To all whom it may concern:

Be it known that we, CHARLES S. NELSON and MAURICE EDWARD SCANNELL, citizens of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Signals for Vehicles, of which the following is a specification.

This invention relates to vehicle signals, and particularly to that type adapted to be mounted upon a motor vehicle for operation by the driver to indicate proposed directions in which it is desired to drive the vehicle.

An object of the present invention is to provide a relatively simple and economically constructed signal which is positive in action, which is easy and economical to install, and which is strong and durable and cannot easily get out of order.

Another object of the invention is to provide a signal of this type which is adapted to be extended and withdrawn from a casing, and which, when extended, is capable of automatically expanding or spreading to give a visual indication of considerable dimension so that it may be easily and quickly observed, and a signal which, during expansion, will attract attention by a peculiar unfolding movement.

Another object of the present invention is to provide a signal having movable parts so arranged that access may be readily had thereto for operating the same and which is provided with tensioning means to prevent the vibration and rattling of movable parts, and which also determines the limit of the movement of extension of the parts.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views.

Fig. 1 is a vertical section taken through a signal apparatus constructed according to the present invention and shown as mounted upon the forward end of a motor vehicle above the windshield;

Fig. 2 is a detail side elevation of one of the visual indicators in open or spread position;

Fig. 3 is a detail side elevation of one of the bushings or fittings used at the end of the signal casing;

Fig. 4 is a fragmentary sectional view of the inner end of one of the shiftable members, showing the tension means therefor;

Fig. 5 is a detail enlarged side elevation of one of the handles employed;

Fig. 6 is an enlarged transverse section taken substantially on the line 6—6 through Fig. 1;

Fig. 7 is a fragmentary inner end view of the folding sections or leaves of the indicating member in closed position.

Figure 8 is a section through the sliding member, showing the inner beveled ends of the signal leaves in closed position.

Referring to the drawing, 10 designates the bows of an automobile top at the forward end thereof and which are attached in any well known manner to the upper ends of the windshield 12. Fitted between the bows 10 of the top is a tubular casing 13, the ends of which are adapted to abut against the inner opposite sides of the bows 10 and to register with suitable openings formed through the bows 10 for alignment with the interior of the casing 13.

Fittings or bushings 14 in the form of tubes are inserted in the openings of the bows 10 from the outer sides thereof and are adapted to slidably and snugly fit in the extremities of the casing 13 for retaining the same in position between the bows. The outer ends of the bushings 14 are flared at 15 to form bell shaped mouths for a purpose which will hereinafter appear. Clamps 16 encircle the opposite end portions of the casing 13 and are in sheet metal form with outturned ears 17 on their free ends arranged in spaced relation for receiving therethrough a clamping bolt 18 adapted to draw the ears 17 of each clamp together for binding the clamp 16 upon the casing 13 and for contracting the latter upon the adjacent bushing 14.

To prevent the parts from turning one of the ears 17 of the clamp may be provided with a spur 19 which faces the inner side of the adjacent bow 10 and which is adapted to be driven into the same for holding the clamps 16 from turning. The bushings 14 may be inserted to various distances in the casing 13 dependent upon the thicknesses of the bows 10 for accommodating the device to vehicle tops of different constructions.

Slidably arranged in the end of the casing 13 is a shiftable member 20 in the present instance in the form of a tube and the tube
is recessed in one side and at its inner end to receive therein an L-shaped handle 21 with one end lying in the tube 20 and the other end projecting laterally therefrom. The 5 outwardly extending end of the handle 21 is provided with a ring or hand hold 22 adapted for convenient grasp by the operator for shifting the tube 20.

The casing 13 is provided with a slot 23 through which the handle 21 projects and which is of sufficient length to permit the shifting of the tube 20 into its open and closed positions. As shown in Fig. 1, it may be desirable to have the slot 23 formed in the under side of the casing 13 at one end and having the corresponding slot 23 formed in the inner side of the casing 13 and at its other end so that the handles 21 may be arranged at angles relatively to each other to distinguish the right handle from the left handle.

On the inner end of each tube 20 is mounted a spring 24 secured at one end by rivets 25 or the like to the side of the tube 20 and which at its other end is urged outwardly against the inner side of the casing 13 to tension the tube 20 in the casing and prevent rattling thereof and also to frictionally hold the tube 20 in position when shifted. The free end of the spring 24 is adapted to ride against the inner side of the casing 13 and to engage the inner extremity of the bushing 14 when the member 20 is projected to determine the outward movement of the member 20 relatively to the outer end of the bushing 14.

Each member 20 is reduced at its outer end and bent into substantially channel form with the open side extending downwardly.

Within the channel end of the member 20 is pivoted a plurality of leaves or strips 26 in the form of flat elongated strips arranged in superposed relation upon a pivot pin 27 and adapted to swing downwardly thereon by gravity into different positions dependent upon the beveling of the inner ends of the strips 26, as at 28. The first or topmost strip 26 is provided with an inner right angular corner which holds the top strip from swinging on the pivot 27 and thus the top strip is held in horizontal line with the tube 20. The second strip 26 has its inner corner beveled to a slight degree so that the second strip, when released from the bushing 14, is permitted to swing down to a limited extent, and such extent being equal substantially to the width of the strip. Each successive strip is correspondingly beveled to a greater extent so that when the strips are released they swing down to their various consecutive positions into fan shape to thus provide a relatively wide visual signal. The dropping of these strips 26 into their respective positions also provides a means of attracting the eye to the signal so that attention of the same may be readily observed.

In use, when the vehicle is going forward the signals are adapted to be retracted such as shown at the right hand end of Fig. 1, and wherein the expansible signalling device is contained within the bushing 14 and is thus held collapsed therein. When, however, it is desired to signal, the operator grasps the handle 22 and moves the same toward the outer side of the vehicle, as shown at the left hand end of Fig. 1 and wherein the tube 20 is projected and the signal device is advanced out of the casing. When in such position the leaves or strips 26 drop by gravity into their various positions and a relatively broad display is made. These strips 26 may be colored red or otherwise in order to attract attention and give the desired signal. When the tube 20 is retracted the strips 26 consecutively engage the bell mouth 15 of the bushing 14 and are raised into closed position as the signal is withdrawn.

The device may be quickly and easily adjusted to the top of a motor vehicle by merely forming holes in the bows 10 of sufficient size to receive the bushings 14. The handles 21 may of course be adjusted to the desired angle for easy access by the operator by turning the tube 19 into the desired position before the clamps 16 are tightened. The clamps 16 firmly hold the casing from turning after adjusted as the springs 19 are embedded in the inner sides of the bows 10.

We do not wish to be restricted to the size, form, and proportions of the various parts, and obviously changes could be made in the construction herein described without departing from the spirit of the invention, it being only necessary that such changes fall within the scope of the appended claims.

What is claimed is:
1. In a signal device, a casing, an arm slidably in the end of the casing and adapted to be projected from the same, said arm having an inverted channel formation at its outer end providing depending spaced flanges, and a plurality of leaves hinged at one end together between said flanges and 115 having their inner ends beveled to various degrees increasing consecutively from flange to flange, said leaves being adapted to fall by gravity at their outer ends when the arm is projected and to engage said abutment wall at their inner ends to support the leaves in fan-spread relation.

2. In a signal device, a tubular casing adapted to be placed between the side bows of a vehicle top at the front thereof, a pair 125 of bushings fitted in the ends of the casing and adapted to extend through said side bows to support the casing, compressible collars surrounding the ends of the casing and adapted to be contracted for binding 130
the ends of the casing on the bushings when the latter are adjusted, said collars having spurs thereon adapted to bite into the adjacent side bows and maintain the collars and casing from turning, arms slidable in the opposite ends of the casing and in the bushings and having handles at their inner ends projecting through the casing, and a signal member carried by each arm. Each signal member comprising a plurality of leaves pivoted together at one end upon the adjacent arm, said leaves having their inner ends beveled to various degrees increasing consecutively from side to side of the signal member and the arm having a flat contacting face against which said beveled ends of the leaves are adapted to engage for maintaining the leaves in fan-spread relation when the arm is extended from the casing.

In testimony whereof, we affix our signatures in presence of two witnesses.

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Witnesses:

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