March 5, 1929. S. M. EDWARDS 1,704,595

TRAFFIC CONTROL

Filed April 27, 1928 2 Sheets-Sheet 1

Fig. 1.

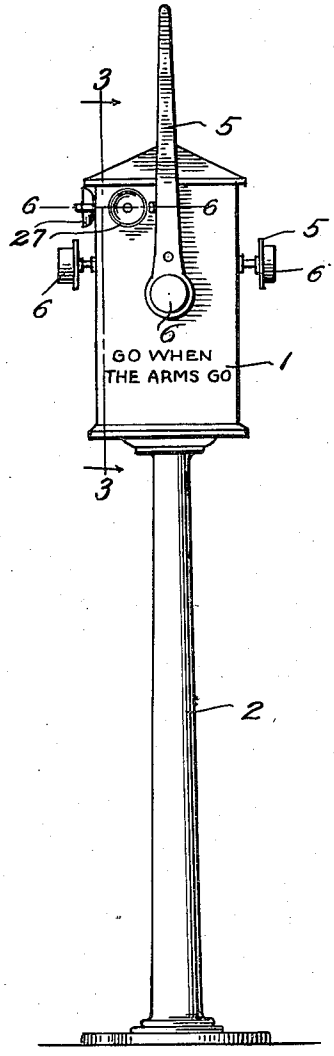
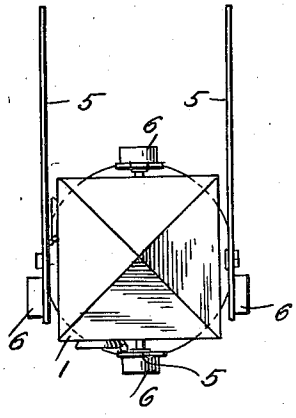


Fig. 2.



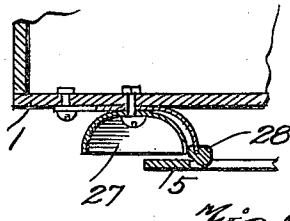
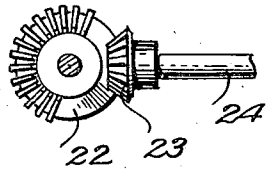


Fig. 6

Fig. 7.



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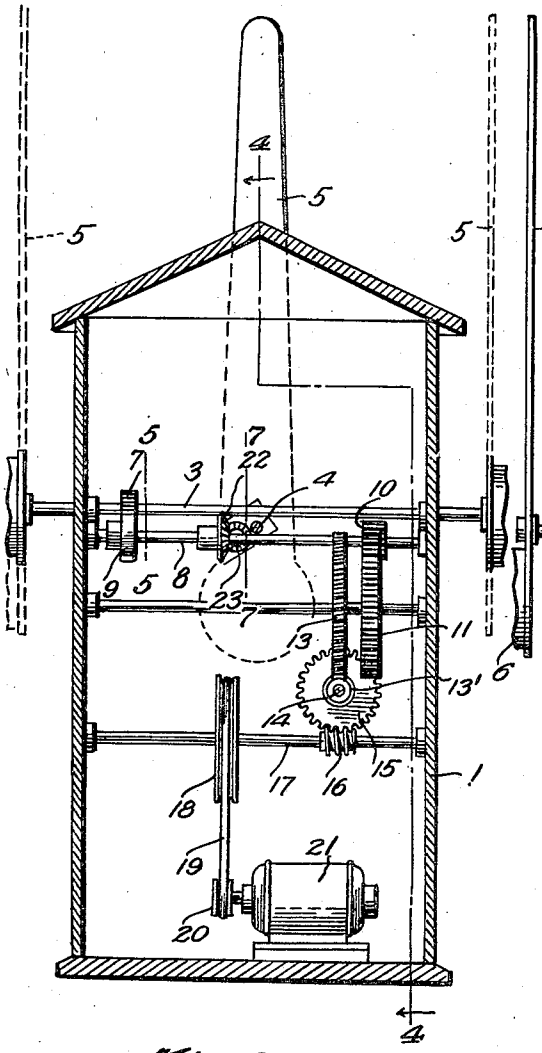


Fig. 3.

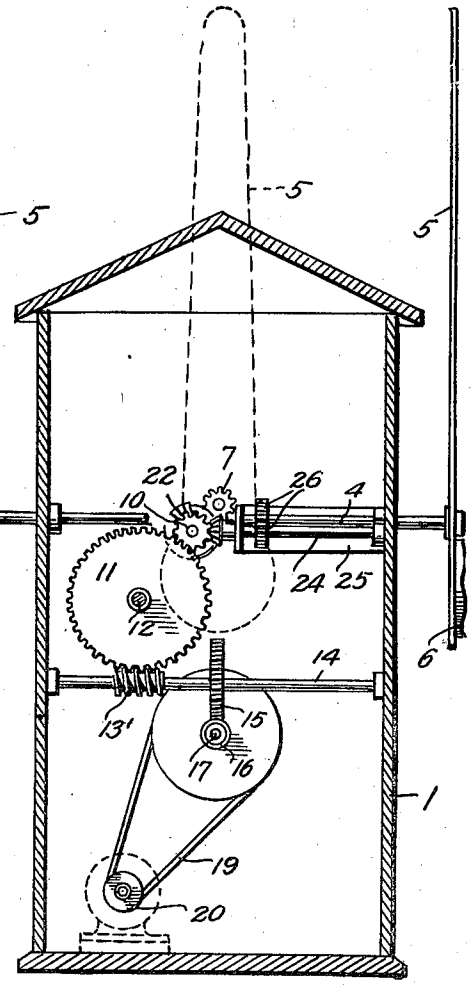


Fig. 4.

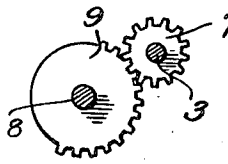


Fig. 5.

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Patented Mar. 5, 1929. 1,704,595

UNITED STATES PATENT OFFICE.

SAMUEL M. EDWARDS, OF FARGO, NORTH DAKOTA.

TRAFFIC CONTROL.

Application filed April 27, 1928. Serial No. 273,358.

This invention relates to traffic controlling means, the general object of the invention being to provide a casing having a pair of shafts passing therethrough and arranged at right angles to each other, with a semaphore arm on each end of each shaft, each arm being weighted so that it will normally remain in a vertical position, with motor driven means in the casing for turning first one shaft and then the other a complete revolution, one shaft with its arm remaining idle while the other shaft and its arms are moving, thus indicating that traffic on the street facing the moving arms is free to move, while traffic on the intersecting street must stop.

A further object of the invention is to provide mutilated gears for rotating the shafts from the motor driven means so that the shafts will be rotated to revolve the arms and then, when the plain portions of the gears come opposite the other gears, the arms will come to rest in raised position and will be held in this position by the weights.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation of the improved traffic controlling tower.

Figure 2 is a top plan view thereof.

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

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a section on line 5—5 of Figure 3.

Figure 6 is a section on line 6—6 of Figure 1.

Figure 7 is a section on line 7—7 of Figure 3.

In these views, the numeral 1 indicates a casing or housing supported on a post 2 which is placed preferably at the intersection of two streets. A shaft 3 is journaled in the housing and passes beyond the sides thereof and a second shaft 4 is journaled in the casing and passes through the sides thereof, these shafts being arranged at right angles to each other as shown. An arm 5 is fastened to each end of each shaft, each arm having a weight 6 on its lower end, these weights tending to hold the arms in vertical position. A pinion 7 is fastened to the shaft 3 and a shaft 8 is journaled in the casing and parallels the shaft 3. This shaft 8 has fastened thereto a mutilated gear 9, with the teeth omitted from a portion thereof, as clearly shown in Figure 5, this gear 9 meshing with the pinion.

The shaft 8 has attached thereto a pinion 10 which meshes with a gear 11 on a shaft 12 journaled in the casing and said shaft 12 carries a worm gear 13 which meshes with a worm 13′ on a shaft 14 journaled in the casing and which has a worm gear 15 thereon meshing with a worm 16 on a shaft 17 journaled in the casing and having a pulley 18 thereon over which passes a belt 19 which also passes over a small pulley 20 on the shaft of a motor 21 mounted in the casing. Thus the shaft 8 will be rotated from the motor through the connections shown.

A mutilated gear 22 is fastened to the shaft 8 with its teeth meshing with a beveled pinion 23 on a stub shaft 24 journaled in a frame 25 carried by the casing and this shaft 24 is connected by the gears 26 with the shaft 4.

Thus it will be seen that one shaft with its arms is rotated by the motor a complete revolution while the other shaft remains stationary with its arms in raised position. Then the first shaft remains stationary with its arms in vertical position while the second shaft is being rotated a complete revolution. As the arms on one shaft are revolving, the traffic facing these revolving arms crosses the intersection, while the traffic facing the stationary arms stop.

On a suitable part of the device, I prefer to place the words "Go when the arms go" so that the drivers of vehicles and pedestrians will know that they must cross when the arms are moving.

Thus I have provided automatic means for controlling traffic at the intersection of two streets so that it is not necessary to have a traffic officer at the intersection.

I also provide a pair of bells 27 for sounding an alarm to call attention to the movement of the arms, the hammers 28 of these bells being actuated by the arms.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

It is to be understood that I may make changes in the construction and in the combi-

nation and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. An automatic traffic controlling device comprising a tower, a pair of shafts extending through the upper part of the tower, one shaft being arranged at right angles to the other with each shaft passing through the walls of the tower, an arm on each end of each shaft, a weight on the arm for normally holding the arms in raised position, a motor in the tower and means actuated thereby for first imparting movement to one shaft to rotate the arms thereon a complete revolution and then the other shaft to revolve its arms a complete revolution, one shaft being stationary while the other shaft is revolving.

2. An automatic traffic controlling device comprising a tower, a pair of shafts extending through the upper part of the tower, one shaft being arranged at right angles to the other with each shaft passing through the walls of the tower, an arm on each end of each shaft, a weight on the arm for normally holding the arms in raised position, a motor in the tower, means actuated thereby for first imparting movement to one shaft to rotate the arms thereon a complete revolution and then the other shaft to lower the arms connected with said other shaft, one shaft and its arms remaining idle while the other shaft is rotating, such means including mutilated gears.

3. An automatic traffic controlling device comprising a casing, a pair of shafts journaled therein with their ends extending beyond the sides of the casing, one shaft being arranged at right angles to the other, a weighted arm on each end of each shaft, a third shaft journaled in the casing, a motor for driving the third shaft, a mutilated gear on the third shaft, a mutilated pinion thereon, a gear on one of the other shafts meshing with the mutilated gear, a stub shaft, a pinion thereon meshing with the mutilated pinion on the third shaft and gearing connecting the stub shaft with the second arm carrying shaft.

In testimony whereof I affix my signature.

SAMUEL M. EDWARDS.