

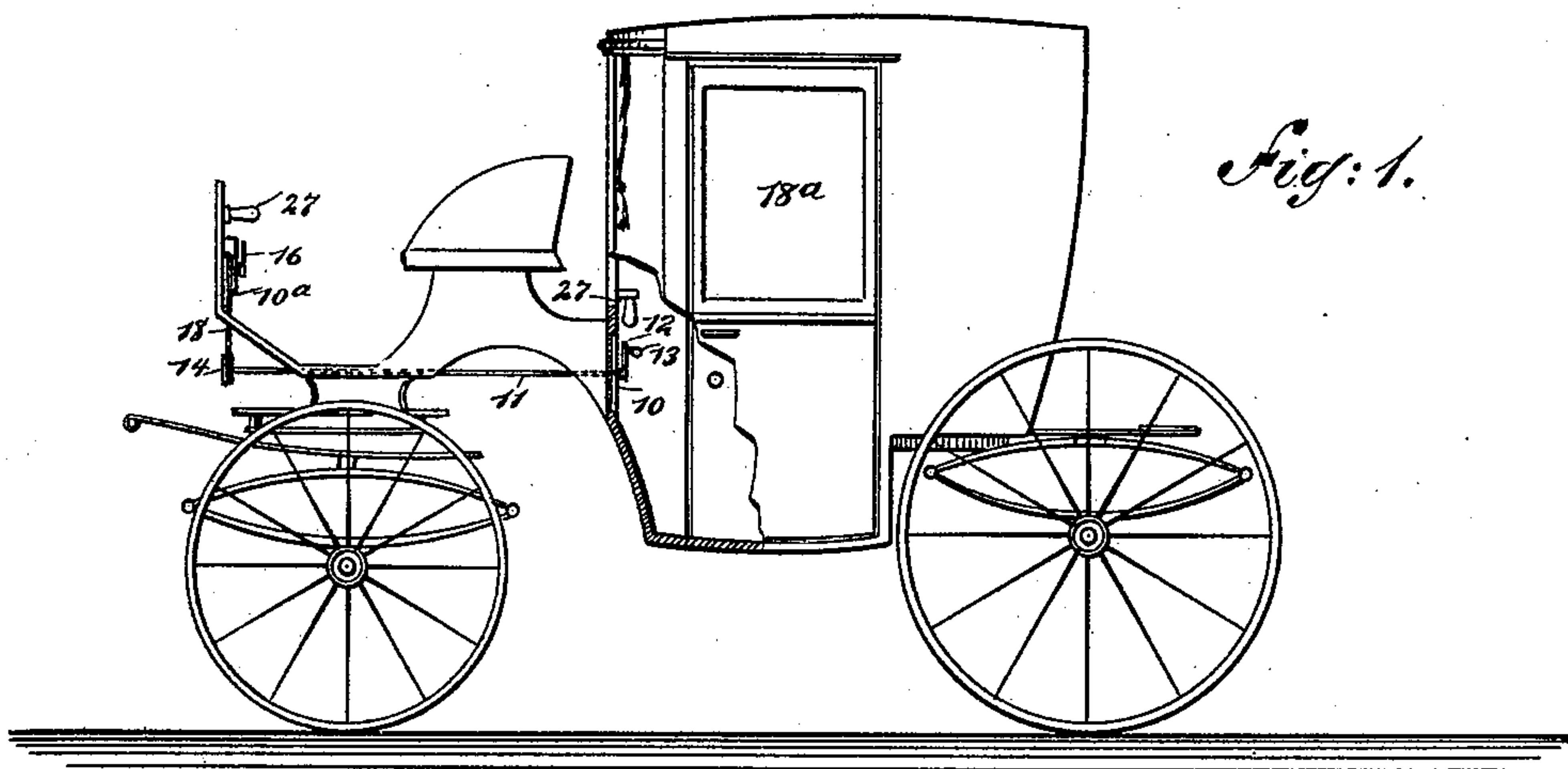
(No Model.)

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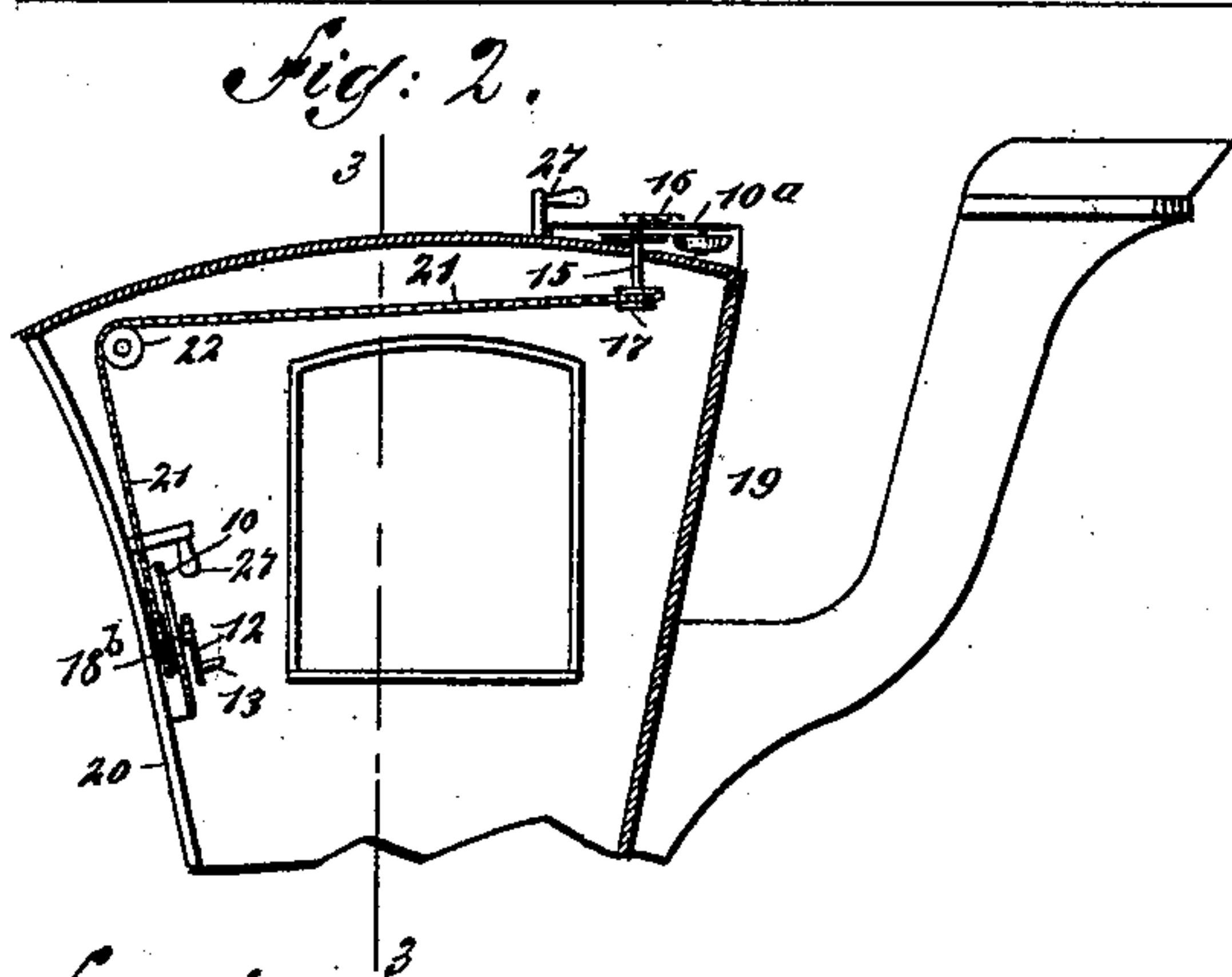
A. M. BLAKE.  
INDICATOR FOR CARRIAGES.

No. 498,101.

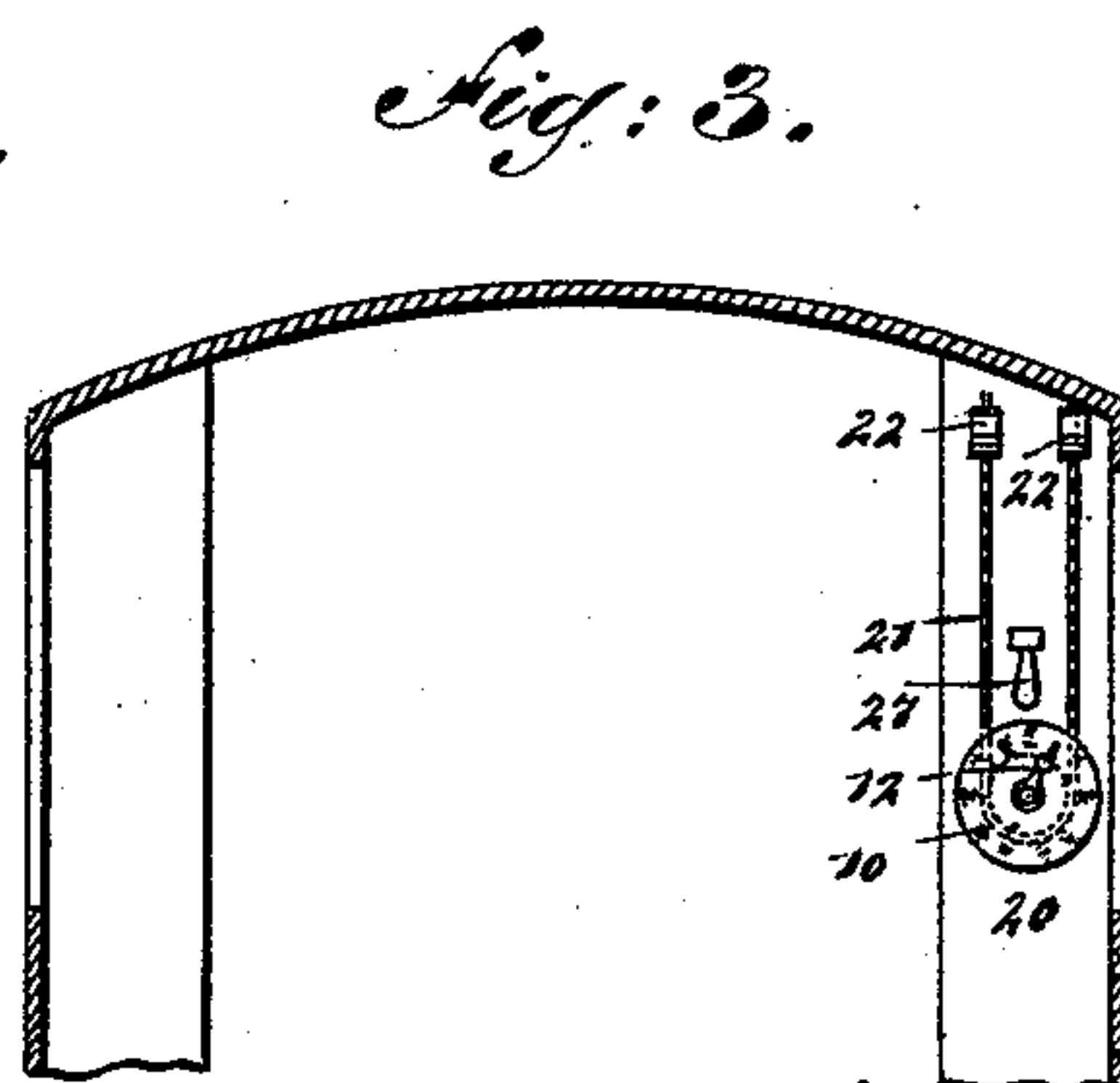
Patented May 23, 1893.



*Fig: 1.*



*Fig: 2.*



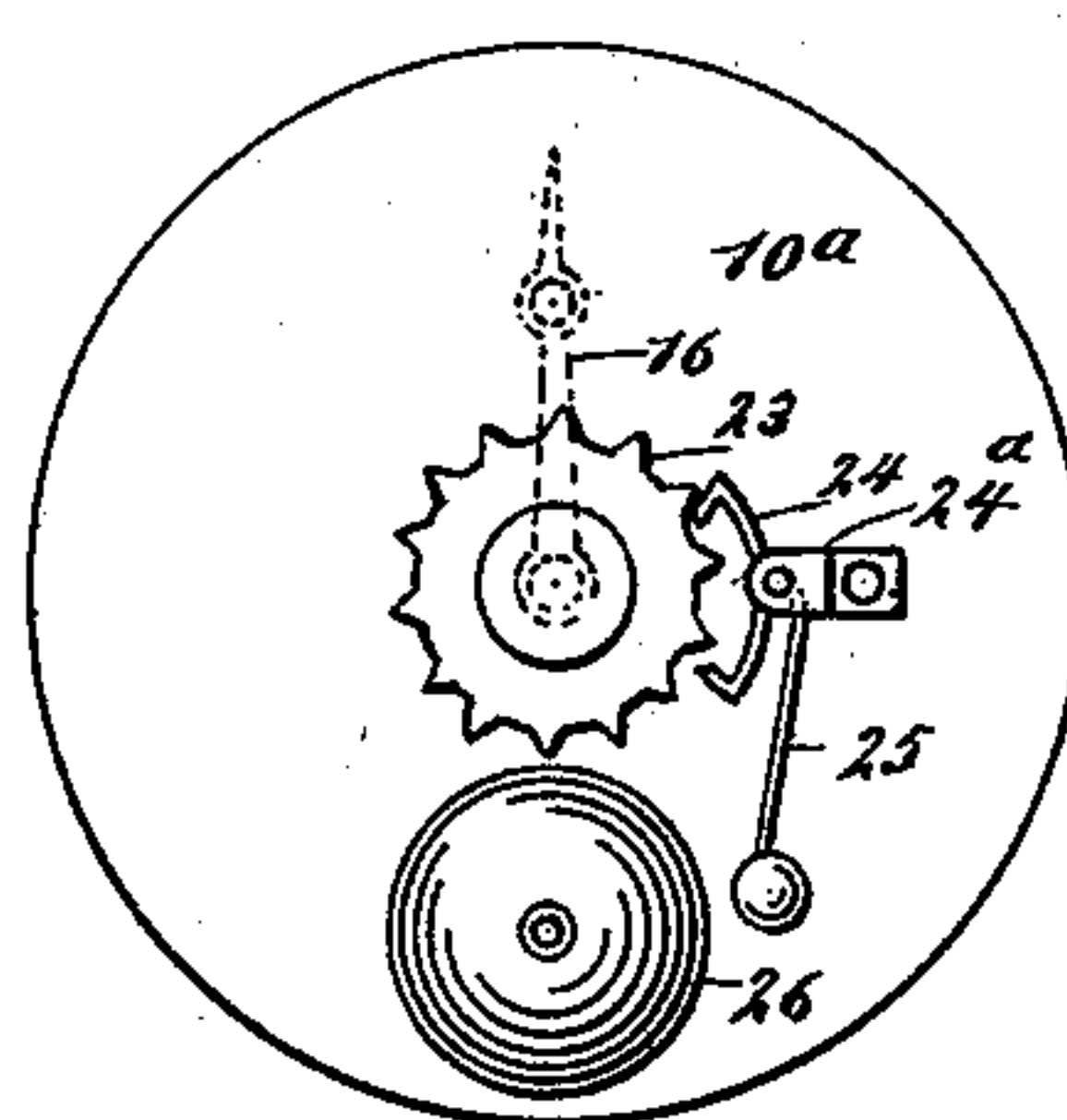
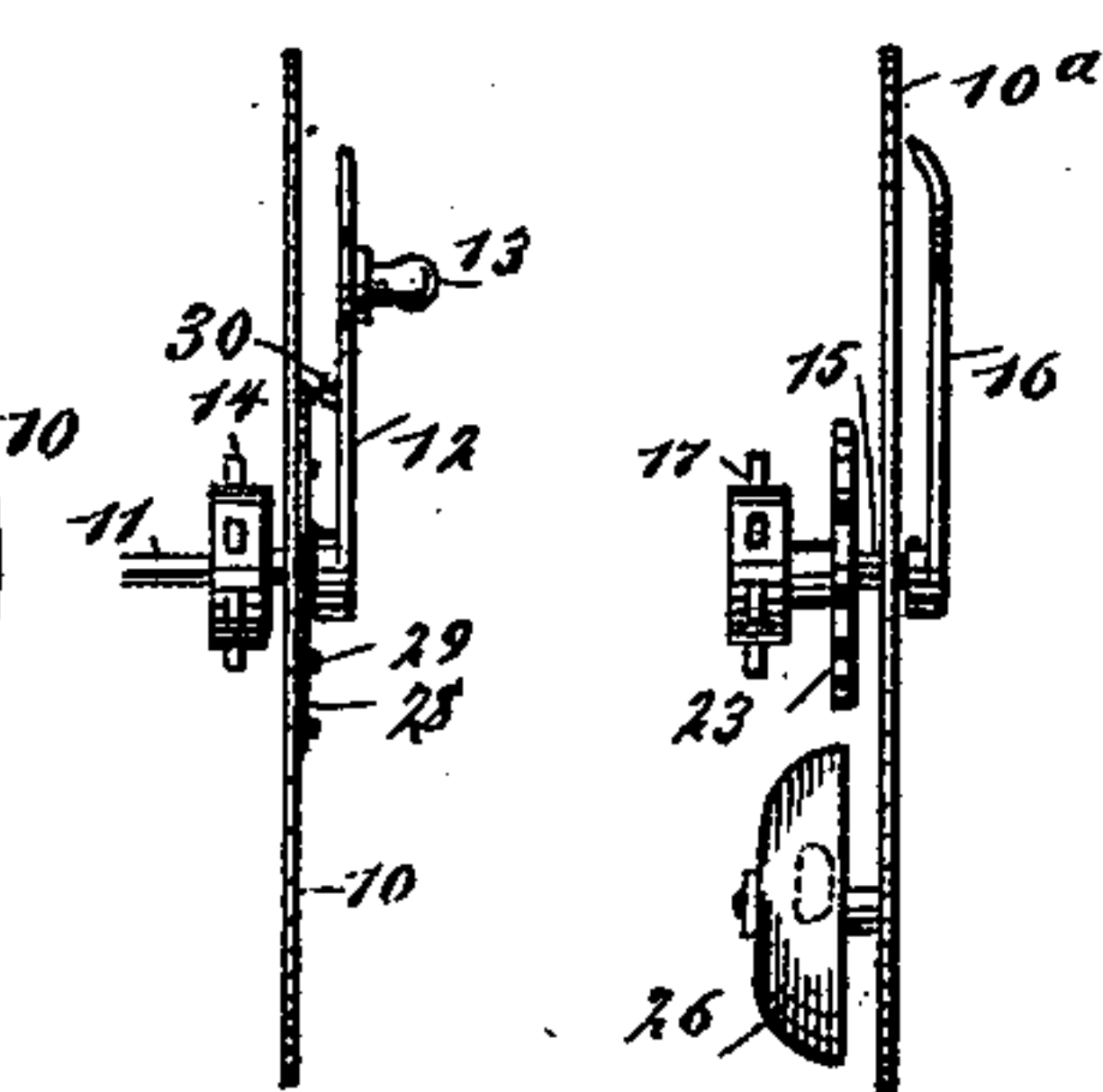
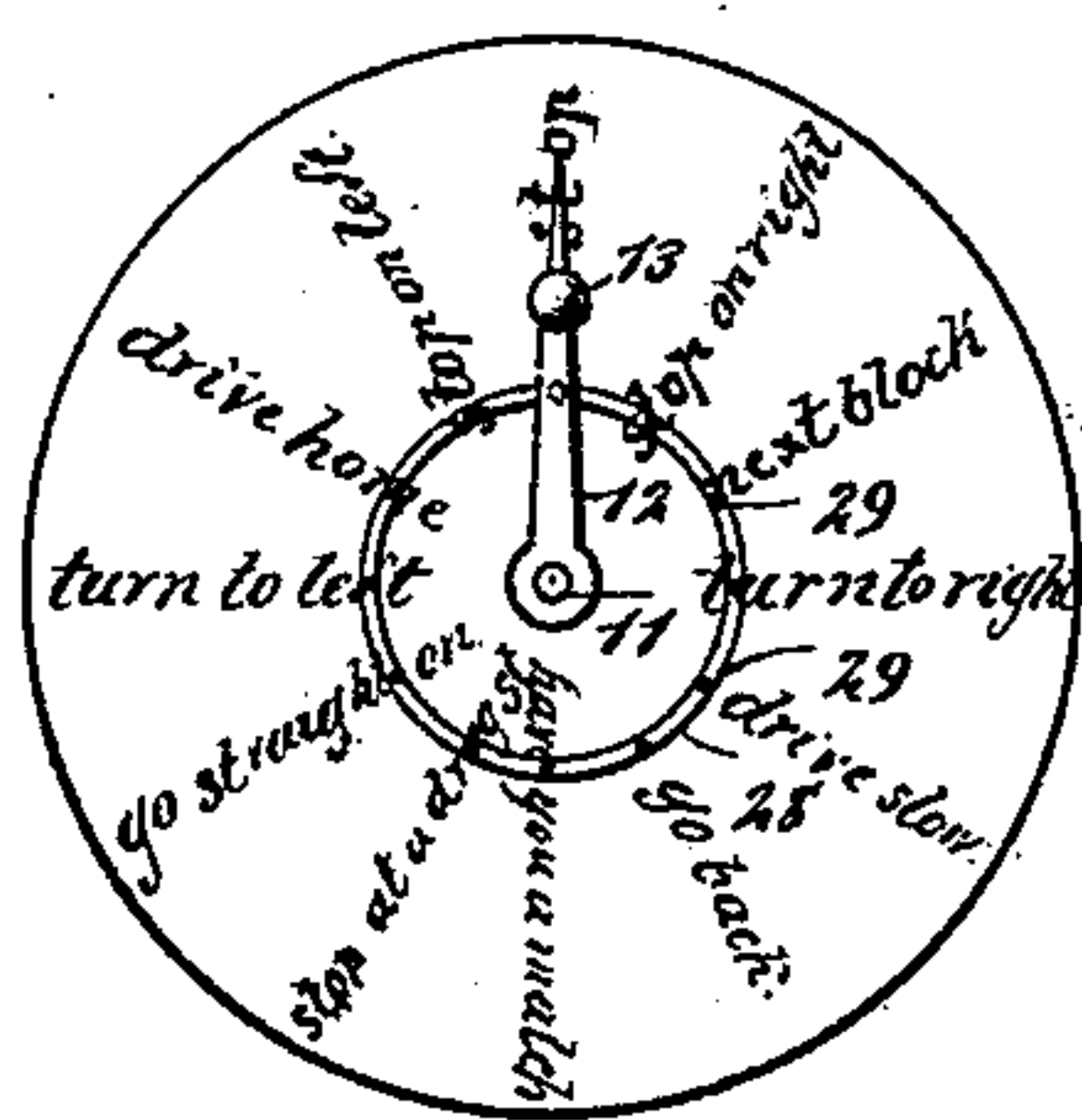
*Fig: 3.*

*Fig: 4.*

*Fig: 5.*

*Fig: 7.*

*Fig: 6.*



WITNESSES:

*Chas. Viola.*  
*C. Sedgwick*

INVENTOR

*A. M. Blake*  
BY *Munn & Co.*  
ATTORNEYS.

(No Model.)

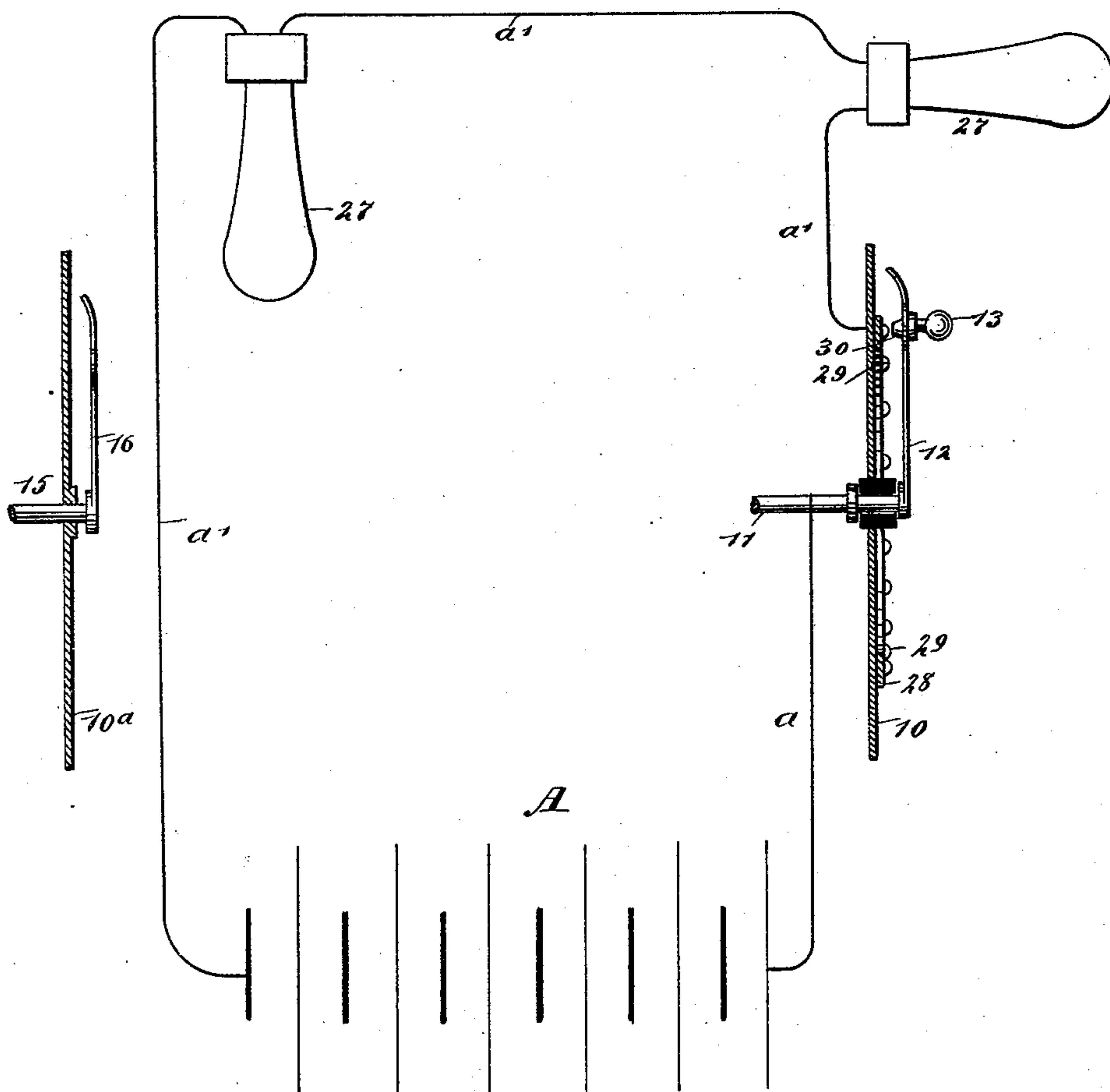
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*Fig: 8.*



WITNESSES:

*Chas. Viola.*  
*C. Sedgwick*

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# UNITED STATES PATENT OFFICE.

ARTHUR M. BLAKE, OF NEW YORK, N. Y.

## INDICATOR FOR CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 498,101, dated May 23, 1893.

Application filed December 29, 1892. Serial No. 456,650. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR M. BLAKE, of the city, county, and State of New York, have invented new and useful Improvements in Carriage Attachments, of which the following is a full, clear, and exact description.

My invention relates to improvements in dial attachments for carriages and especially for closed carriages. In such carriages it is very difficult to make the driver hear the directions given from within the carriage, and the object of my invention is to produce a simple, practical, and convenient indicating dial mechanism, having dials at points where they may be readily seen by the occupants of the carriage and by the driver, and having also simultaneously moving hands, so that by moving the hand on the dial within the carriage to a certain point on the dial, the hand on the outer dial will also be moved and the driver, by looking at the dial, may ascertain just what is required of him.

A further object of my invention is to construct a signal mechanism which will operate automatically to notify the driver when the indicating hands are moved, and also to provide electric lamps for lighting the dials at night, and an automatic switch mechanism to close the circuit through the lamps when the dial hands are moved.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation of a coupé provided with my improved attachments. Fig. 2 is a broken sectional elevation of a hansom having my attachments applied thereto; Fig. 3 cross section on the line 3—3 in Fig. 2. Fig. 4 is a detail front elevation of the inside dial. Fig. 5 is an edge view of the same. Fig. 6 is an inverted plan or rear elevation of the outside dial, showing the signal mechanism thereon. Fig. 7 is an edge view of the outside dial and its connected mechanism; and Fig. 8 is a diagrammatic view showing the lamp circuit and the switch mechanism for closing the same.

A dial 10 is adapted to be used inside the carriage, this dial having produced thereon, in radial lines, a series of directions which would be most often given to the driver, such as "Turn to the left," "Drive home," "Stop on right," "Next block," &c.; and it is obvious that these directions may be varied indefinitely according to circumstances. This dial is mounted on a shaft 11 but it does not turn with the shaft, and on the shaft and held to turn therewith is an indicating hand 12 which moves over the face of the dial and which is preferably provided with a knob 13 to enable it to be easily moved, although the knob is not essential.

The shaft 11 is mounted in a suitable support within the carriage, and if the apparatus is applied to a coupé it may be conveniently extended forward beneath the seat and dasher, as shown in Fig. 1. It is provided with a sprocket wheel 14 to which a chain may be attached and connected with the driving sprocket wheel of the outside dial. The outer dial 10<sup>a</sup> is like the inside dial, and extending through it is a shaft 15 carrying a hand 16 which moves over the dial face. The shaft 15 has a sprocket wheel 17 to connect with the driving chain 18, which also connects with the sprocket wheel 14 of the shaft 11, and consequently when the hand 12 is moved, the hand 16 which is secured to the shaft 15 will move over the dial 10<sup>a</sup>, and the two hands are arranged so that they will both be opposite similar words on the dial, and in this way the driver may be easily made to know what is required of him.

The above description shows how the mechanism is applied to a coupé 18<sup>a</sup>, but when applied to a hansom 19, see Figs. 2 and 3, the inside dial is preferably arranged on one of the side ledges 20 on the front portion of the hansom, and the outer dial 10<sup>a</sup> is arranged on the top and back side of the hansom where it may be conveniently observed by the driver.

A sprocket chain 21 connects the sprocket wheel 17 of the dial 10<sup>a</sup> with the sprocket wheel 18<sup>b</sup> of the dial 10, and in this case it is necessary to pass the chain over guide pulleys 22 in the upper portion of the hansom. From these two illustrations, it will be understood that the two dials may be arranged upon



any kind of a vehicle and in any desired position, and suitable operative connections made between the indicating hands without departing from the principle of my invention.

5 On the shaft 15 of the outer dial is a toothed wheel 23 which engages and tilts a dog 24 pivoted in a suitable support 24<sup>a</sup> and arranged to operate a hammer 25 which strikes an ordinary gong 26 arranged in the path of the  
10 hammer. The teeth on the wheel 23 should correspond with the number of lines of directions on the dials, and every time the shaft is turned the distance of one tooth or one line, the dog 24 will be tilted and the gong  
15 sounded, thus attracting the attention of the driver.

To enable the apparatus to be worked successfully at night as well as in the daytime, electric lamps 27 are arranged so as to light  
20 the dials, one being within the carriage and the other without, and a battery of any suitable kind may be carried in a convenient place within the carriage and connected up so as to light the lamps by the movement of  
25 one of the dial hands or indicators. This may be done in many ways, and a convenient way is illustrated in the drawings.

On the inner dial 10 which is insulated on the shaft 11, see Fig. 8, is a conducting ring  
30 28 having contact points 29 thereon, these points being radially opposite the lines of directions on the dial and the points are adapted to contact with a point 30 on the hand 12, and when these two contacts 29 and 30 touch, the  
35 circuit will be closed and the lamps lighted. An operative circuit is illustrated in Fig. 8. A represents the battery from which leads a wire *a* to the shaft 11. A wire *a'* leads from the dial 10 through the lamps 27 and back to  
40 the battery, so that when the hand 12 is moved and the contacts 29 and 30 brought together, a circuit is closed which is from the battery A through the wire *a*, the shaft 11, the hand 12, contacts 30 and 29, the ring 28, the dial  
45 10, and the wire *a'* and lamps 27 back to the bat-

tery. It will be seen then that every time the hand is moved the electric circuit will be closed and the light will shine upon the dials so that both the operator and the driver can plainly see the signal.

From the foregoing description, it will be seen that the dial hands may be simultaneously operated so as to indicate the directions to the driver, and that the lamps will be lighted to enable the directions to be seen, but it will  
50 be understood that the driving connection between the two hands may be changed and different circuit closing mechanism employed, without departing from the principle of my invention. It will also be understood that for  
55 day use the lamps will be disconnected.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with the vehicle, of similar dials arranged within and without the vehicle and provided upon their faces with printed directions, indicating hands held to move over the faces of the dials and connected together so as to move in unison, a gong arranged near the outer dial, and a hammer provided with a dog 24 and a toothed wheel on the outer indicator shaft the teeth of which engage the two arms of said dog and cause the hammer to strike the gong, substantially  
65 as described. 70 75

2. The combination with the vehicle, of dials arranged within and without the vehicle and provided upon their faces with printed directions, indicating hands held to move over the  
80 faces of the dials, an operative connection between the hands whereby they are moved in unison, electric lamps arranged to light the dials, and mechanism for closing the circuit through the lamps by the movement of one of  
85 the dial hands, substantially as described.

ARTHUR M. BLAKE.

Witnesses:

WM. P. FERGUSON,  
C. GUILLOT.