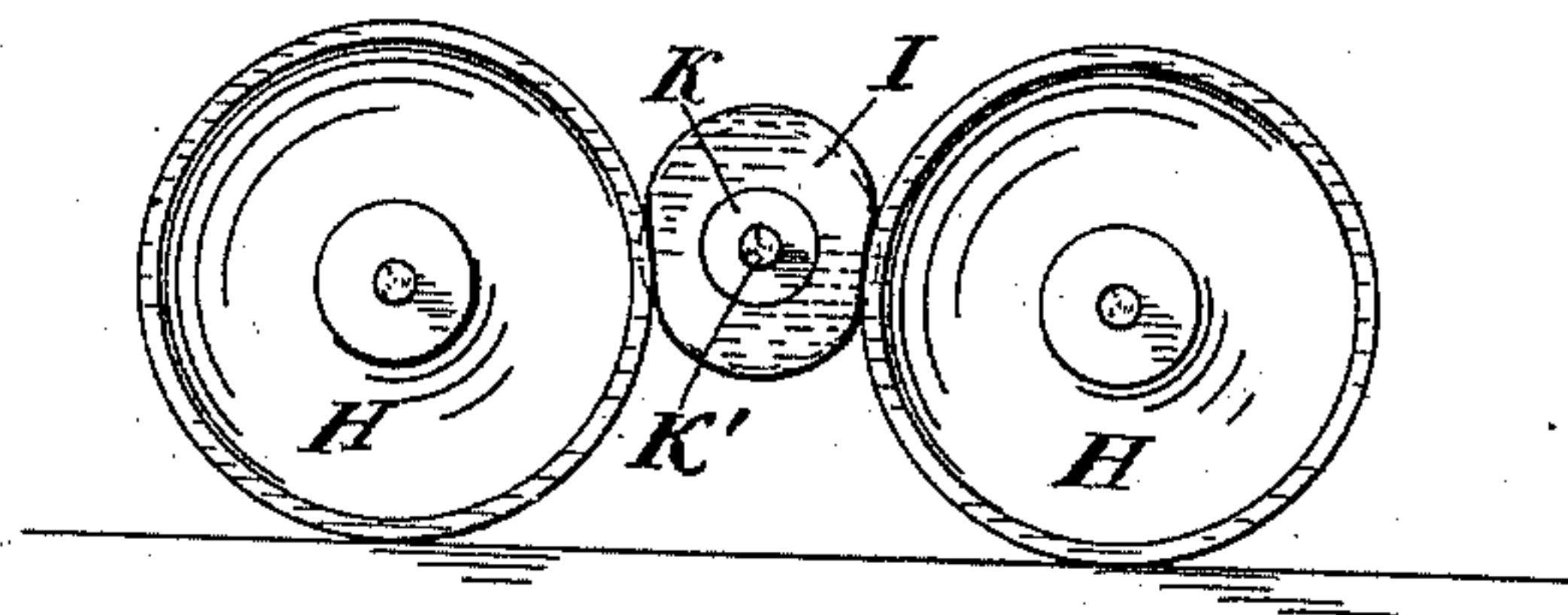
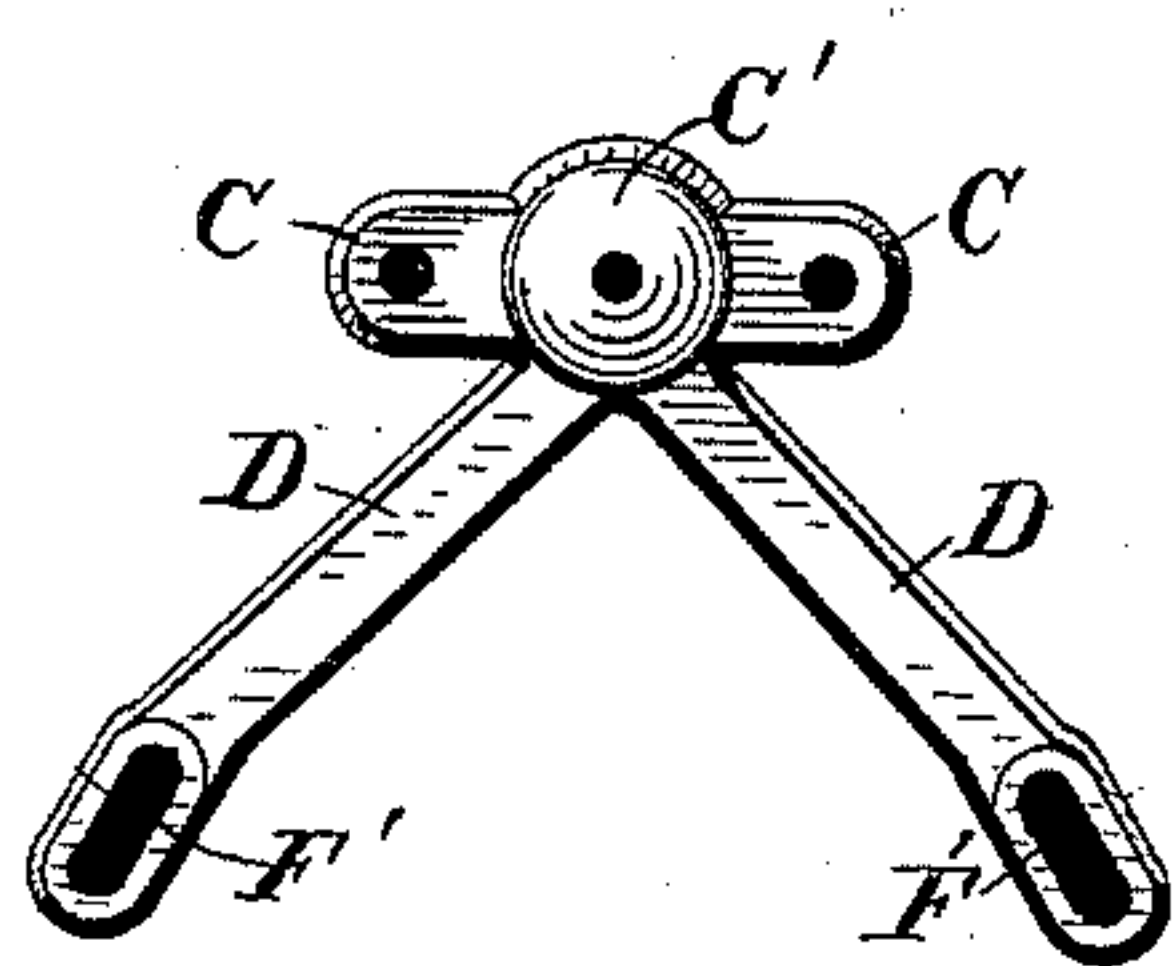
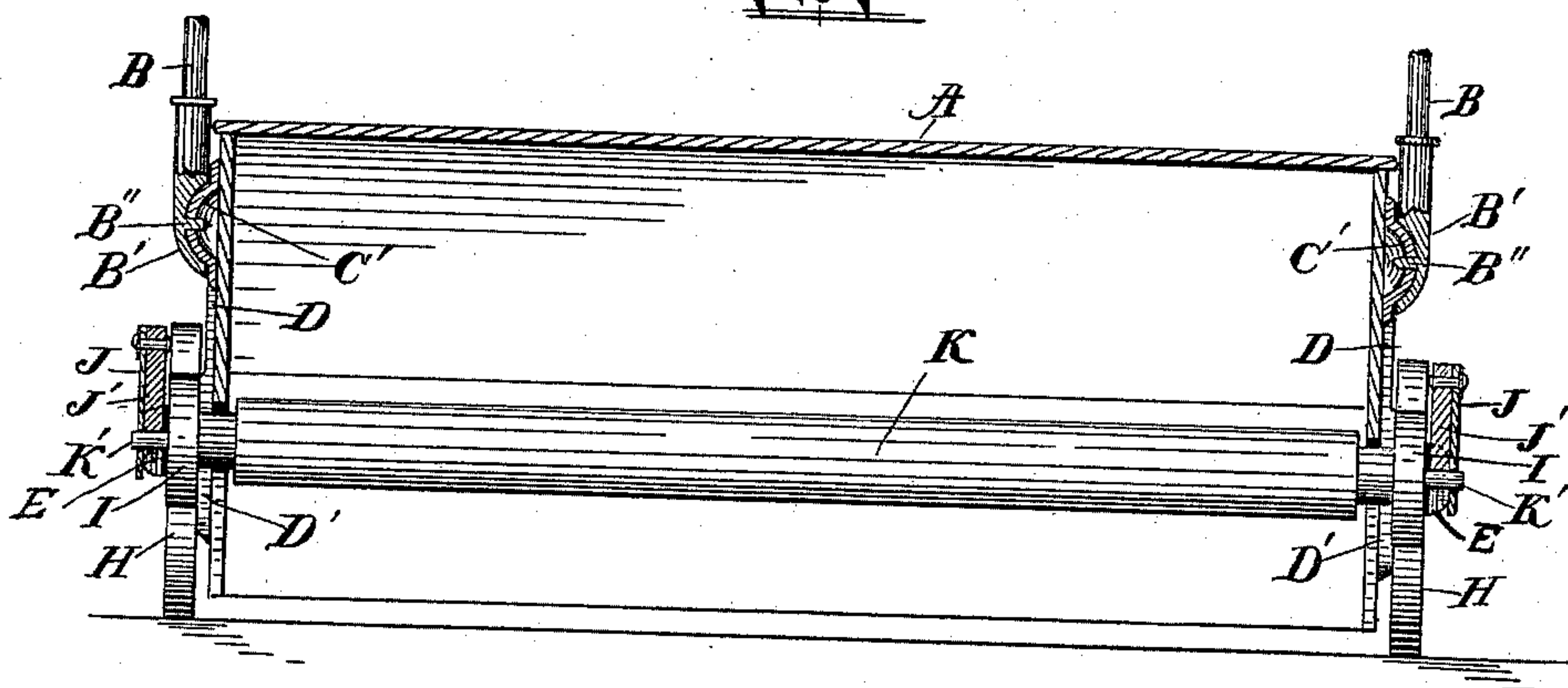
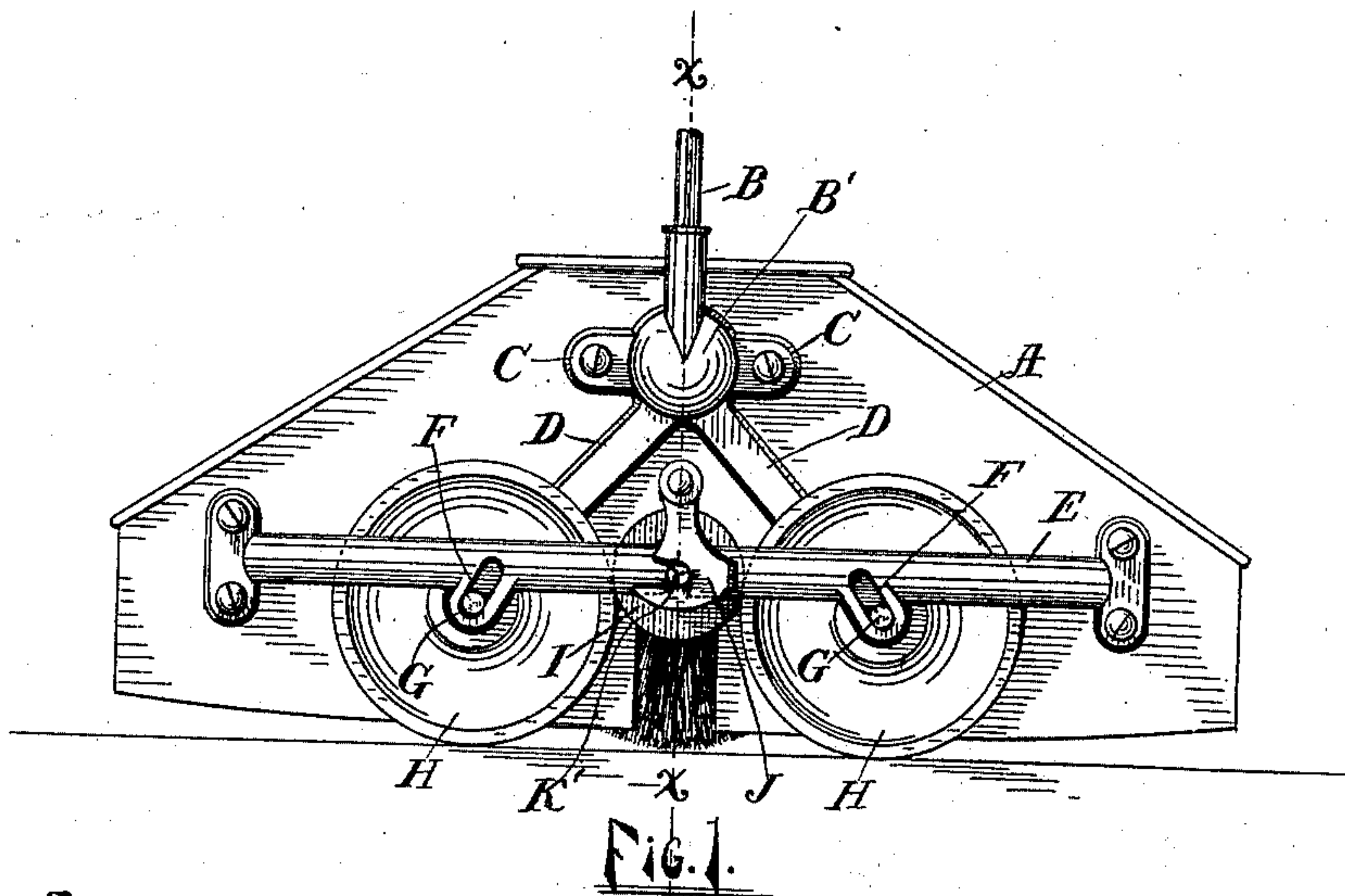


(No Model.)

S. H. RAYMOND.
CARPET SWEEPER.

No. 476,209.

Patented May 31, 1892.



WITNESSES:

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SILAS H. RAYMOND, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO T. STEWART WHITE AND THOMAS FRIANT, OF SAME PLACE.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 476,209, dated May 31, 1892.

Application filed January 21, 1891. Serial No. 378,570. (No model.)

To all whom it may concern:

Be it known that I, SILAS H. RAYMOND, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Carpet-Sweepers; and I do hereby 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 appertains to make and use the same.

My invention relates to improvements in carpet-sweepers; and its object is to provide a device having certain novel and useful features more fully described in what follows, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is an end elevation of a carpet-sweeper embodying my invention; Fig. 2, a vertical section of the same on the line X X of Fig. 1; Fig. 3, a detail of the inner hanger, and Fig. 4 a detail showing the action of the brush-driving mechanism.

Like letters refer to like parts in all the figures.

A is the case, of the usual form, having the rotary brush-shaft K, provided with terminal journals K', which engage downwardly-open bearings in the outer hangers E, and are detachably secured therein by hooks J, pivoted to upwardly-projecting arms J' on said hangers. Said brush-shaft is also provided with elastic pulleys I, preferably of soft rubber, which engage the driving-wheels H, which wheels are journaled below the plane of the axis of the brush-shaft in slotted openings F F' in the respective hangers E D, said openings being respectively inclined toward the axis of the brush-shaft at their upper ends, so that as the driving-wheels come in contact with the floor their journals move upward and toward the brush-shaft in said slotted openings, compressing the pulley I more or less, according to the downward pressure applied to the sweeper, thus lowering the brush in contact with the floor more or less; also, increasing its speed by reducing the effective diameter of the pulleys I and also increasing the areas of frictional contact between the same and the driving-wheels.

D D are the converging arms of the inner hangers, having at their lower ends the described slotted bearings for the driving-wheels, and convex heads C' at their junction provided with perforated lugs C for securing them to the case A.

B B are the respective flexible arms of the bail, terminating in cups B', which inclose the respective heads C', and are provided with spurs B'' engaging holes in said heads.

The connection of bail ends and the case by means of the engaging convex and concave surfaces is important, as it takes all ordinary strain off the pin, thus preventing said pin from wearing and enlarging the opening with which it engages, and also provides enlarged frictional surfaces by which the bail is better sustained in any desired position.

What I claim is—

1. In a carpet-sweeper, a brush-shaft journaled within a case, elastic pulleys on said shaft, driving-wheels engaging said pulleys below the axis thereof, and hangers having inclined slotted bearings in which said driving-wheels are movably journaled, substantially as described.

2. In a carpet-sweeper, a brush-shaft provided with elastic pulleys, inner and outer hangers secured to the case thereof, provided with inclined slotted bearings, and driving-wheels movably journaled in said bearings and engaging said elastic pulley on the brush-shaft, substantially as described.

3. In a carpet-sweeper, a bail having flexible arms terminating in cups and convex heads attached to the case, with which heads said cups engage, substantially as described.

4. In a sweeper, a brush-shaft having pulleys thereon, drive-wheels engaging said pulleys, and a hanger having slotted bearings in which the journals of said drive-wheels move upward and inward toward said brush-shaft, and an intermediate bearing for the journal of said brush-shaft, substantially as described.

5. In a sweeper, the combination, with a bail, a brush-shaft, and drive-wheels adapted to engage pulleys on said brush-shaft, of inner and outer hangers, said inner hangers each having a bearing for an end of the bail and formed with diverging arms having in-

clined slots and said outer hangers also having inclined slots, said slots forming bearings for the journals of the drive-wheels.

6. In a carpet-sweeper, the combination,
5 with a brush-shaft having elastic pulleys, and driving-wheels engaging said pulleys and having inner and outer journals, of inner and outer hangers each formed with aligned inclined slotted bearings for said drive-wheel

journals, said outer hanger also having intermediate bearing for said brush-shaft journal, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SILAS H. RAYMOND.

Witnesses:

LUTHER V. MOULTON,
GEORGE W. SHOOK.