

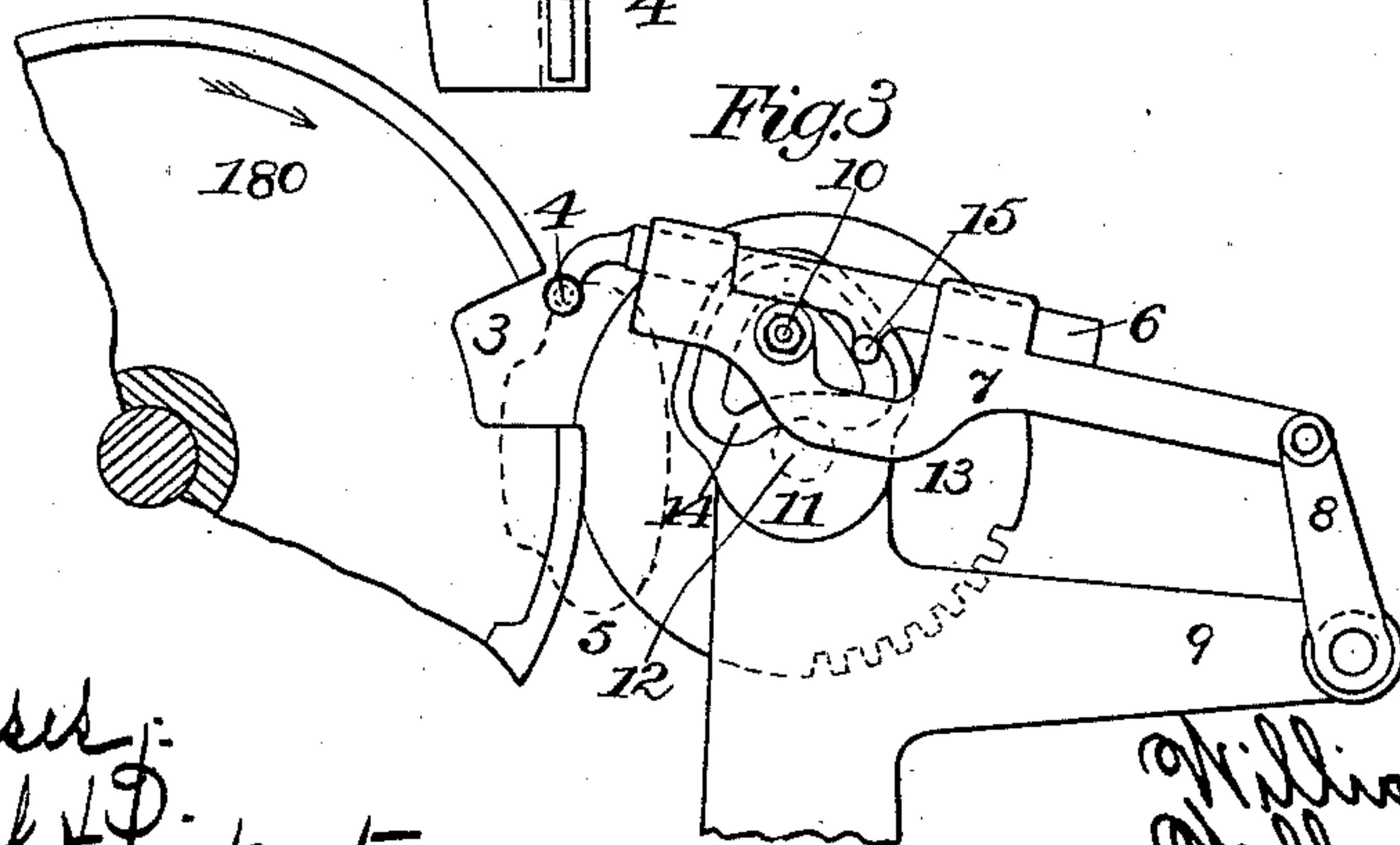
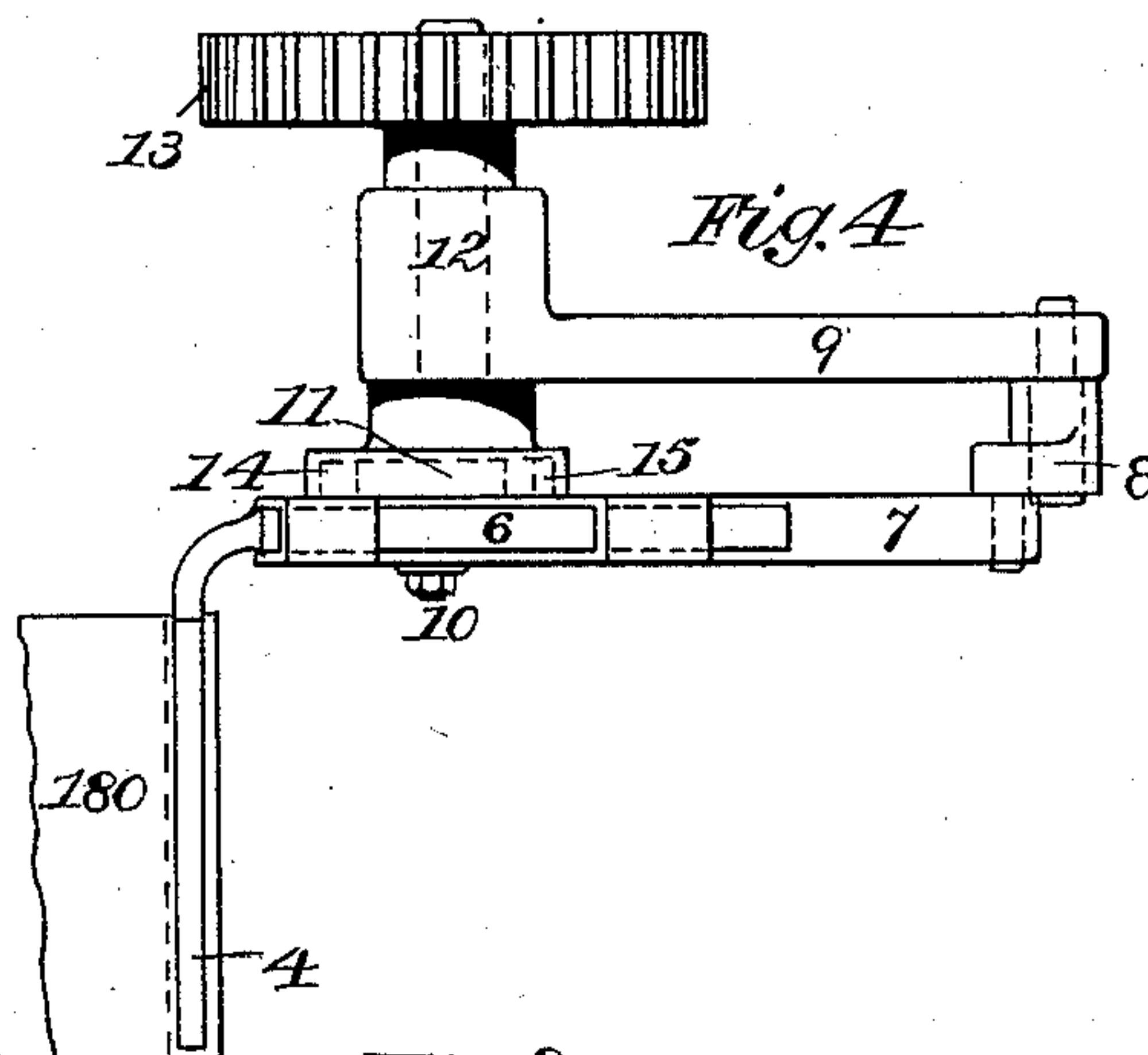
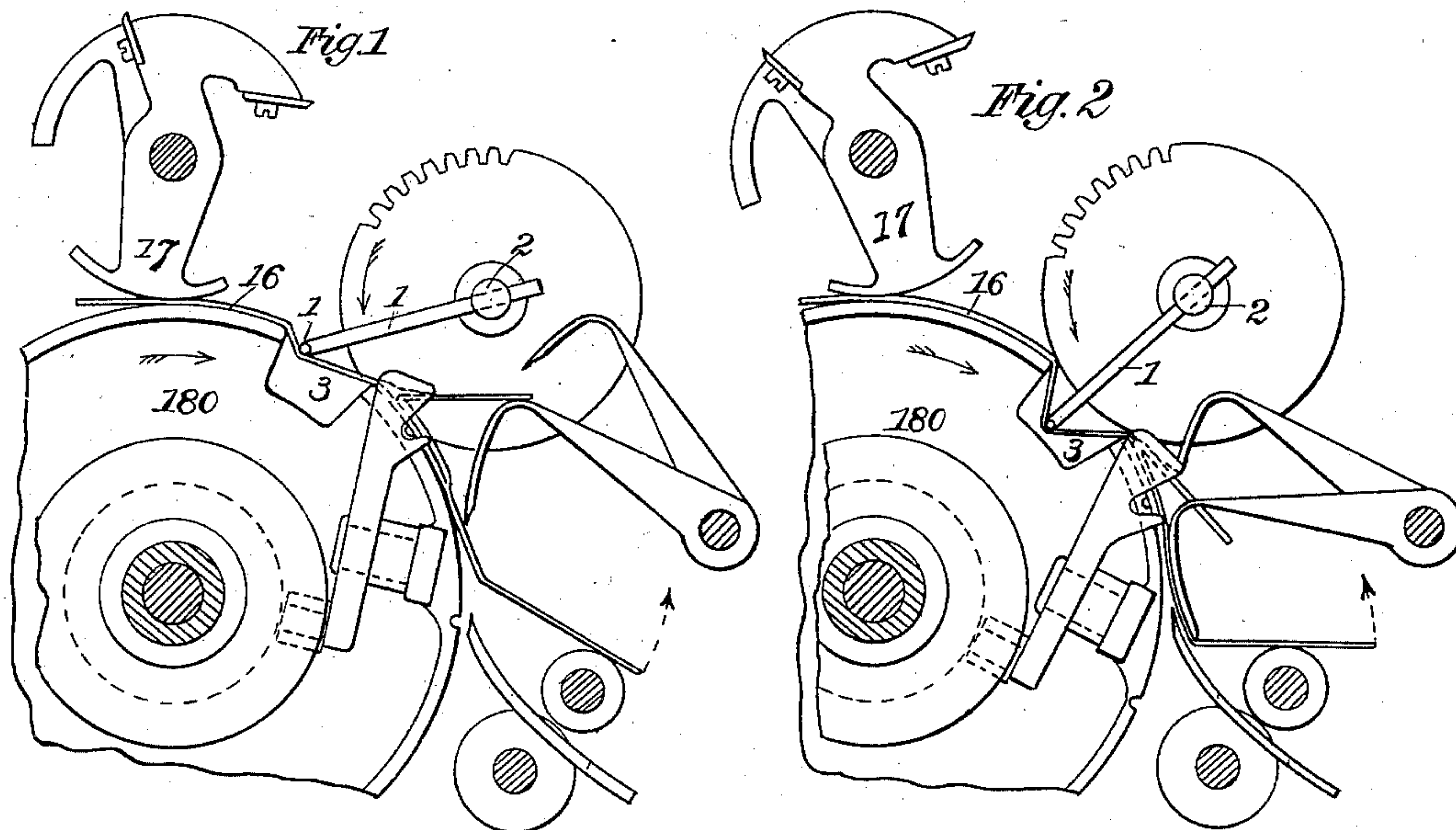
(No Model.)

W. A. LORENZ & W. H. HONISS.


PAPER BAG MACHINE.

No. 374,309.

Patented Dec. 6, 1887.



Witnesses:
Frank H. Pierpont
C. E. Broutland.

9  Invention

William A. Lorenz
William H. Horner
by Albert H. Walker, Attorney

UNITED STATES PATENT OFFICE.

WILLIAM A. LORENZ AND WILLIAM H. HONISS, OF HARTFORD, CONNECTICUT, ASSIGNORS TO FELIX W. LEINBACH AND CLARENCE A. WOLLE, BOTH OF BETHLEHEM, PENNSYLVANIA.

PAPER-BAG MACHINE.

SPECIFICATION forming part of Letters Patent No. 374,309, dated December 6, 1887.

Application filed March 7, 1887. Serial No. 229,894. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM A. LORENZ and WILLIAM H. HONISS, of Hartford, Connecticut, have invented an Improvement in Paper-Bag Machines, of which the following description and claim constitute the specification, and which is illustrated by the accompanying sheet of drawings.

This invention is an apparatus for forcing the middle of a paper-bag blank inwardly from the arc or plane of the bed on which it is lying in the machine wherein it is being made into a paper bag, and thus retracting the forward end of the bag-blank along the surface of the bed on which it is lying, in order to cause other devices appurtenant to that bed to perform other operations upon that blank.

This apparatus in two forms, together with its proper environment in a paper-bag machine, are shown in Figs. 38, 39, 40, and 41 of the drawings of Letters Patent of the United States No. 361,951, granted to us, on a paper-bag machine, April 26, 1887, and the same matter is described in the accompanying specification, but is not claimed therein.

Figure 1 of the present drawings is a side view of one form of our present invention and its proper environment, and Fig. 2 is a like view of the same matter, but with the parts in another position, while Fig. 3 is a side view, and Fig. 4 is a plan view, of the other form of our present invention.

The numeral 1 indicates an angular retracting-finger, the working part of which is parallel with the shaft 2, and the other end of which is fixed to that shaft and revolves therewith in the direction of the arrow adjacent to the finger. The cylinder 180 is provided with the peripheral recess 3, and revolves in the direction of the arrow on that cylinder. The paper-bag blank 16 has its rear end pressed down upon the periphery of the cylinder 180 by the presser 17. The other parts of Figs. 1 and 2 are identical with the corresponding parts shown and illustrated in our said Letters Patent, and are illustrated here merely to show the connection of the present invention with the paper-bag machine delineated in that application.

The numeral 4 in Figs. 3 and 4 of the pres-

ent drawings indicates a retracting-finger having a variable motion, traveling in the endless path shown by the dotted line 5. This finger extends across the periphery of the cylinder 180 parallel with its axis, and is attached to the slide 6, which moves in grooves in the yoke 7, and which yoke is pivoted to the arm 8, and which arm rocks upon its pivotal connection with the stationary bracket 9. The crank-pin 10 projects from the cam-disk 11 and turns in a proper bearing in the yoke 7, so as to communicate a rocking motion thereto. The cam-disk is keyed to the shaft 12 and receives motion through it from the gear 13. The cam-groove 14 is cut on the face of the disk 11 around the crank-pin 10, and the pin 15, attached to the slide 6, runs in that groove. As the cam-disk revolves it imparts a rocking motion to the yoke through the crank-pin, and through the cam-groove it imparts a reciprocating motion at proper intervals to the slide 6. The result of these two motions is to carry the finger 4 in an endless path substantially delineated by the dotted line 5. The revolution of the cylinder 180 in the direction of the arrow thereon carries forward the recess 3 harmoniously with the variable motion of the finger 4, so that the finger forces the middle portion of the bag-blank 16 inwardly from the arc of the periphery of that cylinder substantially as that function is shown to be performed by the finger 1 in Figs. 1 and 2.

A reciprocating blank-carrying carriage having a recess, 3, may be used instead of the cylinder 180 without any change in the other parts of the invention.

We claim as our invention—

The combination of a blank-carrying carriage provided with the recess 3, the presser 17, operating against the carriage in the rear of that recess, and a finger moving from outside that carriage into that recess and then withdrawing therefrom, all arranged, adapted, and operating to retract the forward end of the bag-blank, substantially as described.

WILLIAM A. LORENZ.
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Witnesses:

ALBERT H. WALKER,
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