D. C. WOLF.

Striking Attachment for Clocks.

No. 209,098. Patented Oct. 15, 1878.

Fig. 1.

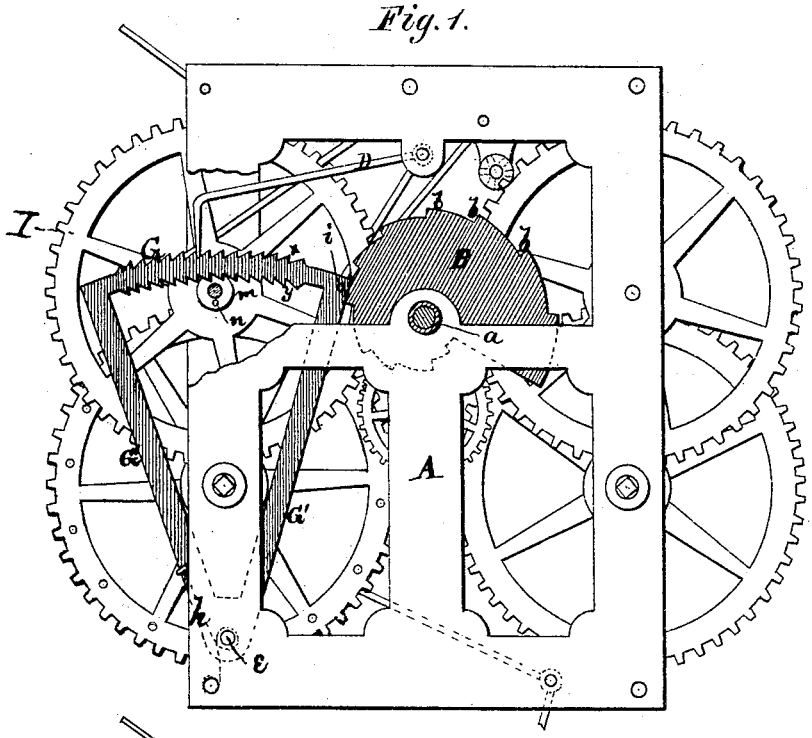
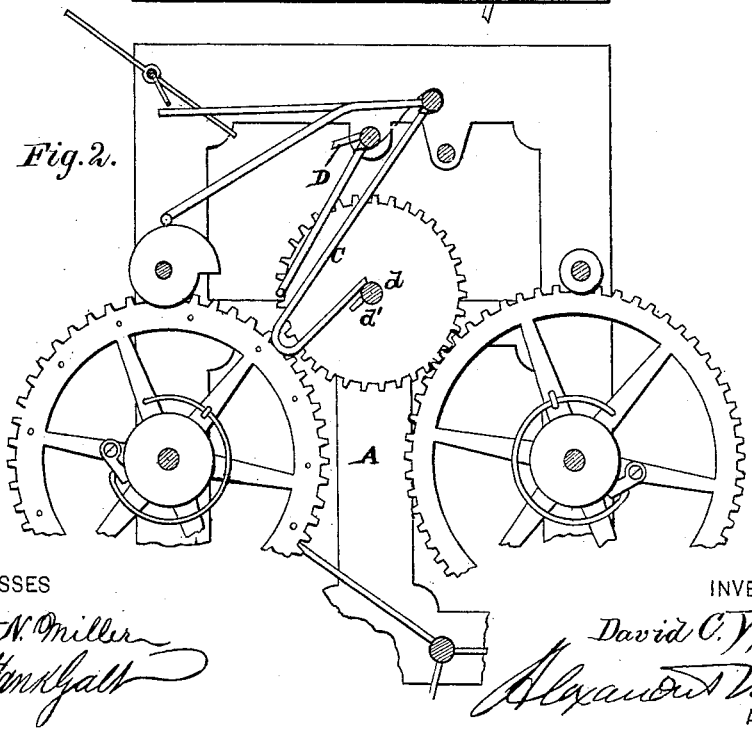


Fig. 2.



WITNESSES

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DAVID C. WOLF, OF KEOTA, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JACOB S. KULP.

IMPROVEMENT IN STRIKING ATTACHMENTS FOR CLOCKS.

Specification forming part of Letters Patent No. **209,098**, dated October 15, 1878; application filed June 26, 1877.

To all whom it may concern:

Be it known that I, DAVID C. WOLF, of Keota, in the county of Keokuk, and in the State of Iowa, have invented certain new and useful Improvements in a Striking Attachment for Clocks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention relates to certain improvements in striking attachments for clocks, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a front elevation of a clock mechanism embodying my invention. Fig. 2 is a detailed view of a part thereof.

A represents the frame-work, containing the usual and ordinary trains of gearing for running the clock and for the striking mechanism, said trains of gearing requiring no description here.

a is the hour-hand shaft, upon which is secured an eccentric or cam-shaped plate, B, having a series of twelve notches, *b b*, at equal distances apart, or nearly so, but at varying distances from the center or from the shaft *a*.

On the shaft *d* is secured a lug, *d'*, said shaft being the shaft for the minute-hand, which lug, once during each revolution of the shaft, raises a lever, C, and this lever in turn raises a pawl, D, out of a double ratchet-bar, G, formed with two arms, G' G', in one piece, said arms being united at their lower ends and pivoted on a stud, *e*. The ratchet-bar G is formed with teeth *x* on its upper edge and teeth *y* on its under edge, and a pin, *i*, projects from its inner end to bear against the edge of the eccentric-plate, the ratchet-bar being held against the same by a spring, *h*.

I is the last wheel of the striking-train of gearing, and on its shaft is a disk, *m*, with projecting pin *n*.

The operation is as follows: The parts being in the position shown in Fig. 1, when the striking mechanism is released by the ordinary means the disk *m* will rotate, and for each revolution its pin *n* will move the segment G outward the distance of one tooth, *y*, the pawl D falling immediately in front of the next tooth, *x*, preventing its return, and this continues as long as there are teeth *y* for the pin *n* to take hold of. The segment G thus regulates the number of revolutions of the wheel I, and consequently the number of strokes of the bell.

When the shaft *d* arrives at a certain point in its revolution the lug *d* releases the pawl D, and the spring *h* throws the segment inward, it being stopped by the pin *i* against the plate B, and the pawl then descends again. The distances of the notches *b* on the plate B from the center being varying, it follows that the distance the segment is thrown inward varies, and hence the number of teeth *y* to be acted on by the pin *n* also varies from one to twelve, which gives the proper number of strokes.

By this device it is impossible for the clock to strike wrong, and by the use of the Waterbury lifting-staple the hands of the clock may be turned either forward or back, and the clock will never strike wrong.

The devices hereinbefore described as constructed and arranged are peculiarly adapted for attachment to ordinary clocks.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The attachment for an ordinary clock consisting of the triangular frame G G' G', provided with teeth *x y* on the top bar of the same, pivoted at the bottom junction of the two arms, provided with the stop *i*, and controlled by the spring *h*, the cam-plate B, mounted upon the shaft *a*, the disk *m*, with pin *n*, and the gravitating pawl D, all constructed, arranged, and operating substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of June, 1877.

DAVID C. WOLF.

Witnesses:
J. M. WILCOX,
G. L. REED.