

No. 635,778.

Patented Oct. 31, 1899.

W. A. HUDELSON.
BRUSH FOR BICYCLE CHAINS.

(Application filed Nov. 4, 1898.)

(No Model.)

Fig. 1.

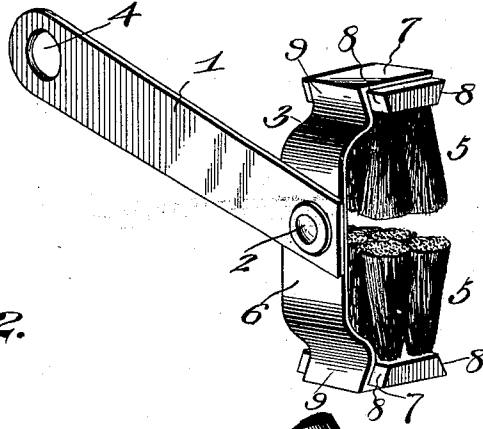


Fig. 2.

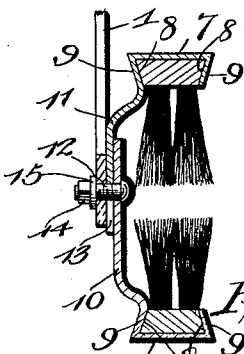
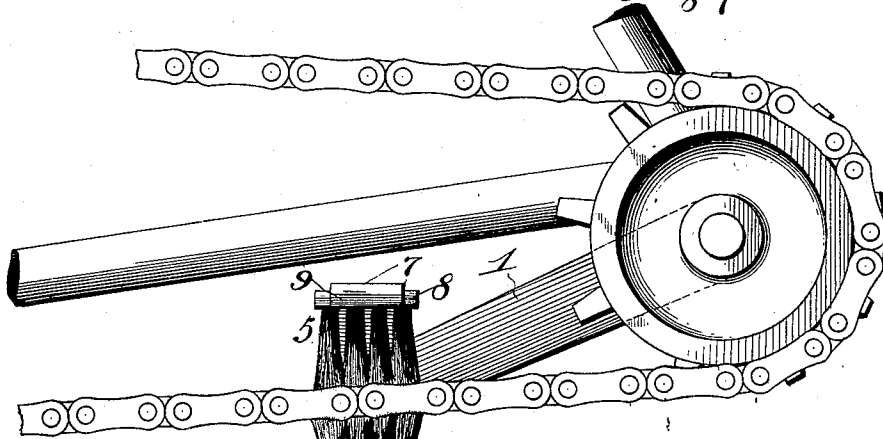


Fig. 3.

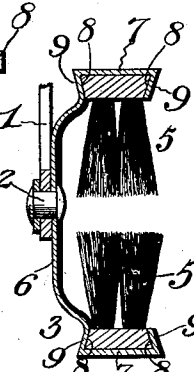


Fig. 4.

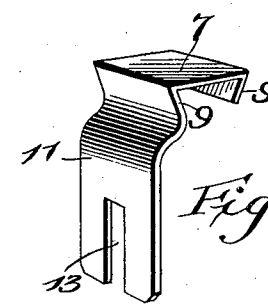


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM A. HUDELSON, OF JEFFERSON, OREGON.

BRUSH FOR BICYCLE-CHAINS.

SPECIFICATION forming part of Letters Patent No. 635,778, dated October 31, 1899.

Application filed November 4, 1898. Serial No. 695,475. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. HUDELSON, a citizen of the United States, residing at Jefferson, in the county of Marion and State of Oregon, have invented a new and useful Brush for Bicycle-Chains, of which the following is a specification.

The invention relates to improvements in brushes for bicycle-chains.

The object of the present invention is to improve the construction of brushes for bicycle-chains and to provide a simple, inexpensive, and efficient device adapted to be readily applied to the rear axle of a bicycle and capable of engaging either the upper or lower flight of the chain to keep the latter free from dust and maintain the same in good condition.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a bicycle-chain brush constructed in accordance with this invention. Fig. 2 is an elevation of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a transverse sectional view showing an adjustable brush-receiving frame or holder. Fig. 5 is a detail perspective view of the adjustable section of the frame or holder.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a shank or bar pivoted at one end by a rivet 2 or other suitable fastening device to a brush-receiving frame or holder 3 and provided at its other end with an opening 4, adapted for the reception of the rear axle of a bicycle, whereby the device is applied to the same. The brush-receiving frame by being pivoted to the shank or bar 3 is adapted to be adjusted thereon to accommodate brushes 5 to the position of the chain, or rather the portion thereof which is engaged by them, and the shank or bar 1 may be arranged to bring the brushes in position for engaging either the upper or lower flight of a bicycle-chain.

The brush-receiving frame or holder, which is constructed of stout sheet metal or other

suitable material, has a central bowed portion 6, which is pivoted to the shank or bar 1, and the upper and lower ends of the frame or holder are provided with clips 7, which engage the brushes, as clearly shown in Fig. 3 of the accompanying drawings.

The backs of the brushes have their side edges 8 oppositely beveled, as shown, to provide a dovetailed piece, and the clips consist of converging sides 9 and a connecting portion and form dovetailed grooves or ways to receive the backs of the brushes. The brushes are securely fastened in the clips by pressing the sides thereof firmly into the wooden backs of the brushes, or a suitable fastening device may be employed, if desired, to retain the brushes in the holder.

The sheet metal of which the brush-receiving frame is constructed is bent to form the clips, and it is also provided at opposite sides of the fastening device 2 with bends which offset the clips from the plane of the bar 1.

When the device is in position on a bicycle, the brushes, which extend inward toward each other, have the ends of their bristles arranged above and below and adapted to engage the upper and lower faces of the adjacent flight of the bicycle-chain, and the said brushes are adapted, as will be readily understood, to keep the chain perfectly free from dust, and they are also capable of maintaining the chain properly lubricated when they are supplied with graphite. The brushes can also be advantageously employed for cleaning a rusty chain and will quickly remove the rust therefrom.

The brush-receiving frame or holder, which may be constructed of a single piece of metal, as illustrated in Figs. 1, 2, and 3 of the accompanying drawings, has its ends bent to form the clips, which are extended toward each other. The brushes form a space or opening between the inner ends of their bristles for the passage of a bicycle-chain. Instead, however, of constructing the brush-receiving frame or holder of a single piece of metal it may be formed of two sections 10 and 11, having their inner ends overlapped and adjustably secured together by a clamping screw or bolt 12, as clearly shown in Fig. 4 of the accompanying drawings. The section 10 is provided with a perforation to receive the bolt 12, and the inner end of the section 11 has a

longitudinal slot 13 and is capable of longitudinal adjustment to vary the distance between the engaging faces of the brushes, whereby the latter may be readily arranged to engage a chain properly. This construction also permits the brushes to be adjusted as they become worn and the wear may be readily taken up. The bolt 12 is provided with a nut 14, which is adapted to clamp the movable section 11 and secure the same firmly in its adjustment, a washer 15 being interposed between the nut and the shank or bar.

The invention has the following advantages: The device, which is simple and inexpensive in construction, possesses great strength and durability, and it is adapted to be readily applied to any ordinary bicycle and is capable of being arranged to engage either the upper or lower flight of a bicycle-chain. The brushes engage the upper and lower faces of the chain and are adapted to keep the same free from dust and in good condition, and they may also be readily removed from the clips when it is necessary to supply new brushes. The brushes are housed within the frame or holder and are protected by the same, so that they will last for a long time and are not liable to be accidentally broken or otherwise injured. The sectional brush-receiving frame or holder permits the brushes to be brought closer together as they become worn, and it enables them to engage a chain properly at all times.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A device of the class described comprising a bar provided at its rear end with an opening arranged to receive the rear axle, whereby it is adapted to swing upward or downward to arrange its front end adjacent to either flight of the chain, a brush-receiving frame or holder composed of two sections provided at their outer ends with clips and having their inner ends slotted, a fastening device passing through the slots, adjustably connecting the sections and pivoting the frame or holder to the front end of the bar, and brushes arranged in the clips and spaced apart to receive the chain, substantially as described.

2. A device of the class described comprising a bar provided at its rear end with an opening arranged to receive the rear axle of a bicycle and adapted to swing upward and downward to arrange its front end adjacent to either flight of a chain, a brush-receiving frame extending across the front end of the bar and constructed of sheet metal and bent at the ends of the frame to form the clips 7, said frame being also provided at opposite sides of the center with bends offsetting the clips from the plane of the bar, brushes detachably interlocked with the clips, and a fastening device securing the frame to the front end of the bar and forming pivots for the said parts, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM A. HUDELSON.

Witnesses:

T. M. WITTEN,
GEO. W. EPLEY.