

(No Model.)

J. F. McCONNELL.
BELL.

No. 579,681.

Patented Mar. 30, 1897.

FIG. 1.

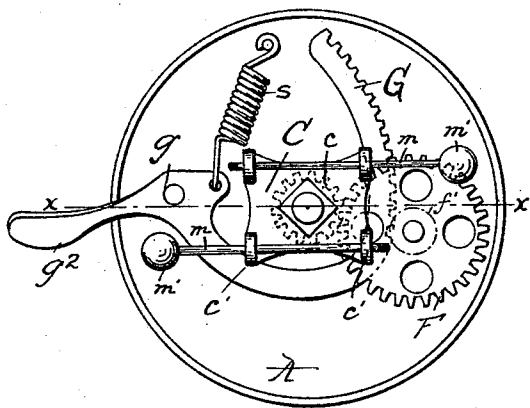


FIG. 3.

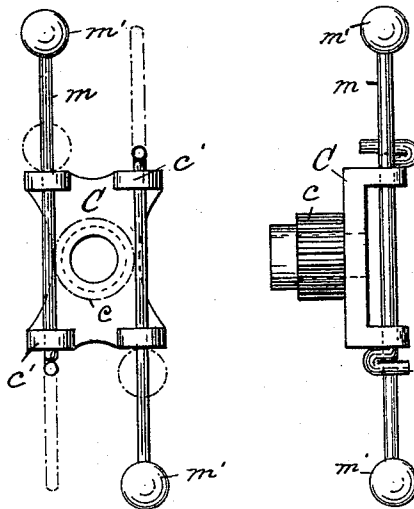
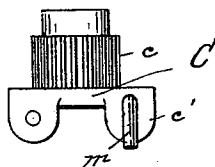
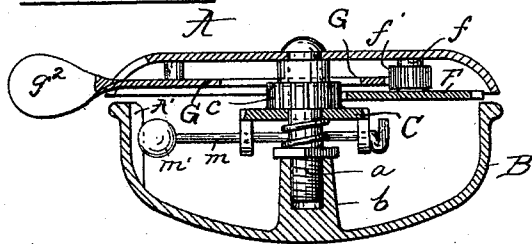


FIG. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH FRANCIS McCONNELL, OF READING, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOHN GEORGE ZIEGLER, OF SAME PLACE.

BELL.

SPECIFICATION forming part of Letters Patent No. 579,681, dated March 30, 1897.

Application filed August 20, 1896. Serial No. 603,312. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH FRANCIS McCONNELL, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Bells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and the same.

This invention relates to improvements in bells, and is intended more particularly for use as an alarm on bicycles or other like vehicles.

The object of the invention is to produce a bell of simple construction, durable, and at the same time one that is positive in its action.

The invention is fully described in the following specification and clearly shown in the accompanying drawings, in which—

Figure 1 is a plan view of my bell with the gong removed. Fig. 2 is a sectional view on line *x x* of Fig. 1. Fig. 3 shows the striker-carriage in three views.

Similar letters of reference indicate corresponding parts in the different views.

A is the base-plate of the bell, which may be provided with any suitable means for attaching it to the handle-bar of a bicycle.

B is the gong and is secured to the base-plate by means of a central stud or pin *a*, which is screw-threaded at its end and enters the opening in the lug *b* of the gong. On this central pin *a* is loosely mounted a carriage C, which is formed with a pinion *c* on its under side and with lugs *c'* at each of its four corners. In these lugs is loosely mounted a pair of strikers in such a manner as to be free to move in opposite directions on a line at right angles to the axis of the pin on which the carriage revolves when it is set in motion. These strikers are formed of rods *m*, which pass through the lugs *c'* and are provided with balls *m'* on their outer ends and have their inner ends bent so as to limit their movement.

The gear-wheel or pinion *c* meshes with the

wheel F, which wheel is secured to a shaft *f*, 50 mounted in the base-plate. This wheel is provided with a pinion *f'*, which in turn meshes with a quadrant G. This quadrant is pivotally secured to the base-plate at a point *g*, and is provided with an extension or lever *g*² for operating it and is held in normal position by a coiled spring *s*.

The operation of the bell is as follows: The lever *g*² is pushed forward around its center *g*, and the quadrant, by reason of its geared 60 connection with the pinion *f'* on the wheel F, will cause that wheel to rotate, which in turn, by reason of its connection with the pinion *c*, will cause the carriage C, of which the said pinion is a part, to rotate also. By releasing the 65 lever *g*² the spring *s* will return it to its normal position, and consequently reverse the motion of the train of gears as well as that of the carriage C. The strikers *m* will, by reason of the centrifugal force generated by the revolving carriage, be thrown outward on a line 70 at right angles to the axis of the pin on which the carriage revolves, and the balls *m'* on their ends will strike the lip A' in the gong at each revolution. It will be seen that one operation of the lever will cause the carriage to rotate a number of times, thus producing a succession of strikes similar to an electric bell.

I am aware that the method of applying 80 power to the strikers herein shown is old and do not claim it as a portion of my invention; but I am not aware that a revolving carriage, such as I have shown, on which are mounted strikers adapted to be thrown outwardly in 85 opposite directions on a line at right angles to the axis of the pin on which said carriage revolves, by reason of the centrifugal force imparted thereto, have ever been used, and

What I therefore claim, and desire to secure 90 by Letters Patent, is—

In a bell mechanism the combination of the gong with the train of gears G, *f'*, F, the striker-carriage C formed with a pinion *c* on its under side and with lugs *c'* at each of its 95 four corners, a pair of strikers *m* with balls *m'* on their outer ends, loosely mounted in said lugs and adapted to move outwardly, in

opposite directions, by the centrifugal force
imparted thereto by the rotation of said car-
riage, on a line at right angles to the axis of
the pin on which said carriage revolves, and
5 adapted to strike a lip A' in the gong at each
revolution of the carriage, substantially as
set forth.

In testimony whereof I affix my signature
in presence of two witnesses.

JOSEPH FRANCIS McCONNELL.

Witnesses:

CHARLES L. OAKS,
ED. A. KELLY.