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T. BARNES

VEHICLE TOW BAR

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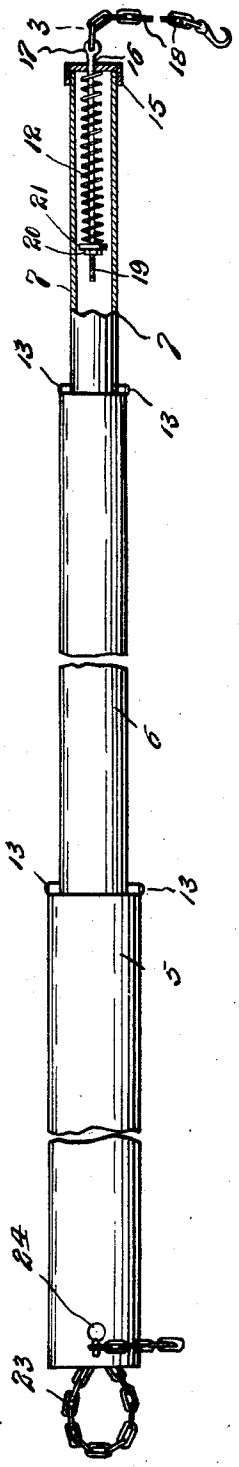


Fig. 1.

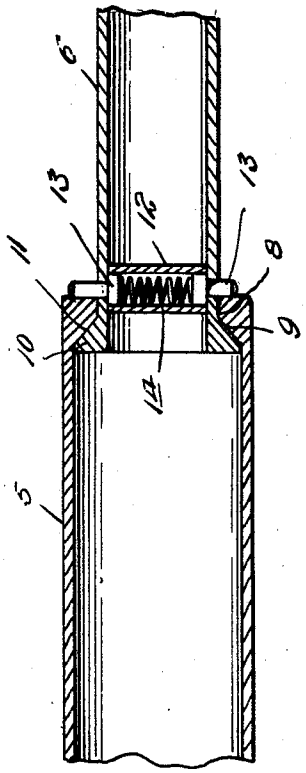


Fig. 2.

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UNITED STATES PATENT OFFICE.

THOMAS BARNES, OF OGDEN, UTAH.

VEHICLE TOW BAR.

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To all whom it may concern:

Be it known that I, THOMAS BARNES, a citizen of the United States, residing at Ogden, in the county of Weber and State of Utah, have invented certain new and useful Improvements in Vehicle Tow Bars, of which the following is a specification.

In carrying out the present invention it is my purpose to provide a tow bar for vehicles wherein the same may be readily collapsed into a small compass for facilitating transportation.

A further purpose of my invention resides in the provision of such a tow bar that comprising a plurality of telescopic sections that may be readily extended when it is desired to employ the bar in towing a machine, effective means being provided between the sections for preventing the collapsing of the same while in operation.

A still further purpose of my invention is the provision of such an article that embraces the desired features of simplicity, durability, cheapness of manufacture, the device comprising relatively few parts and these corelated in such a manner as to reduce the liability of derangement to a minimum.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination, and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate similar parts in the several views, and wherein:

Figure 1 is an elevation of my bar extended;

Figure 2 is an enlarged fragmentary longitudinal cross section between a pair of the bar sections.

Referring to the drawings in detail, my invention comprises a plurality of sections designated 5, 6 and 7, respectively. Each of these sections is in the form of relatively elongated tubular members and of such a nature as to permit of a free sliding movement of a section 6 within the section 5 and a sliding movement of the section 7 within the section 6.

The front ends of the sections 5 and 6 are flanged inwardly at as 8, the inner wall of these flanges being beveled as at 9. The opposite ends of the sections 6 and 7 are formed with outwardly extending flanges 10, the inner faces thereof being beveled as at 11, these bevel faces adapted for close contact with the said bevel faces 9 of the flanges 8 of the sections 5 and 6 for limiting the outward sliding movement of the sections with respect to each other.

Within the sections 6 and 7 adjacent the said outwardly flanged ends thereof are transverse sleeves 12 slidable within the opposite ends of which are headed pins 13, it being understood, of course, that the opposite sides of each of the tubes 6 and 7 are provided with openings for permitting of the projection of the said pins outwardly of the tube in a manner clearly shown in Figure 2. As a means for forcing these pins outwardly through the said openings within the tubes there is provided within the said sleeves 12 and between the heads of said pins 13 expansion springs 14. When it is desired to slide the tubes inwardly of each other the pins 13 are depressed beneath the surface of their respective tubes and when it is desired to extend the tow bar as per Figure 1 the sections are merely slid forwardly and in view of the beveled inner face 9 of the inwardly extending flanges 8 of the sections 5 and 6 the pins will ride inwardly within the sleeve for allowing this action, it, of course, being apparent that the main purpose of these pins is to prevent the collapse of the tow bar when in position between two machines.

The front end of the tube 7 is screw-threaded and has positioned thereon a screw-threaded cap 15. Within this section 7 and extending outwardly within said cap 15 is a relatively elongated rod 16, the front end being eyed as at 17 and having thereon one end of a vehicle securing chain 18. The opposite end of this rod is screw-threaded at 19 and carries a nut and washer 20 and 21, respectively. Between the said washer 21 and cap 15 and encircling said rod 16 is an expansion spring 22, these elements effectively providing a shock absorbing means for the tow bar when the same is interconnected between two machines, it being obvious that as soon as a blow is occasioned upon the tow bar the rod 16 will slide forwardly for compressing the spring 22 and taking up the shock from the bar that would otherwise be occasioned in the application of such structure.

Upon the outer end of the section 5 and at one side thereof is secured one end of a chain section 23. Upon the opposite side of the section to which is attached the end of the chain 23 there is provided a key slot 24, it being obvious that the chain 23 is adapted for engaging around the front axle of the machine to be towed after which the chain may be inserted through the key slot 24 and moved forwardly within the slot for effectively maintaining the chain therein.

In view of the above description it is believed by me that the operation and advantages of a tow bar of the present character will be readily appreciated by those skilled in the art and although I have herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein, without departing from the spirit and scope of the invention as claimed.

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

A tow bar comprising hollow sections arranged to telescope one within the other, the inner section being provided at its end with an annular flange having a bevelled face, and the outer section provided at its end with an internally located flange having a bevelled face, the bevelled faces of the flanges adapted to engage each other when the sections are extended with relation to each other, a sleeve located within and disposed transversely of the inner section, the inner section being provided with openings which register with the ends of the sleeve, a coiled spring housed within the sleeve, and pins loosely mounted in the openings and having heads which bear against the ends of the spring, the parts being so arranged that the pins are disposed transversely across the edge of the outer section when the sections are extended with relation to each other and the ends of the pins bear against the inner surface of the outer section when the sections are moved one within the other whereby the pins serve to hold the tow bar in a collapsed condition.

In testimony whereof I affix my signature.

THOMAS BARNES.