

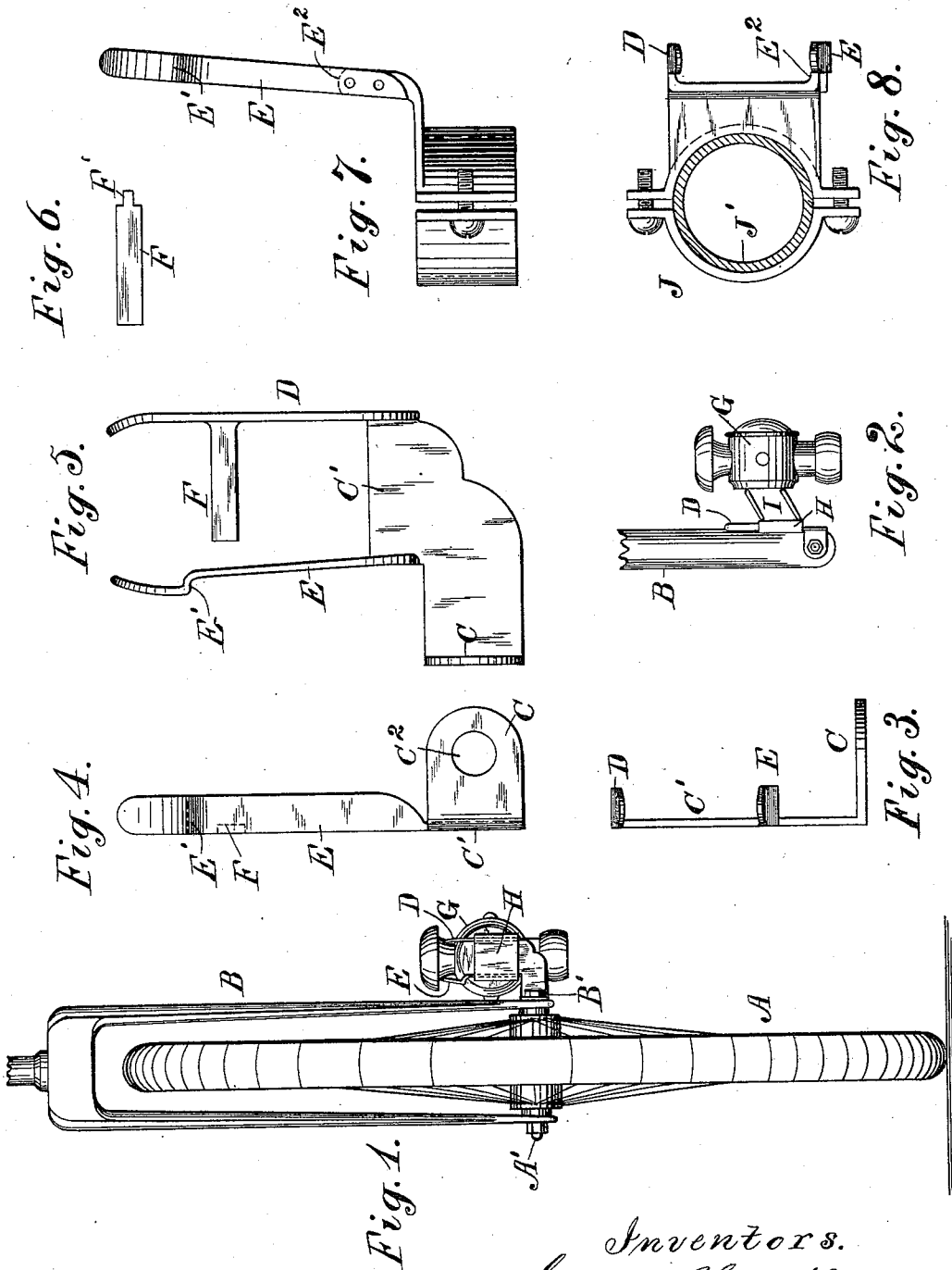
(No Model.)

G. HAVELL & A. G. WILLIAMS.

BRACKET WITH SPRING JAW FOR SUPPORTING BICYCLE LAMPS.

No. 579,678.

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UNITED STATES PATENT OFFICE.

GEORGE HAVELL AND ALFRED G. WILLIAMS, OF NEWARK, NEW JERSEY.

BRACKET WITH SPRING-JAW FOR SUPPORTING BICYCLE-LAMPS.

SPECIFICATION forming part of Letters Patent No. 579,678, dated March 30, 1897.

Application filed October 24, 1896. Serial No. 609,978. (No model.)

To all whom it may concern:

Be it known that we, GEORGE HAVELL and ALFRED G. WILLIAMS, citizens of the United States, residing at Newark, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Brackets with Spring-Jaws for Supporting Bicycle-Lamps, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is to furnish a means by which the socket of a bicycle-lamp can be secured upon the bracket without any screws or fastening devices which require manipulation; and the invention consists of a bracket provided with two jaws adapted to pass through the socket at opposite edges and combined with a flat foot-piece in such manner that the jaws may be conveniently stamped from the same piece of metal as the foot-piece. One or both of the jaws is provided with an offset to engage the edge of the socket when projected through the same, and the jaws are bent at right angles to the foot-piece, so that they may bend in the direction of their thickness for introduction into the socket.

The annexed drawings show the invention applied to a bracket upon the front axle and to a bracket adapted to embrace the head of the bicycle or one of the frame-bars.

Figure 1 is an elevation of the front wheel and its fork with the bracket secured on the front axle and a lamp carried by the bracket. Fig. 2 is a side elevation of the bracket and lamp with part of the fork upon which the bracket is secured. Fig. 3 is a plan, Fig. 4 an edge view, and Fig. 5 a front view, of the bracket for attachment to the axle. Fig. 6 is a detached view of a stop pin or stud made separate from the bracket. Fig. 7 is an edge view, and Fig. 8 a plan, of a bracket adapted to fit the bicycle-head, with a section of the head in Fig. 8.

A designates the front wheel of a bicycle, A' its axle, and B the fork supporting the same.

C is the foot of the bracket, formed with hole C² to fit upon the end of the axle under the nut B', and D and E designate the jaws extended from the foot-piece C', substantially parallel with one another. The foot-piece is

readily made in one piece with the foot and jaws, as shown in Figs. 4 and 5, by first stamping a blank of suitable form and then bending the sheet metal of the foot and the jaws at right angles to the sheet metal of the foot-piece. Such bending brings the flat sides of the jaws opposite to one another and enables them to bend in the direction of their thickness when they are sprung to and from one another. The jaw E is furnished with an offset or abrupt bend E' at a suitable distance from the base to pass entirely through the lamp-socket with which it is used.

In Figs. 1 and 2 a lamp G is shown having a socket H, attached thereto in the usual manner by links I, and the socket fitted over the jaws of the bracket. The socket is shown of the usual rectangular shape, and the upper ends of the jaws are curved or bent toward one another, as shown in Fig. 5, to facilitate their introduction into the socket. By pressing the socket upon the curved ends of the jaws they are crowded together in their passage through the socket and spring apart when the offset E' emerges from the upper side of the socket, the offset then securing the socket upon the jaws.

The lamp is removed with the socket by pressing the free ends of the jaws together, but the offset wholly prevents any accidental detachment or displacement of the socket.

A stud F is shown projected from the jaw D toward the jaw E to limit the rearward movement of the latter when the jaws are pressed together in removing the socket from the bracket.

The stud F serves as a stop to prevent the jaws from being bent excessively, and thus preserves their original adjustment and relation.

In Figs. 1 to 5, inclusive, the bracket is shown formed all in one piece with foot C and stud F and may be thus made by stamping in suitable dies from a suitable piece of sheet-metal, the blank being appropriately shaped to produce the desired form. The stud may be formed separate, and in such case when punching the blank from a sheet of metal sufficient scrap is left from which the stud F may be readily made by a suitable punch of the form shown in Fig. 6 with a pin F' at one end adapted to rivet through a hole in the jaw

D or E. The construction of the dies for making the bracket-blank is thereby considerably simplified. The foot-piece C' of the bracket lies, as shown in Fig. 3, in the plane of the original blank, and the foot C and jaws D and E are bent at right angles to such foot-piece. The ends of the jaws may be curved, the offset E' formed, and the hole C² punched in the foot before these parts are bent, respectively, at right angles to the foot-piece C'.

In Figs. 7 and 8 the bracket is shown with a split socket J, connected with the foot-piece, to embrace the head J' or any of the larger parts of the bicycle-frame. In these figures the offset jaw E is shown riveted to a lug E² upon the foot-piece, but the flat bodies of the jaw D and the lug E² are shown bent at right angles to the foot-piece, as in the construction previously described.

It is immaterial whether the foot C, in which the hole C² is formed, be bent at right angles to the foot-piece upon one side or upon the other of such foot-piece, as its function would be the same in either case, and it is common in lamp-brackets for application to the axle of a bicycle-wheel to apply a bracket sometimes upon one side of the wheel and sometimes upon the other side, and to extend the foot in either direction upon the bracket to suit such requirements.

Having thus set forth the nature of the invention, what we claim herein is—

1. A bicycle-lamp bracket having a foot-piece C' with two flat jaws D and E adapted to pass through the lamp-socket at opposite edges, the flat bodies of such jaws being bent at right angles to the plane of the foot-piece, so as to spring to and from one another elastically in the direction of their thickness and one of the jaws being bent in the direction of its thickness to provide an offset E', to engage the edge of the socket after passing through the same, substantially as herein set forth.

2. A bicycle-lamp bracket having a foot-piece C' with two flat jaws D and E adapted to pass through the lamp-socket at opposite edges, the flat bodies of such jaws being bent

at right angles to the plane of the foot-piece, so as to spring to and from one another elastically in the direction of their thickness and one of the jaws being bent in the direction of its thickness to form an offset E' to engage the edge of the socket after passing through the same, and one of the jaws having the stud F projected toward the other jaw to limit the inward movement of the jaws, substantially as herein set forth.

3. A bicycle-lamp bracket made of sheet metal in one piece, and having a foot-piece C' with two flat jaws D and E adapted to pass through the lamp-socket at opposite edges, such jaws being bent at right angles to the plane of the foot-piece, so as to spring to and from one another elastically in the direction of their thickness, one of the jaws being bent in the direction of its thickness to form an offset E' to engage the edge of the socket after passing through the same, and one of the jaws having the integral stud F projected toward the other jaw to limit the inward movement of the jaws, substantially as herein set forth.

4. A bicycle-lamp bracket formed in one piece of sheet metal with foot-piece C' having foot C bent at one edge, and provided with the hole C², and having the jaws D and E bent at right angles to the foot-piece and curved or bent inwardly at their free ends, as and for the purpose set forth.

5. A bicycle-lamp bracket formed in one piece of sheet metal with foot piece C' having foot C bent at one edge and provided with the hole C², and having the jaws D and E bent at right angles to the foot-piece with their outer ends bent or curved inwardly and the jaw E provided with the offset E', as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

GEORGE HAVELL.
ALFRED G. WILLIAMS.

Witnesses:

J. D. CLARK,
THOMAS S. CRANE.