C. H. GRINGS.

SIGNALING DEVICE FOR VEHICLES.

APPLICATION FILED MAY 7, 1920.

1,358,438. **Patented Nov. 9, 1920.**

Fig. 1.

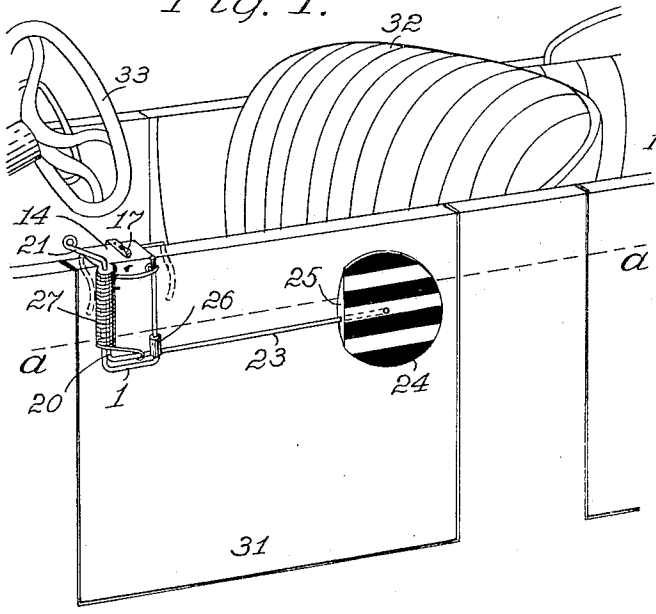


Fig. 4.

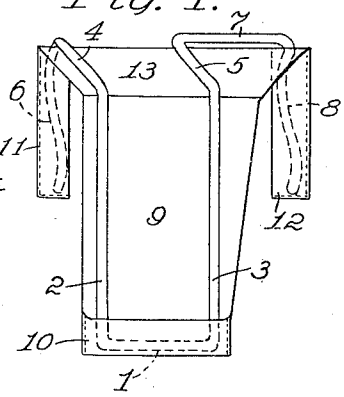
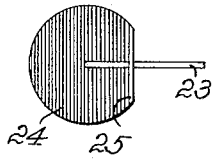


Fig. 5.



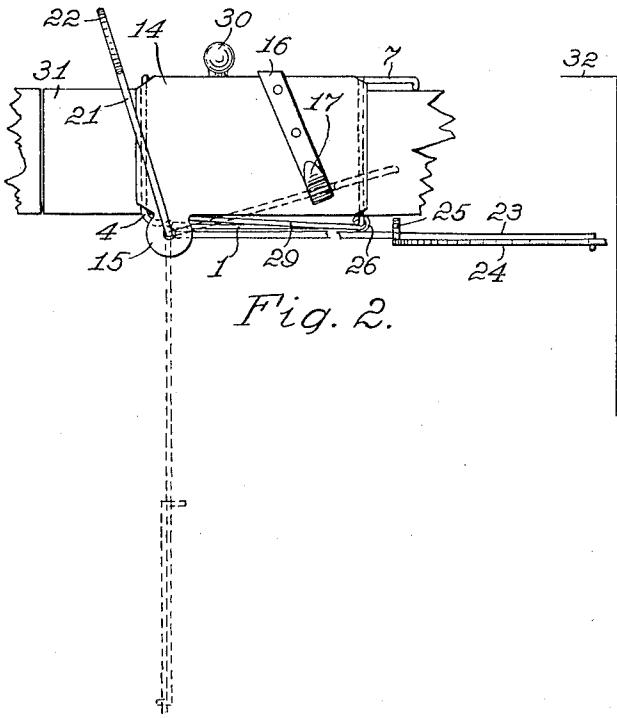
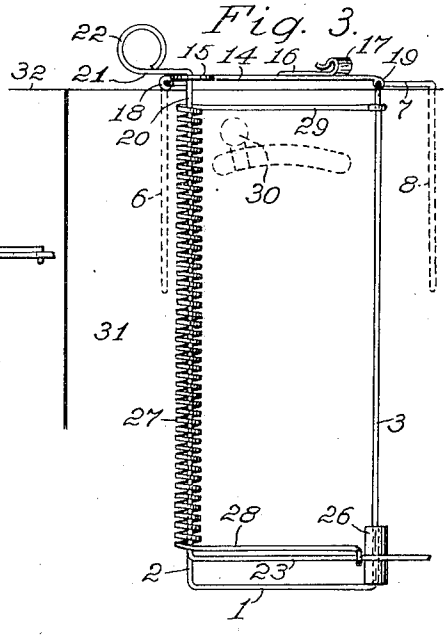


Fig. 2.

Fig. 3.



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SIGNALING DEVICE FOR VEHICLES.

1,358,438. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed May 7, 1920. Serial No. 379,530.

To all whom it may concern:

Be it known that I, CASPER HUGO GRINGS, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Signaling Devices for Vehicles, of which the following is a specification.

My invention relates to improvements in signaling devices for vehicles, and particularly to direction-changing indicators for motor-cars, and the object of my improvements is to furnish an inexpensive, simple, light, easily operated device of this class, which may be quickly mounted or demounted without special fastening-means or the use of tools, and without the least injury to the structures or to the finish of the car.

This object I have accomplished by the means which are hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which Figure 1 is a perspective view of part of a motor-car, showing one of my improved signaling devices mounted thereon in its retracted position; Fig. 2 is a top plan of my device, on a larger scale, the full lines representing the semaphore arm in its retracted position and the dotted lines showing the arm in its extended position. Fig. 3 is an elevation of the outer side of said device, with parts broken away. Fig. 4 is a perspective detail view of the resilient clamping element of the device as separated from the other elements, with parts thereof housed in pockets of a cushioning structure. Fig. 5 is a detail elevation of the semaphore, showing its rear face.

Similar numerals of reference denote similar parts throughout the several views.

32 is a vehicle of the self-propelled class, whose body has side-doors 31, and which has adjacent one of the doors the hand-wheel 33 for changing direction of the car.

My improved signaling device comprises the associated clamping-means and a relatively movable semaphore, mounted preferably upon one of the doors 31 near the hand-wheel 33 for convenient use by the chauffeur. The clamping means consists of a resilient rod bent at separated points to furnish a medial horizontal portion 1 with upwardly-directed parts 2 and 3, the rod then being bent horizontally to supply members 4 and 5 extending to the same side in parallelism, and the end parts of the rod being shaped to provide yieldable resilient clamping recurved and depending members 6 and 8, which may yieldingly and adjustably grasp opposite faces of the door 31. The member 8 may be placed at the end of an intermediate horizontal longitudinal part 7 of the rod, as shown.

While the clamping device shown may be slidably mounted upon any convenient part or door of a car without modifications in the car structure of any kind, and without marring the same, I have supplied a cushioning means held between the clamping elements of the device and the finished parts of the supporting structure, which will prevent scratching or any defacement of the finish by movements of mounting or demounting the device. This consists of a flexible piece of material 9, whose parts 9 and 13 are positioned between the outer and upper portions of the said clamping means and the door 31, the piece having at its upper corners depending pockets 11 and 12 to receive the depending clamping members 6 and 8, while the lower part of the piece 9 is formed into an upwardly-opening pocket 10 to receive the lower end of the loop of the device at 1. This cushioning means is easily mounted or disassembled, and does not in any way interfere with the functioning of the movable parts of the device.

The numeral 20 denotes a vertical rock-shaft, preferably part of a relatively rigid rod, which is positioned alongside the part 2 of said clamping means, and it is bent just above the part 1 of the clamping means horizontally to provide a semaphore-arm 23. A semaphore disk 24 has one edge bent over angularly, and this bent over part 25 is orificed to receive the arm 23, the outer end of said arm being bent outwardly and passed through a central orifice in said disk. The faces of said disk may be colored or patterned in any desired and conspicuous manner to attract attention, as shown, where the forward face is barred horizontally in black and white, and the rear face colored red.

The numeral 14 denotes a horizontal plate whose opposite ends are scrolled downwardly at 18 and 19 about the horizontal parts 4 and 5 of the clamping device, and has near one outer corner an orificed projection 15 traversed upwardly by the rock-shaft

20, the upper part of the latter being bent over horizontally at 21 and furnished with a terminal eye or closed loop 22 to serve as a manually actuated arm to rock said shaft to and fro.

Upon said plate is fastened a flat bar 16 having a looped resilient extremity 17 adapted to receive and releasably retain said arm 21, when the latter is rocked appropriately to extend the semaphore arm 23 outwardly, as shown by the dotted lines in said Fig. 2.

In order to normally keep the semaphore arm in a retracted position against the body of the vehicle, as shown in full lines in Fig. 2, I have mounted a helical spring 27 surrounding the juxtaposed rock-shaft 20 and member 2, with the upper terminal of the spring 29 terminally connected to the opposite member 3, and the lower terminal of the spring terminally connected to the arm 23. When the arm 21 is released from the spring-clip 17, the spring 27 will at once rock the semaphore back to a retracted position.

In order to prevent wear and jarring or any contacts of the semaphore or its arm with the exterior finish of the vehicle body, I have mounted an elastic or flexible sleeve 26 upon the lower part of the member 3 which thus acts as a cushioning buffer for said semaphore arm.

It will be observed that the clamping device shown is easily mounted or demounted without injury to the parts abutting thereon, no tools are needed in either operation, and the whole device is so simple and light as to occupy but little space. When mounted upon a door 31, its members 6 and 8 will be easily positioned about the latching-means of the door at 30, as shown by the dotted lines in Fig. 3, and does not interfere therewith.

It is manifest that this device, with slight changes, and without departing from the spirit of the invention, may be attached to the doors of inclosed or built in automobiles.

A noticeable advantage of my removable clamping means is the fact that the semaphore-arm is supported and positioned thereon at such a distance below the top of the door on which it is hung, that when a curtain is mounted in suspension on the vehicle above the device, its lower edge, indicated by the dotted line *a*—*a* in Fig. 1, is above the semaphore arm, and between the semaphore and the body of the vehicle. No interference is possible which will prevent the proper operation of the semaphore, and the curtain may be shifted in any manner with ease.

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

1. The combination with a supporting element of a vehicle, of a bracketed body shaped from a single resilient rod into a depending loop with spaced terminal hooks which are slidably removably mounted on said body, and a semaphore movably mounted upon said body.

2. The combination with a supporting element of a vehicle, of a bracketed body shaped from a resilient rod into a depending loop having upwardly directed terminals whose extremities are hooked downwardly into relatively wide spaced relation and are adapted to be removably mounted thereon, a semaphore horizontally swingingly mounted on said body and located below said element to afford clearance above it and between it and the element to receive the depending edge of a curtain overlapping said element, and means for releasably retaining said semaphore in a certain position.

3. The combination with a supporting element of a vehicle, of a looped and terminally hooked body shaped from a resilient material and removably mounted thereon, a semaphore movably mounted on said body, and yieldable resilient means connected between said semaphore and said body adapted to yieldingly retain the semaphore in a retracted position.

4. The combination with a supporting element of a vehicle, of a looped bracketed body slidably resiliently mounted thereon, a semaphore movably mounted on said body, and an elastic stop mounted on a member of said body and supported in the path of movement of said semaphore.

5. The combination with a supporting horizontal edge of a vehicle, of a bracketed body of looped form hung suspensively and removably thereon, a semaphore horizontally swingingly mounted on said body entirely below and without said edge and having an operating arm which extends inwardly across said edge, and a resilient clip adapted to receive said arm when the semaphore is extended to releasably retain the semaphore in said position.

6. The combination with a supporting element of a vehicle, of a terminally hooked and medially looped resilient rod hung clampingly and removably upon said element, a plate mounted on spaced members of said rod across said element above said element, a rock-shaft mounted on and provided above said plate with an operating arm extending across said plate, said rock-shaft having a semaphore-arm extending from its other end outwardly to rock to and fro horizontally relative to the vehicle and offset wholly below said plate, and yieldable resilient means connected to said semaphore arm adapted to retain it yieldingly in a position retracted toward the vehicle.

7. The combination with a supporting element of a vehicle, of clamping means mounted on said element, a semaphore arm

horizontally swingingly and elastically connected to said clamping-means positioned wholly a relatively wide distance below and when retracted lying closely against the vehicle, means for moving said arm to and from said vehicle, and means for retracting the arm toward the vehicle elastically.

8. The combination with a supporting element of a vehicle, of a bracketed body removably mounted thereon, said body being formed from an elastic rod medially looped to provide members extending upwardly, and terminally hooked, a rock-shaft mounted vertically alongside said body and having at its lower end below said element a horizontal offset semaphore arm, and a cushioning body mounted on one of the members of the loop of said body in the path of movement of the semaphore arm.

9. In a signaling device of the class described, a horizontally swinging semaphore, and a hanger on which the semaphore is movably mounted, said hanger consisting of an elastic rod bent into a depending loop with members extending upwardly, the members being then hooked with the hooks spaced longitudinally relative to an abutting supporting body, and the loop and hooks of the hanger adapted to releasably elastically grasp the supporting body between them.

Signed at Waterloo, Iowa, this 24th day of April, 1920.

CASPER HUGO GRINGS.