Oct. 31, 1933. M. E. DENNY 1,933,244

SCHOOL TRAFFIC GATE

Original Filed Jan. 5, 1932 4 Sheets-Sheet 1

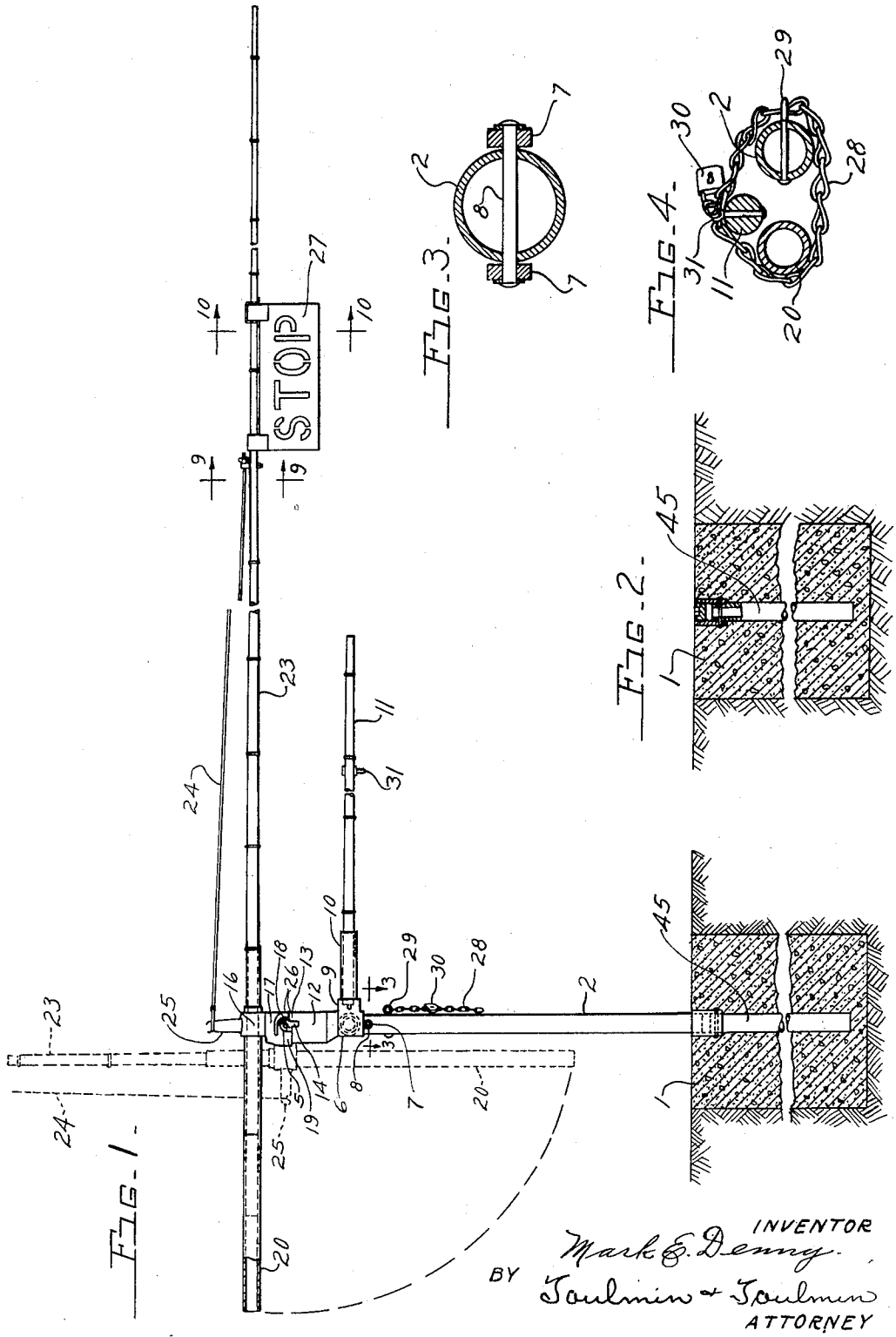


FIG. 1.

FIG. 3.

FIG. 4.

FIG. 2.

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Original Filed Jan. 5, 1932 4 Sheets-Sheet 2

FIG. 5.

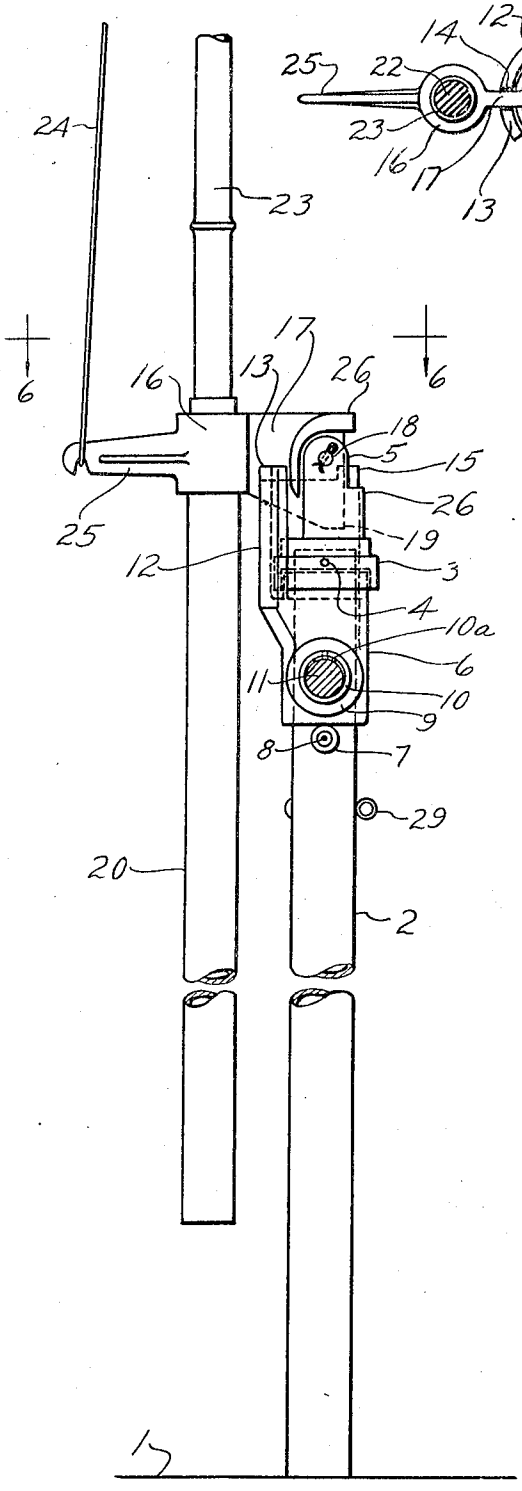


FIG. 6.

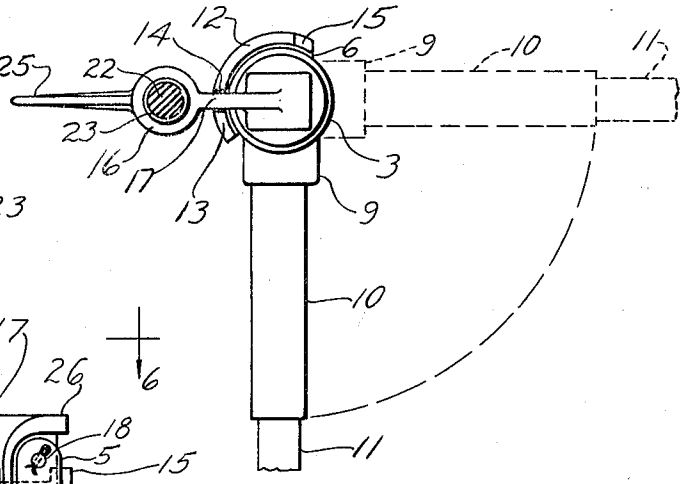
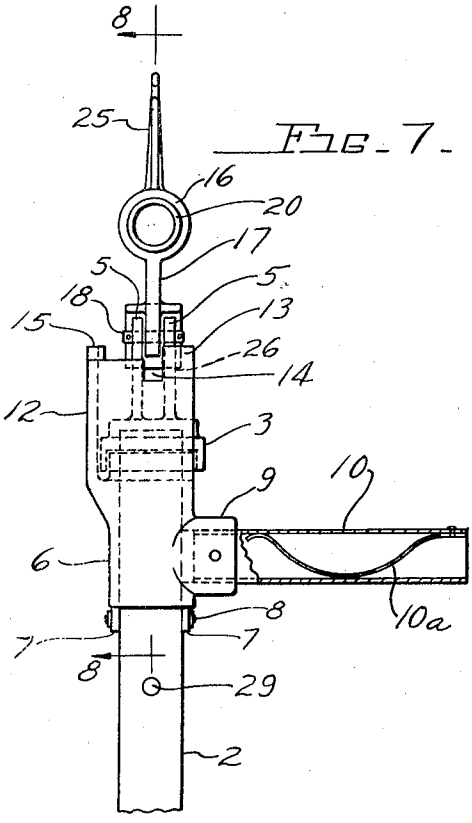


FIG. 7.



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SCHOOL TRAFFIC GATE

Original Filed Jan. 5, 1932 4 Sheets-Sheet 3

FIG. 8.

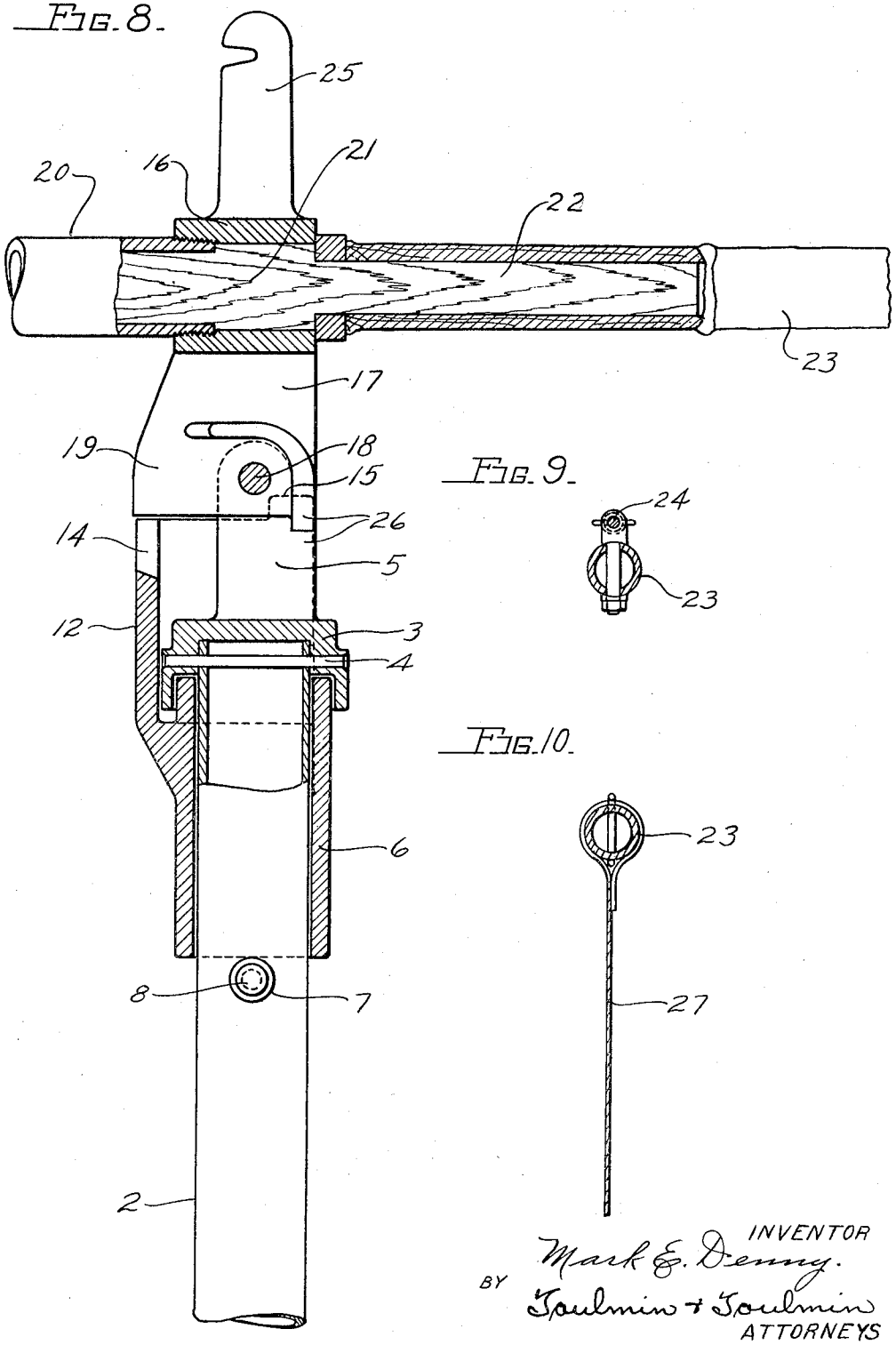


FIG. 9.

FIG. 10.

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Oct. 31, 1933. M. E. DENNY 1,933,244

SCHOOL TRAFFIC GATE

Original Filed Jan. 5, 1932 4 Sheets-Sheet 4

FIG. 11.

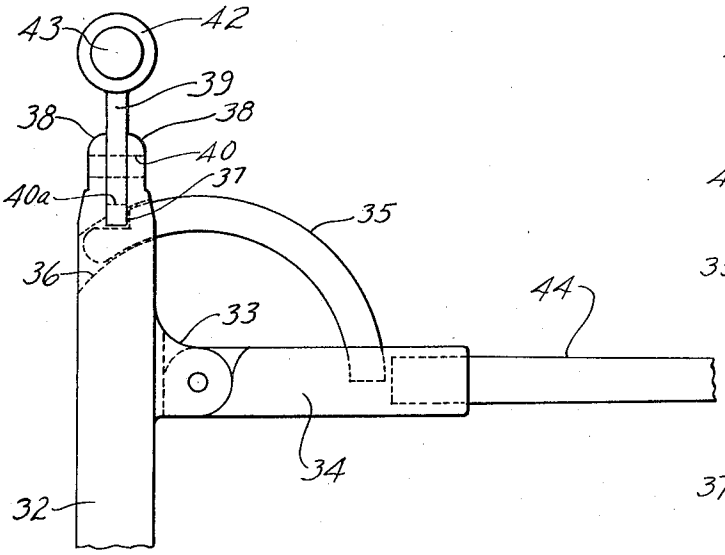


FIG. 12.

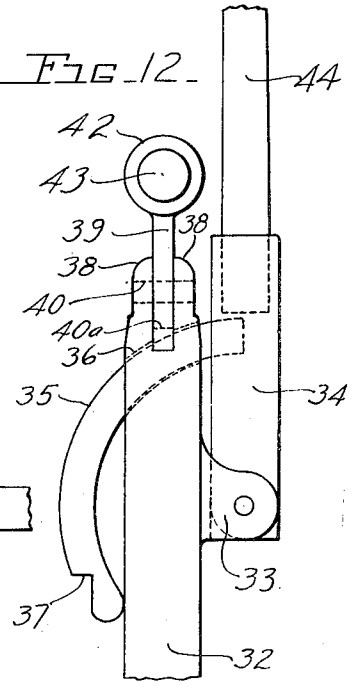


FIG. 13.

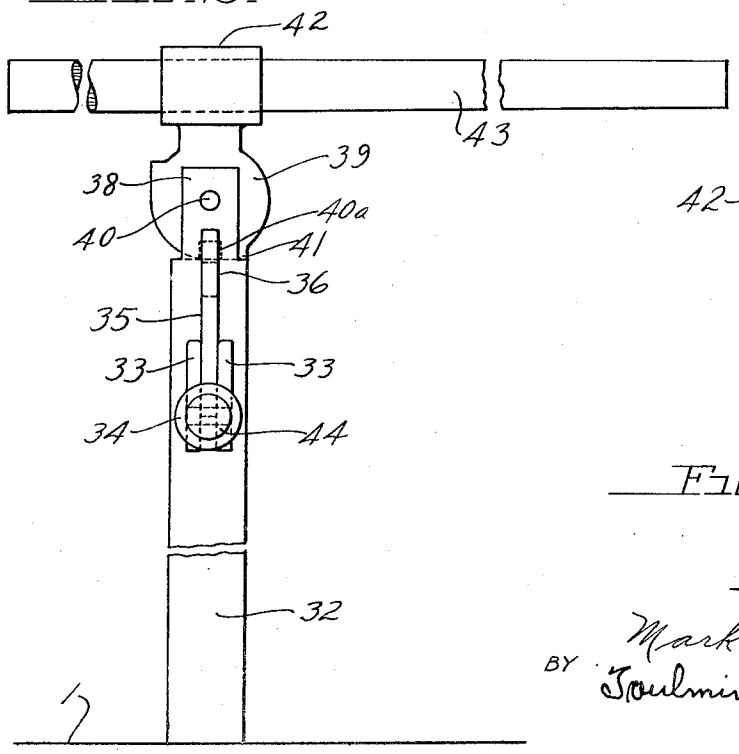
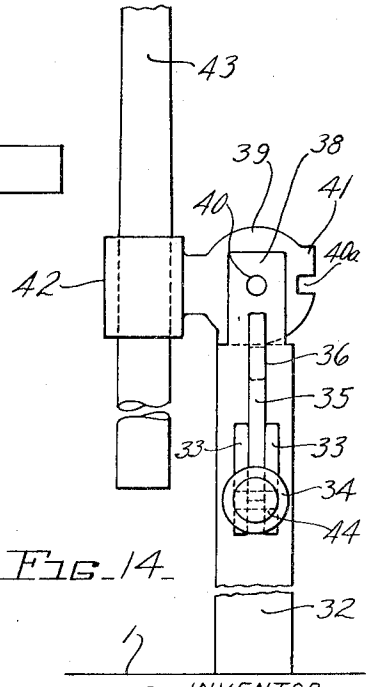


FIG. 14.



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UNITED STATES PATENT OFFICE

1,933,244

SCHOOL TRAFFIC GATE

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Application January 5, 1932, Serial No. 584,854
Renewed September 13, 1933

11 Claims. (Cl. 39—62)

This invention relates to a school traffic gate, and has for its object to provide a pair of gates, one to prevent vehicular traffic along a street and the other to prevent pedestrian traffic along a sidewalk leading across the street.

It is also an object of this invention to provide two cooperating stop arms, one a vehicular stop arm and the other a pedestrian stop arm, and having these arms so connected that the vehicular stop arm is in stop position whenever the pedestrian stop arm is in position to permit pedestrians to pass.

It is a further object of this invention to provide a pair of swinging arms to regulate vehicular and pedestrian traffic so that when one traffic is passing the other is prohibited or prevented from passing.

These and other advantages will appear from the following description taken in connection with the drawings.

Referring to the drawings:

Figure 1 is a view showing one form of the present invention, with the vehicular stop arm in traffic stopping position.

Figure 2 is a section through the base member, showing the manner in which the post is supported.

Figure 3 is a section on the line 3—3 of Figure 1.

Figure 4 is a section through the supporting post with the arms attached thereto when the apparatus is not being used.

Figure 5 is a view of the form shown in Figure 1 with the traffic pole elevated.

Figure 6 is a section on the line 6—6 of Figure 5.

Figure 7 is a view showing the vehicular stop in stop position but with the control sleeve in position for it to be moved to open position for vehicular traffic.

Figure 8 is a section on the line 8—8 of Figure 7.

Figure 9 is a section on the line 9—9 of Figure 1.

Figure 10 is a section on the line 10—10 of Figure 1.

Figure 11 is a slightly modified form showing the apparatus in position to stop both vehicular and pedestrian traffic.

Figure 12 shows a form similar to that of Figure 11, but with the arms raised for permitting pedestrian traffic to pass.

Figure 13 is a view similar to Figure 11 but looking at a right angle to the form shown in Figure 11.

Figure 14 is a view showing the vehicular traffic arm elevated. In this form the pedestrian traffic arm is in horizontal position for stopping pedestrians.

In each of the forms there is a vertical post serving as a support. In the form shown in Figure 1 the post is indicated by the numeral 2 and is supported in a concrete base 1. On the upper end of the post 2 is a cap 3 attached thereto by means of a pin 4. Extending upwardly from the cap is a pair of ears 5, the purpose of which will be described later.

Supported on the upper end of the post beneath the cap is a sleeve 6, supported by means of rollers 7, one on each side, supported by a common pin 8. This sleeve is adapted to rotate around the post on the rollers 7. Extending from one side of the sleeve is a projection 9, which has a hole therein to receive one end of a metal pipe 10, which has in it a spring 10a adapted to receive in tight position one end of a bamboo or other stop arm 11. While in the present instance this arm or pole is shown made of bamboo, any suitable material may be used.

Extending upwardly from the sleeve 6 is an arcuate, substantially semi-circular extension 12, which has on its upper surface, at each edge, a stop. One stop 13, at one edge, has adjacent thereto a slot 14. On the other side of this extension is a stop 15. These stops limit the rotary movement of the sleeve 6 and the projection 9. The stops permit a movement of the pipe 10 and the stop arm 11 through substantially ninety degrees so that the arm 11 may either permit or close off pedestrian traffic along an adjacent sidewalk.

The numeral 16 is used to designate a sleeve, which has extending laterally therefrom a flat flange 17 pivoted between the ears 5 by means of a pin or bolt 18. As shown in Figure 8 this bolt is located in one side of the flange 17, providing an extension beyond one side of the bolt 18, which serves as a stop 19. This stop 19 rests on the upper end of the extension 12, on the upper end of the sleeve 6.

When the sleeve 16 is in a certain position it may be rocked on the pin or bolt 18, with the stop 19 passing through the slot 14. When this part 19 passes through the slot 14 the sleeve 16 may be swung to a vertical position, with the flange 17 in a horizontal position.

Extending from one end of the sleeve is a counterpoised weight 20, which also serves as a handle for moving the sleeve 16 about its pivot 18. Located within the sleeve 16 and the counterweight 20, and extending from the sleeve in the direction opposite to the counterweight, is a plug of wood 21. The part of the plug extending from the sleeve is indicated by the numeral 22, and is adapted to receive thereon one

end of a bamboo pole 23 which serves as a traffic signal.

Suitably attached to the bamboo pole is a guy rod 24, one end of which is attached to the pole while the other end is attached to an arm 25 extending laterally from the sleeve 16 in the opposite direction to that of the flange 17. This arm 25 and guy rod tend to support the bamboo pole in a horizontal position, as shown in Figure 1, and prevent the sagging of the free end of the pole. In order to hold the bamboo pole in the position shown in Figures 1 and 8, there are provided on the flange 17 and the ears 5, stops 26. These stops are best shown in Figures 5 and 8. In Figure 8 they are in engagement with each other for holding the bamboo pole in a horizontal position. In Figure 5 these stops are out of engagement with the bamboo pole in a vertical position. Suitably placed at some convenient point on the member 23 is a plate 27, with a sign stop thereon. Each stop member is hand-operated. The stop pole 23 cannot move out of traffic-stopping position until the stop arm 11 has been moved to a position to stop pedestrian traffic crossing the road. This apparatus is used to control traffic along one highway with the pedestrian traffic leading across the highway.

In order that the parts 11 and 23 may be assembled and held in idle position when the operation of the apparatus is not needed, a chain 28 is attached to a suitable eye or ring 29 on the post 2. This chain has in connection therewith a padlock 30. When the apparatus is not in use the bamboo stop arm 11 may be removed from the pipe 10 and attached to the post 2 by means of an eye 31. The chain 28 passes around the post 2, the counterweight 20 and the stop arm 11 and is fastened around these members by means of the padlock 30, which engages the chain and also the eye 31.

In the form shown in Figures 11 to 14 the post is indicated by the numeral 32, and has extending from one side thereof, near its upper end, a pair of ears 33 between which one end of a socket member 34 is pivoted. Extending upwardly from this socket member is an arcuate arm 35, which extends through and moves in an arcuate slot 36 near the upper end of the post 32. In the free end of this arcuate arm is a notch 37, as shown in Figure 12. On the extreme upper end of the post 32 is a pair of ears 38, between which is pivoted a circular disc 39 by means of a pivot pin 40.

At one point in the periphery of this circular disc is a notch 40*a*, which has adjacent one side thereof a stop 41 adapted to engage the post between the ears to hold a sleeve 42 in a horizontal position. This sleeve is located on the circular disc opposite the notch 40*a* and is adapted to receive one end of a vehicular traffic stop arm 43.

Inserted in the free end of the socket member 34 is a stop arm 44 adapted to extend across the sidewalk for stopping pedestrians. The arms 44 and 43 are at right angles to each other so that when one is in position the other may be elevated for passage of traffic. In Figure 11 the two arms 43 and 44 are in a horizontal position. Either arm may be elevated.

In Figure 12 the pedestrian stop arm 44 is elevated. In elevating this arm the arcuate arm 35 is caused to enter the notch 40*a*, thereby locking the sleeve 42 against swinging movement. This sleeve and arm 43 cannot be moved until the arm 44 is lowered. When the arm 44 is lowered the notches 37 and 40*a* are adjacent each other so that either arm may be moved, but if one arm be moved the other one becomes immediately immovable.

In Figure 14 the vehicular traffic arm is elevated for the passing of vehicles. When the arm is in the position shown in Figure 14 the circular disc 39 fits in the notch 37 and across the arcuate arm 35 against movement so that the stop arm 44 cannot be raised until the arm 43 is lowered, thereby preventing pedestrian traffic as long as vehicular traffic is permitted. In Figure 2 there is shown a means by which the standards may be supported in the concrete base. There is provided in the concrete base a permanent pipe 45, which has at its upper end means for securely attaching the lower end of the post 2 or the post 32.

In each of the forms here shown the two traffic regulating means are so collated that when one is open the other must be closed, thereby positively preventing pedestrian traffic when the way is open for vehicular traffic, and preventing vehicular traffic when the way is open for pedestrian traffic.

It will be understood that I desire to comprehend within my invention such modifications as come within the scope of my claims and my invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a traffic gate, a post, a horizontally swinging arm pivoted at one end to the post, a vertically swinging arm pivoted at one end to the post, and means operated by the swinging of one arm to prevent the swinging of the other arm, said means including an arcuate projection.

2. In a traffic gate, a post, a horizontally swinging arm pivoted at one end to the post, a vertically swinging arm pivoted at one end to the post, and means operated by the swinging of one arm to prevent the swinging of the other arm, said means including a projecting stop on one arm and an arcuate projection on the other arm.

3. In a traffic gate, a post, a horizontally swinging arm pivoted at one end to the post, a vertically swinging arm pivoted at one end to the post, an arcuate projection on the horizontally swinging arm, said projection having a slot therein, and means on the vertically swinging arm to engage the projection to prevent the swinging of the arm and adapted to fit in the slot so the arm can swing.

4. In a traffic gate, a post, a pair of arms, each arm pivoted at one end to the post, and cooperating means on the arms to limit their swinging movements and adapted when either arm is in certain positions to prevent the other arm from swinging, said means including an arcuate projection forming a stop engaging surface having at one end a stop and at the other end a notch and a stop, and a stop adapted to engage the surface or fit into said notch.

5. In a traffic gate, a post, a pair of rollers on the post, a sleeve supported on the rollers for rotation around the post, an arm on the sleeve, a second arm pivoted at one end to the post, and cooperating means for preventing the movement of one arm when the other is in certain positions.

6. In a traffic gate, a post, a pair of rollers on the post, a sleeve supported on the rollers for rotation around the post, a second sleeve having a lateral projection, said projection being pivoted

to the upper end of the post whereby the second sleeve has a rocking movement, and means on the first sleeve and the lateral projection to prevent the movement of one sleeve when the other sleeve is in certain positions.

7. In a traffic gate, a post, a pair of rollers on the post, a sleeve supported on the rollers for rotation around the post, an arcuate projection extending upwardly from the sleeve, said projection having a stop surface with a stop at one end and a stop and notch at the other end, and a second sleeve having a lateral projection, said projection being pivoted at one side to the upper end of the post and having on its other side a stop to engage said projection surface or fit in the notch whereby the movements of the sleeves are controlled.

8. In a traffic gate, in combination with a base having a post receiving hole, a post adapted to be placed in said hole, a sleeve rotatably supported on the post, a second sleeve pivoted on top of the post for a vertical swinging movement, and interlocking means on the sleeves whereby one sleeve is locked against movement when the other is in certain positions.

9. In a traffic gate, a post having a pair of ears on its upper end and a slot intersecting the space between the ears, a sleeve having on one side a laterally extending disc pivoted between the ears, a socket member pivoted to the post, and an arcuate arm extending from the socket member through the slot, the arcuate arm and the disc, each having a notch through which one may move when the other is in a certain position.

10. In a traffic gate, a post, a pair of vertically swinging arms on the post, and cooperating means on said arms adapted when the arms are in horizontal positions to permit the upward swing of either arm but adapted to prevent the upward swinging movement of either arm when the other has been swung upwardly, said means including a disc on one arm and an arcuate arm on the other arm, said arcuate arm extending through the post.

11. In a traffic gate, a post, a pair of vertically swinging arms on the post, and cooperating means on said arms adapted when the arms are in horizontal positions to permit the upward swing of either arm but adapted to prevent the upward swinging movement of either arm when the other has been swung upwardly, said means including a notched disc on one arm and a notched arm on the other arm.

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