

No. 814,444.

PATENTED MAR. 6, 1906.

A. J. HAMROCK.

ALARM BELL.

APPLICATION FILED NOV. 21, 1904.

Fig. 1.

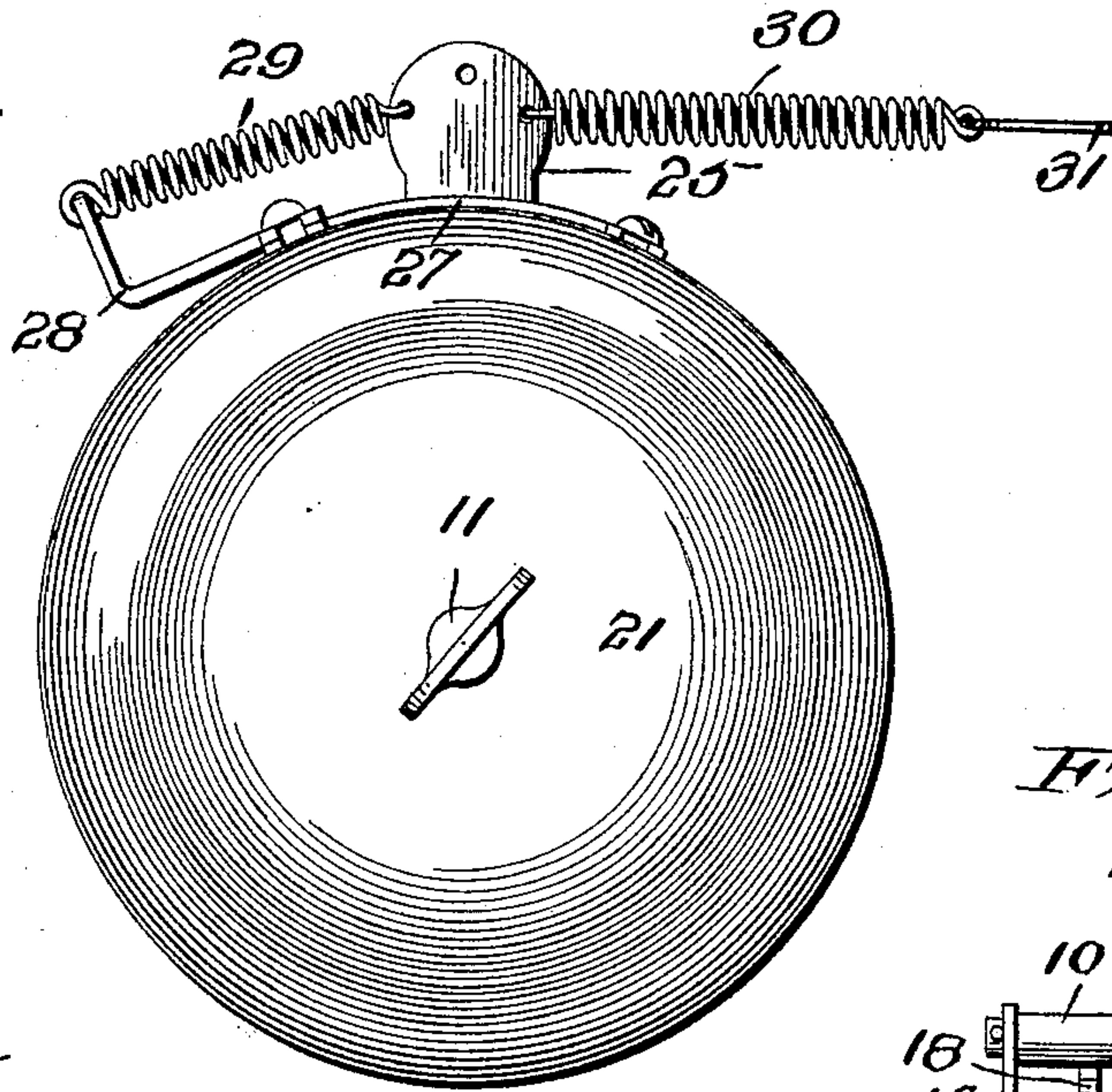


Fig. 3.

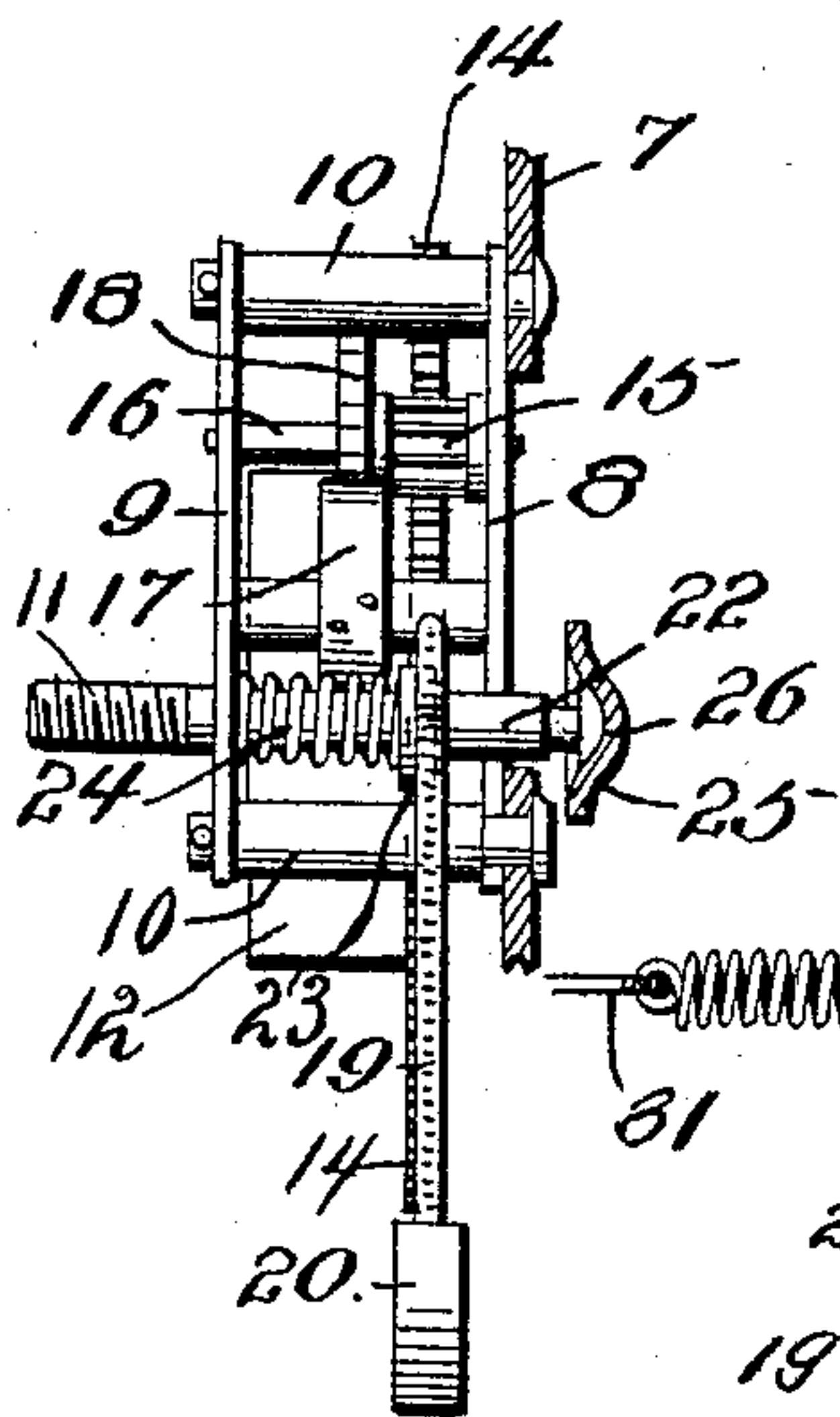


Fig. 4.

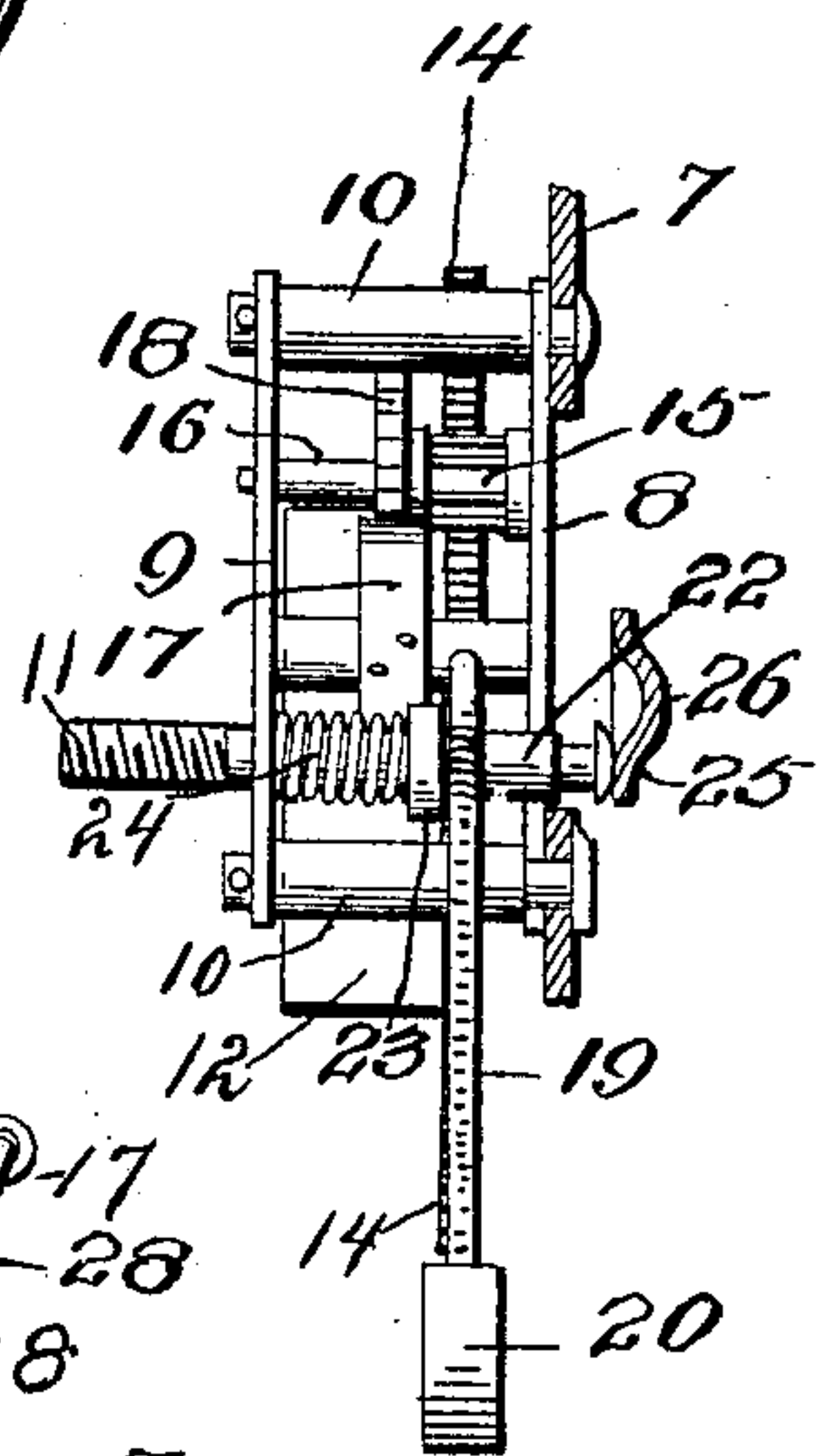
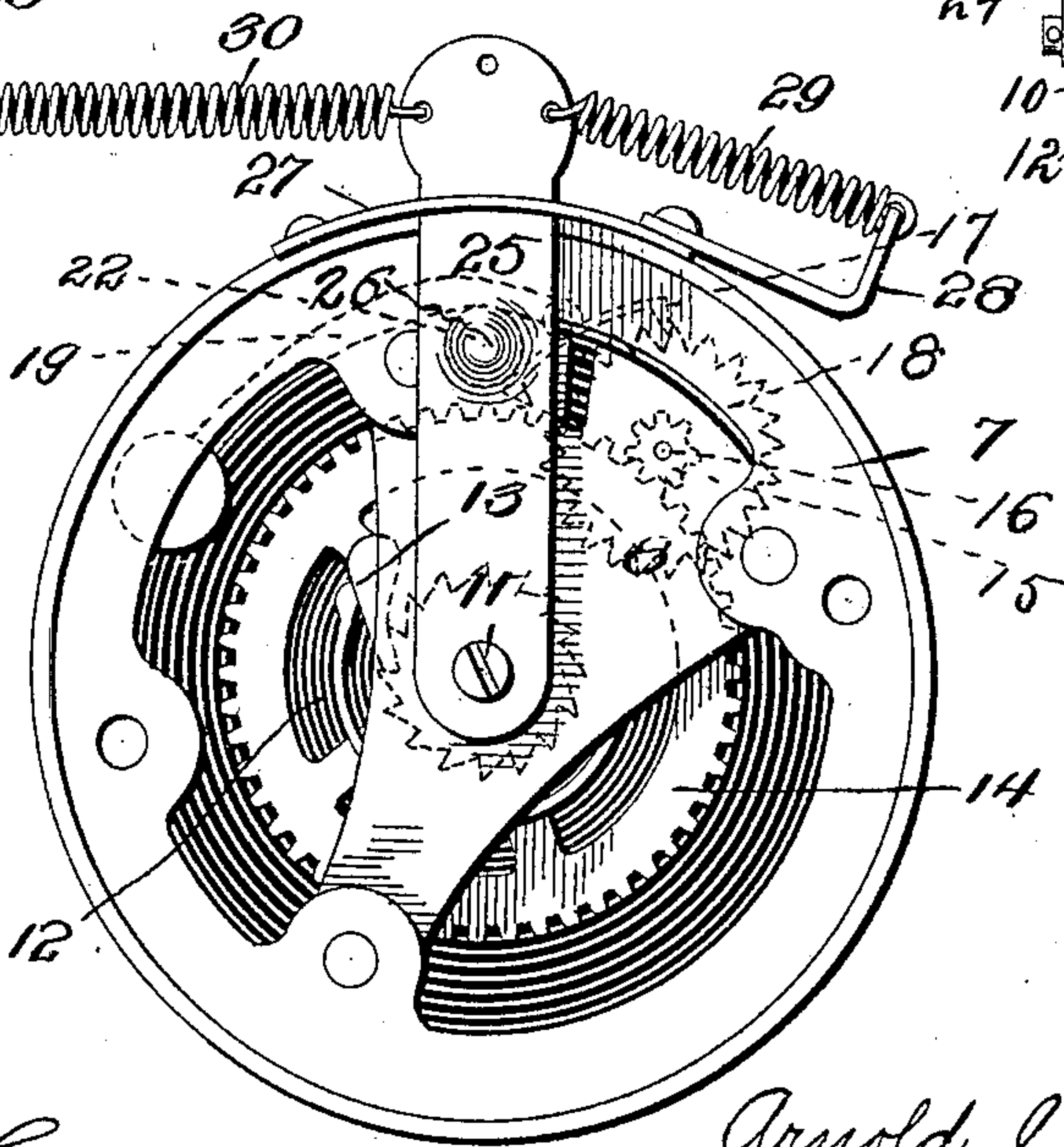


Fig. 2.



WITNESSES:

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ALARM-BELL.

No. 814,444.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed November 21, 1904. Serial No. 233,748.

To all whom it may concern:

Be it known that I, ARNOLD J. HAMROCK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Alarm-Bells, of which the following is a specification.

My invention relates to alarm-bells; and it consists in certain novel features of construction hereinafter described and claimed.

The object of the invention is to provide an alarm which is arranged to be sounded when a door or window is opened.

A further object is to provide means whereby the alarm will be sounded if the connections between said alarm and the door or window are broken.

A still further object is to provide a construction which enables the device to be used as an ordinary door-bell, if desired.

In the accompanying drawings, Figure 1 is a front elevation of the invention, and Fig. 2 a rear elevation thereof. Figs. 3 and 4 are sectional views showing the manner in which the bell-hammer is released to sound the bell.

Referring specifically to the drawings, 7 denotes a base on which the hammer-actuating mechanism and its casing are supported. Said casing comprises plates 8 and 9, which are spaced from each other and secured to the base by posts 10. The main shaft 11 has its bearings in the plates 8 and 9. Said shaft has a spring 12, pawl and ratchet 13, and a gear-wheel 14. The latter meshes with a pinion 15 on the escapement-shaft 16, which shaft also has its bearings in the plates 8 and 9. The usual pallet 17 and escapement-wheel 18 are provided, and the stem 19 of the hammer 20 is made fast to and vibrates with the pallet. The bell 21 screws on the main shaft 11 and rotates therewith, the spring being wound up by rotating said bell in the opposite direction. These parts are all well-known features of an ordinary spring-actuated alarm-bell and nothing is claimed with respect thereto.

At 22 is indicated a push-pin which has its bearings in the plates 8 and 9. This pin is fitted with a collar 23, between which collar and the plate 9 a spring 24 is confined, said spring being coiled around the pin. The pin is slidable lengthwise in its bearings, and the collar 23 is positioned so as to be in the path of the hammer-stem 19. When in this posi-

tion, which is illustrated in Fig. 3, the hammer is prevented from swinging downwardly far enough to enable the pallet to clear the teeth on the escapement-wheel, which locks the pallet. To release the pallet, the pin is moved lengthwise until the collar 23 is moved from under the stem 19, which is then free to swing sufficiently for the pallet to clear the teeth of the escapement-wheel. The said wheel will then rotate and vibrate the hammer-stem through the pallet in the usual way.

The pin 22 is actuated by a lever 25, which is pivoted on the rear end of the main shaft 11 and arranged to be swung back and forth across the front end of the pin 22 to move the same lengthwise. The lever is formed with a depression 26, into which the front end of the pin 22 is pushed by the spring 24 when said depression is in alinement with the pin. In this position the collar is under the hammer-stem 19 and the pallet is locked, as already described and shown in Fig. 3. When the lever is swung to either side, the portion thereof beyond the depression 21 strikes the end of the pin 22 and pushes it lengthwise and removes the collar 23 from the hammer-stem 19, whereby the pallet is released and the alarm sounded, as already described. When the lever is returned to its middle position, the spring 24 pushes the pin back into the depression, whereby the collar 23 is caused to resume its position under the hammer-stem to lock the pallet.

The outer end of the lever 25 extends through a bracket 27, which is fastened to the base 7 and has at one end an upward extension 28, in which one end of a spring 29 is secured. The other end of the spring is fastened to the lever 25 near one edge thereof. At the opposite edge one end of a spring 30 is fastened, the other end of this spring being fastened to the pull wire or cord 31.

In use the device is fastened at any suitable place, the pull-wire 31 being fastened to a door, window, or other movable object the opening of which is to be guarded against. A pull on the wire 31 pulls the lever 25 over to actuate the alarm in the manner already described. If the wire 31 should be cut, the spring 29 will pull the lever 25 over to the opposite side and actuate the alarm. The spring 30 can be dispensed with and the wire 31 attached directly to the lever 25. However, by its use the alarm will be caused to sound if the spring 29 should break. The

device can also be used as a door-bell, in which case the pull-wire will be attached to the usual bell-knob.

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a bell, of a push-pin controlling the operation thereof, and means for operating the push-pin, comprising a lever pivoted to the bell and having a depression into which one end of the pin normally extends to hold the bell inactive, said pin being actuated to release the bell when the lever is swung in either direction.

2. The combination with a bell, having an escapement-wheel, a pallet, and a hammer carried by the pallet, of a push-pin constructed to engage the hammer-stem and normally prevent vibration of the pallet, and a lever pivoted to the bell and having a depression into which the pin extends when the pallet is held, said pin being actuated to release the pallet when the lever is swung in either direction.

3. The combination with a bell, of a push-pin controlling the operation thereof, and means for operating the push-pin, comprising a lever pivoted to the bell and having a depression into which one end of the pin normally extends to hold the bell inactive, said pin being actuated to release the bell when the lever is swung in either direction, a pull connected to the lever to swing it in one direction, and a spring connected to the lever to swing it in the other direction.

4. The combination with a bell, of a push-pin controlling the operation thereof, and a lever pivoted to the bell and bearing against the pin and constructed to release the same when swung.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARNOLD J. HAMROCK.

Witnesses:

JOHN BALINT,
SIGNA FELTSKOG.