

June 29, 1926.

G. R. BANNISTER

1,590,797

AUTOMOBILE HORN.

Filed Oct. 27, 1925

Fig. 1.

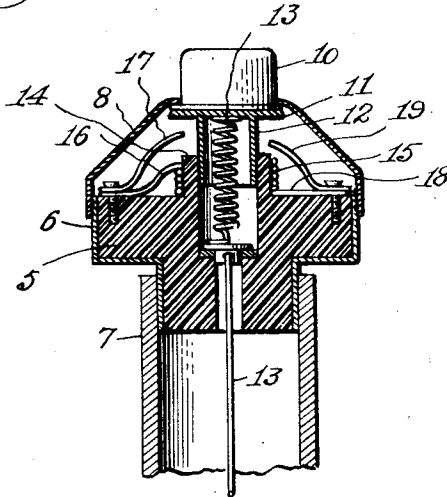
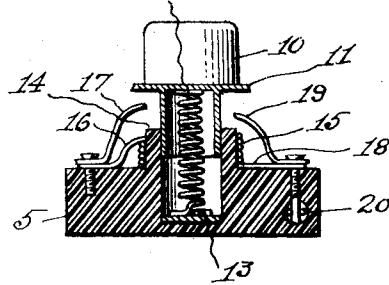
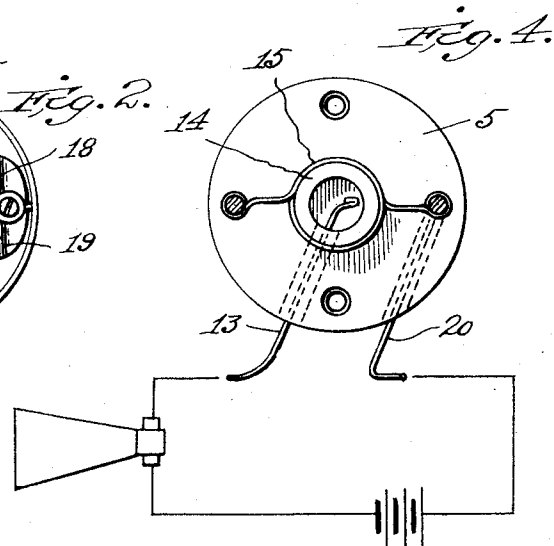


Fig. 3.



Inventor  
George R. Bannister  
By Davis & Davis

Attorney

## UNITED STATES PATENT OFFICE.

GEORGE R. BANNISTER, OF GREENVILLE, SOUTH CAROLINA.

## AUTOMOBILE HORN.

Application filed October 27, 1925. Serial No. 65,179.

The object of this invention is to provide a simple push-button device for operating electrical horns that will enable the chauffeur to select one of two different tones, according as the traffic situation renders desirable, as more fully hereinafter set forth.

In the drawing—

Fig. 1 is a vertical sectional view of my device applied to the upper end of the steering-column;

Fig. 2 is a plan view with the upper part of the shell and the button removed;

Fig. 3 is a vertical sectional view showing my device applied to a two-wire non-ground circuit;

Fig. 4 is a diagram showing the arrangement of the wires used in Fig. 3.

Referring to the drawing annexed by reference-characters, 5 designates the usual insulating body of the push-button enclosed in a metallic shell 6 which is adapted to fit down in the upper end of the metal steering-column 7. The upper part of the body is housed by means of another shell-member 8 having a central hole for emergence of the finger part of the push-button 10.

The under side of the push-button 10 is provided with a contact-plate 11 which is provided with a depending tube 12 which depends and slides up and down in a central passage in the body 5. An expansible coil-spring 13 normally holds the push-button up and also serves as a conductor, being electrically connected to the battery lead 13.

Projecting upwardly from the body 5 is a cylindrical boss 14, and surrounding this boss is a resistance coil 15. One of the leads 16 of this coil is electrically connected to a spring contact-finger 17 and the other lead 18 is connected to another spring contact-finger 19, these fingers being fastened by screws to the top face of the body 5, and the contact-finger 19 being electrically connected, for ground through the steering-column, to the shell-member 8. The contact-finger 17 terminates at a point nearer to the push-button contact 11 than the other contact 19, so that in forcing the push-button

down against the action of its spring 13, contact will first be made with the finger 17 and subsequently, as the push-button moves down, with the other finger 19.

It will be observed that the initial depression of the push-button will sound the horn through the medium of the contact-finger 17 and the resistance coil 14, thereby resulting in a light tone. Upon continuing the depression of the push-button, the contact-finger 12 thereon will finally come in contact with the other finger 19 and thus cut out the resistance coil, thereby resulting in a tone of maximum loudness. It will thus be observed that the chauffeur will have a choice of two tones, enabling him to use the lighter tone where the louder, harsher tone is unnecessary.

In Figs. 3 and 4, the structure is the same as that heretofore described except that the contact-finger 19 is not connected to ground but is connected to a wire 20, so that the device may be used in a non-ground circuit.

What I claim as new is:—

A circuit closer for automobile horns consisting of an insulator block adapted for attachment to the steering column and having a central cylindrical recess in its upper side surrounded by an upstanding central cylindrical projection, a shell mounted on said insulator block, a push-button mounted centrally in the top of said shell and carrying a contact plate and also a depending tube working in the central cylindrical recess, an expansible spring mounted in said recess and said tube and connected at its lower end to the contact, a resistance coil surrounding said upstanding cylindrical projection on the block, a pair of contacts mounted on the block within the shell in the path of the downward movement of the contact plate on the push-button, one being normally nearer the push-button than the other, and a horn circuit connected to the aforesaid contact.

In testimony whereof I hereunto affix my signature.

GEORGE R. BANNISTER.