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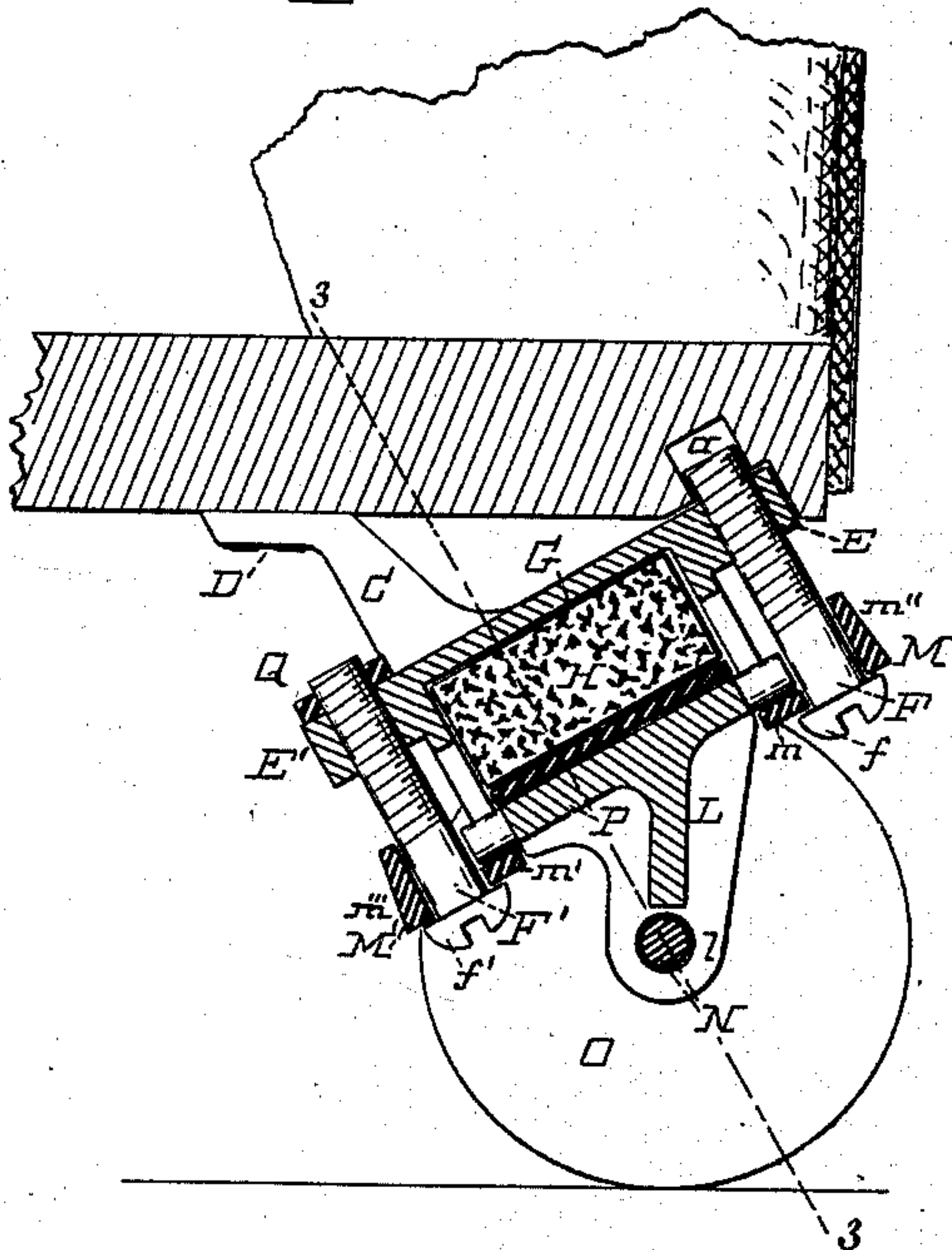
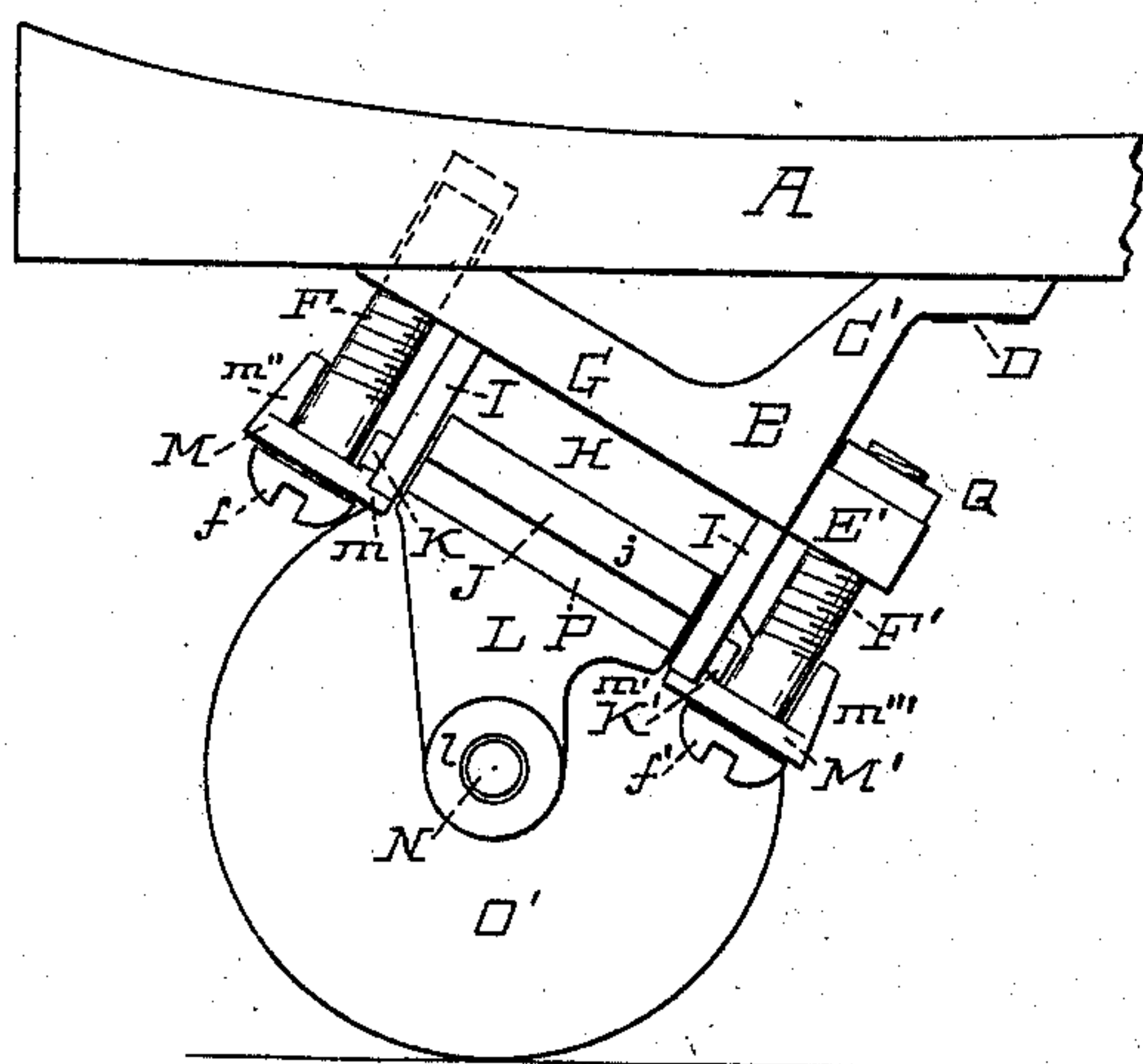
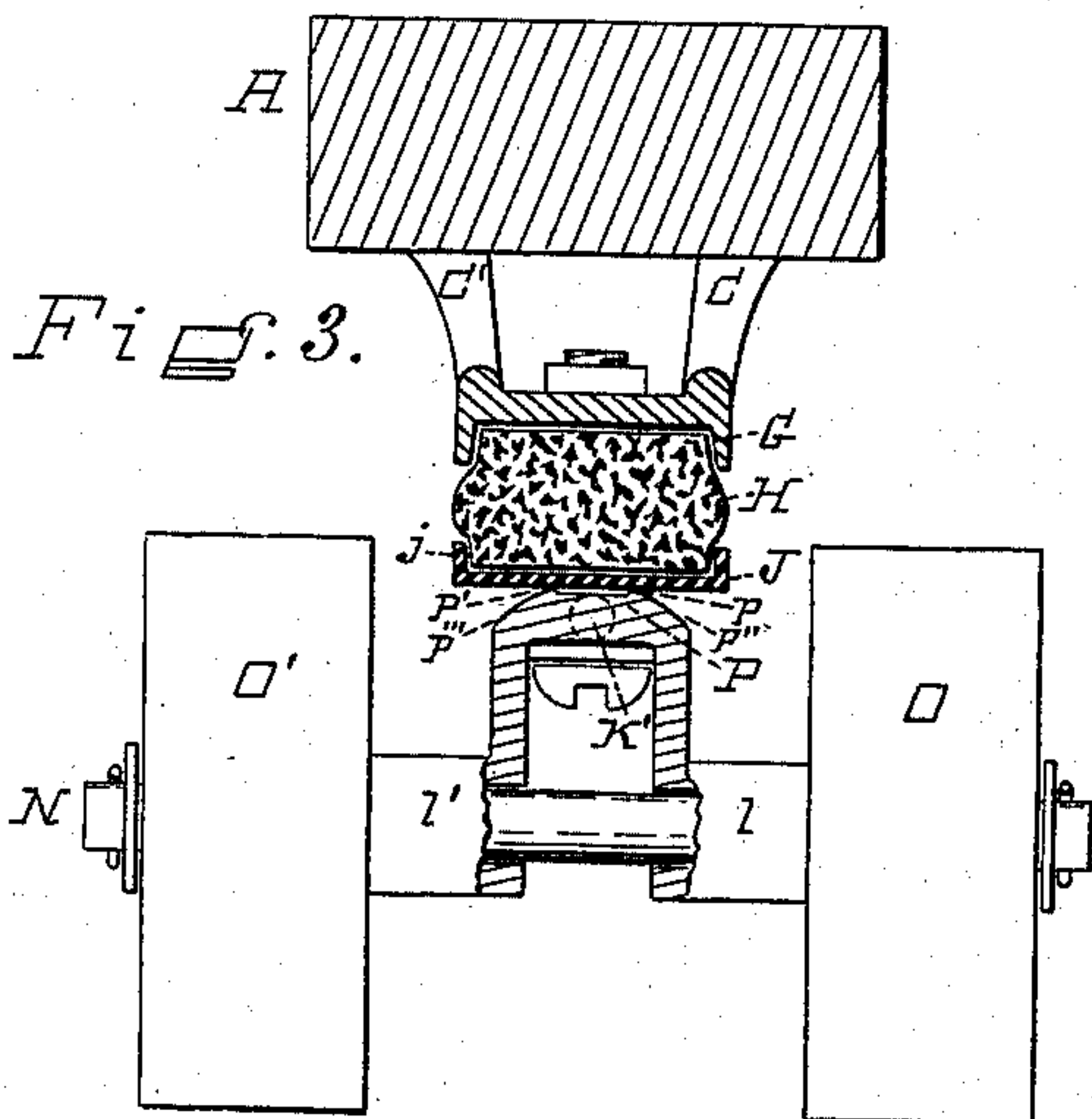
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M. H. FLETCHER.

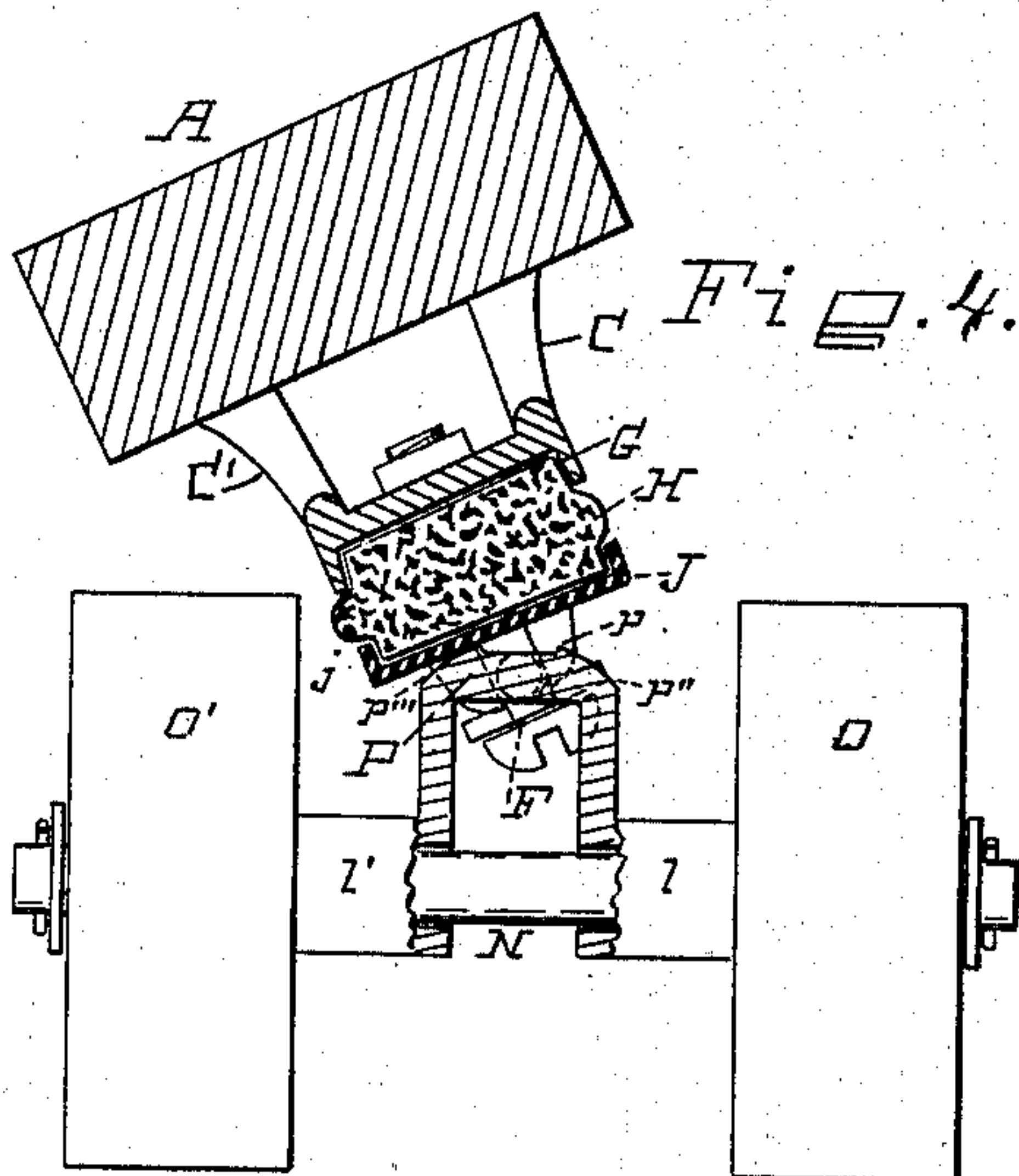
ROLLER SKATE.

No. 322,271.

Patented July 14, 1885.

Fi Eq. 2.*Fi* Es. 3.

Fi 4.



Attest:
A. P. Knight
Geo. L. Wheelock

Inventor:
Mordecai H. Fletcher
By Knight Bros
Attys.

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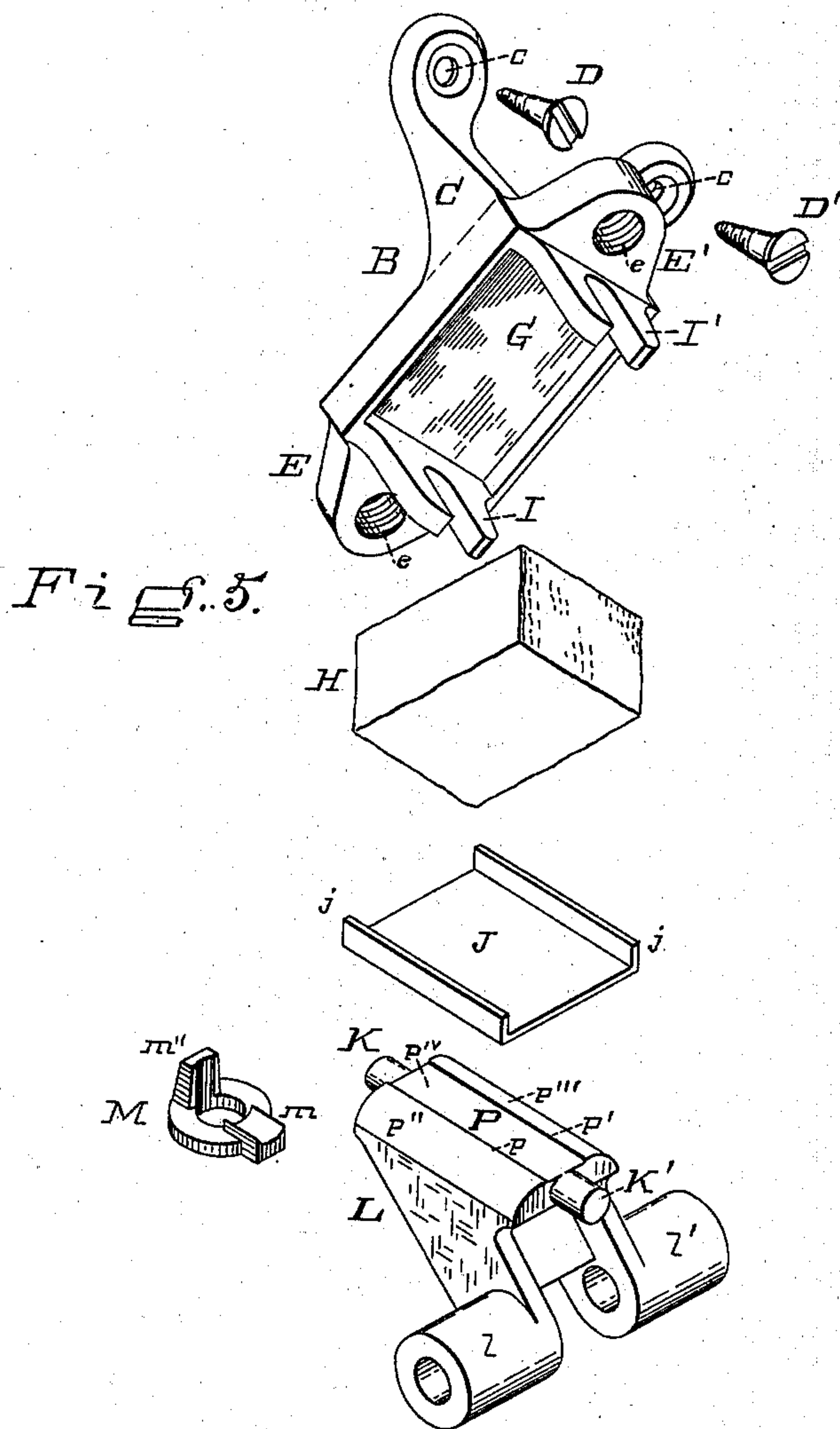
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UNITED STATES PATENT OFFICE.

MORDECAI H. FLETCHER, OF CINCINNATI, OHIO.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 322,271, dated July 14, 1885.

Application filed March 5, 1885. (Model.)

To all whom it may concern:

Be it known that I, MORDECAI H. FLETCHER, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Roller-Skates, of which the following is a specification.

My invention relates to improvements in those rink or parlor skates in which two identically-constructed roller systems are so arranged that the act of turning the skater's body throws the roller-pintles out of their normal parallelism, and thereby causes them to follow a track whose curvature is dependent on the bodily motion.

A part of my invention particularly relates to improvements in those roller-skates which comprise a construction of the roller systems whereby the foot-rest or stand-plate is held with a certain degree of normal stability to the horizontal position against slight or accidental disturbances, but so as to yield to a decided and purposed swerve of the user's person, and to promptly and energetically recover its equilibrium on resumption of the erect posture or on release of superincumbent pressure consequent on the weight of his person being thrown on the other foot.

Another part of my invention particularly relates to improvements in those roller-skates which comprise a mechanical device for utilizing the resilient properties of the rubber cushion and other details of construction hereinafter presented, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the front part of the sole or foot-stand and attached roller system. Fig. 2 is a vertical section of rear part of the stand with its attached roller system. Figs. 3 and 4 are sections on the line 3 3 in the erect and canted conditions, respectively, of the foot-stand. Fig. 5 is a representation of the rubber cushion and coacting members detached.

A represents any suitable sole, foot-plate, or stock of a roller-skate, which stock may be provided with customary or suitable means (not here shown) of attachment to the wearer's foot. The two roller systems being, as customary in such skates, of identical construction, description of one applies to both.

B is a hanger or bracket having two legs, C C', whose orifices *c* receive screws D D', by which the said hanger is attached to the said

stock. Lugs E E', from said hanger, have screw-threaded orifices *e*, for screws F F', of which the screw F screws into the stock and assists the screws D D' in fastening the hanger thereto. A portion of the hanger has the form of an inverted box, G, which constitutes the socket or holder for the elastic cushion or spring H, preferably of india-rubber.

Extending obliquely downward from the hanger are two yokes, I I', that serve to confine a cap or guard or oscillating pressure-plate, J, having upturned flanges *j*, which flanged guard embraces the lower portion of the cushion H in the same manner that its upper portion is embraced by the socket G. Said yokes I I' also serve to hold and guide two pivots or gudgeons, K K', that project from the truck-frame L.

Encircling the necks of the screws F F' are collars M M', whose channeled lips *m m'* press upward against the gudgeons K K' with a greater or less stress, according to whether the screws F F' are driven upward within or are partially unscrewed from their screw-threaded orifices *e*. Ears *m'' m'''* on said collars, pressing against the flanks of the screws F F', hold said collars squarely against the heads *f f'* of said screws, and thus enable the lips *m m'* to be effective.

The truck-frame L has customary bearings or knuckles, *i i'*, for the axle N of a pair of rollers, O O', of the usual form.

The crown P of the truck-frame forms a flat bearing at top, and has two ribs, *p p'*, upon which the pressure-plate J rests, and on the outer side of each of said ribs a declivity or shoulder, *p'' p'''*.

A consequence of the above-described form and arrangement is that in ordinary straight-ahead skating the practically flat plateau of said crown summit obtained by said ribs *p p'* holds the superstructure (the foot-rest and its attachments) in equilibrium, as shown in Fig. 3, while, on the other hand, in the canted or tilted condition of said superstructure the eccentric form of the shoulder *p''* or *p'''* relatively to the gudgeons K K' causes a rapidly-increasing pressure of the oscillating plate J against the cushion, which tends to restore said superstructure to equilibrium with an energy proportional to the disturbance.

One or both screws F F' may have a pinch-

ing or jam nut, Q, to hold it securely to any given adjustment.

The lug E is preferably partially embedded in a corresponding cavity or pit, *a*, in the substance of the stock.

The above-described preferred form of truck-frame crown may be modified by filling up the valley or sink *p^{iv}* between the ribs *p p'*, so as to bring said space on a level with said ribs. The object of said valley is to secure a firm and stable bearing, notwithstanding any slight convexity or roughness of the under surface of the oscillating plate J or the presence of grit or other obstructions upon it.

The above-described construction and arrangement of the parts in special association with the elastic cushion are thought to avail more fully than heretofore its resilient properties both for relief against vertical jars and concussions and for prompt and effective restoration to the normal condition. Furthermore, less violence being offered to the cushion than in customary forms, greater durability is secured.

I claim as new and of my invention—

1. In a roller-skate, the combination, with an elastic cushion and flat plate or cap, of the truck-frame having gudgeons and a crown, the flat plate or cap being in contact with the under surface of the cushion, and the crown being formed with a flat top bearing in contact with the flat plate or cap and flanked by declivities eccentric to the gudgeons, the gudgeons constituting the axis of oscillation, substantially as set forth.

2. In a roller-skate, the combination of a superstructure and roller system comprising a truck-frame having a crown, an elastic cushion, a flat plate or cover, the fastenings and the gudgeons, the fastenings and the gudgeons holding the superstructure to the roller system while permitting relative oscillations, the crown having a flat top bearing flanked by declivities eccentric to the axis of oscillation and bearing upward against the flat plate or cover of the under side of the elastic cushion, substantially as and for the purposes set forth.

3. In a roller-skate, the combination, with the foot-rest, hanger, and yokes, of the truck-frame having gudgeons K K', a spring interposed between the frame and rest attachments, adjustable retaining-screws F F', and the collars M M', having lips *m m'* and ears *m'' m'''*, substantially as set forth.

4. In a roller-skate, the combination, with the foot-rest, hanger, and yokes, of the truck-frame having gudgeons, and a crown formed with flat top bearing flanked by declivities, a plate and spring interposed between the crown and hanger, adjustable retaining-screws F F', and the collars M M', having lips *m m'* and ears *m''* and *m'''*, substantially as set forth.

In testimony of which invention I hereunto set my hand.

MORDECAI H. FLETCHER.

Witnesses:

GEO. H. KNIGHT,
CHAS. E. PRIOR.