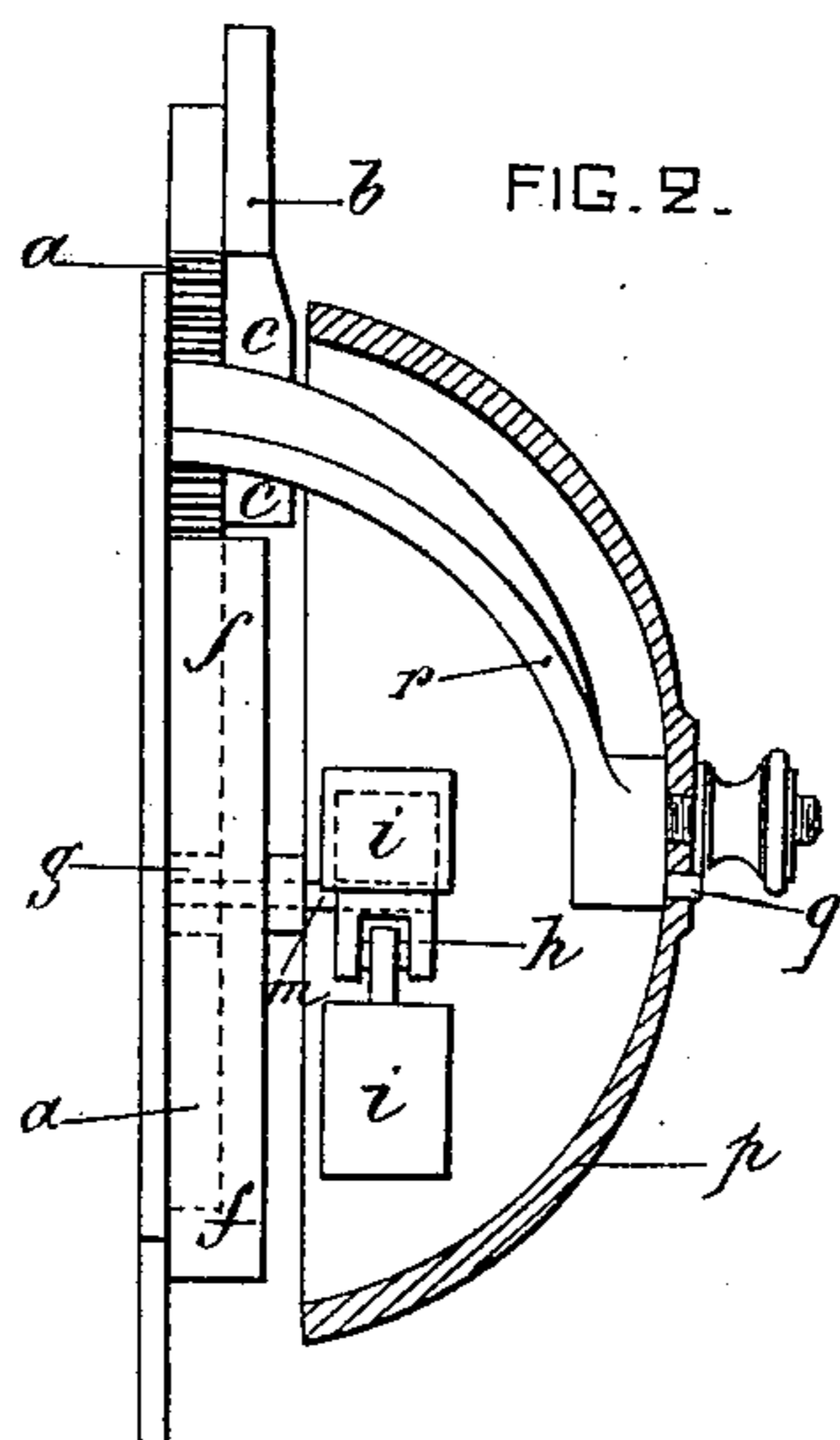
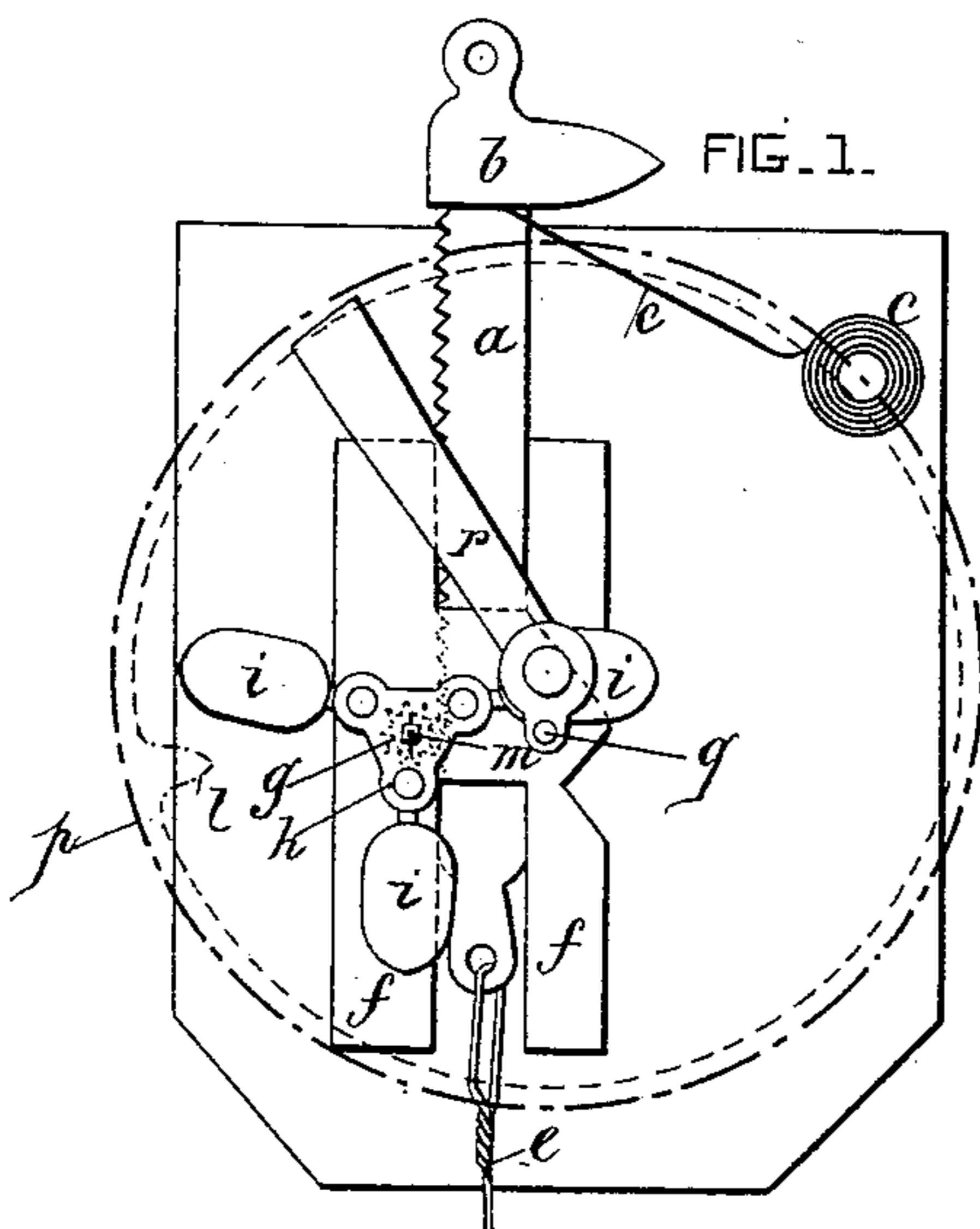


(No Model.)

V. A. GERMAIN.  
CALL BELL OR ALARM.

No. 386,632.

Patented July 24, 1888.



Witnesses:

*John M. Speer.*  
*T. F. Bourne.*

Inventor:  
*Victor Alphonse Germain*  
by *Priscilla Steele*  
his Attorney.

# UNITED STATES PATENT OFFICE.

VICTOR ALPHONSE GERMAIN, OF PARIS, FRANCE.

## CALL-BELL OR ALARM.

SPECIFICATION forming part of Letters Patent No. 386,632, dated July 24, 1888.

Application filed February 15, 1888. Serial No. 264,096. (No model.) Patented in France June 16, 1887, No. 182,270.

*To all whom it may concern:*

Be it known that I, VICTOR ALPHONSE GERMAIN, of the city of Paris, France, have invented a new and Improved Call-Bell or Alarm, (for which I have obtained Letters Patent in France for fifteen years, dated June 16, 1887, No. 182,270,) of which the following is a full, clear, and exact description.

My invention relates to an improved call-bell or alarm with repetition action, the essential feature of which consists in the combination of a sliding rack-bar and pinion upon whose axis are mounted a series of jointed hammers which are caused to strike in succession against a projection on the rim of the bell, which latter is carried on an arm rising from a base-plate and held in position by a lug on said arm.

The invention is illustrated, by way of example, in the accompanying drawings, Figure 1 of which represents a plan, and Fig. 2 a part sectional elevation, of the bell.

The same letters of reference serve for like parts in both figures.

*a* is a rack-bar provided at one end with a head, *b*, against which bears a retracting-spring, *c*, and at the other end with an eye, *d*, for the attachment of a wire, *e*, or with a pull rod or knob by which to operate the rack. *f* are guides between which the rack slides, and *g* a pinion whose axis *m*, mounted in one of the guides, carries the head *h*, having radially-extending arms, to which are pivoted the hammers *i*. The hammers may, however, be otherwise mounted.

By rapidly rotating the pinion *g*, by means of rack *a*, the hammers *i* will be projected out-

ward by the centrifugal force and strike against the lug *n*, fixed or cast on the rim of the bell *p*, a greater or less number of times, according to the extent of motion of the rack *a*.

The bell is prevented from rotating upon its supporting-arm *r* by means of a lug, *q*, on said arm received in a corresponding cavity in the crown of the bell, which is fixed by a screw and nut, as shown.

The bell may be placed either vertically or horizontally, and the rack may be either operated by hand or by the opening and closing of a door or otherwise.

I am aware that it is old to make call-bells having rotary hammers and gearing for turning said hammers; also, that a rack and pinion has been used to actuate a hammer, and that bells have been made with internal lugs; but this I do not claim.

I claim—

The combination, with a call-bell or alarm provided with an internal lug, of the sliding rack *a*, pinion *g*, in gear therewith, internal guides, *f*, for the rack *a*, and of the head *h*, secured to the axis of the pinion *g*, and having radially-extending arms, and pivoted hammers *i*, carried by said radial arms and caused, by the rotation of the latter, to swing outward and successively strike the lug of the bell, substantially as specified.

The foregoing specification of my improved call-bell or alarm signed by me this 31st day of January, 1888.

VICTOR ALPHONSE GERMAIN.

Witnesses:

ROBT. M. HOOPER,  
ALBERT MOREAUX.