(No Model.)

E. S. PIPER.

BICYCLE WHISTLE.

No. 546,122. Patented Sept. 10, 1895.

Fig. 1

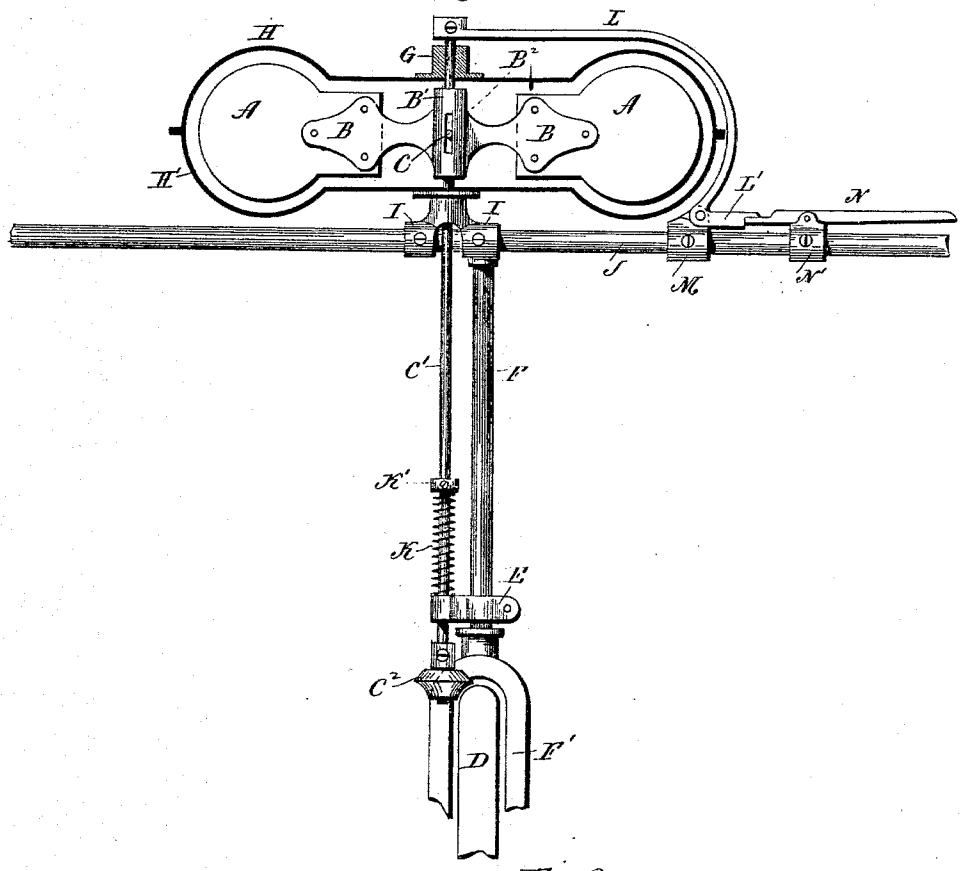
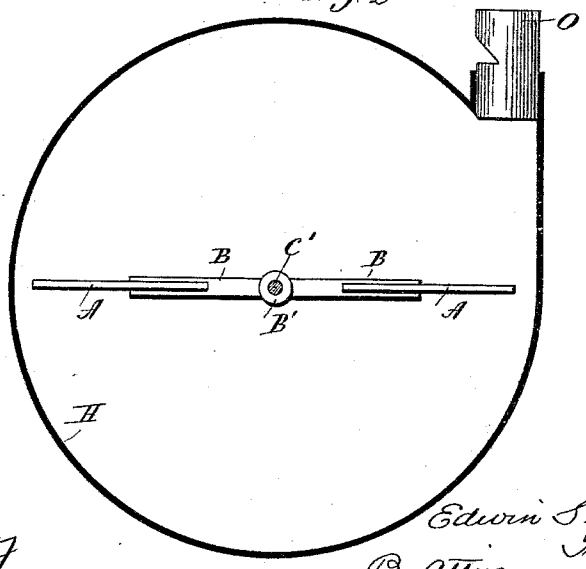


Fig. 2



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWIN S. PIPER, OF BRISTOL, CONNECTICUT, ASSIGNOR OF ONE-HALF TO FRANK CLAYTON, OF SAME PLACE.

BICYCLE-WHISTLE.

SPECIFICATION forming part of Letters Patent No. 546,122, dated September 10, 1895.

Application filed March 22, 1895. Serial No. 542,771. (No model.)

To all whom it may concern:

Be it known that I, EDWIN S. PIPER, of Bristol, in the county of Hartford and State of Connecticut, have invented a new Improvement in Bicycle-Whistles; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view, partly in elevation and partly in section, showing the application of one form which a bicycle-whistle constructed in accordance with my invention may assume to a bicycle; Fig. 2, a detached plan view of the pan, the casing therefor, and the whistle mounted in the casing.

My invention relates to an improvement in bicycle-whistles, the object being to provide a simple, compact, conveniently-operated and durable device, constructed with particular reference to giving a loud penetrating alarm and maintaining the same for as long a period as desired.

With these ends in view my invention consists in certain details of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

In carrying out my invention, as herein shown, I employ a fan composed of two sheet-metal leaves A, secured to the outer ends of arms B B, the inner ends of which terminate in a vertically-arranged sleeve B′, containing a vertically-elongated slot B^2, receiving a pin C, by means of which the fan is coupled with a driving-shaft C′, which at its upper end extends up through the sleeve and at its lower end is furnished with a driving-wheel C^2, having temporary frictional engagement with the tire D of the front wheel of the vehicle. The lower end of the said shaft has bearing and vertical movement in a bracket E, secured to the steering-spindle F of the fork F′, in which the wheel of the tire D is mounted in any approved manner, while the upper end of the shaft has bearing and vertical movement in a box G, applied to the upper half H of the fan-casing, which also comprises a corresponding lower part H′, which rests upon the clip I, employed to secure the whistle to the handle-bar J, which may be of any approved construction and which is connected with the steering-spindle F in any desired manner. A spiral spring K, interposed between the bracket E and an adjustable collar K′, mounted upon the driving-shaft near the lower end thereof, normally maintains the shaft in a sufficiently elevated position for the clearance of its driving-wheel C^2 from the tire D, before mentioned. In order to drive the shaft for the actuation of the fan and the sounding of the whistle, the shaft must be forced downward against the tension of the spring K and held in a depressed position as long as it is desired that the whistle shall sound. For this purpose the projecting upper end of the shaft is connected with an operating-lever L, shaped to partly conform to the curvature of the casing which incloses the fan, and pivotally attached to a clip M, mounted upon one end of the handle-bar. This lever is constructed with a short operating-arm L′, extending in a line parallel with the handle-bar and engaged by the inner end of a handle-lever N, pivotally mounted in a clip N′, secured to the same end of the handle-bar to which the clip M is applied. It will be readily understood that by drawing the long outer end of the handle-lever down upon the handle-bar the operating-lever L will be turned on its pivot so as to depress its upper end, whereby the driving-shaft will also be depressed against the tension of its spring K, and the driving-wheel C^2 brought into engagement with the tire D, the movement of which will rotate the driving-wheel with great rapidity, and hence actuate the fan in developing within the casing a high pressure of air, which, escaping through the whistle O, mounted in the casing, will give a loud and penetrating alarm. The whistle O may of course be of any approved construction. As soon as pressure upon the handle-lever N is relieved, the spring K will reassert itself and lift the driving-shaft and clear its driving-wheel C^2 from the tire, whereby the whistle will be retired and cut out of operation. I may note that the playing of the coupling-pin C in the vertically-elongated slot B^2 per-

mits the required vertical movement of the driving-shaft, which is at no time uncoupled from the fan.

The device shown and described herein is only illustrative of one form which my improvement may assume, for in carrying out my invention it may assume a great variety of forms. Thus the fan, the case for inclosing it, and the means for driving it and operating it may be widely varied in construction. If desired I may employ more than one whistle, either sounding the same or different notes, and whistles varying in note and character may be used interchangeably in the same device.

Although I have illustrated and described my improved whistle in connection with bicycles, I would have it understood that it may be applied to a great variety of vehicles, inasmuch as it is adapted to be operated from almost any wheel, such as one of the wheels of an electric car or a railway-carriage. I would therefore have it understood that I do not limit myself to the exact construction shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. An alarm, comprising a fan, a casing therefor, a whistle mounted in the casing, a longitudinally movable driving shaft connected to the said fan, a wheel located at the opposite end of the said shaft and adapted to be set in motion by its engagement with a revolving wheel, and operating connections applied to the shaft for moving the same longitudinally, substantially as set forth.

2. An alarm, comprising a fan, a casing therefor, a whistle mounted in the casing, a longitudinally movable shaft connected to the said fan, a driving wheel located at the lower end of the shaft, and adapted to be engaged with a wheel of a vehicle for being actuated thereby, an operating-lever connected with the upper end of the shaft, and a handle-lever connected with the operating-lever, substantially as set forth.

3. A bicycle alarm, comprising a fan, a casing therefor, a whistle mounted in the casing, a vertically movable shaft connected with the fan, a driving wheel located at the lower end of the shaft and adapted to be engaged by the wheel of the vehicle, and a spring connected with the shaft and arranged to exert a constant effort to raise the same and disengage the driving wheel from the wheel of the vehicle, and operating connections for moving the shaft longitudinally against the tension of the said spring, substantially as set forth.

4. A bicycle alarm, comprising a fan, a casing therefor, a whistle mounted in the casing, a vertically movable shaft connected with the fan and extending upward through the casing, in which its upper end has bearing, a driving wheel connected with the lower end of the shaft and adapted to engage with a wheel of the vehicle, a bracket for supporting the lower end of the shaft, a spring for moving the shaft longitudinally in one direction, and operating connections connected with the projecting upper end of the shaft for moving it in opposition to the spring, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWIN S. PIPER.

Witnesses:
ROBERT H. BOND,
CARLOS V. MASON.