

Oct. 7, 1930.

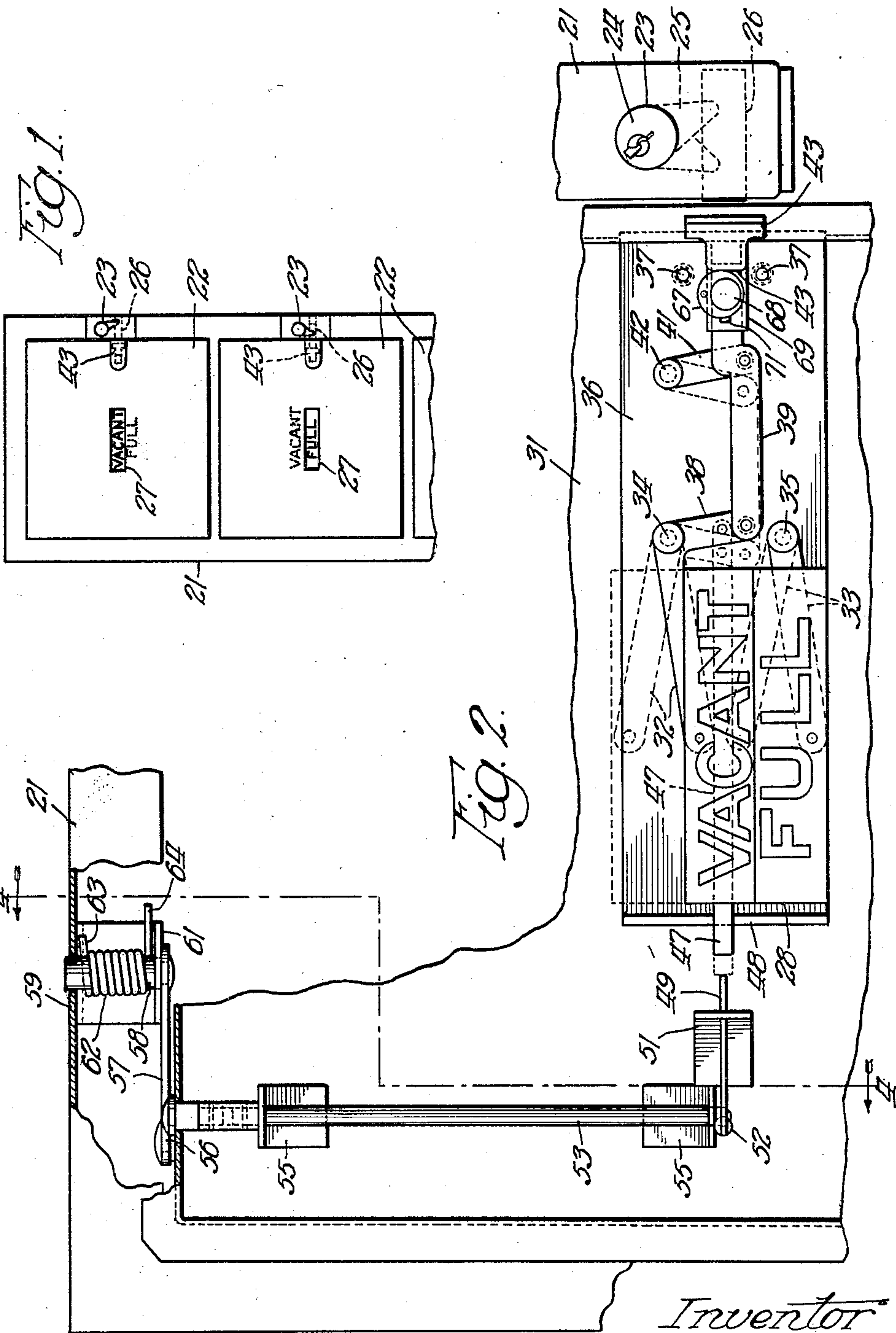
W. J. DOBKIN

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INDICATING DEVICE FOR LOCKER DOORS

Filed Aug. 22, 1928

2 Sheets-Sheet 1



Inventor  
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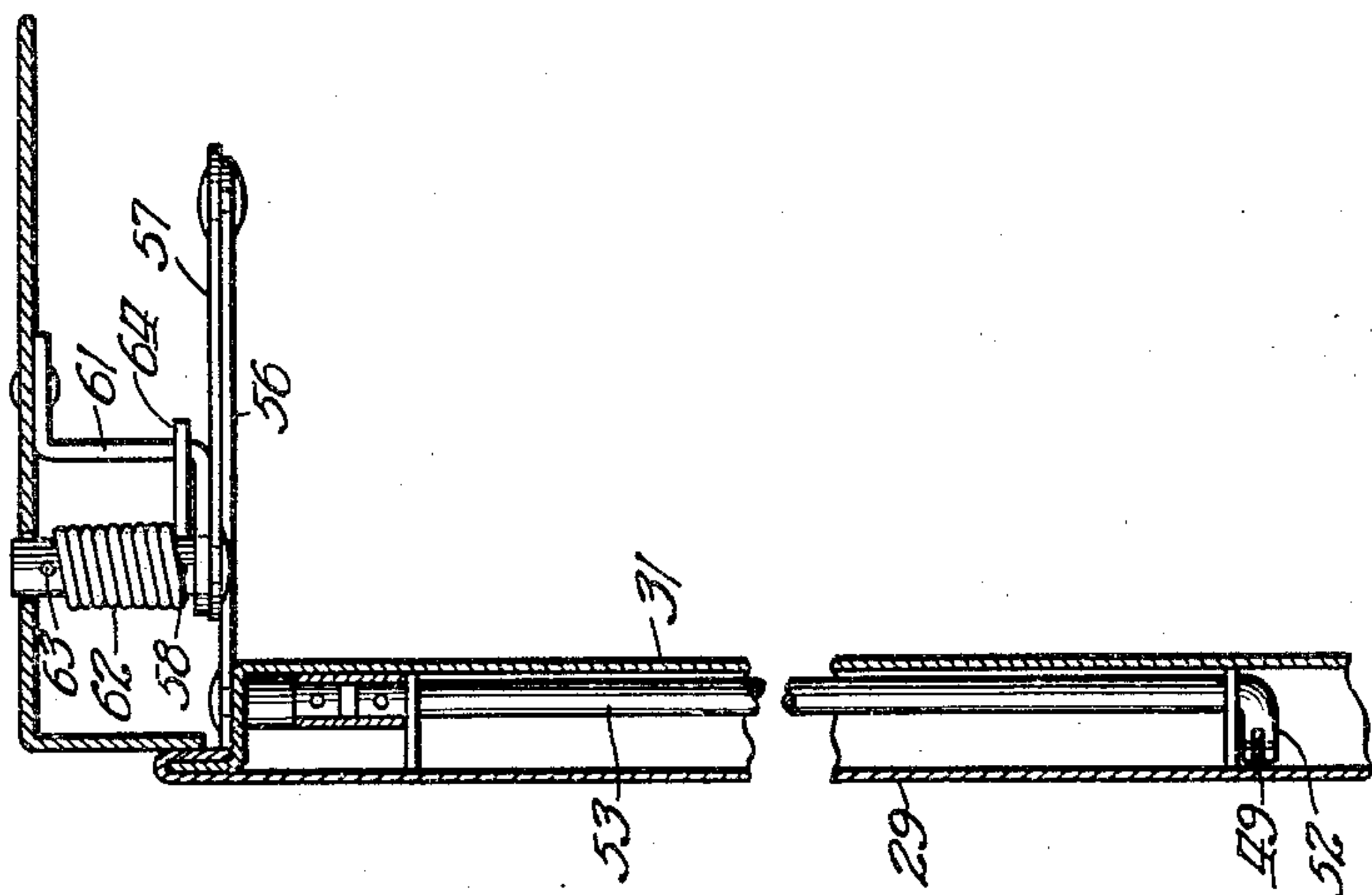


Fig. 4.

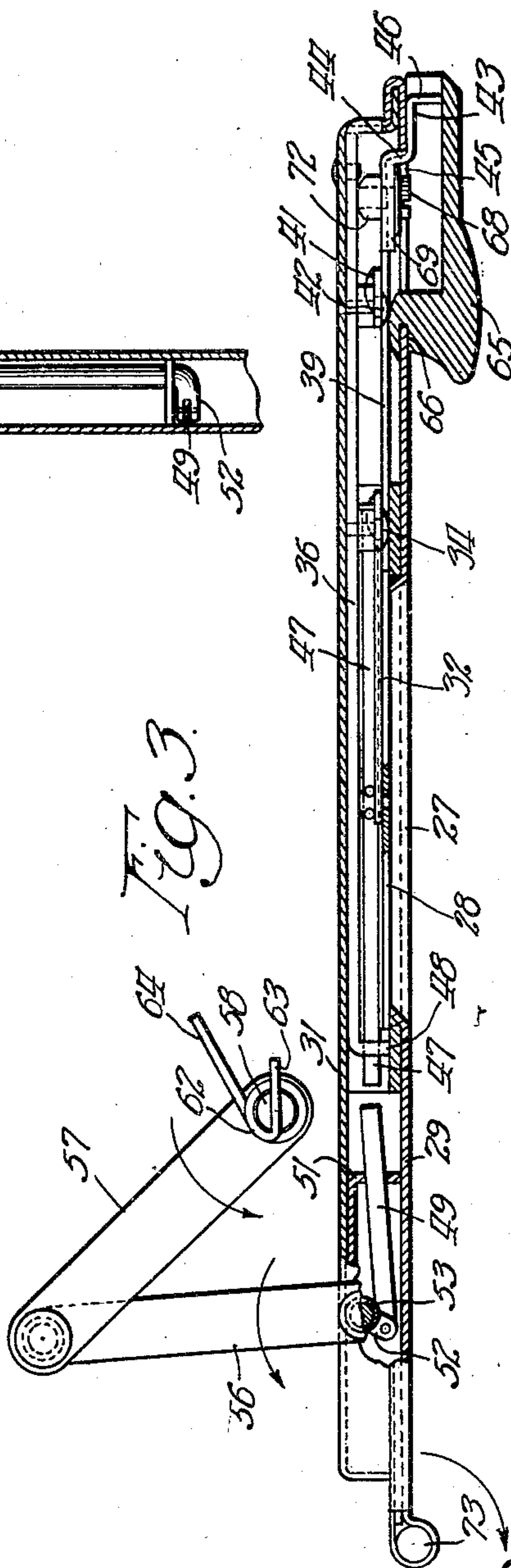


Fig. 3.

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# UNITED STATES PATENT OFFICE

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## INDICATING DEVICE FOR LOCKER DOORS

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My invention relates to lockers, or cabinets, and more particularly to lockers adapted for parcel checking purposes in railroad stations or like places.

5 The object of the invention is to provide, in a locker of this character, an indicating device operable through the locking and opening of the door, to show whether the locker is vacant or full, thus facilitating the  
10 selection of vacant lockers.

One of the more specific objects of the invention is the provision of an indicating device of this character in which a sign member is moved to position to indicate that the  
15 locker is full through the action of the lock bolt upon the turning of a key in the lock.

Another object of the invention is the provision, in connection with the indicating device, of a reset mechanism automatically  
20 operable upon the opening of the door to positively return the sign to position indicating that the locker is vacant.

Other objects and advantages of the invention will be apparent as it is better understood from the following description, which,  
25 taken in connection with the accompanying drawings, discloses a preferred embodiment thereof. While the indicating device is herein shown and described in connection with a  
30 parcel checking locker, it will be understood that it is not necessarily limited to such use, but may be used upon doors wherever usable and desirable.

Referring to the drawings,  
35 Figure 1 is a broken front elevational view of a tier of parcel checking lockers, showing upon different doors the two positions of the sign;

Fig. 2 is a broken sectional and elevational  
40 view of a portion of the door with the front plate removed to expose the indicator mechanism, the view showing also certain portions of the lock and lock bolt to the sign operated mechanism;

45 Fig. 3 is a sectional plan view of the door, showing the mounting of the indicating device and operating parts thereon; and

Fig. 4 is a vertical sectional view, taken substantially on the section line 4—4 in Fig.  
50 2 and illustrating the reset mechanism.

Upon said drawings, which are intended to illustrate the best means which I have contemplated of applying the principles of the invention, the reference character 21 indicates a frame containing, as shown, a plu-  
55 rality of lockers, the doors of which are indicated by the numeral 22. A lock 23 is provided for each locker, the cylinder 24 of said locks being provided with an arm 25, disposed in a slot in a lock bolt 26, movably  
60 mounted in the frame.

The mechanism is duplicated for each locker and may be described in the singular.

Each door is provided with an opening 27, through which an indicating sign 28 may  
65 be seen. The sign, as shown, has the word "Vacant" printed on the upper part thereof and the word "Full" on the lower part. The sign plate and the operating mechanism are  
70 mounted between front and back plates of the door, which plates are identified respectively by the reference characters 29 and 31. The sign plate 28 is carried by two parallel  
75 arms 32 and 33, which are pivotally secured at the points 34 and 35, respectively, to a fixed plate 36, attached to the rear member  
31 of the door by means of screws 37. The member 32 is of bellcrank formation, having  
80 a downwardly extending arm 38, pivotally connected with an actuating member 39, which is suspended from the plate 36 by means of an arm 41, pivotally secured at 42  
to said plate, said member being connected with a shoe 43, which has an offset portion  
85 44, protruding through a slot 45 in the door, said shoe being turned forwardly beyond said offset portion and having a front part  
46 turned at right angles to the door and disposed at the front thereof in the path of the  
90 lock bolt 26. Actuation of the lock bolt toward the left, viewing Fig. 2, causes the same to engage said part 46 of the shoe 43 and to move said shoe toward the left, view-  
95 ing Figs. 2 and 3, thus moving the parts 41, 39, 38, 32, 33, and 28 from the full line to the dotted line positions shown in Fig. 2. This elevates the sign plate 28, bringing the  
word "Full" into position behind the opening 27 in the door, the word "Vacant" being  
100 at this time out of view, as shown in the



lower part of Fig. 1. The sign is thus operated merely through the turning of the key, the device being in this sense automatic.

When the door is unlocked, thus moving the lock bolt 26 out of engagement with the shoe 43, the sign plate 28 may drop by gravity from the dotted line position to the full line position shown in Fig. 2, thus bringing the word "Vacant" into view, but in order to insure this action and to prevent the sign from staying in the up position in case the parts should stick or fail to work properly, I provide a positive reset mechanism, which will now be described.

This mechanism comprises a rod 47, secured at one end to the arm 38 of the bellcrank 32 and extending at the other end through an opening in a flange 48 of the plate 36. This rod, when moved to the left upon the locking of the door, engages a bar 49, which extends through an opening in an angle member 51 between the front and back plates of the door, one end of said bar being connected to an arm 52 on a vertical rod 53 extending through guides 54 and 55 within the door, said rod being connected at its upper end with an arm 56 disposed horizontally above the door and pivotally connected with an arm 57, which is in turn secured to a member 58, freely mounted in the ceiling 59 of the locker and extending downwardly through a guide 61 secured to the locker frame. A spring 62 is wound upon the member 58 and has one end 63 disposed through an aperture in said member and the other end 64 in engagement with the angle member or bracket 61 (see Fig. 4). Said spring tends to urge the member 57 in clockwise direction, thus holding the door closed. When the door is opened against the tension of the spring, however, the members 56 and 57 are moved in the direction indicated by the arrows in Fig. 3, thus causing the rod 49 to turn in such manner as to move the bar 47 toward the right. The bar 47 being in contact with said bar 49, as is shown in dotted lines in Fig. 2, said bar 47 will be forced to the right, thus actuating the bellcrank 32 and lowering the sign plate 28 and bringing the word "Vacant" into view in the opening 27 of the door. When the door is closed, the member 49 will be withdrawn, in manner which will be readily apparent, and the parts are in position to be actuated by the lock bolt 26 the next time the lock is turned.

A combination door knob and lock bolt housing 65 is provided on the exterior of the door, being secured to the front plate 29 of the door by a suitable connection, as indicated at 66. This combined knob and housing serves to cover the slot through which the shoe 43 extends, and also the shoe itself, as well as to receive the lock bolt when the latter is projected, thereby locking the door.

The word "Pull" may be engraved upon the exterior of the member 65 so as to plainly indicate the way to open the door.

It will be understood that the parts which are assembled on the door are independent of the lock, and inasmuch as the relation of the lock bolt to the shoe 43 may vary in different installations, I provide means for adjusting said shoe so that it may bear a proper relationship to the lock bolt despite variations in the location of the latter. This means comprises an eccentric washer 67, mounted upon a screw 68 by which a sleeve part 69 of said shoe is secured to the actuating member 39. The screw aperture in the sleeve 69 is elongated to permit the shoe to move back and forth on the member 39, although the screw is stationary. The eccentric 67 is disposed between the shoulder, or offset, 44 on the shoe 43 and a lug 71, so that when said eccentric is turned on the shoe, it moves the shoe towards the lock or away therefrom, as the case may be. A nut 72 is provided with the screw 68 for fastening the shoe 43 to the member 39 when said parts are properly adjusted.

The door is hung upon a pintle, or hinge 73, in any usual or preferred manner.

The operation of the device will be apparent, it is believed, from the foregoing description and will be but briefly summarized.

When the locker is vacant, the sign plate 28 and the actuating parts therefor will be in the full line position shown in Fig. 2, with the word "Vacant" in view through the opening 27, as shown in the upper part of Fig. 1. The door may be opened by pulling on the knob 65, and after the parcel has been placed in the locker, the key may be turned to project the lock bolt 26, in usual manner, it being understood that the lock is ordinarily coin-controlled, the coin mechanism not being shown on the drawings, however, since it forms no part of the present invention. Turning of the key causes the arm 25 on the cylinder 24 to advance the lock bolt 26, and said bolt acting upon the shoe 43 serves to move said shoe and the member 39 toward the left, viewing Fig. 2, thereby turning the members 32 and 33 to the dotted line position indicated in said Fig. 2 and raising the sign plate 28 so that the word "Full" will appear in the opening 27, the word "Vacant" disappearing behind the front plate of the door. When the locking bolt 26 is retracted by the unlocking of the door, the sign plate 28 may drop to the lower position, exposing the word "Vacant" through the opening 27, but if, due to friction or other cause, the return movement is not produced by gravity, the parts are reset by means of the chain of movable elements extending from the ceiling of the locker to the bar 49 which actuates the bar 47, thereby moving the bellcrank



32 through the connection with the bellcrank arm 38 and positively moving the sign to the down position, it being understood that this action is produced through the opening of the door. When the door is again closed, the bar 49 is retracted and the parts are ready for a repetition of the operations just described. The spring 62 serves to hold the door closed at all times, so that none of the doors in the tier of lockers will be left standing open.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction, and arrangement of the parts without departing from the spirit and scope of the invention, or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. In a locker or the like the combination with a door, a door casing and a lock therefor mounted in the casing, of a device on the door for indicating whether the locker is vacant or full, said device comprising a sign plate, and means operable by the lock for actuating said plate.

2. In a locker or the like the combination with a door and a lock therefor of a device on the door for indicating whether the locker is vacant or full, said device comprising a sign plate, means operable by the lock for actuating said plate, and reset mechanism operable through the opening of the door.

3. In a locker or the like the combination with a door and a lock therefor of a device on the door for indicating whether the locker is vacant or full, said device including a sign member operable by the lock and adapted to indicate when the locker is full, and reset mechanism operable by the opening of the door.

4. In a locker or the like the combination with a door and a lock therefor of a device on the door for indicating whether the locker is vacant or full, said device including a sign member adapted to indicate when the locker is full, and reset mechanism operable by the opening of the door, said reset mechanism including a spring for normally holding the door closed and a chain of movable elements extending from a fixed part in the locker to the sign member, said elements being actuated by normal movement of the door with respect to the frame of the locker.

5. In a locker or the like the combination with a door, a door casing and a lock therefor, including a locking bolt, mounted in the casing, of a device for indicating whether the locker is vacant or full, said device comprising a sign plate movably mounted on the interior of the door, and a member actuated by the locking bolt and operatively con-

nected with said plate whereby said plate is moved upon the locking of the door from position exposing a "Vacant" sign through an opening in the door to position exposing a "Full" sign therethrough.

In witness whereof, I hereunto subscribe my name to this specification.

WILLIAM J. DOBKIN.