J. F. OHMER.

FARE REGISTER OPERATING MECHANISM.

APPLICATION FILED NOV. 22, 1911.

1,067,131.

Patented July 8, 1913.

4 SHEETS—SHEET 1.

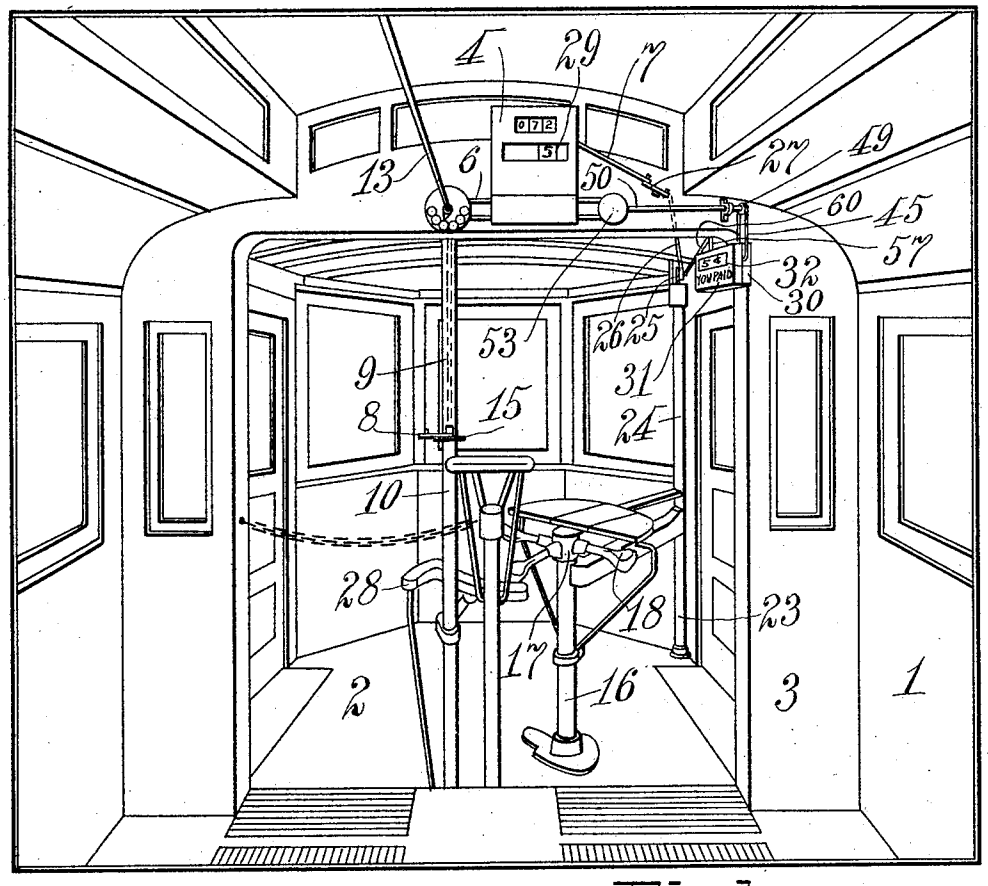


Fig. 1.

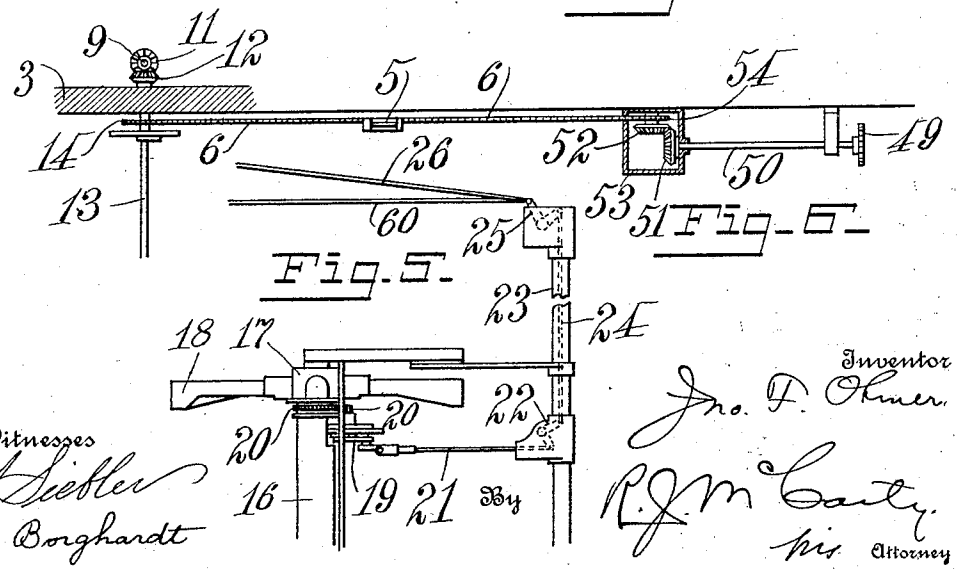


Fig. 5.

Fig. 6.

Witnesses

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4 SHEETS—SHEET 2.

Fig. 2.

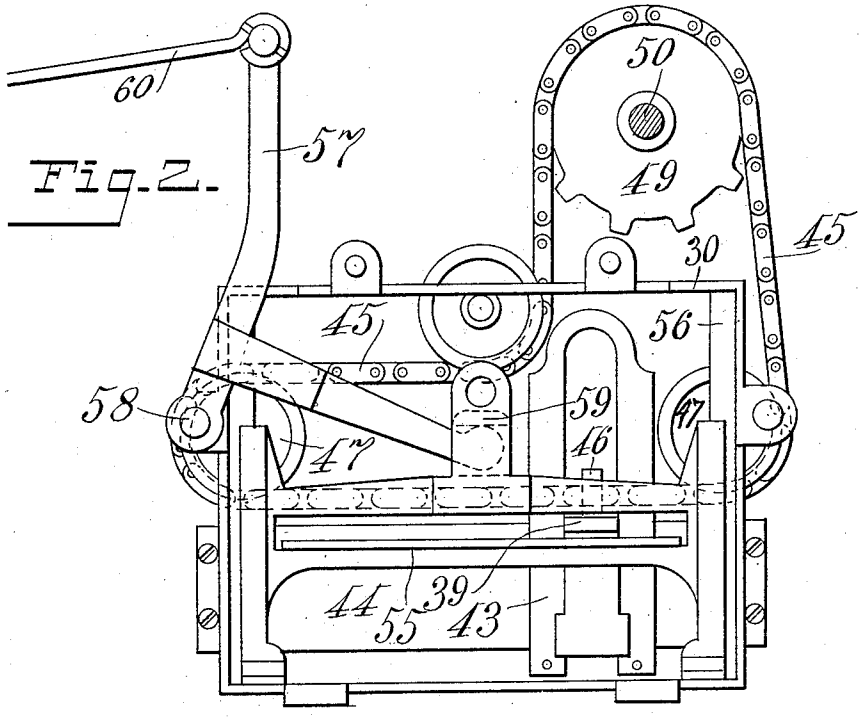


Fig. 3.

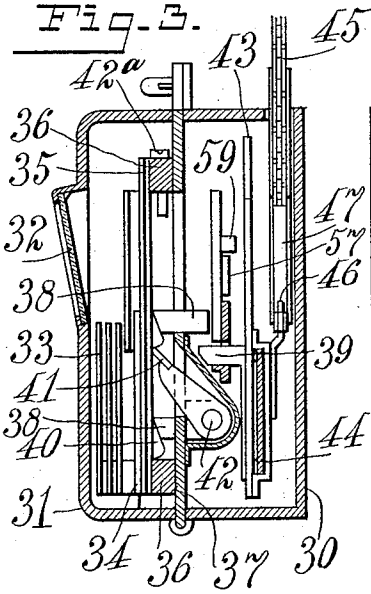
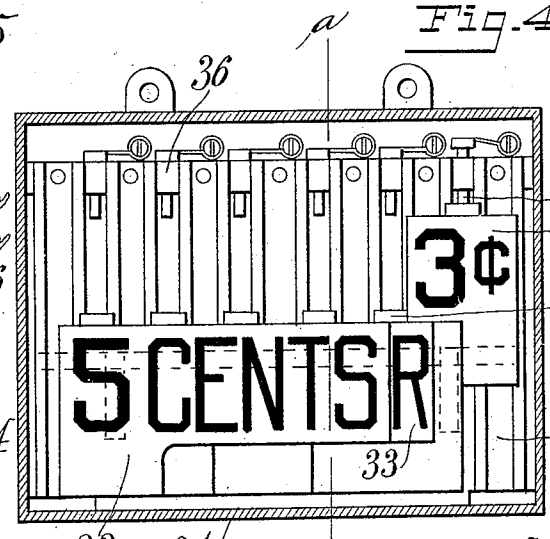


Fig. 4.



Witnesses

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4 SHEETS—SHEET 3.

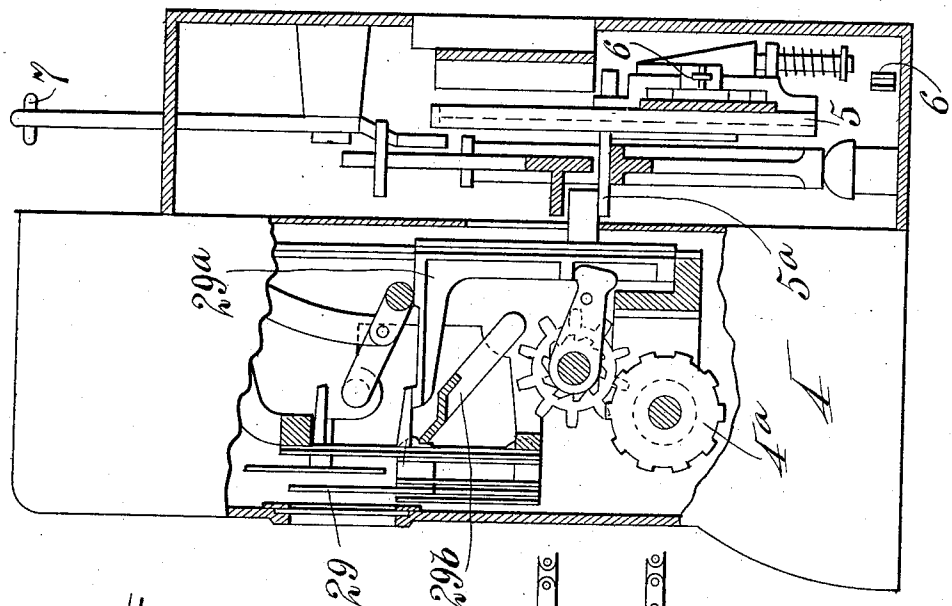


Fig. 5.

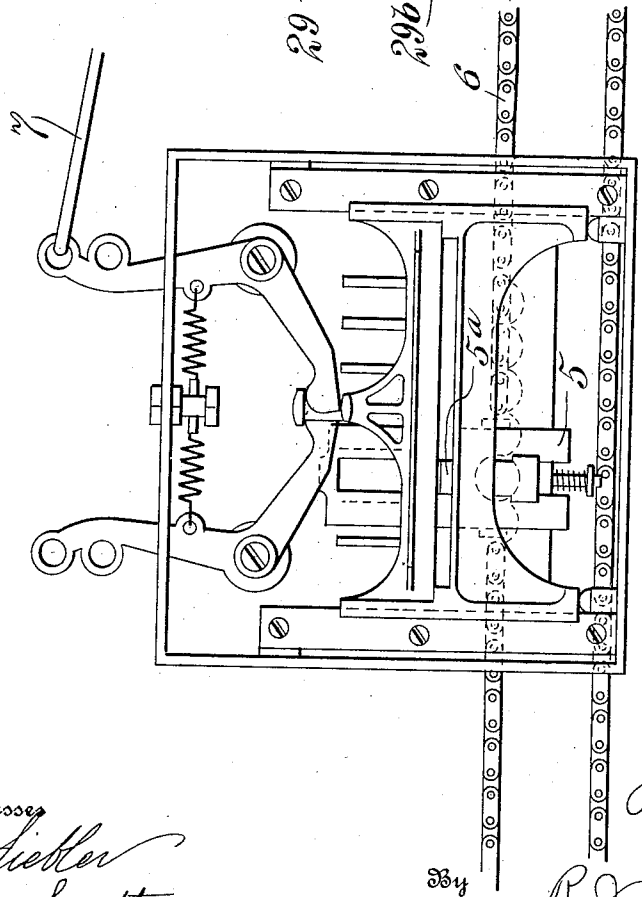


Fig. 6.

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4 SHEETS—SHEET 4.

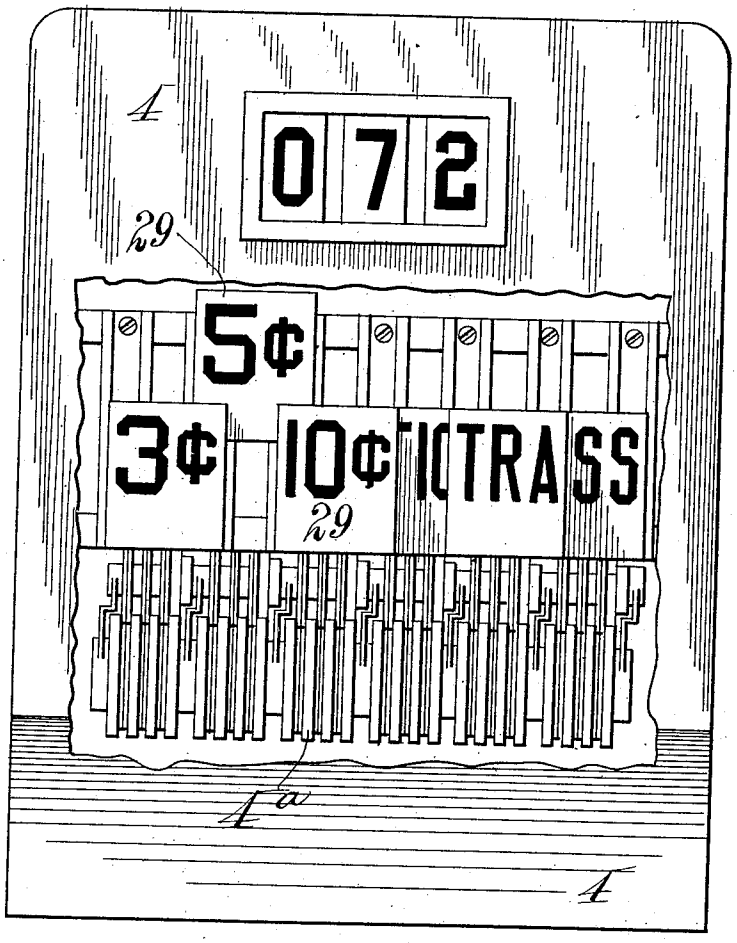


Fig. 7.

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UNITED STATES PATENT OFFICE.

JOHN F. OHMER, OF DAYTON, OHIO, ASSIGNOR TO OHMER FARE REGISTER COMPANY, OF DAYTON, OHIO.

FARE-REGISTER-OPERATING MECHANISM.

1,067,131. Specification of Letters Patent. Patented July 8, 1913.

Application filed November 22, 1911. Serial No. 661,728.

To all whom it may concern:

Be it known that I, JOHN F. OHMER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Fare-Register-Operating Mechanism; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in fare register and indicating devices, and is especially adapted for use in connection with turnstiles on "pay as you enter cars."

The object of the invention is to provide means by which the incoming passenger not only registers the amount of the fare paid by him or her, but is also informed by means wholly under his or her control that the fare thus registered is in fact the fare or amount handed to the conductor.

In carrying out the objects and purposes of my invention, I employ a fare register, which may be an indicating fare register or not. I prefer, however, to employ a multiple fare register such as is shown and described in many of my former patents. For example, Reissue Patent No. 11,867 of October 30, 1900. In connection therewith I employ an indicator remote from the register, and a turnstile with connecting means between said turnstile and said register and the indicator whereby the passengers when going through the turnstile operate, simultaneously, the register and the indicator. Selective means are also employed, such as is shown in many of my former patents, for example, Reissue Patent No. 11,911 of May 28, 1901, for selecting the fare to be registered and indicated at the machine and at indicator remote therefrom. By thus providing suitable connections between the turnstile and the register, and an auxiliary indicator also connected with the turnstile, the fares collected from passengers are not only registered by the passengers passing through the turnstile, but they are also indicated at the same time by the same movement of said turnstile. The auxiliary indicator so connected with the turnstile is arranged in a position to be readily seen by the passengers as they pass through the turnstile.

Referring in general terms to the accompanying drawings, Figure 1 is a perspective view of one end of a "pay as you enter car" equipped with my invention: Fig. 2 is a front elevation of the selecting mechanism of the auxiliary indicator, which is in full view of the passenger as he passes through the turnstile: Fig. 3 is a section on the line *a a* of Fig. 4: Fig. 4 is a front elevation of the auxiliary indicator with the casing removed: Fig. 5 is a side elevation of the turnstile: Fig. 6 is a detail view of the setting mechanism: Fig. 7 is a front elevation of the fare register and indicator with part of the casing broken away: Fig. 8 is a front elevation of the actuating mechanism for the fare register and indicator: and Fig. 9 is a side elevation of the fare register and indicator partially in section.

Referring more particularly to the drawings, 1 shows the interior of a "pay as you enter car" having a platform 2 and a bulkhead 3 provided with the usual doorway. Mounted upon the bulkhead 3, above the doorway, and on the interior of the car, is a multiple fare register 4 of the type shown and described in the Reissue Patent No. 11,867 of Oct. 30, 1900, granted to Ohmer and Tyler, and in which are arranged banks of counters 4^a upon which the several denominations of fares are registered. The register 4 is provided with a setting device 5 which is connected to a sprocket chain 6, and is also provided with an actuating device 5^a which is connected to a rod 7. The sprocket chain 6 is shifted to select the fare to be registered and indicated, by a handle 8 mounted on a shaft 9 journaled in an upright standard 10. The upper end of the shaft 9 has a miter gear 11 in mesh with a similar gear 12 on a shaft 13. The shaft 13 carries a sprocket 14 around which the chain 6 passes. The handle 8 operates in connecting with a conductor's indicator 15, and by means of which, the conductor selects the fare to be paid by the passenger and which is registered and indicated by the passenger as he passes through the turnstile. The connection or rod 7 is actuated to register the fare, by the turnstile, which is mounted on the platform 2, and consists of a standard 16 and a rotating head 17

provided with arms 18. The head 17 is connected to a crank 19 through gears 20 of such proportions that the crank makes one revolution to each partial revolution of the head 17. The said crank 19 is connected to the rod 7 through the following instrumentalities; a rod 21, a bellcrank lever 22 mounted in a standard 23, a rod 24, a bellcrank lever 25 also mounted in the standard 23, a rod 26, and a bellcrank lever 27 mounted on the bulkhead 3 and to which said rod 7 is directly connected. The standard 10 before referred to, is provided with a guard rail 28 which guides the passengers through the turnstile. It will therefore be seen, that the fare is selected by the conductor and registered by the passenger.

Registering machines of the type shown are provided with a plurality of fare indicators 29 which are exposed to view on the interior of the car concurrently with the registration of the fare by the individual actuators 29^a which also actuate the counters. The said indicators are held in such position by the transverse holding bar 29^b until a fare of another denomination is subsequently registered. These indicators not being under the absolute control of the conductor, he is prevented from manipulating the setting device to register a fare of smaller denomination or different from that to be paid because the fare paid by the passenger will be indicated to him directly at the time of and subsequent to its registration, which occurs when he passes through the turnstile. The indicators 29 however, are not in a position to be readily viewable by the passenger, and this enables the conductor to tamper with the fare collections in case he is so inclined. To overcome this an auxiliary indicator which may be properly termed the passenger's indicator, is provided in a suitable position to be readily seen by him as he passes through the turnstile.

Mounted within the doorway, upon the bulkhead 3, is a rear casing 30, to which is attached a front casing 31. The said front casing 31 is provided with a sight opening 32 through which may be exposed to view, any one of a plurality of fare indicators 33. These indicators 33 are provided on their exposed sides or faces with characters which represent the various denominations of fares, and are attached to sliding members 34, whereby said indicators may be elevated to exposed positions. The sliding members 34 are mounted on guides 35 attached to cross bars 36 mounted on a plate 37. The sliding members 34 are provided with projections 38 adapted to be engaged by a vertically and horizontally movable actuator 39. When the said actuator 39 is moved horizontally, the indicator 33 to be set or exposed is selected, and when moved vertically, the selected indicator is elevated to an exposed position. To hold each indicator in an exposed or elevated position, the sliding members 34 are provided with cam propections 40 which are engaged on their lower sides by a yoke 41 pivoted at 42. When one of the indicators is elevated, its particular cam projection 40 will release the yoke 41 from engagement with the previously elevated indicator, thereby permitting said previously elevated indicator to fall by gravity, assisted by spring-controlled pins 42^a. The actuator 39 is vertically movable on a carriage 43, which is horizontally movable on a track 44 mounted on the rear casing 30; such horizontal movement is imparted to said carriage by a sprocket chain 45 attached to a projection 46 in the carriage. The sprocket chain 45 is guided by pulleys 47 and passes around a guide sprocket 49. The sprocket wheel 49 is mounted on a shaft 50, which in turn is mounted on the bulkhead 3 and is provided with a miter gear 51 in mesh with a miter gear 52, said miter gears being mounted on a housing 53. The miter gear 52 is attached to a sprocket 54 which is engaged by the sprocket chain 6 of the register 4. The fare to be indicated by the passenger's indicator will therefore be selected concurrently with the selection of the fare to be indicated and registered in the register or machine 4. The actuator 39 is moved vertically to expose an indicator 33, by a lift or gate 55 movable on guides 56 in the rear casing 30 and substantially like the gate through which the fares are registered and indicated at the machine. The said gate 55 is elevated by a bellcrank lever 57 fulcrumed at 58 and engaging a projection 59 on said gate. The bellcrank lever 57 is connected with the bellcrank lever 25 by a rod 60. The auxiliary indicators 33 are therefore actuated by the turnstile concurrently with the actuation of the counters and indicators in the register 4.

From the foregoing description the advantage of such an arrangement of indicators will be readily appreciated. The passenger as he approaches the turnstile pays the fare to the conductor whose duty it is to collect the proper fare and immediately set the proper register and indicator for operation. The auxiliary indicator, as we have seen, is immediately in front of the passenger as he passes through the turnstile, and is exposed to his view at such point when he passes through as well as at the register. Under such conditions it is clear that no attempt at manipulating the fares will be attempted when so easily detected by the passenger paying it. It will be readily seen that the chance of manipulating fares is obviated and it will be further seen that the fare indications at the regis-

ter may be or may not be used, as the main purpose of indicators in the collection of fares is to indicate the proper registration of fares to the passengers.

Having described my invention, I claim.

1. As a means for registering fares, a plurality of registering devices, a single member for actuating a desired one of said devices, flexible means for determining the registering device to be actuated by said single member, a plurality of indicating devices each adapted to indicate the fare registered and under the control of said flexible means, means under the control of the operator for actuating said flexible means and means for simultaneously actuating said single member to register a desired fare and all of said indicating devices to indicate the fare registered.

2. As a means for registering fares, a plurality of registering devices, a single member for actuating a desired one of said devices, setting means for determining the registering device to be actuated by said single member, a plurality of indicating devices, one of said devices being actuated by said single member and the other of said devices being controlled by the said setting means, means under the control of the operator for actuating said setting means and means for actuating said single member to operate the desired registering device and one of said indicators and for simultaneously actuating the other of said indicators.

3. As a means for registering fares, a plurality of registering devices, a single member for registering a desired one of said devices, setting means for determining the registering device to be actuated by said single member comprising a carriage carrying said single member and a member attached directly to said carriage, a plurality of indicating devices, one of said devices being actuated by said single member and the other of said devices being controlled by said member attached to said carriage means under the control of the operator for actuating said setting means and means for actuating said single member to operate the desired registering device and one of said indicators and for simultaneously actuating the other of said indicators.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN F. OHMER.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."