

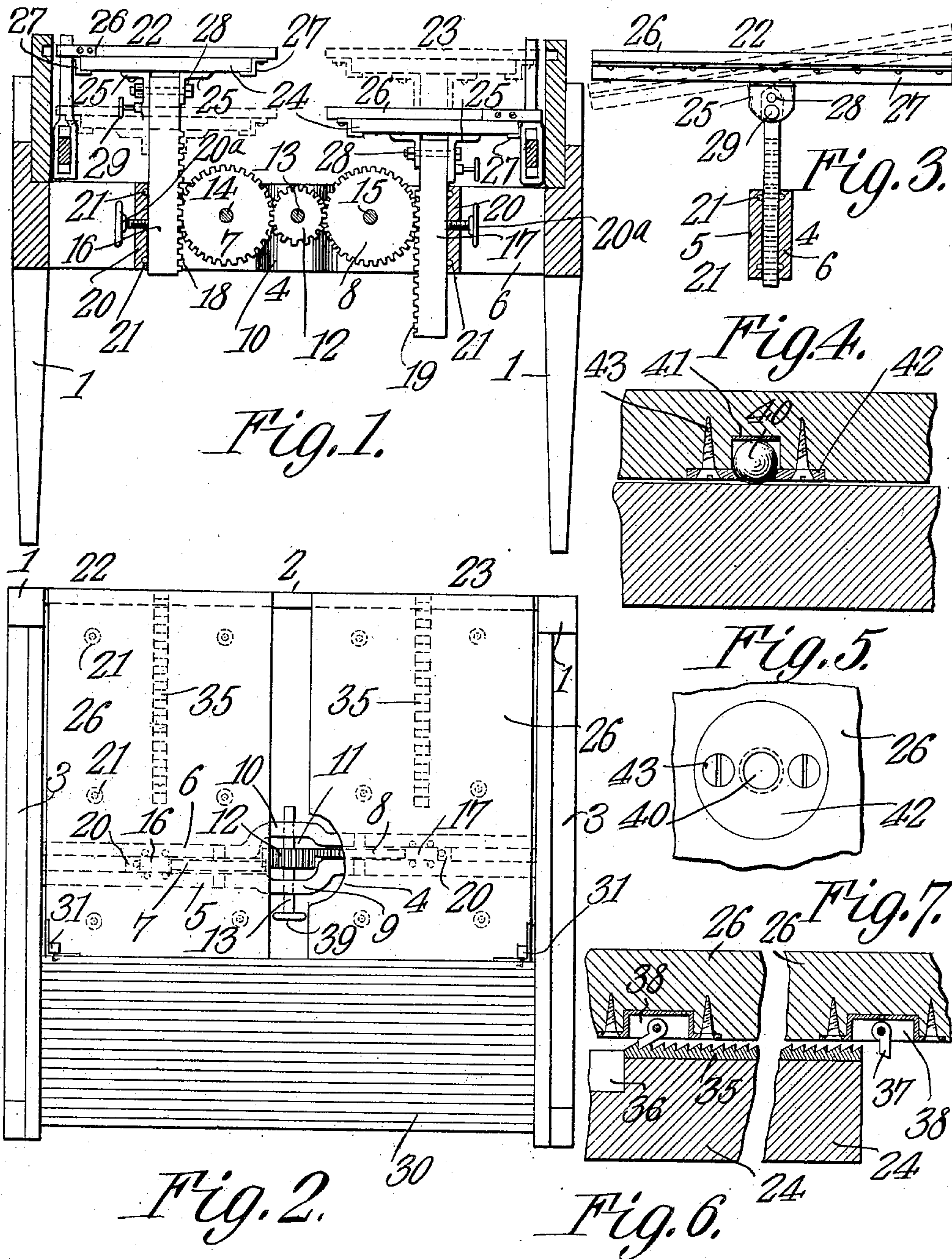
No. 885,748.

C. Y. HAGGARD.  
WRITING DESK.

PATENTED APR. 28, 1908.

APPLICATION FILED JULY 13, 1907.

2 SHEETS—SHEET 1.



WITNESSES:  
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*A. H. Hollingsworth*

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INVENTOR.  
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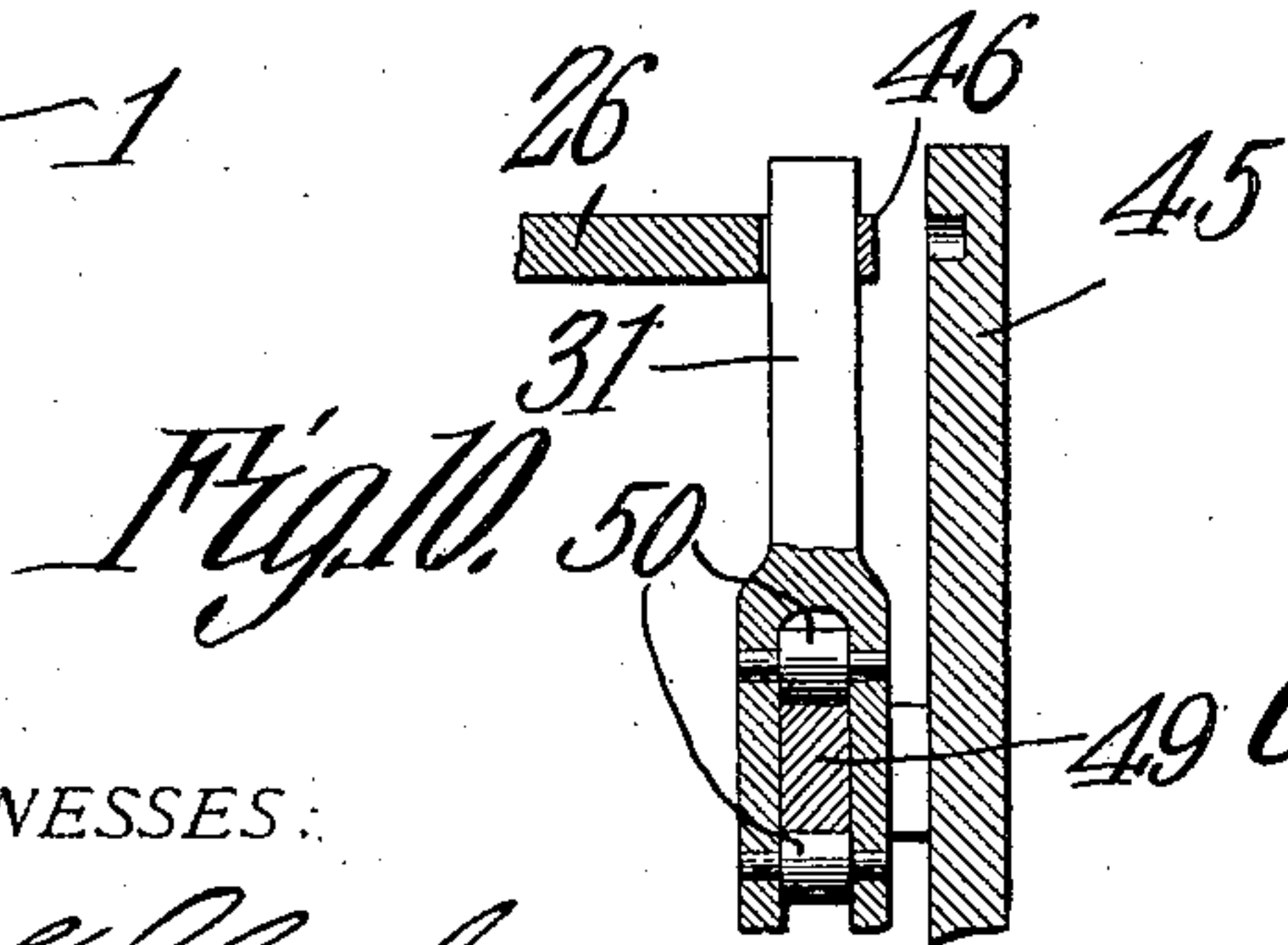
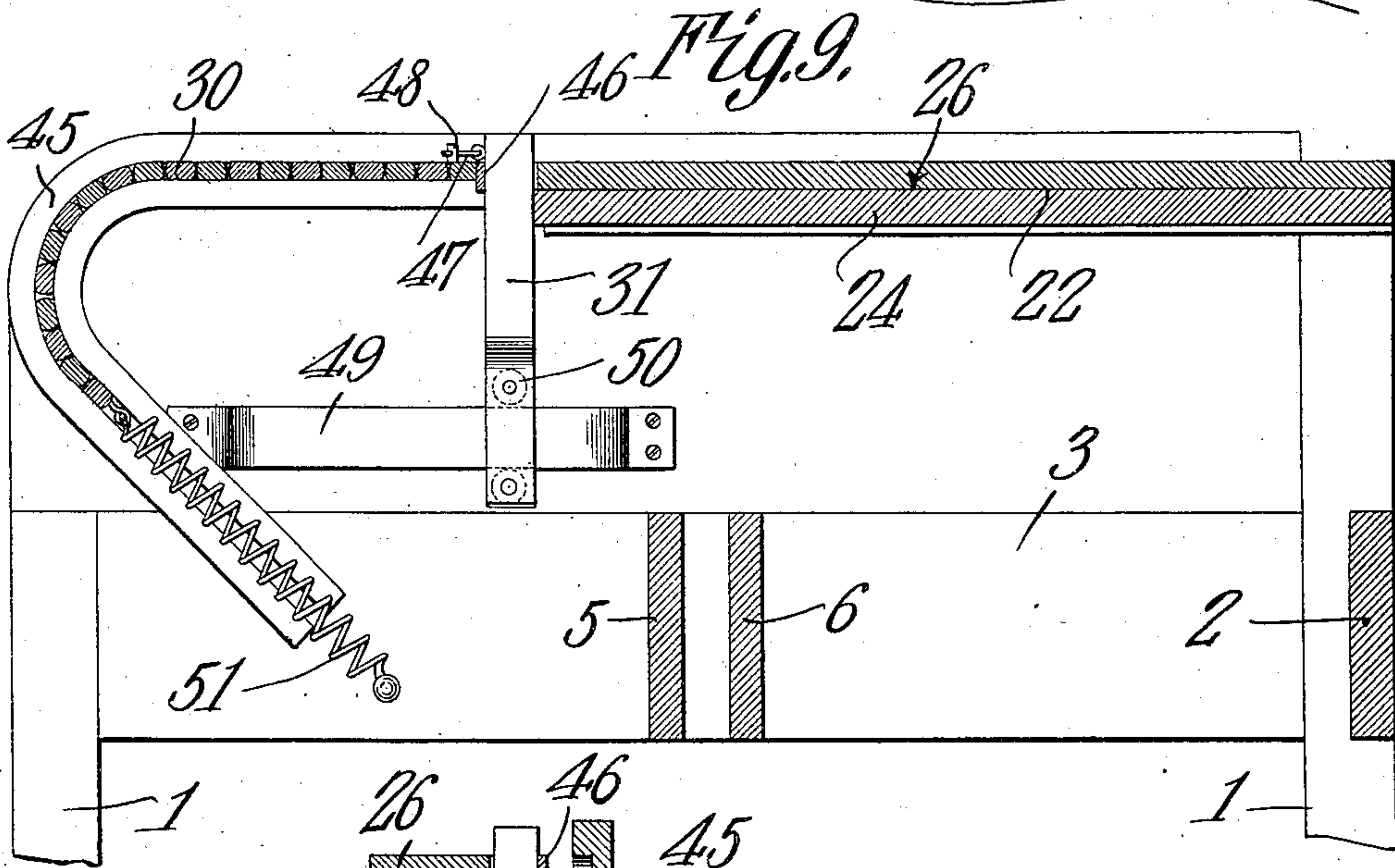
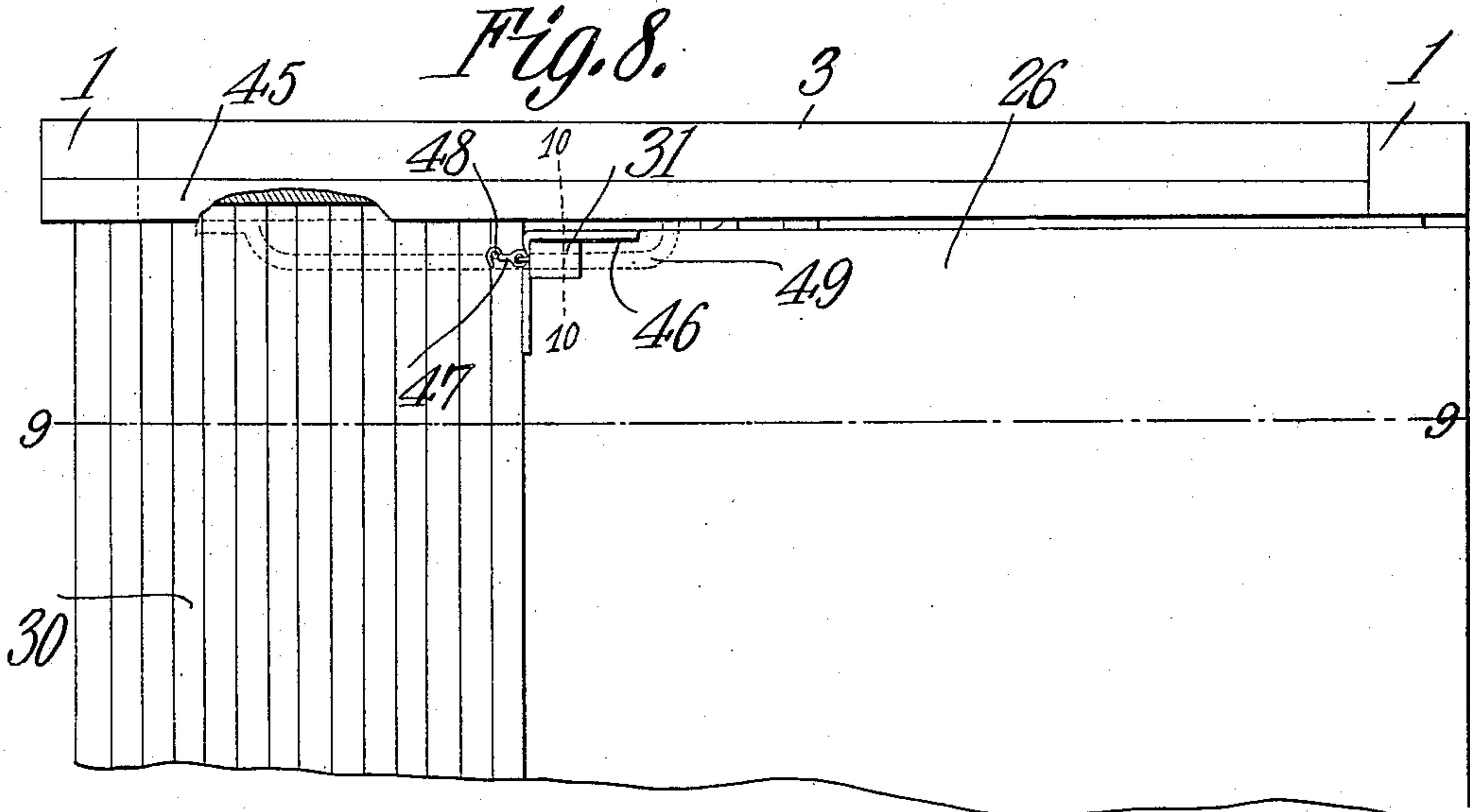
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# UNITED STATES PATENT OFFICE.

COBE YOUNG HAGGARD, OF WHEAT, TENNESSEE.

## WRITING-DESK.

No. 885,748.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed July 13, 1907. Serial No. 383,671.

*To all whom it may concern:*

Be it known that I, COBE YOUNG HAGGARD, a citizen of the United States, residing at Wheat, in the county of Roane and State of Tennessee, have invented a new and useful Writing-Desk, of which the following is a specification.

This invention relates to an improvement in writing desks designed especially for the use of officials, clerks of courts, registers &c., who make and transcribe public records upon large unwieldly minute books; and private accountants, who write upon thick and ponderous ledgers, whereby these books may be more easily and conveniently manipulated and written upon than upon the ordinary horizontal or inclined stationary desk; and the object of my invention is first to provide a desk with duplicate tops upon which books of various thicknesses may be held by the adjustment of the tops of the desk in such position that the pages to be written upon will be kept on the same plane with a flexible slide or arm rest which is attached to the desk under the front part. These objects are attained by the mechanism illustrated in the accompanying drawings, in which

Figure 1 is a front elevation partly in section to show the adjusting mechanism. Fig. 2 is a top view showing the flexible slide or arm rest with the adjusting mechanism and the supporting frame beneath. Fig. 3 is a side view partly in section showing the means for inclining a desk top and locking it in that position. Figs. 4 and 5 are detail views of the ball bearing used on several parts of the desk. Figs. 6 and 7 are detail views illustrating in two positions the pawl and ratchet mechanism by which the upper leaves of the desk tops are held in desired position. Fig. 8 is a top view of a portion of the writing desk on a larger scale illustrating the connection between the arm rest and one of the tops. Fig. 9 is a sectional view thereof on the line 9—9. Fig. 10 is a similar view on the line 10—10.

Similar numerals indicate corresponding parts in all the figures.

The structure comprises a rigid frame made of four posts 1, the two rear posts joined by the horizontal bar 2 while the front and rear posts on each side are connected by side pieces 3 as shown. Extending from one side brace 3 to the other and about the center of the frame from front to rear is a gear frame 4, comprising two substantially parallel

beams 5, 6 preferably made of iron and suitably spaced from each other to admit the gear wheels 7, 8 between them. At the middle of each beam 5, 6 is an offset 9, 10 to produce a space 11 wider than that between the rest of the beams. Within this space is placed a pinion 12 fixed to a horizontal shaft 13 slidable in an axial direction in boxes attached to the offsets 9, 10. The gear wheels 7, 8 mounted on shafts 14, 15 respectively are journaled in boxes on the beams 5, 6 in position to mesh with the pinion 12 in a manner hereafter described.

Supported in vertical position between the beams 5 and 6 are two upright standards or supports 16, 17, on the inner edge of each of which is a rack 18, 19 in engagement with the gear wheels 7, 8 respectively. The opposite or outside edges of said standards or supports are upheld by guides 20, provided with ball bearings 21. Similar ball bearings are attached to the beams 5, 6, (see Fig. 3) to reduce the friction on the sides of the standards or supports.

To the upper end of each standard 16, 17 is pivotally fastened a top 22, 23 respectively, each of which tops comprises two leaves, the lower leaves 24 being attached to the standards 16, 17 by suitable brackets 25. Upon the lower leaves 24 the top leaves 26 move freely in a forward and backward direction, being prevented from lateral motion by guides 27 screwed to the bottom side of the upper leaves. The brackets 25 which are attached to the standards 16, 17 by pivot bolts 28 have each cast thereon a lug in which a locking device 29 of any well known form is contained. The upper leaves 26 are free to move forward and backward on the lower leaves 24, the former of which, carrying ball bearings 21 shown in detail in Figs. 4 and 5, respond to very gentle pressure.

An arm rest 30 is attached to posts 31 near the front and on either side of the top 22, 23, which posts slide in grooves and are drawn back by means of coiled springs attached to each side of the desk and just under the front, to hold the slide below the top of the desk and out of the way when the book thereon is to be brought back against the body of the writer.

When the table is tilted, in order to prevent the leaves 26 from sliding to their lowest position at the front of the desk, a ratchet bar 35 is fastened to each bottom leaf 24 and extends from its rear side forward to about the center of the leaf at which point is a de-



pression 36. The teeth of the ratchet bar incline backward as shown in Figs. 6 and 7. A gravity pawl 37 is pivoted in a housing 38 set into the under side of the upper leaf 24 to engage the ratchet teeth and hold the upper leaf from moving forward unintentionally.

It will readily be seen upon an inspection of Fig. 6 that the upper leaf is prevented from moving forward by the pawl 37 engaging the ratchet teeth 35, this however will not prevent the rearward movement of the upper leaf which can be pushed backwardly with the greatest of freedom. When an upper leaf 26 has reached a certain point beyond the rear edge of the lower leaf 34, the pawl 37 drops vertically by its own weight, as represented in Fig. 7, and the leaf 26 can then be drawn to its extreme forward position, the pawl 37 moving loosely over the teeth of the ratchet 35 in inverted position, until it reaches the front end of the ratchet bar when it drops into the opening 36 and is at once ready to resume its former function as soon as the upper leaf is again pushed to the rear.

To accommodate the desk to books of various thicknesses, and to permit the desk tops 22, 23 to be moved independently or simultaneously, the driving pinion 12 is mounted, as previously stated, upon a shaft 13 sliding in boxes in the frame beams 5, 6, and is operated by a hand wheel 39. It will be observed that when the driving pinion 12 is in the position shown in Fig. 2, it is in mesh with both gears 7, 8 and will operate them simultaneously when rotated, thereby causing the racks 18, 19 and the standards carrying them to move vertically in opposite directions. The face of the driving pinion 12 being considerably wider than the faces of the gear wheels 7, 8, when the pinion is pulled forward by the hand wheel 39 until it is stopped by the frame 19, it will be in mesh only with the gear 7 which can then be operated independently of gear 8 but when the shaft is pushed rearwardly the gear wheel 8 will alone be rotated. A hand screw 20<sup>a</sup> is tapped into each guide 20, 21 to clamp the standard in fixed position when the pinion 12 is disengaged from the gear wheel which operates the rack thereon. The independent rotation of the gear wheels 7, 8 is made possible by the construction of the beams 5 and 6 in which the gears are journaled. It will be seen from Fig. 2 that those parts of the beams 5, 6 under the top 22 are not in line with similar parts below the top 23, but are nearer the front of the desk. This arrangement throws the gear wheels 6 and 7, which are between the beams, out of line so that the sliding movement of the shaft 13 brings the pinion 12 into engagement with one or the other of the gear wheels at the extremes of movement, and in mesh with both gear wheels when in an intermediate position.

The ball bearings 21 illustrated in Figs. 4

and 5 each comprise a steel ball 40 working upon a brass washer 41 and being held in place by a cap 42 fastened by screws 43 to the upper leaf 26.

Returning to the arm rest 30 it will be seen from an inspection of Figs. 8, 9 and 10 that the arm rest proper is made of a plurality of flexibly connected parallel slats fitted at each end in a grooved way or guide 45, flat on top and curving downwardly and rearwardly below the top of the desk. Fitted in notches in the lower outer corners of the upper leaves 26 so as to slide vertically therein are the posts 31 held in place by right angled straps 46 flush with the edges of the leaves. Any suitable fastening means may be employed to attach the arm rest 30 to the post, as for example hooks 47 on the posts engaging pins 48 on the arm rest. The lower ends of the posts are divided to straddle tracks or guides 49 which hold the posts in upright position. Rollers 50 are journaled between the divided ends of the posts to run on the upper and lower edges of the guides 49 to enable the posts to move easily thereon. Springs 51 are attached to the lower end of the arm rest and to fixed points on the frame to draw said arm rest downwardly when the desk tops 23, 24 are moved forwardly.

The operation of the desk will be readily understood from the above description so that a further detailed recital will not be necessary.

It is to be clearly understood that while the invention has been shown and described as embodied in the form illustrated, any changes and alterations of the structure may be made provided they do not depart from the principles set forth in the claims.

Having thus described the invention what is claimed is:—

1. A desk comprising two similar independent separate tops, independent mechanisms for raising and lowering said tops, and operative means adapted to be moved into engagement with either of said mechanisms or simultaneously with both of them.

2. A desk comprising two separate independent tops, an independent mechanism for raising and lowering each of said tops said mechanisms being in different vertical parallel planes, and operative means adapted to be moved into engagement with either of said mechanisms or simultaneously with both of them.

3. A desk comprising two separate independent tops, each top being formed of two leaves one above the other each upper leaf being movable over the lower leaf from front to back, and means between said leaves for locking the movable leaf to the fixed leaf.

4. A desk comprising two separate independent tops, each top being formed of two leaves one above the other each upper leaf being movable over the lower leaf from front



to back, a ratchet bar attached to one leaf, and a cooperating pawl pivoted to the other leaf, said pawl and ratchet holding said upper leaf in adjusted position on the lower leaf.

5 5. A desk comprising two separate independent tops, each top being formed of two leaves one above the other and each upper leaf being movable over the lower leaf from front to back, a pivotal connection between  
10 each top and its elevating mechanism independent mechanisms for raising and lowering said tops, and operative means adapted to be moved into engagement with either of said mechanisms or simultaneously with both  
15 of them.

6. A desk comprising two similar independent separated tops, a vertical movable support for each top pivotally attached to its under side to permit said top to tilt, means  
20 for locking said top on its movable support, an independent mechanism for raising and lowering each top, and operative means adapted to be moved into engagement with either of said mechanisms or simultaneously  
25 with both of them.

7. A desk comprising two similar independent and separated tops, a vertically movable standard or support connected with the under side of each top, a rack on each  
30 standard or support, a gear wheel in engagement with each rack, and a pinion common to both gear wheels adapted to raise and lower either of said tops.

8. A desk comprising two similar independent and separated tops, each top being formed of two leaves one above the other each upper leaf being movable over the lower leaf from front to back, a ratchet bar fixed to each bottom leaf and a pawl pivoted to each  
40 upper leaf in position to engage said rack.

9. A desk comprising two similar independent and separated tops, each top being formed of two leaves one above the other and each upper leaf being movable over the lower leaf from front to back, a ratchet bar fixed to each bottom leaf parallel to its sides, a depression being formed in said bottom leaf at the forward end of said ratchet bar, and a gravity pawl pivoted to each upper leaf and  
50 adapted to engage ratchet bars beneath and to hang vertically behind the lower leaf or in said depressions at the extremes of movement of said upper leaf.

10. A desk top formed of two leaves, one  
55 above the other, the upper leaf adapted to move over the lower leaf from front to back, and means between said leaves to lock the

upper leaf to the lower one and prevent it moving forwardly.

11. A desk having a vertically movable  
60 top formed of two leaves, one above the other and provided with anti-friction bearings between them, locking means between said leaves to prevent said upper leaf from moving forwardly over the lower leaf but  
65 permitting it to move rearwardly.

12. A desk having a vertically movable top formed of two leaves one above the other and provided with anti-friction bearings between them, a ratchet bar on one leaf,  
70 a pivoted pawl on the other leaf adapted to engage said ratchet bar and hold the upper leaf from forward movement until it reaches its extreme rearward position, and means for raising and lowering said top.  
75

13. A desk comprising two similar, independent and separated tops, each top formed of a fixed leaf and a movable leaf, and a flexible arm rest extending across said desk and attached to the movable leaves.  
80

14. A desk comprising two similar, independent and separated tops, each top comprising a fixed leaf and a movable leaf, a flexible arm rest extending across the desk and attached to each movable leaf, and  
85 guides for the side edges of said arm rest.

15. A desk comprising two similar, independent and separated tops, each top comprising a fixed leaf and a movable leaf, an arm rest formed of a series of narrow  
90 strips extending across the desk and flexibly connected together, guides for the side edges of said flexible arm rest, a post slidably mounted on a track fastened to each side of said desk and below the tops, said posts extending through apertures in the outer corner of each movable top, and means for connecting the arm rest to said posts above the movable leaves.  
95

16. An arm rest for a desk top having a  
100 forward and backward movement, comprising a flexible sheet formed of strips of stiff material removably attached to said desk top, and guides secured to said desk to support said arm rest, and direct it in its  
105 movement as the top is moved.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

COBE YOUNG HAGGARD.

Witnesses:

J. C. POPE,  
HESTER WALLER.