

(No Model.)

4 Sheets—Sheet 1.

J. G. DIXON.
CHECK ON BILLIARD MARKERS.

No. 592,240.

Patented Oct. 26, 1897.

Fig. 1.

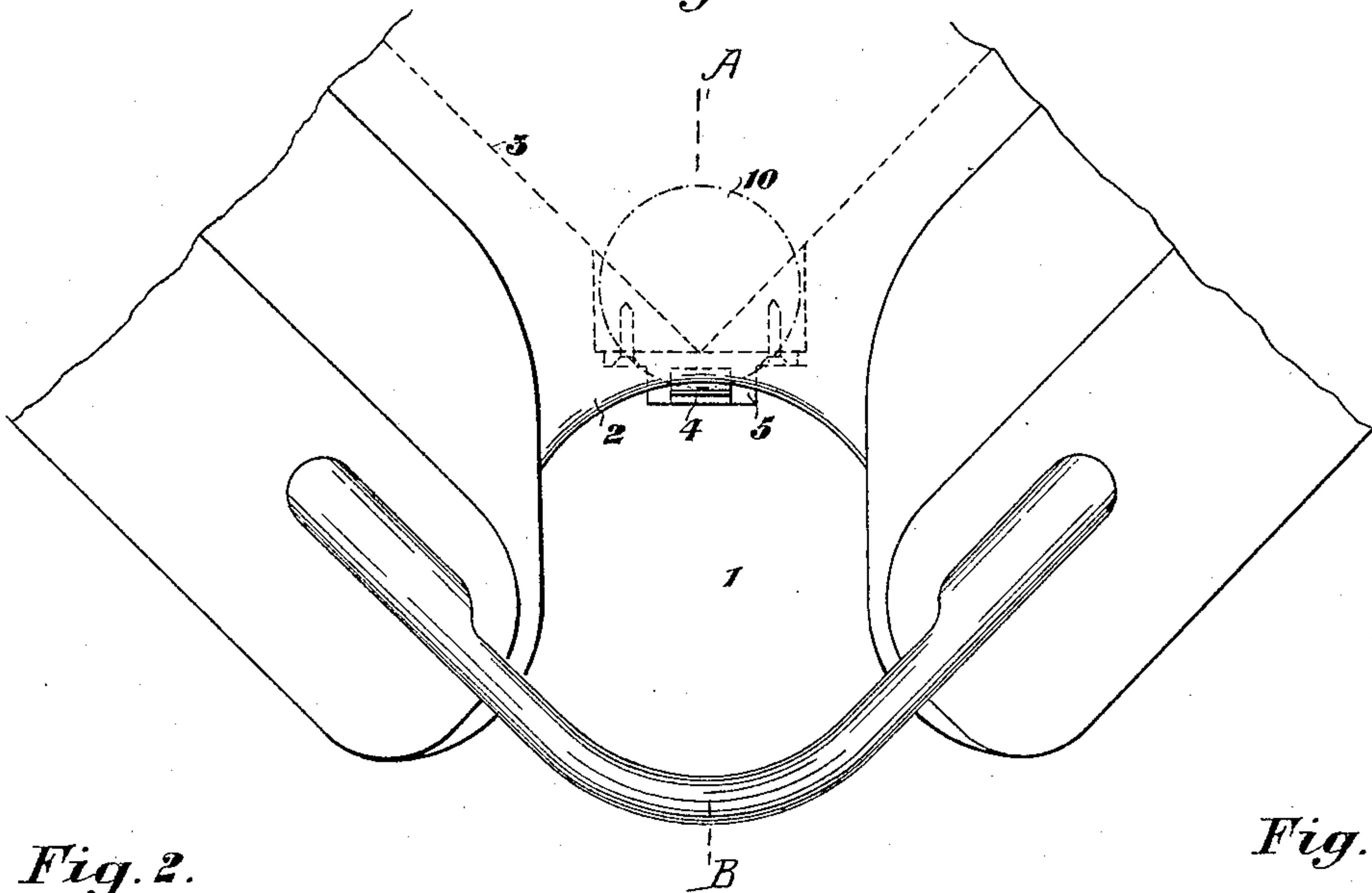


Fig. 2.

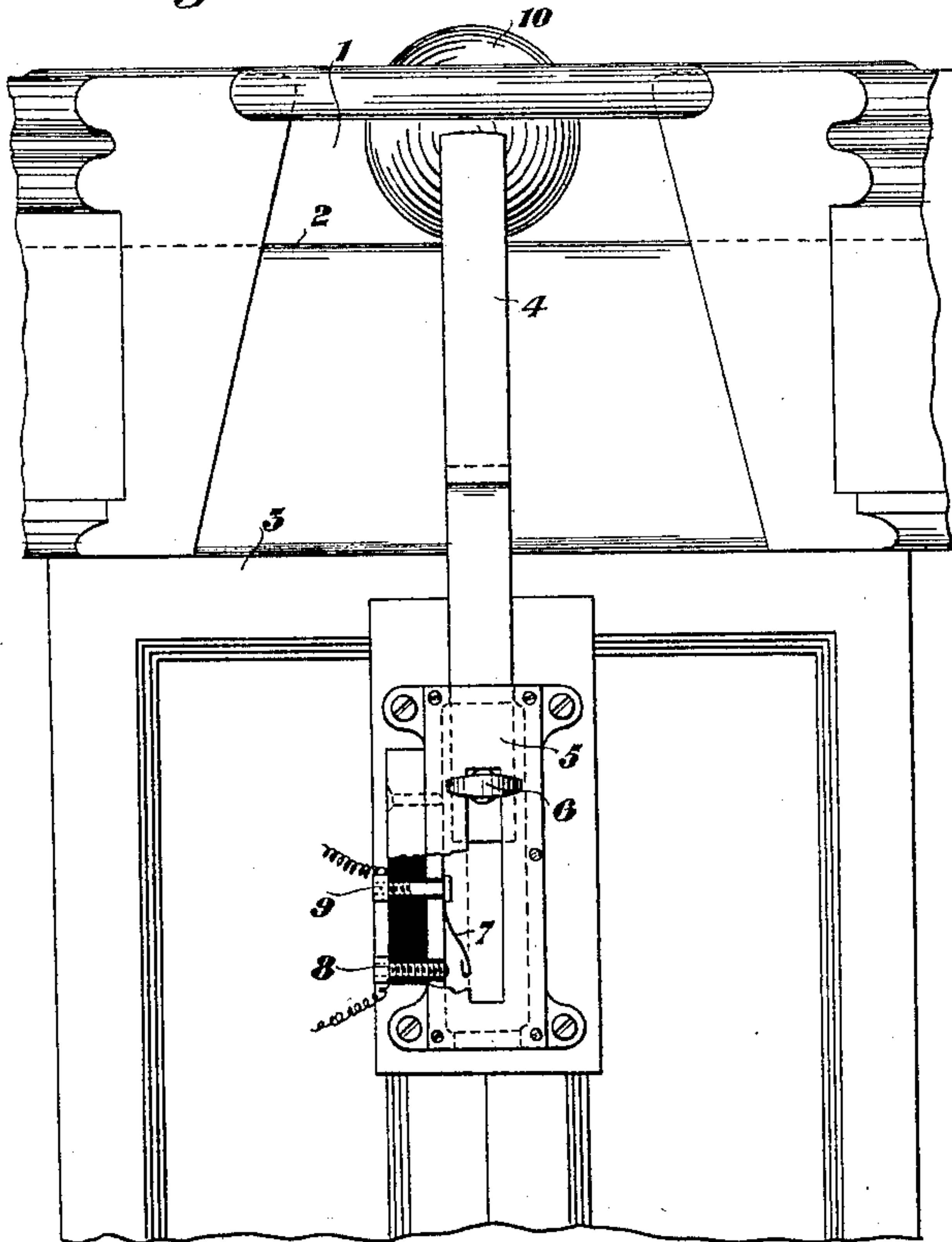
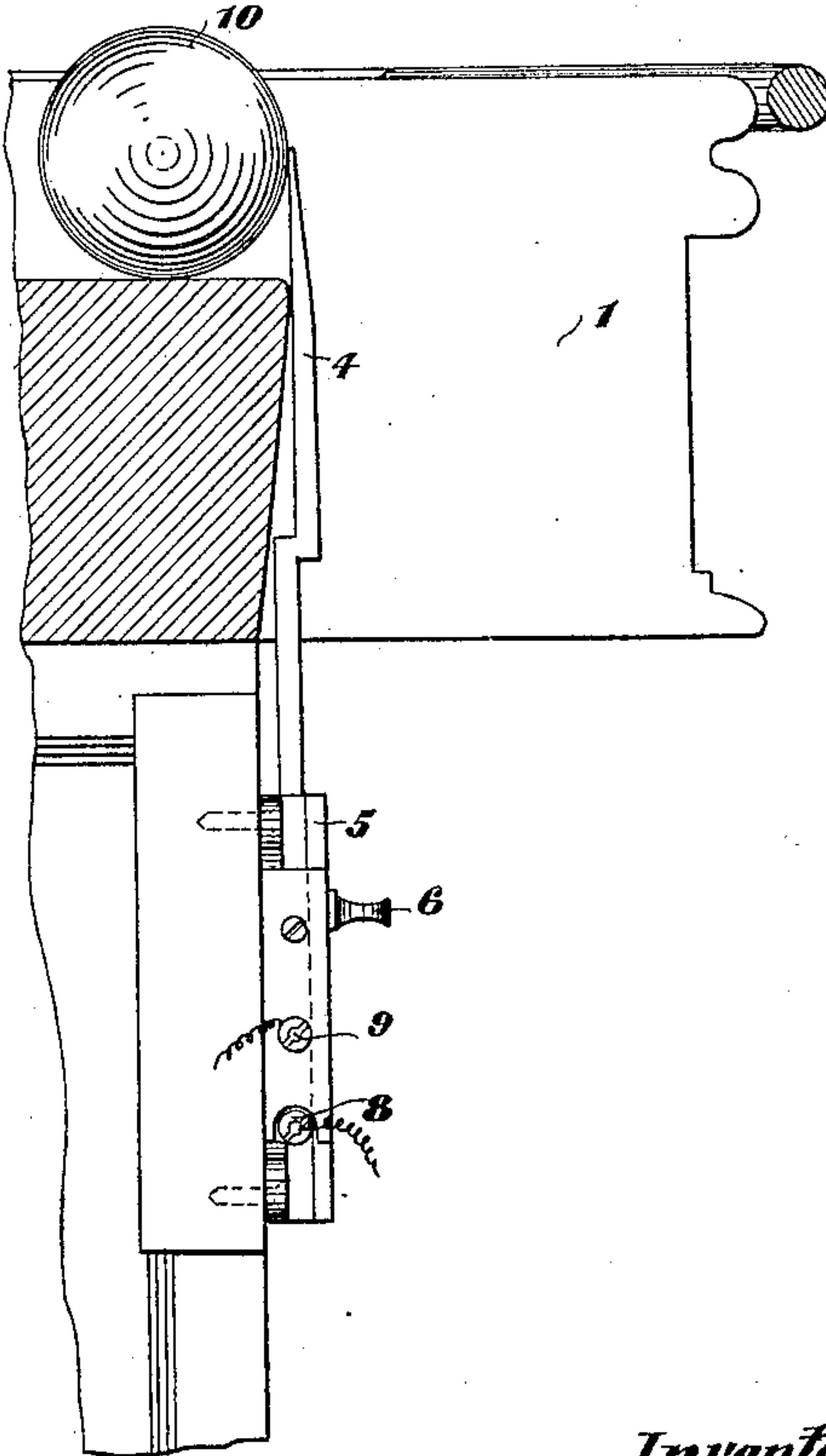


Fig. 3.



Witnesses:-

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Inventor
John George Dixon.
per John D. O'Donnell
Attorney.

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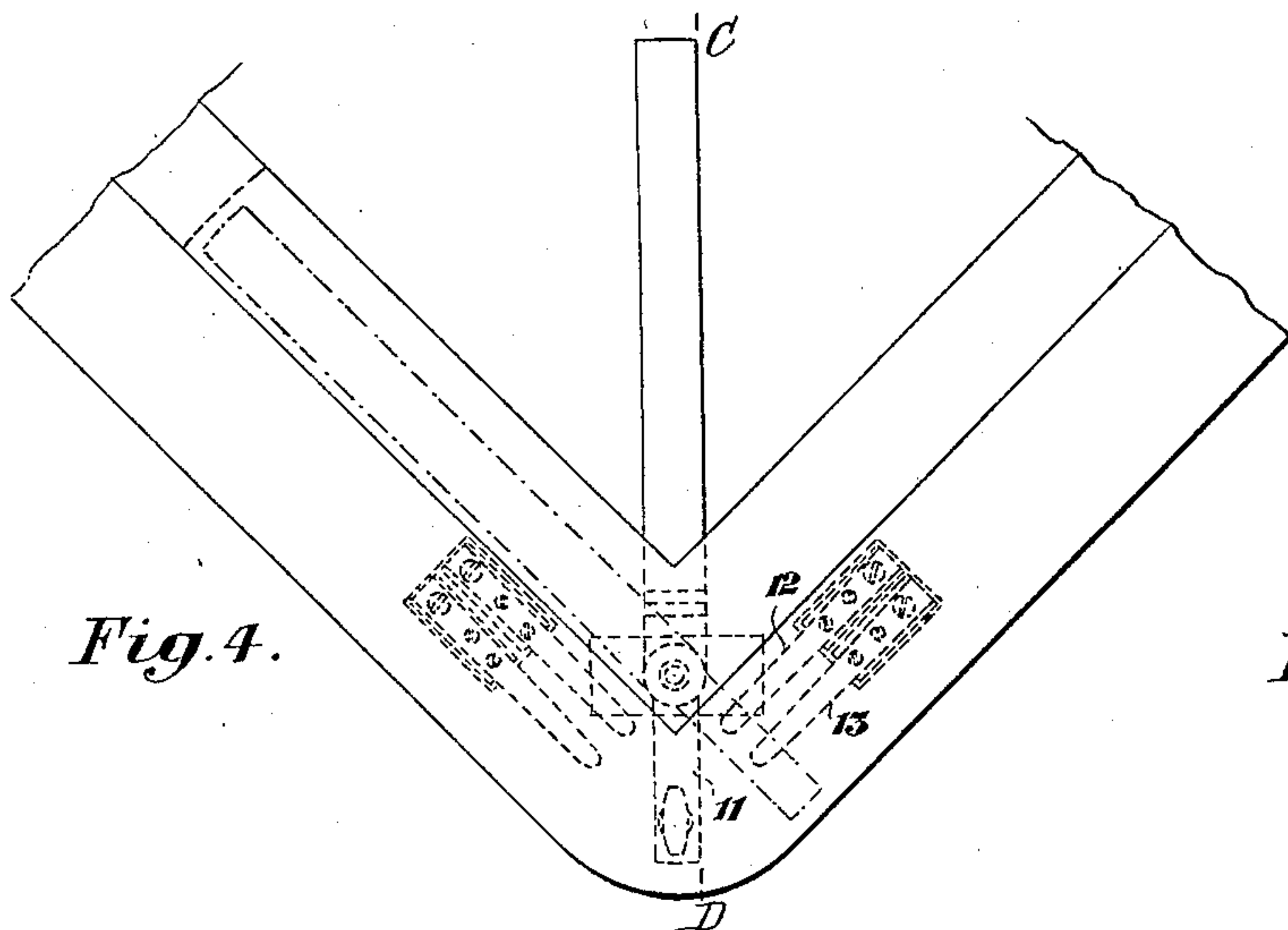


Fig. 4.

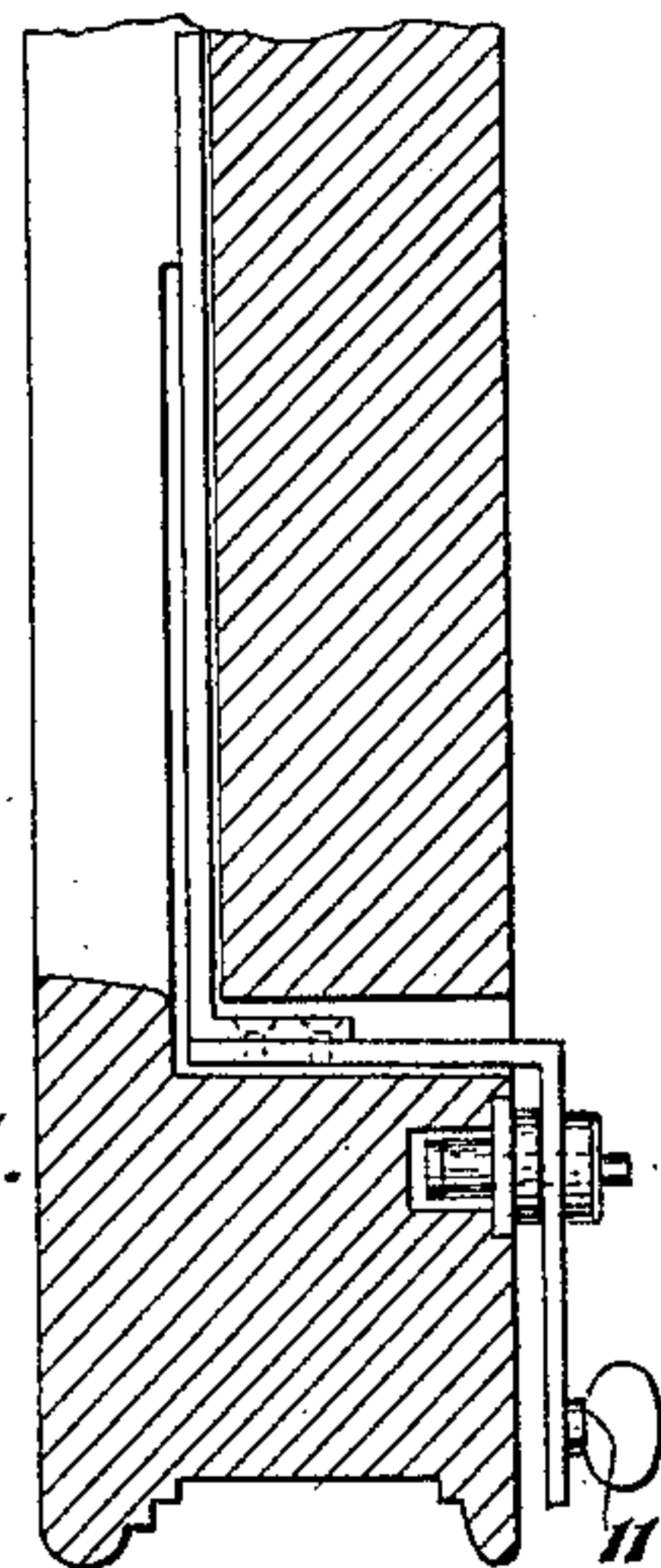


Fig. 5.

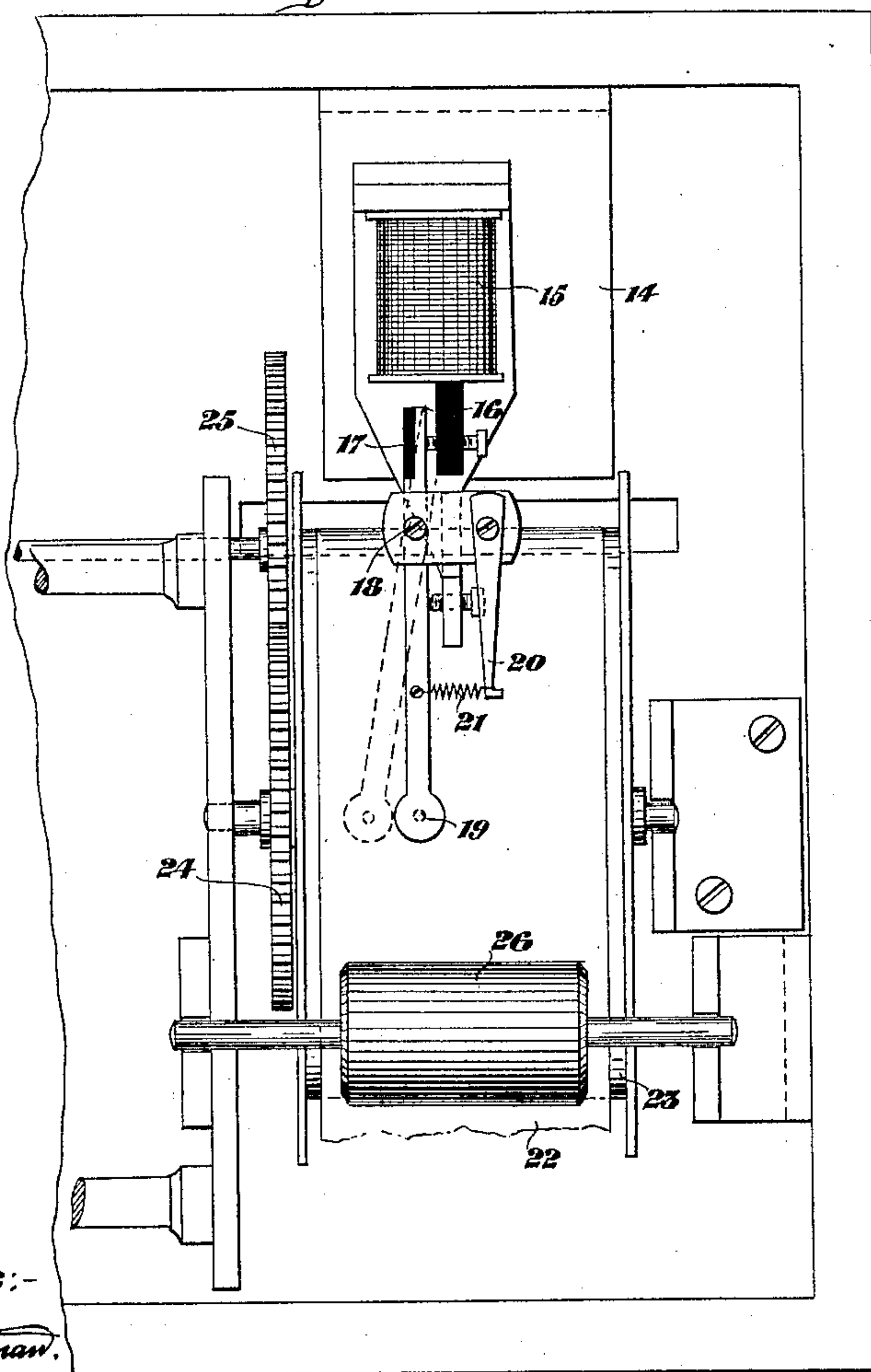


Fig. 6.

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(No Model.)

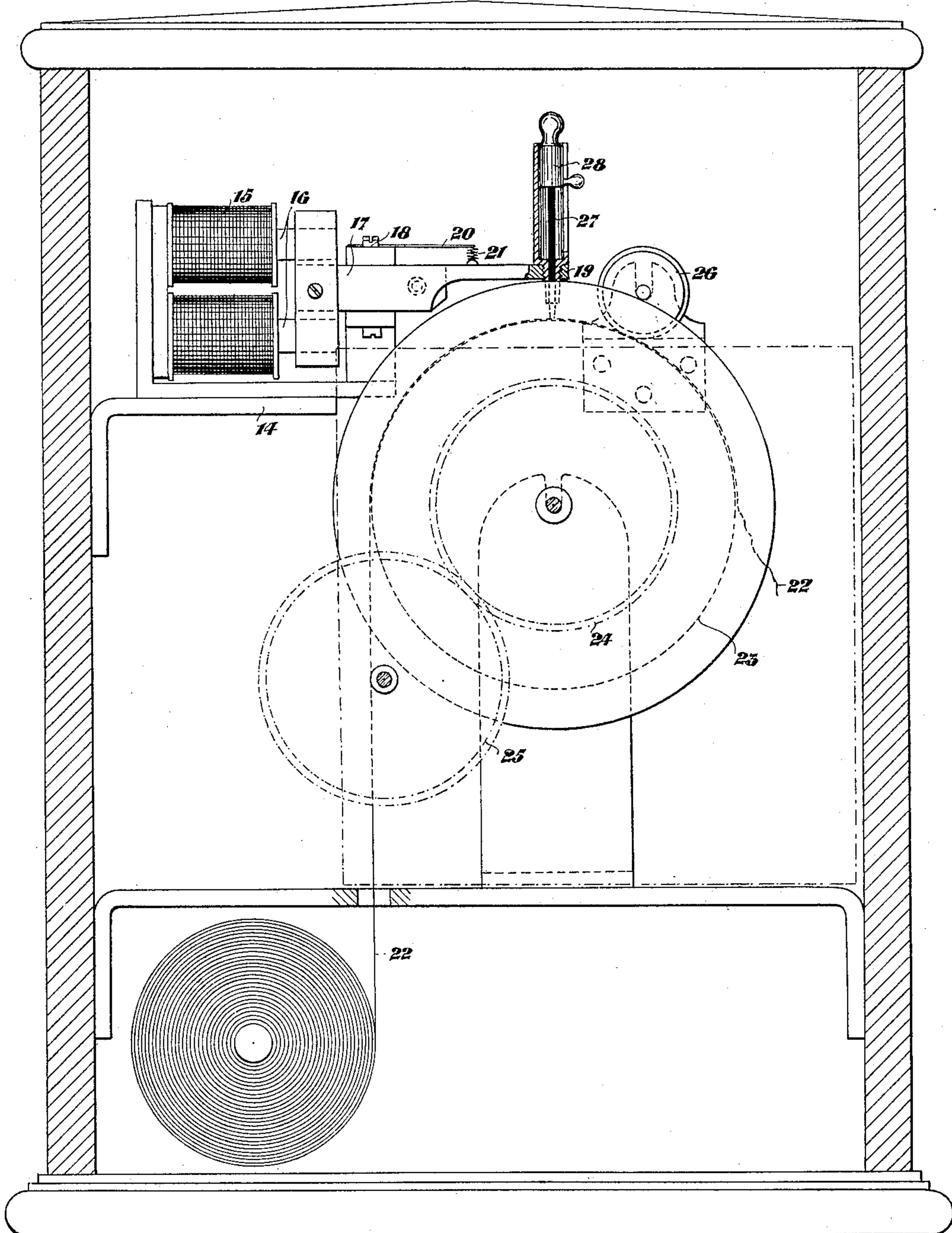
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Fig. 7.



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Fig. 8.

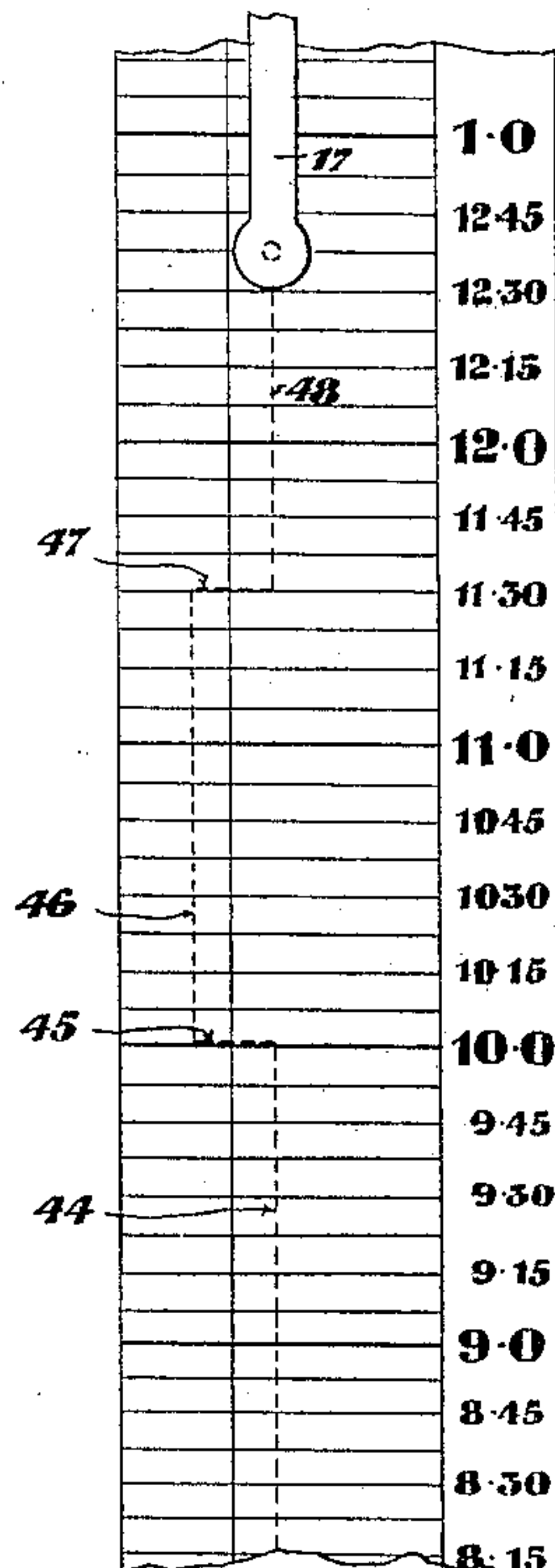
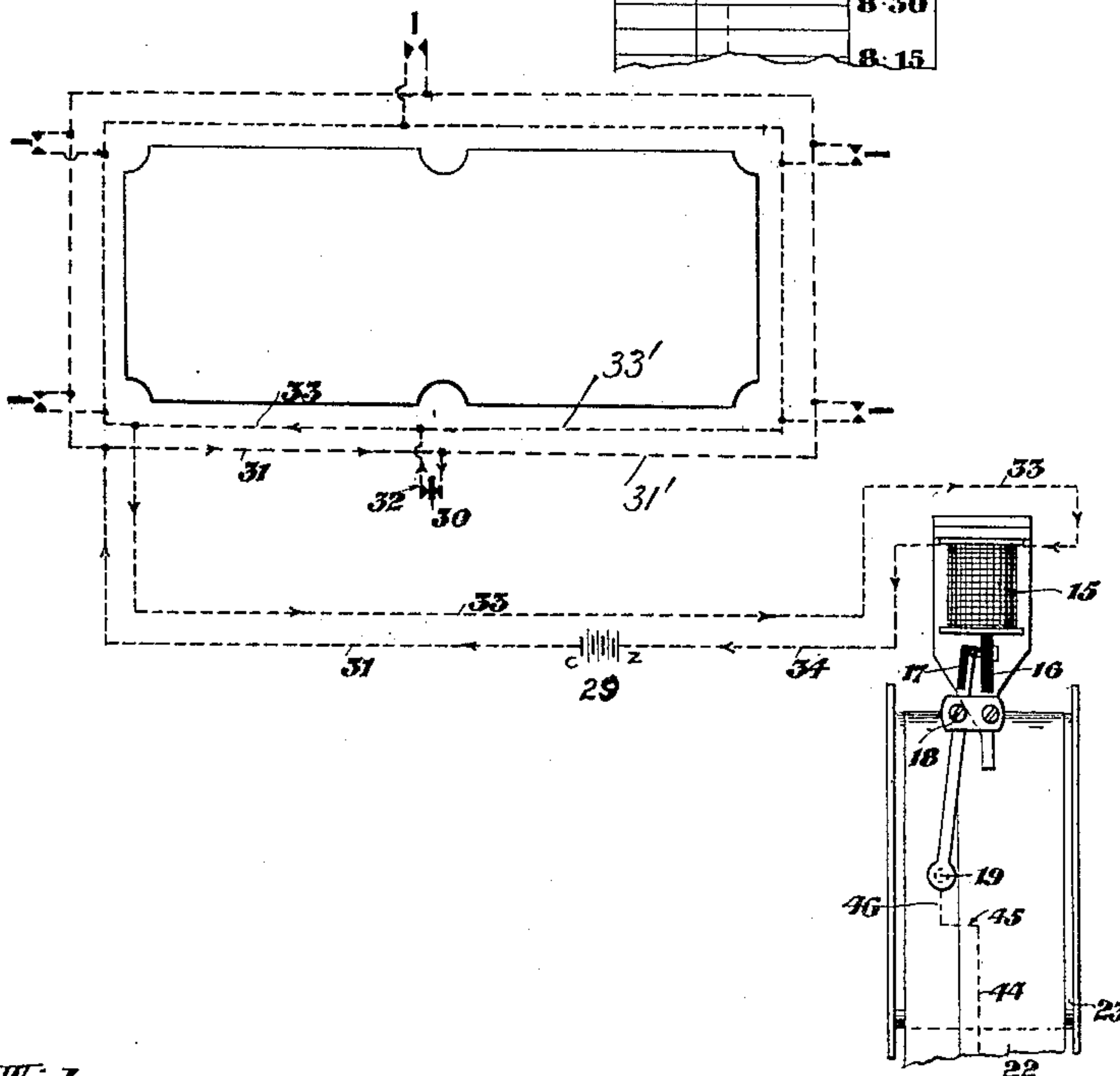


Fig. 9.



Witnesses:-

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Attorney.

UNITED STATES PATENT OFFICE.

JOHN GEORGE DIXON, OF PENISTONE, ENGLAND.

CHECK ON BILLIARD-MARKERS.

SPECIFICATION forming part of Letters Patent No. 592,240, dated October 26, 1897.

Application filed September 14, 1896. Serial No. 605,808. (No model.)

To all whom it may concern:

Be it known that I, JOHN GEORGE DIXON, a subject of the Queen of Great Britain and Ireland, residing at Don Villa, Penistone, in the county of York, England, have invented a new and useful Improved Check on Billiard-Markers and the Like, of which the following is a specification.

At the present time there is practically no check upon billiard-markers to insure that the number of games played or the amount of time for which a billiard-table is used is correctly accounted for to the employer.

I purpose with my invention to arrange such a check so that if the table is not in use the several pockets or corners of the table will be obstructed, and when the table is required for use the pockets have to be released, the action of such release indicating the time the release has taken place, and consequently the time at which the table was brought into use. Until the pockets are again obstructed it is to be assumed that the table is in use, and is therefore to be paid for or accounted for to the employer.

The way in which I carry out my invention is as follows: Assuming the ordinary billiard-table has six pockets, (the number of pockets is immaterial to my invention,) each pocket in the normal condition of the table—that is to say, when it is not in use—has a peg or obstruction fixed, preferably, in the center, so that a ball cannot locate in the pocket, the distance between the peg, which is in the center, and the side of the pocket being smaller than the diameter of a ball. Below the pocket is an electrical contact, and in the normal condition of the peg or obstruction no current is flowing. From the contacts wires are taken to any spot, preferably near the marker, and in connection with the electric wire there is any means of indicating by pencil, needle, or otherwise when the peg is removed from obstructing the pocket, and such indication is continued until the peg is placed normal and again obstructs the pocket. It is understood that the removal of the obstruction from any one of the pockets sets up action indicating that the table is brought into use, but the table continues to be indicated as in use until

every one of the obstructions are again placed at all of the pockets on the table—that is to say, that the table is indicated as out of use when the last pocket is obstructed.

In order that my said invention may be better understood and more readily carried into effect, I will proceed to describe the drawings hereunto annexed.

Figure 1 is a plan of a corner-pocket. Fig. 2 is a front view of Fig. 1. Fig. 3 is a section on line A B of Fig. 1. Fig. 4 is a plan of the equivalent contact device for such tables as have no pockets. The obstruction is placed in the corner and must be removed to play the game. Fig. 5 is a section on line C D of Fig. 4. Fig. 6 is a plan of the box, showing the magnet and clockwork mechanism. Fig. 7 is a side elevation, partly in section, of the instrument shown in Fig. 6, with the lower part added, showing the roll of indicating-paper in position. Fig. 8 shows a design of paper for indicating the time during which the table is in use. On this paper the hours, half-hours, and quarters are shown, so that the time may be gaged with accuracy. Fig. 9 is a plan of the table, showing the electrical connections from the several pockets to the electromagnet and indicating-pencil.

The same numbers refer to the same parts in the several figures of the drawings.

1 is the corner-pocket of the table.

2 is the cloth, and 3 the table-leg.

4 is the obstructing-slide, and 5 the case in which the said slide moves up and down.

6 is the thumb-screw or handle by which 4 is operated.

7 is a spring normally out of contact with the terminal 8 and normally in contact with the terminal 9. The terminals 8 and 9 are insulated from each other.

The obstructing-slide carrier 5 is screwed to the leg of the table, as shown in Fig. 2.

10 is a billiard-ball. When the slide is pushed down, the terminals 8 and 9 are placed in circuit.

In the modification shown in Figs. 4 and 5, 11 is the handle of the obstructing-arm (shown on plan, Fig. 4) for tables not provided with pockets.

12 and 13 are contact-springs for setting up

the electric current to indicate the time the table is in use, the action being similar to that with reference to Figs. 1, 2, 3, and 9.

14 is the plate to which the magnet is attached.

15 is the electromagnet for indicating when the table is brought into use, while it is in use, and again indicating when it is put out of use.

16 is the projecting core of the electromagnet 15.

17 is the armature, fulcrumed at 18, the end 19 forming the pencil-carrier for indicating on the paper when the table is brought into use, while it is in use, and when it is put out of use.

20 is a projecting arm from which a spring 21 is connected to the armature 17.

22 is the special paper for recording the time during which the table is in use.

23 is a roll or barrel over which the paper passes.

24 is a cog-wheel operating the barrel 23, the said cog-wheel being geared to another cog-wheel 25, connected to and operated by the clockwork mechanism.

26 is a roller for keeping the paper flat on the barrel, rendering the marking by the pencil easier.

27 is the pencil for marking on the paper.

28 is a weight for insuring that the pencil is kept in contact with the paper.

29, Fig. 9, is the battery.

The electric circuit is provided with two loops 31' and 33', each completely encircling the table. The loop 31' is formed in the wire 31, and the loop 33' is formed in the wire 33. The loops carry a series of pairs of insulated contact-pieces, and the circuit is completed whenever a contact-piece on one loop is connected with its adjacent contact-piece on the other loop.

The action of my invention is as follows: In the drawings, Fig. 9, for the purpose of illustration, one stop or obstruction 30 is assumed to be thrust down or removed clear of the pocket and making contact. It will be seen on following this that the current flows from the copper end of the battery along wire 31, through contact 32, wire 33, through the electromagnet 15, along wire 34 to the zinc end of the battery 29. The result of this is that the armature 17 is attracted to the magnet 15 in the position shown in this diagram. The line 44 in this diagram, when the armature is normal, is the line which is made by the pencil when the table is out of use—that is, when the pockets or corners are obstructed—the paper being revolved by the clockwork mechanism, so that there is always a line being made on the paper. When the table is brought into use, as hereinbefore described, the attraction of the armature moves the pencil

from the line 44, makes the cross-line 45, and then while the table is in use (or as long as the pockets are freed) continues to make the parallel line 46. When the table is put out of use again, (pockets again obstructed,) the armature ceases to be attracted and assumes its normal straight position through spring 21, making another cross-line 47, Fig. 8. The pencil then continues to mark on the right-hand vertical line 48, the table not being in use. On reference to Fig. 8 it will be seen that assuming the table is brought into use at ten o'clock and continues to be used till half-past eleven, when it is put out of use, the line 47 indicated when it was put out of use, and the line 45 indicated when it was brought into use.

It is obvious that the particular shape of the obstruction to the pocket or its position and method of working, whether vertical or horizontal, might be varied. The form of contact by which electricity is set up through the release of the pocket taking place might also be varied, or the particular method of indicating when the table is brought into use and put out of use might be varied.

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

1. The combination, with a billiard-table, of an electric circuit comprising a battery and wires 31 and 33, said wires being provided with loops 31' and 33' respectively and the said loops being arranged to encircle the said table and provided with pairs of contact-pieces; a series of movable obstructions normally projecting at intervals above the surface of the table and provided with contact-pieces any one of which will complete the circuit through the wires 31 and 33 when the obstruction to which it pertains is depressed; an electromagnet energized when the circuit is completed, a pivoted and spring-controlled armature provided with an indicating-pencil, and clockwork-driving mechanism operating to move a band of paper under the pencil, substantially as set forth.

2. The combination, with a billiard-table, of a case secured to the table, an obstruction slidable in the said case and normally projecting above the surface of the table, means for supporting the obstruction in its raised position, an electric circuit provided with terminals insulated from each other and carried by the said case, and a spring secured to one terminal and arranged below the said obstruction so that it is moved into contact with the other terminal when the said obstruction is depressed below the surface of the table, substantially as set forth.

JOHN GEORGE DIXON.

Witnesses:

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WILLIAM J. THORN.