

No. 698,392.

Patented Apr. 22, 1902.

A. B. COWLES.

ALARM.

(Application filed Nov. 29, 1901.)

(No Model.)

Fig. I.

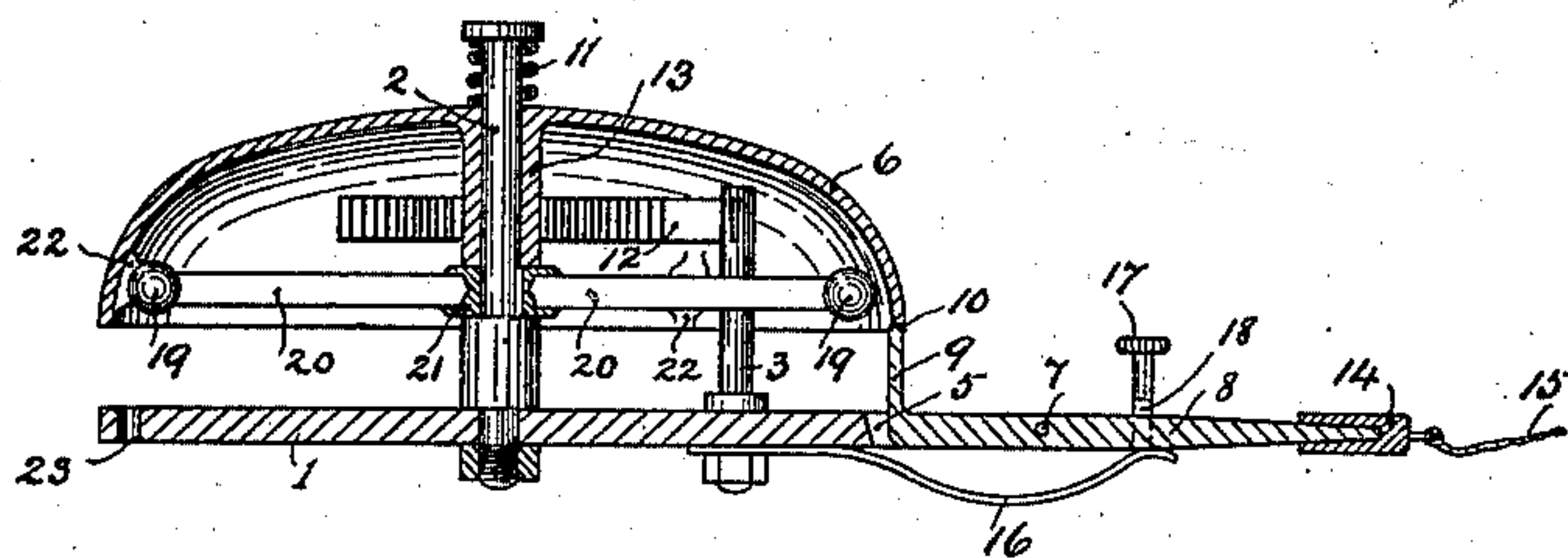
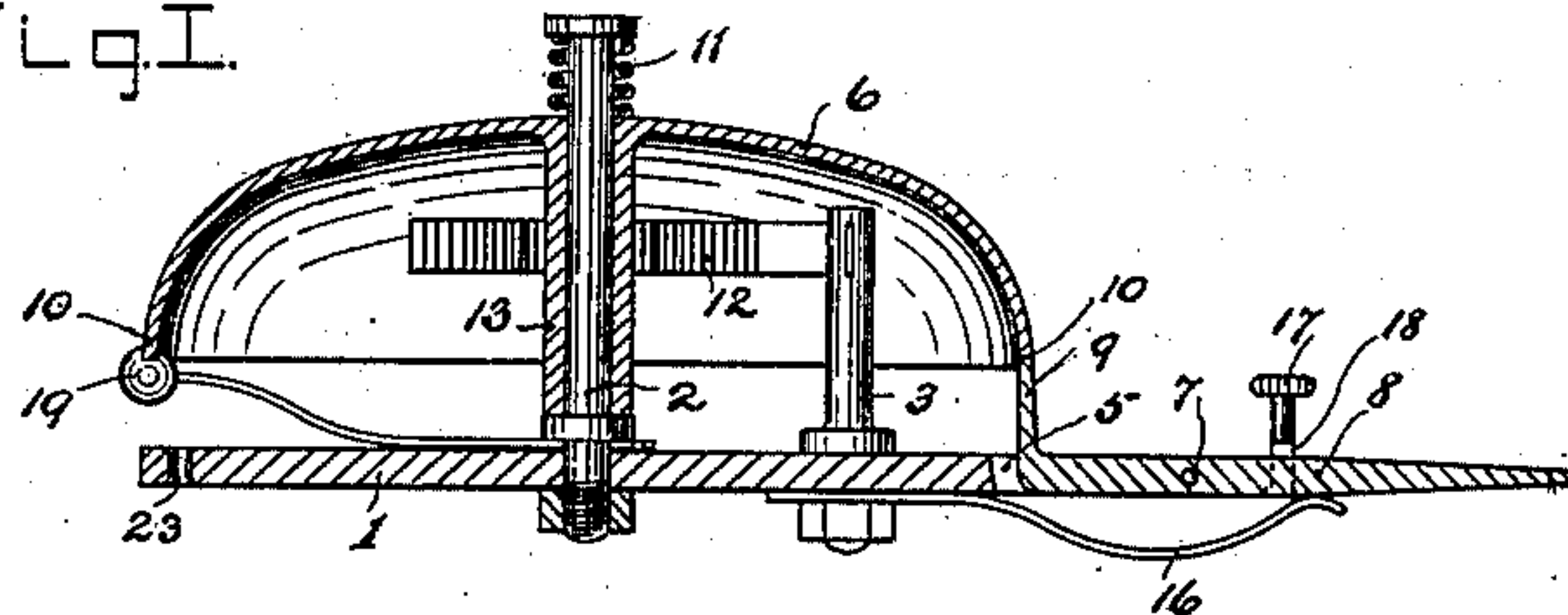
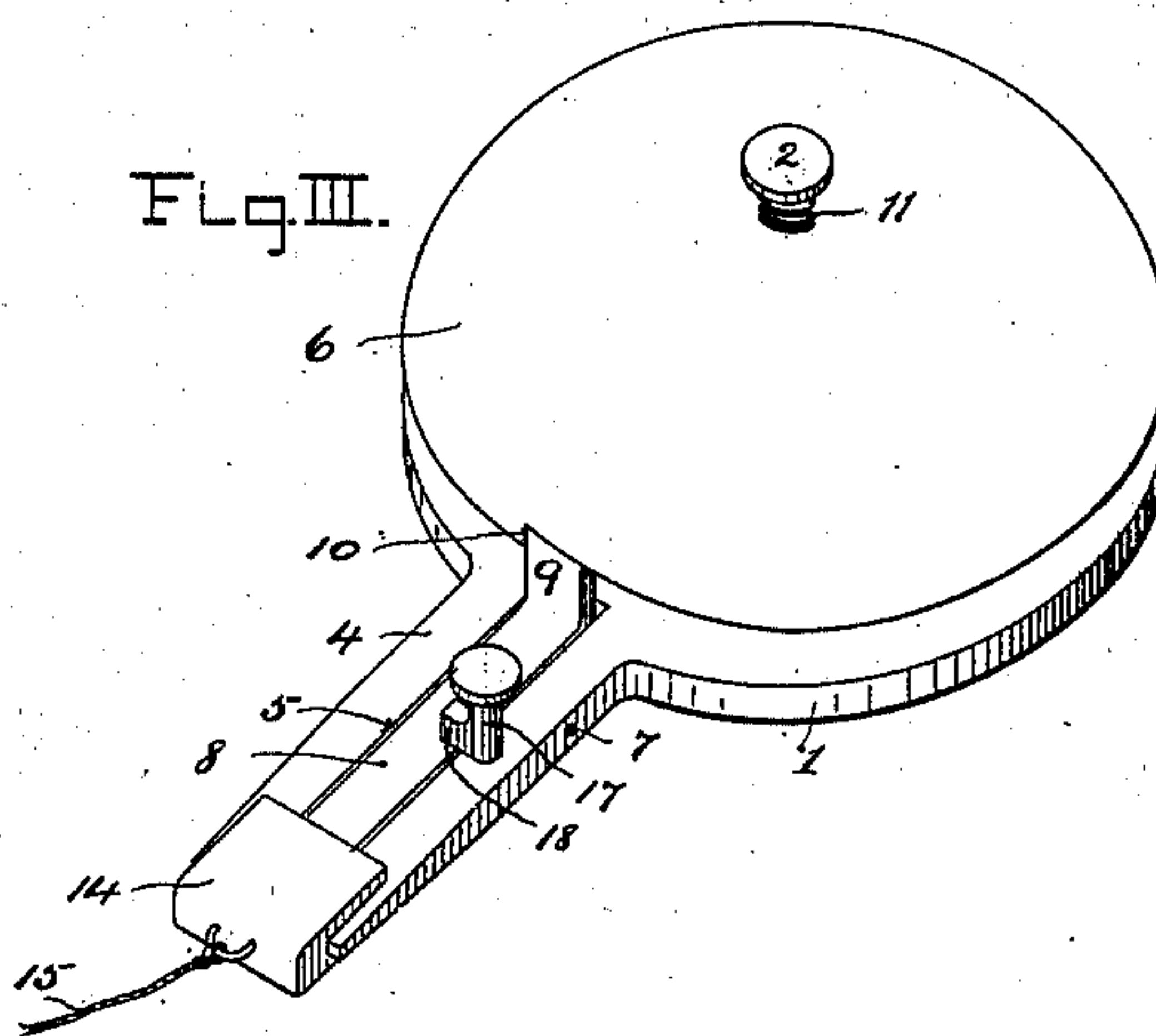


Fig. II.

Fig. III.



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ALARM.

SPECIFICATION forming part of Letters Patent No. 698,392, dated April 22, 1902.

Application filed November 29, 1901. Serial No. 84,124. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. COWLES, a citizen of the United States, and a resident of Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Alarms, of which the following is a specification.

My invention relates to alarm-signals, and has for its object the provision of a simple bell-alarm which can be readily connected with windows and doors or which can be arranged in passages and on staircases in such a manner that upon the approach of an intruder the alarm will be at once sounded; and it consists in the means hereinafter fully illustrated and described.

In the drawings which form a part of this specification, and in which like numerals refer to like parts in the different views, Figure I is a longitudinal section of the alarm. Fig. II is a longitudinal section of the alarm, showing a different arrangement of hammer. Fig. III is a view of the alarm in perspective.

In the figures, 1 is a base-plate, in which are set the bell-post 2 and the spring-post 3, and which is provided with a tongue 4, having in it a slot 5. Upon the post 2 is mounted the bell 6 in such a manner that it is free to revolve. In the slot 5 is pivoted at 7 the arm 8, one end of the said arm terminating with the tongue 4 and its other end 9 being turned up to form a detent and engaging in a notch 10 in the rim of the bell 6. The bell is preferably provided with two or three notches arranged at equal intervals on the edge of the bell to facilitate the winding up of the latter. A compression-spring 11 encircles the top of the bell-post 2 and having a fixed bearing in the head of the post 2 presses down upon the bell 6. A spring 12, preferably a common clock-spring, is secured by one end to the spring-post 3 and by its other end to the bell-shank 13.

The bell is wound up by simply turning it in the direction of the movement of the hands of a clock, the upturned end 9 of the arm 8 acting as a detent in the notches 10 and the spring 11 allowing the bell to rise on the post 2 as its edge passes over the detent 9.

In Figs. II and III 14 is a cap which embraces with an easy fit the end of the slotted

tongue 4 and the end of the arm 8. So long as this cap is in place the detent 9 will be in line with the edge of the bell and so engage in the notches 10. To the cap is secured a cord 15, the other end of which is connected with a door, window, or other object. Beneath the base-plate is secured a spring 16, the free end of which presses upward against the outer end of the arm 8 and so tends to throw the detent 9 out of engagement with the notches 10.

17 is a stud having a projecting arm 18, which may be used, as shown in Fig. III, to keep the arm 8 down and to prevent the alarm being accidentally sprung when not in use. When the alarm is set for use, the stud is turned so that the arm 18 does not project over the arm 8.

In Fig. II 19 19 are the hammer-heads, which may be steel balls, and which are set on spring-arms 20 20, preferably made of pieces of clock-spring. These hammer-arms are set in a boss 21, which is keyed, pinned, or shrunk on the bell-post 2. The bell 6 is provided on its inner surface with one or more projections 22 22, which projections when the bell revolves strike against the hammer-heads 19 19 and so cause the bell to sound. In Fig. I a hammer-head 19 is shown arranged beneath the edge of the bell. With this arrangement the hammer-head strikes against the vertical edges of the notches 10 in the edge of the bell.

The base-plate 1 is provided with a hole 23 to admit of the alarm being hung upon a nail in some fixed object or of its being secured thereto by means of a cord.

To set the alarm in connection with a door or window, the bell is wound up, the alarm is secured to some fixed object, the cap is put on, as shown in Figs. II and III, and the free end of the cord 15 is secured to the door or to the window-sash, as the case may be. Should the door, or in the latter case the window, be opened, the cord 15 will pull the cap 14 away, and so release the arm 8, which, under the action of the spring 16, will fly up, throwing the detent 9 out of engagement with the notch in the edge of the bell. The latter will then, under the action of the spring 12, cause the bell to revolve, and the projections 22 22 on

the bell striking the hammer-heads 19 19 the bell will ring. To set the alarm on a stairway, the alarm is attached to one side—the banisters, for instance—and the free end of the cord 15 to the other side at such a height that the cord stretched across the stairs will be caught by the foot of any intruder walking up the stairs. The alarm may be arranged in a similar manner across a hall or
10 corridor.

Having now described my invention, what I claim, and desire to protect by Letters Patent of the United States, is—

1. In a bell-alarm, the combination of a rotatably-supported bell provided with striking parts, a hammer supported on an elastic arm, a motor-spring for rotating the bell, a detent engaging in a notch in the bell to hold it when wound up, means for holding the detent in the notch, and means for throwing the detent out of the notch to release the bell when the means for holding the detent in engagement with the notch is removed.

2. In a bell-alarm, the combination of a rotatably-supported bell provided with striking parts, means for revolving the bell, an elastically-supported hammer, an arm 8 provided with a detent end 9 engaging the bell to hold it when wound up, a cap 14 to hold the detent 9 in engagement with the bell, and a spring 16 arranged to throw the detent 9 out of engagement with and so release the bell when the cap 14 is removed.

3. In a bell-alarm, the combination of a base-plate, a bell-post, a bell rotatably mounted on the bell-post and provided with striking parts, an elastically-mounted hammer lying in the path of the said striking parts, a spring 12 fixed at one end and so attached by
40 its other end to the bell that when it is wound

up it will revolve the bell, an arm 8 pivoted to the base-plate and terminating at one end in a detent 9 adapted to engage in a notch in the edge of the bell, removable means for keeping the arm in position, and a spring 16 arranged to throw the detent out of engagement with and so release the bell when the means for keeping the arm in position is removed.

4. In a bell-alarm, the combination of a base-plate, a bell-post, a bell rotatably mounted on the bell-post and provided with striking parts, an elastically-mounted hammer lying in the path of the said striking parts, a spring 12 fixed at one end and so attached by its other end to the bell that when it is wound up it will revolve the bell, an arm 8 pivoted to the base-plate and terminating at one end in a detent 9 adapted to engage in a notch in the edge of the bell, removable means for keeping the arm in position, a spring 16 arranged to throw the detent out of engagement with and so release the bell when the means for keeping the arm in position is removed, and a spring 11 to hold the bell in engagement with the detent 9 when the alarm is set.

5. In a bell-alarm, the combination of a rotatably-supported bell provided with projecting striking parts, a hammer adapted to come in contact with the said striking parts as the bell revolves, means for rotating the bell, means for holding the bell, and means for releasing the bell.

Signed at Richmond, in the county of Henrico and State of Virginia, this 21st day of November, 1901.

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Witnesses:

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