(No Model.)

H. WYKHUYSEN.

CLOCK FRAME.

No. 303,479. Patented Aug. 12, 1884.

Fig. 1

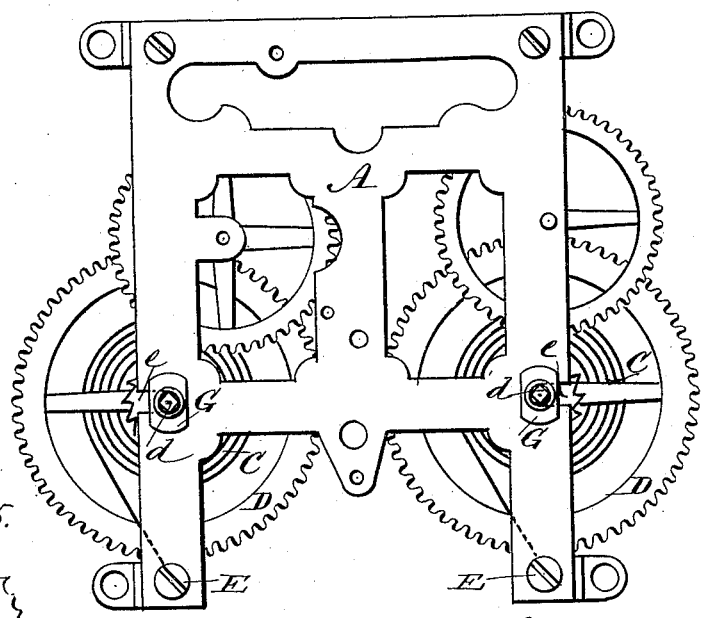


Fig. 5.

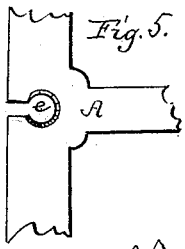


Fig. 6.

Fig. 2

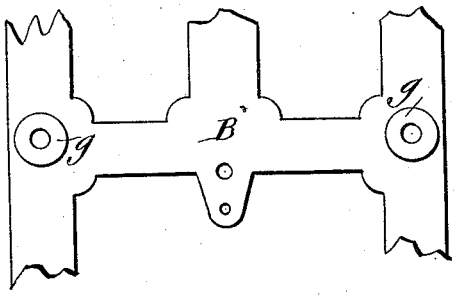


Fig. 4

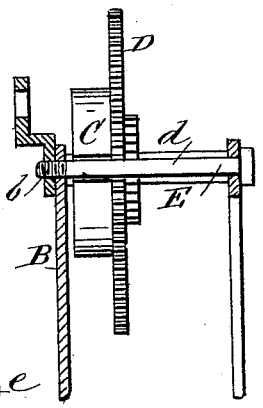
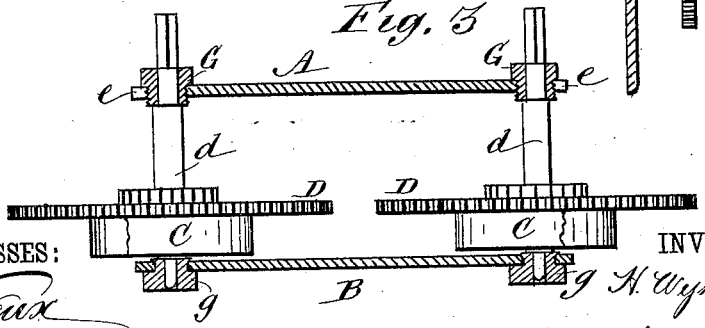


Fig. 3



WITNESSES:

C. Neveux

A. Sedgwick

INVENTOR:

H. Wykhuysen

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENDRIK WYKHUYSEN, OF HOLLAND, MICHIGAN.

CLOCK-FRAME.

SPECIFICATION forming part of Letters Patent No. 303,479, dated August 12, 1884.

Application filed February 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENDRIK WYKHUYSEN, of Holland, in the county of Ottawa and State of Michigan, have invented a new and useful Improvement in Clock-Movements, of which the following is a full, clear, and exact description.

This invention is designed as an improvement upon clock-frames as heretofore constructed, which provides for the ready removal of the main spring or springs and main wheel or wheels of a clock without disturbing the rest of the movement or taking it apart to remove said devices in case of their breakage or necessary repair, and also for the quick and easy replacement of said parts within the main frame; and the invention consists in a combination, with the front plate of the frame of a peculiar slotted construction, of a screw-boss or front bearing for the arbor of the main wheel, substantially as hereinafter described. The pillar which carries the outer end of the mainspring is also, as in certain other clock-movements, detachably secured by screw-thread with the main frame.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a front elevation of a clock-movement embodying my invention; Fig. 2, a rear view of a portion of the frame of the movement; Fig. 3, a horizontal section in part, mainly on the line *x x* in Fig. 1; and Fig. 4, a partly-sectional top view in part. Fig. 5 is a face view of a part of the front plate of the main frame, in further illustration of its peculiar slotted construction; and Fig. 6, a view in perspective of a screw boss or bearing for support of the one end of the main-wheel arbor, and which screws within the slotted portion of the front plate.

A is the front plate, and B the rear plate, of the main frame of a clock-movement, in which two mainsprings, C C, and two main wheels, D D, are used; but the invention is equally applicable to a movement in which only one mainspring and one main wheel are employed. In this movement the pillars or the bolts E E of the main frame below or next adjacent to the main wheels are constructed with a screw-thread, *b*, on their rear ends, and arranged to screw into the back plate of the movement, as shown for one of said pillars in Fig. 4. Ordinarily these pillars, which have the outer ends of the mainsprings hooked, looped, or otherwise fitted on them, are riveted at their rear ends to the back plate, B, of the main frame, although in some cases they have had a detachable screw-threaded connection with the main frame.

G G are the bosses which form the front bearings for the arbors *d d* of the main wheels D D. I make these bosses G G detachable, and construct them so that they will screw into the front plate within slots or openings *e* made therein. These slots are made sufficiently large at their one part for the bosses, and extended laterally to form branches, which open through the side edges of the plate. The other or rear bosses, *g g*, may be permanent attachments, as usual, to the back plate, B. By this construction, whenever it is necessary to remove either mainspring C and main wheel D, with its arbor *d*, all that is required is to unscrew and slip out the pillar E from the outer end of the mainspring C, which it carries, and to unscrew the front bush, G, when the arbor *d* is free to pass out through the slot *e*, and the attached main wheel and spring pass out along with it from the frame without taking the movement apart or disturbing the other portions of the works or main frame, and equal facility is afforded for replacing these devices, thus affording greatly increased facilities for removal or repair of the mainspring or main wheel.

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

1. In a clock-movement having one or more mainsprings and main wheels, the front plate, A, of the frame, constructed with one or more slots or openings, *e*, in it, arranged to open through the side edge or edges of the plate, for passage laterally in or out of the arbor or arbors of the main wheel or wheels, in combination with one or more screw-bosses, G, forming the front bearing or bearings of said arbor or arbors, and constructed to screw into or out of the slotted portion or portions of the plate, substantially as and for the purposes specified.

2. The combination, with the front plate, A, of the frame, having an outer open-ended slot in it for passage of the arbor of the main wheel in or out laterally, a removable front boss or bearing for said arbor, and the back plate, B, of the frame of the pillar E, which carries the outer end of the mainspring, constructed to screw into said back plate, essentially as and for the purpose herein described.

HENDRIK WYKHUYSEN.

Witnesses:
J. C. POST,
H. D. POST.