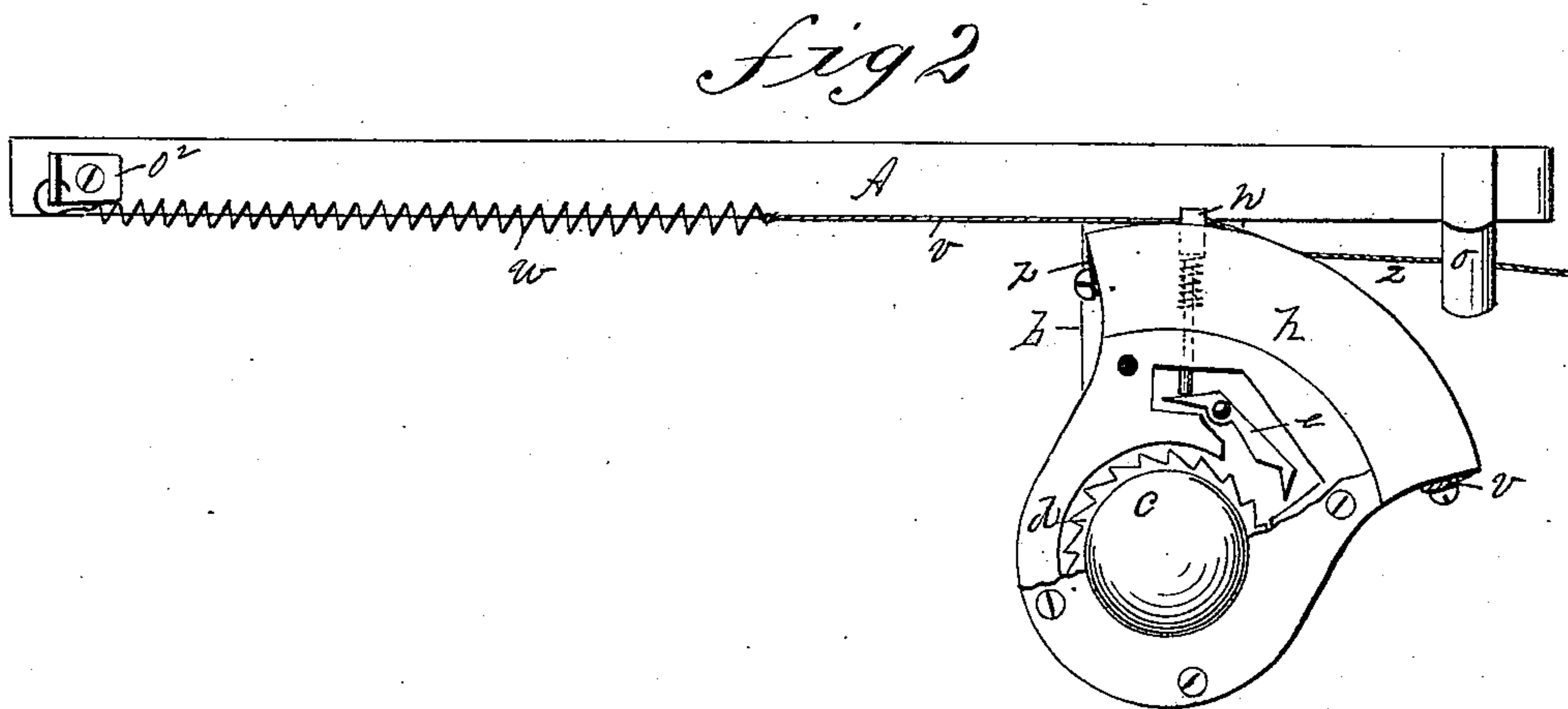
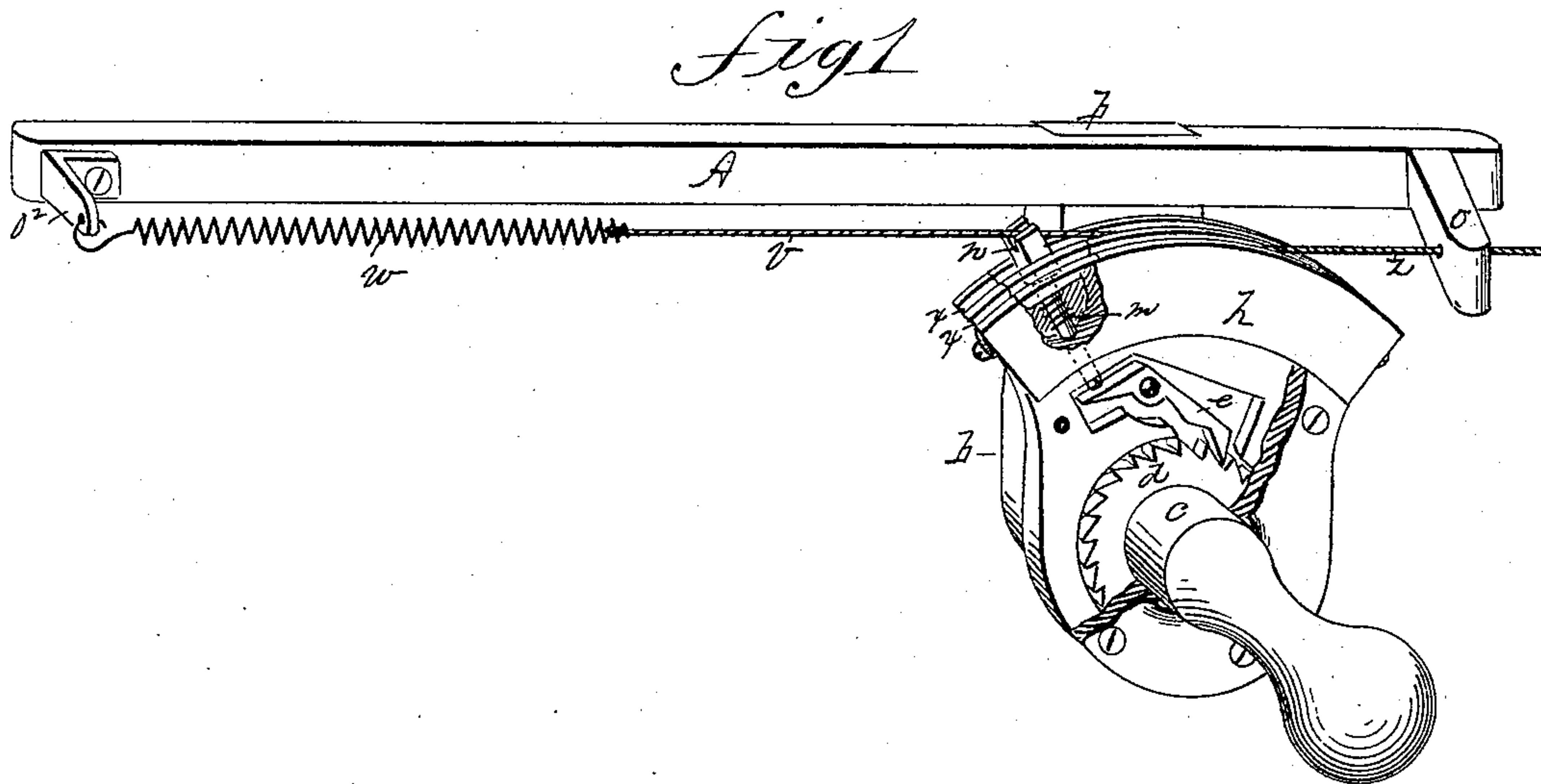


(No Model.)

A. L. SKINNER.
MECHANICAL MOVEMENT.

No. 300,808.

Patented June 24, 1884.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALLEN L. SKINNER, OF SPRINGFIELD, MASSACHUSETTS.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 300,808, dated June 24, 1884.

Application filed February 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALLEN L. SKINNER, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Mechanical Movements, of which the following is a specification.

This invention relates to an improved mechanical movement, the object being to provide improved and simple means for producing intermittent rotary motion in shafts, and for other purposes to which the devices hereinafter described may be applicable.

In the drawings forming a part of this specification, Figure 1 illustrates a mechanical structure embodying my invention, in which the shaft-turning devices are in engagement with the shaft. Fig. 2 is a side elevation showing the position of the shaft-turning parts after having turned the shaft, and disengaged from the latter.

In the drawings, A and b represent two parts framed together at right angles to each other to constitute a frame for supporting the below-described devices, and in which they operate. A shaft, c, is supported in the part b of the frame, and is adapted to be rotated therein. A ratchet-wheel, d, is secured on the shaft c, and a pawl-case, h, is hung on said shaft, and is adapted to have an oscillating movement thereon. The case h incloses the ratchet-wheel d, and within the case, opposite the periphery of the ratchet-wheel, is hung a pawl, e, which engages with the latter. The border of case h is partly of segmental form, in which are two grooves, x x. A pawl-tripping pin, n, having a spring, m, thereon, is placed in the border of case h in the track of one of grooves x, whose lower end is adapted to strike the rear end of the pawl e. A cord or chain, v, is attached by one end to the segmental border of case h at one end of the latter, and, passing in one of grooves x and through a groove or notch in the outer end of pin n, has its other end attached to a spring, w, which is in turn attached to an arm, o², on the frame part A. A second cord or chain, z, is attached to the end of the segmental border of case h opposite to that to which cord v is attached, and is carried over said border in one of the grooves therein, and passes through an arm, o, or any suitable guide to keep it in line when being operated.

The operation of my improvements is as follows: The parts being in the positions shown in Fig. 1, when cord z is drawn upon, the case h is made to swing over to the right, and pawl e being in engagement with the ratchet-wheel d on shaft c, the latter is thereby turned. The case h is drawn over, as above described, against the tension-resistance of the spring w, whereby the cord v is drawn with more or less force against the border of the case. Any suitable stop is provided to arrest the movement of case h in the direction of the spring w, so that it will come to a rest about at the position shown in Fig. 1. After the case h has been drawn over by the cord z to or about to the position shown in Fig. 2, the cord v is made to draw forcibly upon the end of the pin n, whereby the latter is driven into the case and against one end of the pawl e, causing the latter to be disengaged from the ratchet-wheel, thereby stopping the rotation of shaft c at that point. As soon as cord z is released, spring w returns case h to the position shown in Fig. 1, letting pin n move outward by the action of spring m, and the pawl again engage with the ratchet-wheel. Thus, by drawing cord z out and letting it return, an intermittent rotary motion is imparted to the shaft c.

The degree of rotary motion given to shaft c may be varied more or less by causing the cord v to act on the pin n at any desired time while the case is being moved by the cord z.

It is obvious that it is not essential to the operation of the case h, the pawl e, and pin n that the border of the case be of segmental form; but the latter is desirable when the oscillating movement of the case is considerable.

What I claim as my invention is—

The shaft having a ratchet-wheel fixed thereon, the pawl-case having an oscillating movement on the shaft, the pawl hung in the case adjacent to the ratchet-wheel, the tripping-pin located in the case over the rear end of the pawl, having one end projecting beyond the border of the case, and means, substantially as described, for giving an oscillating movement to the case, and for forcing the tripping-pin into the latter, combined and operating substantially as set forth.

ALLEN L. SKINNER.

Witnesses:

H. A. CHAPIN,
J. D. GARFIELD.