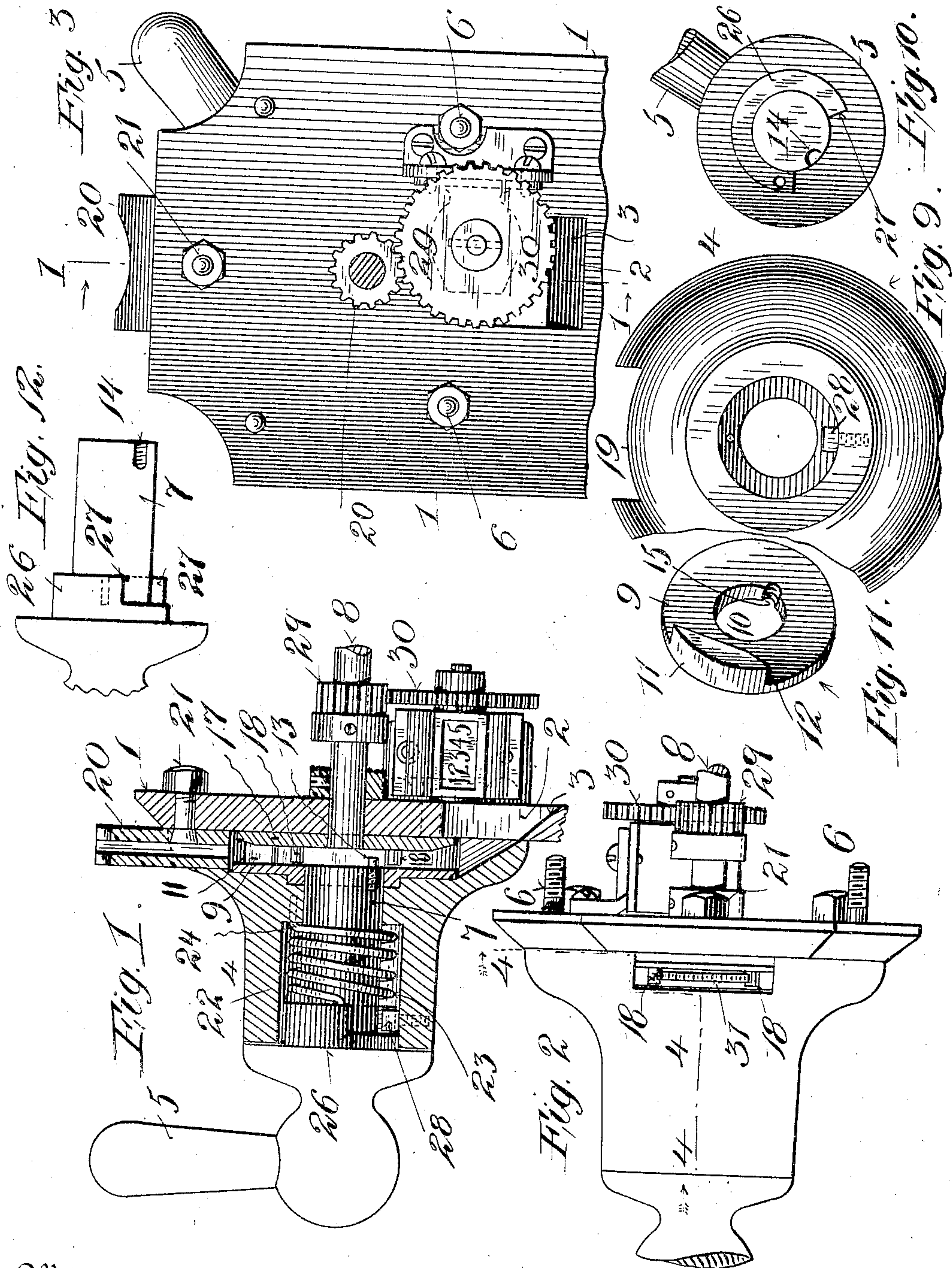


924,928.

Patented June 15, 1909.

2 SHEETS—SHEET 1.



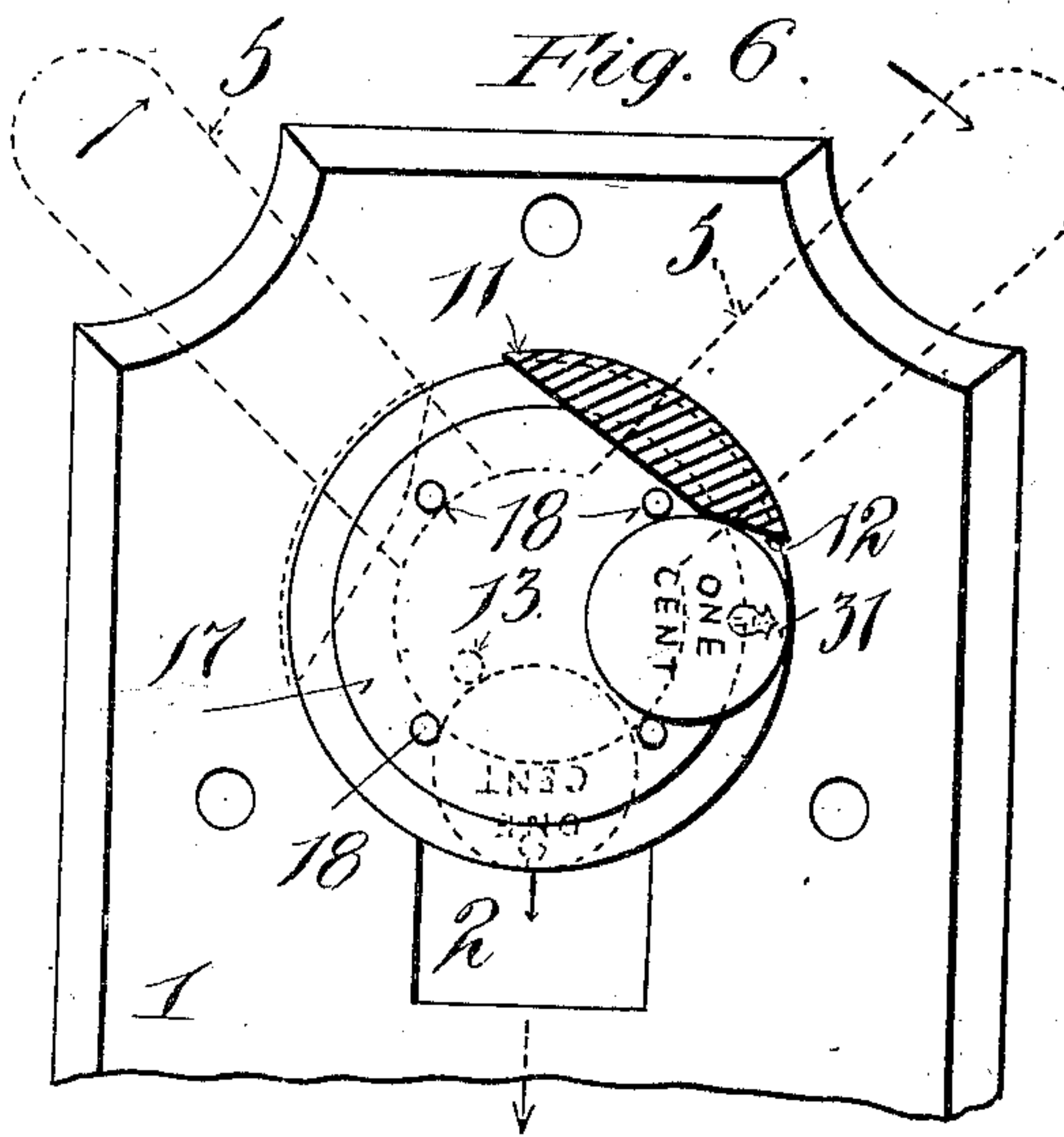
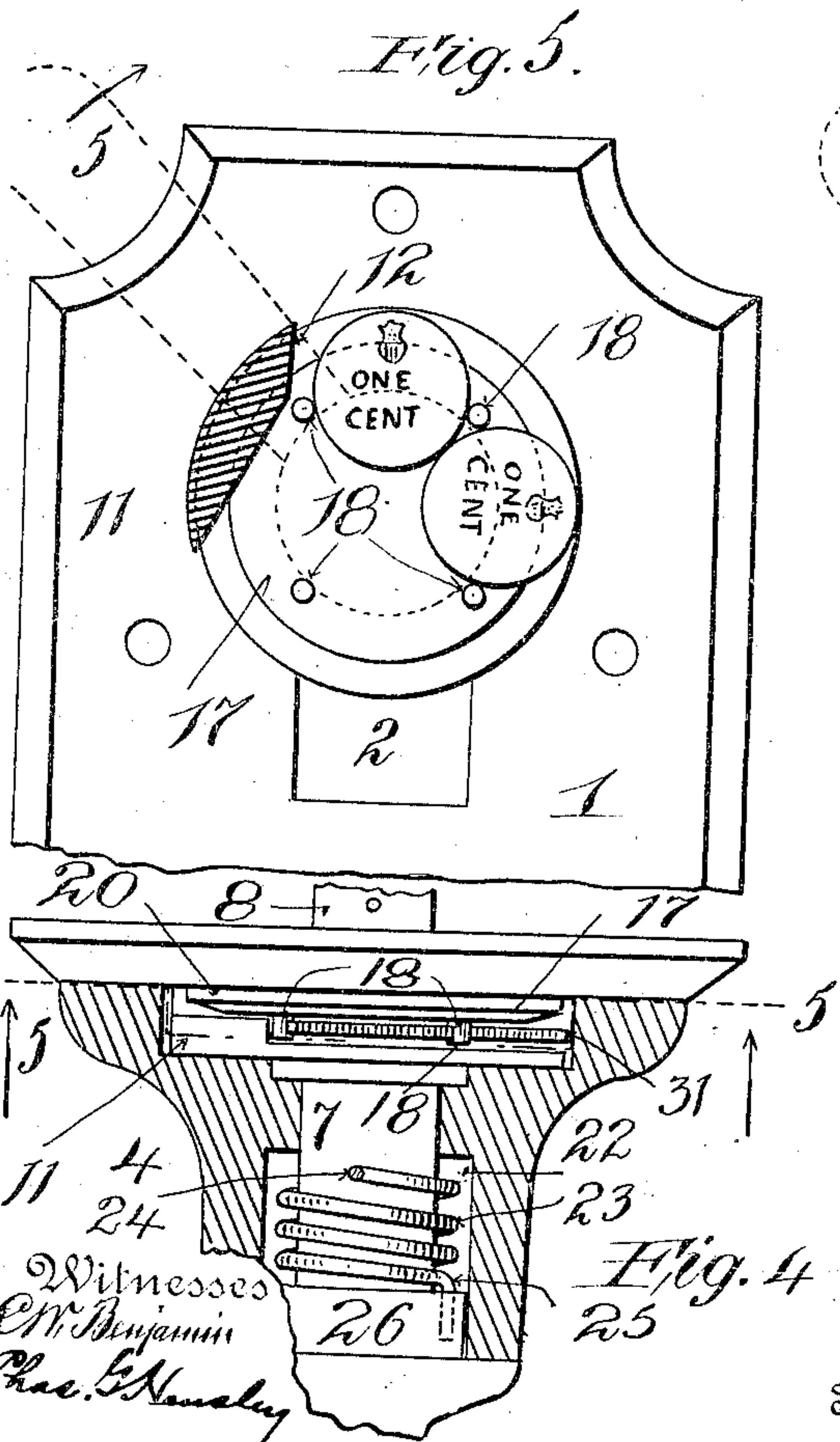
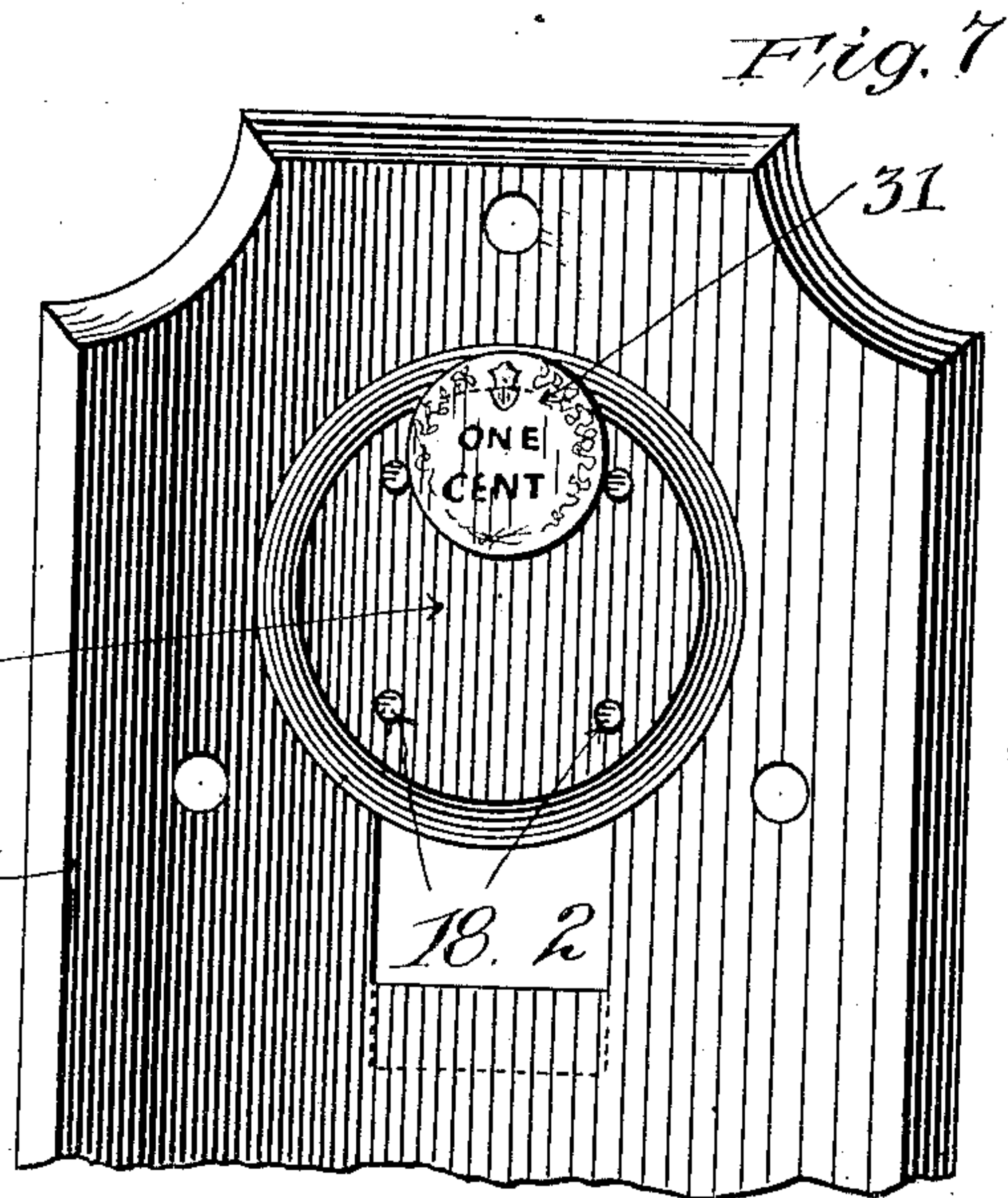
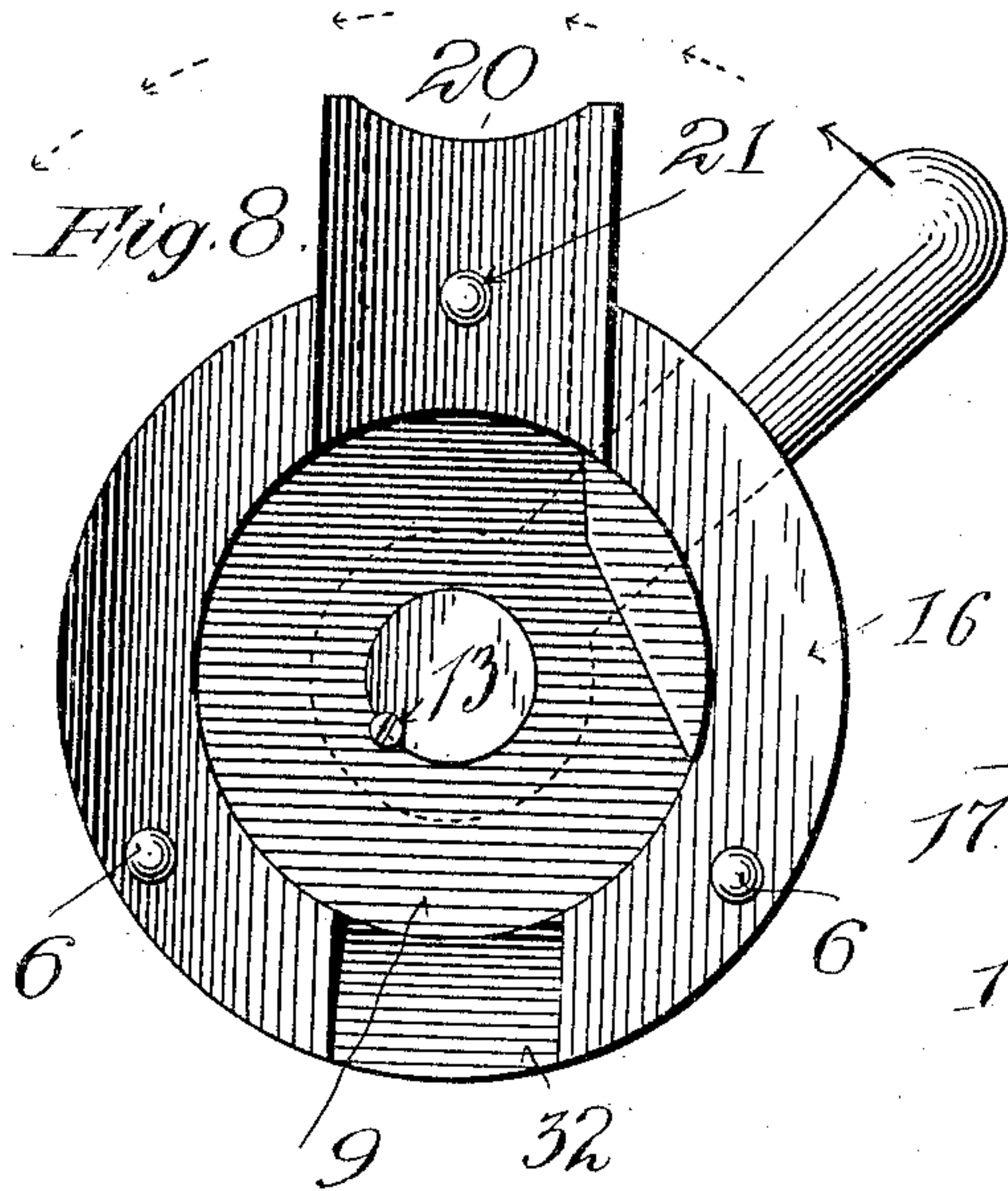
Witnesses
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HENRY PEIN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO AERATING MACHINE COMPANY,
OF NEW YORK, N. Y.

VENDING-MACHINE.

No. 924,928.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed April 2, 1906. Serial No. 309,338.

To all whom it may concern:

Be it known that I, HENRY PEIN, a citizen of the United States, and a resident of Jersey City, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

My object is to provide a very simple, economical and efficient coin, vending machine which will overcome the difficulties heretofore experienced in vending machines having a reciprocating lever, by using a rotating movement in the operating handle and coin carrier.

In a reciprocating lever device there is more of a tendency to misuse the machine owing to the forcible thrust of the lever, while in a revolving action the tendency is greatly decreased. Further, my rotating device is more compact, and all parts work in a direct, positive manner, the parts being few, and does not depend on a succession of spring or lever actions.

It is my object to overcome the difficulties where persons have inserted coins with gum or such like stuck to them, in which cases the coins were apt to ride in the machine and operate it more than once. I overcome this by providing a very simple and positive ejector which is operated by the handle and does not depend on various levers. It also adds very little to the cost of a machine which is a material advantage.

Another feature of my invention is the manner in which the meter, for recording the number of operations of the machine, is attached to the vending mechanism.

My present invention is particularly advantageous for use in vending aerated liquids, to which machines I have applied it, but it may also be used for other kinds of machines. I shall describe the same as used on aerating machines.

A detailed description of one manner of carrying out my invention will be hereinafter described.

In the drawings forming a part of this application, Figure 1 is a vertical section through my improved mechanism, taken on the line 1—1 of Fig. 3. Fig. 2 is a plan view, partly broken away. Fig. 3 is a rear elevation with a part of the plate broken away. Fig. 4 is a horizontal section through a portion of the device. Figs. 5 and 6 are sections on the

line 5—5 of Fig. 4 showing the respective positions of the parts as operated. Fig. 7 is a front view of the plate and the coin holder. Fig. 8 is an elevation of the coin slot and carrier. Figs. 9 and 10 are elevations of the casing and shaft collar. Fig. 11 is a perspective view of the carrier, and Fig. 12 is an elevation of the shaft.

Broadly considered my invention consists of a rotatable holder to receive a coin and a rotating carrier which is adapted to engage the coin when in the holder, to be revolved so as to revolve the holder. The holder preferably continues in the same direction in each operation while the carrier returns to its first position after each operation.

In the drawings I have not illustrated the particular apparatus to which my improvements are attached, except the plate which is secured to the front of the cabinet and to which my improvements may be attached. The plate referred to and on which my invention is preferably built is shown in the drawings at 1. This plate, so far as its adaptation to this device is concerned, is provided with a circular opening to receive parts of the mechanism and under which is a further opening 2, extending downwardly therefrom, and at the bottom of which the plate slants inwardly and downwardly as at 3, to guide the coins as will appear hereafter.

As my machine is especially adapted for use in carbonating machines, I will describe the same as having the working parts secured to the exterior of the plate 1, so as to be free from any liquid in the cabinet and so as to be more readily reached for repairs, etc., and without disassembling other parts of the machine.

To the exterior of the plate I secure a casing 4, which serves to inclose the working parts, and to serve as a collar for the handle 5. The casing is secured to the plate 1 by any suitable means, such as the bolts 6. The handle 5 is on a shaft 7 which passes through the casing and is adapted to be revolved therein. From the opposite direction a valve spindle 8 passes through the plate 1, on a line with the shaft 7. The shaft 7 has its journals in the casing while the spindle is journaled in the plate 1. These two members are adapted to carry on their approaching ends two revolving members which engage and carry the coins. The one

which is carried by the shaft I will call the carrier, and its construction may be clearly seen by referring to Fig. 11. It consists of a circular disk 9, with a central hole 10 to fit on the end of the shaft, and it is further provided with a laterally projecting portion 11 which is cut off at an angle 12, for the purposes which will appear hereafter. The carrier is preferably attached to the shaft by a screw 13 which engages threads in a hole formed partly in the end of the shaft, as 14 and partly in the carrier, as at 15, whereby the carrier is secured to the shaft. By having the screw extend outwardly beyond the carrier as is shown in Fig. 1, it acts as a pin and serves to eject the coins as will appear hereafter. This is all that is necessary to provide for the positive ejection of the coins. By providing the casing with a double counter-sunk recess, the carrier is adapted to lie therein, flush with the face 15 of the casing. The other revolving member which I have called the holder, consists of a circular disk 17 which is secured to the spindle 8 in any desired way so as to move with it, and is provided on the outer side with projecting pins 18, preferably four in number, placed at the four corners of an imaginary rectangle. These pins extend out from the holder a little more than the width of the coin to be used in the machine, and substantially the distance between the carrier and holder.

The casing is provided at the top with a vertical recess 19 in which is fitted a short chute 20 for receiving the coins, and the chute is also secured to the plate 1 by a bolt 21. The chute is directly over the carrier and holder, so that the space between the latter two corresponds with and forms a continuation of the slot in the chute.

The barrel 22 of the casing provides sufficient space outside of the shaft to accommodate a spiral spring 23 which surrounds the shaft and which has one end 24 fastened in the casing and the other end 25 fastened in the collar 26, formed on the shaft. The spring is for the purpose of turning the shaft and handle after each operation, so as to return the handle to the position shown in Fig. 8. The collar 26 is broken away at the points 27, and in this arc is adapted to move a pin 28 in the barrel 22, so that the movement of the handle will be limited by the ends 27 abutting against the pin 28 in the two extreme positions. The spindle 8 where it passes through the plate 1 is provided with a sprocket 29 which engages with another sprocket 30, which latter is on the shaft of a meter, so that as the spindle is turned in operating the machine the meter records the number of operations.

The functions of the different parts of the mechanism will be understood from a description of the operation of the machine. Assuming that the spindle 8 is attached to a

valve so that each quarter turn thereof will run off a certain quantity of liquid, and starting with the parts in the position shown in Figs. 1 and 3, the operation is as follows: A coin is dropped into the chute, and falls down until the periphery thereof engages on two of the pins 18 as will be seen in the plan view (Fig. 2). The operator then turns the handle 5 which revolves the shaft against the action of the spring, and likewise revolves the carrier. As the projection 11 moves in an arc a little larger than the pins, the slanting edge 12 catches the periphery of the coin at such a point that it will hold the same against the pins 18. As the carrier continues to turn it carries the coin and likewise the holder around with it until the limit of movement is reached, which will be determined by the pin 28 and collar 26. The coin 31 will then be in the position shown in Fig. 6. When the handle is released the spring will cause it to return to its former position. As there is no engagement then, between the carrier and holder, the holder remains stationary while the carrier is returning. While this operation was taking place the spindle was operating a valve to discharge the liquid, and one operation is completed. In the next operation a second coin is inserted as before when the same will engage on the next set of pins, presented below the chute. As this coin is being carried the same as the previous one, the coin is carried a quarter turn until it is at the bottom when it will be free to pass through the opening 32 in the casing and through the opening 3 in the plate, and into a receptacle in the cabinet. Should the coin not drop out of the holder by gravitation, for any reason, it will be forcibly ejected as follows: The pin 13 on the carrier having been carried to the position shown in dotted lines in Fig. 6 where it is just beyond the coin, the handle is released, the carrier returns and the pin 13 going with it will come in contact with the lower coin and force it downwardly in passing. The coin is prevented from falling out of the holder during its movement by the casing, until the coin reaches the opening 32 and passes out. These operations are repeated, and each time the spindle is turned and the meter registers the number of operations.

Some of the advantages to be gained by carrying out my invention in the specific form which I have shown, are: The mechanism is outside the cabinet and free from the effects of liquids used therein. It may be removed by simply taking off three nuts and an entirely new mechanism connected in but a few seconds without affecting the valves, thus making it also readily adjustable and easy to repair. As there is no turn in the chute there is no likelihood of clogging. If a coin smaller than the one required, or any other obstruction, is put in the chute, it will

simply drop down through. If the holder should be slightly out of position it is only necessary to force the coin down in the chute and by engaging one of the pins will force the holder into position. The coin cannot be made to "ride" in the machine and operate it more than the once, and all movements are direct and positive, as there is no lever movement, except, possibly, the handle, and but one spring is required. Another advantage is the simplicity of the parts, which may be made without expensive special machinery.

The machine may be made to accommodate any size coin by simply regulating the position of the pins, and correspondingly altering the chute for the required coin.

The manner in which the meter is connected up makes its action positive and there is no likelihood of turning the meter wheel accidentally, without turning the spindle.

Various changes may be made in the construction of the machine without departing from the scope of the following claims.

Having described my invention, what I claim is:—

1. In a machine of the class described, the combination of a revoluble holder and a revoluble carrier having opposing faces spaced apart substantially the thickness of a coin disposed in the plane between the faces of the said revoluble members, pins on one of said members adapted to engage and support the edge of the coin, and means on the carrier for engaging the edge of the coin held by the said holder, the space between said holder and carrier being uninterrupted except by the projections herein described, and

means for revolving one of said revoluble members.

2. In a machine of the class described, the combination of a plurality of revoluble members having opposing faces spaced apart for the reception of a coin and substantially the thickness of a coin disposed in the plane between the faces of said revoluble members, a chute for directing the coin between the revoluble members having its slot in the plane of the space between said revoluble members, projections on one of said revoluble members adapted to engage the edge of a coin to support the same and means on the second revoluble member for engaging the edge of the coin held by the holder and means for revolving said second revoluble member, whereof the coin will cause both members to revolve together.

3. In a machine of the class described, the combination of a revoluble holder and a revoluble carrier having opposing faces spaced apart for the reception of a coin placed between the planes of the faces of said revoluble members, pins on the holder adapted to engage and support the edge of the coin, means on the carrier traveling outside the arc of said supporting pins for engaging the edge of the coin whereby the revoluble members will be caused to move together and means on said carrier moving inside the arc of travel of the said supporting pins adapted to engage the edge of the coin and eject the latter.

Signed this 29th day of March, 1906.

HENRY PEIN.

Witnesses:

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G. I. Awnoul.