

(No Model.)

A. P. MERRILL.
ALARM BELL.

No. 492,410.

Patented Feb. 28, 1893.

Fig. 1.

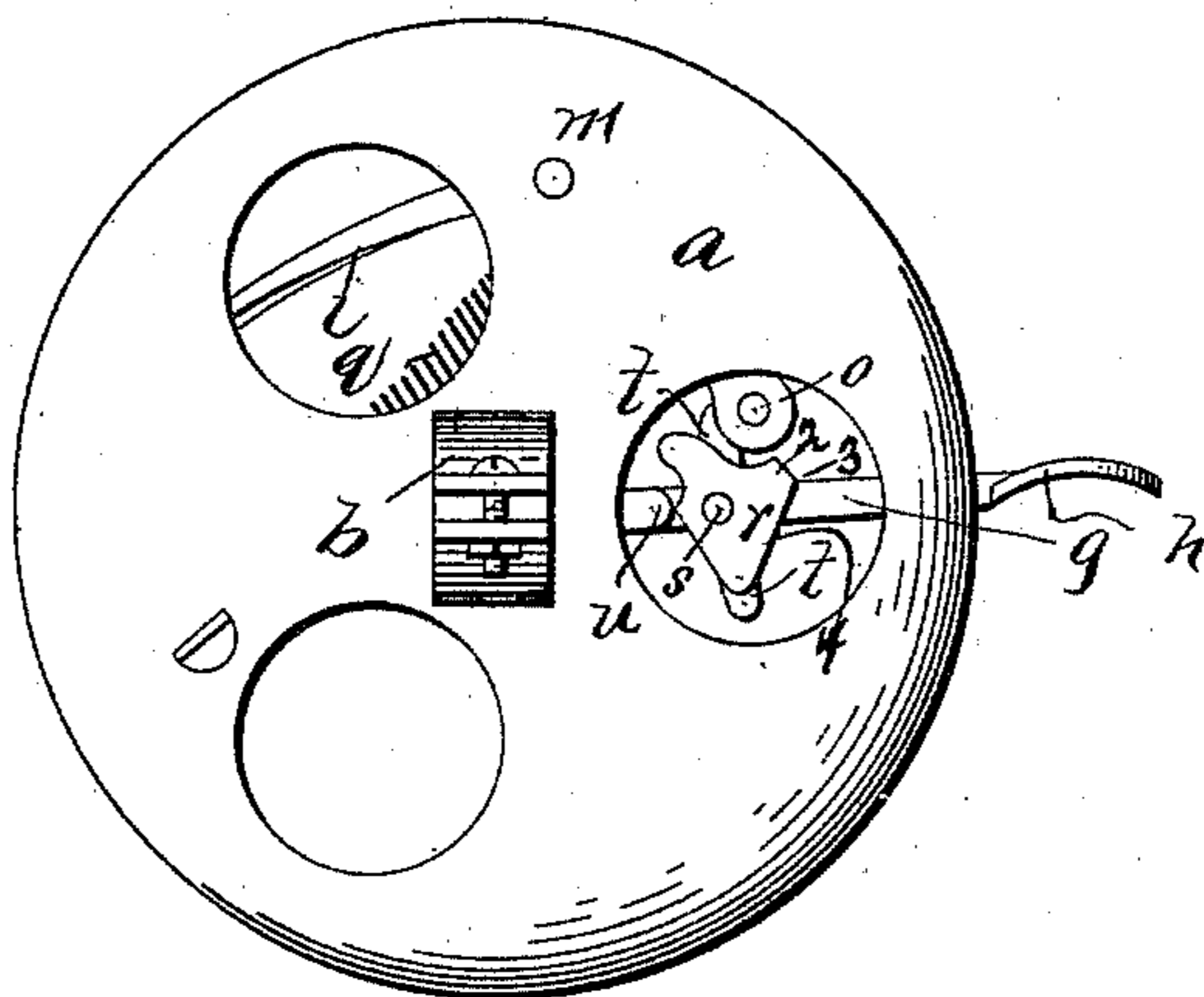


Fig. 2.

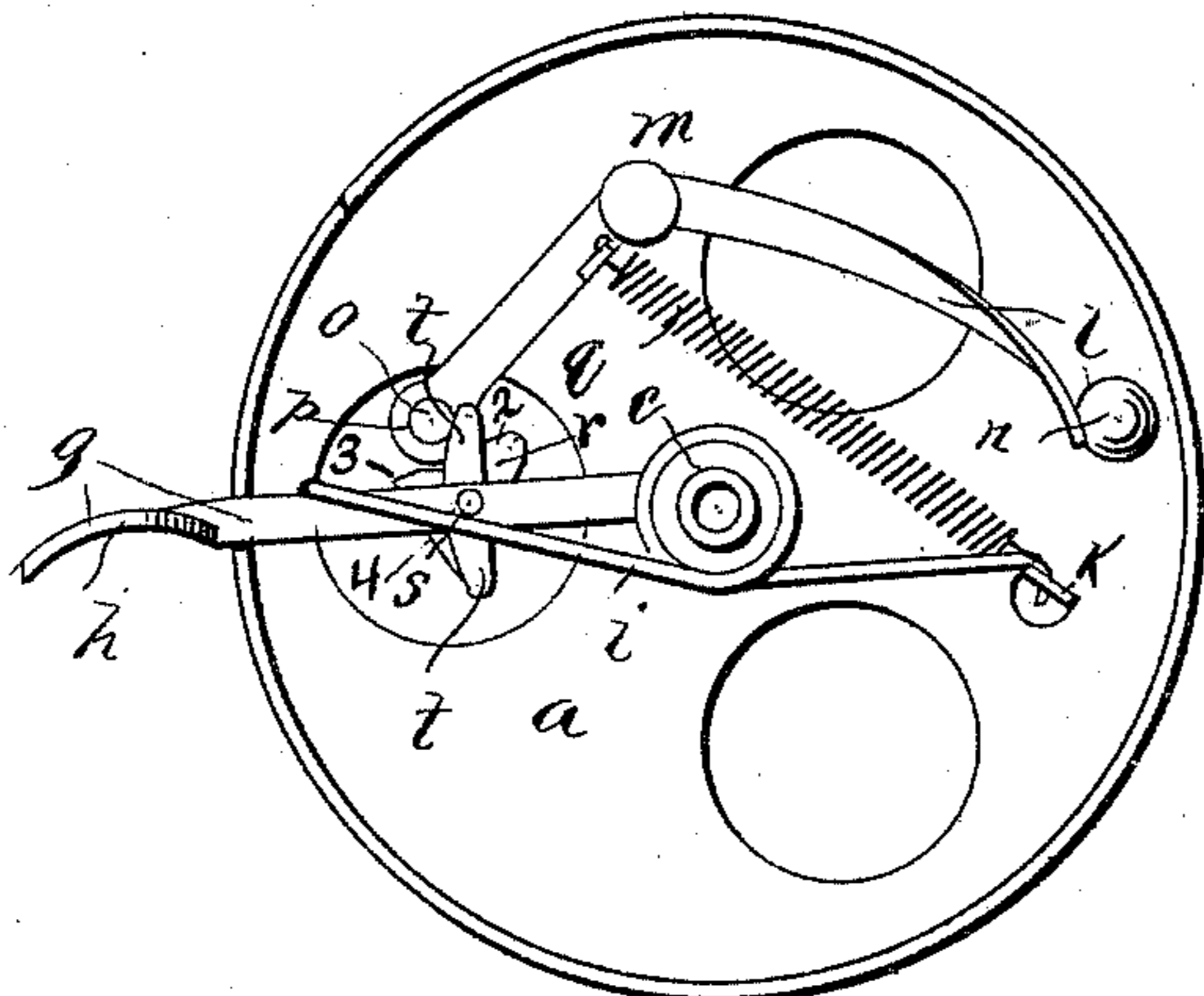
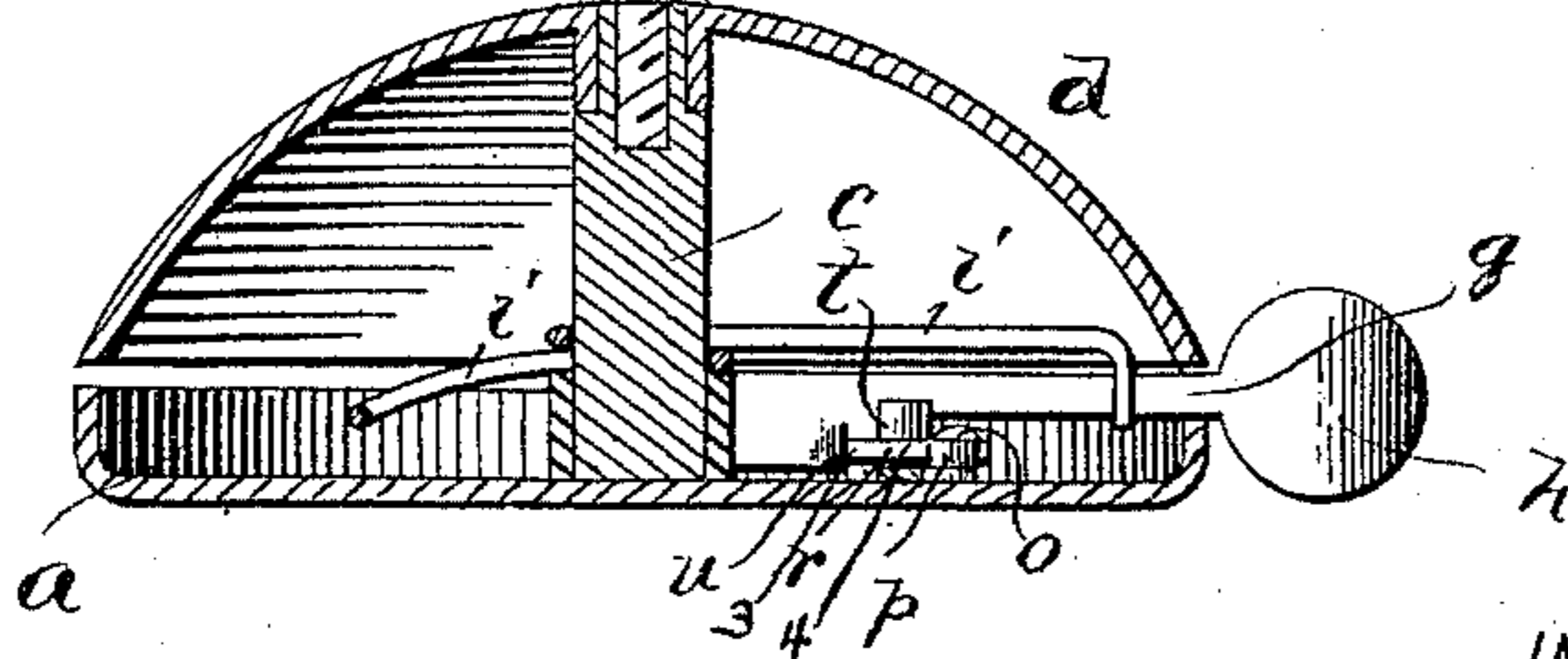


Fig. 3.



WITNESSES:

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INVENTOR

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BY

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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, there-
 by 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 posi-
 tion 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 ob-
 served that the gong is sounded twice in rapid
 succession by a single depression of the oper-
 ating 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 sud-
 denly.

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 in-
 vention 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 clap-
 per provided with a spring, and the finger le-
 ver separate therefrom and provided with a

spring, and the tripping mechanism pivoted
 on said lever to engage and swing the clap-
 per 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 pur-
 poses set forth.

3. In an alarm bell, a swing spring clapper
 having a projection, the finger lever having a
 spring and a swinging cam having edges on 50
 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
 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 60
 post and provided with a spring, the lever be-
 ing 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 meet-
 ing 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.