

(No Model.)

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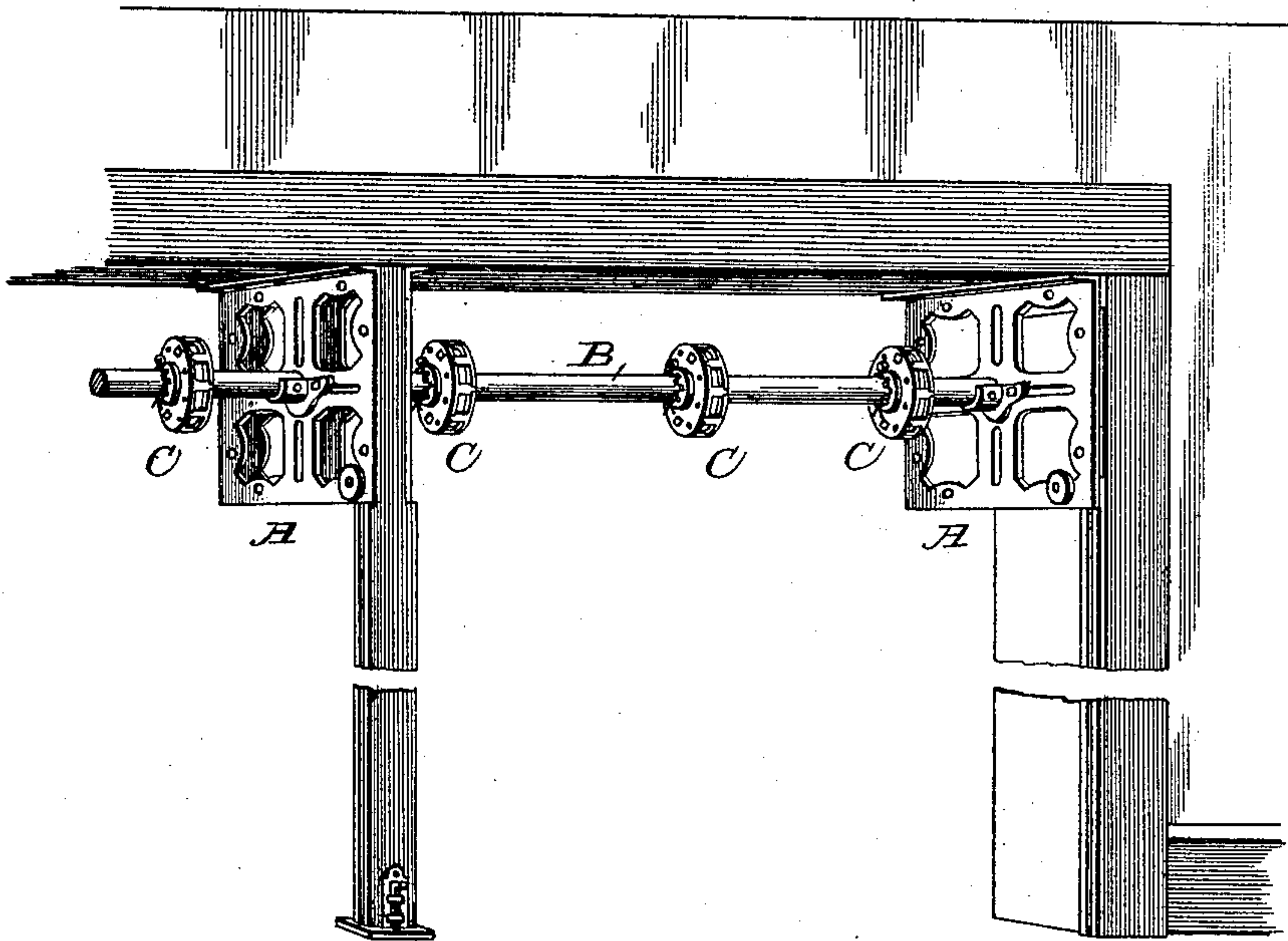
G. K. MONROE.

OPERATING MECHANISM FOR ROLLING PARTITIONS.

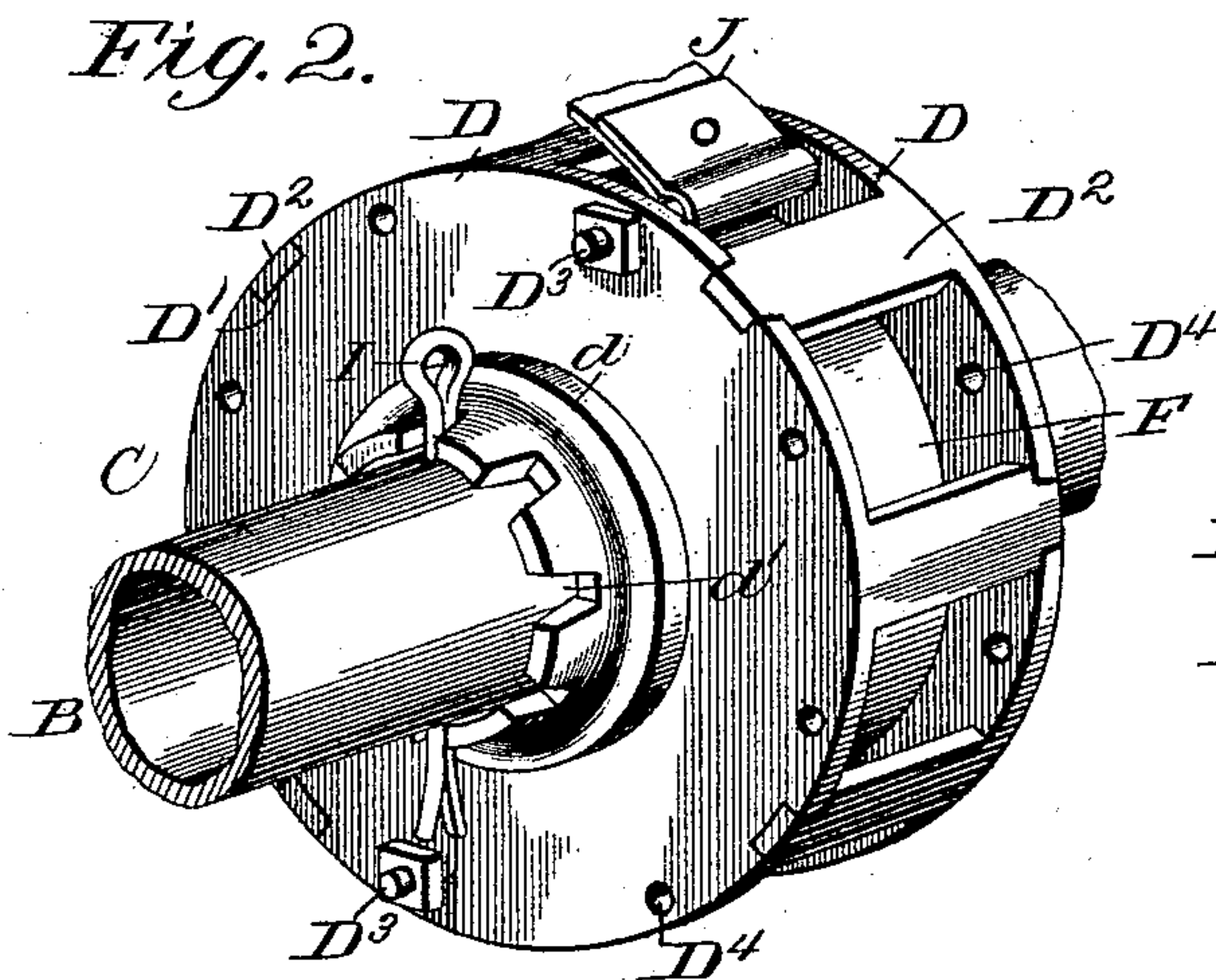
No. 582,999.

Patented May 18, 1897.

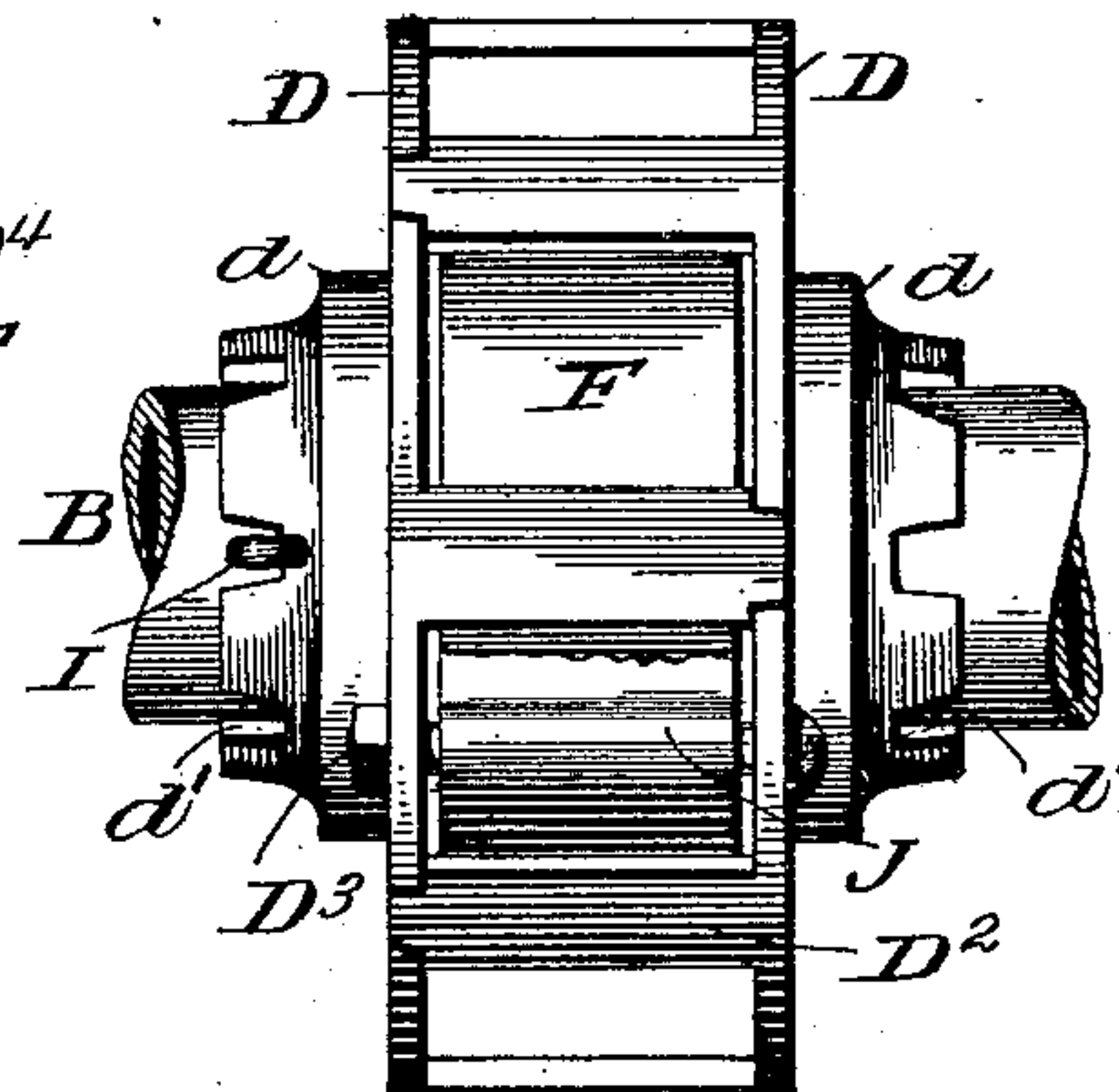
*Fig. 1.*



*Fig. 2.*



*Fig. 4.*



WITNESSES

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(No Model.)

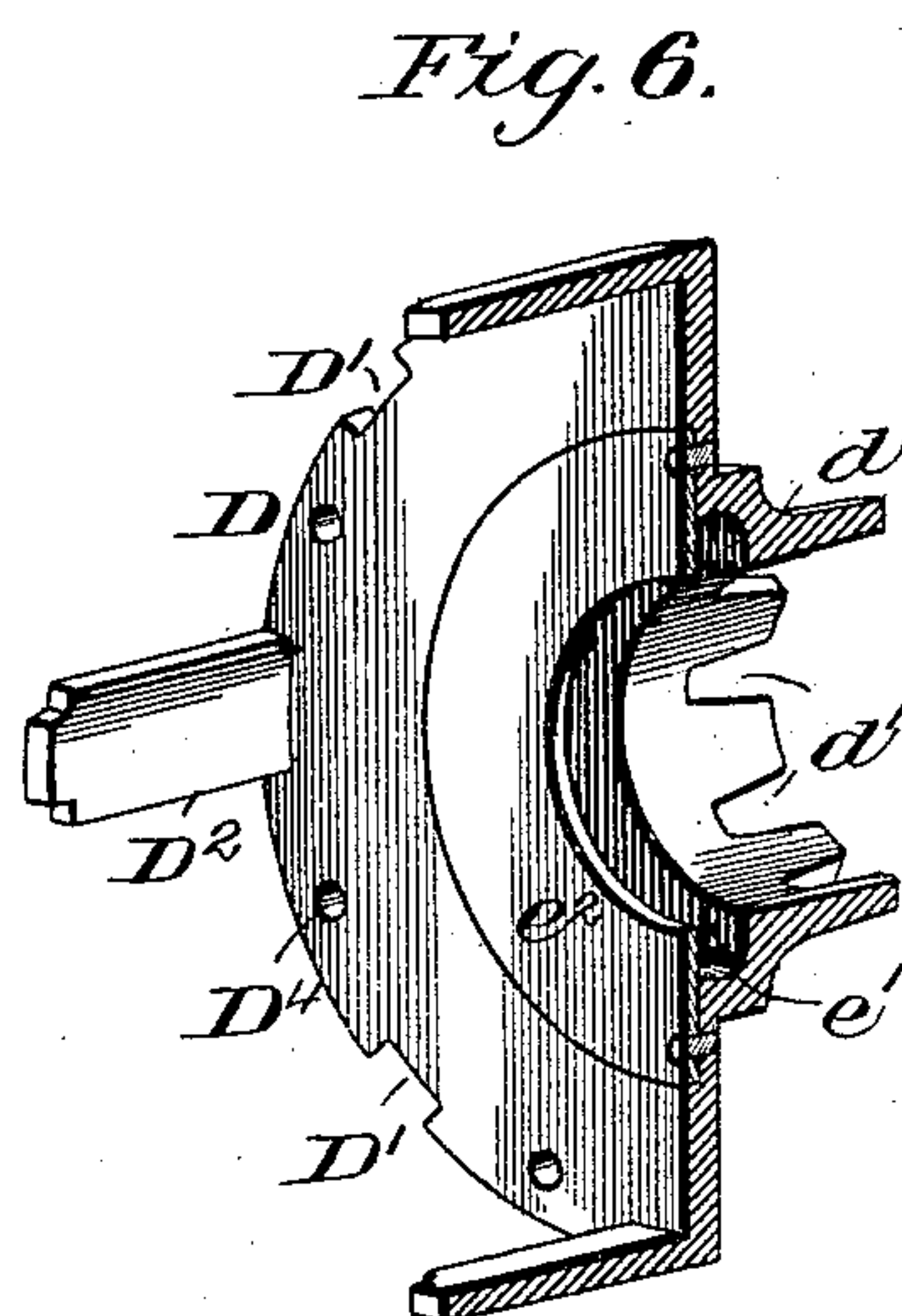
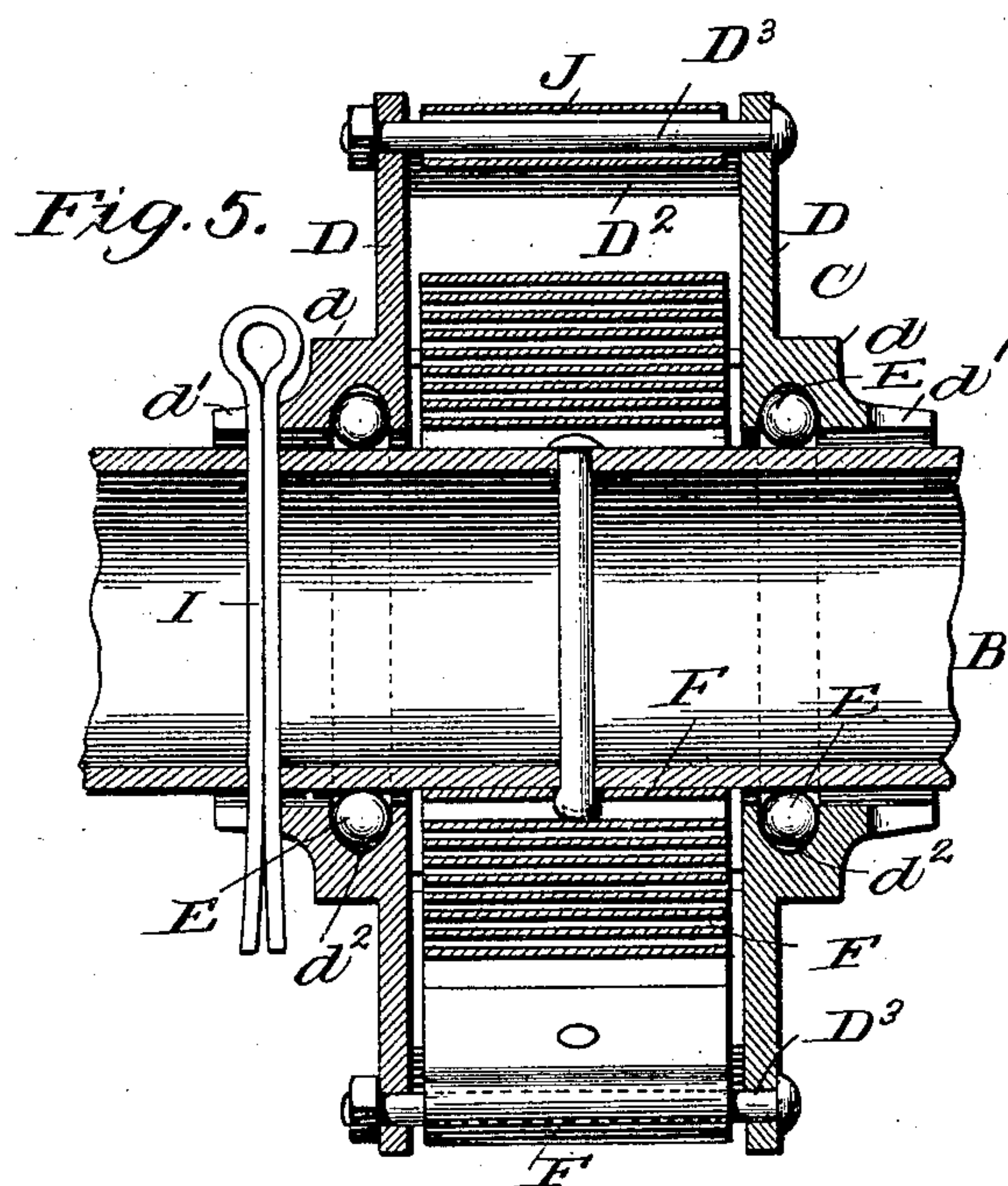
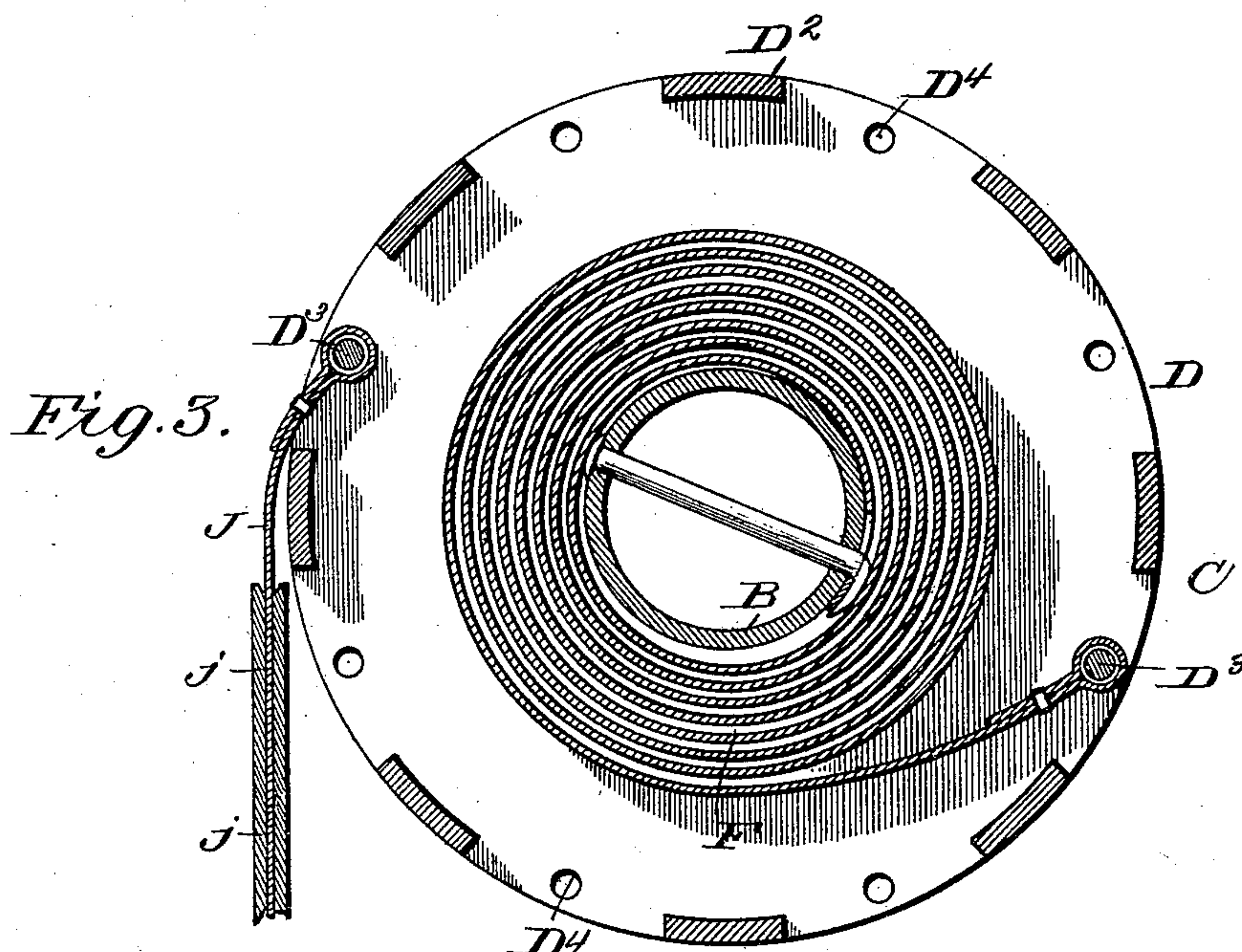
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INVENTOR

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# UNITED STATES PATENT OFFICE.

GILBERT K. MONROE, OF WOOSTER, OHIO, ASSIGNOR TO JOSEPHINE MONROE, OF SAME PLACE, AND EDNA L. MONROE, OF LIMA, OHIO.

## OPERATING MECHANISM FOR ROLLING PARTITIONS.

SPECIFICATION forming part of Letters Patent No. 582,999, dated May 18, 1897.

Application filed August 24, 1896. Serial No. 603,826. (No model.)

*To all whom it may concern:*

Be it known that I, GILBERT K. MONROE, of Wooster, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Operating Mechanism for Rolling Partitions; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in the roller supports or hangers for rolling partitions and like heavy screens; and its object is to provide simple and effective spring-controlled drums which can be rotatably supported on a fixed shaft, and any number of which can be used, as may be required by the weight of the partition.

Another object is to make such spring drums or cases strong, light, and durable and to provide them with roller-bearings.

The invention therefore consists in the novel construction and combination of parts hereinafter described, and the accompanying drawings illustrate the best form of the device now known to me.

Referring to said drawings, Figure 1 is a perspective view of a fixed shaft, its hangers, and series of spring-drums on the shaft. Fig. 2 is an enlarged view of one of the spring-drums. Fig. 3 is a transverse vertical section, enlarged, through one of the spring-drums and portion of a partition attached thereto. Fig. 4 is a detail top view of the drum. Figs. 5 and 6 are details.

Referring to the drawings, A A designate hangers, and B a shaft, preferably hollow, supported on said hangers.

C C designate the spring-drums, which are preferably constructed as follows:

Two annular plates D are cast, having an inner opening just large enough to easily fit the shaft B and are of the diameter desired for the drum. Around the inner opening in each plate is an exterior annular flange  $d$ , which is notched, as at  $d'$ , for the purpose hereinafter explained.

The outer edge of each plate D has a series of equidistant notches  $D'$  in it adapted to receive the rabbeted ends of horizontal arms  $D^2$ , projecting horizontally from the inner face

and outer edge of the opposite plate, each plate being provided with such arms, the notches alternating with the arms, so that when the two plates are put together, as in the drawings, they form a hollow barrel or drum, the arms  $D^2$  forming the staves or periphery of the drum. The two plates are bound together by transverse bolts  $D^3$ , as indicated in the drawings. The flange  $d$  of each plate has an inner groove  $d^2$  surrounding the shaft B, and in said grooves are placed friction-balls E, and thus the drum is supported on the shaft by ball-bearings and rotates easily and noiselessly thereon.

Within each drum is a coiled spring F, one end of which is made fast to the shaft, as indicated in Fig. 3, and the other end is made fast to one of the bolts  $D^3$  of the drum, as shown.

When the spring is wound up, a key I is inserted through one of the notches  $d'$  into an opening in the shaft, so as to lock the drum thereto until the rolling partition is secured to the drums, when the pins can be withdrawn.

The partitions are usually made of horizontal wood strips  $j$ , strung on strap-metal bands J, transfixing the strips, as indicated in Fig. 3, and the projecting end of these straps is made fast to one of the bolts  $D^3$ , as shown. The plates have a series of bolt-holes  $D^4$  near their peripheries, so that there will be no trouble in fastening the ends of springs or straps thereto.

The grooves for the ball-bearings E may be formed in various ways. As shown in Fig. 5, a V-groove is cored out of the plates. As shown in Fig. 6, an annular shoulder  $e'$  is cored in the plate around the opening, and then an annular plate  $e^2$  is fastened to the inner face of the plate to form the inner wall of the groove. I do not confine myself to either formation, but consider the ball-bearings very valuable in connection with my drums.

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

1. The combination with a fixed supporting-shaft, and a series of rotary spring-containing drums mounted loosely thereon, each composed of two similar opposite plates re-



spectively provided with ball-bearings and rigidly connected together substantially as described; with a coiled spring in each drum having one end fast to the shaft and its other  
5 end fast to the drum, and the partition suspended from said drums, substantially as and for the purpose set forth.

2. The combination with a supporting-shaft, of a spring-drum for the purpose described, composed of opposite plates having  
10 central openings surrounded by notched flanges and bolts uniting said plates substantially as described, a coiled spring interposed between said plates fastened at one end to the  
15 shaft and at the other end to one of the bolts of the drum, for the purpose and substantially as described.

3. The herein-described drum, consisting of opposite annular plates, each having laterally-projecting arms on its inner face near  
20 its outer edge, and each having notches intermediate the arms adapted to receive the ends of the arms of the opposite plate for the purpose and substantially as described.

25 4. The herein-described drum, consisting of opposite annular plates, each having laterally-projecting arms on its inner face near

its outer edge, and each having notches intermediate the arms adapted to receive the ends  
of the arms of the opposite plate *f*, each plate 30 also having an annular flange on its outer face around the opening in the plate, said flange being notched for the purpose and substantially as described.

5. The combination of the shaft, the series  
35 of drums thereon each composed of opposite similar plates *D, D*, mounted on the shaft by ball-bearings and having annular flanges around the shaft notched as described; each plate also having inwardly-projecting horizontal arms adapted to engage peripheral  
40 notches in the opposite plate; with the bolts uniting the plates, and the spring interposed between the plates having one end fast to the shaft and the other to the drum; and the rolling partition fastened to said drums, all substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GILBERT K. MONROE.

In presence of—

JOHN S. ADAIR,  
HIRAM SWARTZ.