

No. 635,084.

Patented Oct. 17, 1899.

B. F. TAYLOR.
GRIP FOR BICYCLES.

(Application filed Nov. 15, 1897.)

(No Model.)

Fig. 1.

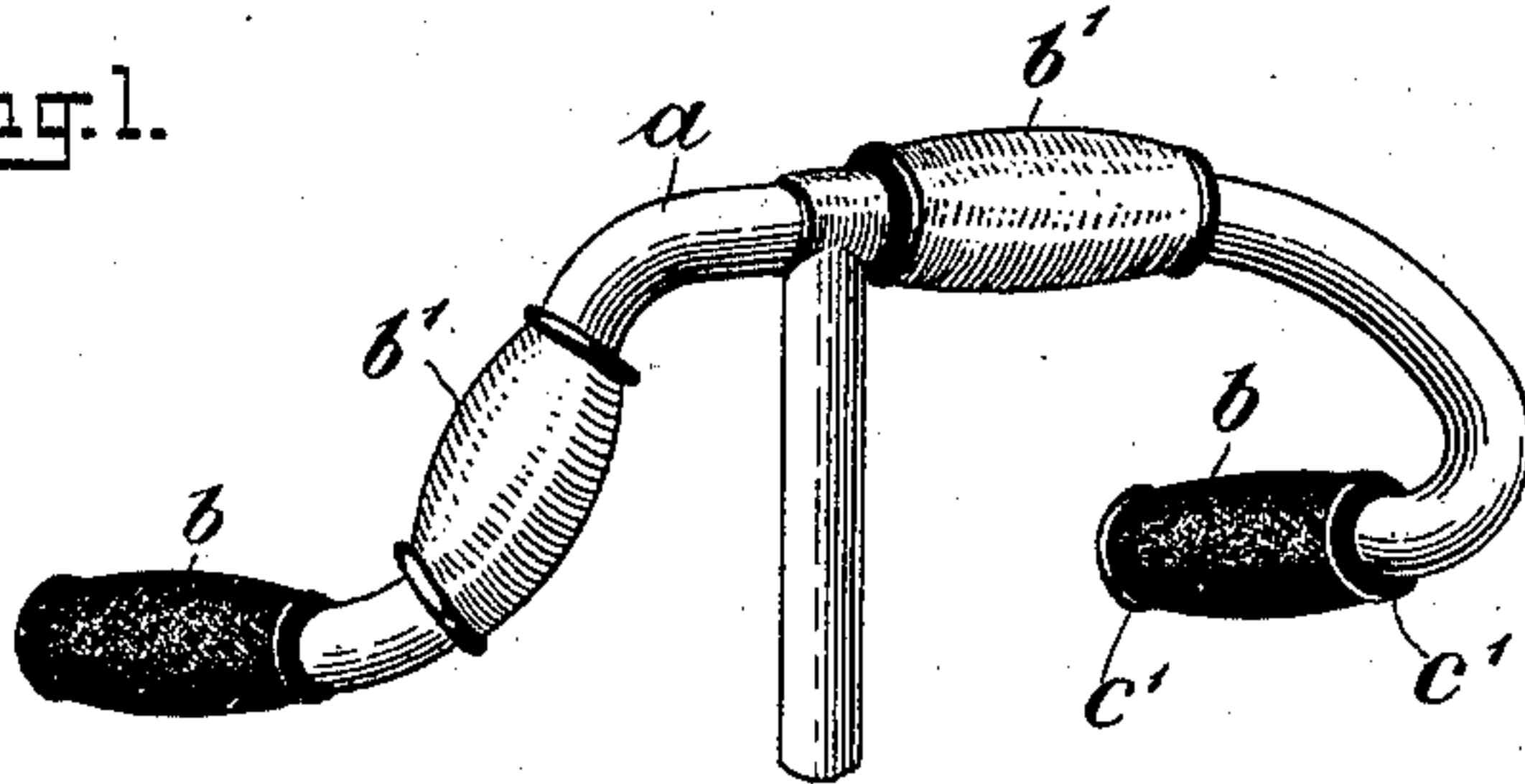


Fig. 2.

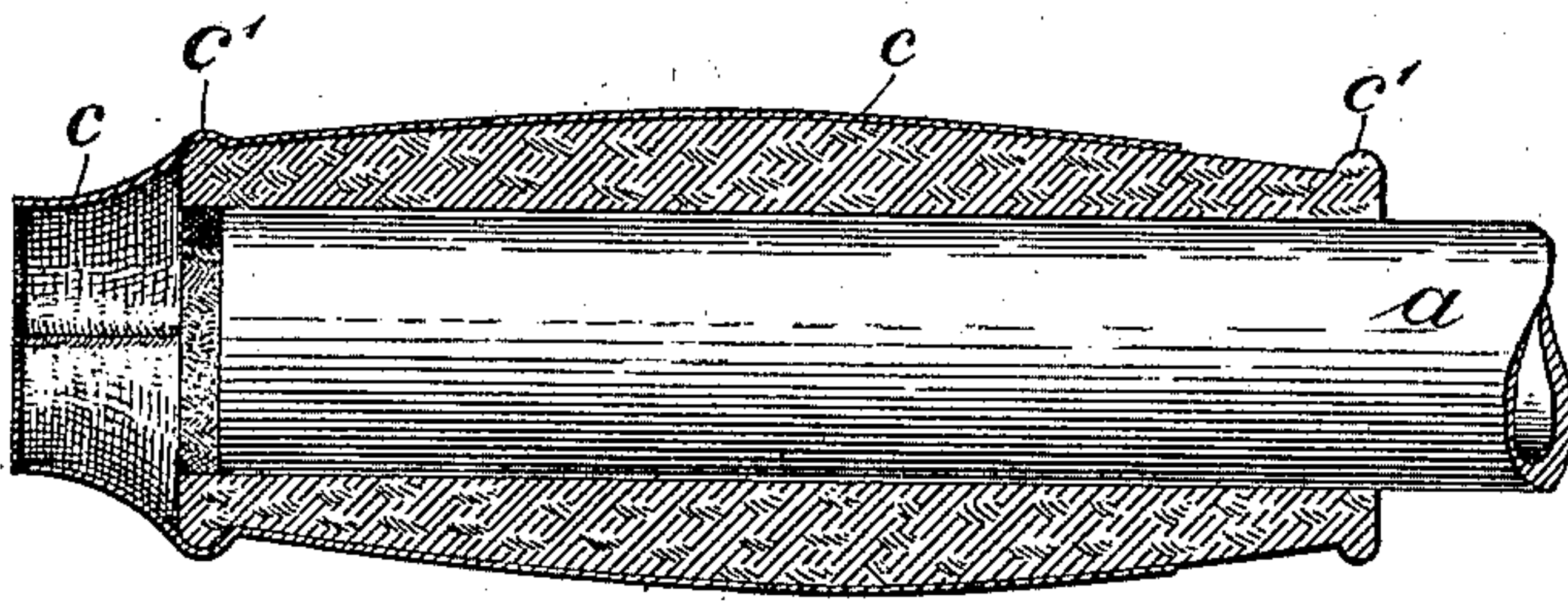


Fig. 3.

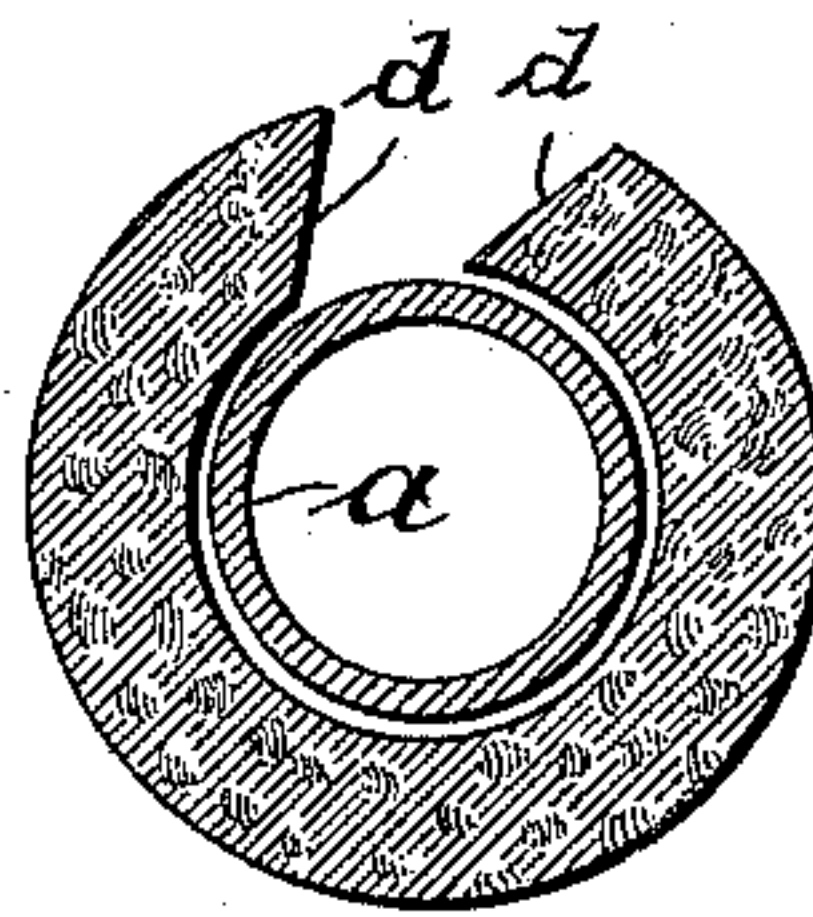
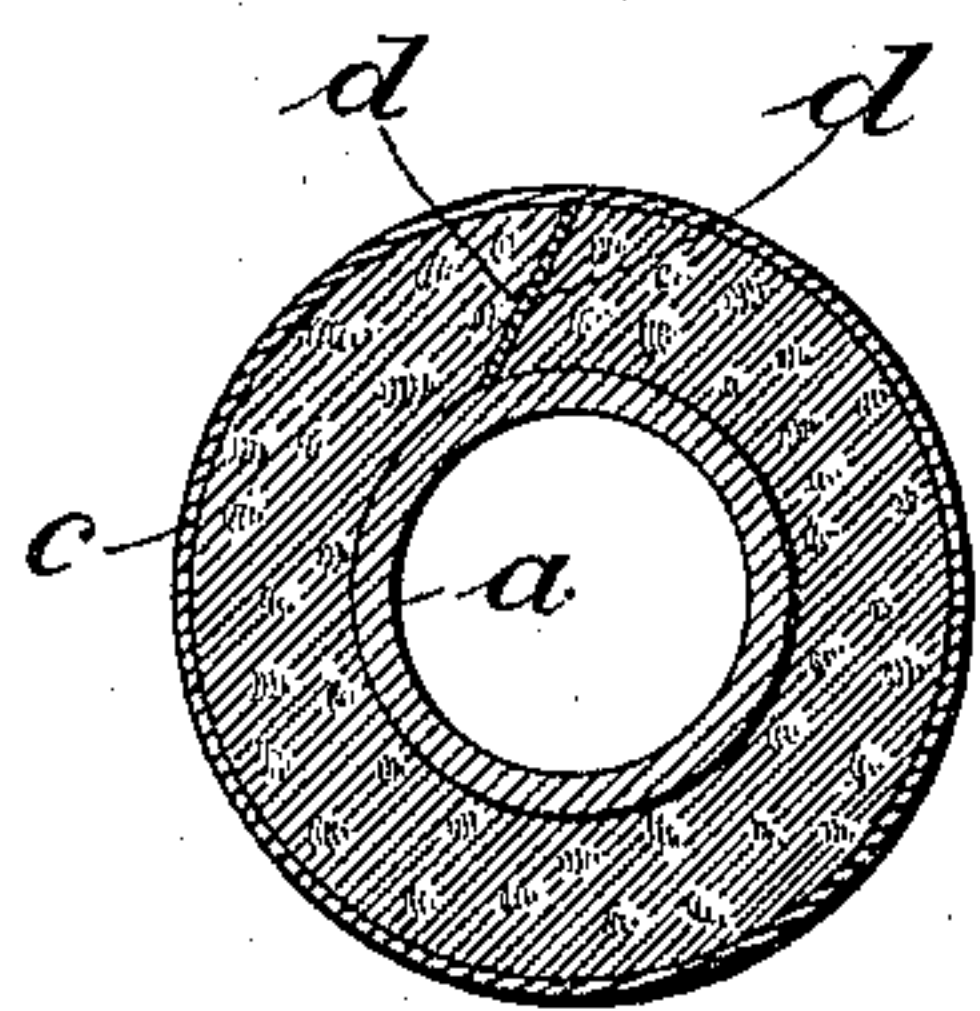


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN F. TAYLOR, OF NEWARK, NEW JERSEY, ASSIGNOR TO ABBY D. GARDNER, OF SAME PLACE.

GRIP FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 635,084, dated October 17, 1899.

Application filed November 15, 1897. Serial No. 658,523. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. TAYLOR, a citizen of the United States, and a resident of Newark, Essex county, State of New Jersey, have invented a new and useful Grip or Handle for Bicycles, of which the following description, taken in connection with the drawings herewith accompanying, is a specification.

10 This invention relates to the handles or "grips" with which the handle-bars of bicycles and other forms of velocipedes are provided.

As is well understood, bicycle-riders are 15 caused more or less trouble and discomfort with numbness and cramp in the hands, wrists, and arms, which is occasioned by the vibration of the wheel being communicated to the rider from the handle-bar. Such numbness or cramp is liable to result in a certain degree in whatever position the rider may occupy, as the handle-bar is usually grasped with more or less firmness; but the same is 20 caused to a much greater extent, and therefore rendered particularly objectionable, among 25 racers and other riders who occupy the most usual position of bending forward over the handle-bar, in which position much of their weight is necessarily thrown upon the latter and received by their hands and wrists. The pressure of the hands upon the handle-bar being thus so great and the latter being usually secured in rigid connection with the frame of the wheel it is obvious that the natural result is numbness or cramp to the hands 30 and arms of the rider, as stated.

Having in mind the objectionable features above referred to, it has been the principal object of my present invention to obviate 40 the same by providing handle-bar grips that will take up the vibration in the handle-bar and prevent the same being communicated to the hands of the rider.

Another object of my invention is to provide a grip that may be readily adjusted upon 45 the handle-bar while riding and be self-conforming to any curve or angle therein and when adjusted or moved to any desired position be self-retaining in such position.

50 Referring to the drawings, Figure 1 represents a handle-bar provided with grips there-

on embodying my invention. Fig. 2 is an enlarged view of one end of the handle-bar with a grip thereon in longitudinal section, also showing the grip-covering partially 55 drawn over the grip. Fig. 3 is a cross-section through a grip and handle-bar, showing the grip loosely placed upon the latter before having its longitudinal edges drawn together and without a cover. Fig. 4 is a view of the 60 grip and handle-bar shown in Fig. 3, showing the edges of the grip drawn together and with a cover thereon.

To explain in detail, *a* represents a bicycle handle-bar of ordinary construction, and *b b* 65 a pair of my improved grips located thereon. The grips according to my invention are formed of a very porous or sponge-like rubber, which affords an unusually yielding or elastic bearing-surface for the hands of the 70 rider, and so takes up any vibration of the handle-bar and prevents communication of the same to the rider. The rubber, being of such porous or sponge-like character, also readily absorbs any perspiration of the hands, 75 thereby keeping the latter dry and cool, and, as has been found in practice, will dry out almost instantly upon removing the hands therefrom.

The grips, when adapted for location upon 80 the end of the handle-bar as those represented at *b b* in Fig. 1, are usually closed at their outer end, which end according to my invention is formed or molded integral with the grip proper, thus avoiding the expense of 85 employing separate ferrules or ends and also obviating the liability of the same becoming loose or disconnected from the grip proper, the advantage of which is obvious.

When riding, and particularly when riding 90 long distances, the rider secures a change of position, and thereby rest for himself, by shifting the position of his hands upon the handle-bar. To provide for such change of position, I make the grips, as those represented at *b' b'* in Fig. 1, open at both ends, 95 so that they may be movable upon the handle-bar. The grips when thus made movable upon the handle-bar I term "relief-grips," as distinguished from the "end" grips located 100 at the end of the handle-bar. An important feature of my improved grips when thus em-

ployed as reliefs is that being so elastic, by reason of their porous and sponge-like character, they will readily conform to any angle or curve in the handle-bar when moved upon the same and yet retain their proper shape to present a smooth surface to the hand of the rider, the porousness of the rubber enabling such stretching or compression of the same when drawn over curves as to prevent any undue bulging or wrinkling of the surface as might otherwise occur.

In some instances I employ a covering for the grip, as more clearly shown at *c* in Figs. 2 and 4, which is removably located thereon. This covering, which may be of any suitable material, is preferably formed of an elastic web of smaller size than the circumference of the grip, so as to be drawn closely over the latter in a manner as clearly shown in Fig. 2 and retain its position when located thereon without the aid of further fastenings. This cover, being detachable from the grip, is desirable in that it may be readily removed at any time to be dried, cleaned, or replaced with a new one, and being flexible and movable with the grip proper as though an integral part of the same does not prevent or interfere with the securing of the results obtained by the particular formation of the grip proper, as hereinbefore set forth.

To prevent possibility of undue longitudinal displacement of the covering from the grip, the latter is provided with raised annular ribs *c' c'* at each end thereof, between which the covering fits. These ribs *c' c'* are also usually provided upon the grips even when the latter are to be used without covers, as they form a desirable and convenient means to retain and prevent the rider's hands from slipping therefrom.

In placing the relief-grips upon a handle-bar having the ordinary stationary end grips it may be necessary to first remove the latter from the handle-bar. In order, however, to avoid the trouble and inconvenience attendant upon making such removal, I sometimes form the grip with a cut or slit extending lengthwise of the same, as more clearly shown in Fig. 3, whereby its edges may be

spread apart and the grip slipped or placed upon the handle-bar at any desired point, after which it will be held in position with its edges in close contact with each other by means of the elastic cover *c*, which latter may be readily drawn over the end grips and then upon the reliefs. Any suitable cover, however, other than the elastic cover *c* might be employed to secure the desired function.

The adjacent edges *dd* of the grip, as shown in Figs. 3 and 4, are formed with a bevel, whereby a stronger joint may be secured between the same where joined together than if formed with straight vertical edges; but it is obvious that the same may be formed in various other ways as may be found in practice to be most desirable without affecting the spirit of my invention. One or both of the edges *dd* may also be provided with a cement of other adhesive material located thereon, whereby the said edges when brought together will adhere to each other without the aid of the cover or other fastening means, or, again, the said edges may be held together by means of tire or lineman's tape placed over the same longitudinally, so as to unite the two edges.

It will be understood from the foregoing that any suitable means of uniting and holding together the edges of the grip when thus provided with a longitudinal slit as described may be employed without departure from my invention.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a bicycle grip or handle having a yielding body of sponge-rubber adapted to fit the handle-bar, said body being formed at its ends with integral retaining-ribs *c'*, and a removable flexible covering surrounding the grip between said ribs and held distended by the expansion of the grip.

BENJAMIN F. TAYLOR.

Witnesses:

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