

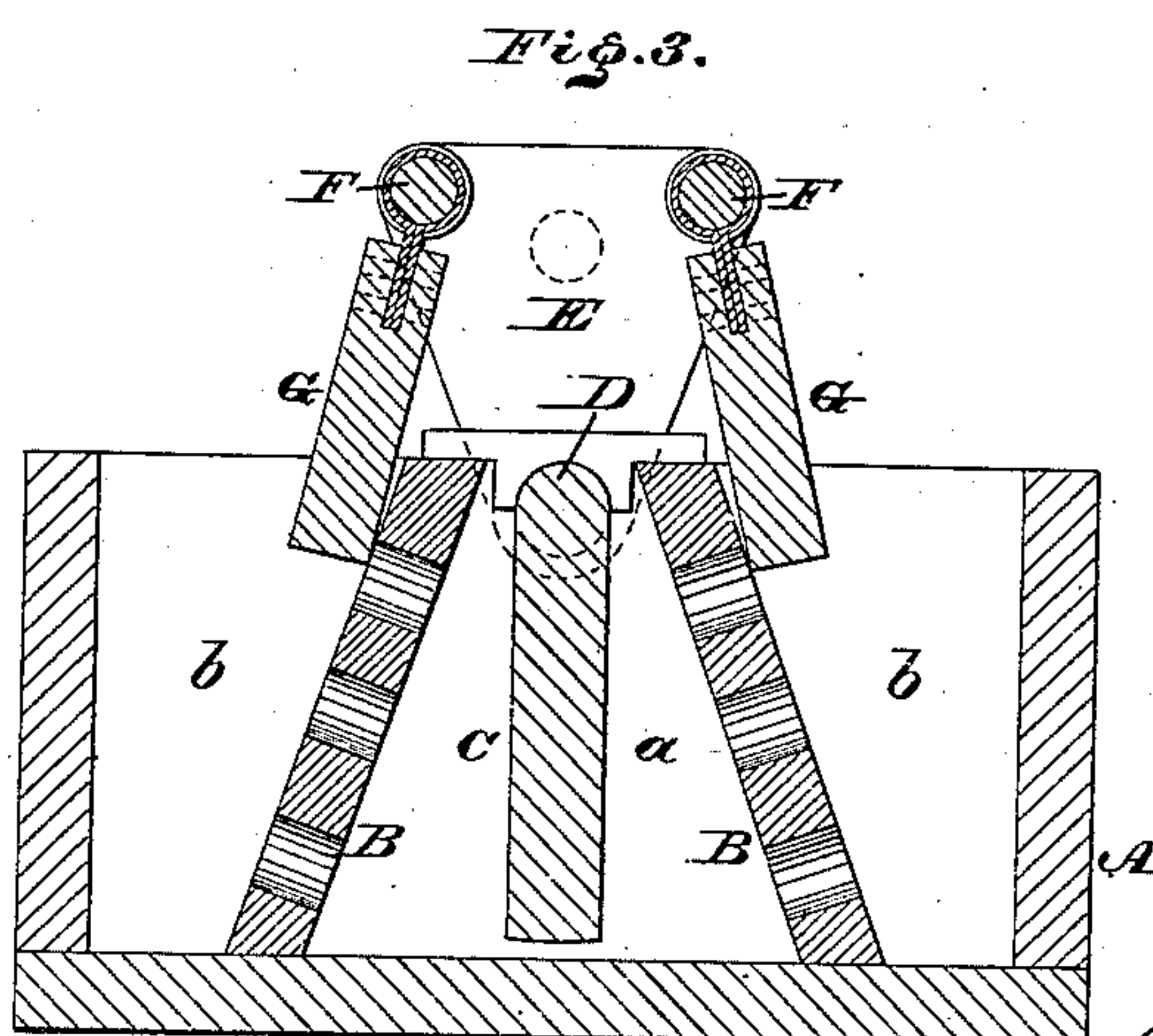
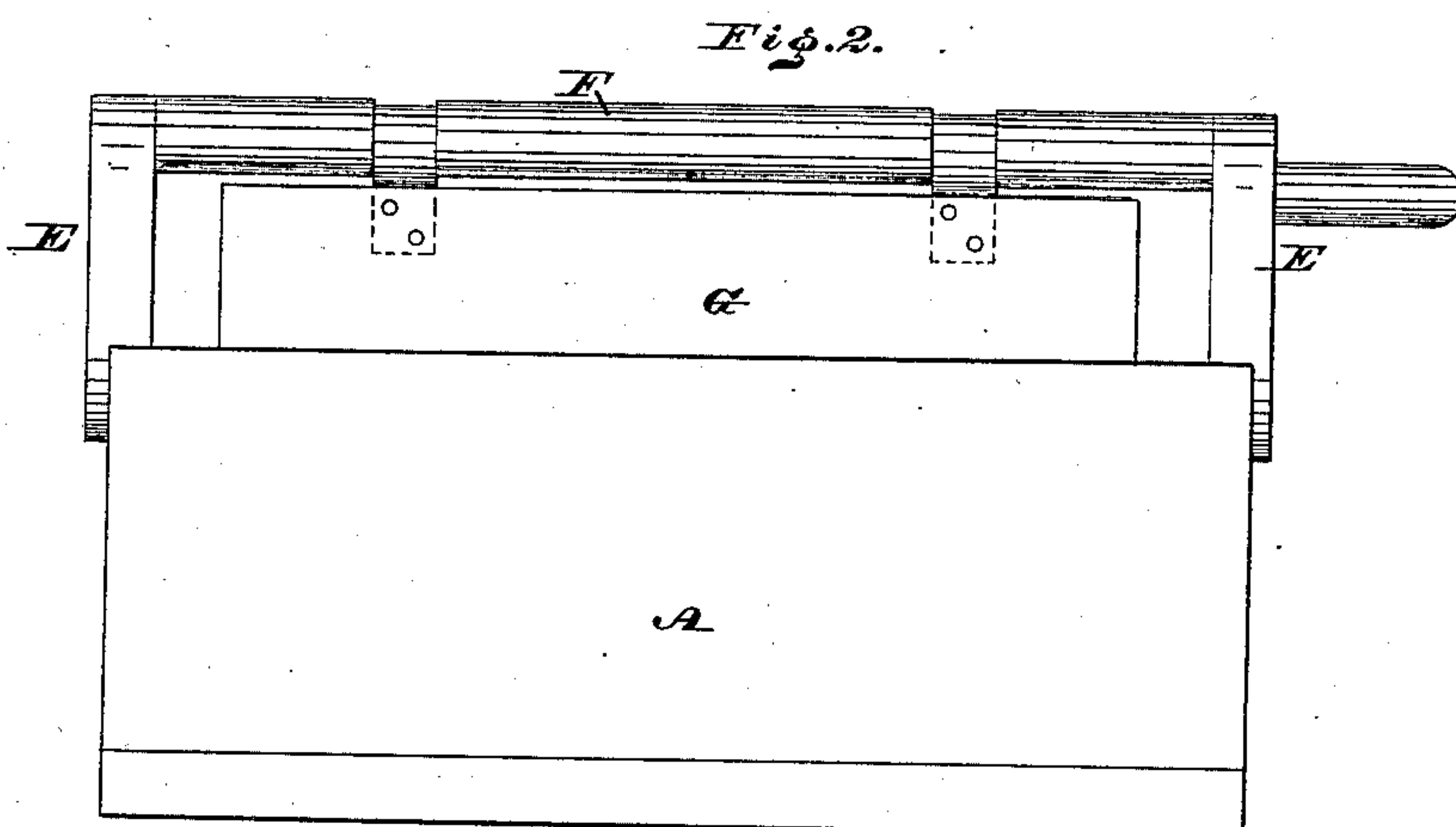
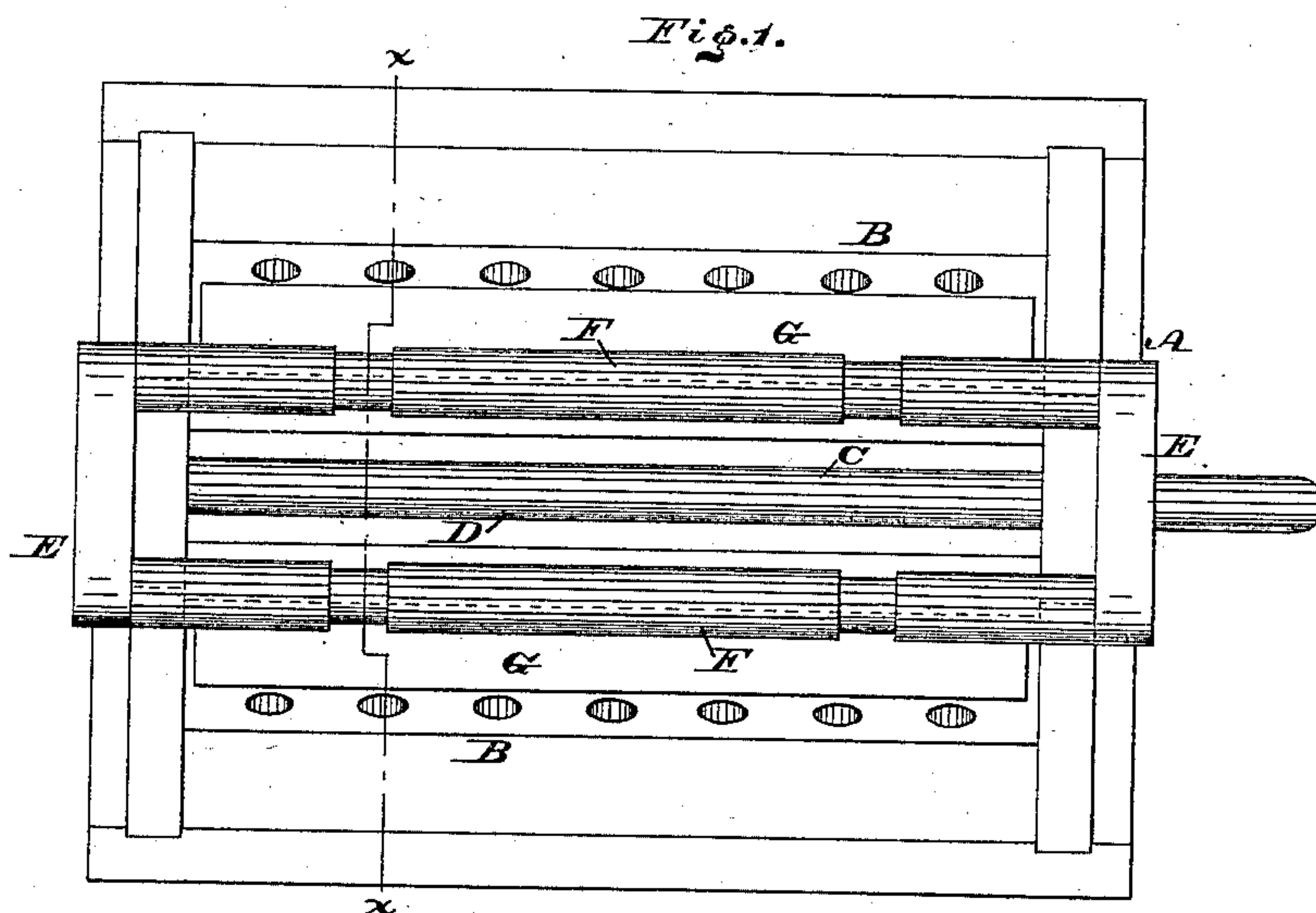
(No Model.)

G L. WITSIL.

WOOL WASHING MACHINE.

No. 256,782.

Patented Apr. 18, 1882.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## WOOL-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 256,782, dated April 18, 1882.

Application filed November 19, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE L. WITSIL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Washing Wool, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top or plan view of the washing-machine embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a transverse vertical section in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a machine for washing wool, &c., formed of a dasher for forcing the water in different or opposite directions through the mass of material, and freely depending beaters for striking or beating the same, whereby the material is thoroughly acted upon and overturned and its dirt, grease, &c., readily removed.

It also consists of diaphragms inclosing the dasher or separating the dasher from the beaters for preventing the material packing upon the dasher.

Referring to the drawings, A represents a tank or tub, from the bottom of which rise diaphragms B B, which incline toward each other, forming a chamber, *a*, for the dasher C, which is secured to a reciprocating rotary shaft, D, whose bearings are on the upper part of the tub A.

To the ends of the shaft D are firmly secured heads E, which rotate with said shaft, and to said heads, above the shaft D, are connected horizontal bars or shafts F, from which depend swinging beaters G, each of which is so disposed that it overhangs and projects into the chambers *b* between the adjacent diaphragm and the side of the tub.

The operation is as follows: Water or other cleansing or washing fluid in sufficient quantity is placed in the tub and the wool introduced into the chambers *b*. Power is then communicated to the heads E, so as to swing them backward and forward, for which purpose a crank-handle or pitman may be secured to one or both of said heads. The dasher C forces the water through the openings of the diaphragms B to opposite sides of the tub, and the beaters

grease, &c., of the wool are liberated. As the beaters hang freely from their bars or shafts F and swing independent of the motions of the heads E as they rise and fall with said heads, the latter turning on the shaft D at the bottom, the said beaters beat upon the wool so as to move and overturn it, the angle of the beaters changing with the rapidity of operation of the shaft D, so that the beaters strike at different places, whereby the entire mass is subjected to blows, which action, assisted by the fluid dashed forcibly through the mass in different directions, performs the work of washing and cleansing the wool in an expeditious and reliable manner.

The diaphragms B separate the chambers *a* *b* and prevent the wool entering the chamber *a* and interfering with the dasher C, so that the latter is unobstructed in its motions, forcing the fluid in opposite directions.

The device is constructed in a firm, durable, and simple manner, it being noticed that the heads E are connected by the axial shaft D and bars or shafts F, and the shaft D imparts motion both to the dasher C and said heads E, which carry the beaters G.

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

1. The dasher C and the operating-shaft D, in combination with the beaters G and the heads E, the beaters hanging freely from said heads, whereby the beaters fly out and strike the mass of material at different places and overturn it, substantially as and for the purpose set forth.

2. The beaters G, in combination with the dasher C and inclosing-diaphragms B, said dasher being within the diaphragms and the beaters outside of the same, substantially as and for the purpose set forth.

3. The dasher C, in combination with the heads having connecting bars or shafts F, the swinging beaters G, depending from said shafts, and the operating-shaft D, said shaft D being at the bottom of the heads and the shafts F above the same, substantially as and for the purpose set forth.

GEO. L. WITSIL.

Witnesses:

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