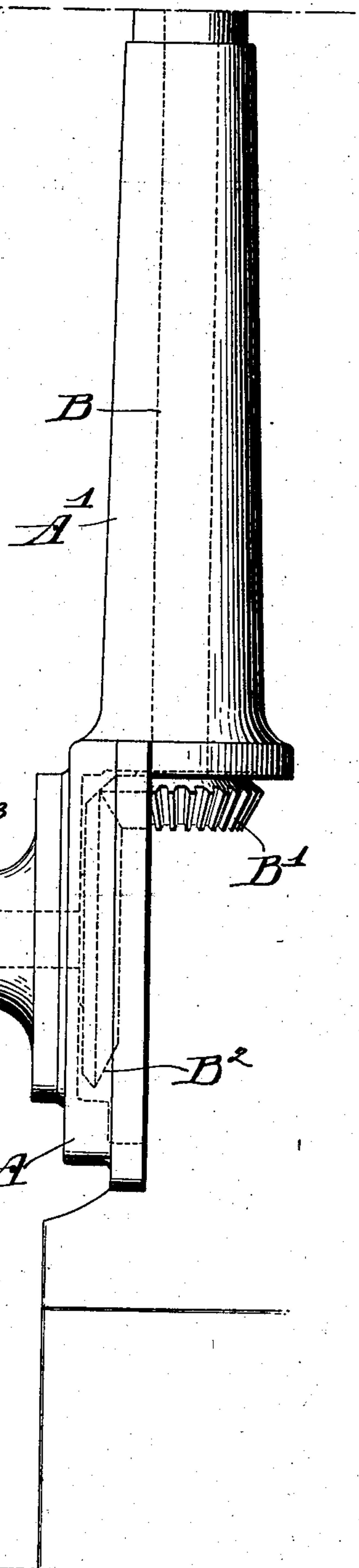
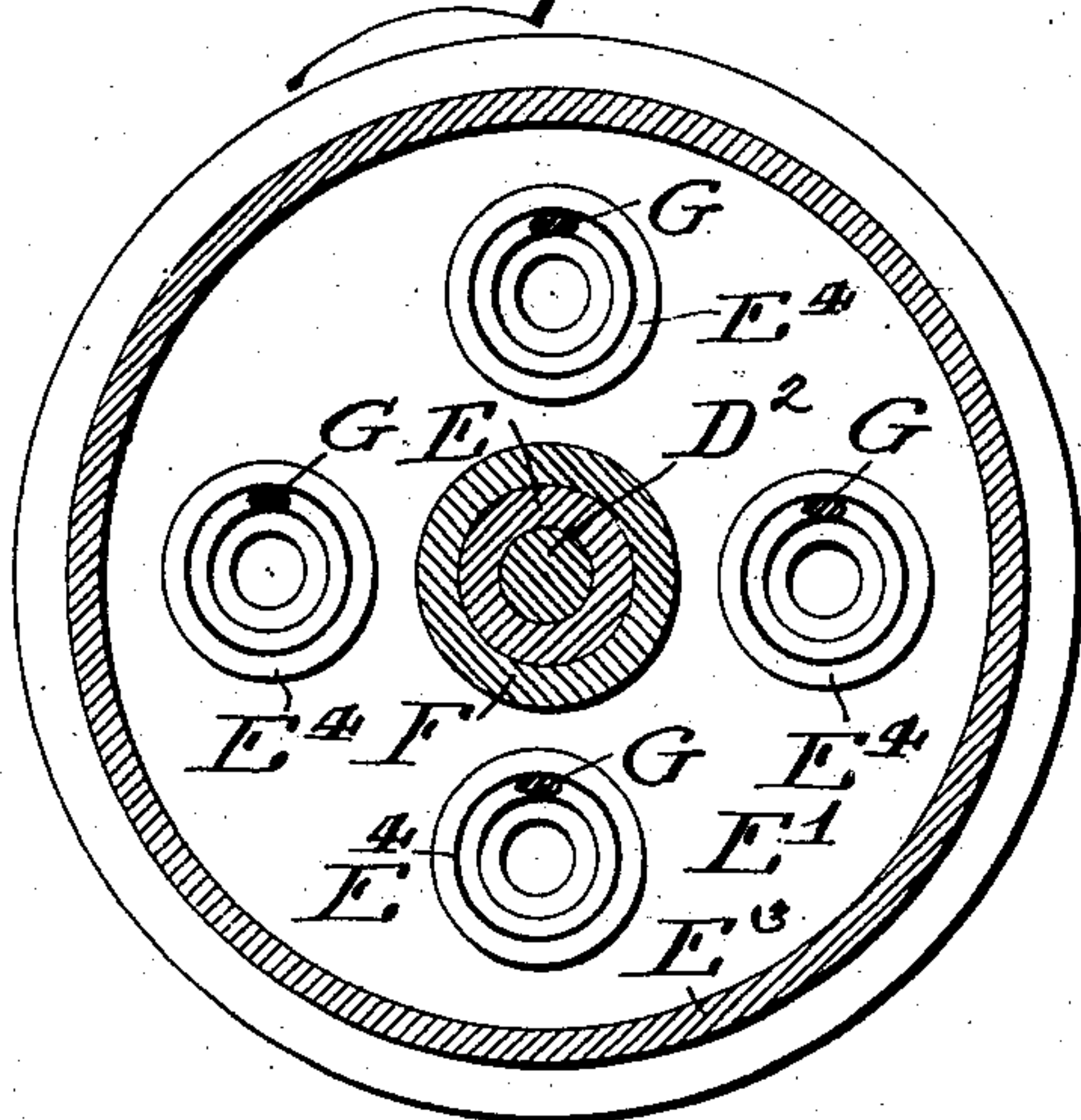
G. B. PETSCHÉ.  
DEVICE FOR ACTUATING GOVERNOR SPINDLES.

APPLICATION FILED JULY 29, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

*Fig. 2.*



*Fig. 1.*

WITNESSES:

*Stewart*  
*A. Williams*

INVENTOR:

*Gustav B. Petsche*  
*by his atty.*  
*Frederic C. Chambers*

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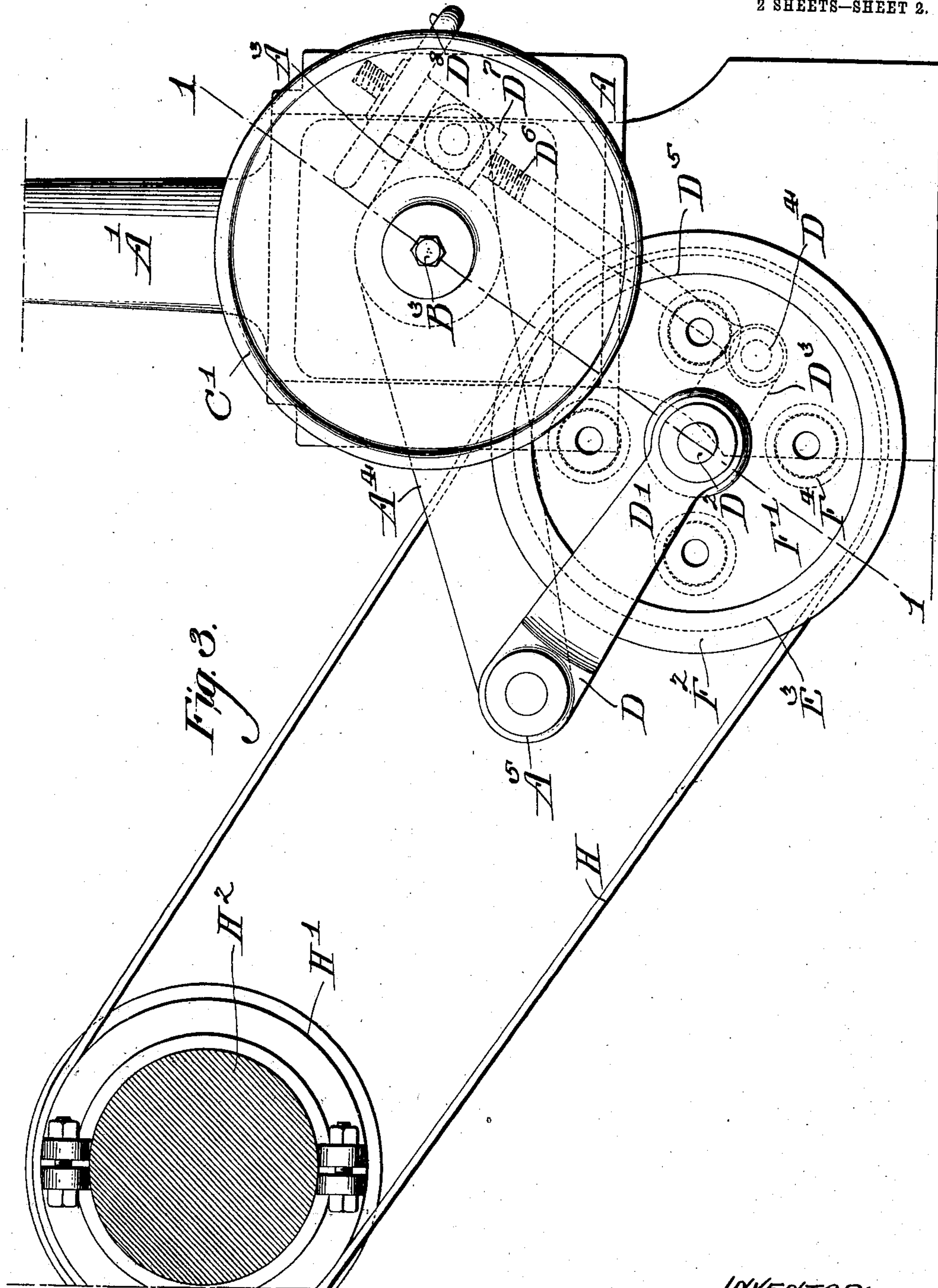
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Stewart  
A. J. Williams

**INVENTOR:**

Gustav B. Petroski  
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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR ACTUATING GOVERNOR-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 742,229, dated October 27, 1903.

Application filed July 29, 1902. Serial No. 117,460. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAV B. PETSCHÉ, a subject of the Emperor of Germany, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Devices for Actuating Governor-Spindles, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to mechanism for actuating governor-spindles, having for its object to provide mechanism by which the motion of the engine can be transmitted to the governor-spindle by smooth-acting and efficient mechanism and mechanism which will permit of adjustment to vary the ratio of speed.

The nature of my improvements will be best understood as described in connection with the drawings in which they are illustrated, and in which—

Figure 1 is an elevation of the device, taken partly on the section-line 1 1 of Fig. 3. Fig. 2 is a vertical section on the line 2 2 of Fig. 1, and Fig. 3 a side elevation.

A indicates a portion of the framing, from which extends the sleeve-bearing A', in which the governor-spindle is secured, and the sleeve-bearing A'', in which the actuating-shaft is secured. The sleeve-bearing A'' has projecting from it an arm A<sup>3</sup> and on the other side a longer arm (indicated at A<sup>4</sup>) having an elongated bearing A<sup>5</sup> formed at its end.

B is the governor-spindle, having a bevel-gear B' at its bottom which is engaged and driven by a bevel-gear B'', secured on the end of a shaft B<sup>3</sup>. To the end of this shaft B<sup>3</sup> is secured the double-disk wheel C, C' C' indicating the disks projecting out from the sides of the hub of this wheel.

D is a lever-arm pivotally supported on the bearing A<sup>5</sup> and forked, as indicated at D' D', said fork supporting a bearing-pin (indicated at D<sup>2</sup>) and one of the forked arms having a prolongation, (indicated at D<sup>3</sup>), with a laterally-extending bearing-pin D<sup>4</sup>, to which is pivotally attached the adjusting and supporting arm D<sup>5</sup>, having a threaded end D<sup>6</sup>, which passes through a head D<sup>7</sup>, pivotally

supported on the arm A<sup>3</sup>, and is engaged by the threaded hub of the adjusting hand-wheel D<sup>8</sup>.

E is the elongated hub of a friction-disk E', the hub being supported on the bearing D<sup>2</sup> and free to move longitudinally thereon.

E<sup>2</sup> indicates the bearing-surface of the disk E', and E<sup>3</sup> a rearwardly-projecting flange forming a pulley-wheel.

E<sup>4</sup> E<sup>4</sup>, &c., are spring-sockets formed on the inside of the pulley-disk E'.

F is the hub of a friction-disk F', the said hub being supported on the hub E of the disk E', so as to be free to move longitudinally thereon.

F<sup>2</sup> is the friction-surface of the disk F', and F<sup>4</sup> F<sup>4</sup> the spring-sockets corresponding to the spring-sockets E<sup>4</sup>.

G G, &c., are the springs situated between the friction-disks and seated in the pockets E<sup>4</sup> F<sup>4</sup>, such springs acting to press the disks apart.

It will be seen that the disks E' and F' are inserted between the disks C' C' of the wheel C and their surfaces E<sup>2</sup> and F<sup>2</sup> pressed out against the inner surfaces of the disks C' C' by the action of the springs G G.

H, Fig. 3, is a belt running on the belt-flange E<sup>3</sup> and over a belt-wheel H', secured to a positively-connected shaft H<sup>2</sup> of the engine.

It will be seen that by my construction the power transmitted by the belt is communicated to the double-disk wheel C through the frictional contact of the faces E<sup>2</sup> F<sup>2</sup> of the friction-disks supported on the bearing D<sup>2</sup>, and it will also be obvious that by turning the hand-wheel D<sup>8</sup> the bearing D<sup>2</sup>, carrying the friction-disks, can be made to approach or recede from the shaft D<sup>3</sup>, so as to increase or decrease the ratio of speed between the driving and driven shafts.

The device is simple and in practice thoroughly efficient.

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

1. As a device for actuating a governor-spindle, a double-disk wheel C supported on a fixed bearing and connected to actuate the spindle, in combination with a bearing D<sup>2</sup> ad-



justable to and from the bearing of wheel C, means for adjusting and securing the bearing D<sup>2</sup> in place, two friction-disks supported by and laterally adjustable upon the bearing D<sup>2</sup> 5 said disks being adapted to bear against the inner faces of the disks of wheel C, springs acting between the friction-disks to force them apart and into contact with the disks of wheel C and a belt-pulley secured to one of 10 the friction-disks.

2. As a device for actuating a governor-spindle, a double-disk wheel C supported on a fixed bearing and connected to actuate the spindle, in combination with a bearing D<sup>2</sup> ad- 15 justable to and from the bearing of wheel C, means for adjusting and securing the bearing D<sup>2</sup> in place, a friction-disk having a prolonged hub E supported on bearing D<sup>2</sup> and free to move laterally thereon, a second friction-disk 20 having a hub supported on the prolonged hub of the first disk and free to move laterally

thereon and springs situated between the disks and acting to thrust them outward.

3. As a device for actuating a governor-spindle, a double-disk wheel C supported on 25 a fixed bearing and connected to actuate the spindle, in combination with a bearing D<sup>2</sup> adjustable to and from the bearing of wheel C, means for adjusting and securing the bearing D<sup>2</sup> in place, a friction-disk having a prolonged 30 hub E supported on bearing D<sup>2</sup> and free to move laterally thereon, a second friction-disk having a hub supported on the prolonged hub of the first disk and free to move laterally 35 thereon, springs situated between the disks and acting to thrust them outward and a belt-wheel secured to the inner face of the first disk.

GUSTAV B. PETSCHE.

Witnesses:

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