

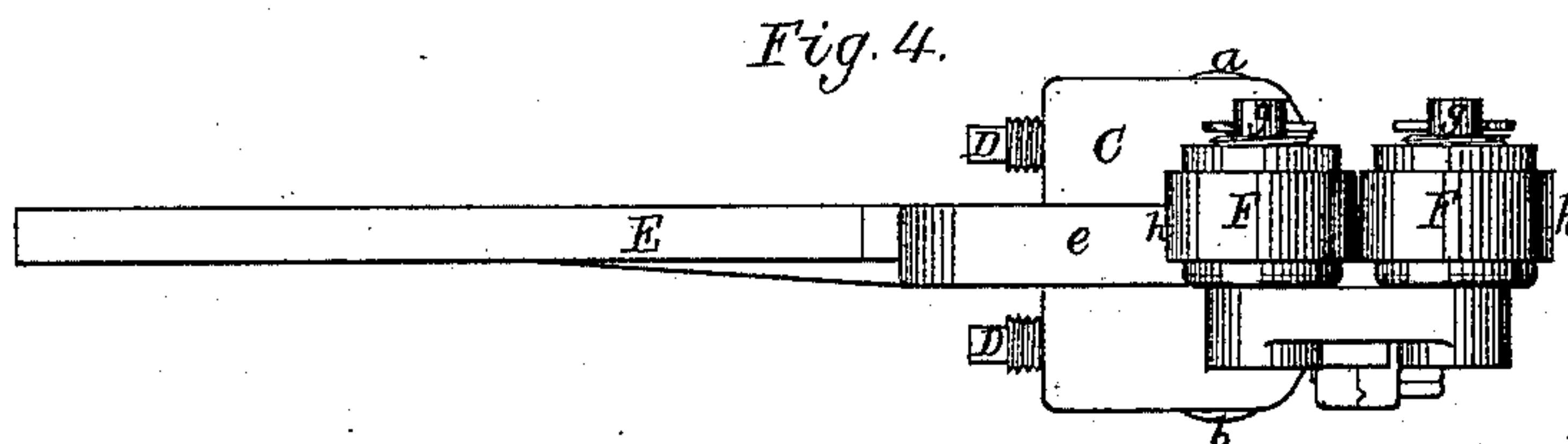
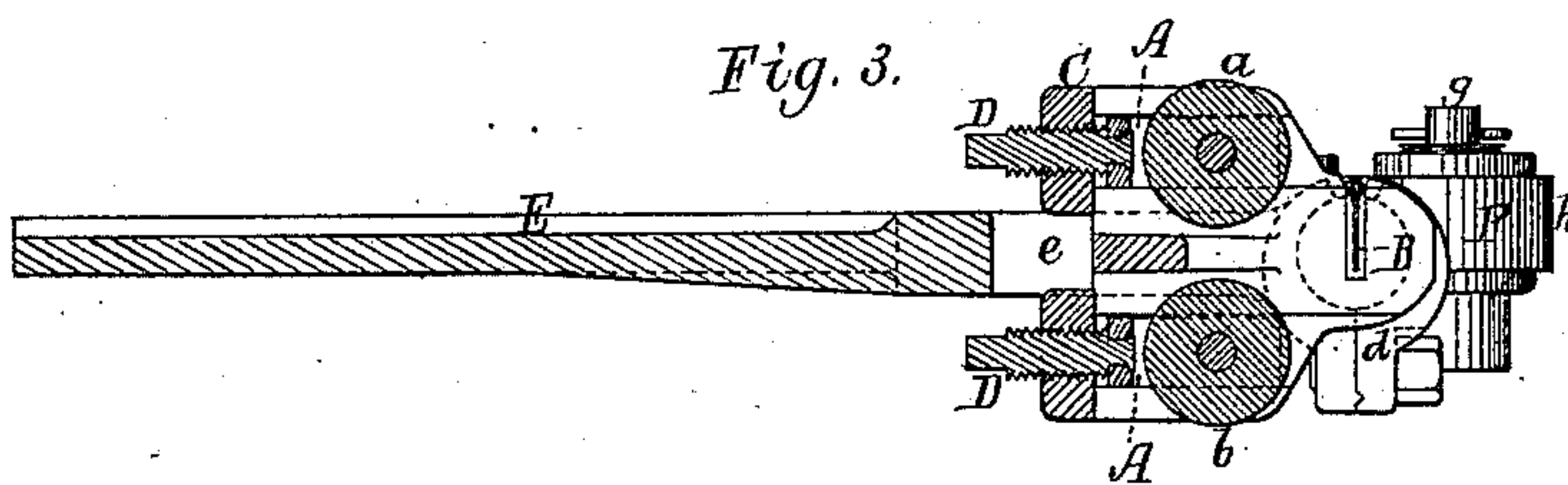
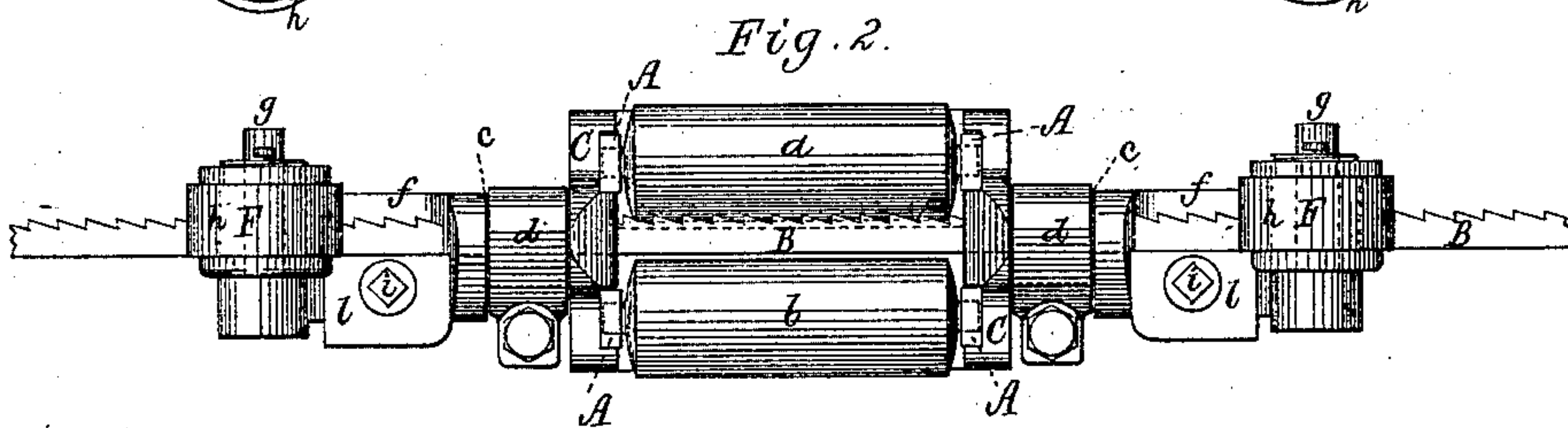
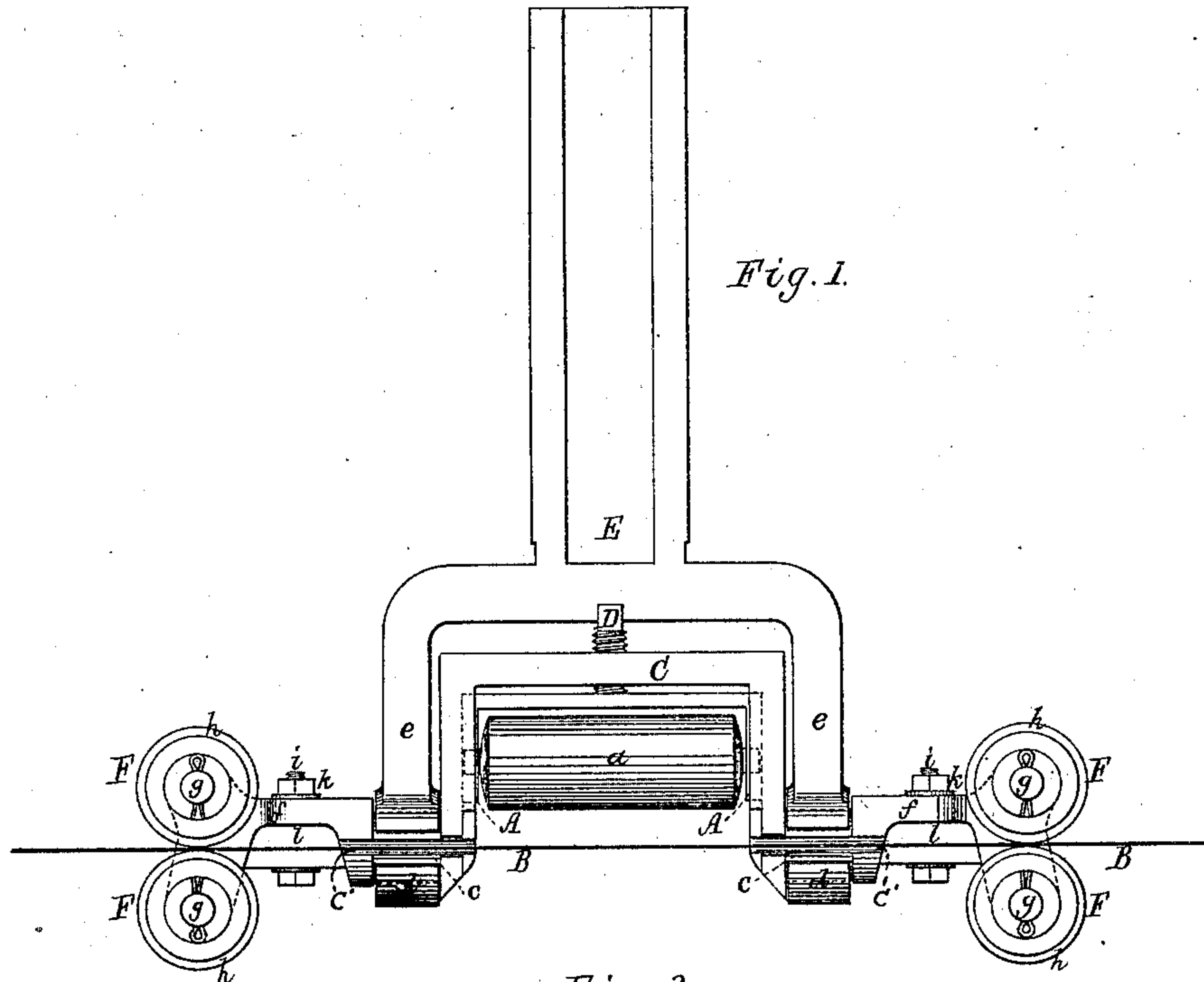
(No Model.)

R. WILLIAMS & W. BOWKER.

MACHINERY FOR SAWING BARREL HOOPS FROM POLES.

No. 272,996.

Patented Feb. 27, 1883.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT WILLIAMS, OF BOSTON, AND WILLIAM BOWKER, OF SOMERVILLE,
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MACHINERY FOR SAWING BARREL-HOOPS FROM POLES.

SPECIFICATION forming part of Letters Patent No. 272,996, dated February 27, 1883.

Application filed November 10, 1882. (No model.)

To all whom it may concern:

Be it known that we, ROBERT WILLIAMS, of Boston, of the county of Suffolk, and WILLIAM BOWKER, of Somerville, of the county of Middlesex, of the State of Massachusetts, have
5 invented a new and useful Improvement in Machinery for Sawing Barrel-Hoops from Poles; and we do hereby declare the same to be described in the following specification and
10 represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation, Fig. 3 a longitudinal section, and Fig. 4
15 an end view, of mechanism embodying our invention, the nature of which is defined in the claims hereinafter presented.

Our said invention has special reference to mechanism represented and described in the United States Patent No. 259,661, granted to
20 William Bowker on June 20, 1882, such mechanism being a combination consisting of a band-saw and mechanism for guiding it, lengthwise of it, and bending it laterally in order to cause it to cut in a pole a kerf in parallelism with the
25 median longitudinal line of the surface of the hoop or portion separated by it from the pole, such mechanism consisting of two rollers, their sustaining lever or levers, and a grooved journal to each of the said levers, all being ar-
30 ranged with the saw and applied substantially as represented in the drawings and described in the specification of such patent.

In practice it has been found that the lateral movement of the saw, caused it to bind
35 and run with friction more or less in the grooves of the two supporting-journals of the swinging levers or devices for sustaining the two rollers against which the hoop bore while being separated from the pole by the saw, such friction
40 causing wear and damage both to the saw and the journals. The purpose of our improvement is to prevent the saw and the journals from being so injured, and we accomplish this by two guide-rollers applied to one or each
45 side of the saw, and arranged with the grooved journals of the hoop-sustaining rollers, and their supporting device or devices, substantially as represented in the accompanying
50 drawings, in which *a* and *b* denote the said hoop-supporting rollers, each of which in this

instance has its journal sustained in and by a carrier, *A*, arranged within the said sustaining-frame *C*, and adapted thereto to slide toward and away from the saw *B*, the said carrier and the said frame *C* being provided with
55 a screw, *D*, suitably applied to them, and being to effect such movements of the carrier. The frame *C* has its journals *c* provided with lengthwise grooves *c'* to receive the saw, and supported in open bearings *d d* in the prongs
60 *e e* of the furcated slide *E*. Projecting from each of the said journals *c* is an arm, *f*, provided with journals *g*, upon which turn guide or saw-sustaining rollers *F*, there being two
65 of such rollers on each side or on one side only of the saw. In the drawings, two of such rollers are shown as arranged on each side of the saw *B*, the said saw going between the two sets. These rollers may be inelastic on
70 their peripheries; but we prefer to have them made with elastic tires or peripheral coverings *h*, in order that the rollers may not injure or change the set of the teeth of the saw while
75 it may be running against them. Furthermore, attached to each of the arms *f* by a screw, *i*, and nut *k*, is a rest, *l*, for the back of the saw to bear against, such rest being usu-
80 ally a block of wood or other suitable material, its object being to prevent the back of the saw from wearing down or deepening the grooves of the journals.

From the above it will be seen that, however the furcated slide may be moved in a direction lengthwise of it, as the diameter of the
85 hoop-pole may increase or diminish, while the said pole may be in the act of being moved forward and sawed that portion of the saw extending between the rollers *F* of the two arms, *f*, will always be straight, though capable of
90 being bent or turned laterally by the two grooved journals *c* as they may turn in their bearings. By thus keeping straight the portion of the saw going through the grooved
95 journals, and extending from one to the other of the two sets of elastic or yielding peripheral rollers, the bearing of the saw in the grooves of the journals and the injurious results therefrom are very materially diminished, if not entirely overcome, and, besides, by hav-
100 ing the guide-rollers elastic on their peripher-

ies, as described, the injury to the set of the teeth of the saw, which is liable to follow with inelastic rollers is prevented.

We are aware that a machine has been devised in which the bed-plate and a hollow spindle are slotted to receive the saw-blade, and in which the latter is held by forked guide-posts on each side of the path of the pole.

We claim—

10 1. The combination of the rollers F, applied to one or both sides of the band-saw, and supported by means substantially as described, with the roller-carrying frame C and its journals c, provided with lengthwise grooves c',
15 adapted to the furcated slide or supporter E, all being essentially as set forth, and whether such rollers F be elastic or inelastic on their peripheries.

2. The combination of the removable saw-

bearing blocks or rests l, with the saw-carry- 20
ing frame C, provided with the journals c, provided with lengthwise grooves c', and with the roller-sustaining arms f, extending therefrom, all being arranged substantially as set forth.

3. The combination, with the hoop-roller a 25
and the sustaining-frame C, having journals c, provided with lengthwise grooves c', as described, of the carrier A, adapted to such frame and hoop-roller, and provided with means, sub- 30
stantially as described, for moving the rollers within the frame C, substantially as set forth.

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Witnesses:

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