Sept. 12, 1933. F. SEE ET AL 1,926,634

BRAKING DEVICE

Filed Nov. 22, 1932

FIG. 1.

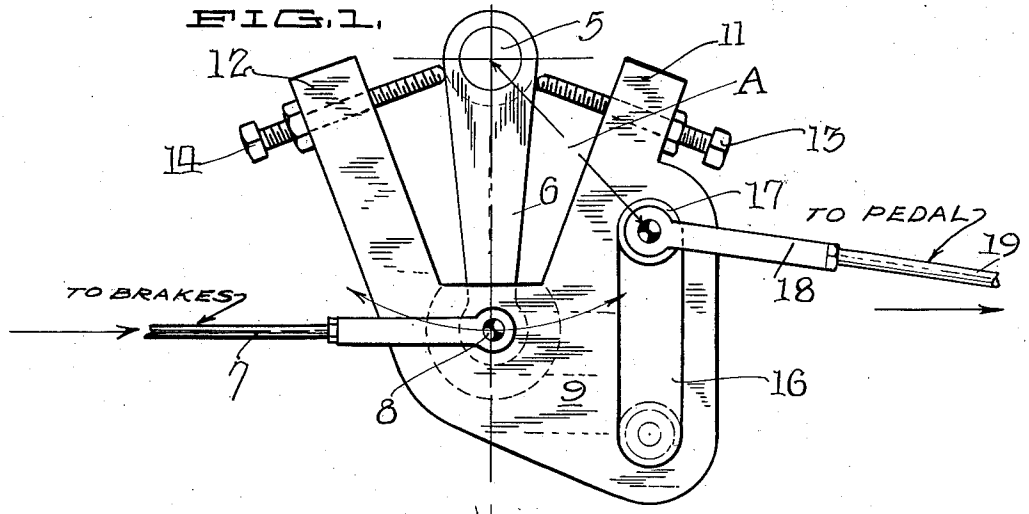


FIG. 2.

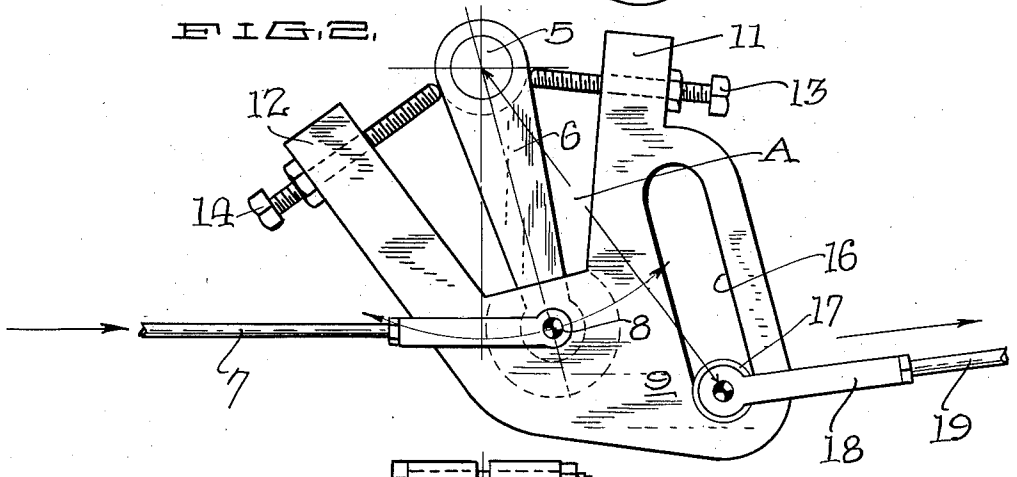
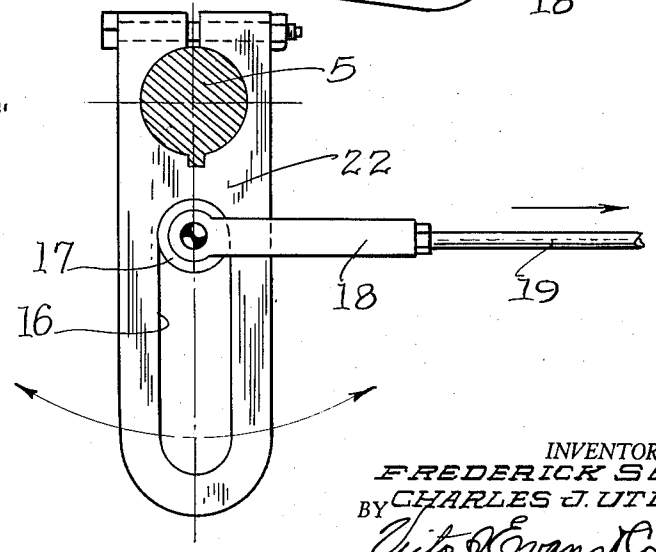


FIG. 3.



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BRAKING DEVICE

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Application November 22, 1932
Serial No. 643,910

1 Claim. (Cl. 74—110)

This invention relates to improvements in braking devices and has particular reference to means for increasing brake leverage.

The principal object of the invention is to produce a device which may be attached to the ordinary brake system of a motor vehicle or any other device wherein there is a pulling action.

A further object is to produce a device which is economical to manufacture and simple to install.

A further object is to produce a device wherein the slack within the brake rods may be easily taken up in the device.

A still further object is to produce a device wherein there may be a quick application of the brakes during the initial movement of the brake pedal and later an increased leverage effect during the latter part of the brake movement.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig. 1 is a side elevation of our device showing the manner in which the same might be attached to an ordinary brake mechanism,

Fig. 2 is a view similar to Fig. 1, showing the parts in braking position, and

Fig. 3 is a modified form of our device.

In the accompanying drawing wherein for the purpose of illustration is shown a preferred embodiment of our invention, the numeral 5 designates a cross rod of a braking system, or may be the pivotal connection of a brake arm 6. To this arm 6 is usually connected a brake rod 7 and is pivoted as at 8. My invention consists in inserting between the rod 7 and the arm 6 a casting 9 which is held to the lever 6 by the pivot pin 8. This casting has arms 11 and 12 through which set screws 13 and 14, respectively, pass and engage the lever 6. Within the casting 9 is formed a slot 16 in which is positioned a roller 17, which roller is carried in a clevis 18 secured to the pull rod 19, which pull rod is in turn connected to the brake pedal not shown.

The operation of our device is as follows:—

Assuming that the same has been applied to a braking system as shown in Fig. 1, the parts will be in the positions shown, and it will be noted that the pivotal point of the roller is a distance A from the cross rod 5 and this distance A is less than the distance from the cross rod to the pivot 8. It will, therefore be apparent that when the pull rod 19 is moved toward the right of the drawing, the amount of movement will be increased to the brake rods 7. As soon as the slack has been taken up in the brakes the parts will have moved from the position of Fig. 1 to the position of Fig. 2 and the roller 17 will have moved from the top of the slot 16 to the bottom of the slot 16 and therefore the distance A of Fig. 2 is greatly increased from that of Fig. 1. Therefore, a greater leverage is exerted on the cross rod 5, arm 6 and brake rod 7, thus making it easier to apply the brakes as they are under tension.

In the form shown in Fig. 3, the construction accomplishes the same purpose and it will be noted that the pull rod 19, yoke 18 and roller 17 are the same as shown in Figs. 1 and 2, and that the roller 17 travels in the slot 16 in a connector 22, which is secured to the rod 5 at any point within its length. Of course, the rod 5 need not necessarily be a portion of a braking system, the essential feature of our device being that we can increase the leverage as the movement of the pull rod increases.

It is to be understood that the form of our invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described our invention, we claim:—

In combination with a lever, a casting pivotally secured to said lever, a brake rod pivotally secured to said lever, adjusting means for positioning said casting on said lever with respect to its pivotal connection, said casting having a slot formed therein and a movable element carried in said slot and capable of being connected to a pull rod.

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