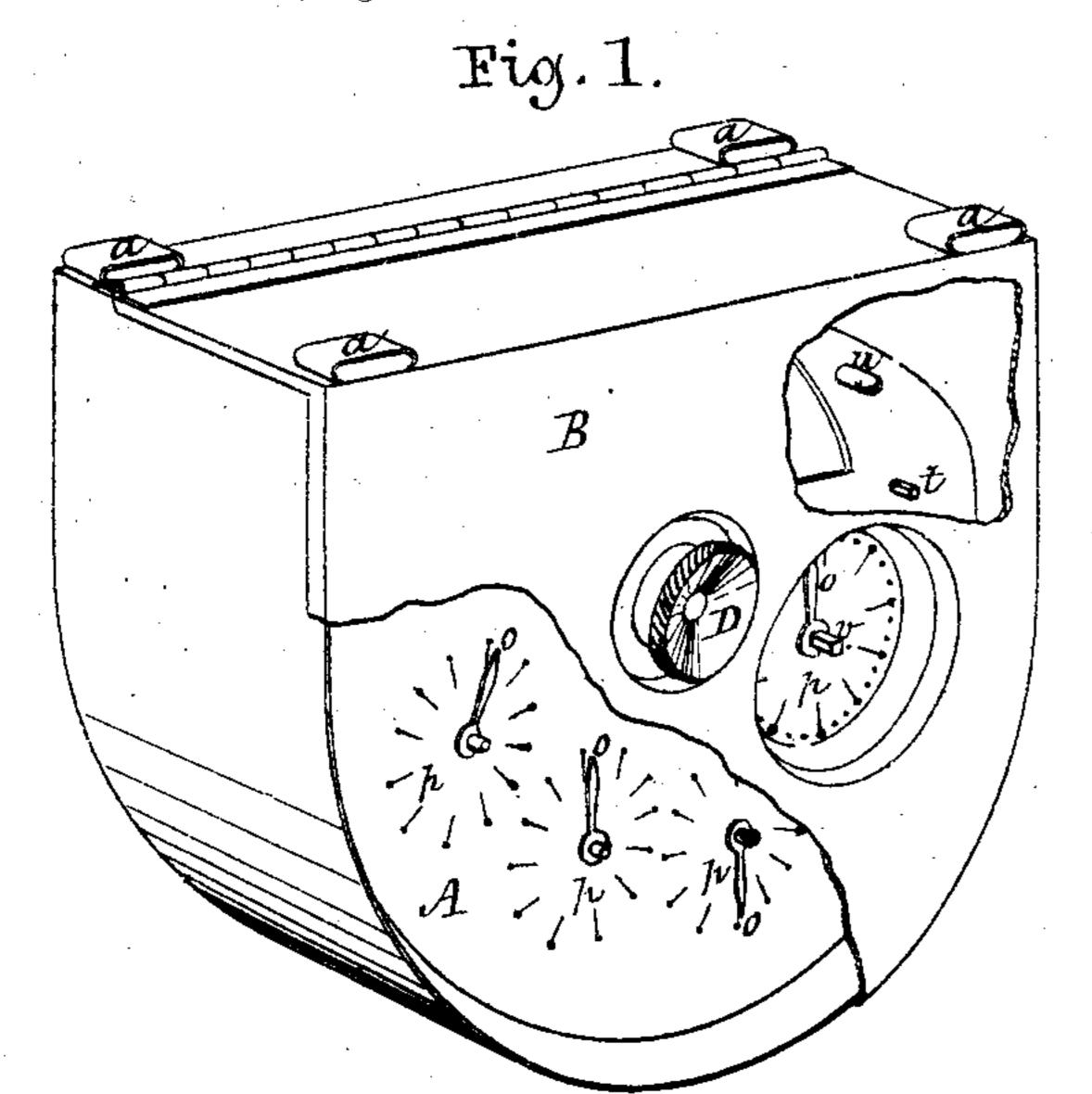
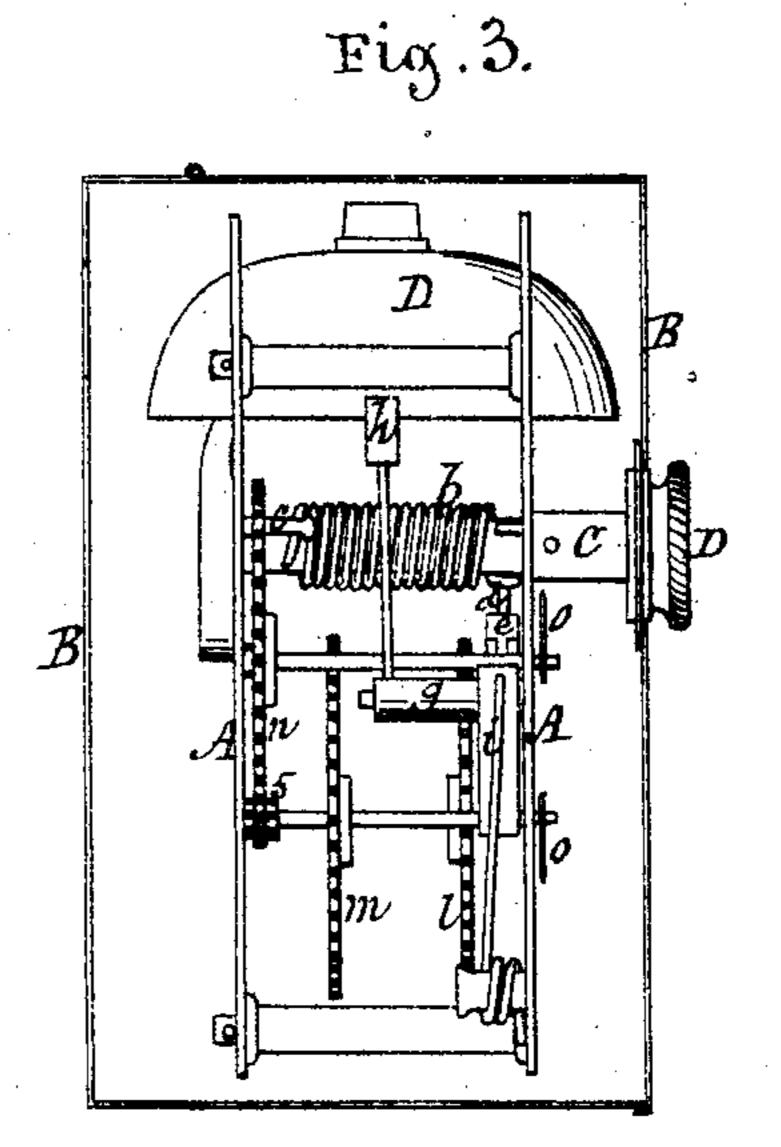
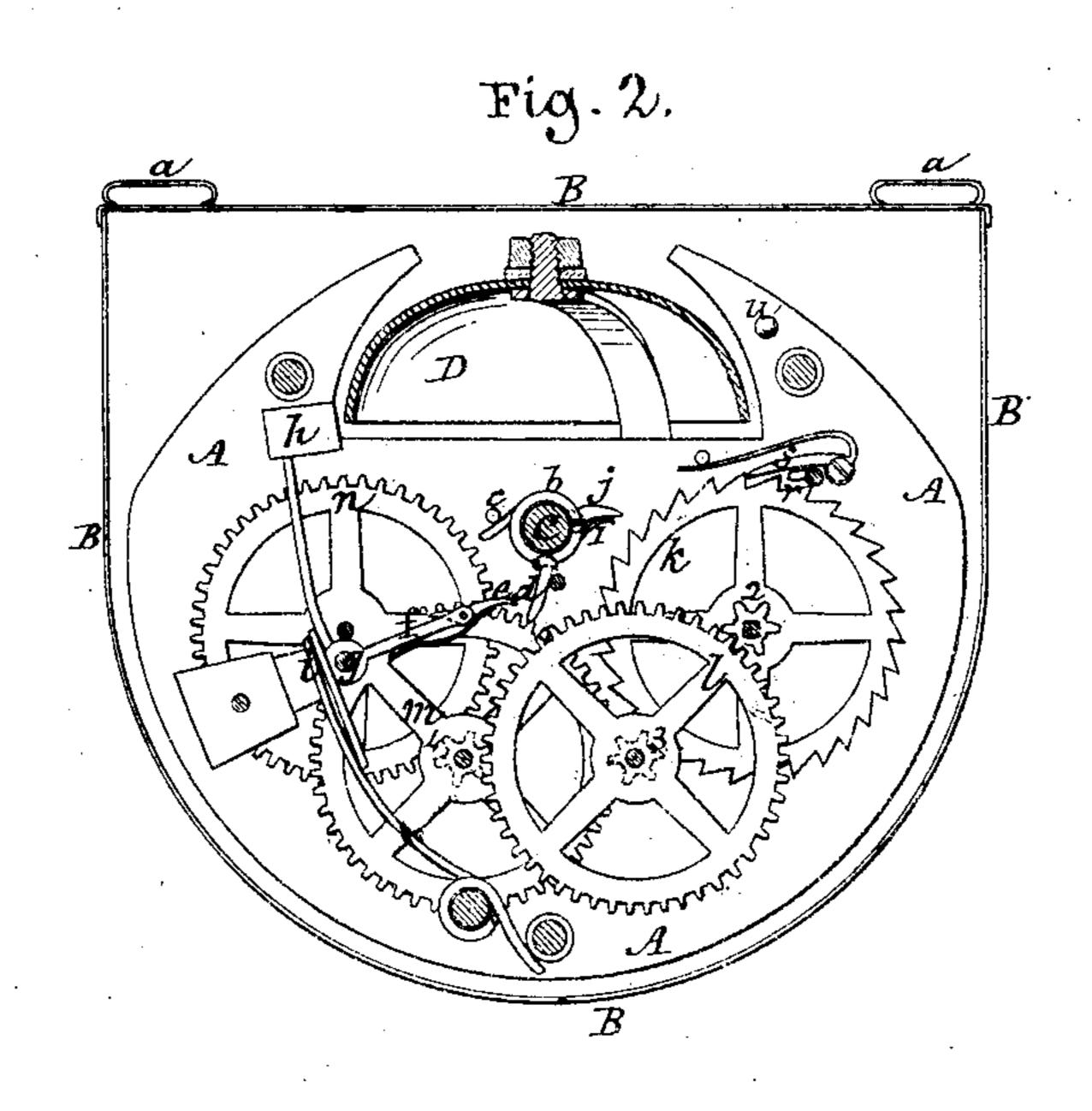
Henry C. Buhoupes, PATENTED JUL 41871
Portable Alarmu Register.

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## UNITED STATES PATENT OFFICE.

HENRY C. BUHOUP, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN PORTABLE TALLYING-REGISTERS.

Specification forming part of Letters Patent No. 116,550, dated July 4, 1871.

To all whom it may concern:

Be it known that I, Henry C. Buhoup, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Portable Alarm-Registers; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents in perspective an exterior view of the register with a portion of the case represented as broken away to show parts underneath it. Fig. 2 represents a section through the register, so taken as to show the gearing in full. Fig. 3 represents a vertical transverse section taken through the register and case.

Similar letters of reference where they occur in the separate figures denote like parts of the

apparatus in the drawing.

My invention relates to an especial arrangement of gears inside of a case, which can be operated from the exterior both to keep the register and sound the alarm, and also to reset the register when it becomes necessary to do so.

To enable others skilled in the art to make and use my invention, I will proceed to describe the

same with reference to the drawing.

The train of gears for operating the alarm and registering mechanism is arranged and supported in a frame, A, which is inclosed within a case, B, that has a portion of it hinged or removable to gain access to the interior, and on the case there are loops a a, through which a strap or straps may be passed to attach the apparatus to the person using it. Centrally placed in the apparatus there is a shaft, c, to the end of which a button or knob, D, is fastened, by which said shaft may be turned from the exterior of the case; and around this shaft there is coiled a spring, b, one end of which bears against the stud c, Fig. 2, and the other end against the tappet d, so that when the shaft C is turned partially around it will compress said spring, and when let go the spring will return the shaft to its normal position. The tappet d, when the shaft  $\Lambda$  is turned, engages with the pivoted switch or pawl e on the end of the lever f, which lever is attached to a shaft, g, that has upon it the hammer h for striking the bell D. A spring, i, bears against the shaft of the bell-hammer to throw the hammer against the bell. The pawl or switch e is pivoted so that after the bell is struck and

the shaft A released said pivoted portion may yield when it passes the tappet in returning. There is also another tappet, j, on the shaft  $\Lambda$ , which, when the shaft is turned, takes against the ratchet-wheel k and turns said wheel, and is pivoted so that when the shaft comes back, by action of its spring, this tappet or pawl may yield on its pivot and be restored to its working position by a spring, 1, bearing against it. From this ratchet-wheel k the train of gears l m n is driven by pinions 2345, and the indicators  $\sigma$ are moved over the dials p to keep the register of the blows upon the bell, each of which indicates an operation of the apparatus. The dials indicate by units, tens, hundreds, &c., in the ordinary well-known way, and need not be described in detail. Within the case B, and projecting from the frame A, in which latter it is supported, there is a shaft having a cam-projection, r, upon it, which projection takes under the spring-pawl s that engages with the ratchetwheel k, to prevent any backlash in said wheel. The end t of this shaft is squared to form a stem, upon which a key, u, held in the frame, may be placed, and turned to throw and hold the springpawl s out of its engagement with the ratchetwheel; then, shifting the key u onto the squared end v of the shaft that carries the ratchet-wheel k and pinion 2, the train of gears may be run by the key with great rapidity to reset the indicators on the dials.

Having thus fully described my invention, what I claim therein as new, and desire to secure by

Letters Patent, is—

1. In combination with a central shaft, C, that is turned by a knob, D, returned by a spring, b, a hinged tappet, j, for turning the ratchet-wheel k, and a fixed tappet, d, for causing a bell to be struck through a hinged switch, e, when the parts are arranged to operate as and for the purpose set forth.

2. In combination with the ratchet-wheel and its shaft, and a spring-pawl, s, engaging therein, a cam-shaft, the protruding ends u u of which shafts are squared to receive a key, by which the spring-pawl may be disengaged and held out of action, and the ratchet-wheel run to reset the indicators upon the dials, as described and represented.

Witnesses:

H. C. BUHOUP.

A. B. STOUGHTON, EDMUND MASSON.