

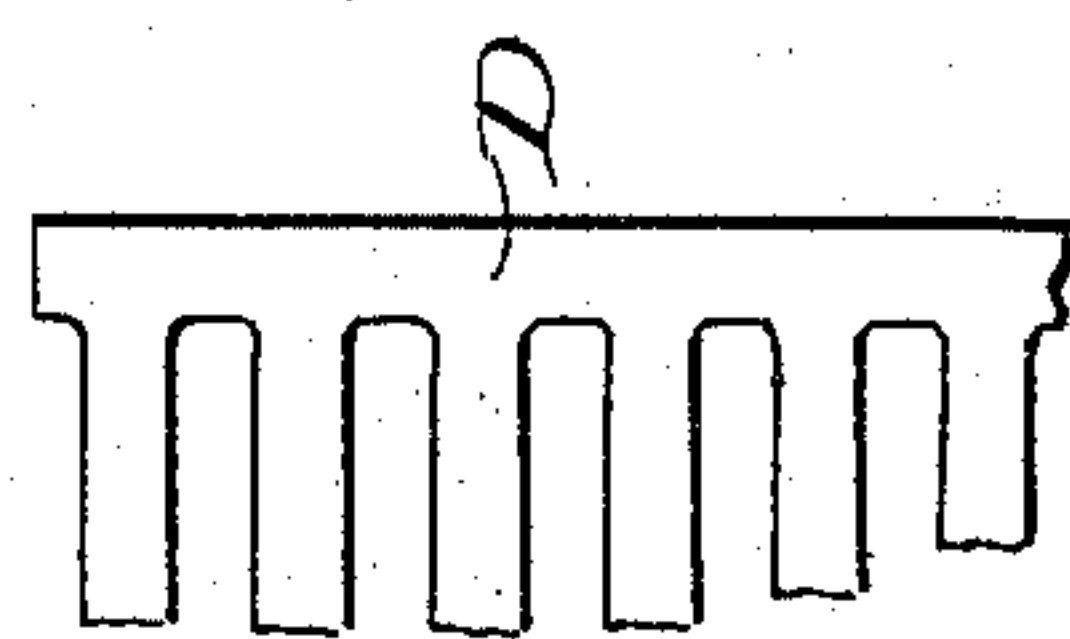
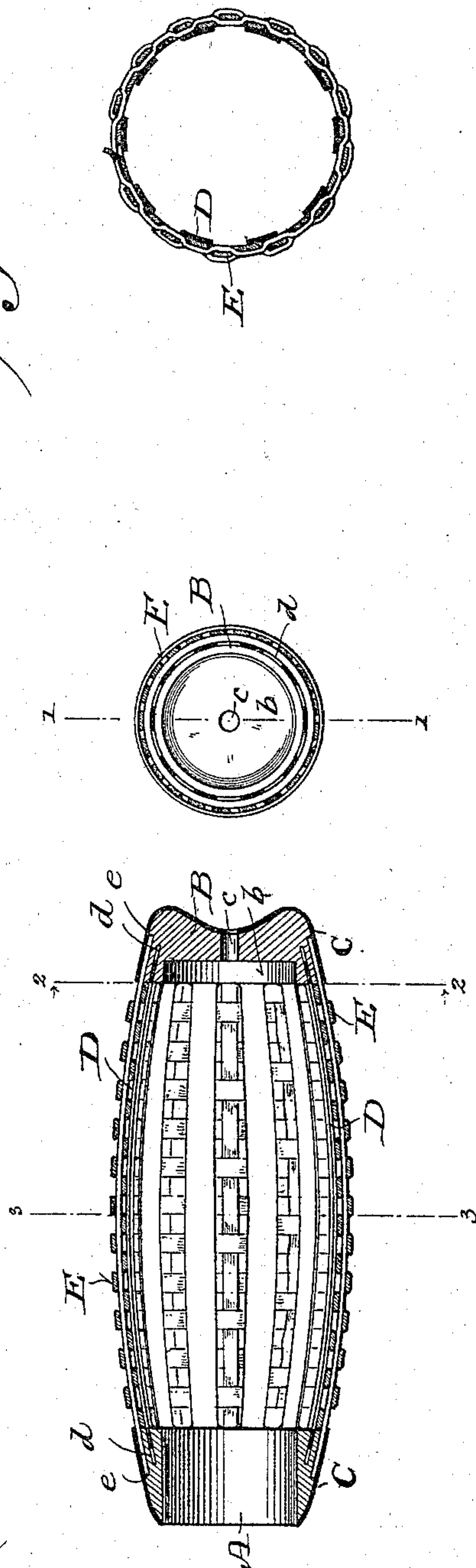
(No Model.)

A. R. WIENS & G. J. BRANDS.  
HAND GRIP.

No. 578,959.

Patented Mar. 16, 1897.

*Fig. 1.*  
*Fig. 2.*  
*Fig. 3.*



*Fig. 4.*

Witnesses:  
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# UNITED STATES PATENT OFFICE.

ADOLPH R. WIENS AND GERHARD J. BRANDS, OF MILWAUKEE, WISCONSIN.

## HAND-GRIP.

SPECIFICATION forming part of Letters Patent No. 578,959, dated March 16, 1897.

Application filed April 20, 1896. Serial No. 588,246. (No model.)

*To all whom it may concern:*

Be it known that we, ADOLPH R. WIENS and GERHARD J. BRANDS, citizens of the United States, and residents of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Hand-Grips; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention has for its object to provide simple, economical, and durable hand-grips especially designed for use in connection with bicycle handle-bars to compensate for vibration and prevent heating or slip of the rider's hands. Hence it consists in certain peculiarities of construction and combination of parts hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents a longitudinal section on the plane indicated by line 1 1 in Fig. 2 and illustrates a hand-grip constructed according to our invention; Figs. 2 and 3, transverse sections, respectively indicated by lines 2 2 and 3 3 in Fig. 1; and Fig. 4, a plan view of a portion of an elastic frame embodied in said grip.

Referring by letter to the drawings, A represents the inner and B the outer end piece of one practical form of our improved hand-grip. The inner end piece A is hollow to permit the grip to be slipped on a handle-bar of a bicycle, and the opposite outer end piece is provided with a recess *b* for the reception of said handle-bar, the latter end piece being also provided with a central aperture *c*, through which to run a screw into a wooden plug customary in the adjacent end of the aforesaid handle-bar.

Each of the end pieces is shown provided with a longitudinal annular recess *d* and an exterior annular shoulder *e*, the latter being intermediate of the extremities of said end piece. A ferrule C is positioned on each end piece, and by having the latter shouldered an annular space or recess is formed intermediate of the ferrule and that portion of said end piece having the least circumference.

It being preferable to have the grips somewhat elliptical in contour the end pieces of

each are shown tapered, and a corresponding taper is given to the recesses described in connection therewith.

As herein shown, a spring-metal grid D has its ends arranged in the recesses *d* of the end pieces A B, and the depth of these recesses is such that the grid is free to play in a longitudinal direction under pressure. The grid is made by stamping out a thin flat piece of untempered steel, bending the product into cylindric form, afterward compressing it in a longitudinal direction to obtain an elliptic shape, and finally tempering the same to obtain the desired elasticity. The grid being positioned as above specified, it is covered with a jacket E of woven cane. The filling of the cane jacket is omitted for a distance from each end of the stakes or warp-strands approximately equal to the depth of the recesses intermediate of the ferrules C and reduced portions of the end pieces A B, said stakes being preferably glued fast to said end pieces and flush with the shoulders *e* of the same.

It is well known that cane readily absorbs and gives off moisture. Hence the jacket E above specified soon becomes soft and pliable in the hand, but almost immediately attains its original rigidity when released. The uneven surface of the jacket prevents slip of a hand in grasp thereon, and there being circulation of air through the meshes of said jacket the latter does not heat the hand in frictional contact therewith.

The elastic grid not only permits a yield of the grip within the hand, but it also compensates for vibration, and being covered by a jacket of the material and advantages herein enumerated said grip embodying the aforesaid features is especially valuable in connection with a bicycle handle-bar, although applicable to other uses.

While we have shown one practical form of our improved hand-grip, the structural details of this grip may be varied without departure from what we consider is our invention, the latter comprehending any hand-grip embodying a skeleton frame and a woven-cane jacket for the same, said frame being preferably elastic in order to compensate for vibration.

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

- 5 1. A hand-grip comprising a skeleton frame, and a woven-cane jacket encompassing the frame.
2. A hand-grip comprising an elastic skeleton frame, and a woven-cane jacket encompassing the frame.
- 10 3. A hand-grip comprising a spring-metal grid, and a woven-cane jacket encompassing the grid.
4. A hand-grip comprising suitable end  
15 pieces having longitudinal recesses and external shoulders, a spring-metal grid engag-

ing said recesses and capable of longitudinal play therein, a woven-cane grid-covering jacket having the stakes at unfilled extremities thereof laid on said end pieces to abut the shoulders of the same, and ferrules positioned to inclose said stake extremities. 20

In testimony that we claim the foregoing we have hereunto set our hands, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

ADOLPH R. WIENS.

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Witnesses:

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