S. & T. J. McREYNOLDS.

SIGNALING DEVICE.

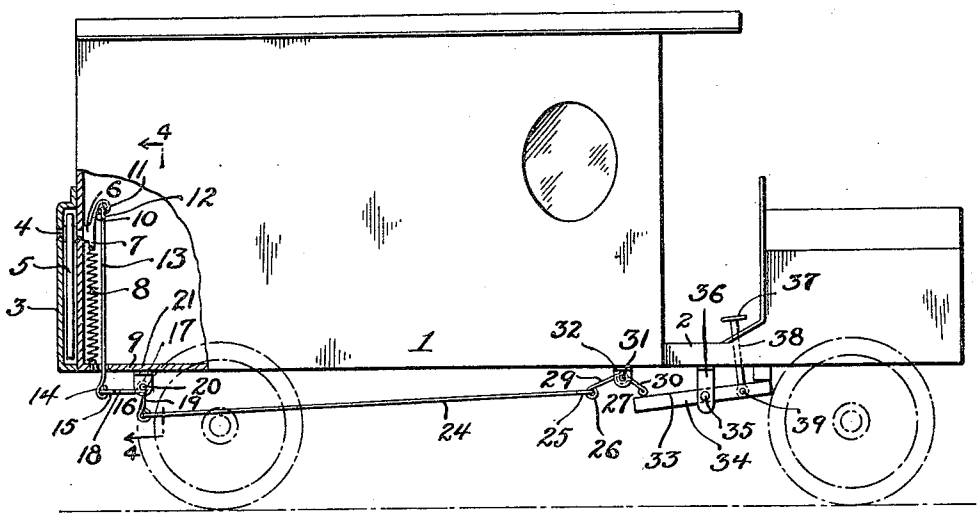
APPLICATION FILED MAY 31, 1918.

1,293,841.

Patented Feb. 11, 1919.

2 SHEETS—SHEET 1.

Fig. 1.



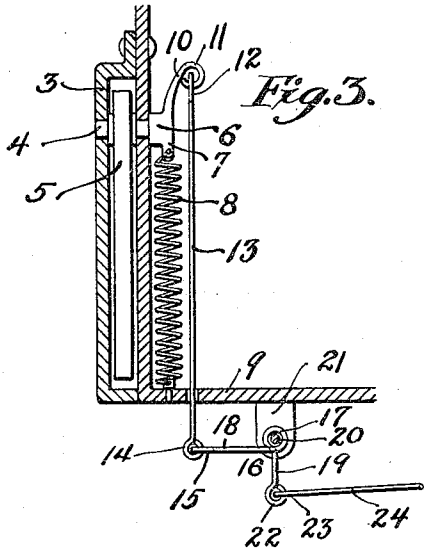
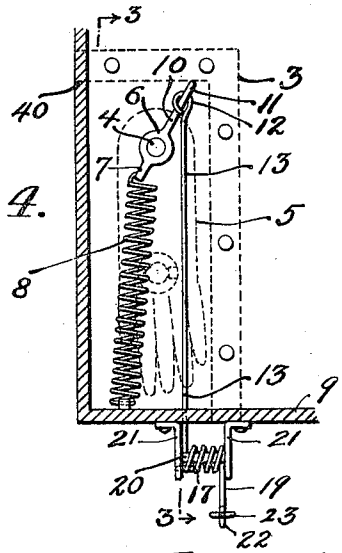




Fig. 3.

Fig. 4.




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2 SHEETS—SHEET 2.

Fig. 2.

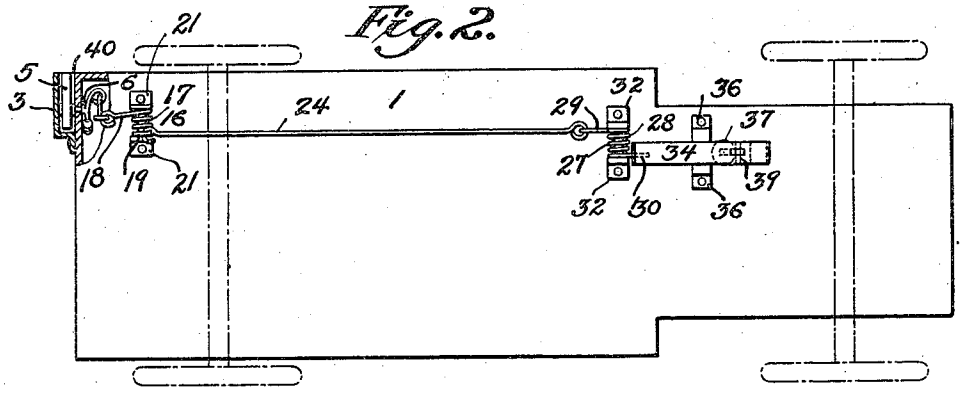



Fig. 5.

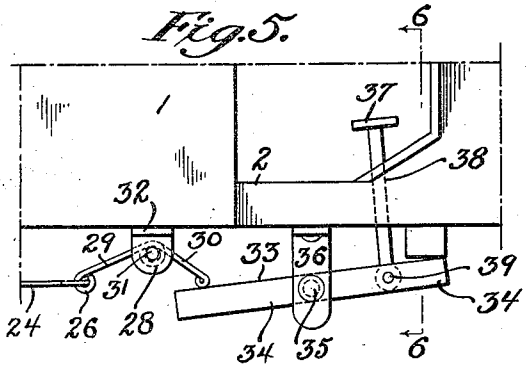



Fig. 6.

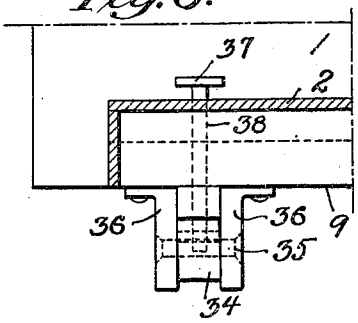



Fig. 7.

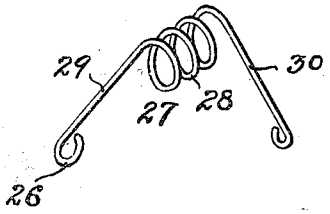
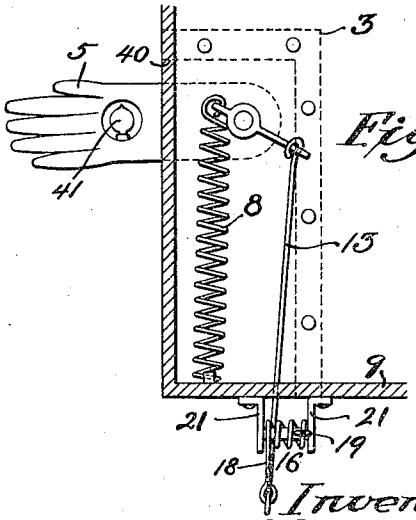



Fig. 8.




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THE HORRIS PETERS CO., PHOTO-LITHO.

# UNITED STATES PATENT OFFICE.

SAMUEL McREYNOLDS AND THOMAS J. McREYNOLDS, OF PHILADELPHIA, PENNSYLVANIA.

## SIGNALING DEVICE.

1,293,841. Specification of Letters Patent. Patented Feb. 11, 1919.

Application filed May 31, 1918. Serial No. 237,443.

*To all whom it may concern:*

Be it known that we, SAMUEL McREYNOLDS and THOMAS J. McREYNOLDS, citizens of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, and Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Signaling Devices, of which the following is a specification.

Our invention consists of an improved signaling device which is particularly adapted for use on vehicles and is operative to warn an oncoming vehicle of the intention, of the driver of the vehicle upon which the signaling device is mounted, to stop, slow up or turn.

One object of our invention is to provide a strong and durable device of the above described character which can be quickly and easily operated.

Another object is to so construct our invention that it can be operated by a treadle or foot lever and will include means which will prevent a harsh or severe operating action of the foot lever from injuring the movable signaling element.

These objects, and other advantageous ends which will be described hereinafter, we attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is a side elevation of a vehicle having our improved signaling device thereon, part of the vehicle being broken away to more clearly show the elements of our invention,

Fig. 2 is an inverted plan view of Fig. 1,

Fig. 3 is an enlarged section of a portion of our invention taken on the line 3—3 of Fig. 4,

Fig. 4 is a fragmentary section taken on the line 4—4 of Fig. 1 and drawn to the scale shown in Fig. 3,

Fig. 5 is an enlarged side elevation of certain of the elements of our invention,

Fig. 6 is a fragmentary section taken on the line 6—6 of Fig. 5,

Fig. 7 is a perspective view of a resilient bell-crank-lever which forms a part of our invention, and Fig. 8 is a view of similar nature to that shown in Fig. 4, with the signaling element moved into operative position.

Referring to the drawings, 1 represents the body of a vehicle having a driver's front platform 2 and a casing 3 thereon in which is pivotally mounted a shaft 4 having a signaling member 5 secured thereto. This signaling member, as illustrated, is in the form of a hand and normally assumes the vertical position entirely within the casing, as shown in Figs. 1, 2, 3, and 4. The shaft 4 extends into the interior of the body portion 1 of the vehicle and a two-arm lever 6 is secured to the inner end of the shaft 4.

One arm 7 of the lever 6 has one end of a spring 8 secured thereto, the other end of said spring being secured, in the present instance, to the bottom 9 of the body portion 1 of the vehicle. The other arm 10 of the lever 6 has an eyelet 11 to which is connected an eyelet 12 on one end of a link 13. The opposite end of the link 13 freely passes through the bottom 9 of the vehicle and has an eyelet 14 which is linked to an eyelet 15 on a resilient bell-crank-lever 16.

This bell-crank-lever, as illustrated, is made of a continuous piece of heavy resilient wire which has a coiled portion 17 in the form of a helix. The opposite end portions of the wire form the arms 18 and 19 which are arranged at an angle to each other, as clearly shown in the several views of drawing.

A pivot shaft 20, mounted in suspended bearings 21 on the bottom 9 of the vehicle body 1, passes axially through the coiled portion 17 of the bell-crank-lever 16 so that the latter is adapted to rock on the pivot shaft 20. The arm 19 has an eyelet 22 which is coupled to an eyelet 23 of a link 24. The opposite end of the link 24 has an eyelet 25 thereon which is coupled to an eyelet 26 of a second resilient bell-crank-lever 27.

This bell-crank-lever 27 is made substantially similar to the bell-crank-lever 16 and consists of a continuous piece of heavy resilient wire which has a coiled portion 28 in the form of a helix. The opposite end portions of the wire form arms 29 and 30 which are arranged at an angle to each other.

A pivot shaft 31, mounted in suspended bearings 32 on the bottom 9 of the vehicle, passes axially through the coiled portion 28 of this bell-crank-lever 27 so that the latter is adapted to rock on the pivot shaft 31.

The arm 30 has its end turned to provide

a smooth shoe adapted to slidably engage the upper surface 33 of a beam lever 34. This beam lever 34 is pivoted between its ends as at 35 to hanger bearings 36 on the bottom of the driver's platform 2. A treadle 37 includes a rod 38 which is slidably mounted in the platform 2 and the lower end of this rod 38 is pivotally attached to the beam lever 34, as shown at 39, so that a downward movement of the treadle 37 will cause the forward end of the beam lever 34 to move downwardly and the rear end thereof to move upwardly.

The coiled spring 8 normally serves to hold the signaling member 5 within the casing 3, said casing being open at one side, as shown at 40. However, during the operation of the device, the operative position being shown in Fig. 8, this spring 8 becomes attenuated and thereby placed under tension when the treadle 37 is depressed and after the treadle is released the spring 8 will serve to move the signaling member 5 back into the casing 3.

The operation of our device is as follows: If the driver of the vehicle upon which our invention is mounted, desires to signal an oncoming vehicle as above described, he depresses, with his foot, the treadle 37 which causes the beam lever 34 to be rocked and in so doing the beam lever will raise the arm 30 of the bell-crank-lever 37 and cause the arm 29 to move the connecting link 24 longitudinally thereby, in turn, causing the bell-crank-lever 16 to be rocked. This latter movement of the bell-crank-lever 16 will rock the two arm levers 6 through the medium of the link 13 and cause the signaling member 5 to be projected beyond the open end 40 of the casing 3 and into the position shown in Fig. 8. Thus the signaling member 5 can be observed by the driver of an oncoming vehicle.

By the arrangement of the beam lever 34 and its slidable connection with the arm 30 of the bell-crank-lever 27, a free and easy movement is imparted to the signaling member through the medium of the treadle 37 and the parts can be easily assembled or removed. In addition to this the spring 8 normally keeps the several connected parts under tension so that they will not jar or rattle during the movement of the vehicle.

Another valuable feature of our invention is in the construction of the resilient bell-crank-levers since by constructing these bell-crank-levers as above described it is practically impossible to injure the connecting element no matter how hard or severe is the action upon the treadle 37 since the inclusion of the coiled springs 17 and 28 of the bell-crank-levers serves as buffing means or shock absorbers and the arms of the respective bell-crank-levers will yield correspondingly to the pressure applied upon the treadle 37. This is an important feature for the reason that it is often necessary to signal quickly and while the driver is under excitement and thereby is unable to take time to operate the signaling device at the speed which the parts would require if they were positively connected. It is, therefore, by the inclusion of the resilient crank levers and the slidable connection between the arm 30 and beam lever 34, that the parts can be made comparatively light weight and yet capable of resisting severe shocks by the treadle being forced downwardly with a greater power than is necessary to move the signaling member into an operative position.

For the purpose of illuminating the signaling member at night, an electric lamp 41 can be applied thereto and can be connected in any suitable manner.

While we have described our invention as taking a particular form, it will be understood that the various parts of our invention may be changed without departing from the spirit thereof, and hence we do not limit ourselves to the precise construction set forth, but consider that we are at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A signaling device of the character described including a signaling member; a bell-crank-lever the arms of which are connected together but resiliently movable with respect to each other; means operatively connected to said signaling member and including a link attached to one of said arms; and means for moving the other of said arms to rock said lever to cause said first arm to move the link and thereby operate the signal member, substantially as described.

2. A signaling device of the character described including a signaling member; a bell-crank-lever having a pivoted coil portion and arms leading from said coil portion; means operatively connected to said signaling member and including a member attached to one of said arms; and means for moving the other of said arms to rock the lever on its pivot and to cause said first arm to move said second mentioned member and thereby operate the signal member, substantially as described.

3. A signaling device of the character described including a signaling member; a bell-crank-lever the arms of which are resiliently movable with respect to each other; means operatively connected to said signaling member and including a member attached to one of said arms; a pivoted lever for engagement with the other of said arms; and means for rocking said pivoted lever whereby the bell-crank-lever is rocked

through the medium of said latter arm to move said second mentioned member and thereby operate the signal member, substantially as described.

4. A signaling device of the character described including a signaling member; an operating lever; means for moving the operating lever; and a bell-crank-lever having one arm in slidable engagement with said first lever, the other arm of said bell-crank-lever being operatively connected to said signaling member whereby when said operating lever is moved it will operate said first arm of the bell-crank-lever to rock the latter so that said second mentioned arm will move said signaling member through the medium of its connecting means, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

SAMUEL McREYNOLDS.
THOS. J. McREYNOLDS.

Witnesses:
CHAS. E. POTTS,
MARY A. INGLAR.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**