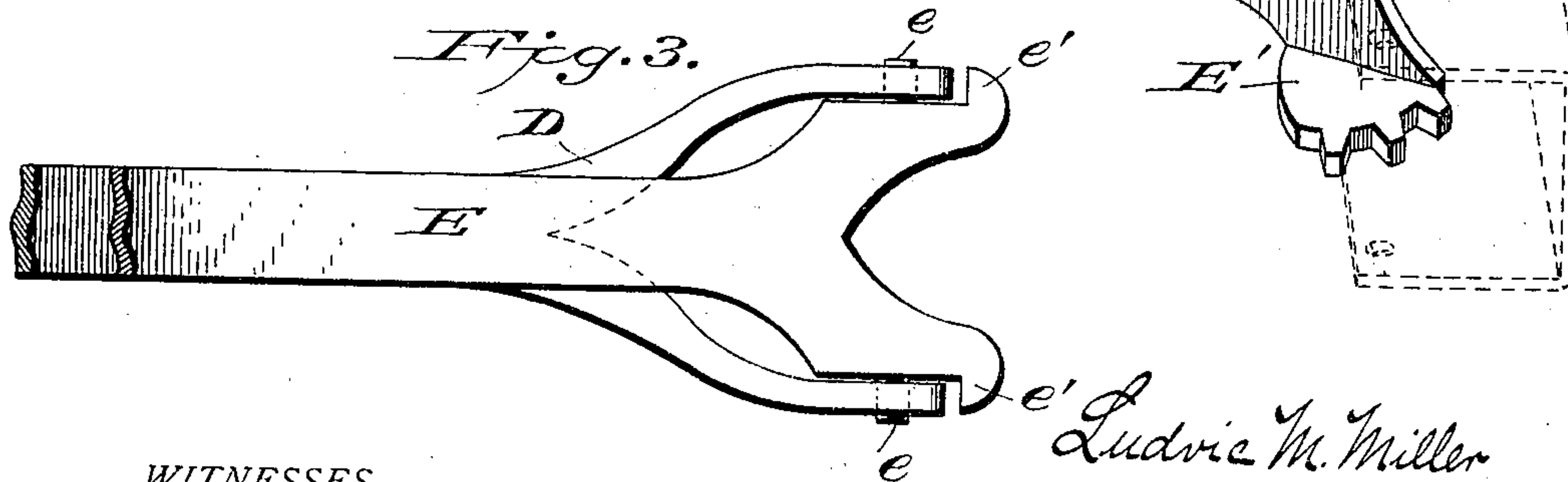
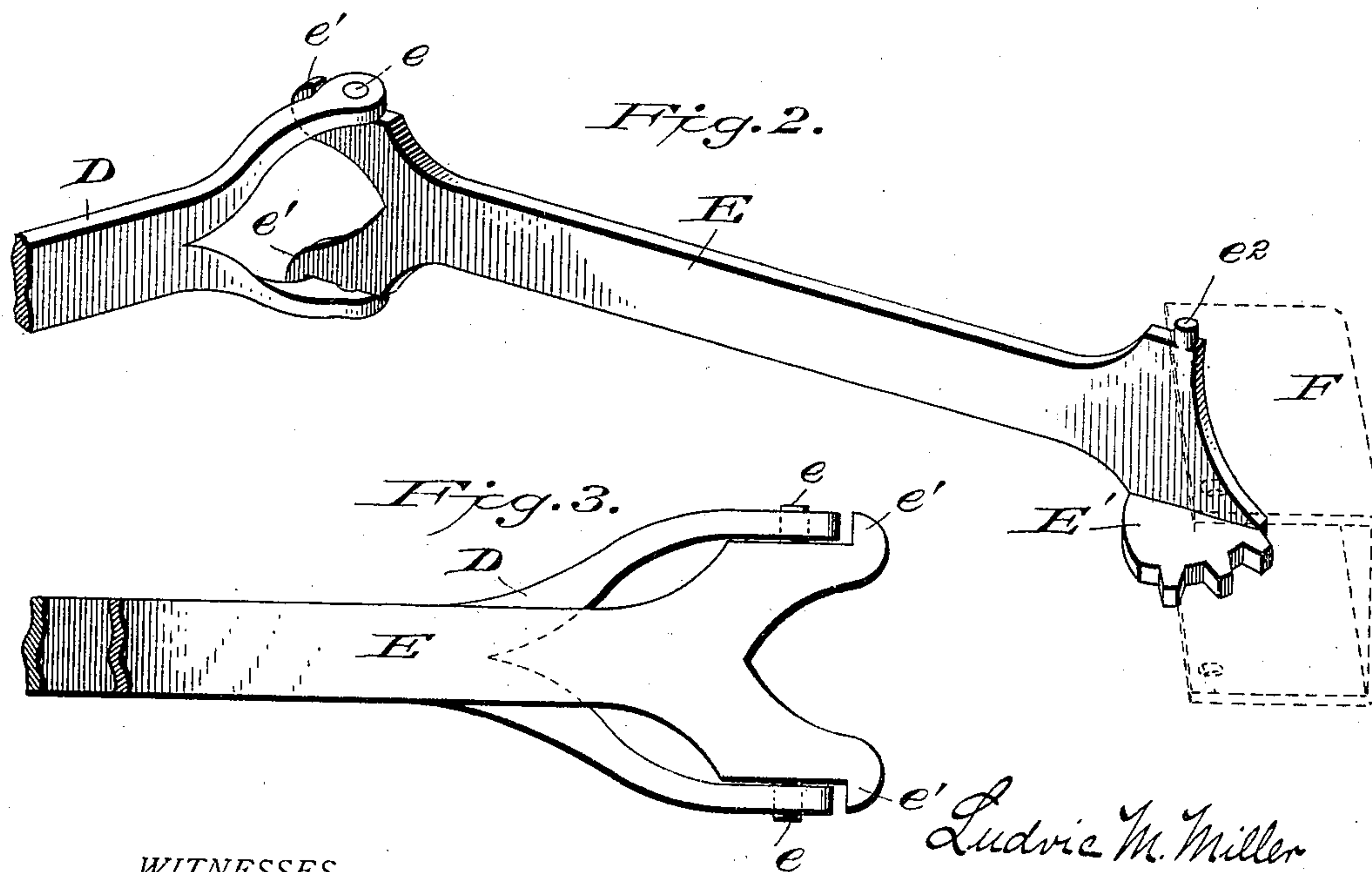
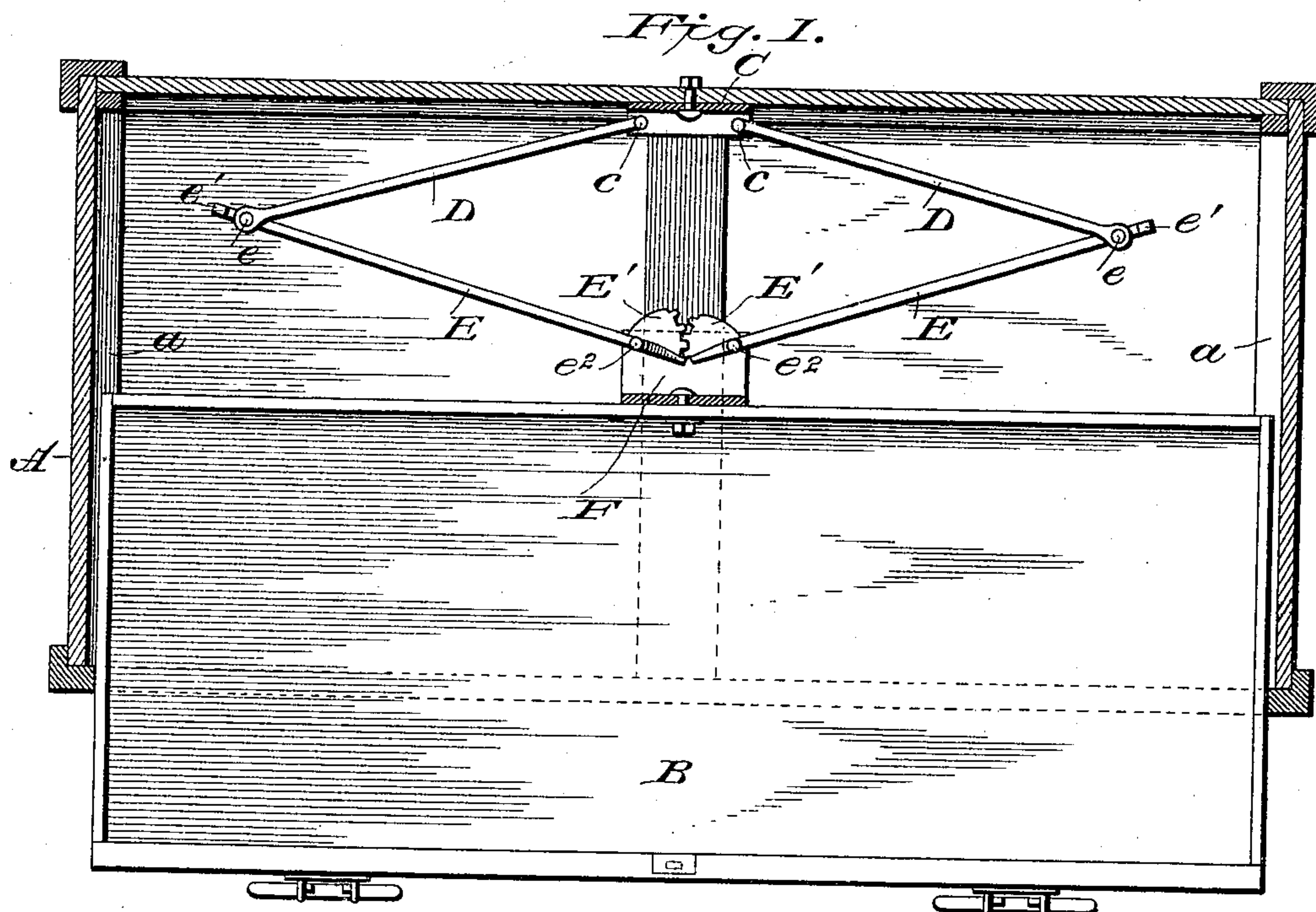


No. 629,698.

Patented July 25, 1899.

L. M. MILLER.  
DRAWER EQUALIZER.  
(Application filed Feb. 7, 1899.)

(No Model.)



WITNESSES

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# UNITED STATES PATENT OFFICE.

LUDVIC M. MILLER, OF WINNECONNE, WISCONSIN.

## DRAWER-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 629,698, dated July 25, 1899.

Application filed February 7, 1899. Serial No. 704,778. (No model.)

*To all whom it may concern:*

Be it known that I, LUDVIC M. MILLER, a citizen of the United States, residing at Winneconne, in the county of Winnebago and State of Wisconsin, have invented new and useful Improvements in Drawer-Equalizers, of which the following is a specification.

This invention relates to certain new and useful improvements in drawer-equalizers, the object of the improvement being to provide an attachment for drawers which when applied thereto and to the drawer frame or casing will secure an even and regular sliding movement of the drawer parallel to its frame and prevent the drawer sagging when moved partially out of the frame, also to provide a stop or means for limiting the outward movement of the drawer, and at the same time to generally improve a device of this character.

The invention consists in the construction and combination of the parts which make up the drawer-equalizer, whereby a plurality of vertically-disposed and coacting arms are so constructed, organized, and applied to the drawer and its frame as to insure an easy sliding movement of the drawer irrespective of its load or the pull which may be applied thereto, the construction of the arms and means for securing parallelism of movement, holding the arms in true vertical alinement, preventing the drawer sagging or rocking in the frame when opened or closed, also preventing the drawer being pulled out of its frame, as will be hereinafter set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate the construction of my invention and the application thereof, Figure 1 is a sectional view of a drawer-frame, showing the drawer-equalizer applied thereto, the attaching-plates being shown in section. Figs. 2 and 3 are detail perspective views of the equalizing-arms.

Referring to the drawings, A indicates a drawer frame or case which is adapted to receive a drawer B. The drawer-frame may be of the simplest type and has the usual guide-strips *a*, upon which the drawer slides, the drawer being of slightly less depth than the frame. The equalizer is applied to the center of the drawer and drawer-frame, and the ends of the arms of the equalizer are pivot-

ally attached to plates the ends of which are bent at right angles with the vertical portions thereof, which are bolted or otherwise attached to the drawer and its frame. The back plate C, which is secured to the frame A, has its upper and lower ends bent at right angles, so as to extend forward, and these bent portions have therethrough apertures for the reception of stud-pins *c c*, which project from the ends of arms D D, so as to maintain said arms in swinging engagement with the back plate C and in vertical planes, so that said arms will swing horizontally. The outer ends of the arms D D are spread or bifurcated, so as to provide upper and lower members the ends of which are rounded or expanded horizontally to provide a larger area of bearing-surface against the flat edges of the arms E, which they overlie, the arms E having stud-pins *e*, which pass through apertures in the arms D, and adjacent to said stud-pins are offset or projecting portions *e'*, which when they abut against the ends of the arms D D limit the swinging or pivotal movement thereof, and thus provide means for limiting the outward movement of the drawer. The front ends of the arms E E are provided with stud-pins *e''*, which engage with perforations in the horizontal portions of the front plate F, and the stud-pins are in alinement with those in engagement with the back plate C. Formed integral with the front ends of the arms E, so as to project horizontally therefrom, are sectors *E'*, which mesh with each other and secure uniformity of movement of the arms E and D. Said sectors also bearing upon the horizontal portion of the plate F provide a large bearing-surface and prevent any rocking movement of the arm E.

The whole construction of the device has in view to provide the joints with the largest possible area of bearing-surface between the parts, so that the arms when expanded or contracted will move in line with each other, so that when the plates are properly secured to the drawer and frame the movement of the drawer will be directly outward and any sagging or tilting of the drawer will be prevented.

With an equalizer thus constructed there are but single points of contact or attachment of the equalizer with the drawer-frame and drawer, and when one of the plates is secured



in place that determines the position of the other plate, and the arms being flat and vertically disposed occupy but little space rear of the drawer when it is closed, and the sectors insure an equal movement of the arms.

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

1. The combination with a drawer and its frame, of plates attached to the drawer and frame, arms pivotally connected to each other and to the plates, one pair of the arms having intermeshing sectors at one end and at the other end lugs or projections, the lugs being for the purpose of limiting the movement of the arms in one direction, substantially as set forth.

2. The combination with a drawer and a drawer-frame, of plates attached to the drawer and drawer-frame, said plates having horizontal portions, arms pivotally connected to the horizontal portions of the plates at one end and to each other at the opposite ends, one pair of the arms having at their adjacent ends intermeshing sectors and at their outer ends lugs which are adapted to engage

with the arms which are pivotally attached to the plate secured to the drawer-frame, substantially as shown and for the purpose set forth.

3. The combination with a drawer and drawer-frame, of plates centrally attached to the drawer and drawer-frame, arms pivotally attached to the plates, one pair of the arms having at one end at right angles to the vertical plane thereof and of the pivots intermeshing sectors and at the other end flat bearing-surfaces from which project pins, lugs formed on said arms adjacent to the pins, and arms pivotally connected to the plate attached to the drawer-frame and to the outer ends of the arms having the sectors so as to be engaged by the lugs on the latter arms, substantially as shown and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LUDVIC M. MILLER.

Witnesses:

G. M. WRIGHT,  
BERT COFFMAN.