

Waters & Brown.

Stove Grate.

N^o 71345

Patented Nov. 26, 1867

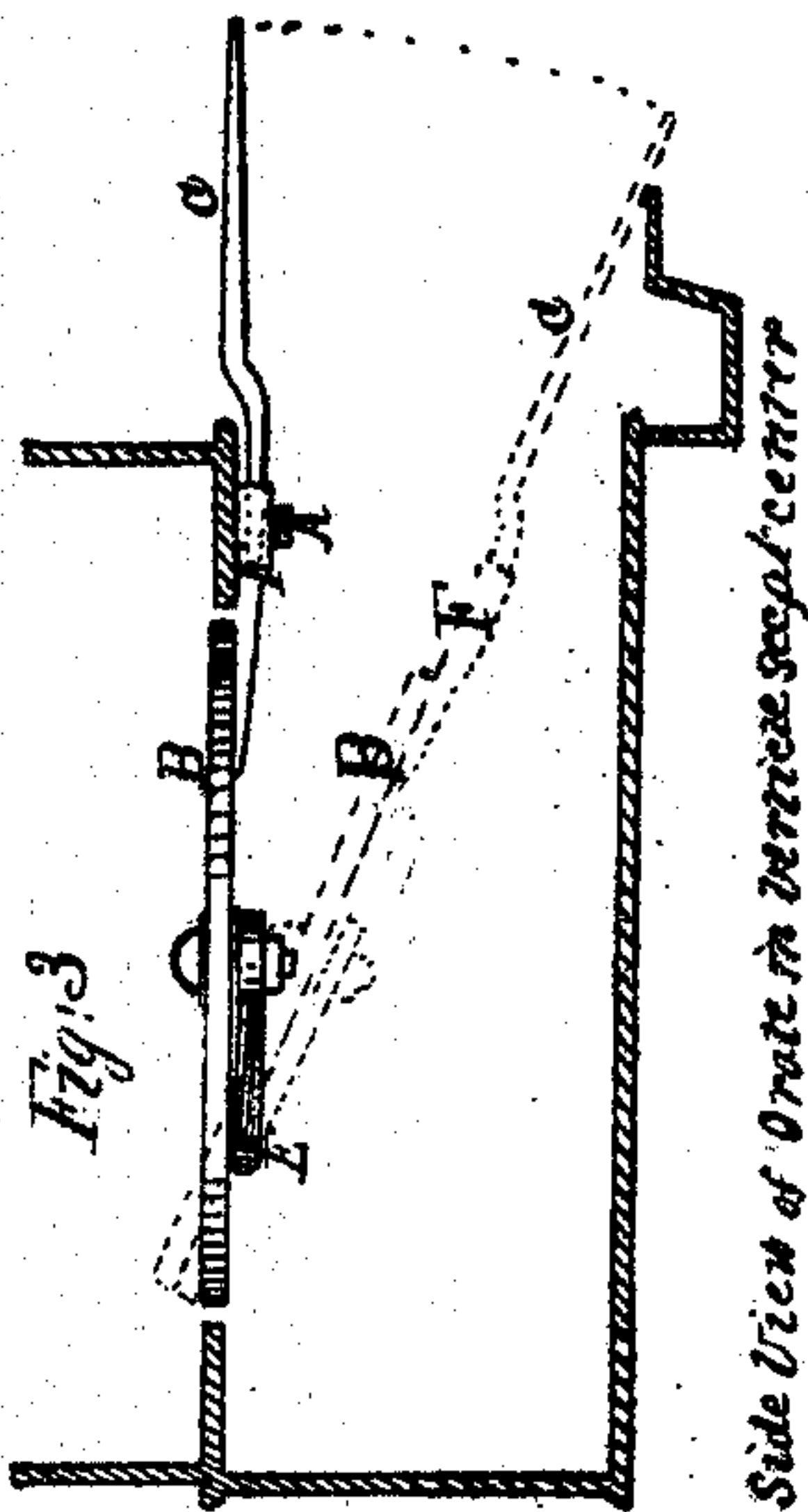


Fig. 6

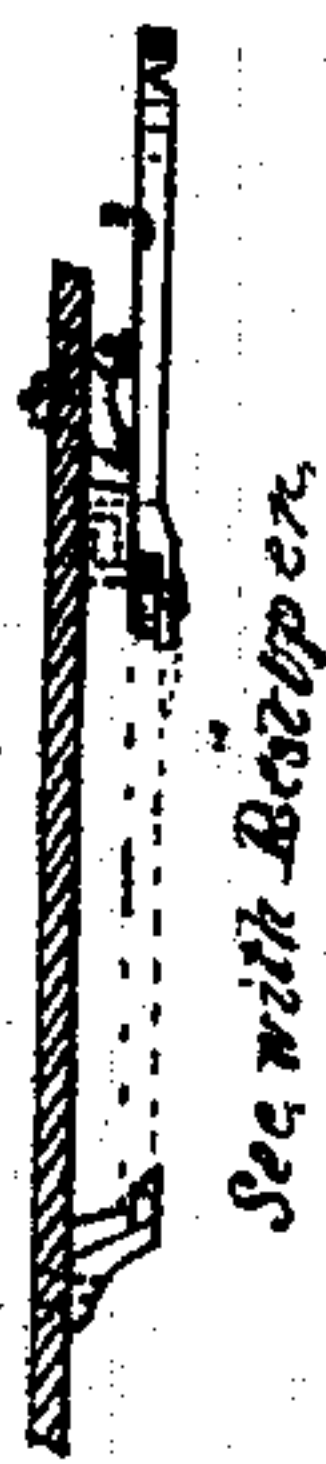


Fig. 4

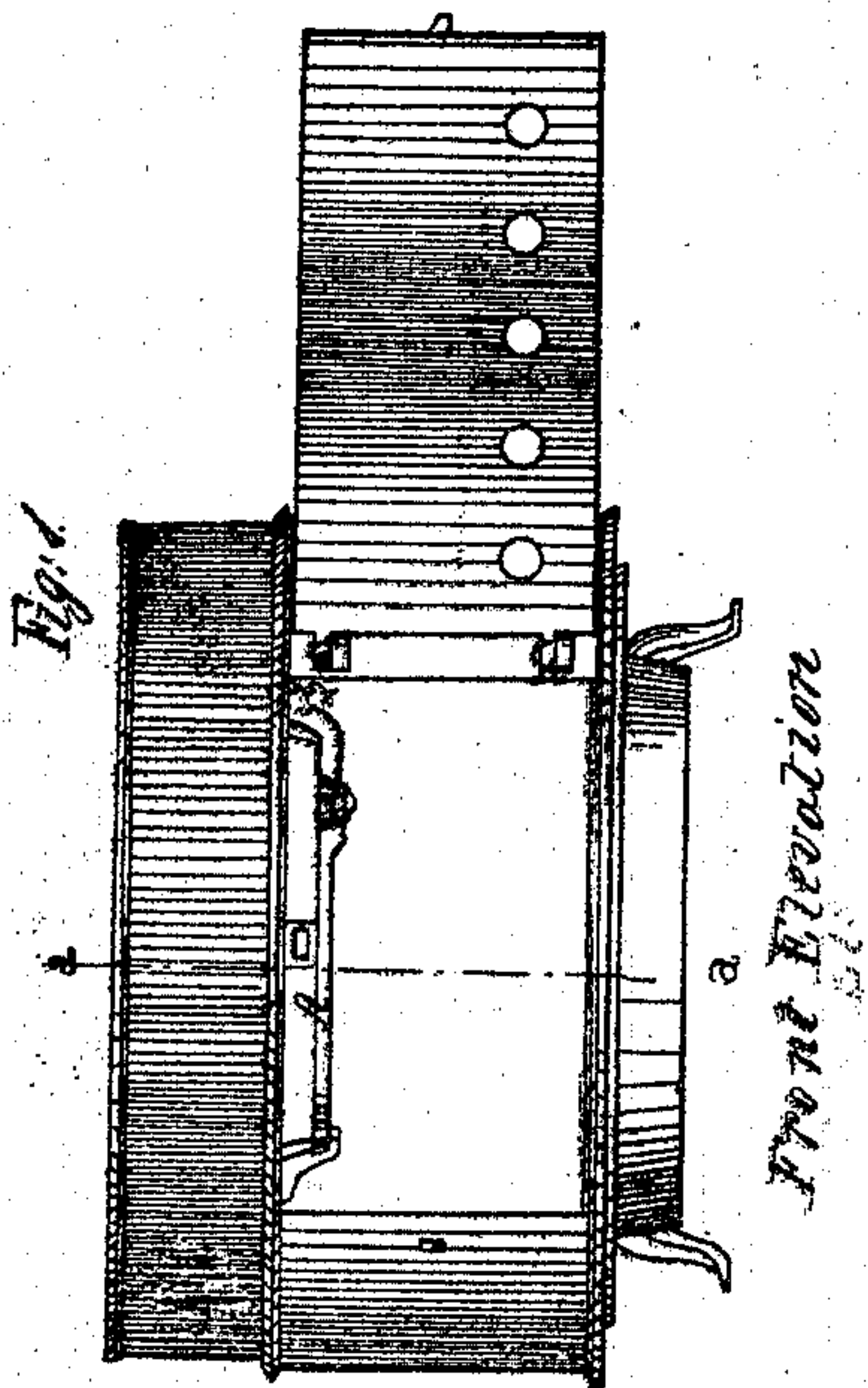
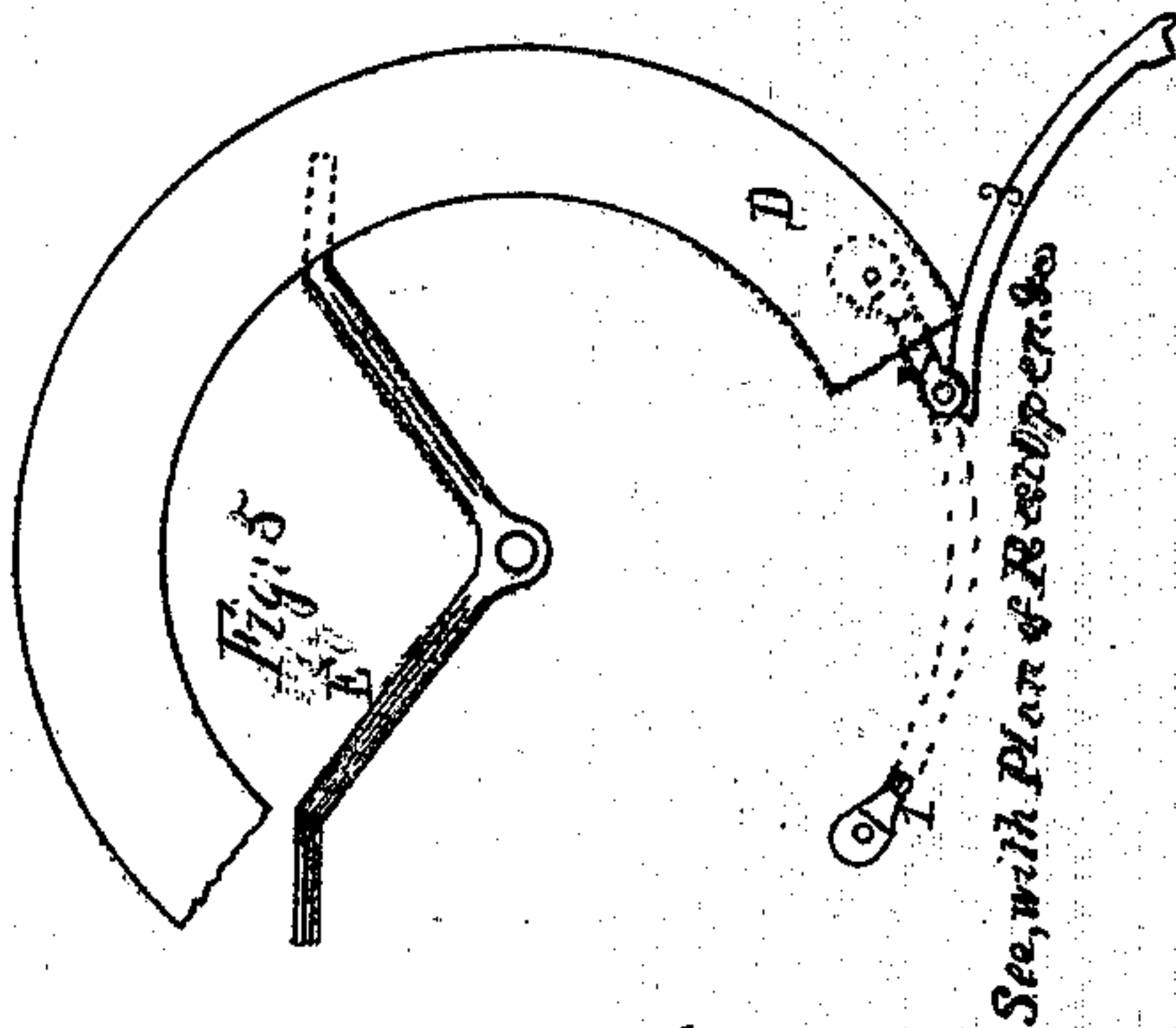
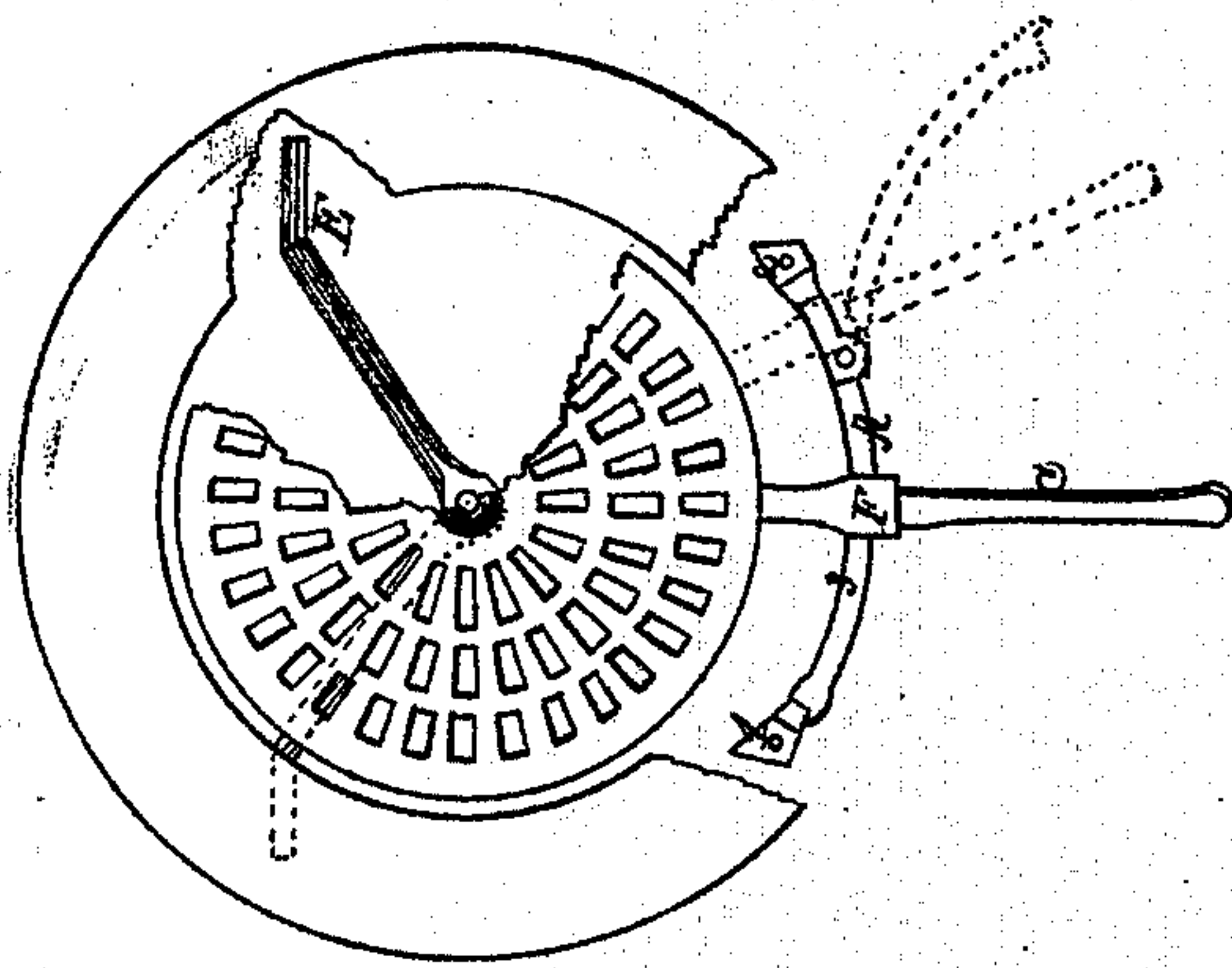
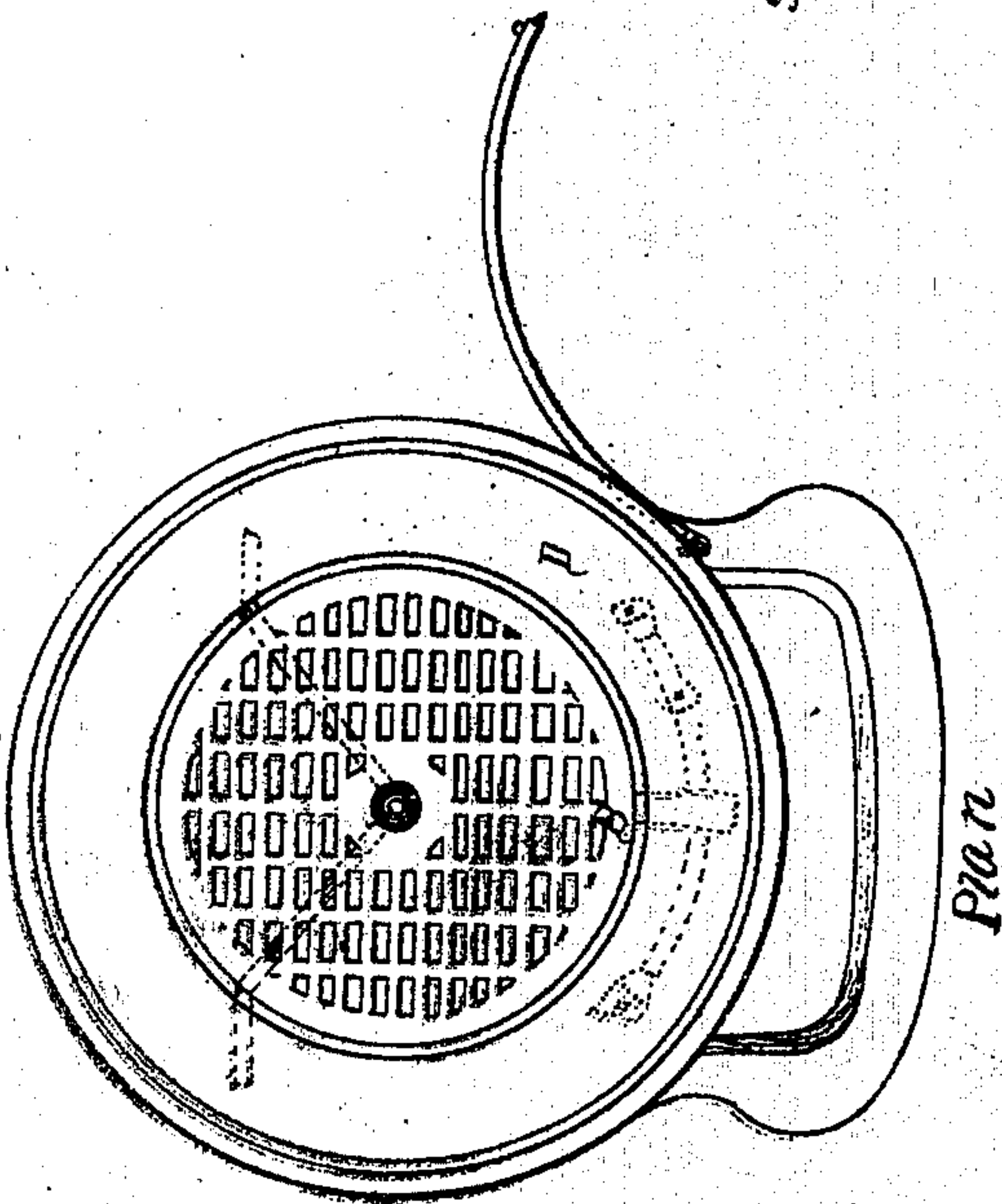


Fig. 2



Witnesses
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CHARLES WATERS AND HARVY A. BROWN, OF POUGHKEEPSIE, ASSIGNORS
TO HENRY G. GILES, OF TROY, NEW YORK.

Letters Patent No. 71,345, dated November 26, 1867.

IMPROVEMENT IN STOVE-GRATES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CHARLES WATERS and HARVY A. BROWN, of the city of Poughkeepsie, in the county of Dutchess, and State of New York, have invented a new and useful Improvement in Grate-Rests for Stoves; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The purpose of our invention is to enable one to drop the front side of the grate sufficiently to haul from the bottom of the fire-pot the stone, cinders, &c., that may have collected there, and then replace the grate, without removing the grate-handle at any time during the operation.

Figure 1 is a front elevation, showing the rest A in position.

Figure 2 shows plan of grate B and bed-plate D.

Figure 3 is a vertical section at *a a*, with grate-handle *c* in position.

Figure 4, plan of section of grate B, with its shank F, and handle C, and main rest E.

Figure 5 is plan of front rest A open, and also shows plan of the cross-bar or back rest E.

Figure 6 shows front rest A open, and grate-shank resting on the horizontal portion of part No. 2.

The rest A is made in three parts, as Nos. 1, 2, and 3. A portion of No. 1 is constructed so as to be bolted to the bed-plate D, with the main portion of it hanging nearly at right angles from the bed D, with a short horizontal turn at the lower end sufficient to receive and hold up one end of the part No. 3. No. 2 is similarly constructed and bolted to the bed-plate D, with the lower end extending on a horizontal line towards No. 1, and far enough below the bed-plate D to leave space for the grate-shank F to move between it and the bed D. To the lower horizontal end of No. 2 is attached, by a swivel-joint, one end of the part No. 3, while the other end of No. 3 rests on the short horizontal portion at the lower end of No. 1, where it is temporarily secured by a slight latch and catch, devised between the two parts 1 and 3. The horizontal projection of the lower end of No. 2 should be long enough to receive the full width of the shank F back of the swivel-joint, so as to receive and sustain the grate in place, while the opening portion No. 3 is swung around preparatory to letting the grate down.

To use the rest when complete and in its place: The grate-handle C is first entered into the shank of the grate F, then by the handle the whole is moved round until it rests on the horizontal portion of the part No. 2. No. 3 is then thrown round, which opens the front or centre of the rest A by means of the handle C. The grate-shank F is then moved to the centre, and then lowered until the grate is on about the line of forty-five degrees, as indicated by the dotted lines in fig. 3, in which position the slag from the bottom of the fire-pot may be hauled forward by a common stove-poker and cleared out, so as to have a fresh fire from the grate upwards; and when this operation is completed the grate may be raised to its place, and centre part of the rest is replaced, after which the grate may be revolved from side to side if desired, to further sift the ashes down.

The main or back rest E (see fig. 5) is constructed so as to form a centre for the pivot in centre of the grate to revolve in, while each end is carried back to near a line with the back side of the grate, and is made to form the axis on which the grate tips up and down.

The advantage of this kind of rest is, that in dropping the front part the greater portion of the whole grate lets down from the bottom of the fire, leaving the whole space under the fire clear to the back side of the grate free, for the purpose of hauling out the slag at the bottom of the fire.

A second advantage is, that when the front of the grate is let clear down, the mass of slag and coal is discharged in front of the grate, from whence it is easily removed, and the grate raised to its place.

In place of the swivel-joint between Nos. 2 and 3, the two parts may be made in one piece, and swing open on the bolt holding them to the bed-plate; but in that case the grate must be held up by one hand while opening and closing it with the other, which is sometimes inconvenient, but much better than no opening at all for the purpose.

We claim as follows:

1. A front rest for a stove-grate, having one portion arranged to open, in the manner and for the purposes set forth.

2. The rest, in parts Nos. 1, 2, and 3, or their equivalents, in combination with the swivel-joint.

3. The rest A, comprised of the parts Nos. 1, 2, and 3, in combination with the cross-bar E, when the axis or end bearings are back of or on one side of the centre of the grate B.

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