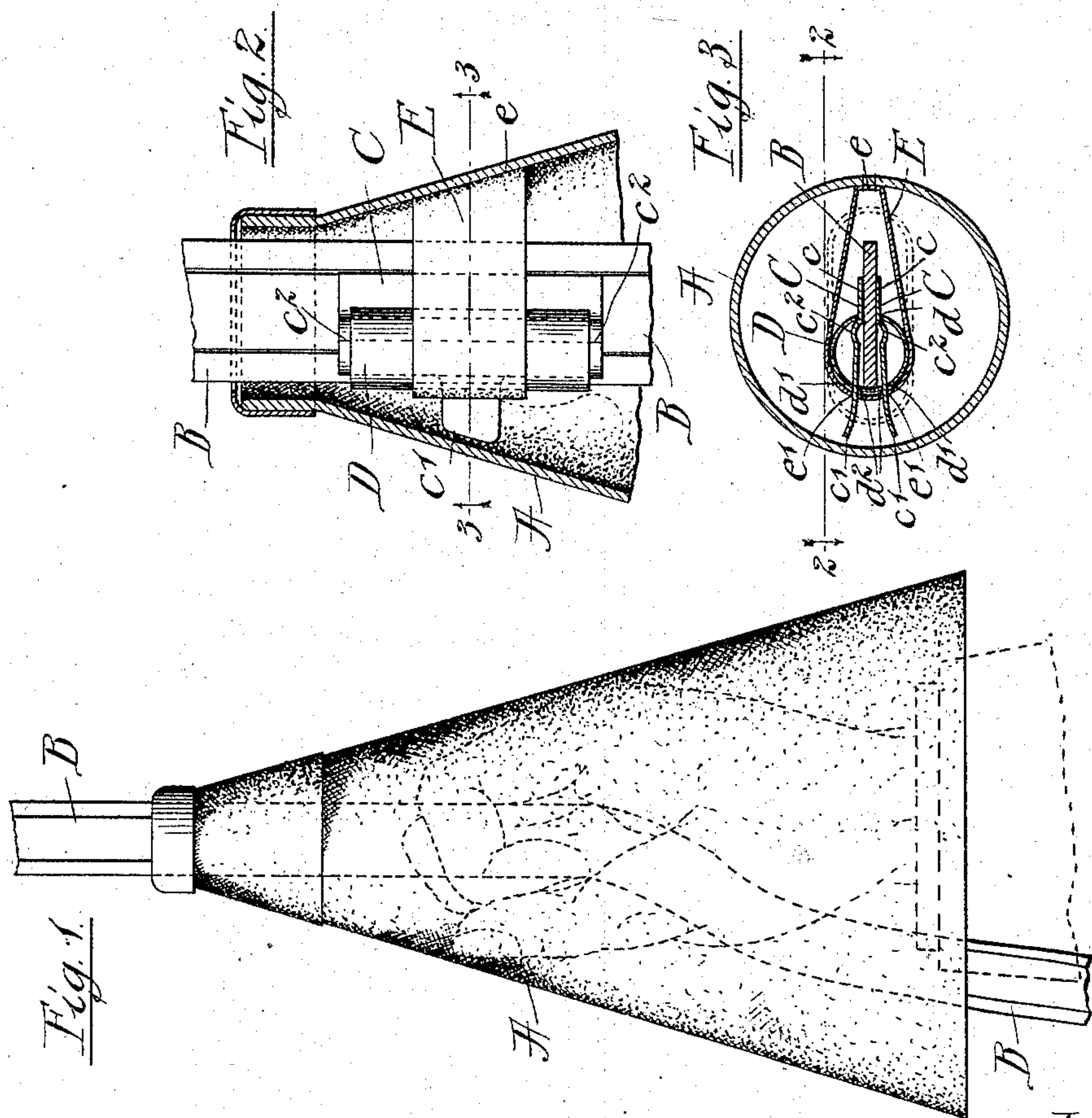


(No Model.)

C. H. GLEIM.  
HAND PROTECTOR.

No. 573,215.

Patented Dec. 15, 1896.



Witnesses:-

John W. Adams.  
Clinton Hamblin

Inventor-

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his Attorneys



# UNITED STATES PATENT OFFICE.

CHARLES H. GLEIM, OF PORTLAND, OREGON.

## HAND-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 573,215, dated December 15, 1896.

Application filed April 8, 1895. Serial No. 544,852. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. GLEIM, of Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Hand-Protectors; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to novel devices for protecting the hands from exposure to the wind, weather, or sun in riding or driving when holding either reins or the handlebars of bicycles, as the case may be.

The object of the invention is to provide a simple, convenient, and comfortable article of the character referred to which will afford adequate protection for the hand grasping the rein or handle, while at the same time its construction is such that it will not interfere with perfect freedom of movement of the hand in grasping, releasing, or handling the reins or other object grasped.

The invention consists in the matters hereinafter set forth, and more specifically pointed out in the appended claims, and the same will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a fragment of a driving-rein equipped with my improved hand-protector. Fig. 2 is longitudinal section taken on line 2 2 of Fig. 3. Fig. 3 is a transverse section taken on line 3 3 of Fig. 2.

Referring to the drawings, A designates the protector as a whole, and B a part of a rein to which the same is attached. In general form the shield is preferably made conical, as shown, but it may be made of cup shape or of other suitable form, its essential feature being that it is closed at its front end except for a small aperture for the passage of a rein therethrough and open at its rear end for the insertion of the hand. The protector is in any case of proper size to accommodate a person's hand when closed or doubled up, as in grasping a rein or the like, and to extend at its open end well over the wrist. The main body of the protector may be made of any suitable or desired fabric or

material, such, for instance, as cloth, leather, rubber, metal, or the like, and when designed for use in protecting the hand from cold and storms will preferably be lined with some warm material, as fur. (Not shown herein.)

Provision is made for the passage of the rein B lengthwise through the shield or protector, the aperture in the closed end of the protector being preferably only large enough to permit the free passage of the rein. Attachments for movably securing the protector upon the rein are also provided, shown in the present instance as arranged within the protector or shield near the closed end thereof.

The particular device herein shown is a friction-clasp and is constructed and arranged as follows:

C C designate a pair of clamping-jaws having relatively long straight meeting edges *c* and each provided at its rear side or that opposite the edge *c* with an extension *c'*, forming a thumb-piece.

D is an elongated C-spring in the form of a sheet-metal cylinder split at one side throughout its length, as at *d*, and provided at points nearly opposite said split or opening with two slots or openings *d'* for the insertion of the thumb-piece *c'* of the clamping-jaws. The spring and clamping-jaws are assembled by inserting the rear edges of the latter within the spring with the thumb-pieces extending out through the openings *d'*, the diameter of the spring and the location of the openings *d'* therein being such that when thus assembled the jaws will be held in divergent relation with their front margins *c* in contact and with the edges of the C-spring pressing against the outer sides of the jaws. Obviously when thus arranged the adjacent edges *d<sup>2</sup> d<sup>2</sup>* of the slots or openings *d'* will form fulcrum-supports, upon which the clamping-jaws will pivot when the thumb-pieces *c'* are pressed toward each other, thereby opening the slit in the jaws of the clamp against the tension of the spring to permit the insertion of the rein therein or to release the frictional engagement of the clamp when it is desired to move the shield along. A longitudinally-arranged bead or shoulder *c<sup>2</sup>* is provided on the outer surface of each clamp member,



which prevents them from slipping outwardly from within the C-spring by engagement with the engaging edges of the latter, as shown.

5 The clamping device, as a whole, may be secured within the protector by any suitable means, that herein shown consisting of an elastic band E, arranged to extend transversely around and closely embrace the clamp, 10 which is sewed or otherwise secured to the inside of the protector, as at e. Suitable slots or openings e' e' are provided in said band for each of the thumb-pieces C', the latter thus serving as retaining-keys to prevent longitudinal movement of the clamp 15 within the band. The elastic band E, while holding the clamp securely within the protector, permits the clamp to be opened freely by compressing the thumb-pieces. In order 20 that this opening of the clamp may be accomplished from the outside of the protector, that part of the latter within which the clamp is located will be made flexible, so as to permit manipulation through the protector. In 25 the present instance the entire protector is made of flexible material, but this is obviously not necessary.

The use of the device is obvious. The clamping-jaws having been opened the end 30 of the rein is passed through the protector and between said jaws, and the protector so adjusted as to be in proper position to shield the hand when the rein is held in driving.

It will be obvious that by making a slight 35 modification in the form of the thumb-pieces and extending them laterally toward the larger end of the protector, as indicated in dotted lines in Fig. 2, the clamp may be manipulated by the thumb and finger of the hand 40 within the protector, and no part of the protector need in such case be made of flexible material.

While I have herein shown the protector as circular and circumferentially complete, yet 45 it is to be understood that it may, if desired, be made to extend in its main or body part only partly around the hand, so as to leave an opening at one side to permit circulation of air, as in the case of a protector for use to 50 shield the hand from the sun in hot weather.

The particular form of the shield herein shown is obviously not essential, but it will be within the scope of the invention if it be such as to afford the desired protection.

55 I am aware that it has been proposed heretofore to employ in connection with a hand-

hold or loop for reins a protector or shield which is connected with or surrounds the loop or hand-hold and in which the hand-hold or loop is adjustably secured by a buckle to the 60 rein.

The construction herein described, in which the protector is provided with a spring-clasp adapted to engage the rein, has the advantage 65 of enabling the protector to be moved to any point on the rein at will without loosening or slackening the latter or any manipulation of the parts, except the clamping device, the protector in this instance being independent of any rein loop or holder and requiring no 70 buckle for its attachment to the rein.

I claim as my invention—

1. A hand-protector comprising a shield open at its rear end and provided with a contracted opening at its forward end for the pas- 75 sage of the object to be grasped, and a friction-clasp secured to the shield adjacent to the opening therein and provided with spring-actuated clamping-jaws adapted for engagement with the rein or other object inserted 80 through said opening, substantially as described.

2. A hand-protector comprising a shield open at its rear end and provided with an opening at its forward end for the passage of 85 the object to be grasped, a friction-clasp secured to the shield adjacent to the opening therein and provided with spring-actuated clamping-jaws adapted to engage an object which is inserted through said opening, and 90 an expansible closure applied to the opening of the shield to close the same tightly about the object inserted therethrough, substantially as described.

3. A hand-protector comprising a shield 95 open at its rear end and provided with an opening at its forward end for the passage of the object to be grasped, and a friction-clamp secured to the shield adjacent to the opening therein, and comprising two clamping-jaws 100 each provided with a thumb-piece, and a spring acting to force said jaws together, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature, in presence 105 of two witnesses, this 26th day of March, A. D. 1895.

CHARLES H. GLEIM.

Witnesses:

A. F. FLEGEL,  
W. G. COLE.