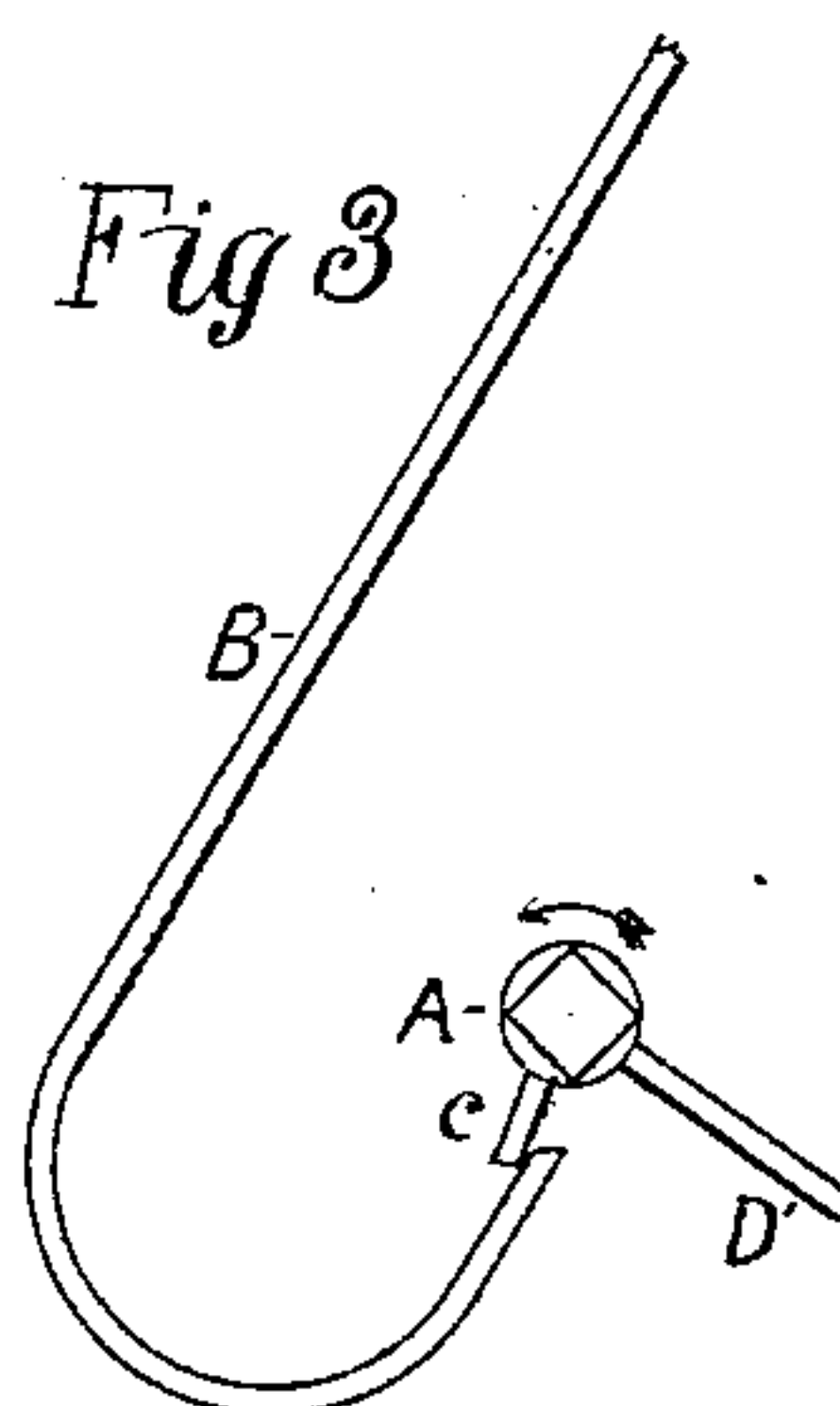
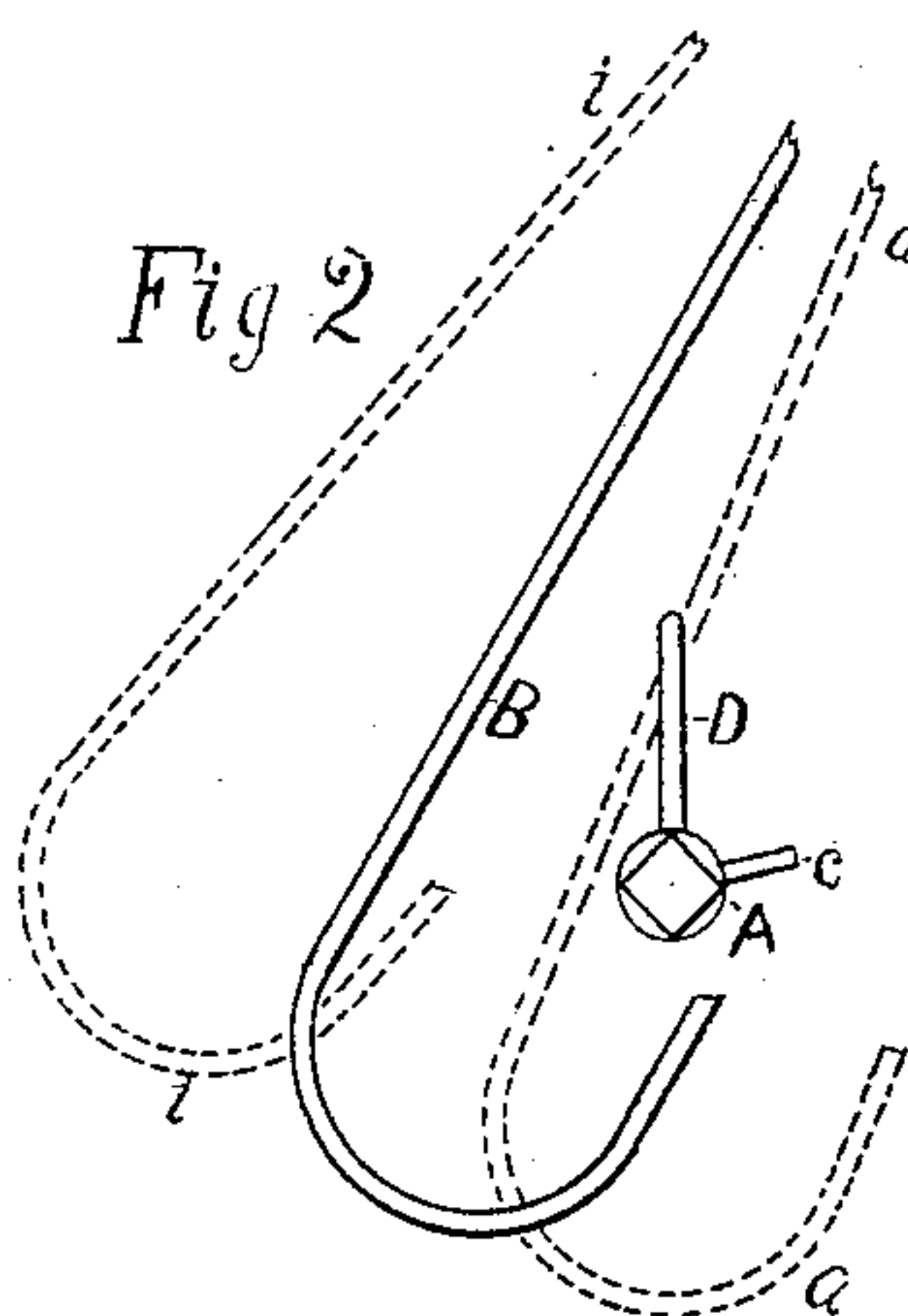
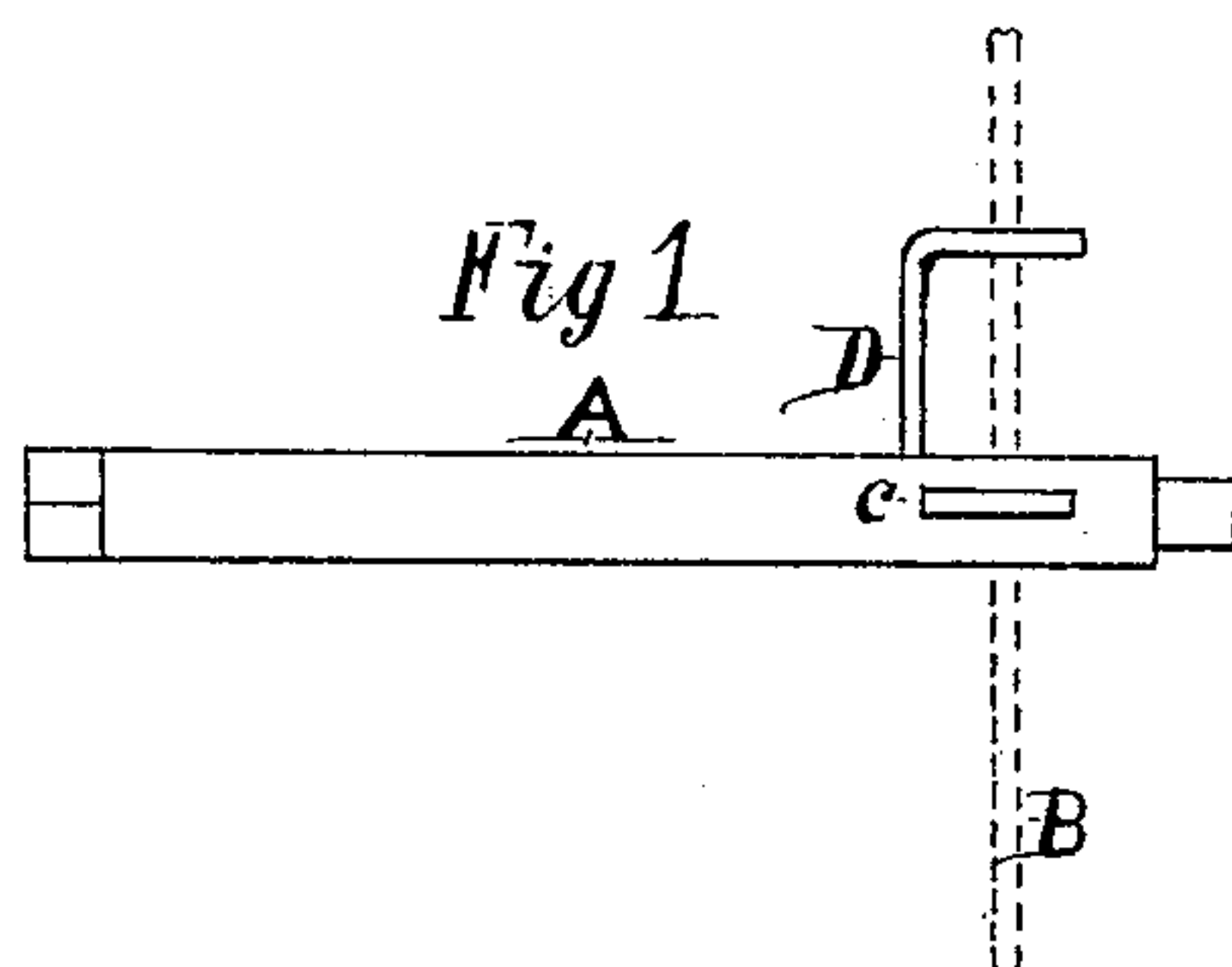


E. C. COVELL & M. M. ROBINSON.
 LOCK-WORK ATTACHMENTS FOR CLOCKS.

No. 182,305.

Patented Sept. 19, 1876.



Witnesses
George A. Hatch
George B. Lane

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Edgar C. Covell
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UNITED STATES PATENT OFFICE.

EDGAR C. COVELL AND MARK M. ROBINSON, OF LACONIA, N. H.

IMPROVEMENT IN LOCK-WORK ATTACHMENTS FOR CLOCKS.

Specification forming part of Letters Patent No. **182,305**, dated September 19, 1876; application filed March 4, 1876.

To all whom it may concern:

Be it known that we, EDGAR C. COVELL and MARK M. ROBINSON, of Laconia, county of Belknap and State of New Hampshire, have invented a new and useful Improvement in Lock-Work Attachment for Clocks, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

In carrying out our invention we have very much simplified the mode of arranging the set-back attachment to a striking-clock, which we accomplish in this way: We use the common bent wire B, Figure No. 2, or "drop-wire," so-called, usually employed in the clocks known as the "American." This wire has been allowed to drop from bent arm or hook D of the minute-hand arbor A of a clock, Fig. No. 1, and rest upon said arbor A. This wire B we form at its lower or outward end in the form of a circle, and allow it to drop under arbor A, as indicated in Fig. No. 3, so in turning the hands back the arm D will catch in the circle of wire B and follow around and push it far enough to allow it to slip out and over its end, as represented by the dotted lines *a a*, Fig. No. 2; and to avoid any recoil, if any there should be, we attach to arbor A an arm or stud, *c*, Fig. No. 3, which we make

out of brass or other suitable material. Now, as wire B is freed from arm D, it will strike upon the face of stud *c*, and hold it from going any further in that direction, and thereby raise the drop-wire B, which, were it not for stud *c*, would cause the drop-wire B to lift the drop or locking pawl, (not here represented,) and thereby allow the clock to strike at the wrong time. As arbor A revolves in its natural course, arm D will go over the end of wire B, and by its revolution will come up and under wire B, so to raise it in the manner represented by dotted lines *i i*, Fig. No. 2, and lift the drop or locking pawl of the striking mechanism of a clock, and allow the wheels to revolve, and thereby the hammer sound the bell at the required hour.

We claim as our invention—

In a clock, the combination of the stud *c* and arm D of the minute-hand arbor A with the drop-wire B, all being constructed and arranged substantially as specified and represented.

EDGAR C. COVELL.
MARK M. ROBINSON.

Witnesses:

GEORGE A. HATCH,
GEORGE B. LANE.