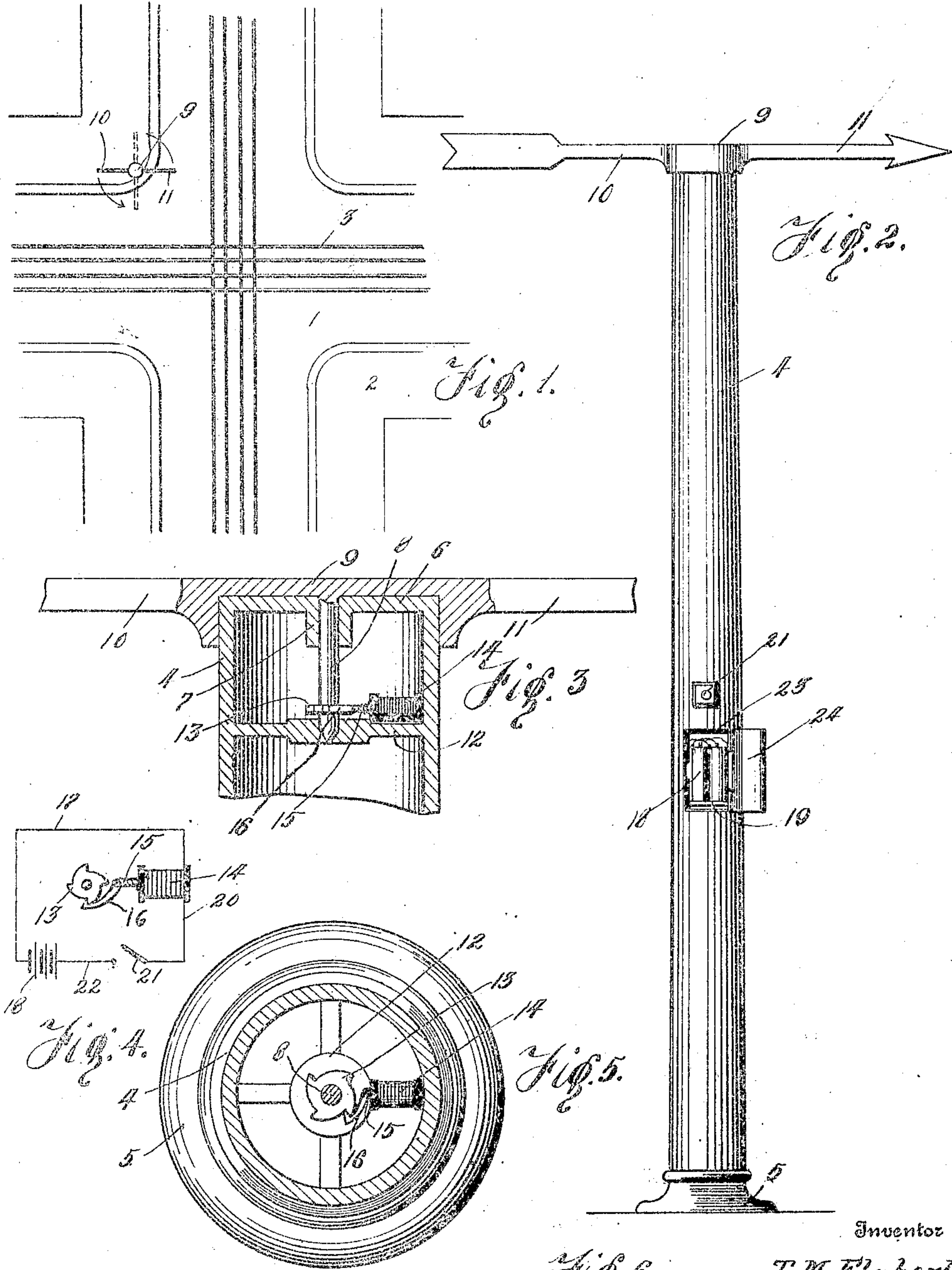


T. M. FLAHERTY.
 SIGNAL FOR CROSSINGS.
 APPLICATION FILED SEPT. 24, 1909.

991,964.

Patented May 9, 1911.



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UNITED STATES PATENT OFFICE.

THOMAS M. FLAHERTY, OF PITTSBURG, PENNSYLVANIA.

SIGNAL FOR CROSSINGS.

991,964.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed September 24, 1909. Serial No. 519,431.

To all whom it may concern:

Be it known that I, THOMAS M. FLAHERTY, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Signals for Crossings, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to signals for crossings, particularly the crossings of street car tracks at the intersection of two or more streets.

The primary object of my invention is to provide a simple and durable signal which can be observed from either of the intersecting streets by wagonmen, street car motormen and pedestrians, whereby the observer can determine the right of way, and thus eliminate all danger of being run over or injured by street cars and vehicles.

Another object of this invention is to obviate the necessity of policemen or similar watchmen standing in the driveway of intersecting streets, also the necessity of a policeman or watchman giving an audible signal.

A still further object of this invention is to provide an electrical signal that can be easily operated by a policeman or watchman located upon the sidewalk of one of the intersecting streets, the signal being positive in its action and easily observed by pedestrians or travelers at the corners of intersecting streets.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be presently described and then claimed.

In the drawings, Figure 1 is a diagrammatic view of the intersecting streets or thoroughfares, illustrating two locations of my signal. Fig. 2 is an enlarged side elevation of the signal, Fig. 3 is an enlarged vertical sectional view of a portion of the signal, Fig. 4 is a diagrammatic view illustrating the electrical connection of the signal, Fig. 5 is a horizontal sectional view of the signal, and Fig. 6 is an enlarged elevation of a solenoid forming part of the operating mechanism for the signal.

In the accompanying drawings, 1 denotes intersecting streets or thoroughfares having sidewalks 2 and intersecting street car lines

3. To carry out the objects of the invention I locate the signal at one of the corners of these intersecting streets, the signal being positioned upon the sidewalk adjacent to the curbing thereof.

The signal comprises a tubular post 4 having a base 5 suitably secured to the sidewalks at one of the corners of the intersecting streets 1. The upper end of the tubular post 4 is closed, as at 6, and provided with a depending bushing 7 for a vertical shaft 8. The shaft 8 is carried by a cap 9 adapted to loosely fit upon the upper end of the post, and having diametrically opposed signal arms 10 and 11. In the accompanying illustration of the invention, the arm 10 is shown as representing the tail of an arrow and the arm 11 the head thereof.

12 designates a spider located within the post near the upper end thereof and revolvably supporting the lower end of the shaft 8, said shaft adjacent to the spider having a horizontal ratchet wheel 13 fixed thereon.

14 designates a solenoid supported by one of the arms of the spider 12, said solenoid having a spring held core 15 provided with a pivoted spring pressed pawl 16 adapted to engage the ratchet wheel 13. This solenoid is connected by a wire 17 to batteries 18 supported upon a bracket 19 located within the post 4, said bracket being at an elevation to be easily reached when the batteries are to be renewed or recharged. The solenoid is also connected by a wire 20 to an electric switch or button 21, said switch or button being connected by a wire 22 to the batteries 18. Easy access is had to the batteries 18 through the medium of a doorway 23 formed in the post 4 adjacent to the bracket 19, said doorway being normally closed by a door 24.

The switch or button 21 is preferably located above the doorway 23 and at an elevation that the button or switch can be easily pressed or operated by a watchman or policeman standing near the post 4. It is apparent that when the switch or button is operated the solenoid 14 is energized, drawing the core 15 inwardly and turning the shaft 8 a quarter of a revolution, which positions the signal at the top of the post 4 to aline with either one of the streets, indicating that the crossing is clear and that wagons and pedestrians can safely cross. When the solenoid 14 is deenergized, the core 15 assumes its normal position due to the spring forcing

the core outwardly and the pawl 16 recedes over the ratchet wheel and obtains a fresh grip for rotating the shaft 8 another quarter revolution,

5 Although the signal arm as herein shown is in the form of an arrow, it is obvious that any desired form or shape of signal arm or arms may be employed without departing from the spirit of the invention.

10 The exposed parts of the signal are made of strong and durable metal, and while in the drawings there is illustrated the preferred embodiments of the invention, I would have it understood that the structural
15 elements thereof can be varied or changed, as to the size, proportion and manner of assemblage without departing from the spirit and scope of the invention.

Having now described my invention, what
20 I claim as new, is;—

1. A signal for crossings, comprising a tubular post, a cap revolubly mounted upon the upper end of said post, diametrically op-
25 posed arms carried by said cap, and means located in said post for revolving said cap,

said means including a ratchet wheel, a solenoid the core of said solenoid having a pawl engaging said ratchet wheel, and batteries for energizing said solenoid.

2. In a signal for crossings, a tubular post, 30 a cap revolubly mounted upon the upper end of said post, diametrically opposed arms carried by said cap, and means located in said post for revolving said cap.

3. In a signal for crossings, a signal sup- 35 porting post, a cap revolubly-mounted on the upper end of said post, a signal arm carried by said cap, a shaft carried by the cap and depending into the post, a ratchet wheel on the shaft, a solenoid within the
40 post, the core of said solenoid having a pawl engaging said ratchet wheel, and a source of electrical energy within the post for energizing the solenoid.

In testimony whereof I affix my signature 45 in the presence of two witnesses.

THOMAS M. FLAHERTY.

Witnesses:

MAX H. SROLOVITZ,

KARL H. BUTLER.