(No Model.)

H. LUCAS.

BICYCLE BELL.

No. 571,777. Patented Nov. 24, 1896.

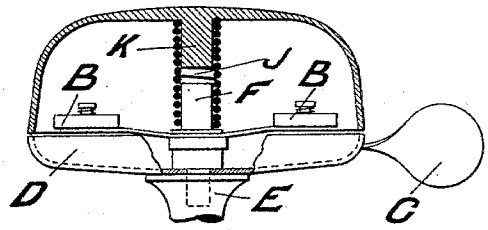

FIG. 1

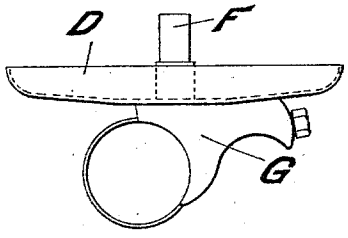

FIG. 2

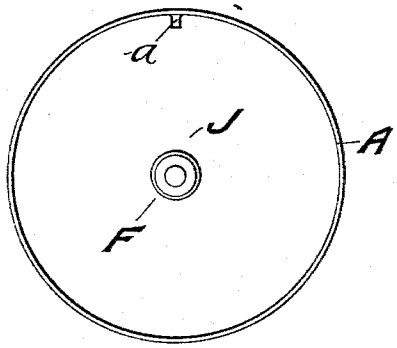

FIG. 3

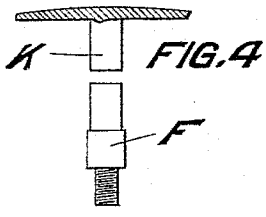

FIG. 4

FIG. 5

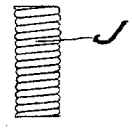

FIG. 6

Witnesses
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UNITED STATES PATENT OFFICE.

HARRY LUCAS, OF BIRMINGHAM, ENGLAND.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 571,777, dated November 24, 1896.

Application filed May 15, 1896. Serial No. 591,720. (No model.)

To all whom it may concern:

Be it known that I, HARRY LUCAS, a citizen of Great Britain, and a resident of Little King Street, in the city of Birmingham, England, have invented certain new and useful Improvements in Alarm and Signal Bells, of which the following is a specification.

This invention relates to improvements in alarm and signal bells, my object being to provide a flexible joint or connection between the dome and the base-plate of the bell for permitting of a slight movement of the dome relatively to the base-plate, and for improving the sound or tone of the bell.

In order that my invention and the method of carrying the same into effect may be the more readily understood, I append hereunto one sheet of explanatory drawings, to be hereinafter referred to.

Figure 1 is a front elevation, partly in section, representing an alarm or signal bell mounted upon a supporting standard or stem (of which only the upper portion is shown) and having my improved flexible connection between the dome and the base-plate. Fig. 2 is an elevation of the base-plate having a clip-bracket fixed to it for the purpose of attaching the bell to the handle-bar or in some other suitable position upon a bicycle or other vehicle. Fig. 3 is an inverted plan of the dome or upper part of the bell and the central flexible connection. Fig. 4 is a part sectional elevation of the dome, showing the central projecting stud to which the upper end of the flexible connection is affixed. Fig. 5 is an elevation of the base-plate stud to which the lower end of the flexible connection is affixed. Fig. 6 is an elevation of the flexible connection.

The same reference-letters in the different views indicate the same parts.

I form the dome or upper part A of the bell from suitable metal in the ordinary manner, preferably providing an internally-projecting lug *a*, Fig. 3, which is struck by the sliding hammers B on their reciprocation by the lever C and intermediate mechanism. (Not shown on the drawings, as such appliances form no part of this invention.) The base-plate D is attached to the upper part of the supporting standard or stem E, Fig. 1, or to a clip-bracket G, Fig. 2, by means of a screw-stud, such as F. (Shown separately at Fig. 5.)

The dome A and the base-plate D are secured together by the flexible connection J, consisting, preferably, of steel wire of a circular section, which I coil to form a spiral spring such as is shown at Fig. 6. The internal central stud K, projecting from the under side of the dome, (shown separately at Fig. 4,) is forced into one end of the spring or flexible connection and the stud F into the opposite end, and the two parts are thus connected, as shown at Fig. 1, by a flexible joint, permitting of the free vibration of the dome when struck by the hammers. The flexible connection also permits of a slight movement of the dome relatively to the base-plate in the event of the bell falling and striking the ground or a hard substance, and it is thus rendered less liable to damage than a bell having a rigid connection between the two parts.

Instead of forcing the studs F and K into the ends of the spring or flexible joint or connection, as hereinbefore described, I sometimes cut screw-threads upon each of the studs and a corresponding thread within the spring, or I make the screw-threads upon the studs of a pitch equal to the pitch of the coils, thus permitting the studs to be screwed into the spring without the necessity of cutting an internal thread within the same.

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

1. A bell comprising a dome, a base beneath the same adapted to be fixed to a support, hammer mechanism between the base and dome, and a spring-support between the dome and base extending from said base up within the dome, substantially as described.

2. In combination in a bell, the combination of the dome having the projecting stud K, the base having the projecting stud F and the spring connecting the studs, substantially as described.

3. In alarm and signal bells the combination of the dome A having a projecting stud K, and the base-plate D having a projecting stud F, with a flexible connection J the stud K being forced into one end of the connection and the stud F into the opposite end, substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HARRY LUCAS.

Witnesses:
EDWARD MARKS,
HERBERT BOWKETT.