

No. 737,898.

PATENTED SEPT. 1, 1903.

H. BETHUY.  
THRESHING MACHINE.  
APPLICATION FILED APR. 11, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

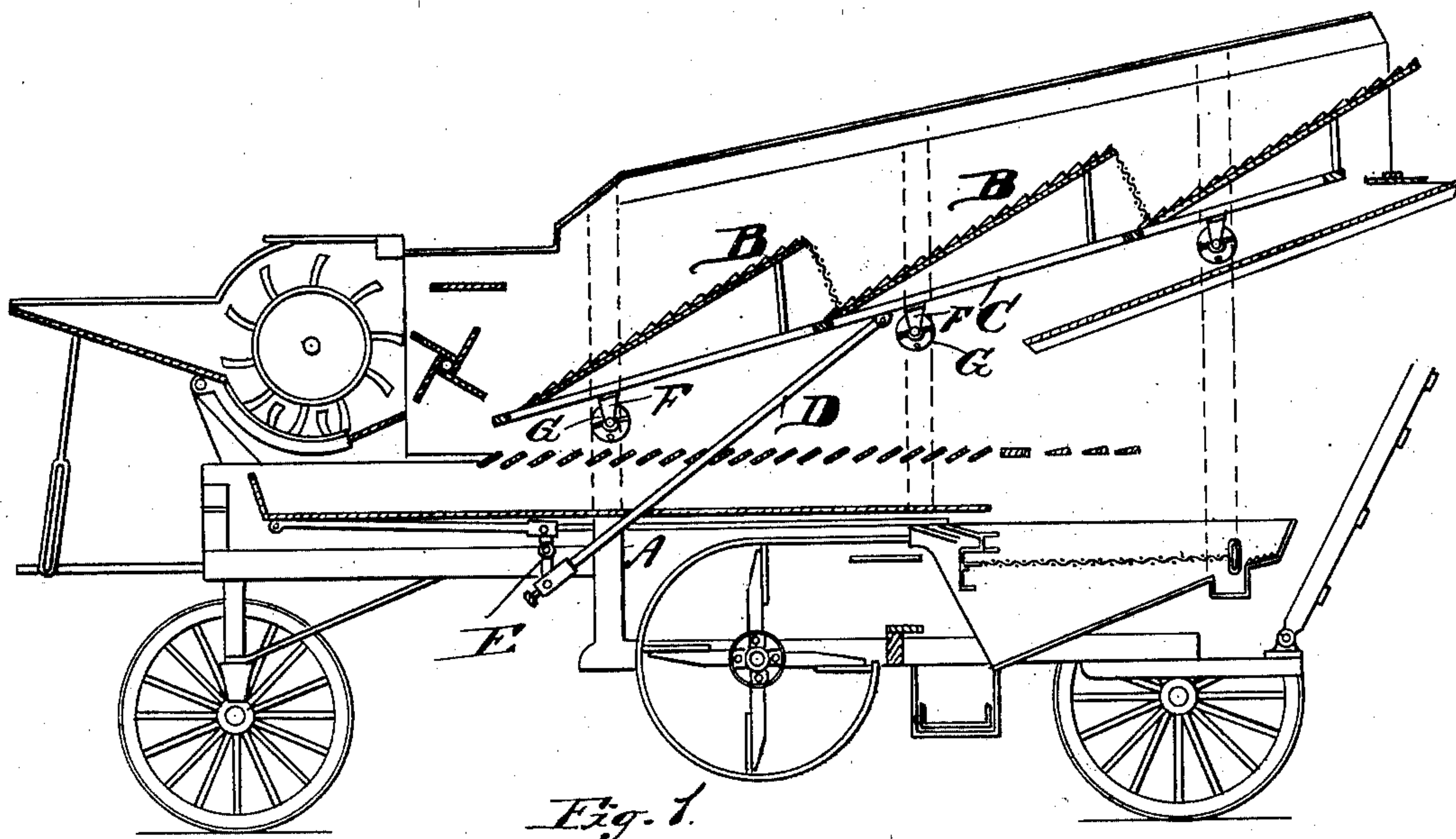


Fig. 1.

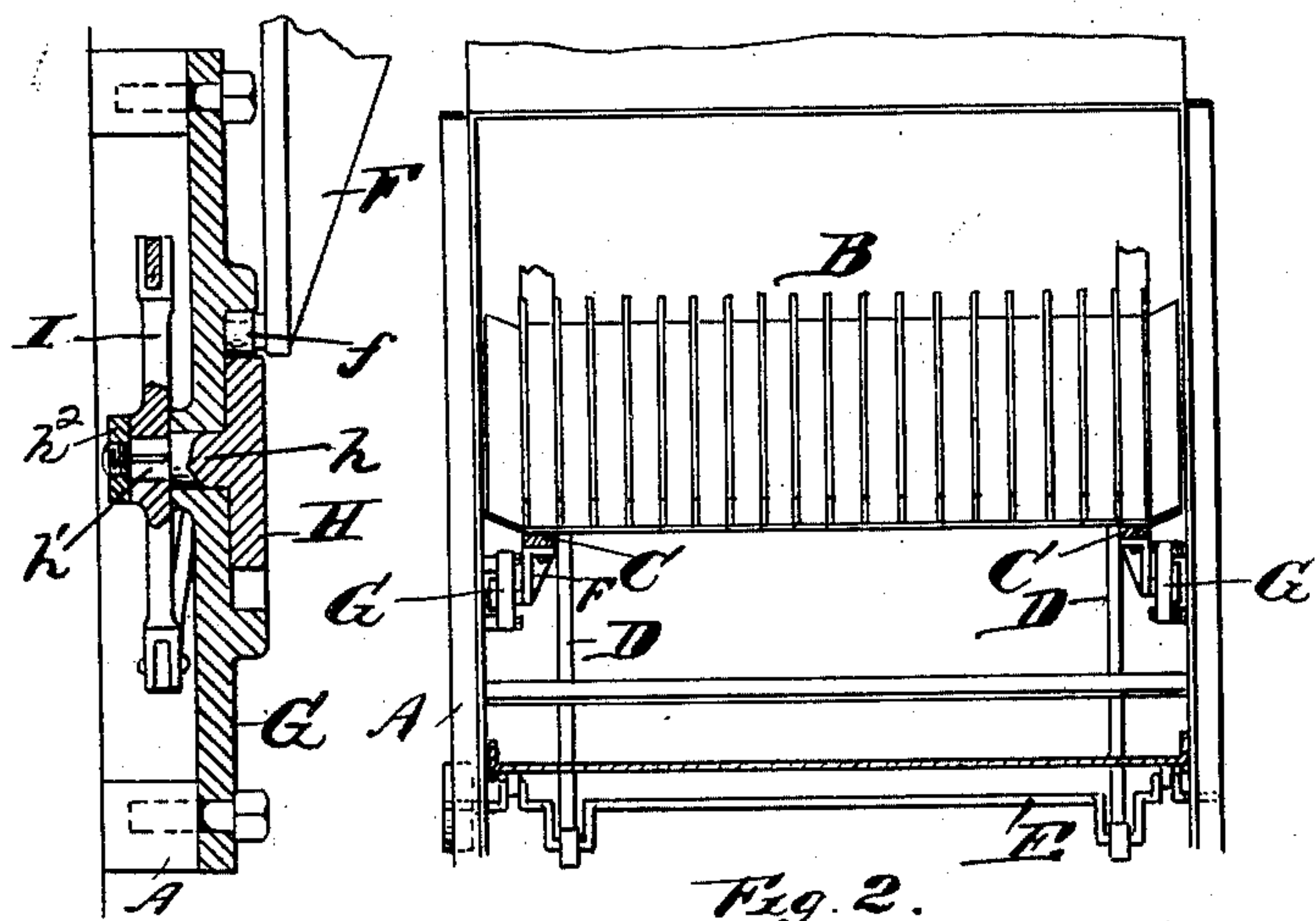


Fig. 2.

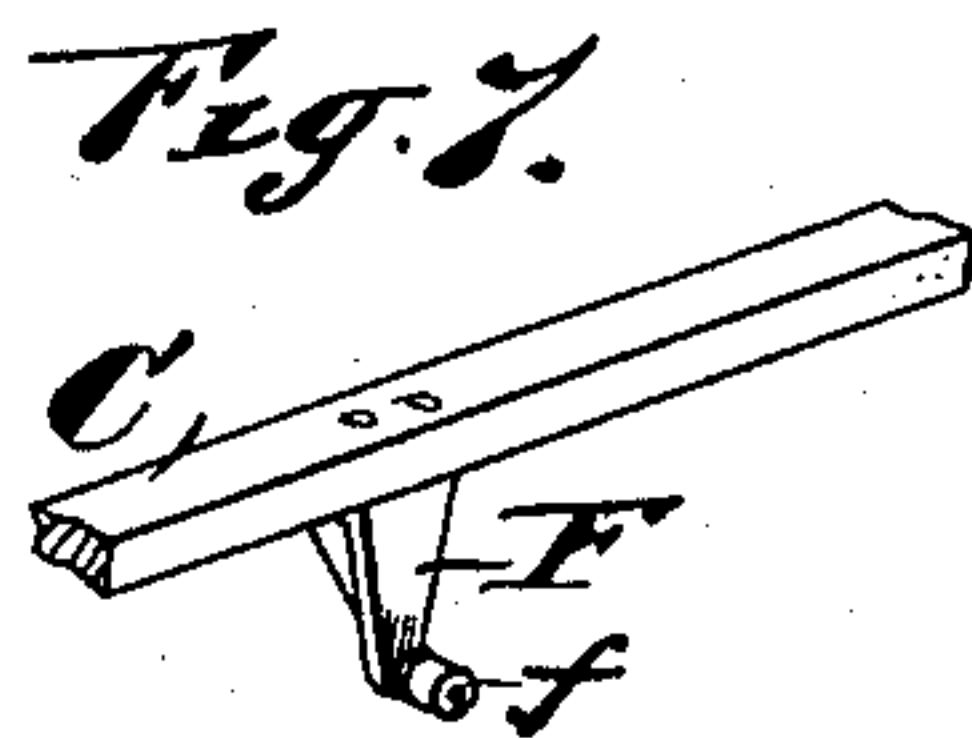


Fig. 3.

Fig. 6.

Witnesses  
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2 SHEETS—SHEET 2.

Fig. 3.

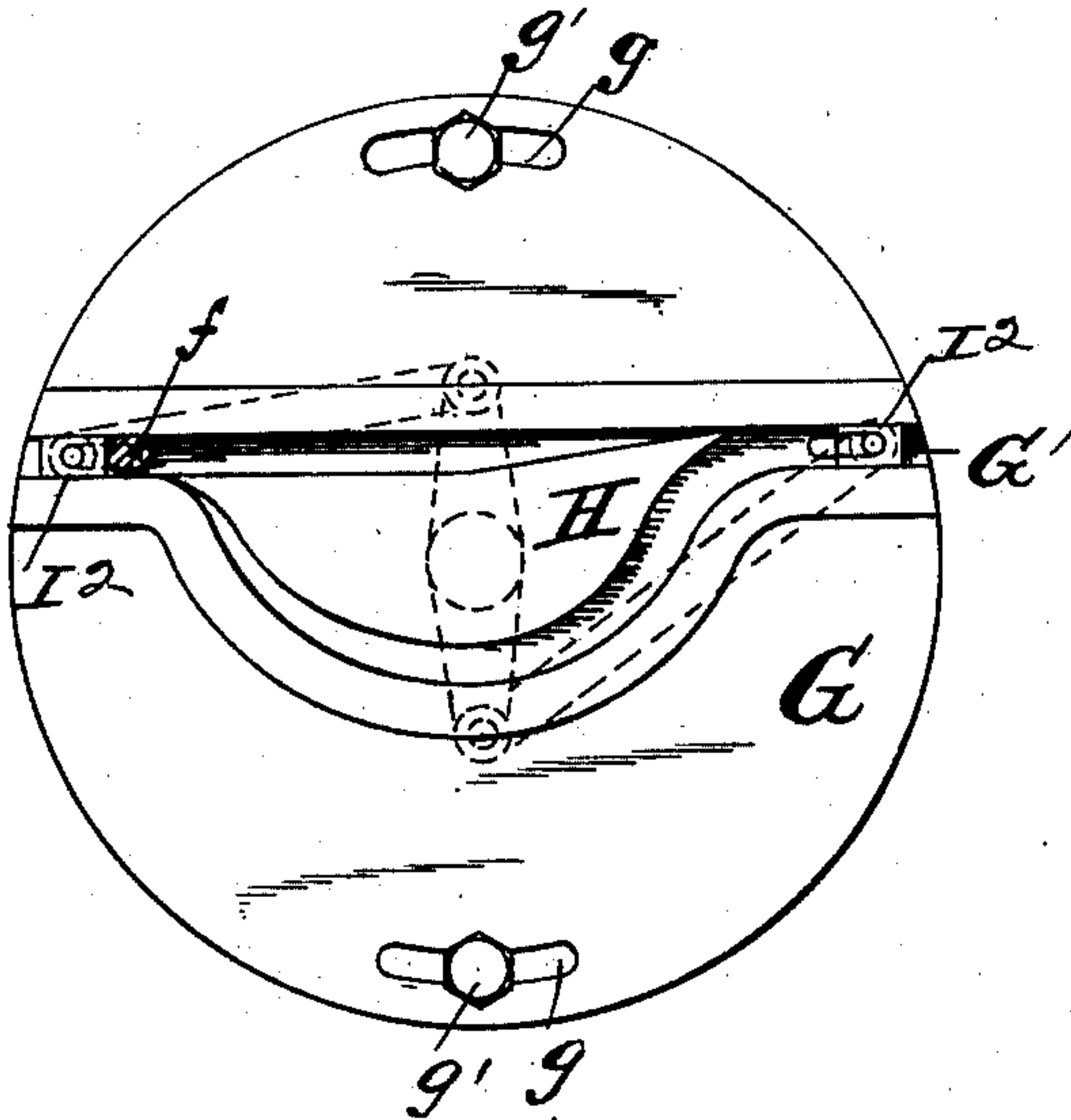


Fig. 4.

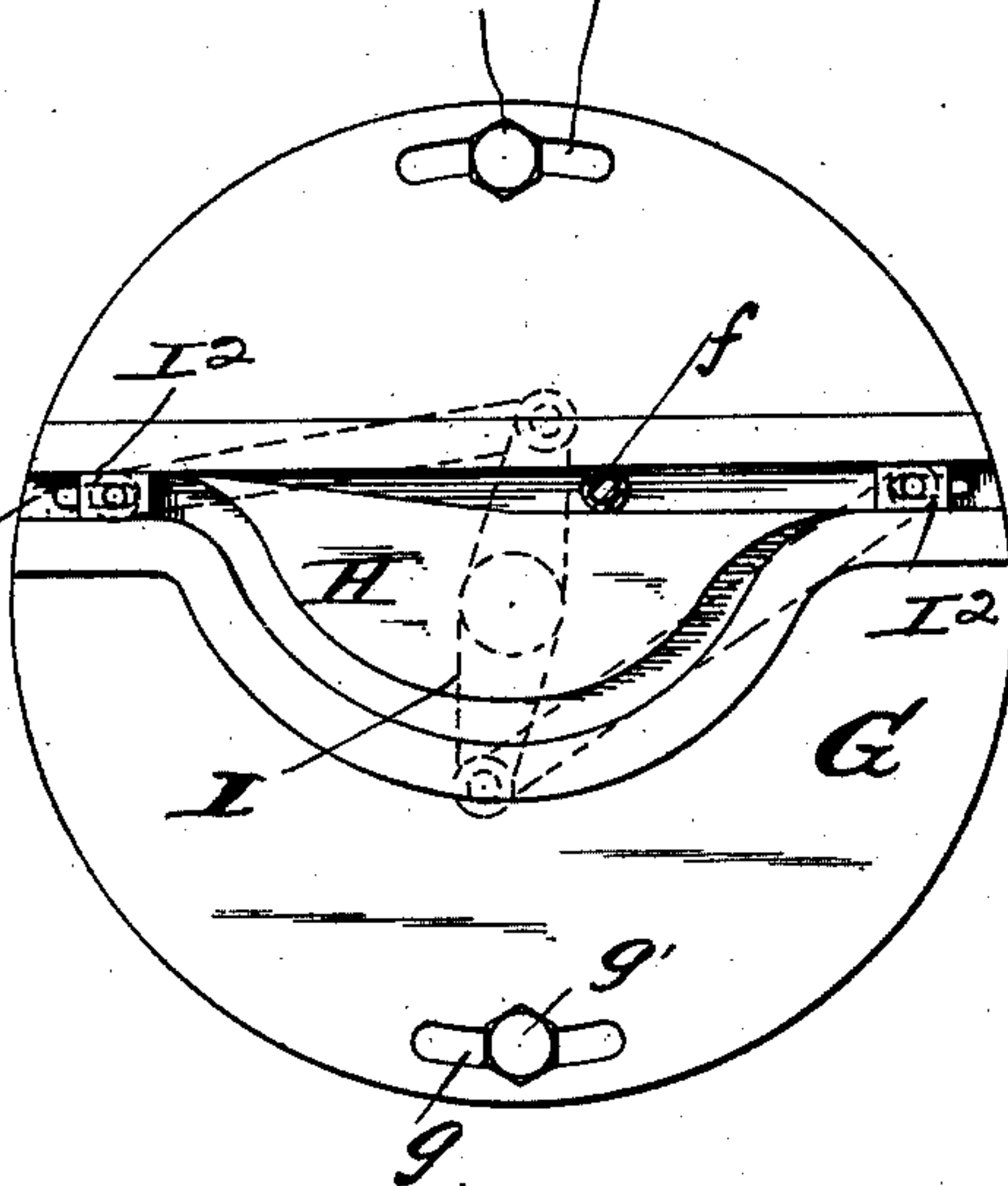
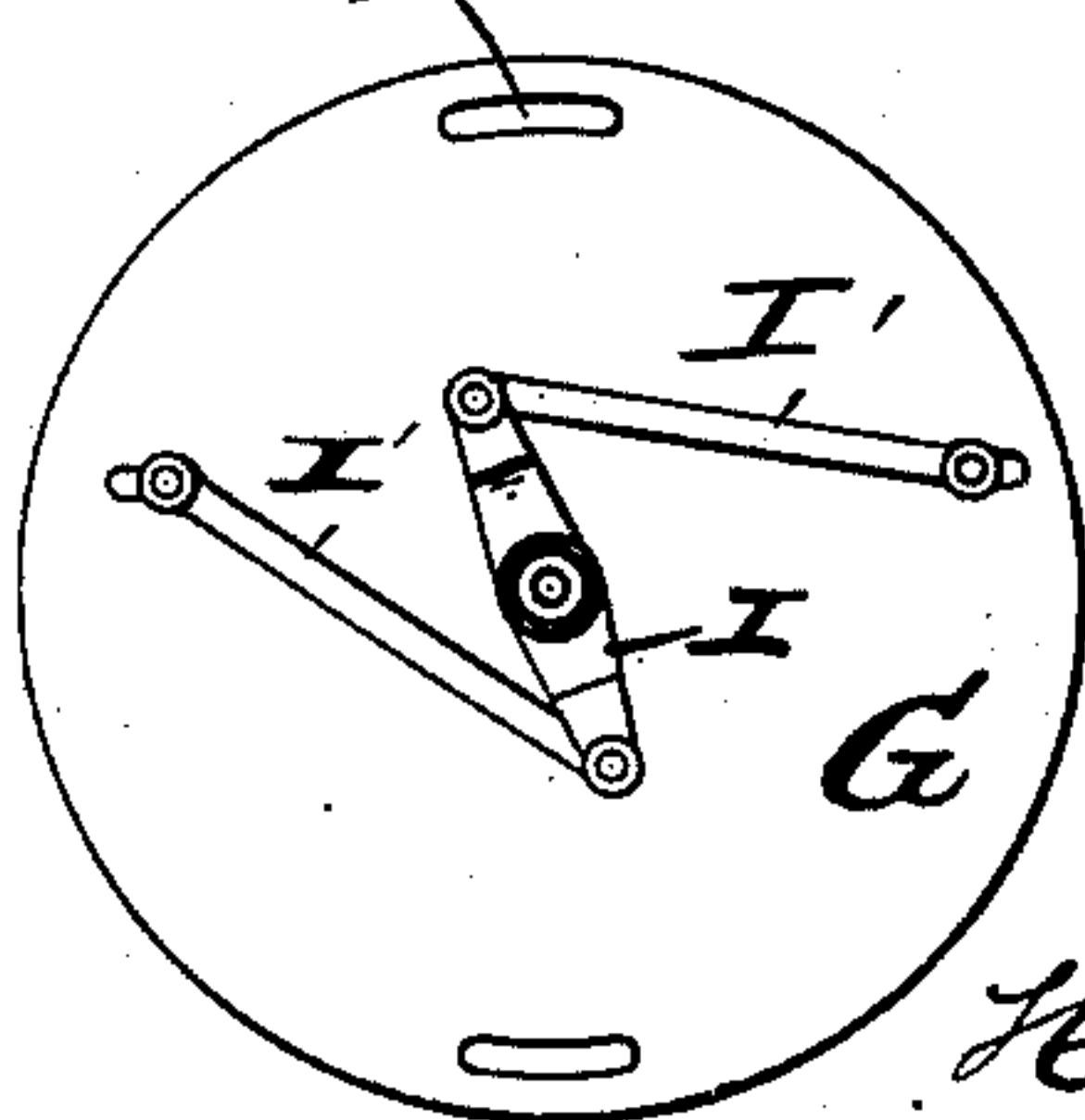


Fig. 5.



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# UNITED STATES PATENT OFFICE.

HENRY BETHUY, OF EMMETT, MICHIGAN.

## THRESHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 737,898, dated September 1, 1903.

Application filed April 11, 1903. Serial No. 152,173. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY BETHUY, a citizen of the United States, residing at Emmett, county of Wayne, State of Michigan, have  
 5 invented a certain new and useful Improvement in Threshing-Machines; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains  
 10 to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in threshing-machines shown in the accompanying drawings, and more particularly set forth  
 15 in the following specification and claims.

In the drawings, Figure 1 is a longitudinal vertical section of a threshing-machine, showing my improvement installed. Fig. 2 is a  
 20 cross-sectional view through a portion of the machine. Fig. 3 is a face view of the means employed for governing the raising and lowering of the toothed bars for conveying the straw, showing the switch controlling the same in  
 25 one position. Fig. 4 is a similar view showing the switch thrown in the opposite direction. Fig. 5 is a view from the opposite side on a smaller scale, showing the links connecting the rocking-arm with the blocks controlling the movement of the switch. Fig. 6 is  
 30 a cross-sectional view through Fig. 4, showing the part attached to the frame of the machine. Fig. 7 is a detail of the hanger suspended from the frame supporting the toothed  
 35 bars.

The object of my invention is to provide an attachment for threshing-machines controlling the raising and lowering of the toothed bars which convey the straw forward by their  
 40 reciprocatory movement, one of the objects in view being to insure a positive movement providing means which will not readily get out of order and which is capable of adjustment, whereby the toothed bars may be given more  
 45 or less inclination, as may be desired, the raising and lowering of the toothed bars being positive at whatever angle they may be set.

Referring to the letters of reference shown in the drawings, A represents the frame of  
 50 the threshing-machine; B, the toothed bars for conveying the straw supported by the members C.

D is a pitman, one end being connected with the driving crank-shaft E, the other end engaged with the member C.

F represents hangers suspended from the members C, supporting a friction-roll *f*. 55

G is a casting, preferably disk-shaped, with slotted channels *g*, formed on an arc of a circle, for the passage of bolts *g'*, engaging the  
 60 casting with the frame of the threshing-machine on the inside.

G' is a channel formed in the casting, and H is a switch provided with a journal *h*, having its bearing in a hub formed in the casting G, said journal being squared at *h'* to receive a rocking arm I, mounted thereon. 65

*h*<sup>2</sup> is a locking-nut to secure the arm I on the journal.

I' represents links connecting the rocking arm with blocks I<sup>2</sup>, traveling in the channel G'. Elongated slots are formed in the channel back of the blocks, through which the bolt travels connecting the block with the links I'. 70

The operation of the improvement will be readily understood. The friction-rolls *f*, supported by the hangers F, secured to the member C, travel in the channels G', formed in the casting G. When the pitman D forces the bars C forward, the friction-roll travels along  
 80 the upper edge of the channel G', forcing the switch H down, as shown in Fig. 4, the switch remaining in this position until the friction-roll *f* comes in contact with the block I<sup>2</sup>, forcing the block forward and in so doing throwing  
 85 the switch into the position shown in Fig. 3. The members C having reached the limit of their upward movement, the friction-roll F on the return movement is directed downward by the switch H, the roll traveling around  
 90 the arc of a circle formed by the channel G', and in so doing opens up the passage to the rear block I<sup>2</sup>, throwing the switch into the position shown in Fig. 4. As the member C reaches to the limit of its backward movement, the block I<sup>2</sup> is forced by the friction-roll to the end of its movement, as shown in  
 95 Fig. 3, throwing the switch into the position shown in that figure. The forward movement of the member C again throws the switch  
 100 down, as shown in Fig. 4, and the operation just described is repeated. If for any reason it is desired to vary the angle of the toothed straw-conveyers, the bolts *g'* are loos-



ened and the casting G rotated within the limit of the travel of said bolts in the slot *g* and the bolts again set. It is obvious that other means of adjusting this plate may be employed and the same come within the scope of this invention.

Having thus described my invention, what I claim is—

1. In a threshing-machine, means for giving a vibratory movement to the straw-carrier consisting of two channels in the frame of the machine, one of which takes a deflective course from the other, a traveler secured to the frame of the straw-carrier traveling within said channels, a switch to direct the course of the traveler from one channel to the other, and means operated by the impact of the traveler to throw the switch, substantially as described.

2. In a threshing-machine, means for giving a vibratory movement to the straw-carrier consisting of a casting secured to the frame of the machine provided with two channels, a traveler secured to the frame of the straw-carrier, a switch pivoted in said casting to direct the movement of the traveler in one channel and then to the other alternately, a rocking arm secured to the journal of said switch, blocks traveling in the channels to receive the impact of the traveler, and a link connection between the rocking arm and said blocks whereby the impact of the traveler against one of the blocks will throw the switch in one direction and its impact against the other block will throw it in the opposite direction, substantially as described.

3. In a threshing-machine, means for giving a vibratory movement to the straw-carrier, a casting secured to the frame of the machine provided with two channels, one of which takes a deflective course from the other, a hanger

secured to the frame of the straw-carrier supporting a friction-roll traveling within said channel, a switch pivoted in said casting to govern the direction taken by said friction-roll, a rock-arm secured to the journal of the switch, abutting-blocks to receive the impact of the friction-roll, link connection between the blocks and the rock-arm, and means for giving the straw-carrier a reciprocating movement, substantially as described.

4. In a threshing-machine, means for giving a vibratory movement to the straw-carrier consisting of a casting secured to the frame of the machine provided with two channels, one of which takes a deflective course from the other, a traveler secured to the frame of the straw-carrier traveling within said channels, and means whereby said casting may be rotated on its own axis to give a greater or less inclination to said channels, substantially as described.

5. In a threshing-machine, means for giving a vibratory movement to the straw-carrier consisting of a casting secured to the frame of the machine provided with two channels, one of which takes a deflective course from the other, a traveler secured to the frame of the straw-carrier traveling within said channels, means whereby said casting may be rotated on its own axis to give a greater or less inclination to said channels, means consisting of one or more segmental slots for the passage of bolts through said casting to secure the same to the frame of the machine, and the bolts, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

HENRY BETHUY.

Witnesses:

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