

No. 722,679.

PATENTED MAR. 17, 1903.

E. DAGGER.
SHOE POLISHING MACHINE.
APPLICATION FILED APR. 26, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

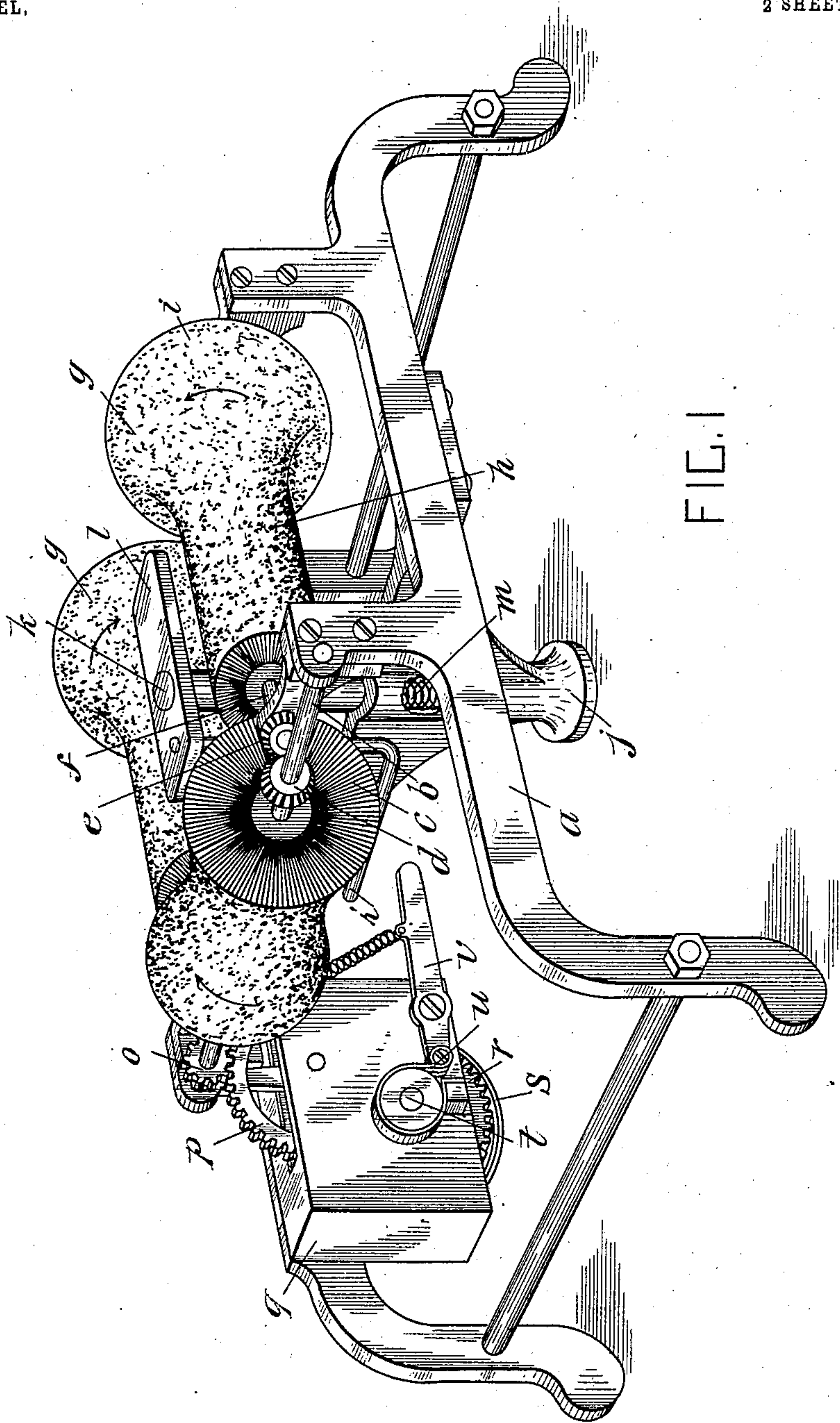


FIG. 1

Witnesses

W. S. Guest
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Inventor

Emilia Dagger
by C. H. Miles
her attorney.

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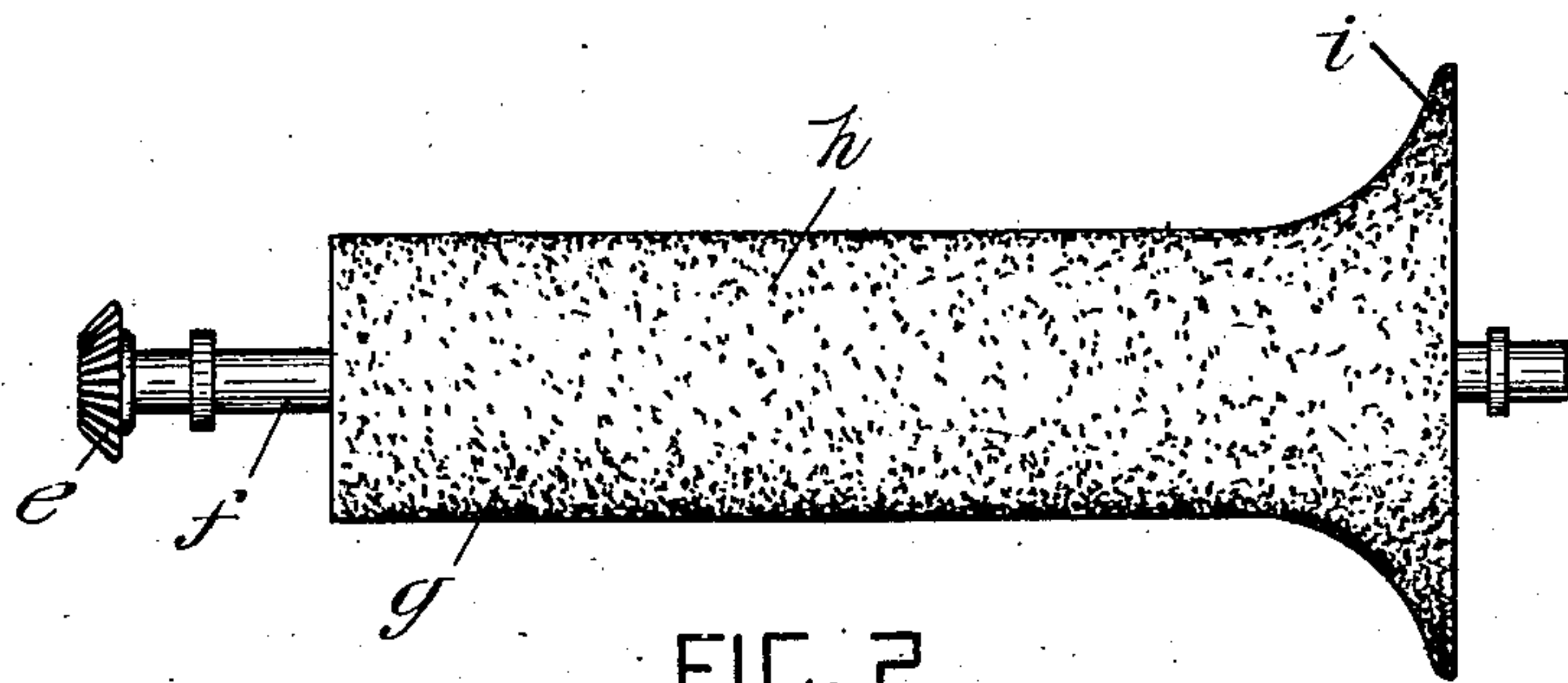


FIG. 2

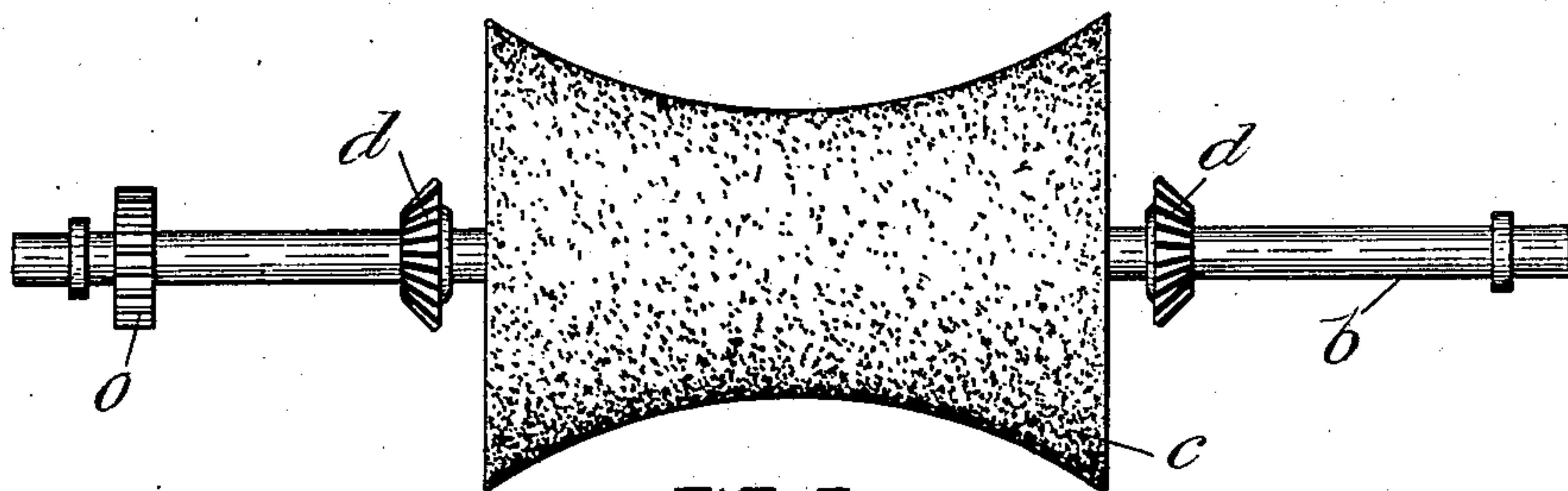


FIG. 3

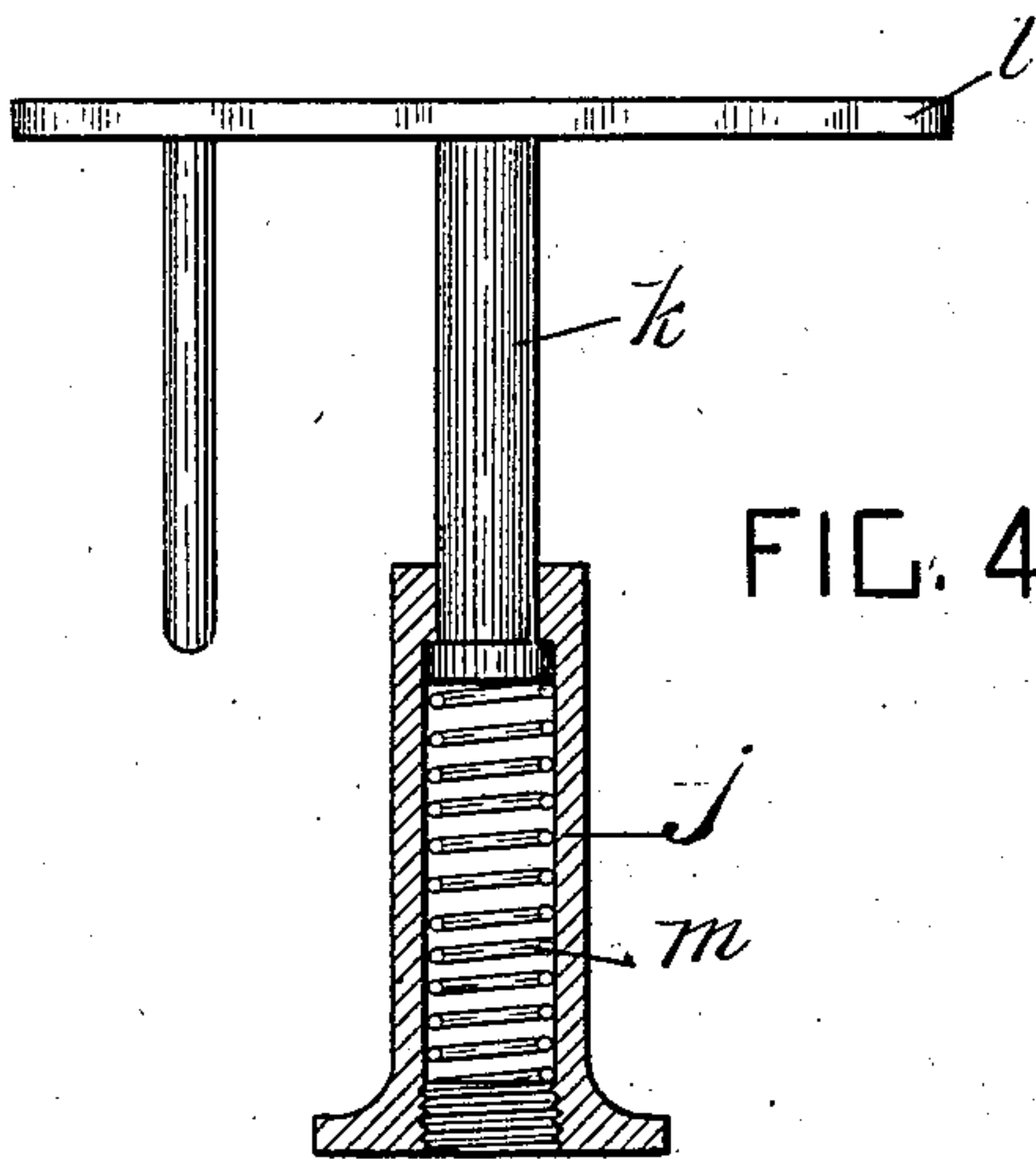


FIG. 4

Witnesses

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UNITED STATES PATENT OFFICE.

EMMA DAGGER, OF TORONTO, CANADA.

SHOE-POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 722,679, dated March 17, 1903.

Application filed April 26, 1902. Serial No. 104,864. (No model.)

To all whom it may concern:

Be it known that I, EMMA DAGGER, a British subject, residing at Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Shoe-Polishing Machines; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a shoe-polishing machine having side and toe polishing brushes mounted, respectively, on longitudinally and transversely disposed shafts revolved at a comparatively high rate of speed by a suitable motor, the starting, stopping, and speed of which are controlled by a brake-lever operated by the foot-supporting treadle, the toe-polishing brush being of a substantially concavo shape to engage the top and sides of the toe of the shoe-upper, and the side-polishing brushes consisting of substantially cylindrical body portions to polish the sides of the shoe and radial flanges at the rear ends of the cylindrical body portions to overlap the heel of the shoe and polish it simultaneously with the polishing of the sides by the cylindrical body portions, the whole being constructed and arranged as hereinafter more fully set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the machine, showing the relative position of the various parts. Fig. 2 is a view of one of the side-polishing brushes. Fig. 3 is a similar view of the toe-polishing brush. Fig. 4 is a sectional view showing the treadle, treadle-post, and hollow standard.

Like letters of reference refer to like parts throughout the specification and drawings.

Journaled in the frame *a* is a transverse shaft *b*, upon which is rigidly mounted the toe-polishing brush *c* of a concavo shape to engage the top and sides of the front of the shoe-upper when polishing the same.

Rigidly mounted on the shaft *b* at the ends of the toe-polishing brush *c* are bevel gear-wheels *d*, and meshing with the bevel gear-wheels *d* are bevel gear-wheels *e*, rigidly mounted on the longitudinal shafts *f*, journaled in the frame *a* parallel with the sides thereof.

Mounted on the longitudinal shafts *f* are the side-polishing brushes *g*, consisting of

cylindrical body portions *h* and radial flanges *i* at the rear ends of the cylindrical body portions to overlap the heel of the shoe and conform thereto.

Forming part of the frame is a hollow standard *j*, located between the toe and side polishing brushes, and vertically movable in the hollow standard *j* is the downwardly-propelling arm *k* of the treadle *l*, held in its normal position by a coiled spring *m*, contained within the hollow standard *j*.

Mounted on the shaft *b* is a pinion-wheel *o*, meshing with the spur-wheel *p* of the motor *q*. The motor *q*, as shown in the drawings, has the usual train of gear-wheels *r*, rotated by a spiral spring *s*, coiled on a shaft *t*, the rotation of the shaft *t* being controlled by the brake-strap *u* of the brake-lever *v*, fulcrumed to the casing of the motor *q* and operated by the movement of a crank *r'*, connected to the treadle *l*. Motion is imparted to the transverse shaft *b* and transmitted from the shaft *b* to the longitudinal shafts *f* by means of the bevel gear-wheels *d* and *e*, the direction of motion being indicated by arrows on the different brushes. (Shown in Fig. 1 of the drawings.) It will be noticed by reference to the drawings that brushes rotate inwardly and downwardly against the shoe to polish it during the motion of the motor.

In the use of the invention the foot is placed on the treadle and pressed downward to cause the crank *r'* to actuate the lever *v* and release the pressure of the brake-strap *u* from the motor-shaft *t*. The motor when relieved of the pressure of the strap revolves the spur-wheel *p* at a comparatively high rate of speed, the motion of which is transmitted to the transverse shaft *b* and to the longitudinal shaft *f*. During the rotation of the side-polishing brushes against the side of the shoe the radial flanges *i* engage the back of the heel and polish it simultaneously with the polishing of the sides.

It is possible to use the same system of brushes with a stationary support for the foot, and I do not wish, therefore, to confine myself to the use of the brushes with any particular style of support for the foot.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a shoe-polishing machine the combination of the side-polishing brushes provided with radial flanges at the rear ends thereof, a transversely-disposed toe-polishing brush
5 at the front end of the side-polishing brushes, and means for revolving the toe and side polishing brushes, substantially as specified.

2. In a shoe-polishing machine, the combination of a frame provided with transverse
10 journals and two pairs of longitudinal parallel journals, a shaft carrying a toe-brush mount-

ed in the transverse journals, shafts geared to the transverse shaft and mounted in the longitudinal journals and carrying side-polishing brushes, and a motor mounted on the
15 frame and adapted to impart motion through the transverse shaft to the longitudinal shafts.

Toronto, April 4, A. D. 1902.

EMMA DAGGER.

In presence of—

C. H. RICHES,

L. F. BROCK.