March 10, 1925. 1,529,558

W. F. STAGGERS

CLAMP FOR ANTISKID DEVICES

Filed Jan. 9, 1924

Fig. 1.

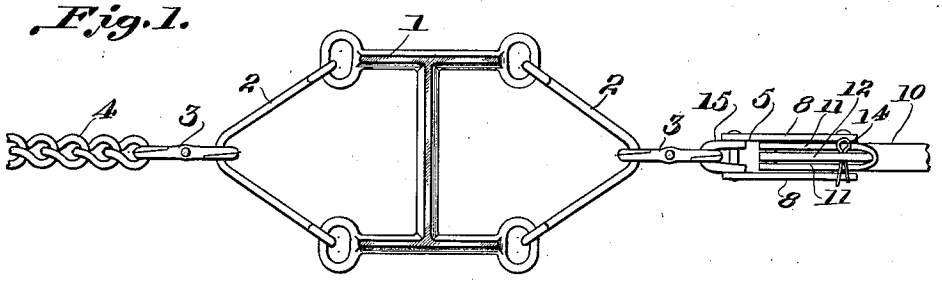
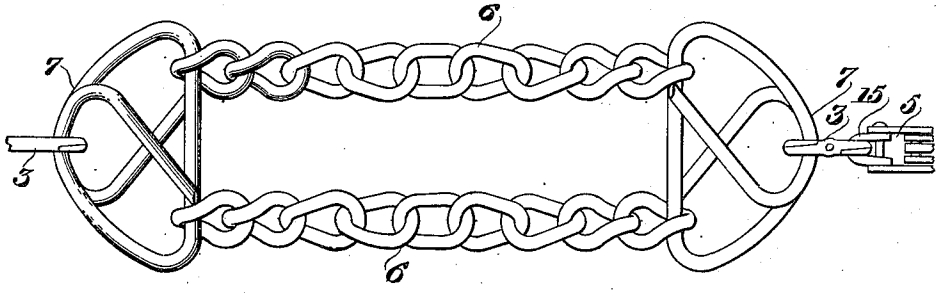


Fig. 2.



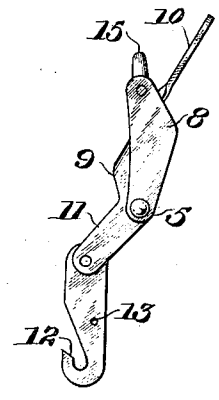
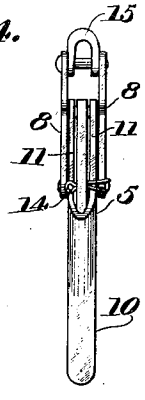


Fig. 3.

Fig. 4.



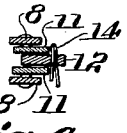
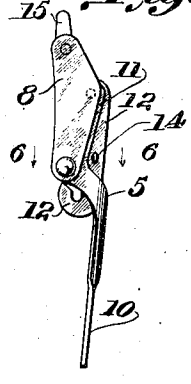


Fig. 6.

Fig. 5.



Inventor

William F. Staggers

By Eccleston & Eccleston

Attorneys

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UNITED STATES PATENT OFFICE.

WILLIAM F. STAGGERS, OF MANNINGTON, WEST VIRGINIA.

CLAMP FOR ANTISKID DEVICES.

Application filed January 9, 1924. Serial No. 685,254.

To all whom it may concern:

Be it known that I, WILLIAM F. STAGGERS, a citizen of United States, residing at Mannington, in the county of Marion and State of West Virginia, have invented certain new and useful Improvements in Clamps for Antiskid Devices, of which the following is a full, clear, and exact description.

The invention relates particularly to clamps for anti-skid devices, and one of the objects of this invention is to provide such a clamp that will function to quickly and easily draw the antiskid device tightly about the tire.

Another object of the invention is to provide a clamp so constructed that when the parts are moved to clamping position the hook member will move past its dead center, so that the strain exerted on the clamp will not move the parts to unclamped position.

Another object of the invention is to provide a novel means for locking the parts in clamped position.

Still another object of the invention is to provide a device of this character which is simple in construction and hence inexpensive in manufacture, and yet which is highly efficient in operation.

Other objects and advantages of the invention will be apparent from the following detailed description, when taken in connection with the accompanying drawings, in which,

Figure 1 is a plan view of an antiskidding device particularly adapted for light automobiles, and showing the clamping member attached thereto.

Figure 2 is a similar view of an antiskidding device particularly adapted for heavy automobiles, such as commercial trucks.

Figure 3 is a side elevation of the clamp in open position.

Figure 4 is a front elevation of the clamp in closed position.

Figure 5 is a side elevation of the clamp in closed position; and

Figure 6 is a sectional view of the clamp taken on line 6—6 of Figure 5, and showing the relation the cotter pin bears to the hook member and forks of the bell-crank lever.

Referring to the drawings more in detail, numeral 1 indicates generally an antiskid device of well known form, and provided with loops 2, 2, adapted to receive the quick detachable hooks 3, 3. A chain 4 is connected to one of these hooks, and attached to the other hook is a clamping member indicated generally by numeral 5.

The antiskid device may be of any form desired, and the purpose of Figure 1 is merely to illustrate my improved clamping member as applied to an antiskidding device particularly adapted for use on light automobiles, such as touring cars.

In Figure 2, I have illustrated another form of antiskidding device particularly adapted to use on heavy automobiles such as commercial trucks. The type of antiskidding device illustrated in Figure 2 consists of a pair of chains 6, 6 which are attached to looped end members 7, 7. The quick detachable hooks 3, 3, are attached to the looped end members 7, 7, in the same manner as in Figure 1, and my improved form of clamping member 5 is adapted to engage one of the detachable hooks 3, also in the same manner as in Figure 1.

The present invention relates solely to the improved clamping member which may be used with all types of antiskid devices, and while I have illustrated the clamp in connection with two particular forms of antiskid devices, one for light automobiles, and one for heavy trucks, it will be understood that such showing is for purposes of illustration only and that the invention is in no way limited to the particular antiskid devices shown herein.

The improved clamping member which forms the subject-matter of the present application, will now be described.

The clamping member 5 consists of a body member composed of two spaced walls 8, 8, between which is pivotally mounted a bell-crank lever 9, having an operating handle 10. This bell-crank lever is formed of a single piece and consists of two spaced forks or tines, 11, 11, which merge into the handle portion 10, as clearly illustrated in Figures 1 and 4.

Pivotally mounted between the forks or tines 11, 11, is the hook member 12, which is provided with an aperture 13 adapted to receive a cotter pin 14, in the manner and for the purpose to be described.

A pivoted loop 15 is provided on the clamping member for the purpose of attaching it to the chains or links carried by the antiskid device.

The operation of the clamping member will now be described.

Referring particularly to Figure 3, which

shows the clamping device in open or inoperatve position, the loop 15 is attached to one part of the attaching chain and the hook 12 is attached to another part thereof. Now to draw the parts tightly about the tire it is only necessary to move the operating handle 10 downwardly to the position illustrated in Figures 4 and 5. As the operating handle is moved downwardly the opposite end of the bell-crank lever is elevated, thereby drawing all the parts tightly together. As the parts move into operative position, the hook 12 which has been elevated, moves past its dead center into its position between the forks or tines 11, 11, and the parts are now in such a position that the strain will not move the clamp to released position. When in this position the aperture 13 is exposed and the parts may be securely locked by placing a cotter pin in the aperture.

To release the parts it is only necessary to remove the cotter pin and swing the operating handle to the position shown in Figure 3, thereby removing the strain on the parts and permitting the removal of the antiskid device.

In accordance with the patent statutes, I have described what I now believe to be the best embodiment of the invention, but I do not wish to be understood thereby as limiting myself or the scope of the invention, as many changes and modifications may be made without departing from the spirit of invention; all such I aim to include in the scope of the appended claims.

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

1. A clamping member for antiskid devices, including a body member having spaced walls, a forked bell-crank lever pivotally mounted in the body member between the spaced walls thereof, the operating arm of the bell-crank lever extending between the walls of the body member when the clamp is open, the other arm of said bell-crank lever extending outwardly and having a hook member pivotally attached thereto, and means for swinging the operating arm of the bell-crank lever clear of the body member and at the same time swinging the other arm of the bell-crank lever into position in the body member and thereby tightening the chain.

2. A clamping member for antiskid devices, including a body member having spaced walls, a forked bell-crank lever pivotally mounted in the body member between the spaced walls thereof, the operating arm of the bell-crank lever extending between the walls of the body member when the clamp is open, the other arm of said bell-crank extending outwardly and having a hook member pivotally attached thereto, means for swinging the operating arm of the bell-crank lever clear of the body member and at the same time swinging the other arm of the bell-crank lever into position in the body member and thereby tightening the chain, and means for swinging the hook member past its dead center into position between the fork member of the bell-crank lever.

3. A clamping member for antiskid devices, including a body member having spaced walls, a forked bell-crank member pivotally mounted in the body member between the spaced walls thereof, the operating arm of the bell-crank lever extending between the walls of the body member when the clamp is open, the other arm of said bell-crank extending outwardly and having a hook member pivotally attached thereto, means for swinging the operating arm of the bell-crank lever clear of the body member and at the same time swinging the other arm of the bell-crank into position in the body member and thereby tightening the chain, and means for swinging the hook member past its dead center into position between the forked members of the bell-crank lever, and means for locking the parts in clamped position.

4. A clamping member for antiskid devices, including a body member, a forked bell-crank lever pivotally mounted in the body member, a hook-member pivotally attached to the bell-crank lever, means for operating the bell-crank lever to draw up the hook member and thus tightening the antiskidding device upon the tire, and for swinging the hook member past its dead center into position between the fork members of the bell-crank lever, said hook member provided with an aperture, said aperture being positioned beyond the bell-crank forks when the device is in clamped position, and a cotter pin adapted to be inserted in said aperture and abut against the edges of the bell-crank forks.

WILLIAM F. STAGGERS.