

(No Model.)

A. J. DAVIS.  
FRICTION WHEEL.

No. 482,788.

Patented Sept. 20, 1892.

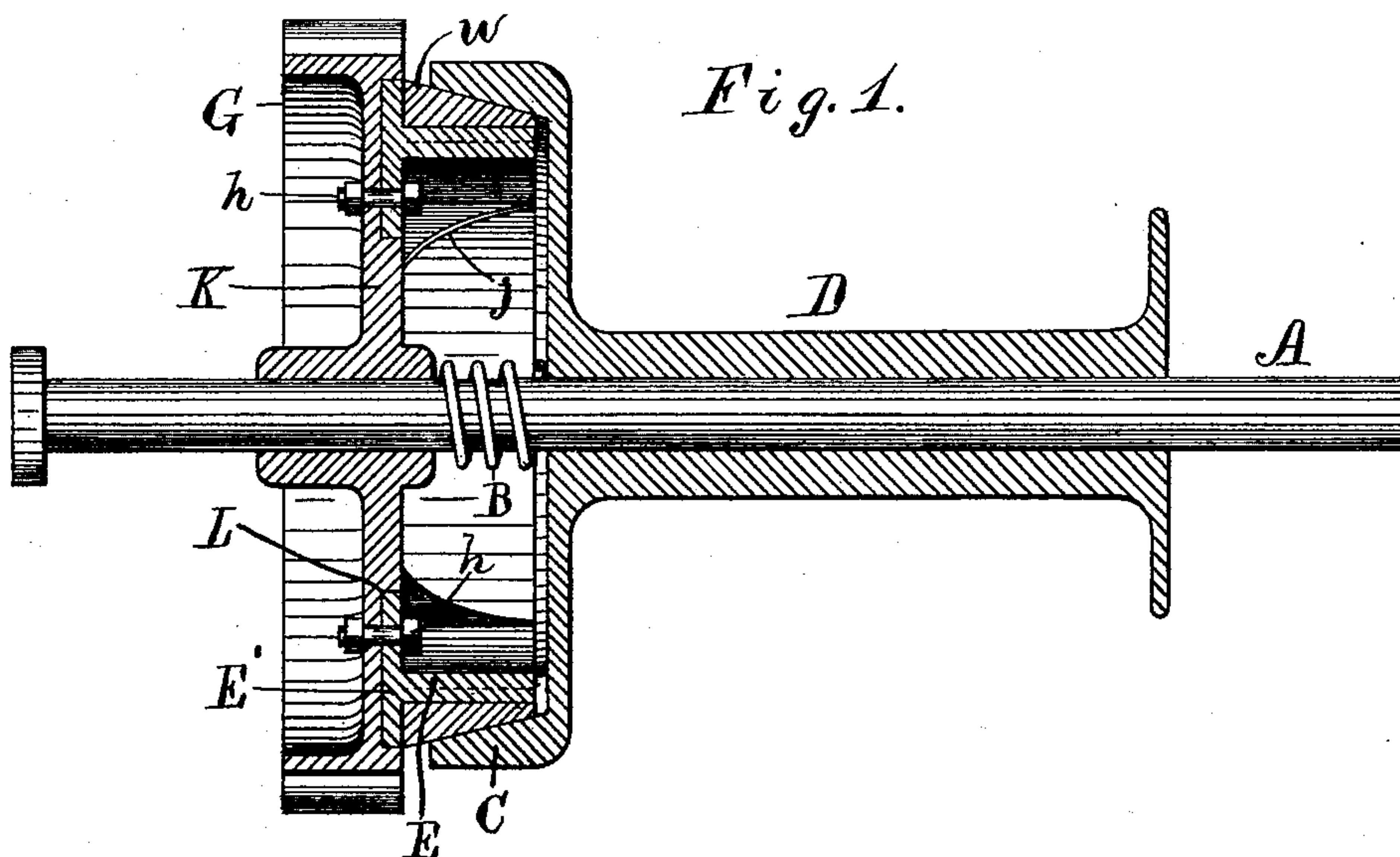


Fig. 2.

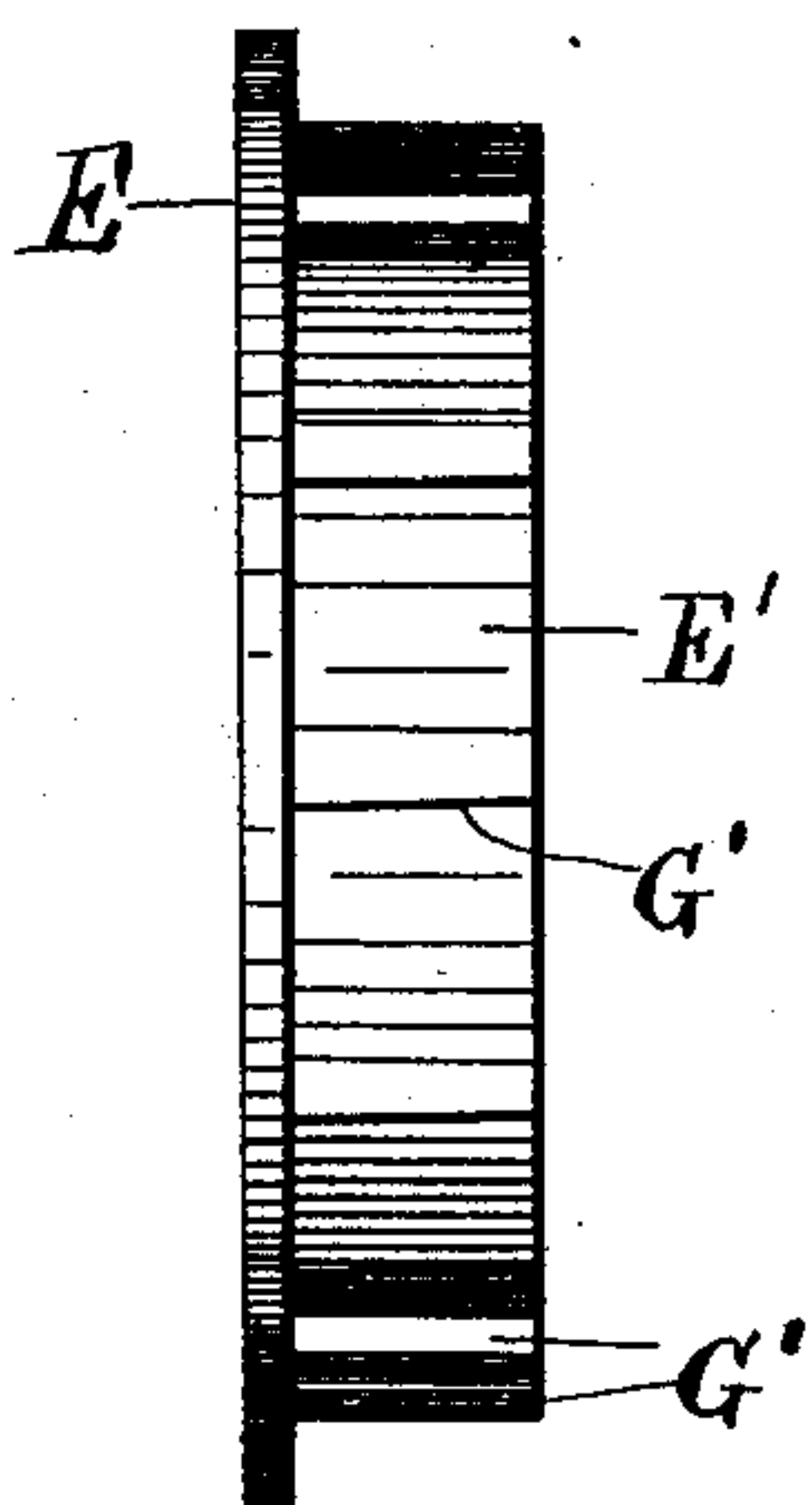
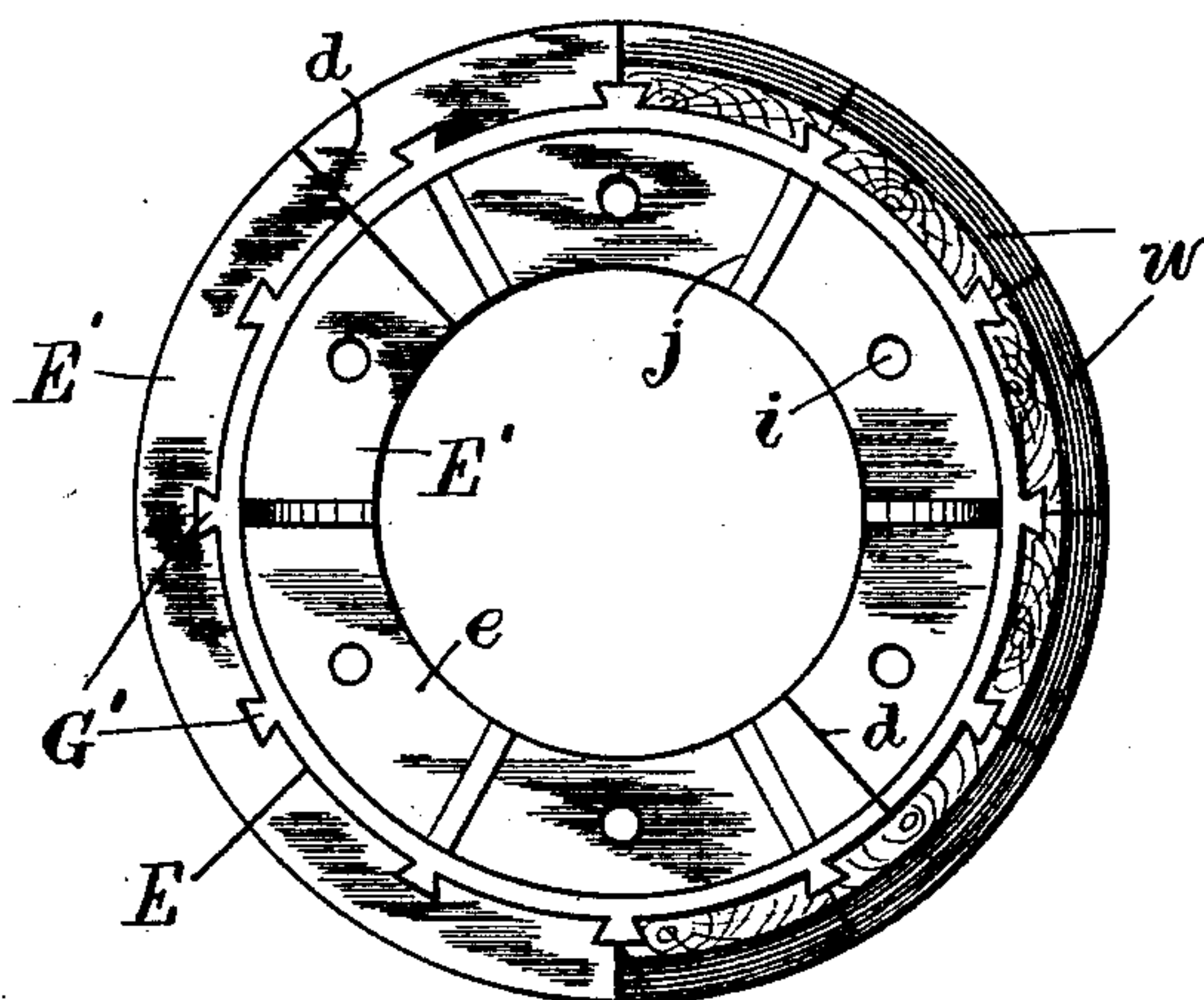


Fig. 3.



Attest:  
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Inventor.  
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Crane & Miller, attys.

# UNITED STATES PATENT OFFICE.

ALBERT J. DAVIS, OF PERTH AMBOY, NEW JERSEY.

## FRICTION-WHEEL.

SPECIFICATION forming part of Letters Patent No. 482,788, dated September 20, 1892.

Application filed March 10 1892. Serial No. 424,400. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT J. DAVIS, a citizen of the United States, residing at Perth Amboy, Middlesex county, New Jersey, have  
5 invented certain new and useful Improvements in Friction-Wheels, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 The object of this invention is to facilitate the renewal of the wooden blocks which are commonly used in contact with a metallic cone to produce friction in a friction-wheel, and the invention is shown herein applied to the  
15 drum of a hoisting-machine. In such hoisting-machines it is common to arrange the drum and driving gear-wheel upon the same shaft and provide each with a portion of the friction-wheel, the gear being rotated continuously and a spring being used to press the  
20 drum and gear-wheel normally apart, and the drum being pressed against the gear-wheel by suitable means when the drum is to be rotated.

In the drawings, Figure 1 is a longitudinal  
25 section of the drum and friction devices with the parts shown in section where hatched. Fig. 2 is an edge view of the detachable ring for the wooden blocks, and Fig. 3 is a face view of the same with the blocks inserted in  
30 one-half of the periphery and cross-lines  $d d$  to indicate the division of the ring.

A is the drum-shaft, and B the spring inserted between the drum D and the hub of the gear-wheel G. The gear-wheel is formed  
35 with a disk K, upon which is detachably mounted a ring E, to the exterior of which the wooden blocks  $w$  are applied. The outsides of the blocks are turned in conical form, and a hollow metallic cone C is formed upon the  
40 end of the drum to fit the same. In Fig. 1 the drum is shown pressed with the cone in contact with the blocks. The ring E is of cylindrical shape and provided with a series of dovetails  $G'$ , between which the blocks  $w$ ,  
45 grooved each upon its two inner corners to fit such dovetails, are driven tightly, as shown at the right-hand side of Fig. 3, the blocks being omitted from the remainder of the ring to

show the construction of the plate  $E'$ , by which the ring is attached to the disk K. This plate 50 is turned to fit a recess L in the face of the disk, and is thus accurately centered with the shaft A. Bracket-ribs  $j$  are shown upon the inner side of the ring and plate to stiffen the ring, and the plate is formed with bolt-holes 55  $i$  between the ribs. The plate is secured to the disk by bolts  $h$ , fitted through the holes, so that it may be readily removed and a similar plate and ring substituted therefor.

The plate and ring are divided diametri- 60 cally, as shown at  $d$  in Fig. 3, to adapt the plate for removal from its position between the gear-wheel G and the drum D without removing either from the shaft A by slipping the drum or gear-wheel endwise and removing 65 the halves of the ring separately after first removing the bolts  $h$ , which can be done from the exterior of the gear-wheel.

I am aware of the state of the art disclosed by United States Patents No. 260,791, of July 70 11, 1882; No. 304,300, of September 2, 1884; No. 408,011, of July 30, 1889, and No. 461,929, of October 27, 1891, and I hereby disclaim the same, limiting myself to the construction herein specifically shown, described, and claimed. 75

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

The combination, with the hoisting-drum D, provided with the hollow cone C, of the gear-wheel G, provided with disk K, having 80 the recess L therein, and the ring E, having the plate  $E'$ , divided into two parts and fitted to such recess and provided externally with the metallic dovetails  $G'$  and with the wooden blocks  $w$ , grooved each upon its two inner cor- 85 ners to fit such dovetails and tapered externally to fit the cone C, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 90 witnesses.

ALBERT J. DAVIS.

Witnesses:

EDMUND D. HALSEY,  
J. WRIGHT BROWN.