

No. 616,347.

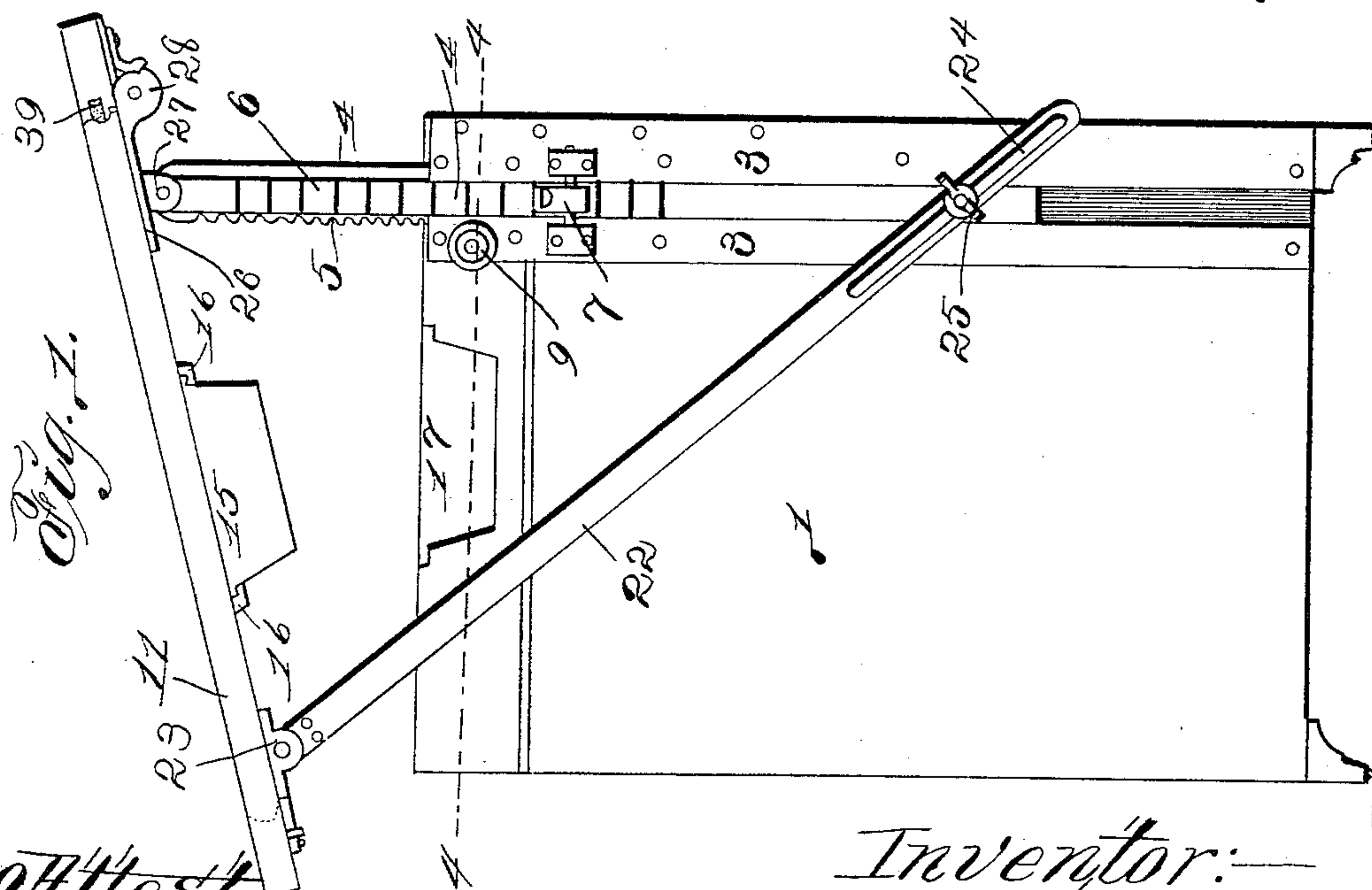
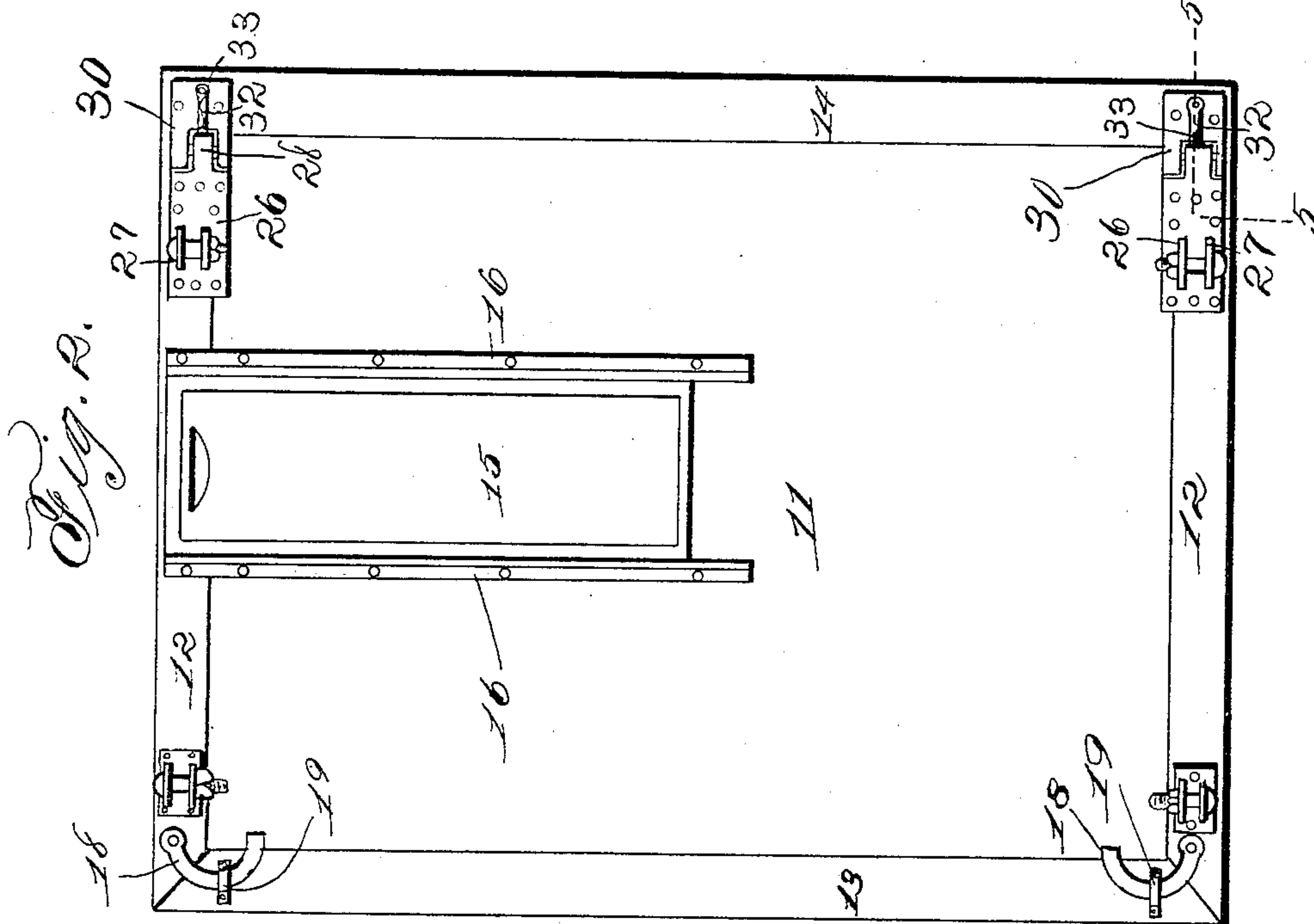
Patented Dec. 20, 1898.

F. OSWALD.
DRAWING DESK.

(Application filed Mar. 2, 1898.)

(No Model.)

2 Sheets—Sheet 1.



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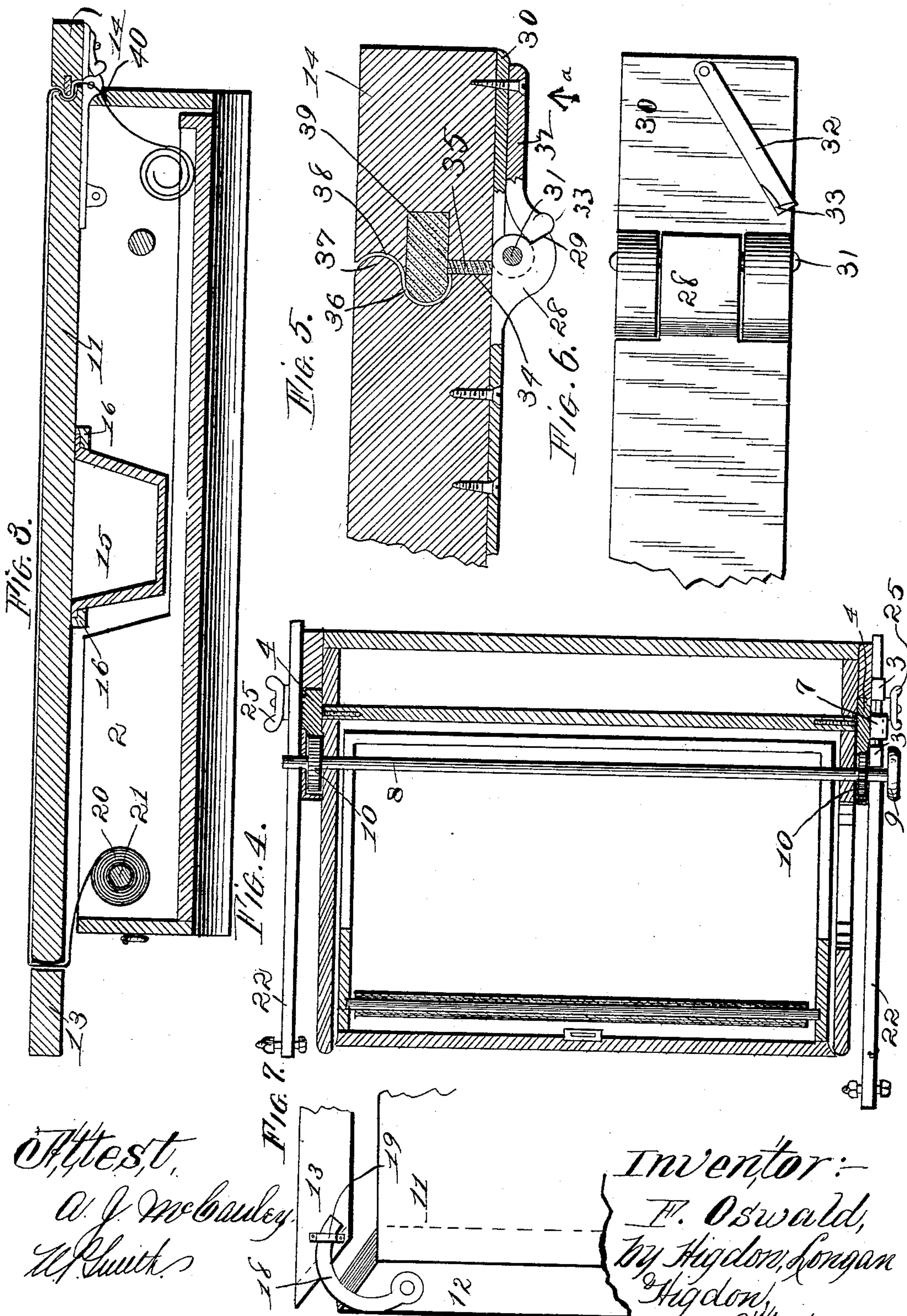
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UNITED STATES PATENT OFFICE.

FRIDOLIN OSWALD, OF ALHAMBRA, ILLINOIS.

DRAWING-DESK.

SPECIFICATION forming part of Letters Patent No. 616,347, dated December 20, 1898.

Application filed March 2, 1898. Serial No. 672,287. (No model.)

To all whom it may concern:

Be it known that I, FRIDOLIN OSWALD, of the city of Alhambra, Madison county, State of Illinois, have invented certain new and useful Improvements in Drawing-Desks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to drawing-desks; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a side elevation of my improved drawing-desk, the drawing-table thereof being elevated as required for use. Fig. 2 is a view of the under side of the drawing-table of my improved desk, the same being detached from the desk. Fig. 3 is a transverse section, taken through the top of my improved drawing-desk and showing the drawing-table and paper-drawer. Fig. 4 is a horizontal sectional view taken approximately on the line 4 4 of Fig. 1. Fig. 5 is a sectional view taken approximately on the line 5 5 of Fig. 2. Fig. 6 is a view taken looking in the direction indicated by the arrow *a* in Fig. 5. Fig. 7 is a detail view showing the paper-clamping rail moved to its limit away from the drawing-table.

Referring by numerals to the accompanying drawings, 1 indicates a rectangular desk of any suitable size and construction, which desk may be provided with a number of compartments or drawers, as desired. Arranged to pull forwardly in the top of this desk 1 is a drawer 2, the rear wall and the rear portions of the side walls of which are cut away for a purpose hereinafter mentioned.

Fixed to the rear edges of the side walls of the desk 1 are the vertically-arranged parallel retaining-strips 3, between each pair of which is arranged for vertical movement the elevating-bars 4, the forward edges of which are provided with the toothed racks 5 and the outer faces of which are provided with ratchet-teeth 6. Gravity-pawls 7 are pivoted in position upon the faces of the retaining-strips 3 in such a manner as that their points will engage beneath the ratchet-teeth 6.

A shaft 8 is journaled in the rear portion of the desk 1 at a point near the top thereof and above the rear end of the drawer 2, one

end of said shaft being provided with a hand-wheel 9 and there being pinions 10 located upon said shaft in position to mesh with the toothed racks 5. In this manner the elevating-bars 4 are raised simultaneously, and when so raised the gravity-pawls 7 will engage beneath certain of the ratchet-teeth 6 and hold said elevating-bars in their raised positions.

The drawing table or board 11 comprises a rectangular base, which is slightly larger than is the desk 1, there being rails 12 fixed to each side of said drawing-board and there also being a clamping-rail 13 arranged upon the front edge of said drawing-board and a hinged rail 14 arranged upon the rear edge of said drawing-board. A drawer 15 is held to slide laterally underneath one side of the board 11 by means of the cleats 16, said drawer 15 occupying a cut-away portion 17 in one side of the desk 1 when the drawing board or table is resting upon top of the desk.

Semicircularly-curved arms 18 are pivoted to the under side of the forward ends of the side rails 12 of the drawing table or board, and said arms 18 pass through clips 19, which are secured to the under side of the ends of the clamping-rail 13. The free ends of these arms 18 are bent downwardly to form the finger-holds, and by engaging said free ends and moving the curved arms 18 upon their pivot-points the outer edges of said arms will bear against the clips 19, thus performing the function of eccentrics, and as the movement of said curved arms 18 is continued the rail 13 will be moved outwardly away from the drawing board or table 11. When the free ends of the curved arms 18 are moved inwardly, the inner edges of said arms will engage against the clips 19 and the rail 13 will be caused to move against the front edge of the drawing board or table 11.

The web of the roll of paper 20 that is carried upon the spindle 21, which is rotatably arranged in the forward end of the drawer 2, is passed between the clamping-rail 13 and the front edge of the drawing board or table 11 when said rail is away from said board, and said web is then passed rearwardly over the drawing-board, after which the rail 13 may be brought against the front edge of the drawing board or table 11 by manipulating

the curved arms 18, and this movement clamps the web of the paper between said rail and the front edge of the drawing board or table.

A very tight clamp is not necessary at the front edge of the drawing-board for the reason that the roll of paper that is passing over the drawing-board is located in the front of the table, and said roll is arranged so as not to unwind too freely. Moreover, there is a certain amount of friction caused by the tongues on the ends of the side rails 12 entering the slots formed in the ends of the clamping-rail 13, and this friction assists in retaining the clamping-rail 13 against the front edge of the drawing-board.

Adjusting-arms 22 have their upper ends pivotally attached to clips 23, secured to the under side of the forward ends of the side rails 12, and said adjusting-arms extend downwardly and rearwardly and are provided in their lower ends with slots 24. Winged set-screws 25 pass through these slots 24 and into the lower ends of the elevating-bars 4. By loosening these set-screws 24 and manipulating the adjusting-bars 22 and then resetting the set-screws 25 the forward end of the drawing board or table 11 may be adjusted to the desired height.

A pair of plates 26 are secured to the under side of the rear ends of the side rails 12, which plates are provided with the downwardly-projecting ears 27, to which are pivotally secured the upper ends of the elevating-bars 4. Formed integral with and extending rearwardly from the center of each of the plates 26 is an ear 28, which is provided with a shoulder 29.

Plates 30 are secured to the ends of the rear rail 14, the forward ends of said plates 30 being bifurcated, between which bifurcated ends are located the ears 28, and hinge pins or bolts 31 pass through these ears, and thus hinge the bar 14 to the rear edge of the drawing board or table 11. Locking-bars 32 are pivoted to the rear ends of each of the plates 30, the forward ends of said locking-bars 32 being formed into heads 33, that are adapted to engage against the shoulders 29 of the ears 28 when said locking-bars 32 are in parallel alignment with said ears 28. When said locking-bars are swung to either side away from the shoulders 29, the rail 14 is free to swing downwardly.

The lower edge 34 of the rear face of the drawing board or table 11 is perfectly smooth and is formed at right angles to the surface of said drawing board or table, and located upon said edge 34 is a strip of rubber 35 or analogous material. Extending longitudinally in the rear edge of the drawing board or table 11, immediately above the strip of rubber 35, is a groove 36, and immediately above said groove 36 is a tongue 37.

Formed in the front edge of the rail 14 and in the top thereof is a groove 38, which is adapted to receive the tongue 37, and immediately below said groove 38 and extending

longitudinally throughout the length of the rail 14 is a strip of rubber 39 or analogous material, the forward end of which projects inwardly and is adapted to enter the groove 36, previously mentioned. This construction serves as a paper-clamp and paper-tightener.

After the web of the roll of paper 20 has been passed over the drawing board or table 11 said web is passed downwardly between the rail 14 and the rear edge of the drawing board or table 11, which rail has previously been swung downwardly, and then said web is stretched as tightly as possible over the surface of the drawing board or table and passed through a slot 40, formed in the upper edge of the rear wall of the desk 1, and from thence said paper is passed into the rear end of the drawer 2. The operator now swings the rail 14 upwardly and into horizontal alignment with the drawing board or table 11, and this movement first clamps the web of the paper between the lower edge of the rail 14 and the strip of rubber 35. As the strip of rubber 39 enters the groove 36 the web of paper upon the top of the drawing board or table 11 will be very tightly stretched, which is one of the objects contemplated by my invention. The locking-bars 32 are now manipulated so that the heads 33 thereof abut the shoulders 29, and thus the rail 14 is locked in proper position.

By manipulating the hand-wheel 9 of the shaft 8 the rear end of the drawing board or table 11 is elevated to the desired position, and by manipulating the set-screws 25 and adjusting the bars 22 the forward edge of the drawing board or table is elevated as desired. Thus any elevation and any angle desired may be readily obtained.

A drawing-desk of my improved construction may be used either as a drawing-desk or as an ordinary writing-desk or office-table, and said drawing-desk is especially applicable for use when it is desired to make profile drawings, as a drawing of any length may be made upon the drawing board or table of the desk, the web of the paper being carried in the drawer 2 and passed over the drawing table or board as it is used. The drawing-paper is very efficiently held upon the drawing-board without the use of tacks or mucilage, and said drawing-paper may be quickly and efficiently stretched upon the drawing-board.

I claim—

1. In a drawing-desk, a vertically-adjustable drawing-board forming a top for said desk, in the rear edge of which drawing-board is formed a longitudinally-extending groove, a rail hinged to the rear edge of said drawing-board, and a strip of rubber carried by said rail for entering the groove in the drawing-board, substantially as specified.

2. In a drawing-desk, a vertically-adjustable drawing-board forming a top for said desk, in the rear edge of which drawing-board is formed a longitudinal groove, a strip of

rubber located upon the rear edge of the drawing-board beneath said groove, a rail hinged to the rear edge of said drawing-board, means for locking said rail in alinement with the drawing-board and a strip of rubber carried by said rail, which rubber enters the longitudinal groove in the drawing-board, substantially as specified.

3. In a drawing-desk, a vertically-adjustable drawing-board forming a top for the desk, a clamping-rail extending across the front of the drawing-board, and said draw-

ing-board being provided in its rear edge with a longitudinally - extending groove, a rail hinged to the rear edge of said drawing-board, and a strip of rubber carried by said last-mentioned rail for entering the groove in the drawing-board, substantially as specified. 15

In testimony whereof I affix my signature in presence of two witnesses.

FRIDOLIN OSWALD.

Witnesses:

EDWARD E. LONGAN,
ALBERT J. MCCAULEY.