No. 610,240. Patented Sept. 6, 1898.

J. OBERLE.

BELL.

(Application filed Nov. 5, 1897.)

(No Model.)

Fig. 1.

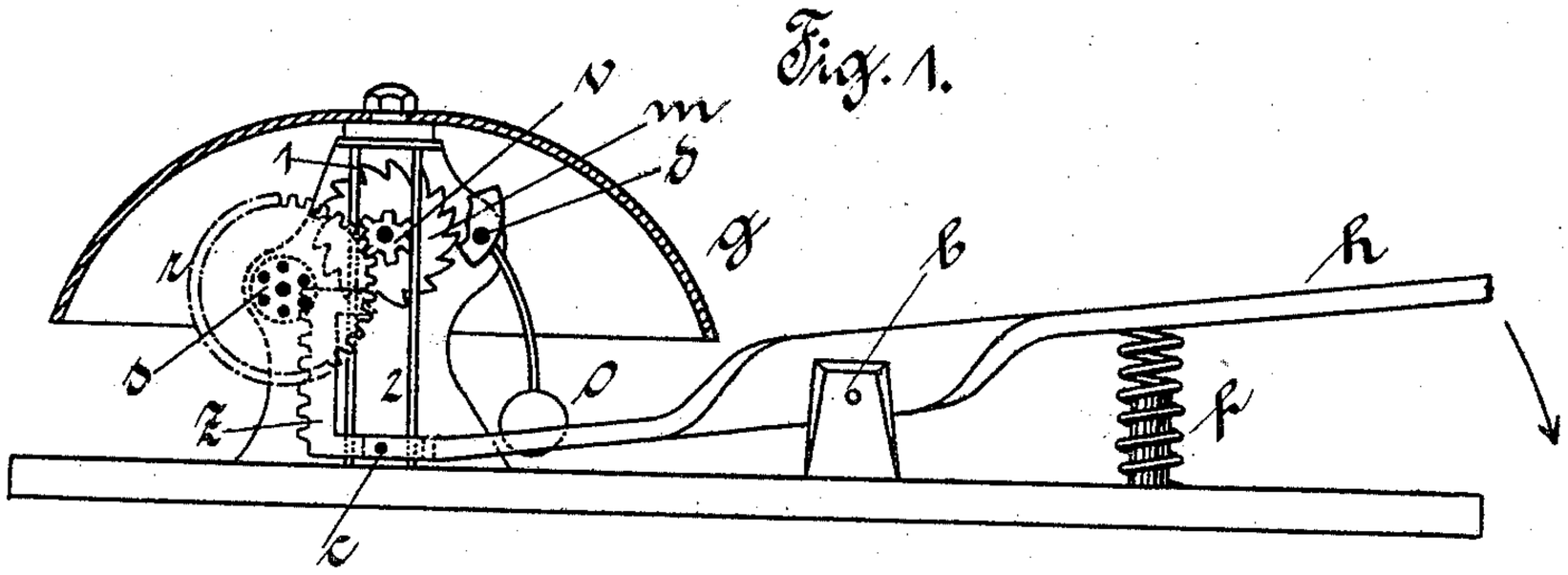


Fig. 3.

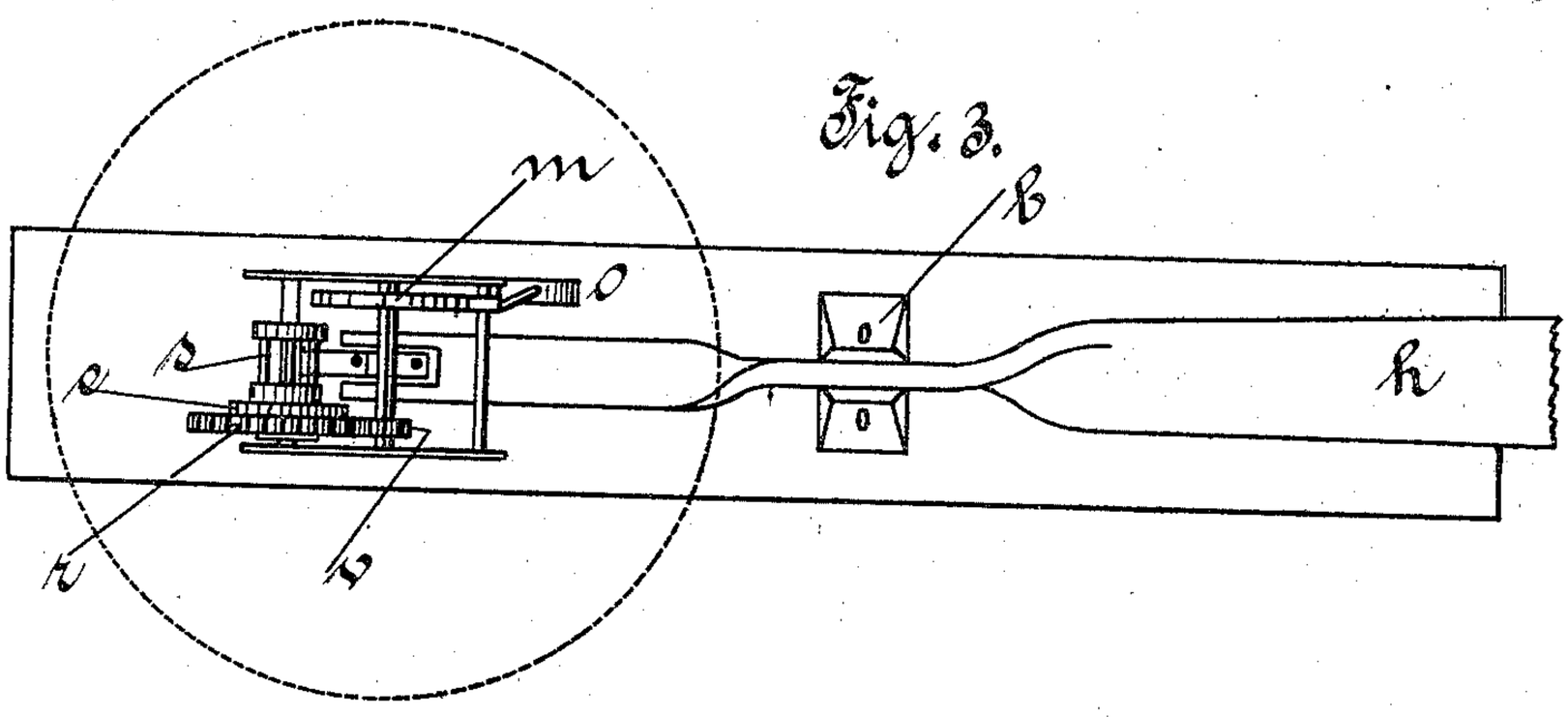


Fig. 2.

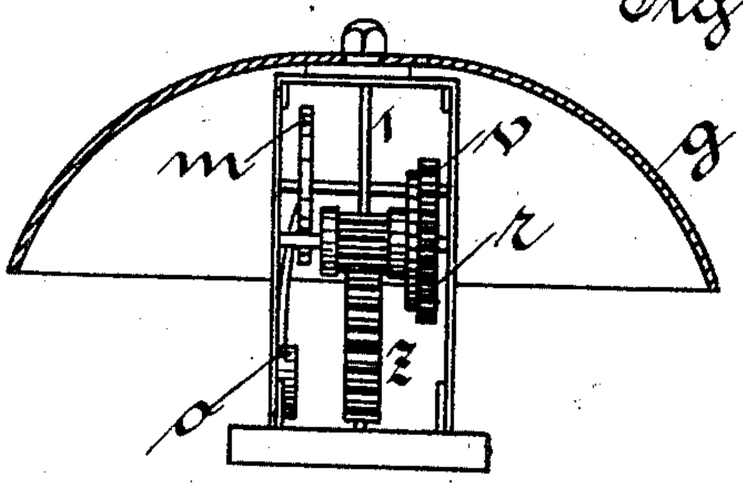
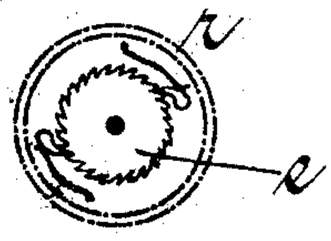


Fig. 4.



Witnesses
Alfred Mc Ivers
Gottfried Niemöller

Inventor
Johannes Oberle
by Eustace Hopkins
Atty.

UNITED STATES PATENT OFFICE.

JOHANNES OBERLE, OF GERNSBACH, GERMANY.

BELL.

SPECIFICATION forming part of Letters Patent No. 610,240, dated September 6, 1898.

Application filed November 5, 1897. Serial No. 657,540. (No model.)

To all whom it may concern:

Be it known that I, JOHANNES OBERLE, a subject of the Emperor of Germany, and a resident of Gernsbach, in the Empire of Germany, have invented certain new and useful Improvements in Bells, of which the following is a full, clear, and exact description.

The present invention consists of an improved construction of bell, according to which the striking mechanism is so arranged that a long slow pressure applied to the lever shall produce a continued succession of vibrations of the hammer against the bell.

In order to render the present specification more easily intelligible, reference is had to the accompanying drawings, in which similar letters and figures of reference denote similar parts throughout the several views.

Figure 1 is a side elevation of the device with the bell in section; Fig. 2, an end elevation of the striking mechanism with the bell in section; Fig. 3, a plan of Fig. 1 with the bell removed, and Fig. 4 a detail side elevation of the ratchet-coupling device.

The bell *g* is suitably mounted in a housing or frame of any usual construction, and the hammer *o* is caüsed to vibrate against the said bell by means of a ratchet-like wheel *m*, mounted in the frame of the bell and operated by means of the lever *h* and gearing, as hereinafter set forth. The lever *h* is pivoted to a standard *b*, and has its forward end connected by a pin-and-slot connection *c* to the lower end of a rack *z*, which is guided by and adapted to slide on guide-bars *i* and 2. At the opposite side of the standard *b* a spring *f* is arranged to normally keep the rack in its lowest position. The rack *z* engages a pinion *s*, mounted in the frame, and keyed to the same shaft as the pinion *s* is a ratchet-wheel *e*. Loose on the same shaft and in proximity to the ratchet-wheel *e* is a larger gear *r*, to the face of which are pivoted spring-pressed pawls, as shown at Fig. 4, said pawls being adapted to engage the ratchet-wheel and couple the same to the gear *r* during one movement of the lever *h*, while at the back movement of the same the pawls will slide over the teeth of the wheel *e* and the bell will not be operated. The gear *r* engages a smaller gear or pinion *v*, fast on a shaft which also carries the wheel *m*, and this wheel vibrates the hammer *o* by means of the escapement *d*, attached to the latter and against which the teeth of the said wheel impinge.

The operation will be evident from the foregoing description. If the lever is slowly depressed, the rack *z* sets the gearing in motion and the wheel *m* causes the hammer to vibrate against the bell continuously for a considerable time, viz., until the lever *h* has been depressed as far as it can go. On releasing the lever *h* the parts will be returned to their initial position by means of the spring *f;* but the bell will not be sounded during the movement back, owing to the fact that the pawls slide over the teeth of the ratchet-wheel *e*.

By inserting more gearing the continued ringing may be prolonged still more, as will be evident.

I claim as my invention—

The combination of a lever *h* pivoted to a standard *b*, a bell *g* mounted in proximity to said lever, a rack *z* mounted underneath the bell and means for guiding the same vertically, pin-and-slot connection between said lever and rack, a pinion *s* to engage said rack and ratchet-wheel and pawl connection between said pinion and a gear loosely mounted in proximity thereto, a ratchet-like wheel mounted in proximity to said gear and a pinion to rotate with said ratchet-like wheel and engage said gear, a pivotally-mounted hammer *o* having escapement *d* to engage the ratchet-like wheel *m* and a spring *f* to retain the operating-lever *h* in its initial position substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHANNES OBERLE.

Witnesses:

W. J. HOFFMAN,

JACOB ADRIAN.