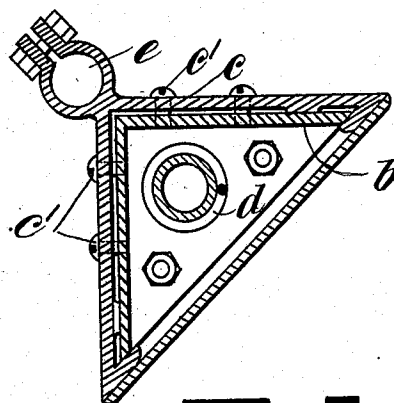
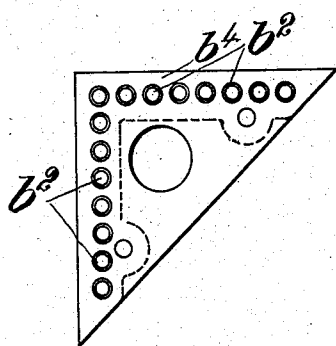
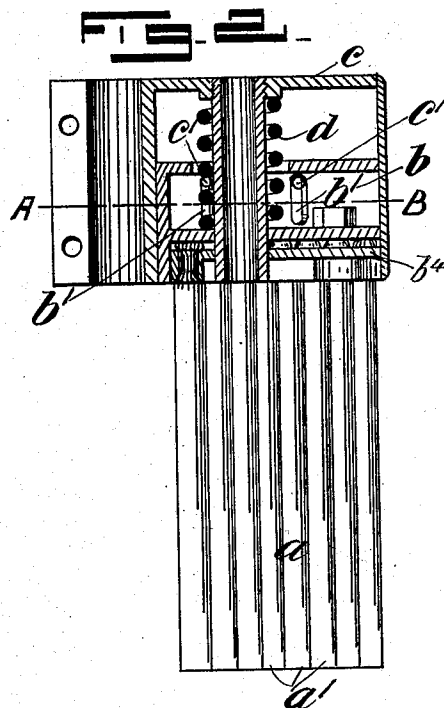
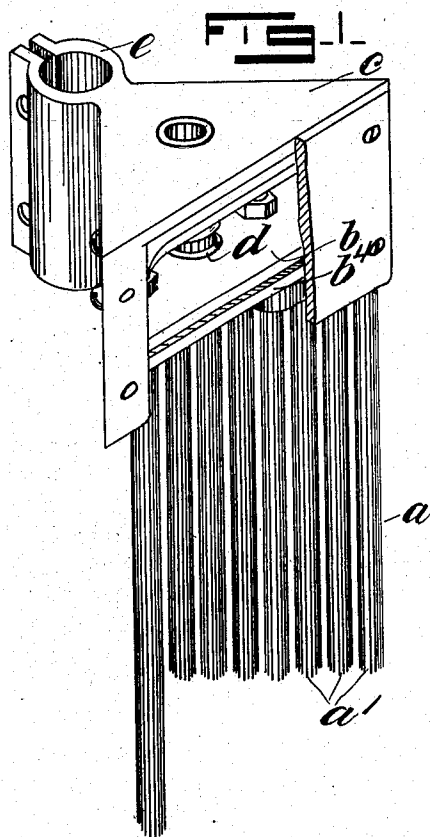


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 OBSTACLE REMOVING DEVICE FOR VEHICLES.
 APPLICATION FILED NOV. 26, 1906.

901,114.

Patented Oct. 13, 1908.

2 SHEETS—SHEET 1.



Witnesses.
[Signature]
[Signature]

Inventors
 TOM LOVELESS
 WILLIAM J. SAMWAYS
 By *[Signature]* W. J. Jenner
 Attorney

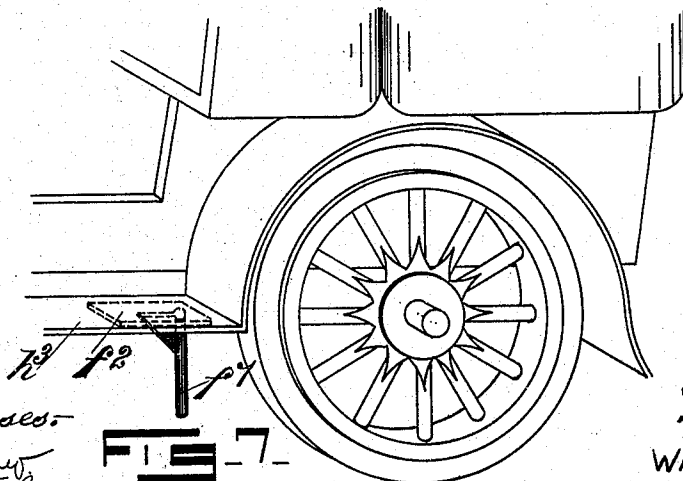
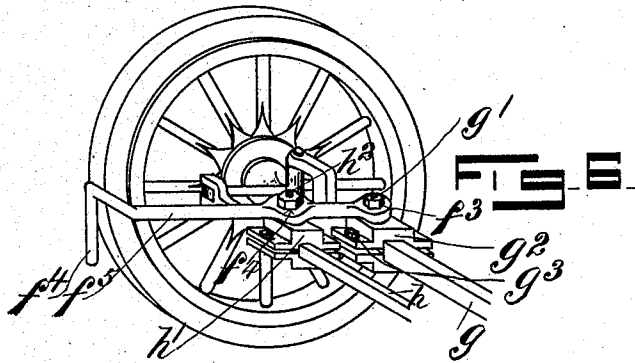
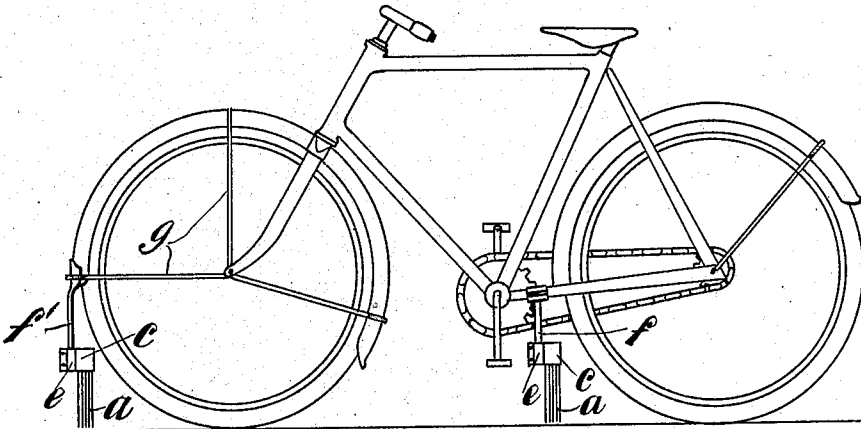
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2 SHEETS—SHEET 2.

FIG. 5.



Witnesses:
 B. J. J. J.
 H. J. J. J.

FIG. 7.

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UNITED STATES PATENT OFFICE.

TOM LOVELESS, OF UPWEY, AND WILLIAM JAMES SAMWAYS, OF WEYMOUTH, ENGLAND.

OBSTACLE-REMOVING DEVICE FOR VEHICLES.

No. 901,114.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed November 26, 1906. Serial No. 345,224.

To all whom it may concern:

Be it known that we, TOM LOVELESS and WILLIAM JAMES SAMWAYS, subjects of the King of Great Britain, and resident, the first named, of Upwey, and, the second named, of Weymouth, both in the county of Dorset, England, have invented a new and useful Improvement in Obstacle - Removing Devices for Vehicles, of which the following is a specification.

This invention relates to a new or improved attachment for cycles, motor cars or the like for removing stones and other objects from the path thereof, and has for its object to provide a device or plurality thereof for attachment to a cycle motor car or other vehicle for the purpose of effectually removing nails, flints and other objects from the road surface in the path of such cycle or other vehicle.

In order that our invention may be more readily understood and carried into practical effect, reference is hereby made to the accompanying sheet of illustrative drawings wherein:

Figure 1 is a perspective view of our improved attachment shown independently. Fig. 2 is a vertical section thereof. Fig. 3 is a plan view of a detail. Fig. 4 is a sectional plan on line A B of Fig. 2. Fig. 5 is a view showing the application of our device to a cycle, while Figs. 6 and 7 are perspective views showing the application of the device to the front and rear wheels, respectively, of a motor car.

Referring to these drawings in which like letters of reference indicate corresponding parts wherever occurring *a* designates a brush, preferably of angular form and composed of wire or other stiff bristles grouped together in bunches such as *a*¹, which brush *a* is held at its upper end in a triangular or other stock or frame *b* arranged to have a vertical sliding movement within an outer frame or casing *c*, the said inner frame or stock *b* having vertical guide slots *b*¹ through which pass projections *c*¹ on the outer frame or casing *c*. A spring *d* is interposed between the upper part of the inner movable frame or stock *b* and the outer casing *c* to absorb shocks and allow of a compensating movement of the movable member *b* carrying the brush *a* when traveling over inequalities in the road surface.

It will be understood that the bristles or wires of the brush *a* may be attached to the stock *b* in any convenient manner, but we

preferably form this stock in two pieces *b* and *b*⁴. The groups *a*¹ of wires or bristles can then be threaded through the holes *b*², each group or bunch of wires being bent centrally and forming two depending groups or bunches *a*¹, the central bent part being securely held between the parts *b* and *b*⁴ of the stock as a whole, which parts *b* and *b*⁴ are bolted together in any convenient manner.

The outer frame or casing *c* aforesaid is provided with a clamping device such as *e* adapted to be capable of vertical adjustment in relation to a rod such as *f* so arranged upon, and carried by, the cycle as to enable the brush to be located in front of the wheel with its lower end in such proximity to the ground as to sweep from the path of the wheel, in front of which it depends, any stones, glass, nails, or other objects likely to puncture or otherwise damage the tire or disturb the balance of the cycle.

In applying the device to the front wheel of a cycle we preferably provide the rod *f*¹ depending from the front and forming an extension of the mud-guard, removable strengthening stays *g* being in this case provided to enable the mud-guard to maintain its correct position.

In applying the device to the rear wheel of the cycle we arrange the rod *f* to depend from a suitable part of the framework of the cycle preferably the back stay, as shown in Fig. 5.

In the case of the front or steering wheels of a motor car, a cranked rod *f*⁵ may be employed and hinged at its end *f*³ to a pin *g*¹ projecting vertically from a clamping device *g*², which is secured by means of the bolts and nuts *g*³ to the axle *g* of the car. Upon the steering rod *h* we provide a second clamping device *h*¹ having a vertically projecting pin *h*² which pin *h*² engages with a hole *f*⁴ provided in the rod *f*⁵. By this means the depending end *f*⁴ of the rod *f*⁵ to which the brush device is attached will move in unison with the wheel of the car irrespective of the movement of such wheel consequent upon steering.

In the case of the rear wheels of the car a convenient method of arranging the rod *f*⁷ is shown in Fig. 7, the rod *f*⁷ being carried by a bracket *f*² capable of being screwed to the underside of the step *h*¹.

What we claim and desire to secure by Letters Patent is:—

1. The combination, with a supporting rod, of an outer casing secured to the said rod

and projecting on one side thereof, a brush having a stock which is slidable in the said casing and having its wires or bristles arranged in V-shaped form with the apex
5 pointing towards the axis of the said rod, and a spring which presses the said brush downwardly in the said casing.

2. The improved attachment for vehicles consisting of the combination of a wire brush,
10 having a triangular stock said brush having its wires or bristles arranged in V-shaped form to shed the dirt at each side thereof; an outer casing in which such stock is adapted to vertically slide; a spring interposed be-
15 tween the stock aforesaid and the outer casing, to control the sliding movement; and a clamping device carried by the outer casing, substantially as specified.

3. The improved attachment for vehicles
20 consisting of the combination of a wire brush,

having a triangular stock; an outer casing in which such stock is adapted to vertically slide; a spring interposed between the stock aforesaid and the outer casing, to control the sliding movement; a clamping device car- 25 ried by the outer casing; a cranked rod, upon which the device is clamped; a vertical projection on the axle of the vehicle, upon which said cranked rod is hinged at one end; and a vertical projection on the steering rod of the 30 vehicle with which said cranked rod is engaged, substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

TOM LOVELESS.

WILLIAM JAMES SAMWAYS.

Witnesses:

PERCY WOODS,

A. LEWIS.