

C. B. SIMMONS.
 LOCK WORK FOR CLOCK MOVEMENTS.
 APPLICATION FILED MAR. 4, 1912.

1,037,555.

Patented Sept. 3, 1912.

Fig. 1.

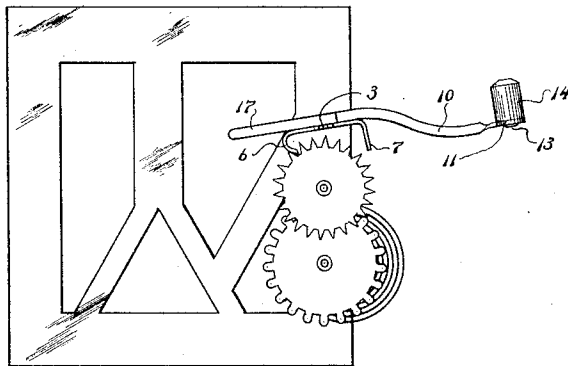


Fig. 2.

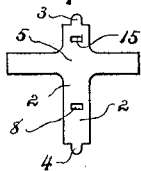


Fig. 3.

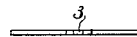


Fig. 8.



Fig. 4.

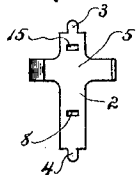


Fig. 5.

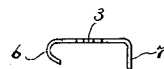


Fig. 9.

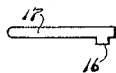


Fig. 6.

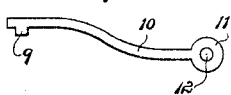


Fig. 10.

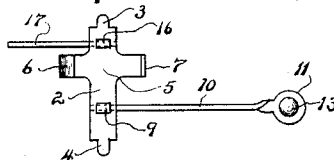
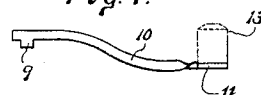


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES B. SIMMONS, OF BRISTOL, CONNECTICUT, ASSIGNOR TO THE E. INGRAHAM CO., OF BRISTOL, CONNECTICUT, A CORPORATION.

LOCK-WORK FOR CLOCK-MOVEMENTS.

1,037,555.

Specification of Letters Patent.

Patented Sept. 3, 1912.

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To all whom it may concern:

Be it known that I, CHARLES B. SIMMONS, a citizen of the United States, residing at Bristol, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Lock-Work for Clock-Movements; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1, a view in front elevation of a clock-movement containing lock-work constructed in accordance with my invention, the front plate of the movement being removed, and the movement being stripped of all its running parts except the lock-work, escapement-wheel, main-wheel and spring. Fig. 2 a plan view of the blank from which the combined sheet-metal verge and verge-arbor are produced. Fig. 3 an edge view thereof. Fig. 4 a view of the finished part. Fig. 5 an edge view thereof. Fig. 6 a detached view in elevation of the sheet-metal hammer-arm blank. Fig. 7 a view showing the hammer-arm in its final form. Fig. 8 a detached view in elevation of the hammer. Fig. 9 a detached view of the stop-arm. Fig. 10 a plan view of the lock-work as completed and ready for introduction into the movement.

My invention relates to an improvement in lock-work for clock movements, the term "lock-work" being used in the sense in which it is commonly used in movement shops to designate the verge, verge-arbor, hammer, hammer-arm and stop-arm of clock movements. These several parts have generally been made independently of each other and rigidly secured together so that in the completed clock they act as one piece. Lock-work as generally constructed, being composed of a number of parts and requiring a number of operations, has been expensive to produce and adjust.

The object of my invention is to produce lock-work of superior simplicity and accuracy at a greatly reduced cost.

With these ends in view, my invention consists in lock-work having certain details of construction and combinations of parts

as will be hereinafter described and pointed out in the claim.

In carrying out my invention, I produce from a relatively heavy gage sheet-metal, a flat verge-arbor 2 formed at its ends with integral trunnions 3, 4, and also formed at one side of its center with an integral verge 5 having the usual pallets 6 and 7, the arbor 2, trunnions 3 and 4, verge 5, and pallets 6 and 7 being made integral with each other from the same piece of metal and corresponding to each other in thickness except the pallets which are suitably reduced or beveled at their ends. The said verge 5 consists, in effect, of two arms arranged in line with each other and formed upon the opposite longitudinal edges of the verge-arbor 2.

Adjacent to the trunnion 4 the arbor is pierced to form an oblong assembling-opening 8 for the reception of an oblong assembling-lug 9 formed upon one edge of the inner end of a sheet-metal hammer-arm 10 the opposite edge of which is turned at a right angle and formed with a circular terminal 11 having a central opening 12 receiving a rivet 13 at one end of the hammer 14. The lug 9 is entered into the opening 8 and riveted therein, whereby the hammer-arm 10 is rigidly secured to the combined verge-arbor and verge.

Adjacent to the trunnion 3 the arbor is pierced to form an assembling-opening 15 for the reception of an assembling-lug 16 formed upon one edge of the inner end of a sheet-metal stop-arm 17 which is secured in place by swaging the lug 16 into the opening 8.

My improved lock-work consists, then, of four parts, viz: a combined verge-arbor and verge made in one piece, a hammer-arm and hammer, and a stop-arm. These parts are easily produced and assembled, and on account of being struck out of sheet-metal of relatively heavy gage, are not liable to be bent in being handled, and require very little, if any, adjustment. My lock-work is therefore, not only very cheap, but accurate and reliable.

I claim:—

In lock-work for clock-movements, the combination with a flat sheet-metal verge-arbor formed with integral trunnions located at its ends and with an integral verge

consisting of two arms arranged in line with each other, and pierced to form two assembling-openings respectively located upon opposite sides of the said integral
3 verge; of a sheet-metal hammer-arm provided at its inner end with an assembling-lug for entrance into one of the said openings for the attachment of the hammer-arm to the flat sheet-metal verge-arbor, and a
10 sheet-metal stop-arm provided at its inner end with an assembling-lug for entrance

into the other of the said openings for the attachment of the said stop-arm to the said verge-arbor whereby the use of wire is avoided.

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

CHAS. B. SIMMONS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."