

(No Model.)

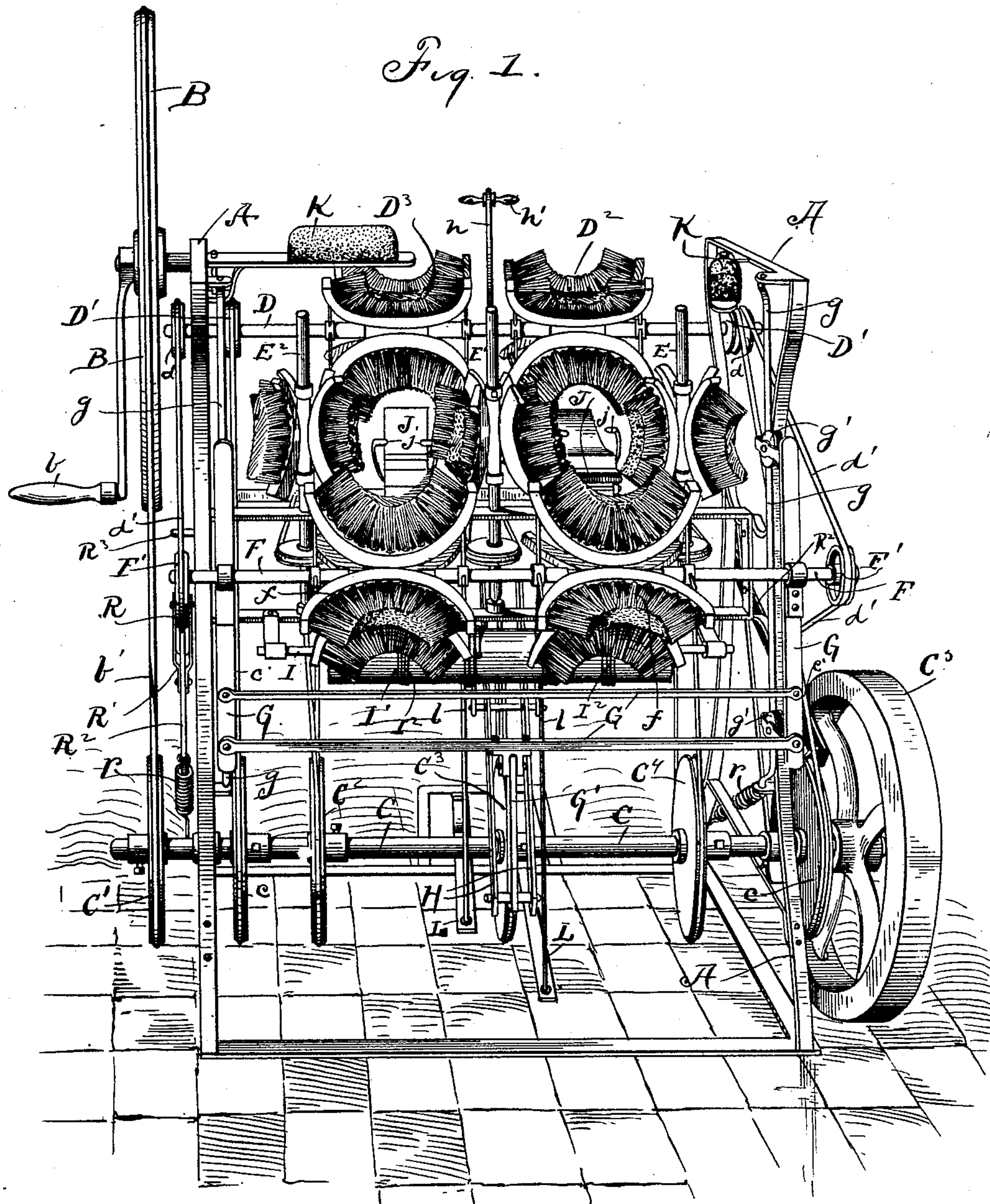
4 Sheets—Sheet 1.

J. W. MASON.

MACHINE FOR CLEANING AND POLISHING BOOTS OR SHOES.

No. 480,821.

Patented Aug. 16, 1892.



Witnesses.

E. Byron Gilchrist

E. B. Gilchrist

Inventor.

John W. Mason

B. S. Lynde and Lynde
Attorneys

(No Model.)

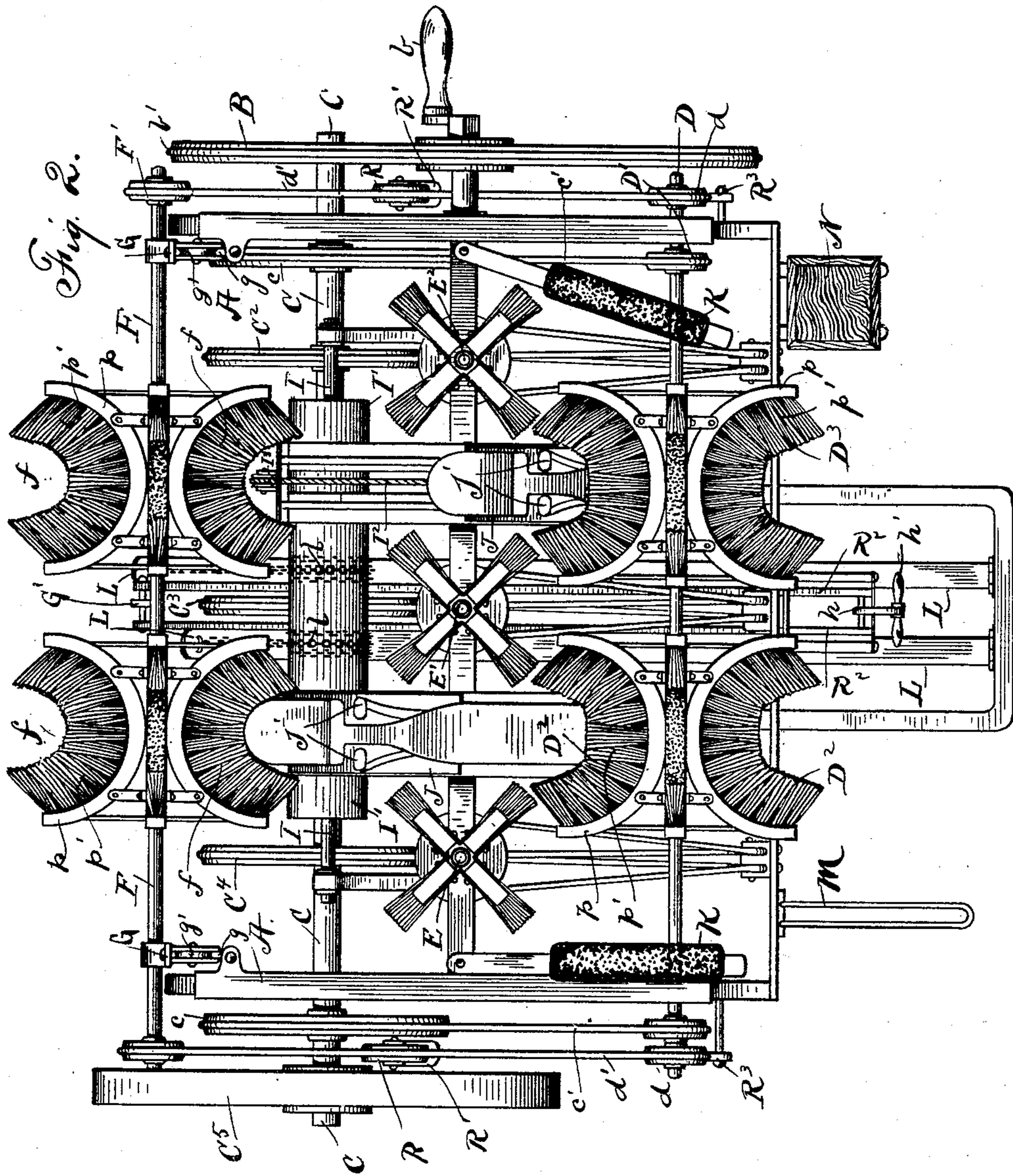
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4 Sheets—Sheet 3.

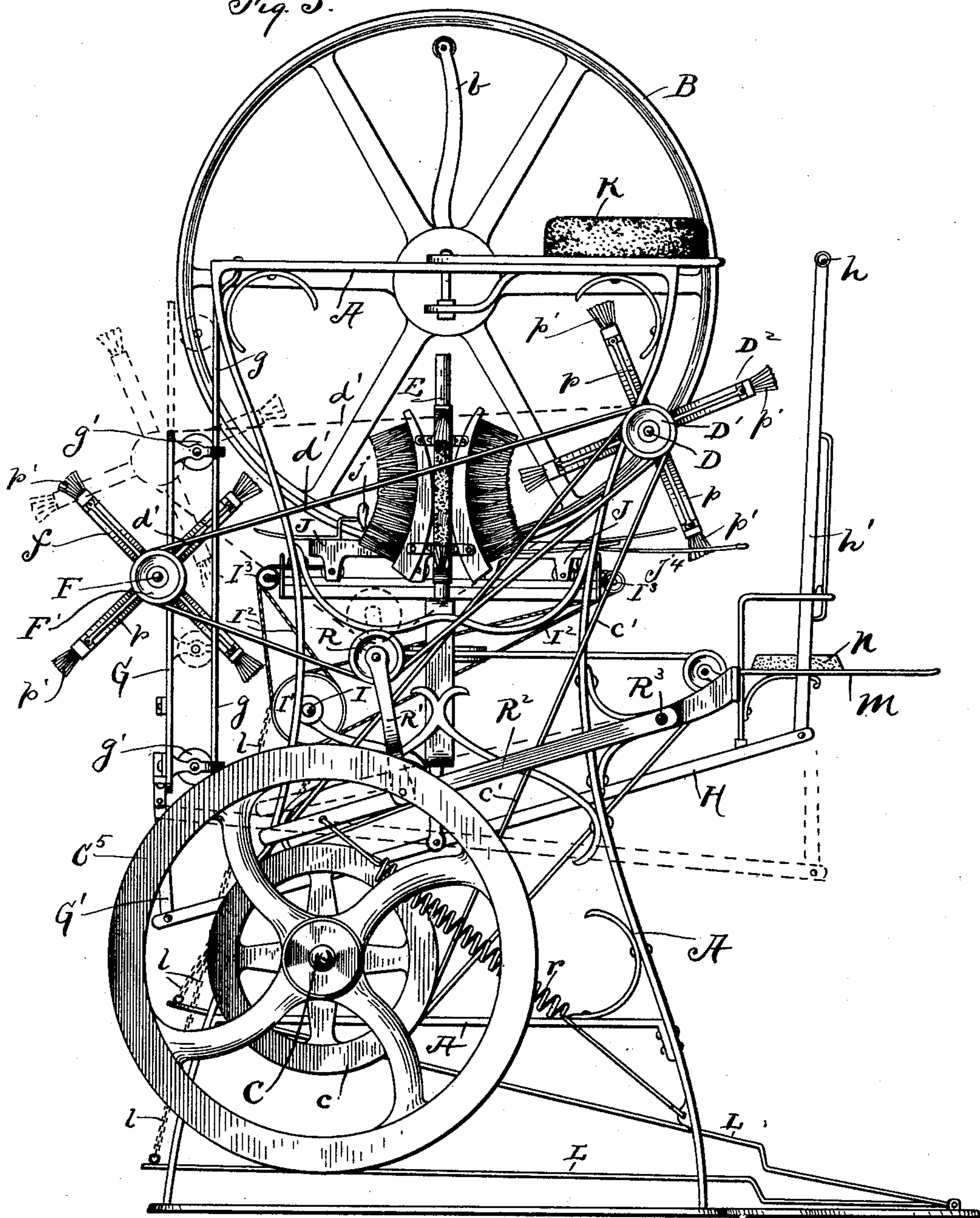
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Fig. 3.



Witnesses:

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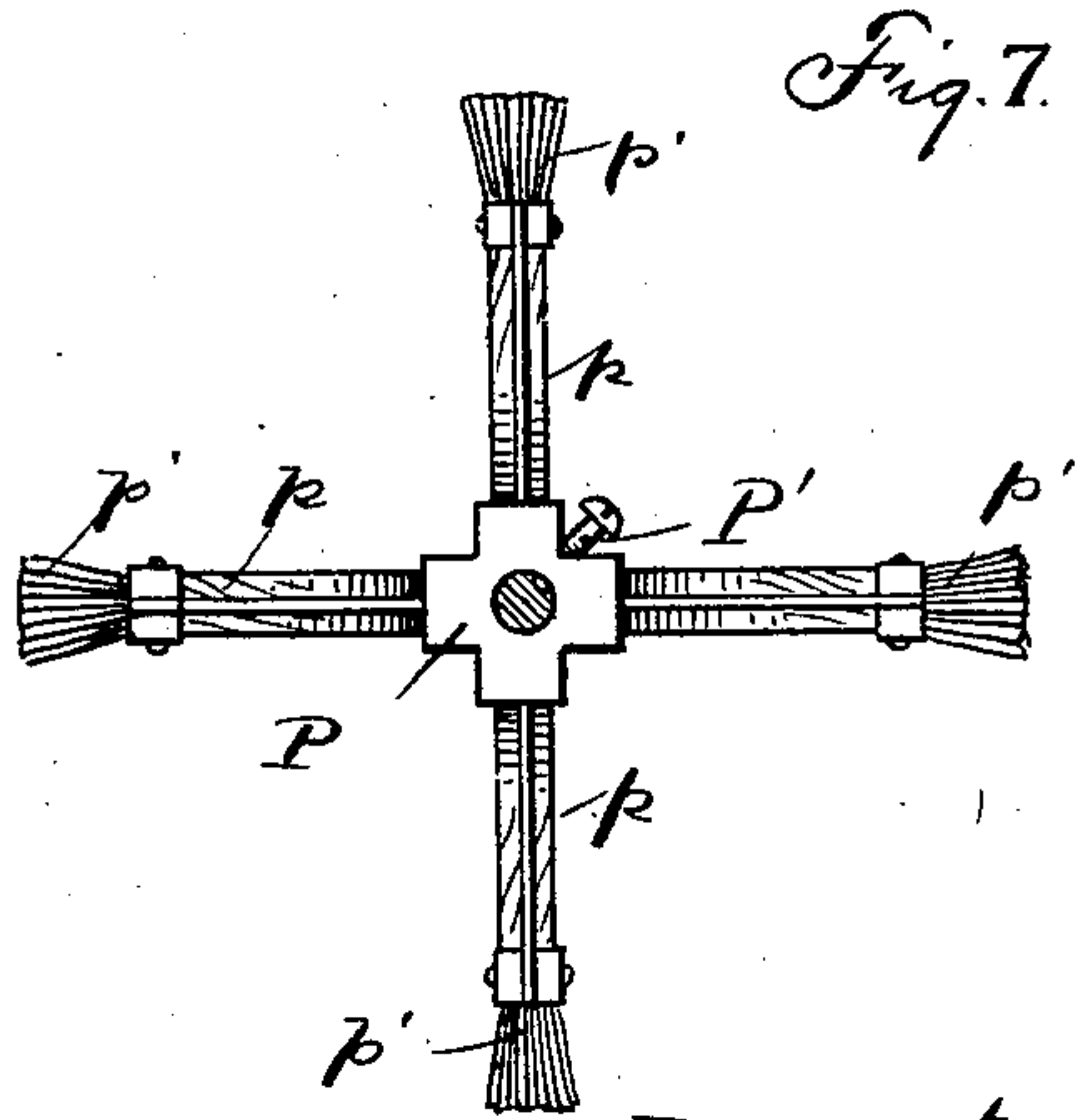
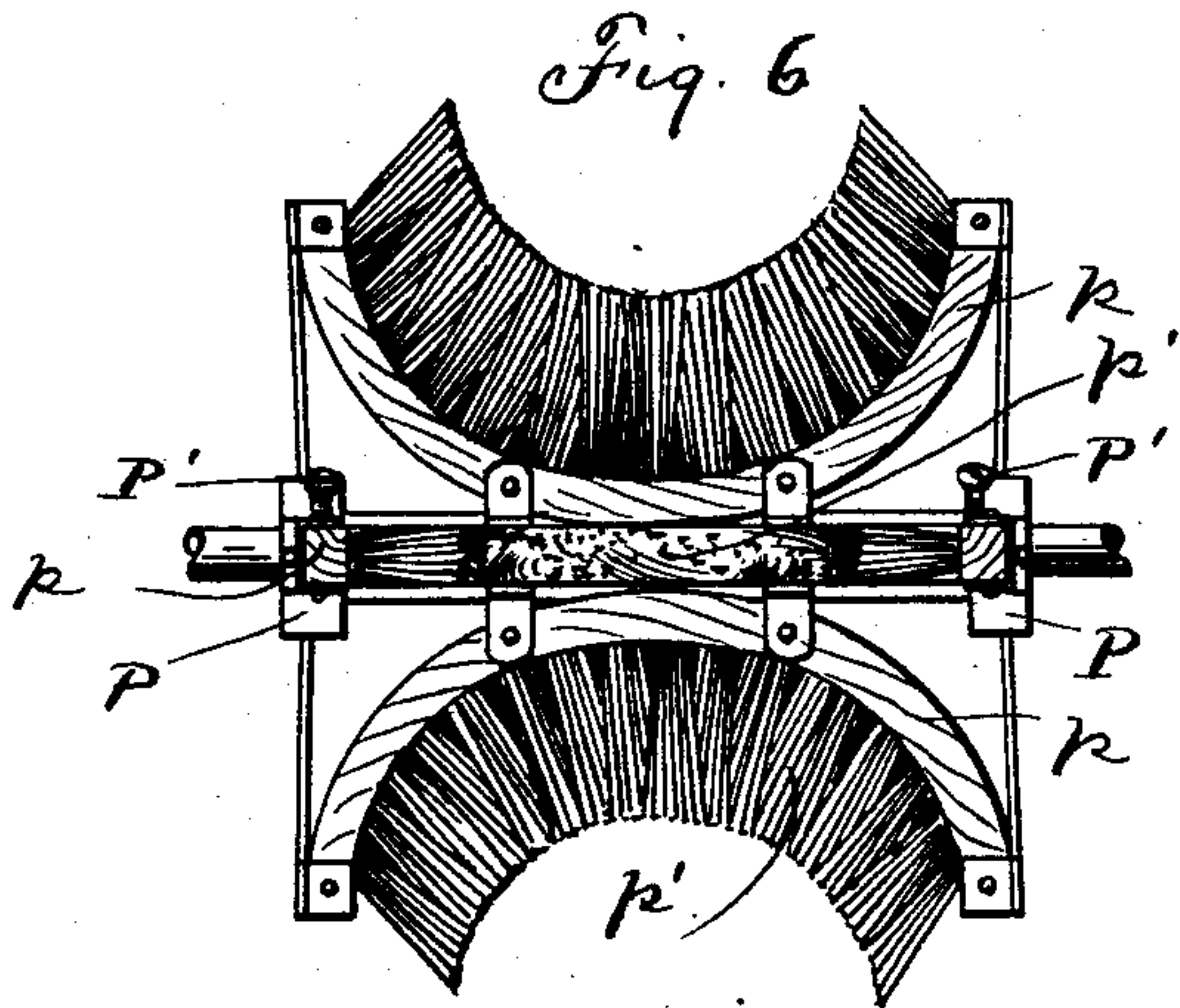
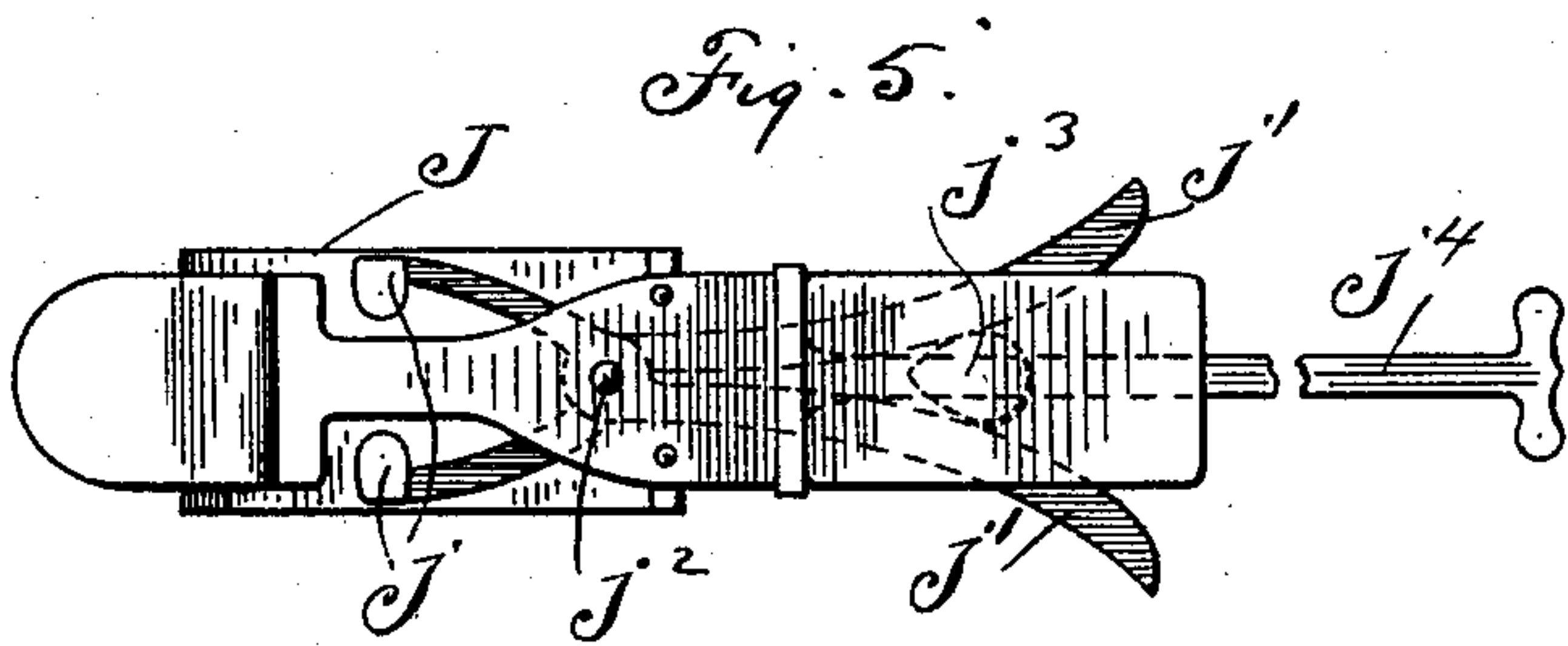
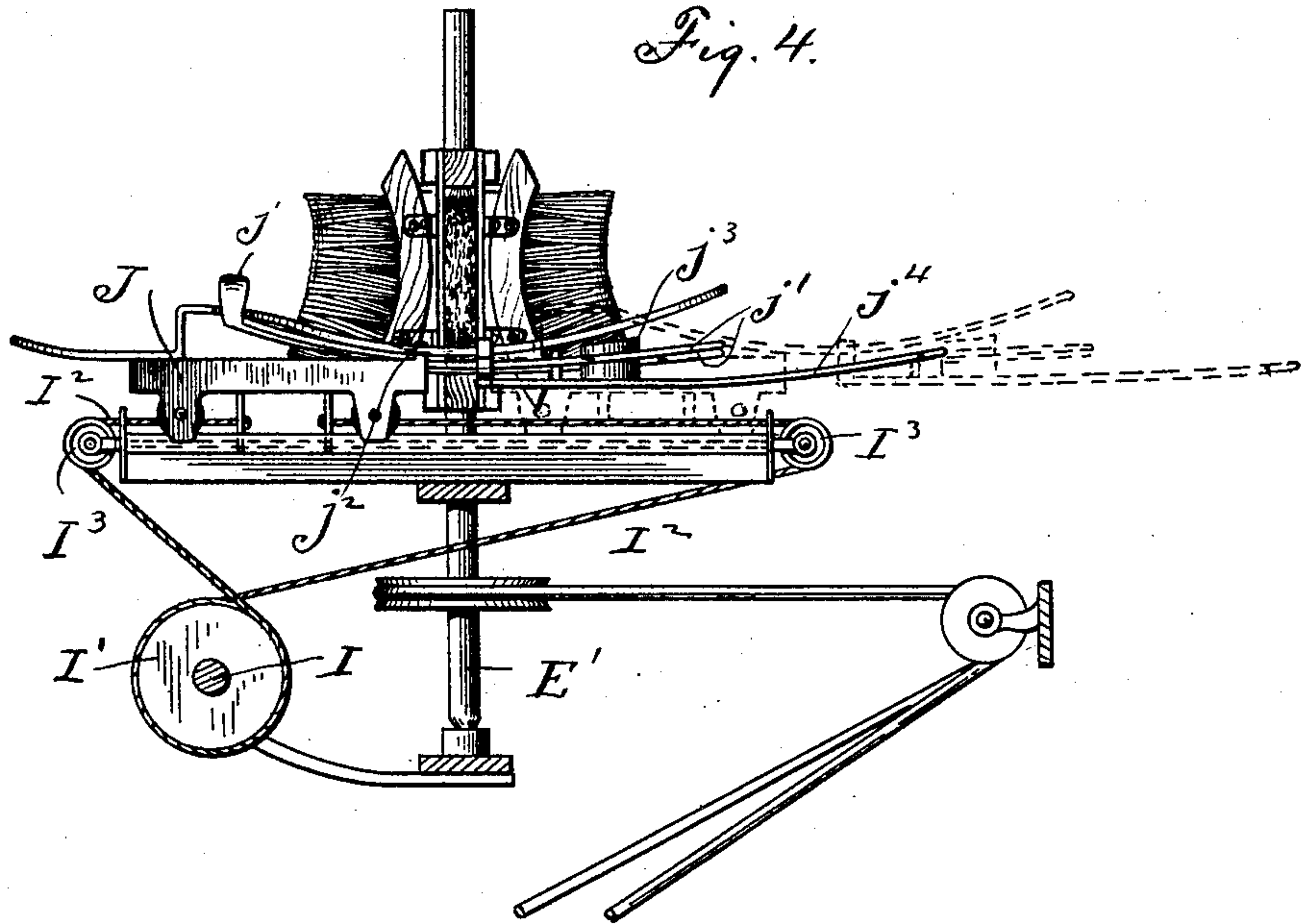
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UNITED STATES PATENT OFFICE.

JOHN W. MASON, OF CLEVELAND, OHIO.

MACHINE FOR CLEANING AND POLISHING BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 480,821, dated August 16, 1892.

Application filed May 7, 1891. Serial No. 391,929. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MASON, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Machines for Cleaning and Polishing Boots or Shoes; 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 pertains to make and use the same.

My invention relates to an improved machine for cleaning and polishing boots or shoes, more especially in the blacking process; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective as seen from the front and somewhat above the machine. Fig. 2 is a plan. Fig. 3 is an elevation of the right-hand side of the machine. Fig. 4 is an enlarged side elevation of a carriage or slide and attachments. Fig. 5 is an enlarged plan in detail of a clamp that is supposed to be connected with each carriage or slide. Figs. 6 and 7 are respectively enlarged side and end views in detail of the brush.

A A represent the side frames that support the moving part of the machine, these side frames being connected by suitable tie-bars, braces, &c., so as to constitute a rigid framework.

B is the driving-pulley, that in case the machine is operated by hand-power is provided with a crank *b*. The periphery of this wheel is grooved for operating a round belt *b'*. This belt is crossed and engages and operates a wheel *C'*, mounted on the lateral shaft *C*, this shaft being journaled in suitable boxes connected with the supporting-frame. Shaft *C* has also mounted thereon wheels *C*², *C*³, *C*⁴, and *c c*, all grooved for round belts. The belts *c'* from wheels *c c* engage wheels *D'*, mounted on the lateral shaft *D*. The belts from wheels *C*², *C*³, and *C*⁴ are what are known as "reel-belts" and engage, respectively, pulleys on the upright spindles *E*, *E'*, and *E*². Shaft *C* preferably bears a fly-wheel *C*⁵. Shaft *D* bears two brushes, as at *D*² *D*³, these brushes being adapted to engage the upper forward portion of the shoe or boot from the

toe rearward. The extremes of shaft *D* are provided with pulleys *d*, the belts *d'* from these pulleys leading to and engaging pulleys *F'* on the extremes of lateral shaft *F*. Shaft *F* is mounted on an upright frame *G*, this frame being adapted to reciprocate vertically on ways *g g* of the supporting-frame, the reciprocating frame having, preferably, anti-friction rollers *g'* for engaging the ways. The frame *G*, that is on the front side of the machine, is connected by rod *G'* with lever *H*, located below, the latter being fulcrumed near the longitudinal center thereof. The front end of this lever has attached an upright rod *h*, the latter bearing a handle *h'*, by means of which frame *G* and shaft *F* may be raised and lowered to cause the brushes *f f*, that are mounted on this shaft, to operate up and down the heels of the boots or shoes. The different brushes used on the machine are of substantially the same construction, (shown more clearly in Figs. 6 and 7,) to wit:

Each brush has a sleeve or hub *P*, the bore of which is adapted to fit the shaft and spindle on which it is to operate, the sleeve being provided with one or more set-screws *P'* for adjustably fastening the sleeve to the shaft, so that the brush can be adjusted lengthwise the shaft. On sleeve *P* is mounted a series of curved arms *p*, usually four in number, these arms being preferably of wood, and to the concaved edges of which are attached the bristles *p'*. The belts *d'*, that drive shaft *F*, are provided with tightening-pulleys *R*, the same being mounted on pitmen *R'*, that are pivotally attached to vibrating levers *R*². These levers are fulcrumed at *R*³ and have attached springs *r*, acting downward on the levers, whereby belts *d'* are kept at substantially the same tension during the vertical movements of shaft *F*.

J J are horizontally-reciprocating carriages or slides adapted to reciprocate endwise on suitable ways connected with the frame. These slides are arranged side by side in convenient position for placing the feet thereon when the person is sitting on a high stool or seat in front of the machine. Each slide is provided with a clamp, the jaws *j* whereof are adapted to grasp the sole of a boot or shoe at the instep. Levers *j'* of the jaws cross each

other and have a common fulcrum at the crossing at j^2 . Beyond the fulcrum the levers are engaged by a cam-block j^3 , this cam being mounted on a handle j^4 . By pushing the handle inward the clamp-jaws are closed, thereby holding the boot or shoe fast to the slide. A reverse movement of the handle of course allows the jaws to open.

I is a spindle having a long small drum I' mounted thereon. Cords I^2 are wound around and fastened to the drum, the ends of a cord leading in opposite directions over idle-sheaves I^3 and leading from thence to and connecting with the respective ends of the slide, whereby in rotating spindle I first in one direction and then in the other the slide is reciprocated endwise, and the arrangement of the cords is such that the two slides move in opposite directions.

L L are treadles located near the floor and arranged side by side, the free ends of these treadles having attached cords ll leading to and connecting with drum I' , these cords winding in opposite directions on the drum. The operator by placing his foot crosswise the two treadles and bearing down with his toe on one treadle and then bearing down the other treadle with his heel can reciprocate the slides, as aforesaid, in opposite directions. The operator may therefore clamp a pair of boots or shoes to the slides and then operate the slides with one foot, meantime turning the machine with one hand, and at the same time can operate handle h' with the other hand. If the customer's feet happen to be inside the boots or shoes, all the customer has to do is to relax the muscles of his legs and amuse himself by watching the play with his feet. Meanwhile his boots or shoes are being quickly polished in the highest style of the art.

K K are swinging brackets on which to rest the feet while the blacking is being applied by means of an ordinary daubing-brush. These brackets may be folded—that is to say, may be swung back out of the way—when not in use.

M is a stationary bracket on which to hang, for instance, a chamois-skin or piece of velvet for giving the finishing touches, and N is an ornamental shelf supposed to be, for instance, of marble or porcelain, on which the box of blacking is placed in position convenient for use.

Different parts of the machine are usually polished and plated to give the machine a neat and attractive appearance, as the machine is more likely to be used in hotels, barber-shops, and other public places where the

novelty of the machine and the dispatch and superiority of the work done thereon is likely to attract custom.

What I claim is—

1. A polishing-machine for boots or shoes, such machine having reciprocating slides for the shoes, means for clamping shoes thereon, a rocking shaft, means connecting the latter with the slides, and treadles connected to the rocking shaft for rocking the latter back and forth, substantially as set forth.

2. A polishing-machine for boots or shoes, substantially as indicated, such machine having non-rotary slides and clamps for fastening the boots or shoes upon the slides and cams and attached handles for operating the clamps, substantially as set forth.

3. The combination, with non-rotary slides bearing clamps, substantially as indicated, of revolving brushes operating, respectively, between and outside the slides for engaging the sides of the boots or shoes, substantially as set forth.

4. In a polishing-machine, revolving brushes mounted on a horizontal spindle, the spindle being mounted on a vertically-reciprocating frame, and suitable connecting mechanism for reciprocating the frame by hand, substantially as set forth.

5. The combination, with a horizontal spindle bearing brushes and mounted on a vertically-reciprocating frame, of belts for driving such spindle, each belt having a movable spring-actuated tightening-pulley, substantially as set forth.

6. The combination, with non-rotary reciprocating slides and clamps, substantially as indicated, of revolving brushes in position for engaging the tops of the boots or shoes from the toe rearward, substantially as set forth.

7. In a polishing-machine for boots or shoes, revolving brushes, each brush comprising a central sleeve or hub bearing a series of curved arms, such arms having the bristles attached to the concave edges thereof, and set-screws for adjustably securing the sleeve to the supporting spindle or shaft, substantially as set forth.

8. In a polishing-machine of the class indicated, a shelf for the blacking and a stationary bracket for supporting the chamois-skin, cloth, or cloths, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 4th day of April, 1891.

JOHN W. MASON.

Witnesses:

C. H. DORER,
WARD HOOVER.