

(No Model.)

H. G. MARTIN.
BICYCLE BELL.

No. 603,279.

Patented May 3, 1898.

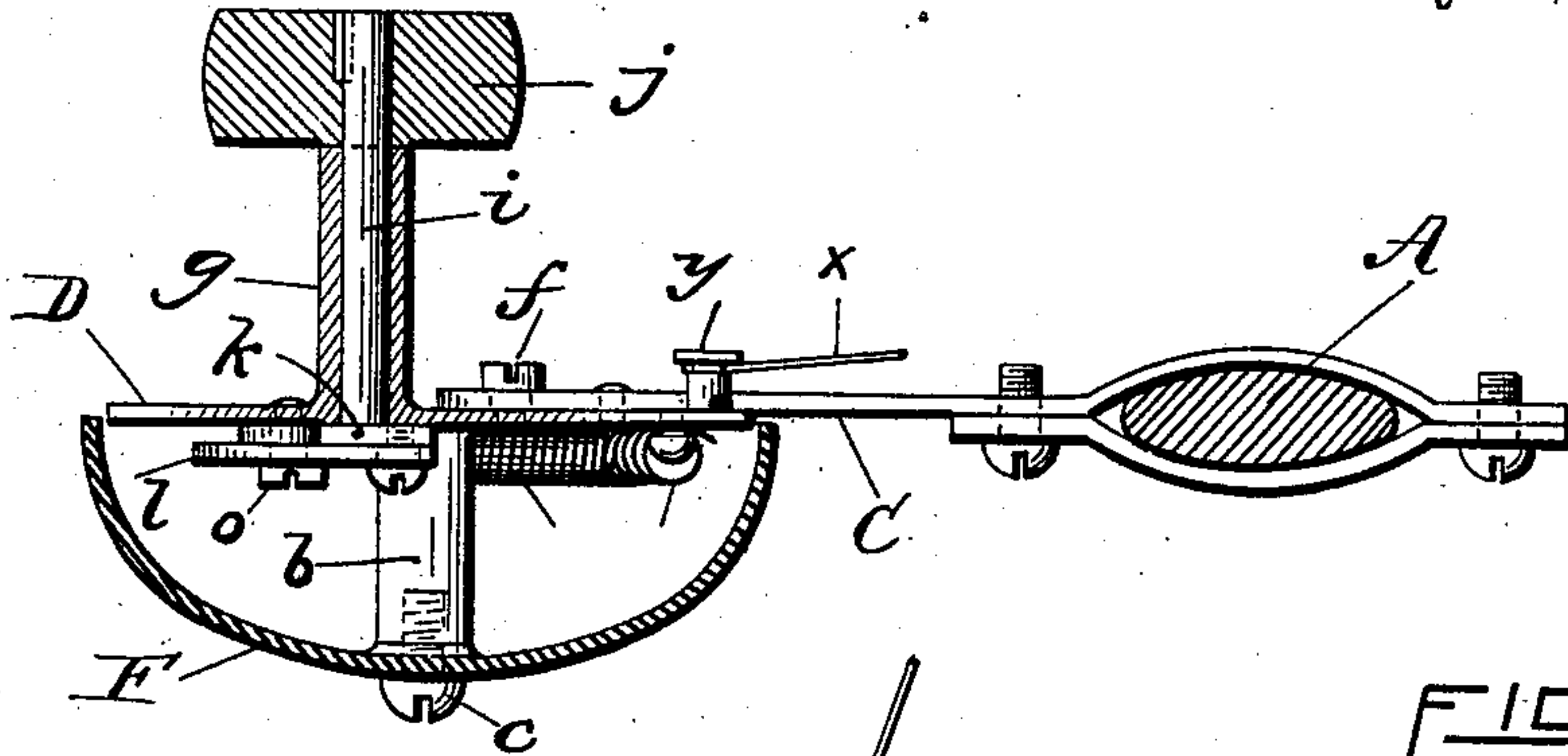


FIG. 1.

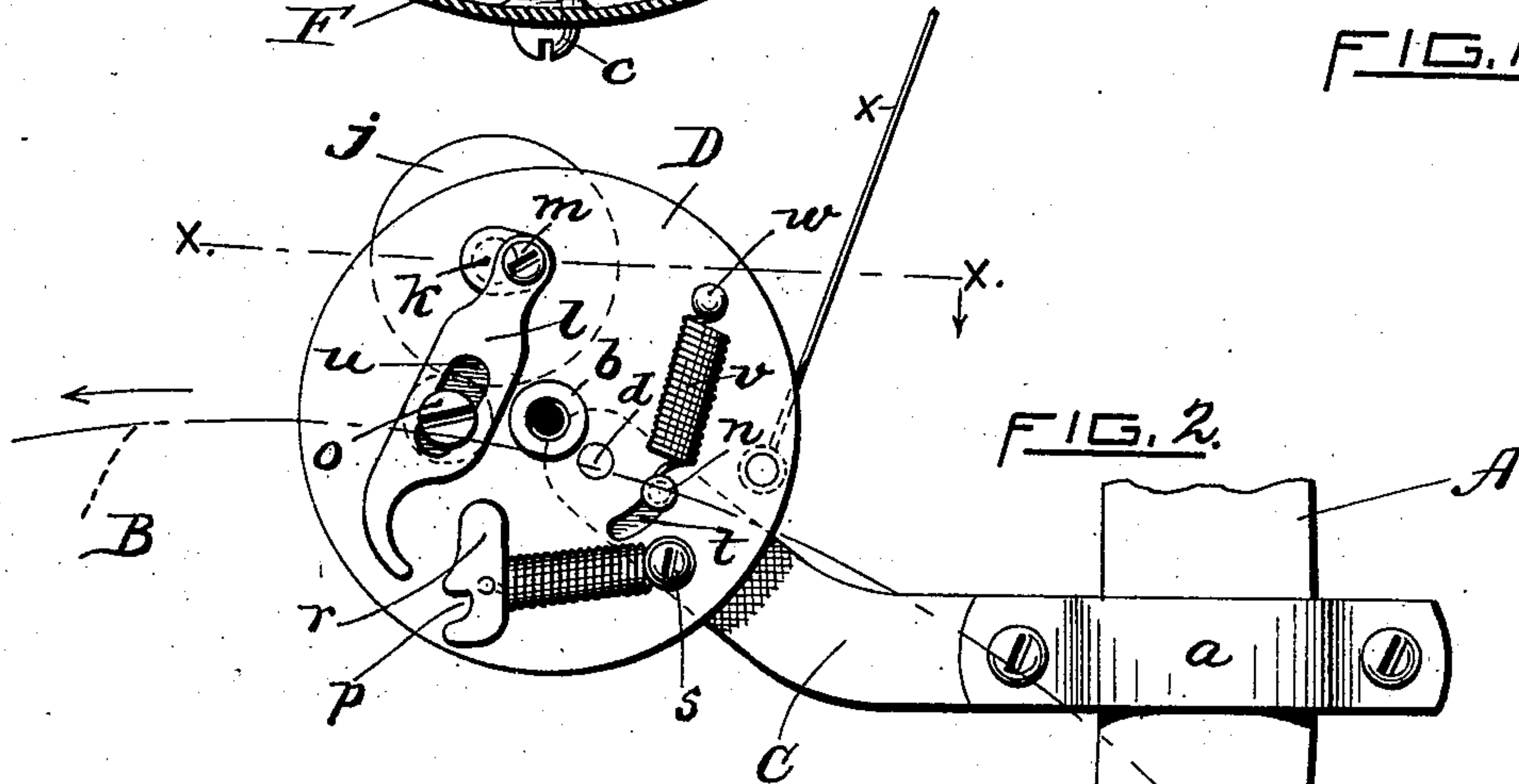


FIG. 2.

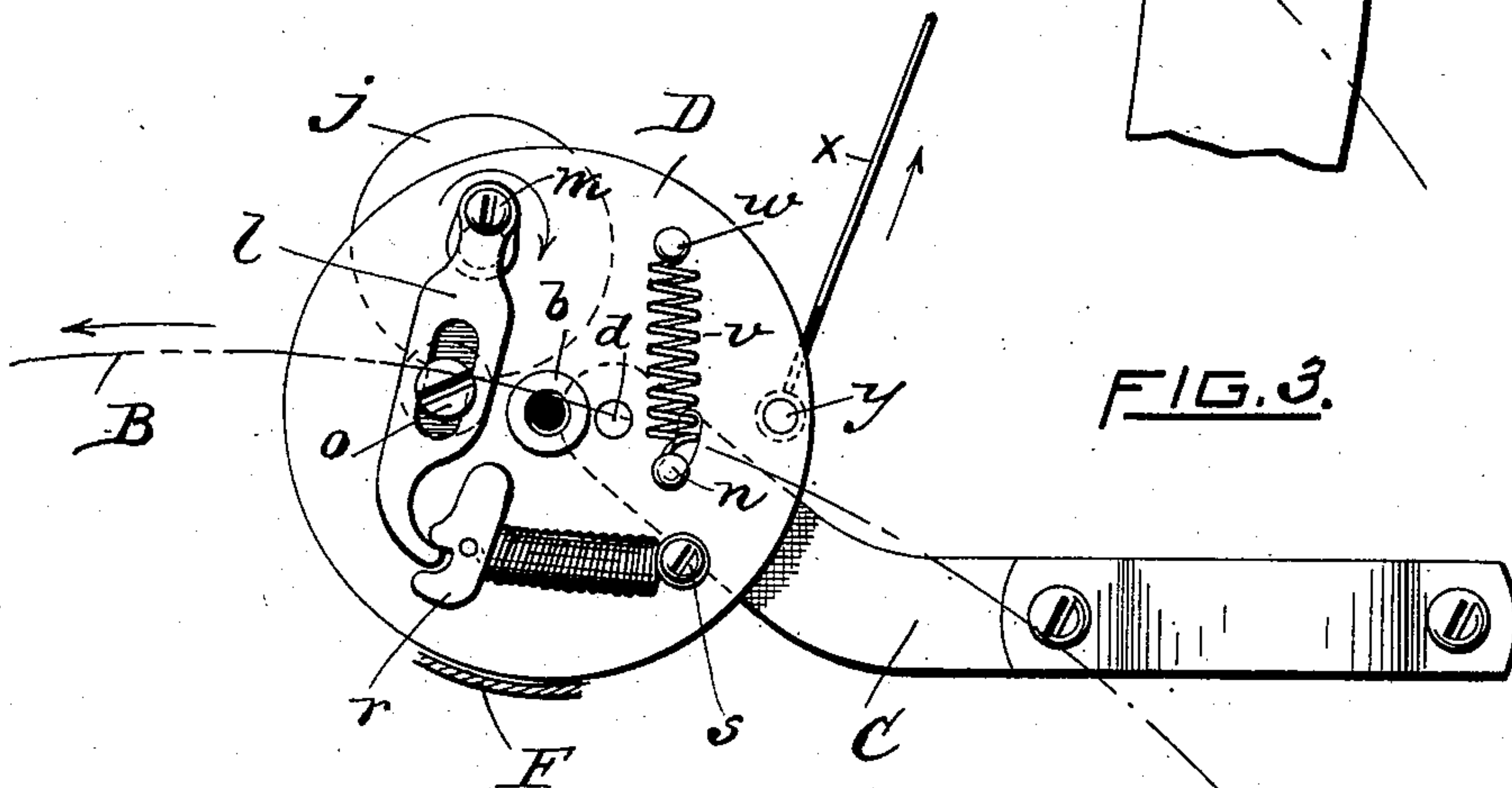


FIG. 3.

WITNESSES.

E. A. Nickerson

Victor De la Barre

INVENTOR.

Harold G. Martin.

By Charles T. Hannigan
Atty.

UNITED STATES PATENT OFFICE.

HAROLD G. MARTIN, OF PROVIDENCE, RHODE ISLAND.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 603,279, dated May 3, 1898.

Application filed July 12, 1897. Serial No. 644,324. (No model.)

To all whom it may concern:

Be it known that I, HAROLD G. MARTIN, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Bicycle-Bells; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which similar letters of reference indicate corresponding parts in all the views.

My invention relates to that class of bells for bicycles in which the sounding of the bell is due to the frictional contact of the wheel of the machine having power-transmitting connections.

It consists in having an oscillatory disk eccentrically suspended from the stud of the bracket-arm, said disk carrying the striking mechanism and adapted to throw the same into and out of engagement with the bicycle-wheel, as hereinafter described and claimed.

The object of my invention is to provide a bell which is compact, strong, and effective and which can be readily secured to the machine and designed as an improvement on my construction described in Letters Patent numbered 616,084, issued July 20, 1897.

Figure 1 represents a top plan sectional view in line X X of Fig. 2. Fig. 2 is a side elevation of my invention with the bell removed and showing the arrangement of operating mechanism when at rest with the friction-roller disengaged from the tire of the bicycle-wheel. Fig. 3 is a similar view illustrating the manner of throwing the striker when the friction-roller is in contact with the tire of the bicycle-wheel.

In the drawings, A designates a leg of the front-fork of a bicycle, and B a portion of the rim of the front wheel. Attached to one leg of the fork A is a bracket C, having a curved end adapted to embrace the fork-leg and provided with a plate *a*, secured thereto by screws which pass through straight portions of said bracket and plate.

D is the disk, which has a hub *b* projecting outwardly from the center of said disk and supports the bell F, which is held in place thereon by the screw *c*.

A short distance from the center of the disk, at a point *d*, is secured a stud *f*, which passes through the forward portion of the

bracket-arm C, said stud forming a journal upon which the disk oscillates. Upon the opposite side of the disk and integral therewith is a sleeve *g*, through which the friction-roller shaft *i* revolves, said shaft extending beyond the outer face of the sleeve and carrying roller-wheel *j*. A crank *k* is formed upon the opposite or inner end of the shaft, which imparts motion to a claw-lever *l*, said lever being secured to the crank by the pin *m* and provided with an elongated slot *u* about midway of its length and through which is inserted a screw-stud *o*, made fast in the disk D, said stud acting as a guide for keeping the lever in place during its swinging motion caused by the revolving crank-shaft. The lower end of the lever *l* has a hook-shaped claw or finger which engages in a notch *p* of the hammer *r*, said hammer being composed of a spiral spring, one end of which is wound around the set-screw *s* and holds the same firmly to the disk D the opposite end of the spring being fastened to the hammer-head *r*. A slot *t* is cut through the disk radially from the center of the journal-stud *f*, and extending through the slot is a pin *n*, which is fastened to the arm of the bracket C, and secured to the pin *n* is a spiral spring *v*, which has its upper end made fast upon the pin *w*, attached to the disk, said spring being of such a tension that it normally keeps the disk turned so that the friction-roller is out of contact with the tire of the bicycle-wheel.

x is the pull-wire, which is fastened to the stud *y*, secured to the disk.

To explain the operation of my invention, the rigid bracket C is provided at its forward end with a journal-stud *f*, upon which the disk D oscillates, and, as will be seen in Fig. 2, the center of said stud is placed eccentrically to the center of the disk, and by drawing up the pull-wire *x* the disk oscillates so that the roller *j* is carried down into contact with the tire of the bicycle-wheel and causes the crank-shaft *i* to rotate, which movement vibrates the lever *l*, the claw end of which hooks into the notch of the hammer, carrying the same upwardly to the position shown in Fig. 3, where it disengages from the spring-hammer, which in turn strikes the bell; and as long as the friction-roller is kept in contact with the tire of the bicycle-wheel the

hammer is raised up and disengaged by the lever *l*, thus producing a rapid succession of blows upon the bell. When the pull-wire is released by the rider, the spiral spring *v* returns the parts to their inoperative position, as shown in Fig. 2.

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

10 In combination with a gong, consisting of the bracket C having a journal-stud *f* at its forward end, the oscillatory disk D eccentrically mounted upon said stud and having a centrally-projecting hub, integral with said
15 disk, adapted to support the gong, the sleeve *g* projecting outwardly from the disk, and integral therewith, the shaft *i* loosely fitting in said sleeve and carrying the friction-roller, a crank *k* formed upon the inner end of said
20 shaft, the claw-lever *l* attached to said crank

and provided with an elongated slot *u*, the stud *o* fastened to the disk and loosely fitting in said slot, the spring-hammer *r* fastened to the disk and provided with a notch *p*, the slot *t* cut through the disk radially from the center of the journal-stud *f*, with a pin *n* fastened to the arm of the bracket and projecting through said slot, a pin *w* fastened to the disk, with the spiral spring *v* having its ends secured to each of said pins, respectively, adapted to turn the disk to throw and hold the friction-roller out of contact with the wheel, with means for turning the disk in the other direction to force the friction-roller into contact with the tire of the bicycle-wheel, substantially as shown and described.

HAROLD G. MARTIN.

Witnesses:

E. A. NICKERSON,
JOHN J. CONNLY.