

No. 610,471.

Patented Sept. 6, 1898.

H. L. CAVANAGH.
BICYCLE HANDLE.

(Application filed Feb. 5, 1897.)

(No Model.)

Fig. 1

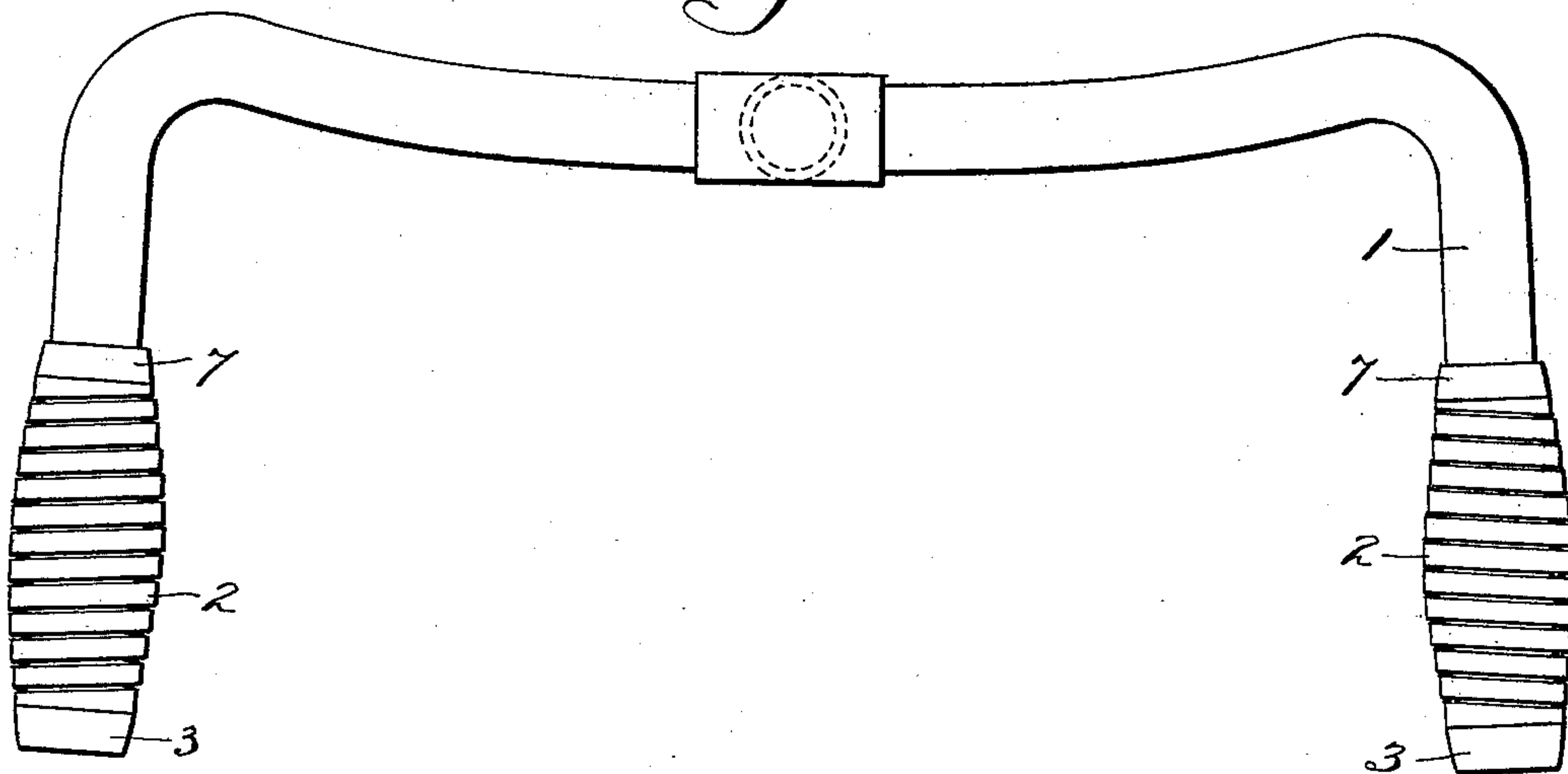


Fig. 2

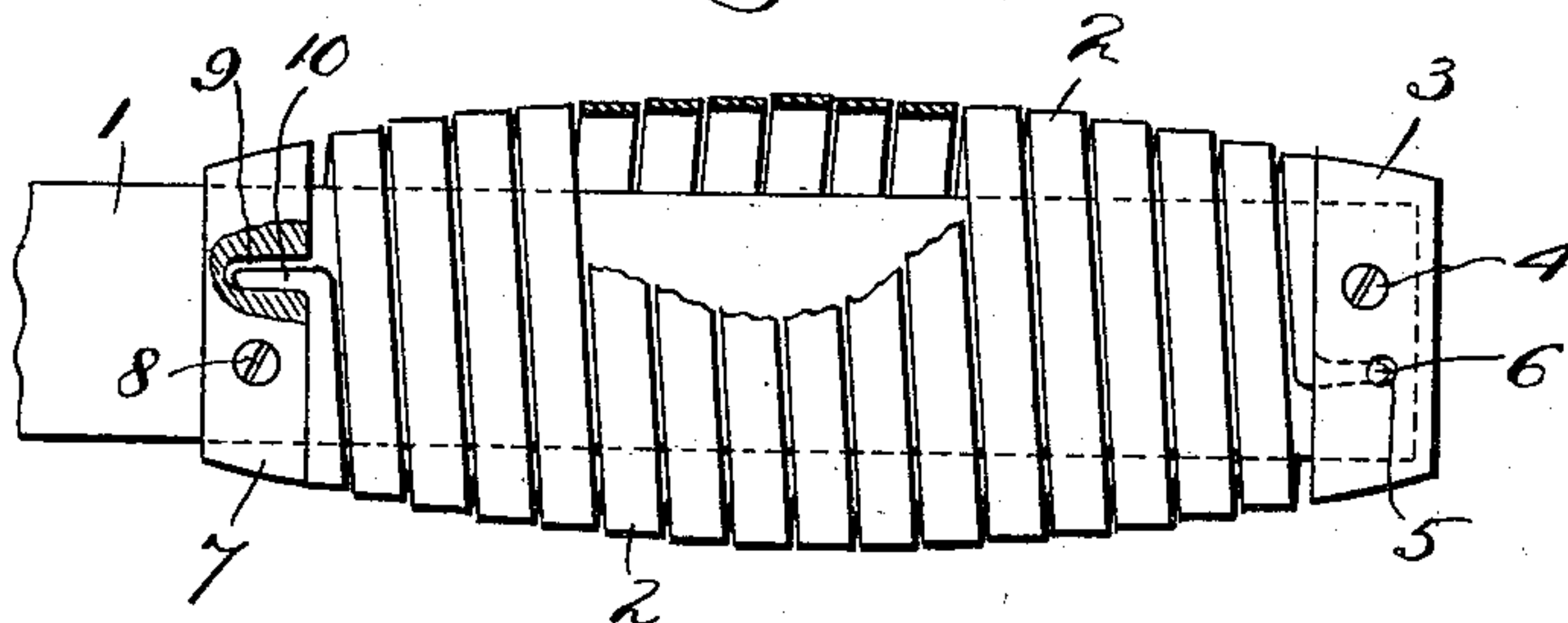
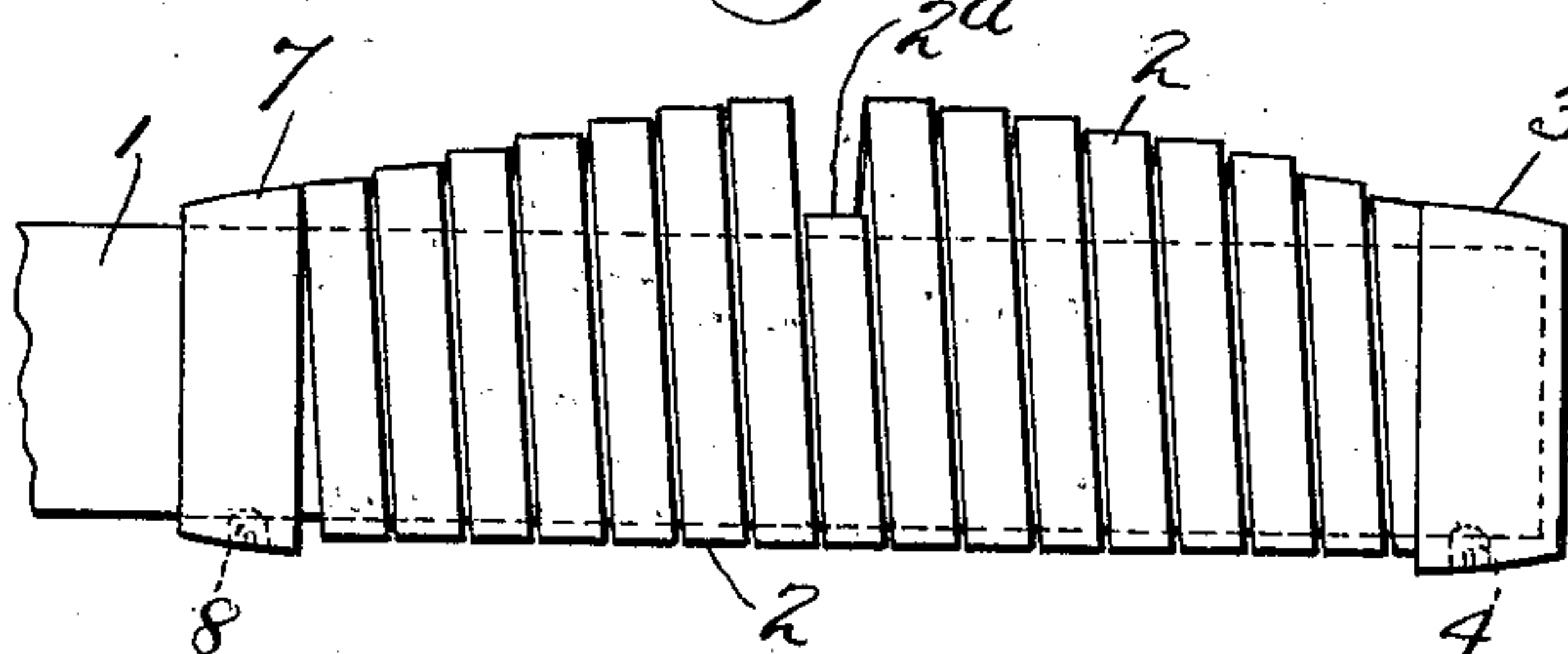


Fig. 3



Witnesses
E. B. Johnson
Wm. M. Rheem.

Inventor
H. L. Cavanagh
By Elliott Hopkins
Attys

UNITED STATES PATENT OFFICE.

HARRY L. CAVANAGH, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
JOHN T. BOYLE, OF SAME PLACE.

BICYCLE-HANDLE.

SPECIFICATION forming part of Letters Patent No. 610,471, dated September 6, 1898.

Application filed February 5, 1897. Serial No. 622,076. (No model.)

To all whom it may concern:

Be it known that I, HARRY L. CAVANAGH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Grips for Handle-Bars, of which the following is a full, clear, and exact specification.

My invention relates to the handle portion or grip of handle-bars, and more particularly to that class of such devices designed for absorbing the jar or vibration that would otherwise be felt by the hand of the rider.

My invention has for its primary object to provide a grip which shall be yielding and capable of absorbing the jar or vibration and at the same time shall be incapable of compression, whereby the rider will be provided with a firm grip and yet the objectionable jar or vibration of the handle-bar will be absorbed before it is communicated to the hand.

Another object of my invention is to provide a grip of the described character which shall be capable of having its tension varied, whereby it may be made more or less rigid.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said object and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a plan view of a handle-bar provided with my improvements. Fig. 2 is an enlarged detail view of one of the grips, partly broken away, showing the means for adjusting it and holding it in place; and Fig. 3 is a side elevation of a grip embodying my invention and illustrating a certain modification hereinafter described.

In carrying out my invention I provide the end of the handle-bar proper, 1, at the point where the grip is usually situated, with a coiled band or strip 2, whose convolutions are of sufficient diameter to stand aloof from the bar 1, while the extremities of the band 2 are attached to the bar 1 in any suitable manner.

This constitutes the grip, and it will be seen that it affords a firm grasp or handle for the

hand of the rider and one which cannot be compressed—that is, whose diameter cannot be reduced—by the ordinary pressure of the hand, but at the same time each convolution of the grip is independently flexible, so that the entire surface of the grip is capable of deflection at any point throughout its length, so that the grip will conform to the irregularities of the hand, and at the same time, it being yielding as a holder, will absorb the jar or vibration and prevent the latter from reaching the hand.

The band or strip 2 of which the body portion of the grip is composed is preferably made of flat form on its exterior, at least, so as to constitute a more or less continuous unbroken surface.

As a means of attaching the grip thus constituted to the handle-bar I employ a knob or button 3, which is slipped over the extremity of the handle-bar 1 and provided with a set-screw 4 or any other suitable form of attachment, and the end of the band 2 is turned off at an angle into the button 3 and then brought outwardly into the form of a hook 5 and engaged in a socket or perforation 6 in the button 3. At the other end of the grip I employ a collar 7, which is preferably secured thereto by means of a set-screw 8 or any other suitable form of connection, and which collar is provided with a socket or notch 9, into which an angular end 10 of the band 2 is engaged. The band 2 is preferably so coiled that its ends will gradually taper down to the button 3 in the collar 7, so as to produce a desirable form of grip and at the same time avoid irregularity in the convolutions and provide a continuous surface for the hand. By this means it will be seen that when it is desired to vary the tension or resistance of the body portion of the grip one or both of the set-screws 4 8 may be loosened and the parts 3 and 7 turned to the right or to the left, according to whether it is desired to expand or contract the convolutions of the band 2. The same end may be accomplished in a certain degree by simply loosening the set-screw 8 and adjusting the collar 7 longitudinally on the handle-bar.

In the modification shown in Fig. 3 the body portion of the grip is so formed that the

cushion will be entirely on one side thereof, preferably the upper side, so that the weight of the rider will be sustained by the cushion, while the under side of the grip will be firm and afford an unyielding hold for the fingers of the rider. The convolutions might of course be so coiled on the handle as to make their lower edges in a straight line, in the manner shown in Fig. 3, and hence rest substantially against the under side of the handle-bar; but in making a grip of this form it is preferable that one of the convolutions, preferably the intermediate or middle one 2^a, be coiled tightly around the bar 1, so as to positively support the upper sides of the convolutions at a distance from the upper side of the handle-bar. The ends of the band, as shown in Fig. 3, may be attached to the button 3 and collar 7 in the manner described with reference to Fig. 2.

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

1. As a new and useful article of manufacture a grip for handle-bars consisting of a button adapted to be secured to one end of the handle-bar, a coiled flexible resilient band adapted to surround the handle-bar and having one end secured to said button, and a collar rotatable independently of said button and being secured to the other end of said

band and means for securing said collar in position, substantially as set forth.

2. As a new and useful article of manufacture a grip for handle-bars having in combination the handle-bar proper, a flexible resilient band coiled around said handle-bar and having its convolutions extending at a distance therefrom, and means for securing the said band in place and varying its tension, substantially as set forth.

3. As a new and useful article of manufacture a grip for handle-bars having in combination the handle-bar proper, a flexible resilient band coiled around said handle-bar and having some of its convolutions extending at a distance therefrom and one of its intermediate convolutions conforming to the handle-bar, substantially as set forth.

4. In combination with the handle-bar of a cycle, a grip therefor, made of flexible resilient wire coiled upon the bar so as to form an annular spheroidal arch, with collars clamping the bar and fitting against the opposite ends of the wire coil so as to support it equally upon all sides, one of the collars being adjustable for varying the stiffness of the arch, substantially as set forth.

HARRY L. CAVANAGH.

Witnesses:

F. A. HOPKINS,
EDNA B. JOHNSON.