

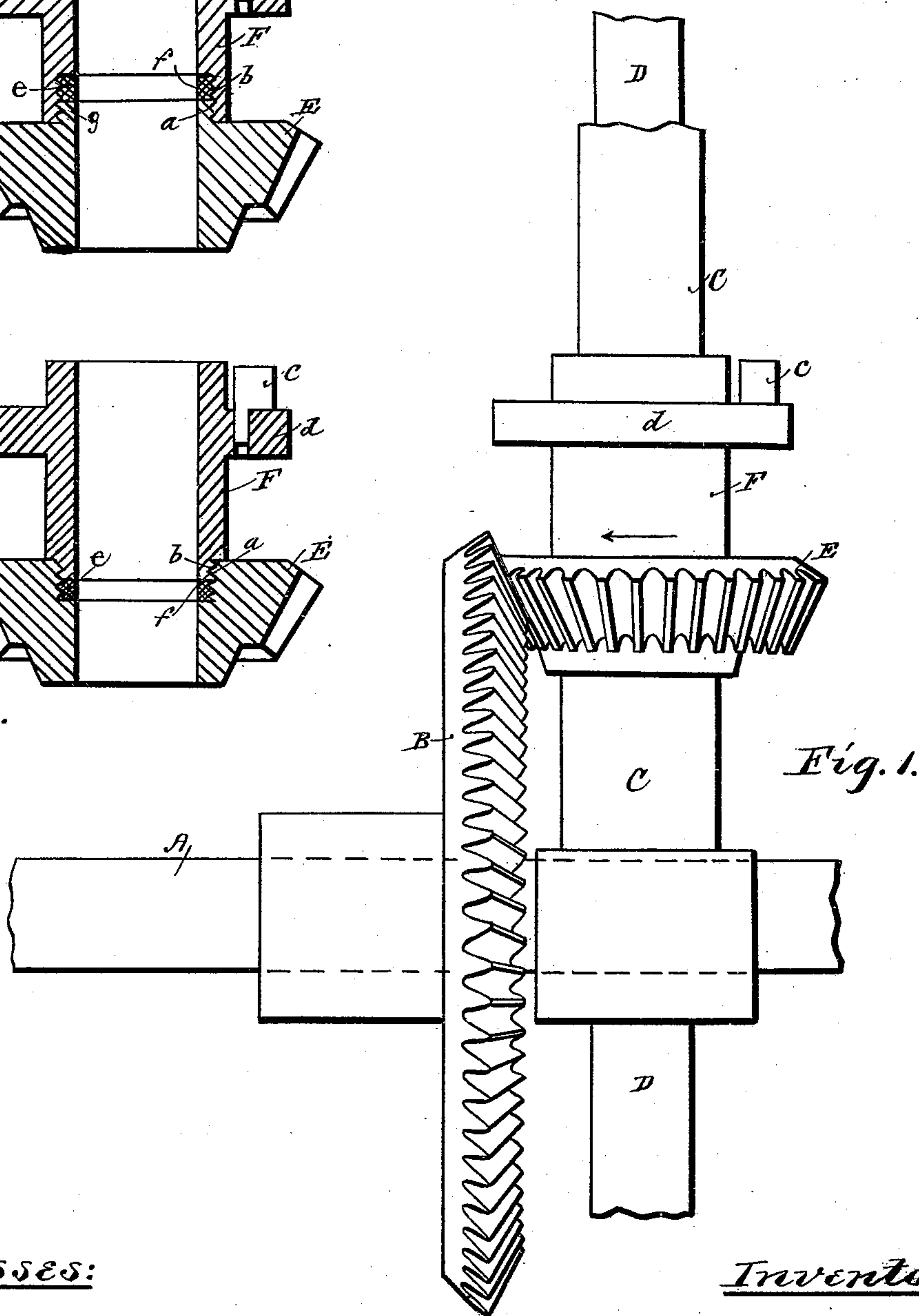
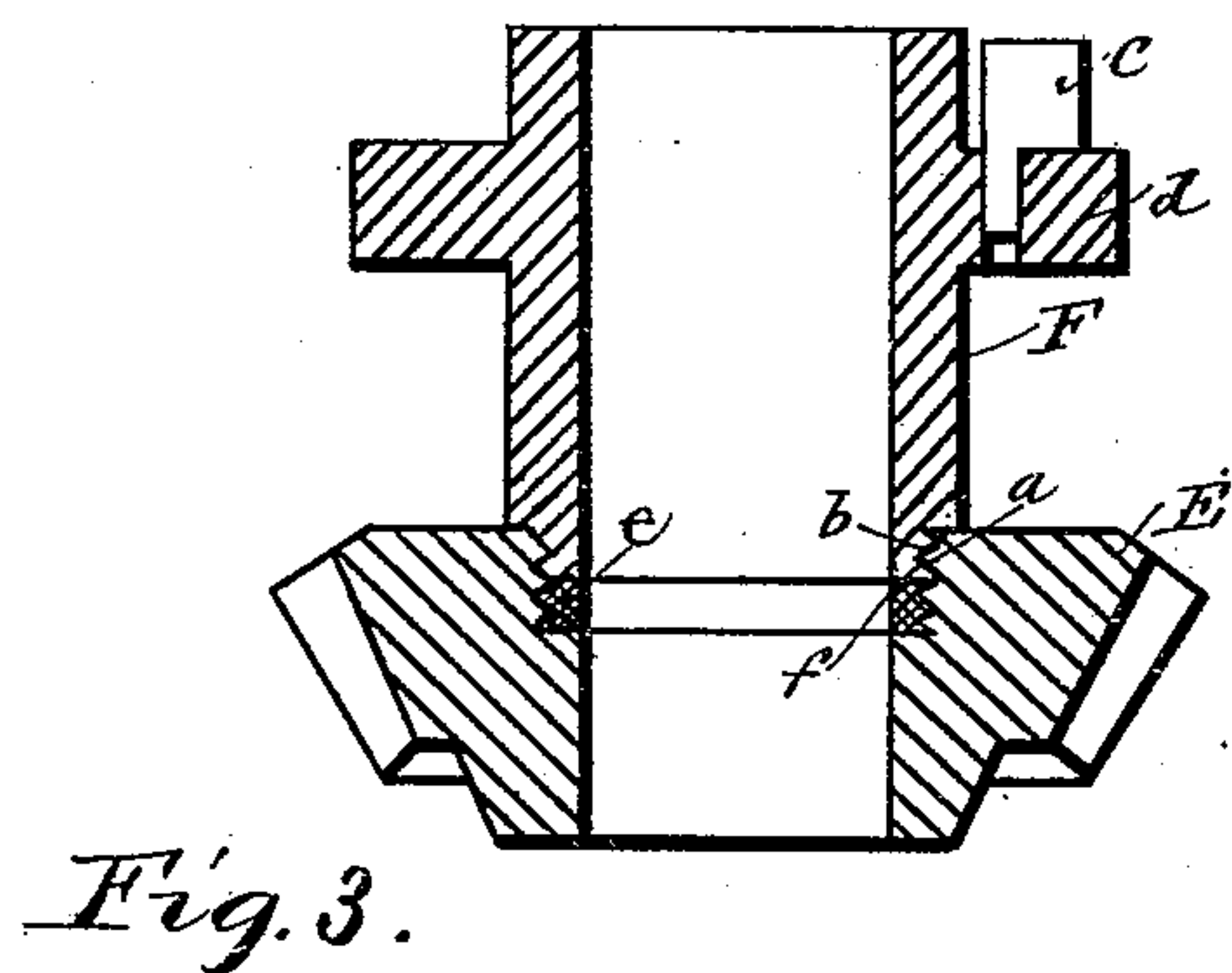
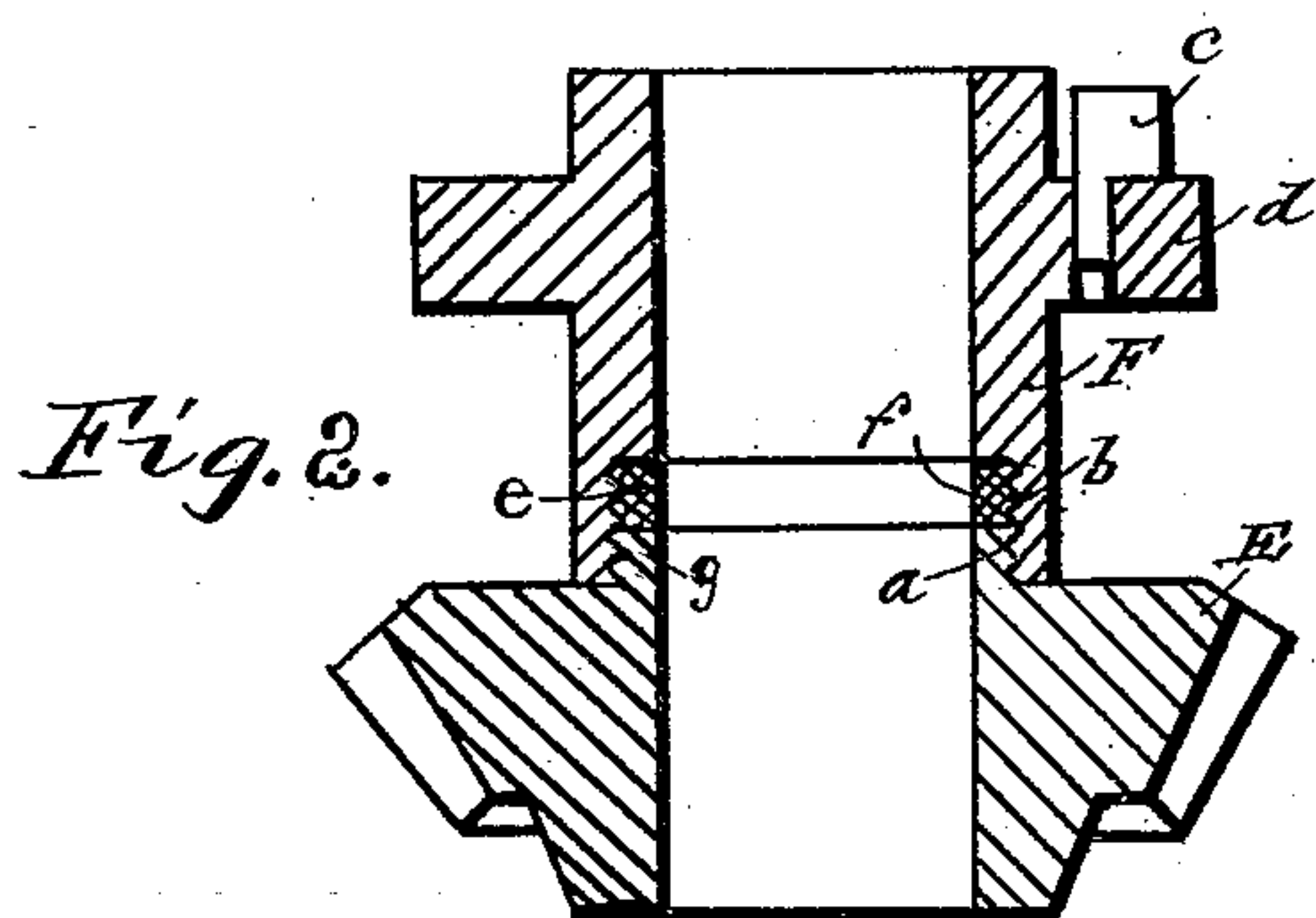
(No Model.)

S. SCHOLFIELD.

MEANS FOR DRIVING BOBBINS IN SPEEDER FRAMES.

No. 488,681.

Patented Dec. 27, 1892.



Witnesses:

James W. Beaman

John S. Lynch

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SOCRATES SCHOLFIELD, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
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MEANS FOR DRIVING BOBBINS IN SPEEDER-FRAMES.

SPECIFICATION forming part of Letters Patent No. 488,681, dated December 27, 1892.

Application filed March 3, 1892. Serial No. 423,631. (No model.)

To all whom it may concern:

Be it known that I, SOCRATES SCHOLFIELD, a citizen of the United States, residing at Providence, in the State of Rhode Island, have
5 invented a new and useful Improvement in Means for Driving the Bobbin in Speeder-Frames, of which the following is a specification.

Heretofore the bobbin gear or pinion which
10 engages with the skew-bevel driving gear in roving-frames, has either been made with its required elongated hub in one piece with the gear, or has been combined with a bobbin-supporting sleeve, which passes through the
15 gear, so that the gear itself does not come in contact with the bolster to have a bearing thereon, and on account of the rapid wear owing to the great speed at which these gears are driven, the first mentioned construction
20 entails a burdensome expense to the manufacturer who uses the machines, since the whole piece of casting has to be often renewed; and in the latter case, no provision is made upon renewal of the gear, for compensating
25 the previous wear or enlargement of the bore of the lower end at the sleeve, so as to preserve the desired close fit upon the bolster for causing the gear to run steadily, with the minimum consumption of power; and it is the
30 object of my invention, to provide a removable bobbin gear, which, when applied to take the place of a worn out gear, will furnish a renewed bearing to fit the bolster; and which may also be provided with means for extended lubrication; and it consists in the combination with the bobbin gear having a running bearing upon the bolster, of a detachable
35 bobbin-driving means, which serves to connect the gear with the bobbin; and it also consists in providing a chamber for the reception of wicking or other absorbent material, for retaining the oil for lubrication, at the joint between the gear and the bobbin driving means.

45 Figure 1, represents an elevation of the bobbin-gear, and the skew-bevel gear, by means of which it is driven. Fig. 2, represents an axial section of a bobbin-gear embodying my improvement. Fig. 3, represents a modification.
50 tion.

In the accompanying drawings, A represents the driving shaft, B the skew-bevel gear upon the said shaft, and C the bolster, the said bolster serving to support the shaft A, the spindle D, and the bobbin-gear E. The
55 bore of the gear E is adapted to fit the bolster upon which it turns, and the back of the said gear shown in Fig. 2 is provided with an annular projecting portion or hub, *g*, having an external screw-thread *a*, adapted to receive
60 the corresponding internal screw-thread *b*, of the bobbin-driving sleeve F, the said sleeve being provided with the pin *c*, for driving the bobbin, which, when in position, will rest upon the top of the flange *d*, the said bobbin being
65 provided with a hole or notch adapted to receive the said pin. With this improved construction, I am enabled to renew the gear E, at comparatively slight cost; and also to provide an annular chamber *e*, adapted to receive
70 wicking or other absorbent material *f*, for holding the oil which is used for lubricating the bearing of the gear, thus effecting desirable economy in the running expenses of the machine. The screw threads *a* and *b*, are to
75 be cut in such a direction, whether to the right or left hand, that the rotation of the gear in the machine, will tend to screw up the joint, so that it cannot get loose. When the gears are arranged as in the drawings Fig. 1, 80 the screw thread should be left handed.

A modification of my invention is shown in Fig. 3, in which the attaching hub *g*, shown in Fig. 2, is omitted, and the screw-thread *a*, is cut internally of the gear E, a corresponding change being made in the thread *b* of the
85 bobbin-driving sleeve F; and the chamber *e*, may also, in this case, be formed at the joint between the said bobbin driving means and the gear, for the reception of the absorbent
90 material employed to hold the oil, the said material being readily placed in said chamber, upon the disconnection of the parts E and F, while they are upon the bolster. By my improvement, upon the renewal of the gear on
95 account of its worn out teeth, the running fit of the gear upon the bolster will also be renewed, which is a desirable improvement.

I claim as my invention:

1. The combination with a bobbin gear hav- 100

ing a running bearing, and an attaching hub at the back of the gear, of a bobbin-driving means, detachably secured to said hub, substantially as described.

5 2. The combination with a bobbin gear having a running bearing, and an attaching hub at the back of the gear, of the bobbin-driving means, detachably secured to said hub by means of a screw thread, substantially as described.

3. The combination with a bobbin gear hav-

ing a running bearing, of a bobbin driving means detachably secured to said gear, and forming at the joint between the gear and the driving means, a chamber, for the reception 15 of an absorbent material for holding the lubricating oil, substantially as described.

SOCRATES SCHOLFIELD.

Witnesses:

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