

(No Model.)

H. G. BARR.
BICYCLE HEAD.

No. 433,760.

Patented Aug. 5, 1890.

Fig. 1.

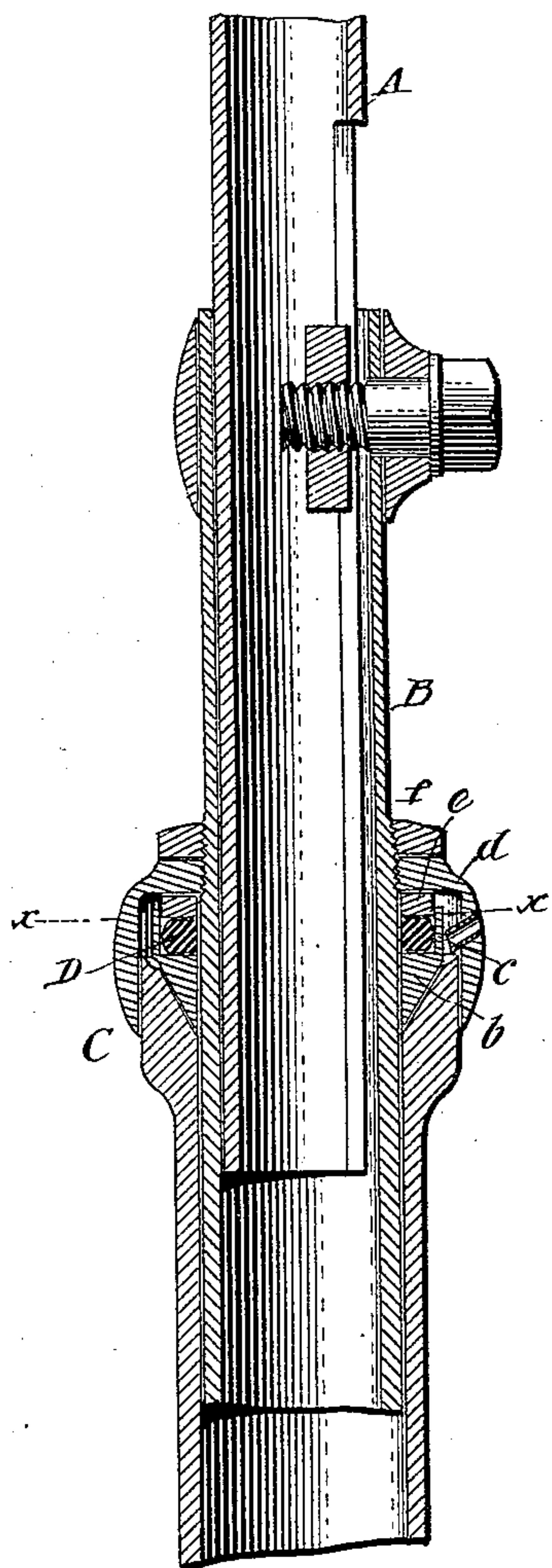


Fig. 2.

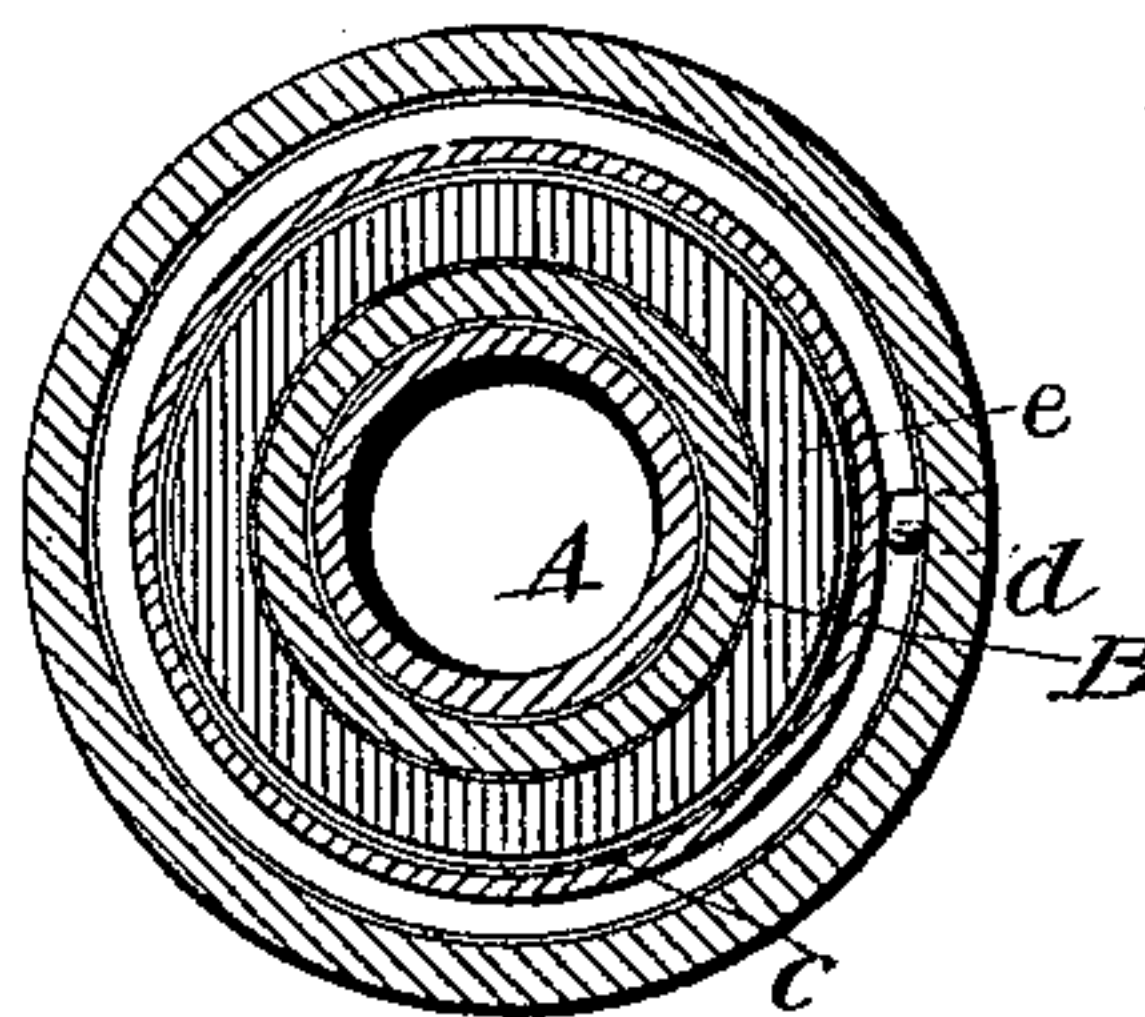
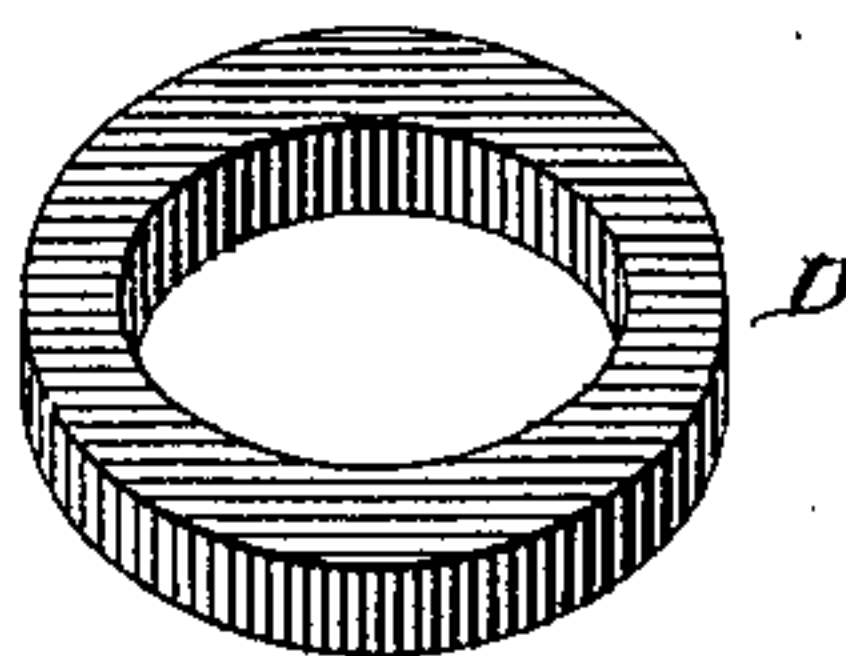


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY G. BARR, OF WESTBOROUGH, MASSACHUSETTS.

BICYCLE-HEAD.

SPECIFICATION forming part of Letters Patent No. 433,760, dated August 5, 1890.

Application filed October 22, 1889. Serial No. 327,791. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. BARR, of Westborough, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Bicycle-Heads, of which the following is a full, clear, and exact description.

This invention has for its object the providing of a means to the steering-heads of bicycles which shall compensate for the contraction and expansion of the stationary and working parts of such heads due to atmospheric changes, and thereby avoid that rattling or binding in the steering-head, which is so objectionable in most or all bicycles. The invention, therefore, is totally distinct from mere spring or other like heads designed to prevent vibration; and it consists in the peculiar construction and combination of parts, as hereinafter fully described, and pointed out in the claim.

The invention is applicable to both Safety and ordinary bicycles having either ball or cone heads and of different constructions, which, of course, will necessitate a corresponding difference in the arrangement of the compensation means; but it will suffice here to show it as applied to the upper part of a well-known type of bicycle-head and form of steering mechanism, inasmuch as the same will illustrate its action, purpose, and use as well as any other.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a central vertical section of a bicycle-head as above in part, with cone-bearing and inner and outer tubes in part of the steering bar or device which works within and through the head, with an elastic compensating means to prevent rattle or binding applied. Fig. 2 is a transverse section of the same upon the line $x x$ in Fig. 1, and Fig. 3 is a view in perspective of the elastic compensating means attached.

A and B indicate the adjustably-connected inside and outside tubes of the steering device, which pass within and through the head C, that is represented as having a cone-bearing b .

D indicates the elastic compensating means or cushion, which is here shown in the form of a ring of any suitable elastic material arranged within an upper cup-like projection c on the cone b outside of the tube B, and which cushion is represented as held down or compressed to closely hug said tube by the follower portion d of the head and an interposed ring e through the instrumentality of a check-nut f , applied to a screw-threaded portion of the tube B. Thus, the elastic compensating means D is applied, as it were, between two collars or in any other suitable way, so as to operate, in like manner, to yield or conform to any expansion or contraction, due to changes in the temperature of the atmosphere, of the parts of the steering-head it is designed to control, and thereby providing for the free yet close working of said parts in all temperatures, and consequently doing away with both rattling and binding in the steering-head of the bicycle.

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

In a bicycle, the combination, with the head and the tube to which one part of the head is attached, of a bearing having a cup-like projection and arranged in the head, and an elastic cushion arranged between the said tube and the flange of the bearing and held compressed by the movable part of the said head, substantially as herein shown and described.

HENRY G. BARR.

Witnesses:

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