(No Model.)

A. M. LANE.

CLOCK STRIKING MECHANISM.

No. 445,607. Patented Feb. 3, 1891.

Fig. 1.

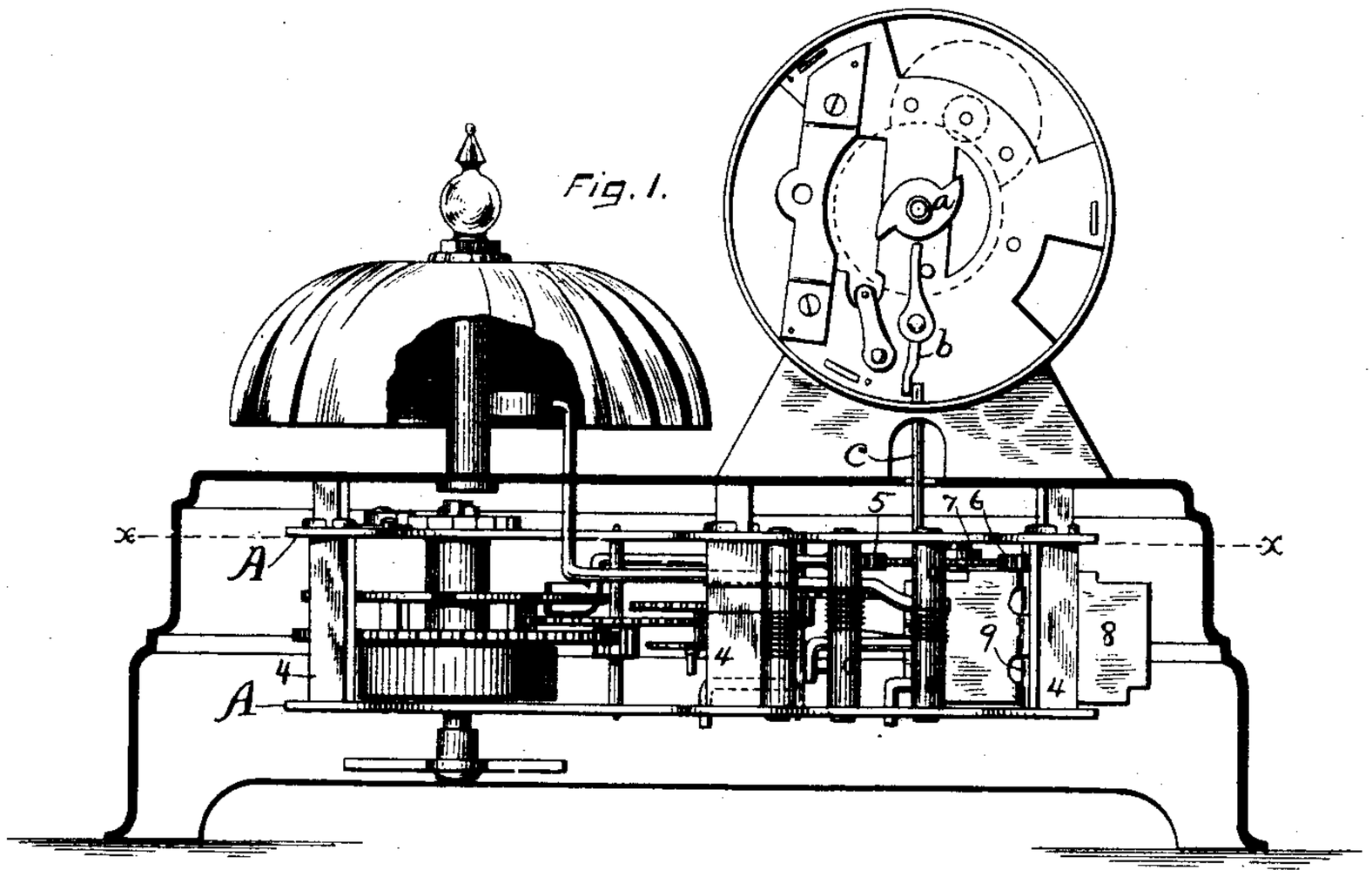


Fig. 2.

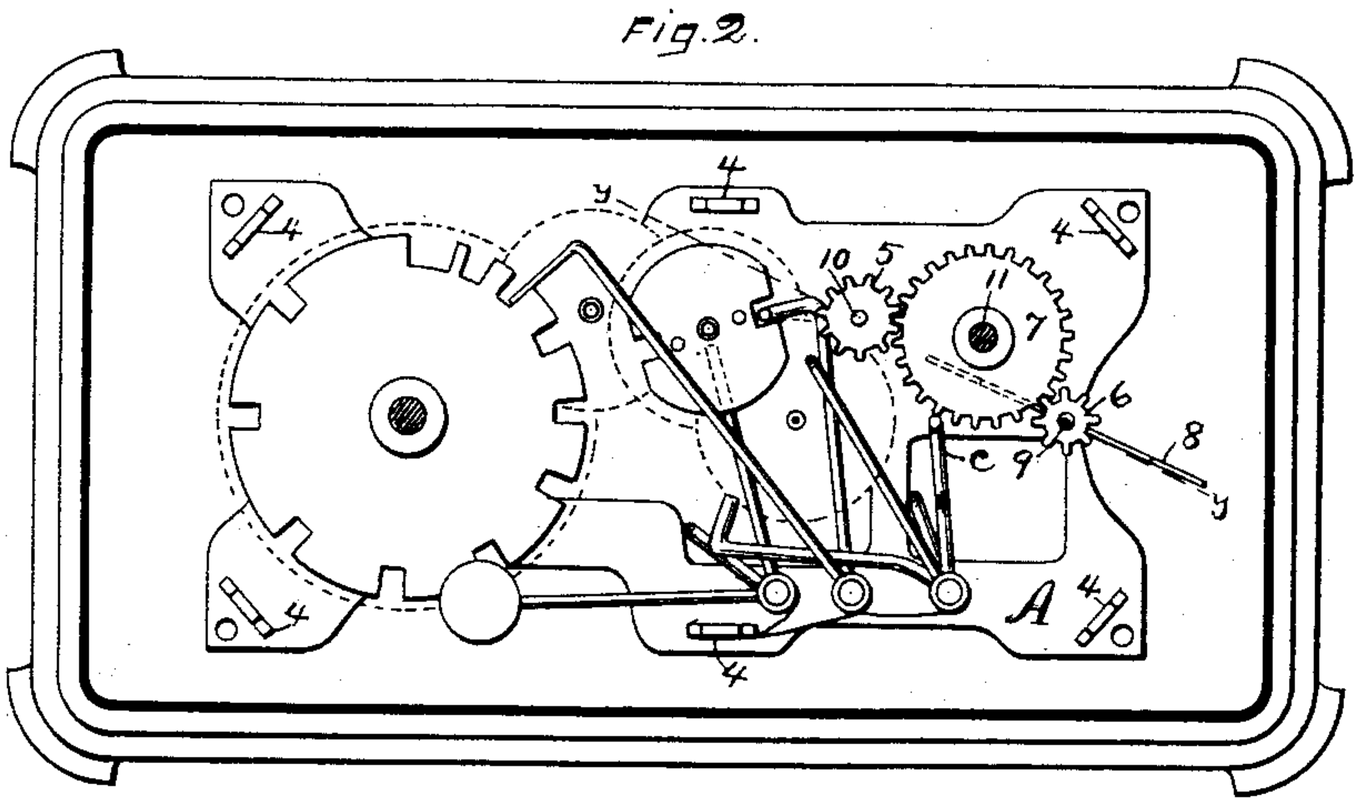
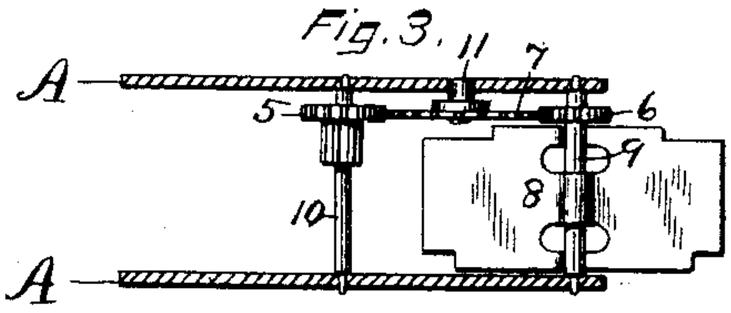


Fig. 3.



Witnesses.
John Edwards Jr.
M. G Porter

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UNITED STATES PATENT OFFICE.

ALMERON M. LANE, OF MERIDEN, CONNECTICUT.

CLOCK STRIKING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 445,607, dated February 3, 1891.

Application filed July 14, 1890. Serial No. 358,680. (No model.)

To all whom it may concern:

Be it known that I, ALMERON M. LANE, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Clock Striking Trains, of which the following is a specification.

My invention relates to improvements in clock striking-trains; and the chief object of my improvement is to lessen the rattling or grinding noise incident to the revolution of the fly or fan.

In the accompanying drawings, Figure 1 is a front elevation of my improved clock striking-train, together with the bell and time-piece and a sectional view of the base or case within which the striking-train is inclosed. Fig. 2 is a sectional plan of the same on the line *x x* of Fig. 1, and Fig. 3 is a detached vertical section of a portion of said striking-train on the line *y y* of Fig. 2.

My improvement is applicable to any of the ordinary striking clocks; but I have illustrated the same as applied to a time-piece in accordance with my patent, No. 403,275, dated May 14, 1889.

A A designate the plates of the frame for the striking-train, the same being connected by pillars or posts 4 in the ordinary manner. The train and lock-work or wires are also of the ordinary construction, (with the exception hereinafter noted,) and therefore need not be specifically described. The cam *a* every half hour operates the lever *b* to press upon the arm *c* of the warning-wire to release the striking-train, as described in my aforesaid patent. I make the wheel 5 on the shaft 10 that drives the pinion 6 of the fly or fan shaft 9 smaller than in the ordinary striking-train and the pinion 6 on the shaft 9 of the fan or fly 8 larger than in the ordinary train, and instead of having them directly engage each other they are connected by means of the idle or intermediate wheel 7, loosely mounted on a stud 11 on one of the movement-plates. I also set the shafts 9 and 10 farther apart than heretofore and make the blades of the fan or fly 8 longer. The frame for the striking-train is of the same shape and size as I have heretofore employed, and the train contains the same number of shafts, wheels, and pinions, with the addition of the idle-wheel.

By my improvements I make the fly or fan with longer blades and reduce the number of revolutions thereof without increasing the size of the frame. By thus reducing the number of revolutions I avoid the rattling or grinding noise incident to the ordinary striking-train, produce a train that is more durable, and one that requires oiling less frequently. The improvement adds nothing to the cost of production, as a soft metal pressed pinion 6 is substituted for an expensive steel pinion, the saving thus effected fully if not more than compensating for the cost of the idle-wheel. The train will run for striking as many hours as the train heretofore employed, although I have decreased the number of revolutions of the fly or fan, so that it revolves only twenty-five times for every stroke of the hammer, while in a similar train without my improvement the fan or fly revolves one hundred times for every stroke of the hammer.

I claim as my invention—

A clock striking-train having an idle-wheel 7 interposed between the pinion of the fly or fan shaft and the wheel which drives said pinion, substantially as described, and for the purpose specified.

ALMERON M. LANE.

Witnesses:

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