Sept. 23, 1930. K. C. PARKHURST 1,776,447

TRAFFIC SIGNAL

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Fig. 1

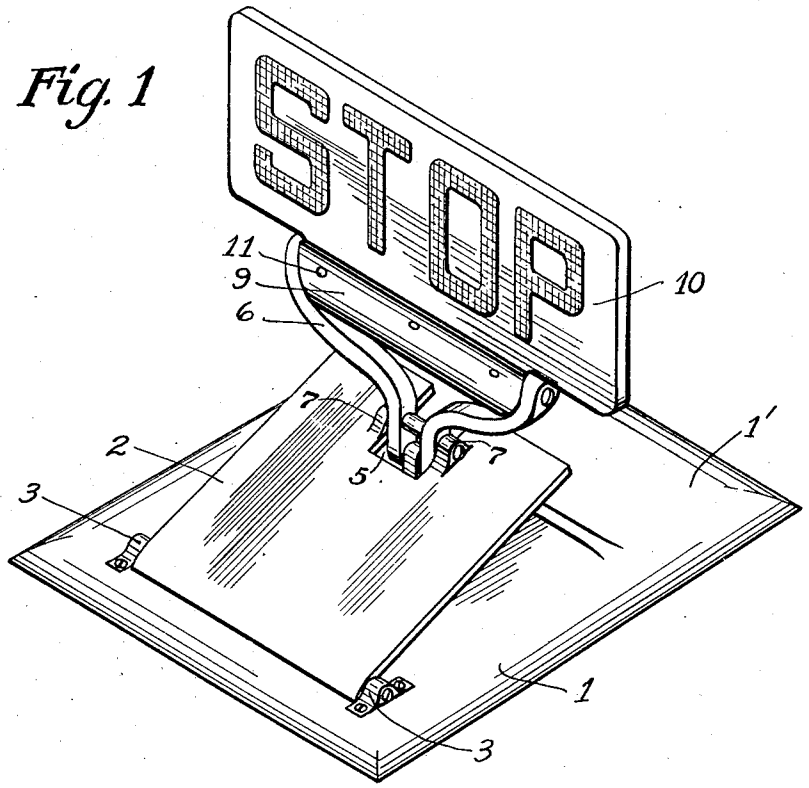
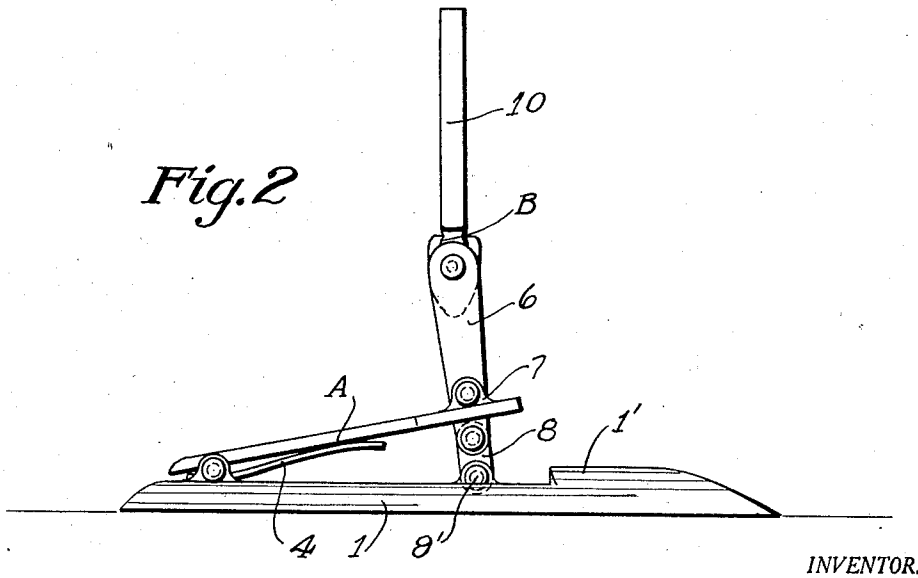


Fig. 2



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Fig. 3

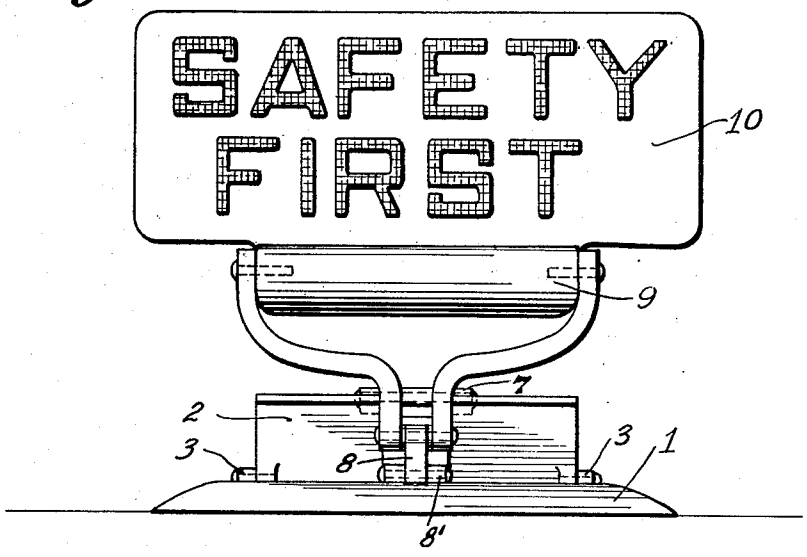


Fig. 4

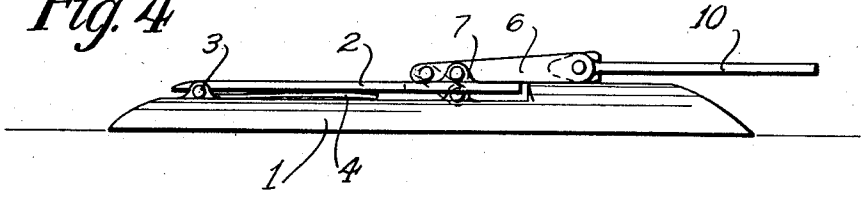
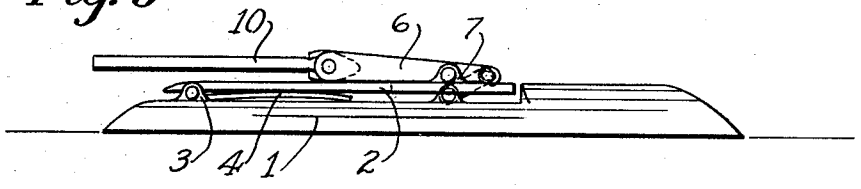


Fig. 5



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Fig. 6

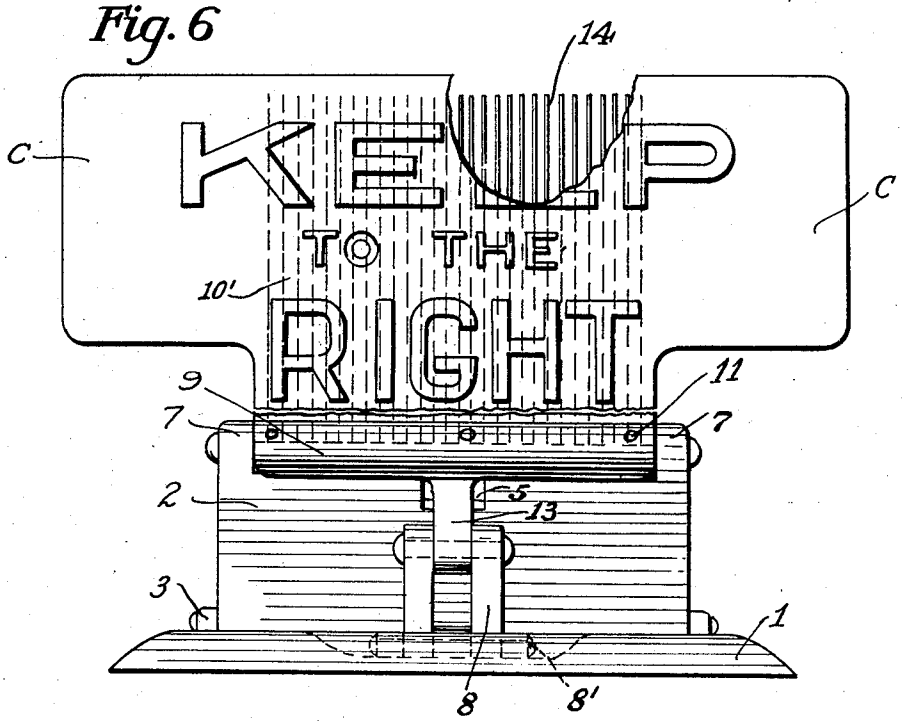
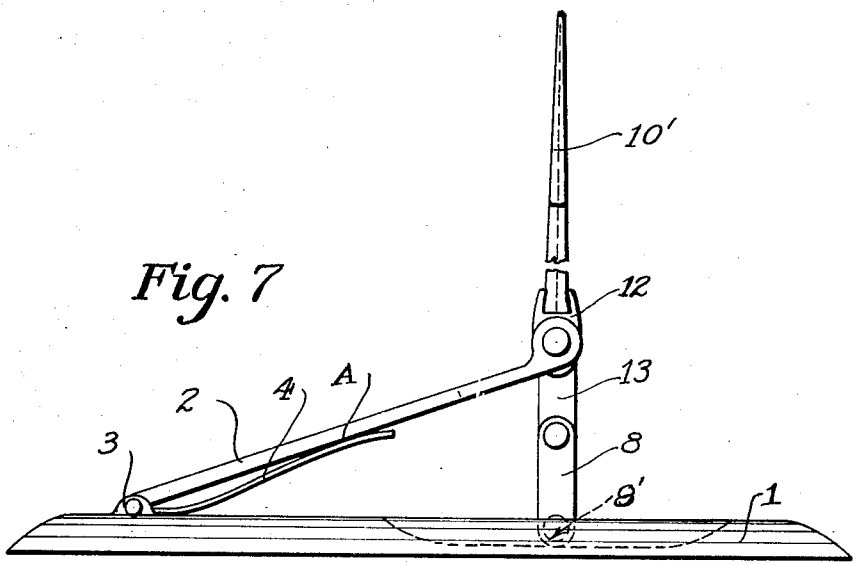


Fig. 7



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Patented Sept. 23, 1930 1,776,447

UNITED STATES PATENT OFFICE

KARL C. PARKHURST, OF WICHITA, KANSAS

TRAFFIC SIGNAL

Application filed October 30, 1929. Serial No. 403,469.

My invention relates to improvements in traffic signals.

The principal object of my invention is to provide a signal flexibly arranged so that an indicia plate will rock in opposite directions with respect to the face of the plate, the rocking movement being caused by the wheel of a vehicle contacting therewith in its line of travel.

A further object of my invention is to provide a signal that will automatically retract to its vertical position when rocked downward.

A still further object of my invention is to provide a flexible indicia plate having a central portion thereof reinforced with strands of wire as a stiffening means to break a toggle joint supporting the same, said joint rockable in either direction and actuated by a spring tension plate.

A still further object of my invention is to provide a signal collapsibly arranged to avoid excess flexing of the indicia plate when rocked to a horizontal position, or to an incline sufficient for a vehicle to pass thereover.

These and other objects will hereinafter be more fully explained, reference being had to the accompanying drawings forming a part of this specification, wherein like characters will apply to like parts in the different views.

Referring to the drawings, Fig. 1 is a perspective view of one type of the signal. Fig. 2 is a side view of Fig. 1. Fig. 3 is a rear view of the signal. Fig. 4 is a view of the signal collapsed in one direction. Fig. 5 is a view of the signal collapsed in the opposite direction to that shown in Fig. 4. Fig. 6 is a rear view of the signal illustrating the indicia plate that is reinforced with resilient wires, with parts removed for convenience of illustration. Fig. 7 is a side view of Fig. 6, with parts removed for convenience of illustration.

My invention herein disclosed consists of a bed plate 1, having a raised portion as at 1′, the depression caused thereby to receive a hinged portion when collapsed, said plate 1 being anchored to the roadbed of a highway. Hingedly attached to said bed plate is a second plate 2, rocking on hinge 3. As a means of elevating the free end of plate 2, I have arranged a leaf spring 4, one end securely attached to the bed plate in close proximity to the hinged end of the plate while the other end is in contact with plate 2 as at A, by which means the said plate is tensioned upward, for the purpose hereinafter described. In the free end of plate 2 is a slot 5 in which is positioned a frame 6, said frame being trunnioned to ears 7 that are positioned on each side of the slot. The lower end of said frame is pivotally connected to a link 8, and the opposite end of said link is pivotally connected to the bed plate as at 8′, by which means a toggle joint is arranged, and adapted to fold in either direction, as plate 2 is forced downward when the indicia plate is rocked to break the joint. Positioned on the upper ends of frame 6 is a bar 9 having a channel B to receive the lower edge of a flexible indicia plate 10, said plate being secured therein by rivets 11, by which means it may be replaced. The flexible plate above referred to has an indicia on either side thereof as shown in Figs. 1, 3 and 6, but I do not wish to be confined to the exact wording, as the mechanism may be applied for other purposes. Consequently the indicia would meet the requirement whether it be a signal, or a sign for other purposes.

In Figs. 6 and 7 is shown a modified form of my invention. In this instance I have employed a plate having a centrally disposed extended portion 10′, the outer edge of which is seated in the groove of a member 12, said member pivotally connected to plate 2. Centrally positioned and laterally extending from frame 12 is an arm 13, the outer end of which engages with links 8, by which means the toggle joint is arranged for this type of signal, being similar to the one heretofore described.

In Fig. 6 is shown a reinforcing means for the central portion of the plate, reinforcing wires 14 extending through and into the extended portion, said wires being intermediately positioned and firmly vulcanized into the plate. The opposite ends of the plate as at C is free to flex should the wheel of a vehicle

contact therewith, while the reinforced portion has a greater resistance with respect to its resilient qualities so that when a vehicle contacts with either side thereof, the toggle joint will be promptly rocked for the purpose above described; and furthermore, should the joint have an obstruction against movement, the reinforced portion will flex sufficiently for the vehicle to pass thereover without serious injury thereto. When the plate is thus formed and reinforced a greater wearing qualtity is attained.

Such other modifications may be employed as lie within the scope of the appended claims, and having fully described my invention, what I claim is new, and desire to secure by Letters Patent is:—

1. In a traffic signal; a flexible plate having an indicia on either side thereof; a spring tensioned plate, hingedly connected at one end to a stationary plate on the roadbed; the flexible plate being pivotally carried on the free end of the spring tensioned plate; and a link pivotally connecting the flexible plate to the stationary plate by which means the flexible plate may be retracted to a vertical position by the tension of the spring actuated plate when rocked in either direction.

2. In a traffic signal; a plate secured to a roadbed; a second plate having one end hinged to the first said plate and a spring to rock the last said plate on its hinge; a flexible signal plate pivoted and rockably carried on the free end of second said plate; a frame as supporting means for the indicia plate, a rockably arranged link to connect the framework supporting the flexible plate to the first said plate, by which means a toggle joint is formed which may be rocked in either direction when the wheel of a vehicle contacts with the upward extending portion thereof, whereupon the spring tensioned plate collapses; then, by retraction of the last said plate, the indicia plate is brought to an erect position.

3. In a traffic signal of the class described; a pair of plates hingedly connected, and a spring to rock the plates from each other; a toggle joint connecting the free ends of the plates; a signal plate carried by the upper member of the toggle joint the signal plate being flexible and reinforced with wires at its central portion, said wires being transversely positioned with respect to the plate as stiffening means adjacent the toggle joint, so that the joint will rock by a pressure imposed on the upper portion of the plate, said rocking movement causing the hingedly connected plates to be rocked to a closed position when a weight is imposed thereon, together with pressure on the signal plate.

4. In a traffic signal, a signal of the class described; comprising; a roadbed plate, the plate having a shoulder near one end thereof; a second plate hingedly attached to the first said plate, and a spring attached to the first said plate as raising means for the second said plate; a toggle joint element connecting the free ends of the second said plate to the said roadbed plate; means on the toggle joint to receive a signal plate; and a signal plate carried by the said means and detachably arranged; all substantially as shown.

5. In a traffic signal, a signal of the class described, comprising; a stationarily arranged roadbed plate, a hoisting plate hingedly connected to said roadbed plate and a spring having one end attached to the roadbed plates and the other end in contact with the hoisting plate as raising means therefor; a toggle joint member pivotally connected to the free end of the hoisting plate and to the roadbed plate, the toggle joint member having an upward extension from the hoisting plate, said extension functioning as an indicia plate, and being rocked to an erect position by the upward pressure of the hoisting plate.

6. In a traffic signal, a signal of the class described comprising; a flexible indicia plate with an extension from one edge and a link member pivotally connected to the extension; a roadbed plate and a plate hingedly connected thereto, and a spring as hoisting means for the last said plate; the extension of an indicia plate pivotally connected to the last said plate, the other end of the link pivotally connected to the roadbed plate, by which means the indicia plate is vertically positioned by the spring tensioned plate.

In testimony whereof I affix my signature.

KARL C. PARKHURST.