A. S. VOGT.

SIGNAL CORD HANGER.

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1,009,946. Patented Nov. 28, 1911.

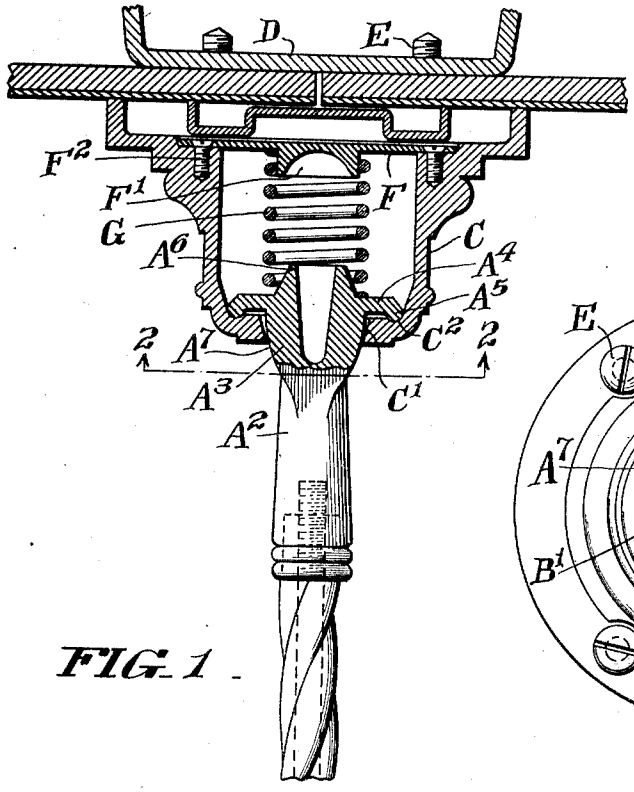


FIG. 1.

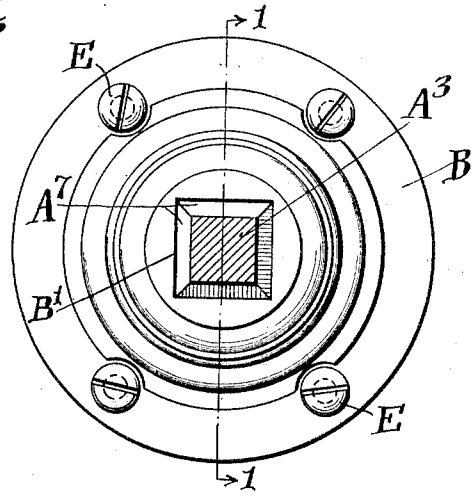
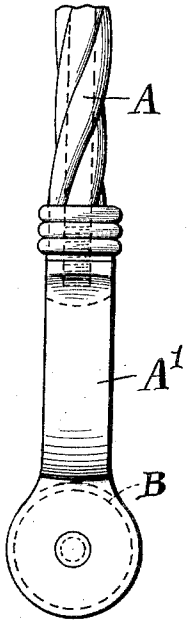


FIG. 2.



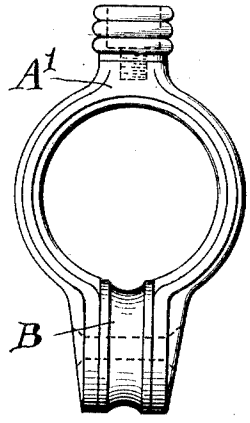


FIG. 3.

WITNESSES

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SIGNAL-CORD HANGER.

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To all whom it may concern:

Be it known that I, AXEL S. VOGT, a subject of the King of Sweden, residing in Altoona, in the county of Blair, in the State of Pennsylvania, have invented certain new and useful Improvements in Signal-Cord Hangers, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My present invention relates to signal cord hangers of the kind suspended from the roofs of railway cars for supporting and guiding the signal cords running through the cars, and the object of the invention is to provide a simple, effective and reliable construction for the purpose specified which, while having all necessary and desirable freedom to swing and accommodate itself when the signal cord supported and guided by it, is pulled laterally or downward, is normally held rigid so that it is neither swung longitudinally or laterally of the car by the movement of the latter, and is prevented from rotating about its own axis.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, however, and the advantages possessed by it, reference may be had to the accompanying drawings and descriptive matter in which I have illustrated and described a preferred construction embodying my invention.

Of the drawings, Figure 1 is an elevation partly in section on the line 1—1 of Fig. 2. Fig. 2 is an inverted sectional plan taken on the line 2—2 of Fig. 1, and, Fig. 3 is an elevation taken at right angles to Fig. 1 and showing the cord guiding portion of the hanger.

In the drawings, A, represents the hanger proper which comprises a rod-like body portion, to the lower end of which is secured an eye member A′ provided with the guide pulley B as is usual. To the upper end of the body portion of the hanger is secured a section A^2, which in the form shown, comprises a pyramidal portion A^3 having convex or bulging sides A^4 and a disk-like flange or head A^5 at the base of the pyramidal portion.

The hanger body is mounted in a support C, shown as of cup-like form and formed with an aperture B′ in its lower end conforming in shape to the cross section of, and loosely receiving the pyramidal portion A^3 of the hanger body and provided with a seat C^2 against which the head A^5 normally bears. The support B may be attached to the car roof D or other support in any suitable manner as by means of the bolts or screws E. To yieldingly hold the hanger body A in the normal position shown, in which the head A^5 rests upon the seat C^2, I have provided a helical spring G which has one end engaging the upper side of the head A^5 and centered by the boss A^6 formed on the head. The spring G bears at its upper end against a spring support or abutment in the form of a disk F, detachably secured to the support C as by means of the screws F^2 and provided with a centering boss F′ on its under side.

With the construction illustrated it will be apparent that the spring G serves to normally hold the hanger body in the position shown with reference to the support C and it will be obvious that by suitably proportioning the parts the spring may be made effective to prevent the body A from being swung in any direction by the ordinary motion of the car in which it is mounted, while at the same time the hanger body may swing laterally or longitudinally of the car, or in a direction having both lateral and longitudinal components when necessary to accommodate a pull on the signal cord at an angle to the general direction of the length of the signal cord. The pyramidal shape of the portion A^3 of the hanger body in conjunction with the square shape of the aperture B′ prevents any possibility of rotation of the hanger body and the consequent kinking of the signal cord. The bulging shape of the sides A^4 of the pyramidal portion A^3 insures that the effectiveness of these centering provisions is maintained while permit-

ting a very substantial swing of the hanger body in any direction when occasion requires. While I consider it desirable to make the aperture B′ polygonal in outline to conform to the cross section of the pyramidal portion A^3 it will be understood that neither the exact shape of the aperture B′ nor the cross section of the pyramidal portion A^3 forms an essential feature of the invention.

The construction disclosed may be made compact and neat in appearance and as shown is self contained, the spring G being entirely inclosed by and secured within the supporting member B. Moreover, it is practically impossible for the construction to get out of order, obviously a consideration of vital importance.

While in accordance with the provisions of the statutes I have illustrated and described the best form of my invention now known to me, it will be apparent to those skilled in the art that changes may be made in the form of the apparatus disclosed without departing from the spirit of my invention.

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

1. In a signal cord hanger the combination of an elongated body formed with a support engaging head at one end and having cord guiding provisions at its other end, of a support formed with an aperture through which said body passes and with a seat engaged by said head at opposite sides of said aperture when said body is in its normal position, said head being adapted to rock on a portion of said seat at one side, and to lift from a portion of said seat at the other side of said aperture when the cord guiding end of said body is moved transversely to the length of the body, and yielding means tending to hold said head against said seat.

2. In a signal cord hanger, the combination of an elongated body formed with a head at one end and having cord guiding provisions at the other end, a hollow support formed with an aperture through which said body passes, and with a seat engaged by said head at opposite sides of said aperture when said body is in its normal position, said head being adapted to rock on a portion of said seat at one side, and to lift from a portion of said seat at the other side of said aperture when the cord guiding end of said body is moved transversely to the length of the body, and a spring mounted within said support and acting between it and said head to yieldingly hold the latter against said seat.

3. In a signal cord hanger, the combination of an elongated body formed with a head at one end and having cord guiding provisions at the other end, a cup-shaped support adapted to have its base secured against a car roof and formed with an aperture in its end through which said body loosely passes and with a seat engaged by said head at opposite sides of said aperture when said body is in its normal position, said head being adapted to rock on a portion of said seat at one side, and to lift from a portion of said seat at the other side of said aperture when the cord guiding end of said body is moved transversely to the length of the body, a spring abutment carried by said support adjacent its base, and a spring arranged within said support and acting between said abutment and said head to hold the latter against said seat.

4. In a signal cord hanger, the combination of an elongated body having at one end a pyramidal portion terminating at its base in a flange head, a support provided with an aperture through which said pyramidal portion passes and shaped to prevent rotation of said pyramidal portion about its own axis therein and provided also with a seat engaged by said head at opposite sides of said aperture when said body is in its normal position, said head being adapted to rock on a portion of said seat at one side, and to lift from a portion of said seat at the other side of said aperture when the cord guiding end of said body is moved transversely of the length of the body, and a spring acting on said body in a direction to hold said flange against said seat.

5. In a signal cord hanger, the combination of an elongated body having at one end a pyramidal portion with bulging sides terminating at its base in a flange head, a support provided with an aperture through which said pyramidal portion passes and shaped to prevent rotation of said pyramidal portion about its own axis therein and provided also with a seat engaged by said head at opposite sides of said aperture when said body is in its normal position, said head being adapted to rock on a portion of said seat at one side, and to lift from a portion of said seat at the other side of said aperture when the cord guiding end of said body is moved transversely to the length of the body and a spring acting on said body in a direction to hold said flange head against said seat.

6. In a signal cord hanger the combination of an elongated body formed with a support engaging head at one end and having cord guiding provisions at its other end, of a support formed with an aperture through which said body passes and with a seat engaged by said head at opposite sides of said

aperture when said body is in its normal position, said head being adapted to rock on a portion of said seat at one side, and to lift from a portion of said seat at the other side of said aperture when the cord guiding end of said body is moved transversely to the length of the body, said support and head having coöperative provisions opposing rotative movement of said body about its own axis.

AXEL S. VOGT.

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