

(No Model.)

A. P. MERRILL.
ALARM BELL.

No. 492,410.

Patented Feb. 28, 1893.

Fig. 1.

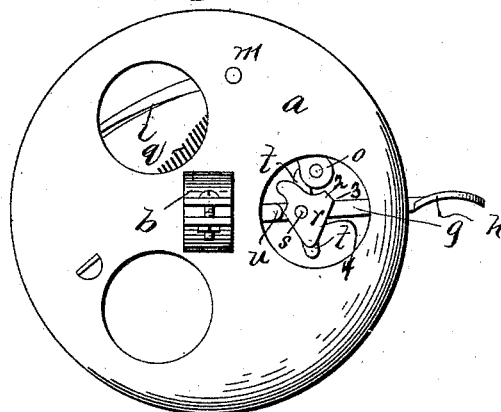


Fig. 2.

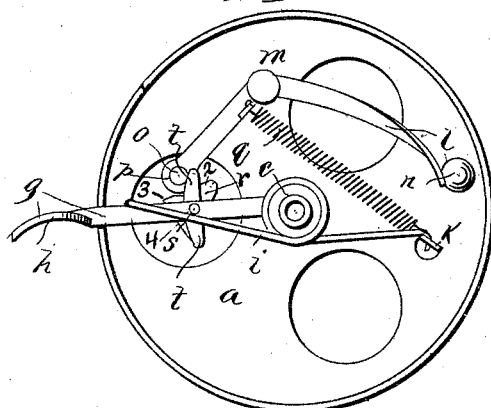
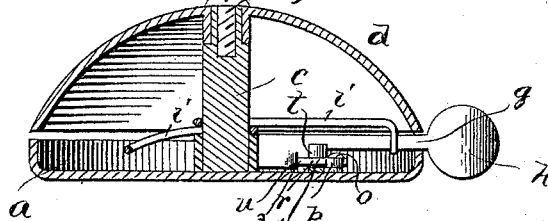


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANSON PARKER MERRILL, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO HIMSELF AND CHARLES A. HICKS, OF SAME PLACE, AND WALTER J. HARRISON AND EBEN L. HARRISON, OF BOSTON, MASSACHUSETTS.

ALARM-BELL.

SPECIFICATION forming part of Letters Patent No. 492,410, dated February 28, 1893.

Application filed April 25, 1892. Serial No. 430,543. (No model.)

To all whom it may concern:

Be it known that I, ANSON PARKER MERRILL, of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Alarm-Bells; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in bicycle alarm bells.

The object of the invention is to provide an improved alarm bell exceedingly cheap, simple and durable in construction and composed of a minimum number of parts, and wherein a depression of the lever or handle will cause the clapper to strike twice by a very simple contrivance.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings Figure 1, is a bottom plan of the bell. Fig. 2, is a plan view with the gong or bell proper removed. Fig. 3, is a central vertical section.

In the drawings the reference letter *a*, indicates the base of the bell provided with the large perforations or openings as shown. This base is also provided with suitable means *b*, not here fully shown for attaching the alarm to the handle bar or other part of a bicycle or tricycle.

c, indicates a central post rigid with and extending up from the base which fits into a central aperture in the bell proper or gong *d*, the post having a shoulder on which the gong rests and a screw threaded socket into which clamping screw *f*, screws to clamp the gong securely to the post as is usual in this kind of article. The outer edge of the base is preferably although not necessarily turned up as shown and is slotted or recessed for a suitable distance to permit the swing of the finger lever or handle *g*, having a sleeve at its inner

end embracing and turning on the inner end of the post and from thence extending outwardly through said slot to the exterior of the article and there provided with a suitable finger piece or knob *h*, or other suitable means to be engaged by the hand or finger to swing the lever.

i, indicates a spring of any suitable and desirable construction yieldingly holding the operating lever or handle *g*, against one end of said slot. This spring is shown as twisted from a piece of stiff spring wire and coiled around the post with one end engaging the lever *g*, and the other end fitting or hooked in perforated lug *k*.

l, indicates the clapper here shown in the form of an elbow or right-angled lever at the elbow fulcrumed at *m*, to the base and having one end bent up and formed at *n*, to strike and sound the gong; the other, preferably short end, extends along the base toward said lever *g*, and is provided with the upwardly projecting stud *o*, on which an anti-friction roller *p*, is preferably mounted.

q, indicates a coil (preferably) spring at one end secured to lug *k*, and at the other end secured to the clapper and holding portion *n*, of the same against the bell, and the roller *p*, against the tripping mechanism carried by the operating or finger lever.

The operating lever is provided with a suitable tripping mechanism for throwing the clapper against the gong preferably consisting of a tripping cam *r*, usually formed approximately triangular in shape and pivoted at *s*, at or about its central portion to the under side of the operating lever to swing transversely.

t, t, indicate opposite stop lugs integral with and extending laterally from the operating lever over the tripping cam.

u, indicates a shoulder on the underside of the operating lever which limits the swing of the tripping cam, and the under side of the operating lever is recessed or formed so that the operating lever can swing back and forth over the stud *o*. The inclined edge *2*, of the tripping cam adjacent to the roller *p*, is provided with a depression which strikes the roller *p*, as the operating lever is pressed or

moved against the tension of the spring, thereby swinging the cam in the opposite direction and forcing the striking end of the clapper away from the bell, the roller *p*, then rides
5 over the point or abrupt end 3, of the cam which then springs back and the clapper is suddenly drawn back to its normal position by its spring thereby striking and sounding the gong. The stiff spring *i*, immediately moves
10 the operating lever back to its normal position thereby riding the roller *p*, up the inclined edge 4, of the cam which swings laterally and throws the roller over the point or shoulder thereof suddenly against a stop lug *t*, thereby
5 again sounding the gong. It will thus be observed that the gong is sounded twice in rapid succession by a single depression of the operating lever. When the roller slips over the point of the cam the stud *o*, drops on the stop
20 lug *t*, on that side. It will be observed that the cam swings a limited amount to throw the roller over its point and allow it to drop suddenly.

The construction is very simple, and is yet
25 very durable and reliable, and cheap. The perforated base is also a point of advantage as it permits free exit of sound.

It is evident that various slight changes might be made in the form construction and
30 arrangement of the parts described without departing from the spirit and scope of my invention hence I do not wish to limit myself to the exact construction herein set forth.

What I claim is—

35 1. In an alarm bell, a base, a gong, a clapper provided with a spring, and the finger lever separate therefrom and provided with a

spring, and the tripping mechanism pivoted on said lever to engage and swing the clapper and suddenly release the same, as and for
40 the purposes set forth.

2. An alarm bell provided with the clapper and the finger lever, said lever having a swing cam provided with a point and edges arranged to engage a portion of said clapper and throw
45 the same over the point, as and for the purposes set forth.

3. In an alarm bell, a swing spring clapper having a projection, the finger lever having a
50 spring and a swinging cam having edges on its opposite sides leading to a point so that when said projection strikes and moves up either of said edges it will be thrown over the point and thereby cause the clapper to sound the bell, substantially as described. 55

4. In combination, a base having a post, a
55 gong on said base, an angle clapper having a spring and a lateral stud carrying a roller, the finger lever at its inner end mounted on said post and provided with a spring, the lever being
60 formed so that it can swing over said stud and provided with the swinging tripping cam having the inclined bearing edges, to engage said roller and throw the same over the meeting point, and the stops against which said
65 stud strikes when dropping from said cam.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ANSON PARKER MERRILL.

Witnesses:

CHAS. A. HICKS,
E. HAYWARD FERRY.