

(No Model.)

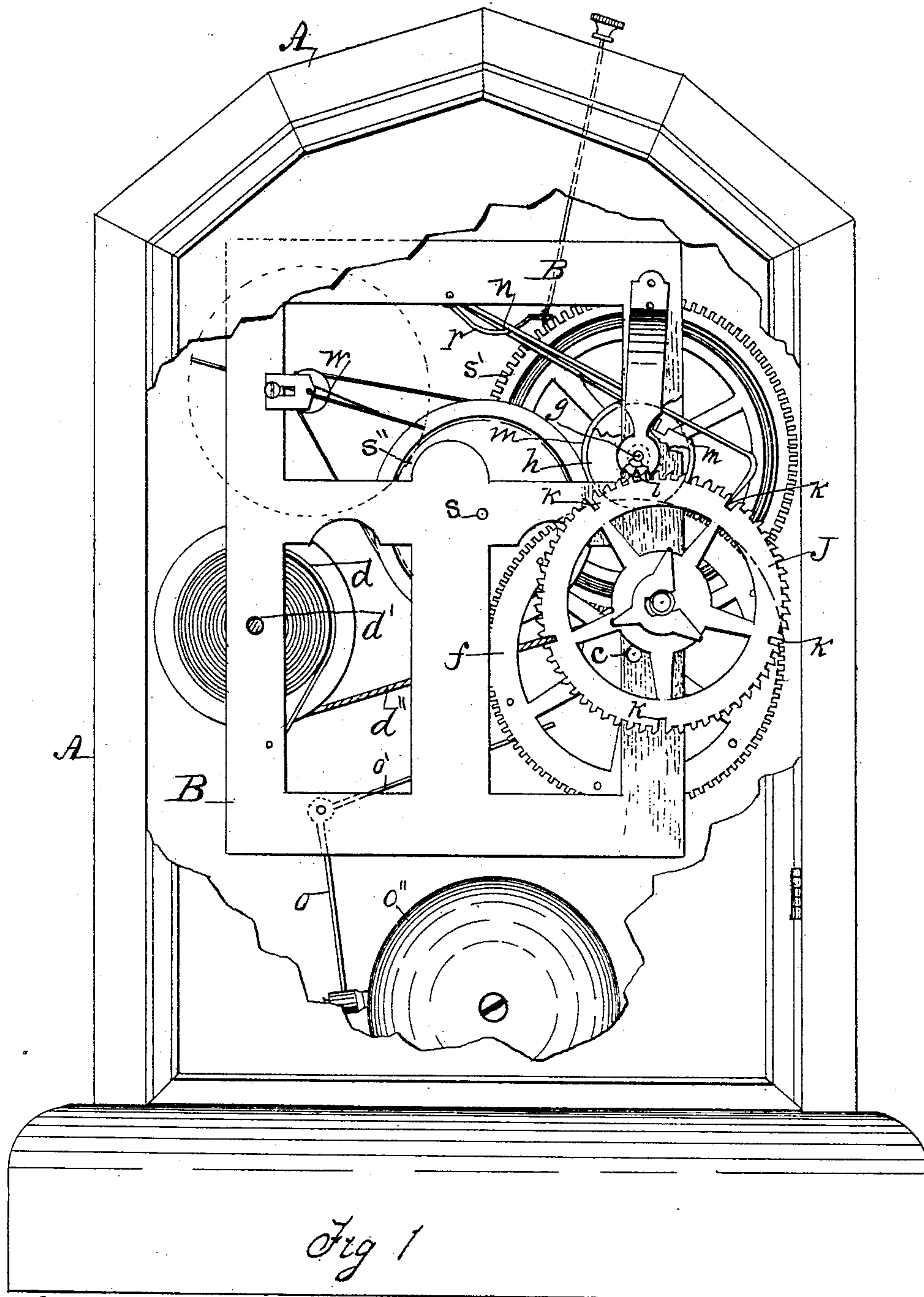
2 Sheets—Sheet 1.

W. H. POOLE.

CLOCK STRIKING MECHANISM.

No. 396,598.

Patented Jan. 22, 1889.



Witnesses
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R. H. Orwig. }
Inventor:
William H. Poole,
By Thomas G. Orwig, Atty.

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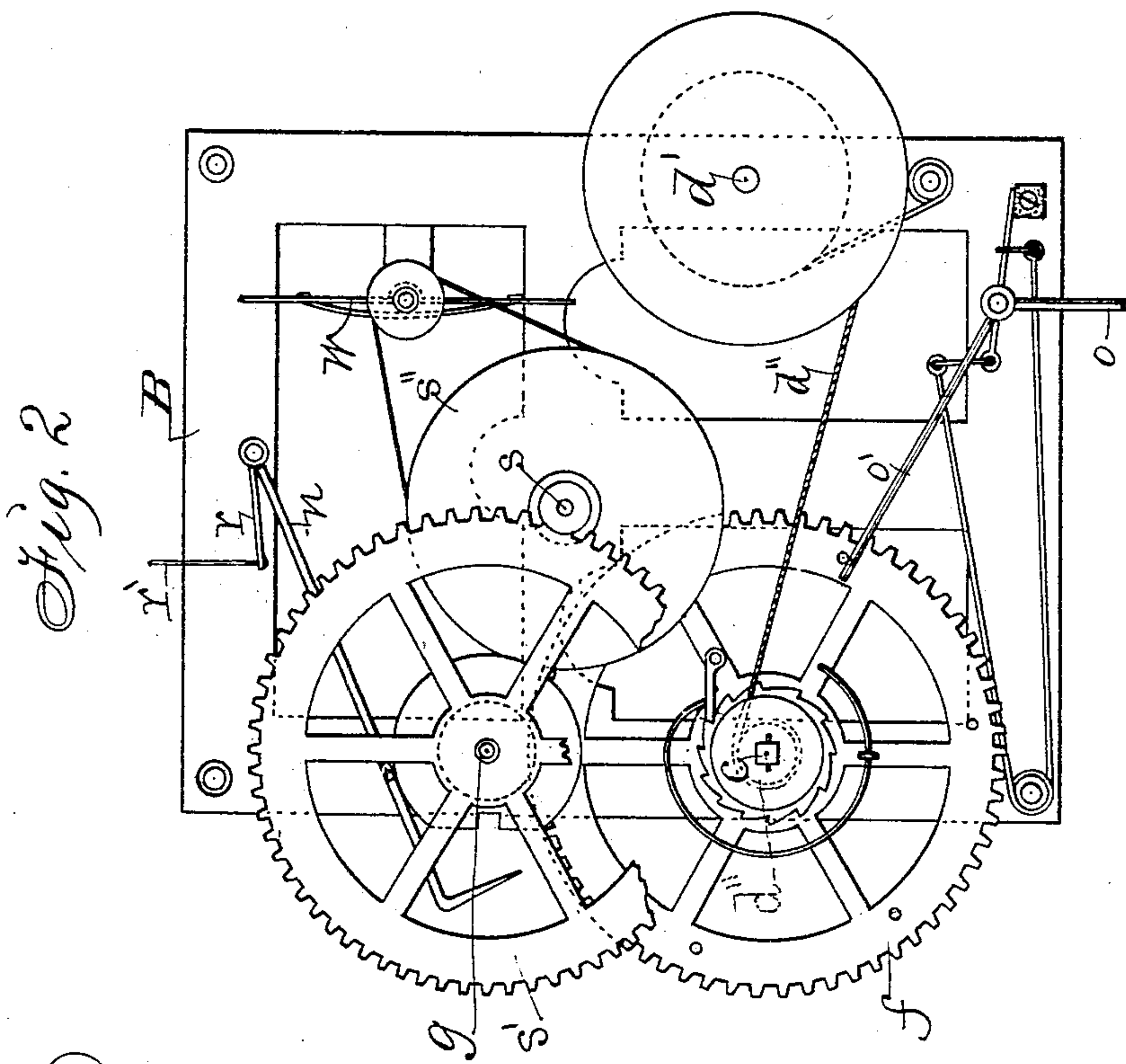
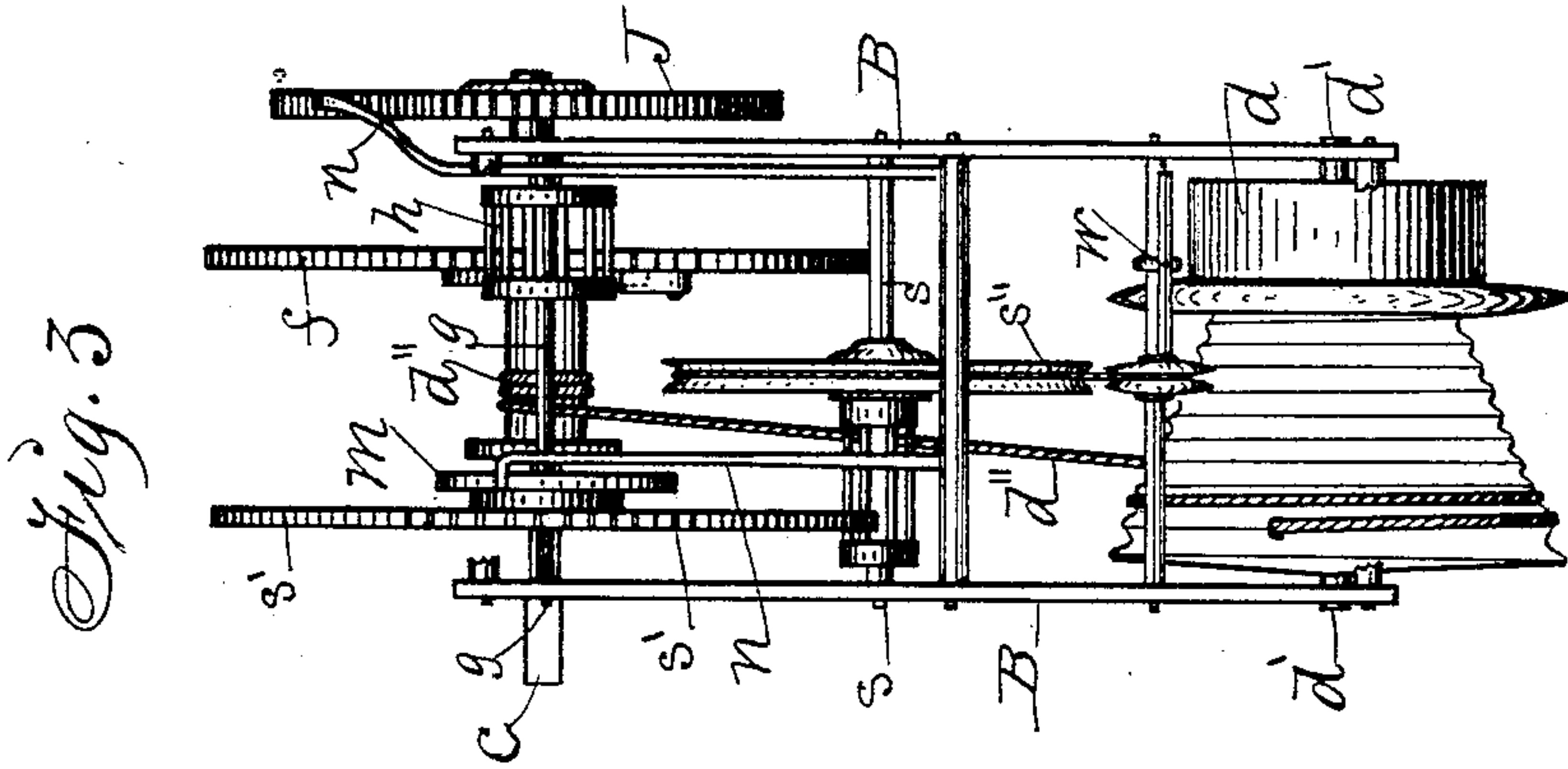
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W. H. POOLE.

CLOCK STRIKING MECHANISM.

No. 396,598.

Patented Jan. 22, 1889.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. POOLE, OF OXFORD, IOWA.

CLOCK STRIKING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 396,593, dated January 22, 1889.

Application filed June 24, 1887. Serial No. 242,348. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. POOLE, a citizen of the United States of America, and a resident of Oxford, in the county of Johnson and State of Iowa, have invented an Improved Automatic Counting-Bell, of which the following is a specification.

My object is to provide Masonic and other lodges with a device for signaling "high twelve" and "low twelve" accurately and in a pleasing manner at the touch of the operator by means of noiseless mechanism whenever desired; and I accomplish the results contemplated as hereinafter set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a face view of the case, from which parts are broken away to disclose the mechanism in the case. Fig. 2 shows part of the frame which supports the operative mechanism. The rear side of the frame is removed to give a rear view of the mechanism. Fig. 3 is a view looking down upon the frame and mechanism attached to the frame.

A represents a portable case, that may vary in size and artistic design and finish as desired.

B is a skeleton frame detachably fixed within the case by means of screw-bolts, or in any suitable way to support the operative mechanism.

c is a driving-shaft, adapted to be rotated by means of a key in a common way to wind up a spring.

d is a spring fixed to the shaft d' of a fusee, and connected with a drum on the shaft c by means of a cord, d'', in such a manner that power will be stored in the spring by rotating the shaft c.

f is a toothed wheel placed loosely on the shaft c, and provided with a ratchet device that locks it to the shaft, as required, to rotate with the shaft to transmit motion from the shaft to the count-wheel and the bell-striker.

g is a rotating shaft in parallel position with the shaft c, and connected with the wheel f by means of a lantern-wheel, h, fixed to the shaft.

J is a count-wheel, that has series of twelve uniform teeth and a notch, k, at the end of each series, and is mounted on a bearing fixed

to the frame B at a point between the bearings of the parallel shafts c and g in such a manner that a one-toothed pinion, l, on the end of the shaft g will engage one of the teeth at each revolution of the shaft g to produce twelve successive intermittent motions of the count-wheel, as required, to operate the bell-striker twelve times in succession.

m is a cam-wheel fixed to the shaft g.

n is a duplex detent in the form of a rock-shaft, that has an arm or pawl that engages the cam-wheel m in such a manner that the cam-wheel will lift the pawls simultaneously at each revolution, as required, to allow the count-wheel J to make twelve successive motions, when the pawls will simultaneously drop into notches in the count-wheel and the cam-wheel, as required to arrest motion.

o is a bell-striker, pivoted to the frame B in such a manner that an arm, o', will project inside of the toothed wheel f to engage pins projecting horizontally at regular intervals of space from the inside face of the wheel in such a manner that the arm o' will be depressed and the striker operated, as required, to strike the bell o'', located within reach of the hammer of the striker.

r is an arm projecting from the shaft of the duplex detent.

r' is a wire fastened to the end of the arm r and extended up through the case A in such a manner that the duplex detent can be lifted thereby to simultaneously disengage the pawls from the wheels J and m, as required, to allow power stored in the spring d to actuate the striking mechanism twelve times in succession.

s is a shaft that has a fixed lantern-wheel so located that it will be engaged by a toothed wheel, s', on the shaft g.

s'' is a driver-pulley on the shaft s, connected with a rotating fan, u, by means of an endless cord in such a manner that the fan will perform the function of a governor in regulating the motions of the striker mechanisms.

In the practical use of my invention, when it is wound up and the time has arrived for sounding "low twelve" or "high twelve," I simply lift the duplex detent by means of the rod that projects through a perforation in the top of the case, for the purpose of releasing the

power stored in the spring, so it will actuate the operative parts, as described.

To guard against any failure in getting the required number of strokes, it is necessary to
5 wind up the spring before the detent is lifted.

I am aware that a twelve-bell striker for clocks has been made in which a lever having a hook on its end has dropped by force of gravity into notches formed in the annular
10 shoulder of a gear-wheel that had twelve intervening teeth between said notches; but my manner of constructing a duplex lever or detent with a gear-wheel and a count-wheel to engage them simultaneously to regulate the
15 action of the train and the striker and my manner of combining a fan-governor with the train and operative striking mechanism are novel and greatly advantageous, in that high and low twelve can be thereby sounded at
20 pleasure without any accompanying rattle or noise, such as is incident to clock striking mechanism heretofore used and condemned in lodges.

I claim as my invention—

An automatic counting-bell for lodge purposes, comprising the following elements, to wit: a driving-shaft having a fixed drum and a fixed wheel, *f*, a shaft, *g*, having a fixed lantern-wheel, *h*, and a one-toothed pinion, *l*, and a toothed wheel, *s'*, a count-wheel, *J*, a cam-wheel, *m*, and a duplex detent, *n*, a rotating fan connected with the driving mechanism by means of a band and pulley, a shaft, *s*, having a fixed lantern-wheel and a fixed driver-pulley, *s''*, a shaft, *d'*, having a spring and fusee fixed thereto, and a bell and a striker arranged and combined with a frame in a case, substantially as shown and described, to operate silently, in the manner set forth, for the purposes stated.

WILLIAM H. POOLE.

Witnesses:

GEO. W. BALL,
CHAS. BAKER.