

No. 789,956.

PATENTED MAY 16, 1905.

O. BALOGH.
RAILWAY STATION INDICATOR.

APPLICATION FILED JUNE 11, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

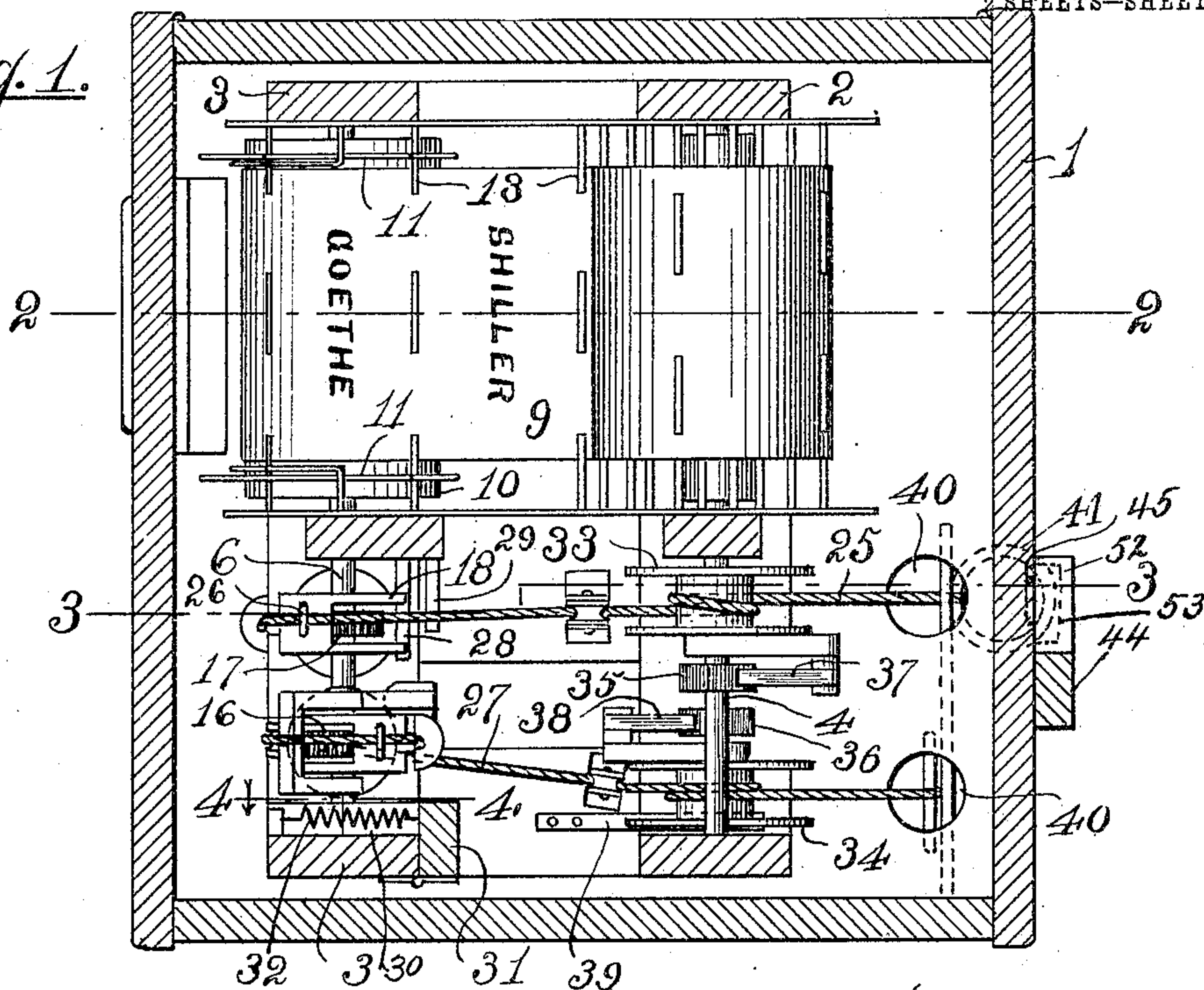
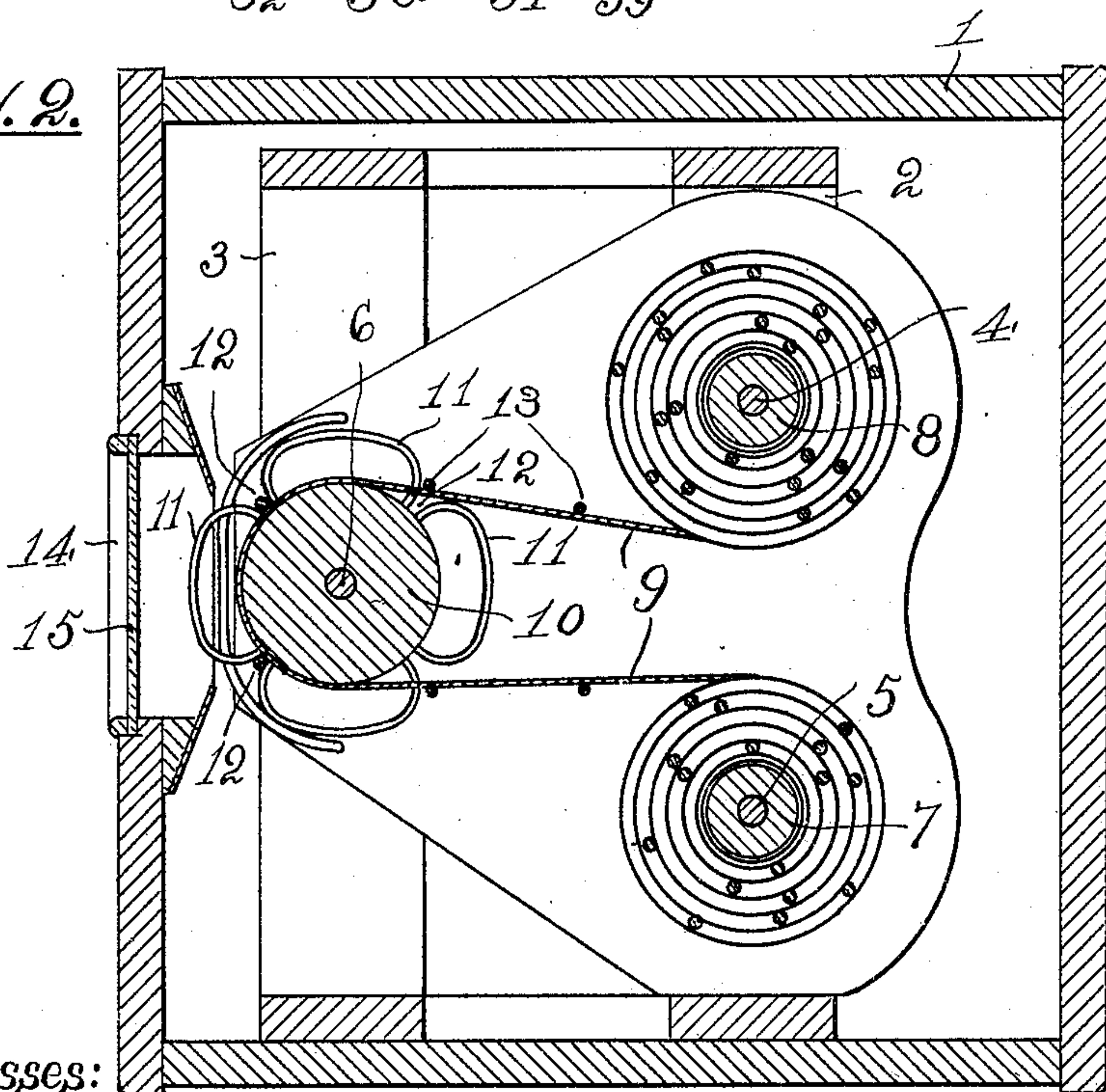


Fig. 2.



Witnesses:

C. F. Wilson
F. Schlotfeld

Inventor:

Otto Balogh
By Rudolph H. [Signature]
Attorney.

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2 SHEETS—SHEET 2.

Fig. 3.

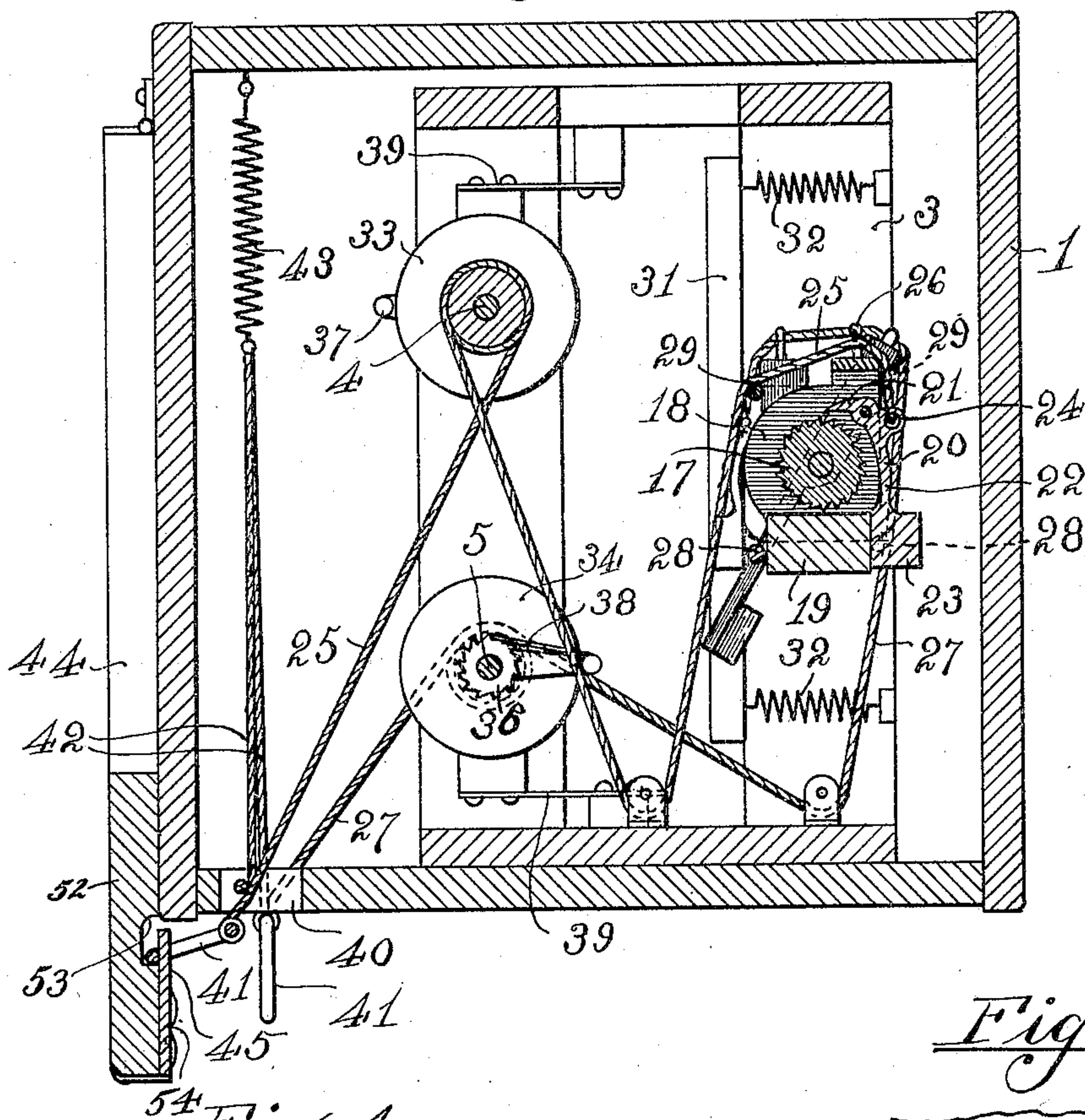
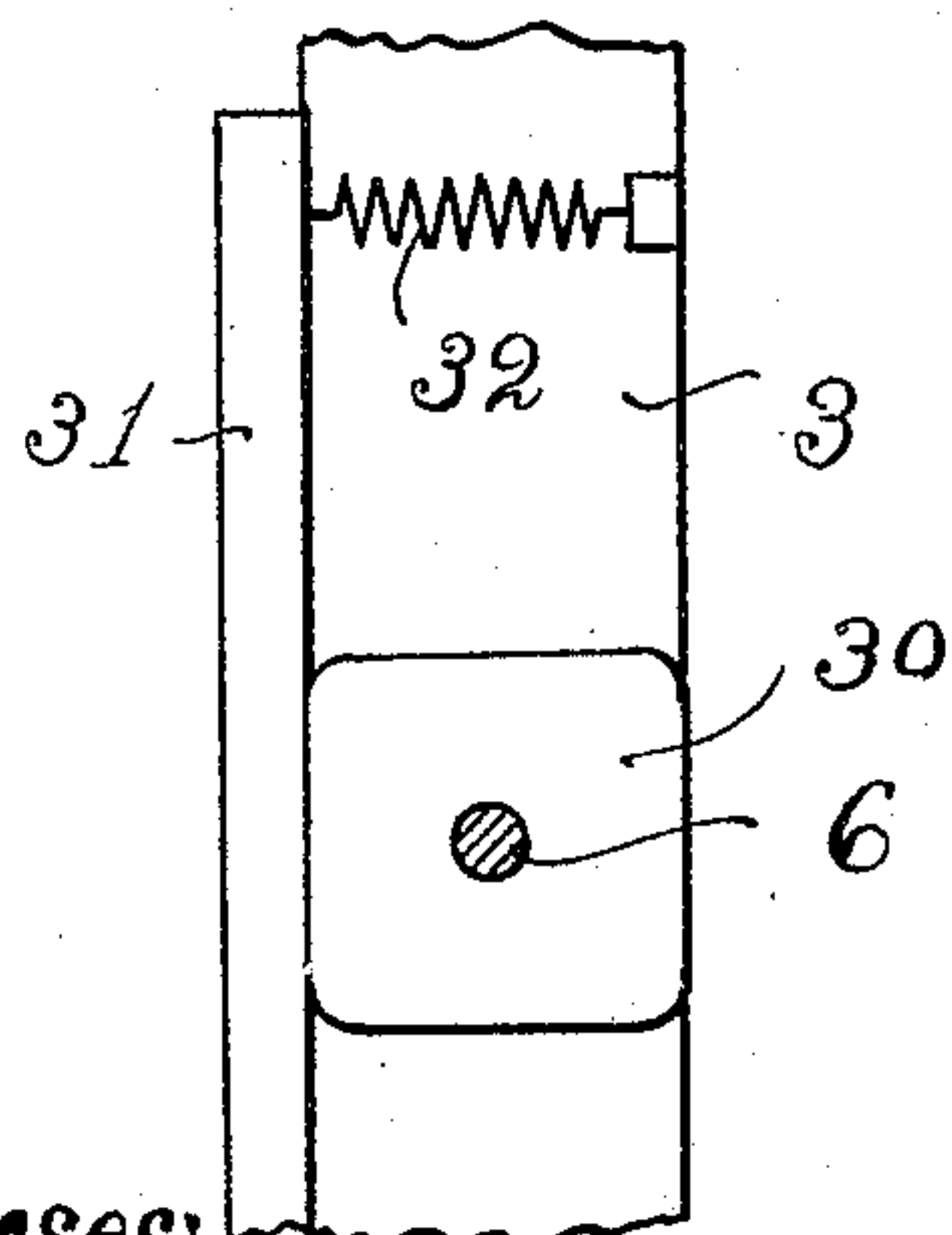


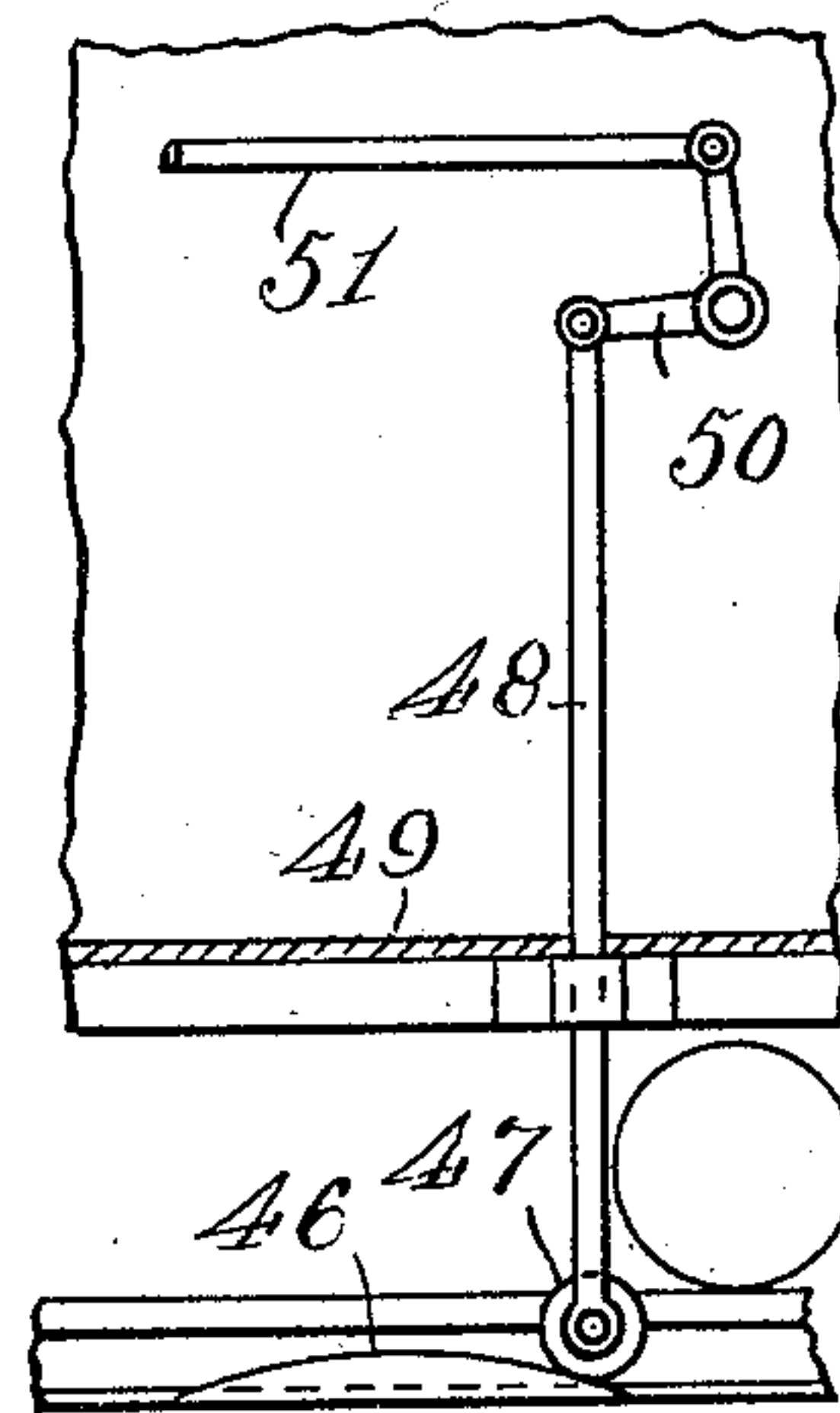
Fig. 4.



Witnesses:

E. F. Wilson
F. Schlotfeld

Fig. 5.



Inventor:

Otto Balogh
By Rudolf K. F. [Signature]
Attorney.

UNITED STATES PATENT OFFICE.

OTTO BALOGH, OF CHICAGO, ILLINOIS.

RAILWAY-STATION INDICATOR.

SPECIFICATION forming part of Letters Patent No. 789,956, dated May 16, 1905.

Application filed June 11, 1904. Serial No. 212,133.

To all whom it may concern:

Be it known that I, OTTO BALOGH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Railway-Station Indicators; and I do hereby 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 ap-
10 pertains to make and use the same.

My invention relates to a novel construction in a station-indicator for railway passenger-cars, the object being to provide a simple and efficient device of this character; and
15 it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a plan section of a
20 station-indicator constructed in accordance with my invention. Fig. 2 is a vertical section of the same on the line 2 2 of Fig. 1. Fig. 3 is a vertical section on the line 3 3 of Fig. 1. Fig. 4 is a fragmentary detail section on the line 4 4 of Fig. 1. Fig. 5 is a detail
25 view showing means adapted to be connected with my device and actuated by a projection adjacent the rails for operating same.

My said device comprises a casing 1 of any
30 suitable material, in which are mounted two sets of standards 2 and 3, each set comprising three standards disposed in alinement with each other, said standards 2 being provided with bearings for the shafts 4 and 5 and said
35 standards 3 being provided with bearings for the shaft 6. On said shafts 4 and 5 are reels or drums 8 and 7, to each of which is secured one end of a roll 9 of fabric of any suitable
40 kind having printed thereon at regular intervals the names of the stations which are consecutively passed by the railway-car carrying the indicator. The said roll is trained over a drum 10 on the shaft 6, the said drum being provided on its side edges with peripheral
45 projections 11 at regular intervals, between which are recesses 12 for the reception of cross-rods 13, secured to said roll at regular intervals corresponding with the peripheral distance between the recesses 12 and pro-
50 jecting beyond the side edges of said roll.

The said cross-rods 13 are secured to said roll midway between the points at which the names of stations are printed thereon and are adapted to coact with the drum 10 and mechanism
for operating same to cause the names of said
55 stations to appear consecutively opposite an opening 14 in the casing in which a transparent pane 15 is mounted. The said roll is unwound from one of the reels or drums 7 and
60 8 and wound upon the other thereof, the movement being reversible to accord with the direction of travel of the car. On said shaft 6 are mounted two ratchet-wheels 16 and 17, the teeth of which point in opposite direc-
65 tions, respectively, and each of the said ratchet-wheels is actuated by a dog in the manner which I will now describe. Loosely mounted on said shaft 6 adjacent each of said ratchet-
70 wheels 16 and 17 is a frame 18, at one end of which is a weight 19, which serves to hold said frame normally in a given position, such position being shown in Fig. 3. Pivotal-
75 ly secured to said frame at one side thereon is a bell-crank lever 20, having a short arm 21 serving as a pawl to engage the ratchet-wheel and having a long arm 22, at the free end of
80 which is a weight 23, which serves to normally hold said pawl out of engagement with said ratchet-wheel. The said bell-crank lever is pivoted at its elbow and adjacent same
85 is provided with a projecting eye 24, to which is secured one end of a cord 25. The latter is trained over the top of the frame 18 and is passed through an eyelet 26 thereon and passes thence downwardly over an idler
90 mounted in the bottom of the casing 1, so that by pulling on the other end of said cord said arm 21 of said lever 20 will be thrown into engagement with the ratchet-wheel, and by further pulling on said cord the said frame
95 18 will be turned against the action of said weight 19, thereby turning said shaft 6 in one direction. The said frames 18 are respectively reversed, and the cord 27, connected with the bell-crank lever of the other of said
100 frames, passes on the opposite side of the shaft 6, so that by pulling on said cord 27 the said shaft will be turned in the opposite direction. The movements of the said frames 18 are limited in both directions by stops 28 and 29,

which are so arranged as to allow said frames a movement through an arc of about eighty degrees. Mounted at one end of said shaft 6 is a polygonal member 30, which accords in the number of its sides with the projections 11 and in the instance illustrated is square. Hinged to one of the standards 3 is a plate 31, which is normally held in contact with one of the sides of said member 30 by means of tension-springs 32 in an obvious manner, said plate being turned against the action of said springs by the partial revolution of said member 30 and serving when the same has been turned through an arc greater than forty-five degrees to further turn the same to complete an arc of ninety degrees, thereby causing said drum 10 to be turned to a position in which one of the names of stations printed on the roll is brought before the opening 14 in plain view of the passengers. Loosely mounted on the said shafts 4 and 5 are drums 33 and 34, over each of which one of said cords is trained, the cord 25 being trained over the drum 33 on the shaft 4 and the cord 27 being trained over the drum 34 to turn said drums, respectively, in opposite directions. The said drums 33 and 34 are disposed adjacent ratchet-wheels 35 and 36, respectively, which are rigidly mounted on their respective shafts and the teeth of which point in opposite directions, respectively, each of said ratchets being adapted to be engaged by spring-dogs 37 and 38 to turn said shafts with said drums, said spring-dogs being mounted rigid with said drums. Only one of said shafts 4 or 5 is operated at one time to turn the reel thereon to wind the roll upon the same. Thus when the cord 25 is pulled the drum 10 will be turned in one direction to feed the roll toward the shaft 4, and the latter is simultaneously turned to take up slack in the said roll, said cord 25 being adapted to slip as soon as the roll is taut between said shaft 4 and said drum 10. When said shaft 4 is so turned, the shaft 5 is free and is turned by the tension of the roll against the retarding pressure of the spring-dog engaging the ratchet-wheel on said shaft, while the drums are held against free rotation by spring-actuated brakes 39, bearing on the periphery of one flange of each. The said cords 25 and 27 pass through suitable openings 40 in the bottom of the casing 1 and are secured at their ends to rings 41 of larger diameter than said openings. To each of said rings is secured a cord 42, which at its other end is secured to one end of a spiral tension-spring 43 hung in the upper end of the casing, said spring serving to slacken the cords 25 and 27 when the ring connected with either of same is released, thus enabling the weights 19 and 23 to return to their normal positions after each operation. Hinged to said casing 1 on its rear wall is a lever 44, the free end of which carries a projection 52, which is provided with a recess 53, over which the free end 45 of a plate 54 pro-

jects, which plate is secured to said projection 52, said free end 45 of said plate 54 forming a hook which is adapted to receive one of said rings 41 and operate the device by moving said free end outwardly from said casing. My said device may be operated by one of the crew of the car or train, or it may be automatically operated by placing on the road-bed adjacent one of the rails at predetermined points between stations projections 46, which lie in the path of an antifriction-roller 47, mounted in the lower end of a plunger-rod 48, passing through the floor 49 of the car, and connected at its upper end with one arm of a bell-crank lever 50, pivotally secured at its elbow to a part of the car-body, the other arm of said lever 50 being connected, by means of a rod 51, with the free end of said lever 44. At each end of the roll 9 beyond the ends of the list of stations printed thereon I omit the cross-rods, so that after passing the last station on the line the further operation of my device would not injure or tear the roll, such end portions being adapted to permit free rotation of the drum 10, and the friction of the cords 25 and 27 on the drums on the shafts 4 and 5 being insufficient to cause such roll to be torn. Upon reaching or passing the last station the lever 44 is connected with the other of said rings 41, so that the roll will be reversed when the car makes its return trip.

My said device is simple, durable, and very efficient.

I claim as my invention—

1. In a device of the kind specified, the combination with a web having printed thereon at regular intervals the names of railway-stations, and two reels connected with opposite ends of said web, of a drum over which said web is trained, means for actuating said drum to turn same at intervals, and coacting means common to said drum and said web to determine the distance said web is fed at each operation, said actuating means comprising a ratchet-wheel rigid with said drum, a pawl engaging same, a cord connected with said pawl for throwing same into engagement with said ratchet-wheel and turning the latter, a ratchet-wheel rigid with one of said reels, a second drum loosely mounted adjacent same over which said cord is trained, and a spring-actuated pawl carried by said second drum and engaging said last-named ratchet to turn said reel simultaneously with said first-named drum and take up slack in said web.

2. In a device of the kind specified, the combination with a web having printed thereon at regular intervals the names of railway-stations, and reels upon which said web is adapted to be alternately wound connected with opposite ends thereof, of a drum over which said web is trained, two ratchet-wheels having oppositely-disposed teeth rigidly mounted on the shaft of said drum, pawls engaging said ratchet-wheels, means for limiting the movements of

said pawls, means independent of said pawls
for determining the movement of said drum
at each operation, actuating means connected
with said pawls for operating either of same,
5 coacting devices carried by said drum and said
web for imparting longitudinal movement to
the latter, and devices connected with said
reels for imparting motion thereto, said last-

named devices being operated by the actuat-
ing means operating said pawls. 10

In testimony whereof I have signed my name
in presence of two subscribing witnesses.

OTTO BALOGH.

Witnesses:

RUDOLPH WM. LOTZ,
F. SCHLOTFELD.