June 19, 1923. 1,459,310

C. MOSS

CLASP OR CONNECTING DEVICE

Original Filed March 5, 1920

Fig. 1.

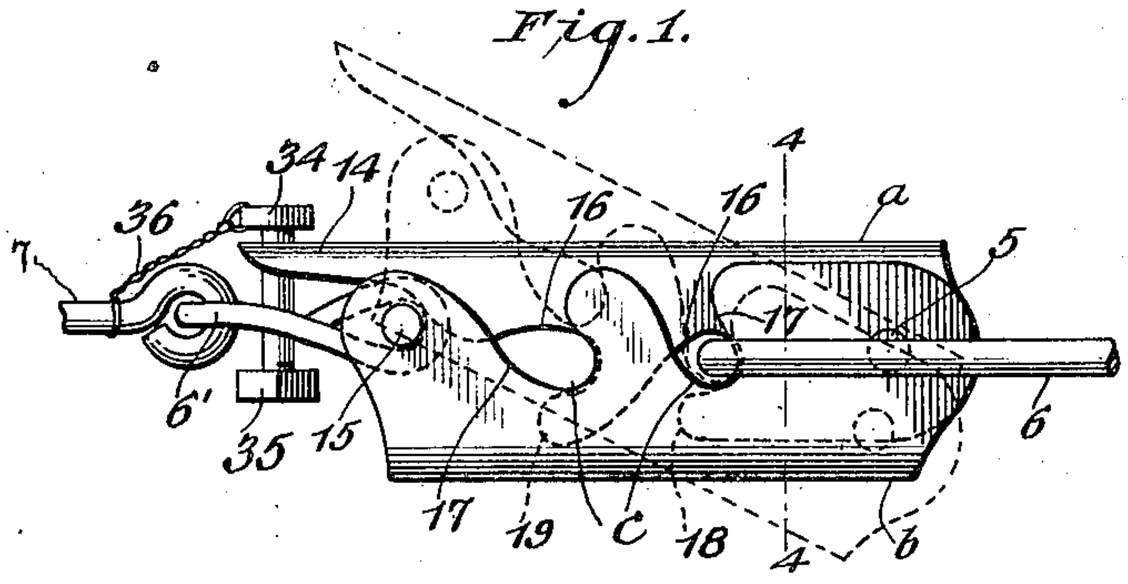


Fig. 2.

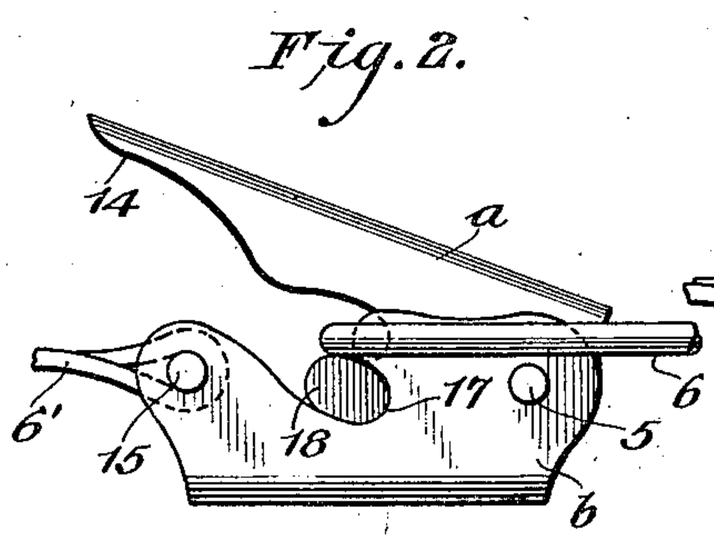


Fig. 3.

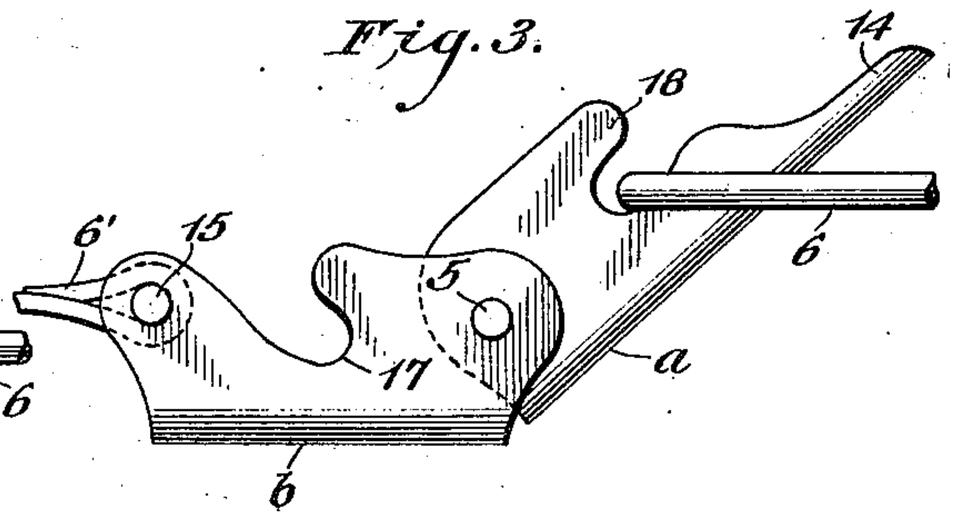


Fig. 4.

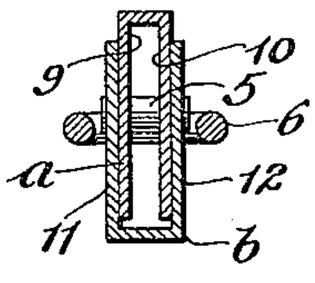


Fig. 5.

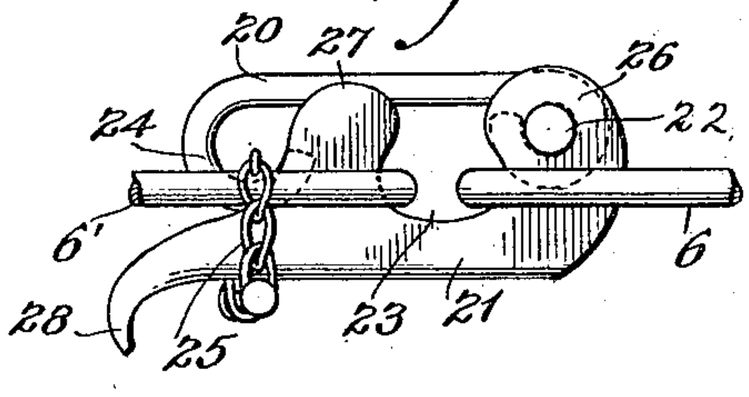
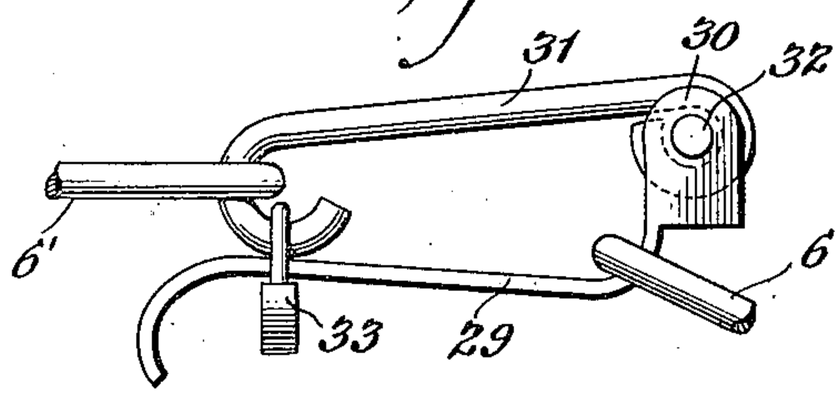


Fig. 6.



Inventor
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By his Attorney C. P. Goepel

Patented June 19, 1923. 1,459,310

UNITED STATES PATENT OFFICE.

CHARLES MOSS, OF NEW YORK, N. Y.

CLASP OR CONNECTING DEVICE.

Original application filed March 5, 1920, Serial No. 363,471. Divided and this application filed August 30, 1920. Serial No. 406,883.

To all whom it may concern:

Be it known that I, CHARLES MOSS, a citizen of the United States, and resident of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Clasps or Connecting Devices, of which the following is a description.

This invention relates to clasps or connecting devices, such as are used in clasping or connecting the free ends of a chain, as, for instance, an anti-skid chain, and is a division of my copending application, Serial No. 363,471, filed March 5, 1920.

The invention has for its general object to provide for facilitating the operations of connecting and disconnecting anti-skid chains, and the like, and to provide against accidental disengagement of the chain when the same is in use.

Other objects will appear and be better understood from that embodiment of the invention, of which the following is a specification, reference being had to the accompanying drawings forming a part thereof, and in which:

Figure 1 is a side elevation of one form of clasp in use, and showing by dotted lines one position into which the clasp may turn relatively to the links when in use.

Figures 2 and 3 are views similar to Figure 1, of slight modifications, showing the parts of the clasp partly closed and fully opened.

Figure 4 is a vertical cross section on the line 4—4 of Figure 1.

Figure 5 is a side elevation of a further modification of the clasp, and,

Figure 6 is a view similar to Figure 5 of a still further modification.

The clasp or fastening device of this invention is constructed with a view to obtain maximum stability with a minimum of size, or, more particularly, the clasp, in addition to its other novel properties, is constructed to function as a link in the chain to which it is attached, and to offer nothing in the form of undesirable lateral protuberances beyond what are presented by the links of the chain itself.

The body of the clasp consists essentially of the relatively movable members *a* and *b* connected together at one end, as by the pivot 5, and arranged to fold one upon the other. The members *a* and *b* are constructed to engage the end links 6, 6′ of the chain 7, and are so disposed as to exert a pull in opposed directions on the chain when folded one onto the other. This action on the part of the clasp operates to contract or tighten the chain 7 onto the body embraced thereby. When members *a* and *b* are in the folded position, an open ended socket *c* is provided, which loosely receives one of the end links 6 of the chain 7, whereby independent turning movement of the link and the clasp is permitted.

In the preferred form the members *a* and *b* are constructed to interfit, each being a channeled structure stamped from sheet metal. The side walls 9 and 10 of member *a* are disposed between the side walls 11 and 12 of member *b*, and each pair of side walls is provided with openings to receive pivot 5. The free end portion of member *a* is narrowed or recessed in one dimension so as to permit of ready insertion through any of the links 6 of chain 7; and the free end portion is extended, as at 14, to overhang member *b* and thus provide a hand-hold for turning member *a* on pivot 5 in the operation of clasping and releasing chain 7. A stop 15 is secured in openings in the free end portion of member *b*, and is disposed so that it intercepts member *a* when the same is folded and nested in member *b*, as shown; the stop also serves to connect member *b* with chain 7 by passing through the end link 6′.

In the preferred form a plurality of sockets *c* are shown situated for different distances from pivot 5, and spaced apart for a distance corresponding to a fraction of the length of link 6. This construction enables the device to effect a desirable feature of adjustment in the chain in that it permits of the insertion of the end link 6 into the outermost socket when found necessary to compensate for a reduction in the size of the tire on account of wear.

Sockets *c* are formed by oblique recesses 16, 17 in side walls, 9, 10, 11, 12 of members *a* and *b*. The recessing of member *a* results in lateral curved extensions or beaks 18, 19, which are proportioned so as to project a trifle beyond the inner ends of recesses

17 when the members *a* and *b* are folded, and thus provide a bearing surface in either socket for the link 6.

From the foregoing it is obvious that the pressure exerted by link 6 on either of the beaks 18 or 19 overcomes any tendency of member *a* to move outwardly. The provision of the beak structure also facilitates the operation of detaching chain 7 from the tire in that when link 6 is engaged with either of the beaks and member *a* swung outwardly, the link is engaged and moved outwardly from member *b* and thereby rendered accessible for detachment from member *a*.

In the modified forms shown in Figures 2 and 3 the parts are similar in construction to those described in connection with the preferred form except, a single recess 17, and a beak 18 are employed.

In the modified form shown in Figure 5, the members 20, 21 are connected together at one end, as by pivot pin 22. Member 21 is a channeled structure formed like member *b*, and has a socket 23 which receives the ends 6, 6′ of chain 7. Member 20 may be formed of a single length of stout steel wire and proportioned so as to interfit with member 21. The free end portion of member 20 is constructed with an eye 24 to receive a suitable locking device, such as indicated by 25, this locking device serving to hold members 20 and 21 locked when in operative position. Member 21 is formed with upright lugs 26, 27, which pass through links 6, 6′ when the same are disposed in socket 23, and the said member is further provided with a curved extending end portion 28 which serves as a convenient hand-hold in operating the device, and further acts as a stop for the free end of member 20.

In the modified form shown in Figure 6, member 29 is provided with upturned lugs 30 at one end thereof, between which is disposed one end of member 31, which is secured by pivot 32. The lugs 30 pass through end 6 of chain 7, and the opposite end 6′ of said chain is held by the free end portions of member 31, which is locked by any suitable means, such as lock 33, connected to the free end of member 31. Member 29 has a curved extension adapted to function in a manner similar to that described in connection with the projecting end portion 27.

In connection with the preferred form, the parts thereof may be locked so as to prevent accidental detachment from the chain 7. Any improved means may be employed for effecting the locking of members *a* and *b*, such as shown, where the lock consists of a bolt 34, which passes through an opening in the free end portion of member *a*, and then through the link 6′; the bolt being secured by a nut 35.

Although I have shown and described an ideal embodiment of the present invention, it must be understood that I am not to be limited to the structures herein shown, it being obvious that many changes may be made within the scope of the appended claim without departing from the spirit, or sacrificing any of the advantages of the invention.

I claim:

A clasp device comprising a pair of channel members adapted to interfit, said members being pivoted together at one end, said lower member having a diagonal recess opening upwardly and being directed as to length from the upper edge of the member downwardly toward the pivot point, the upper member similarly having a diagonal recess disposed as to length in a line intersecting said first named recess, said upper member also having an extension piece projecting below the recesses and adapted to lie forwardly of the bottom portions of the recess in the lower member when such members are closed, a stop carried by the free end of said lower member and extending across the channel, said upper member having an extension piece adapted to engage with said stop and projecting beyond the free end of the lower member, a link pivoted on the stop member and projecting below the extension piece, and locking means engaged with said link and extension piece.

In testimony that I claim the foregoing as my invention, I have signed my name hereunder.

CHARLES MOSS.