

(No Model.)

2 Sheets—Sheet 1.

W. E. FULLER.
AUTOMATIC ROTATING BOOK REST.

No. 594,151.

Patented Nov. 23, 1897.

Fig. 1.

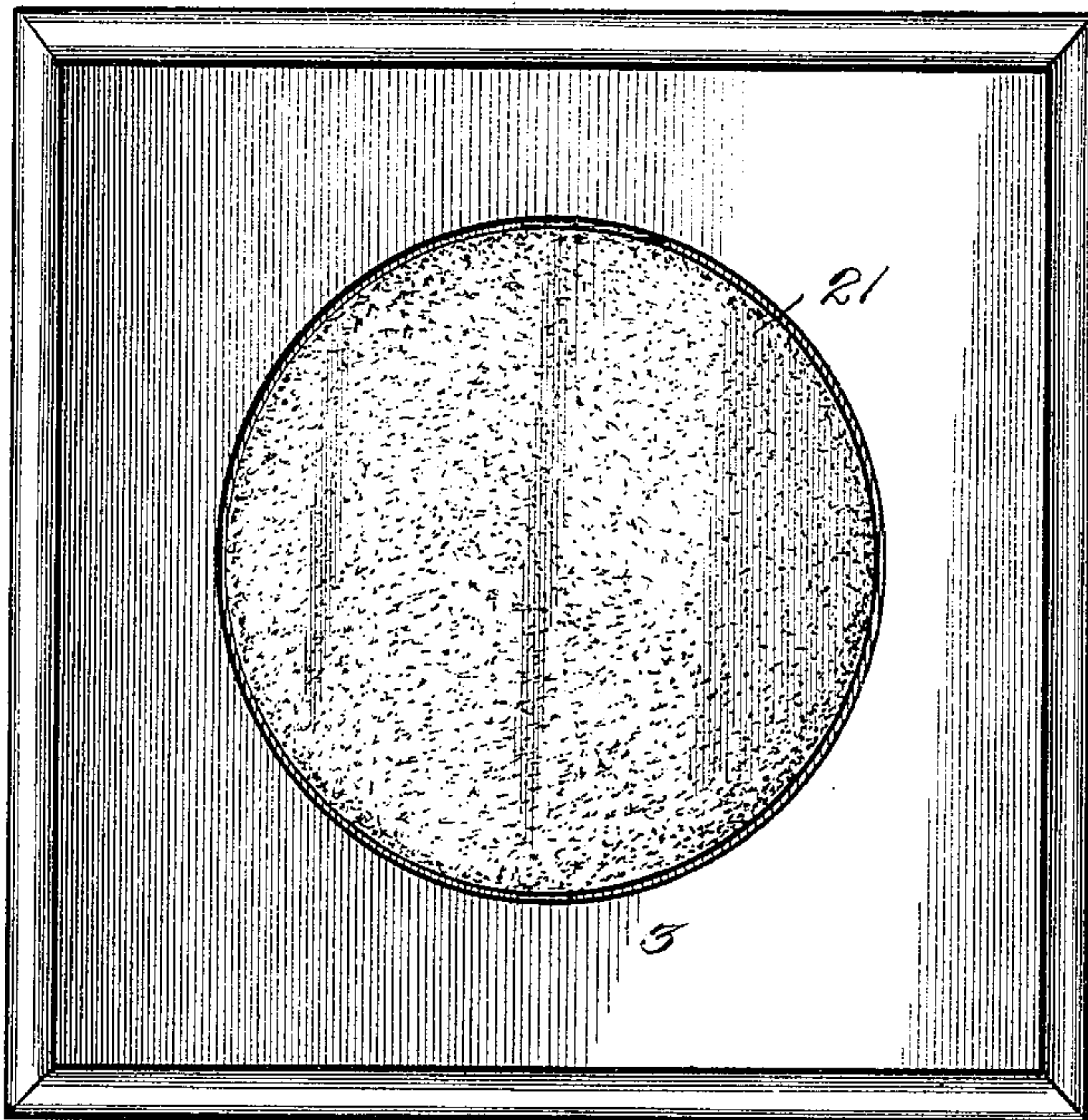
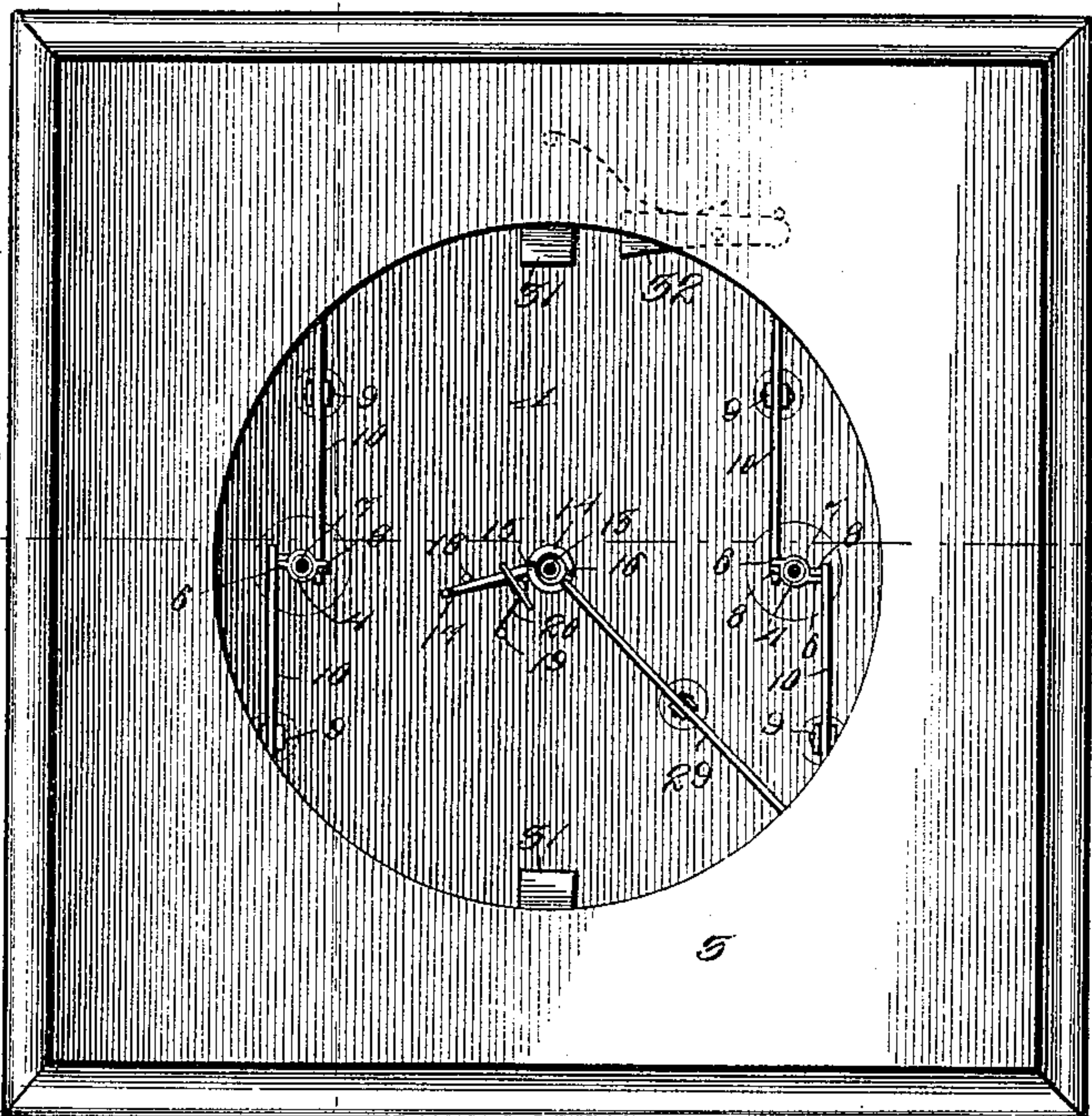


Fig. 4.



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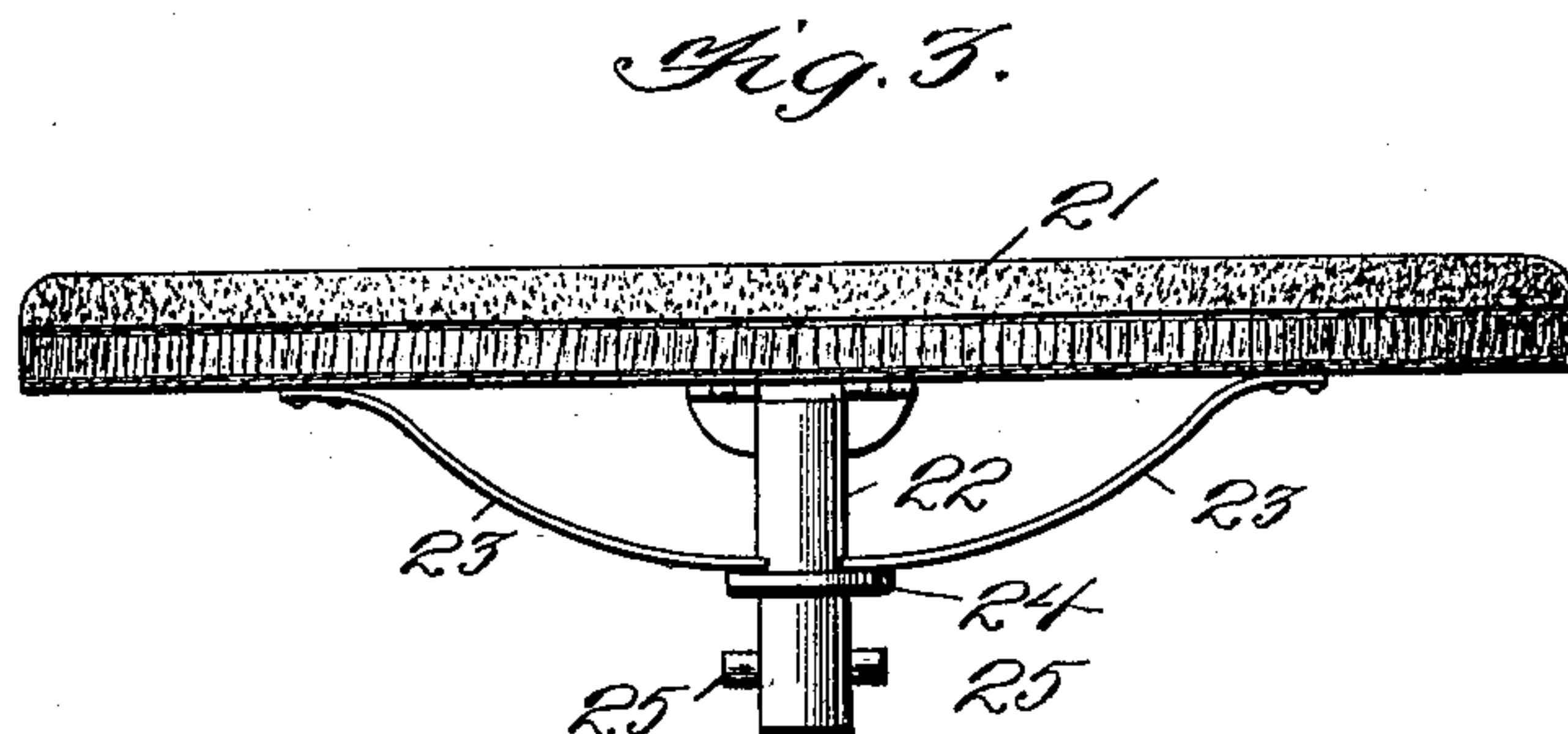
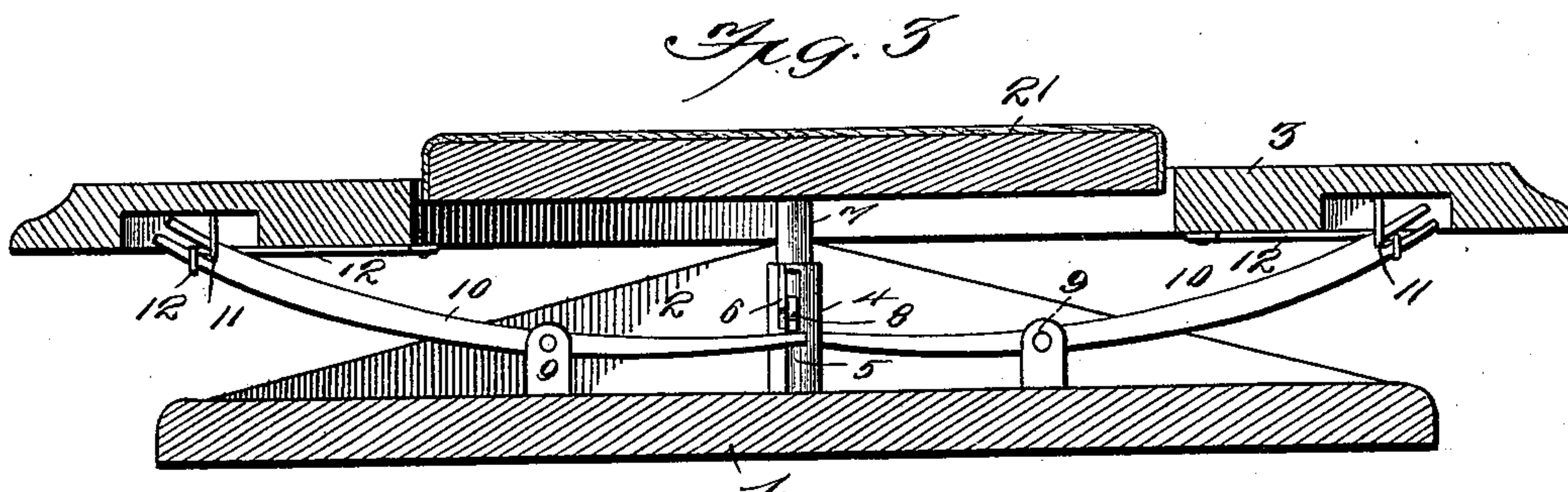
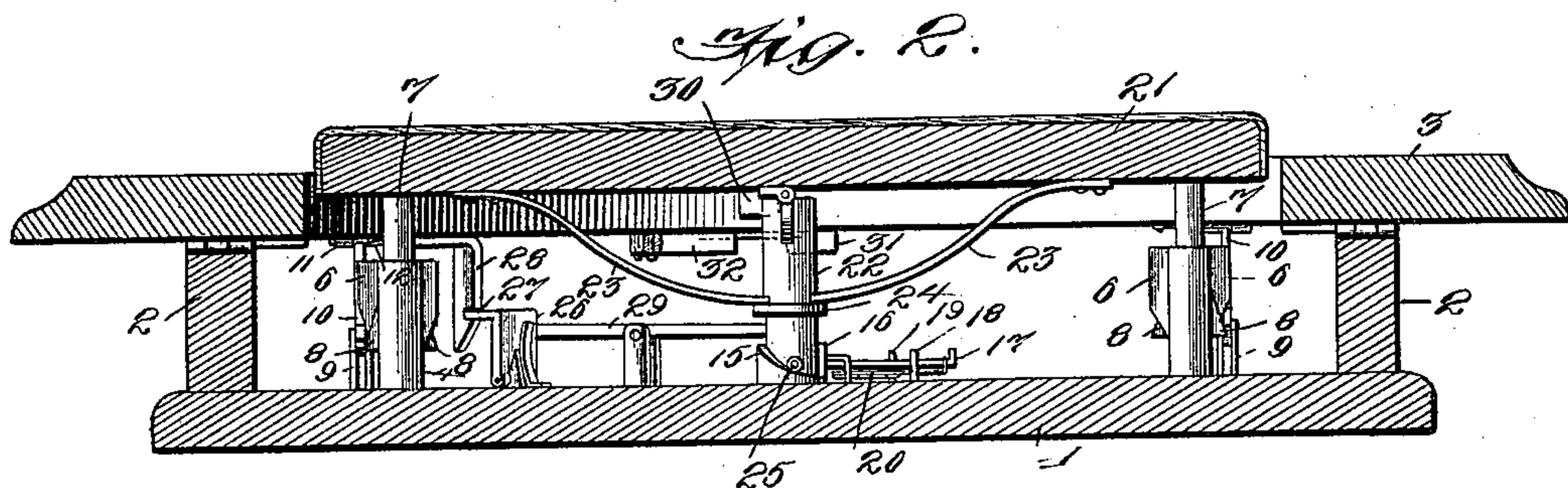
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2 Sheets—Sheet 2.

W. E. FULLER.
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UNITED STATES PATENT OFFICE.

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AUTOMATIC ROTATING BOOK-REST.

SPECIFICATION forming part of Letters Patent No. 594,151, dated November 23, 1897.

Application filed March 20, 1897. Serial No. 628,432. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. FULLER, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Automatic Rotating Book-Rests; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in revolving book-rests which are supported in connection with a tilting section, the parts being so arranged that the tilting of the table from its inclined position to a level causes the book-rest to automatically rotate and stop at the completion of a half-revolution through the intervention of the particular mechanism, all as will be hereinafter set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a revolving book-rest and tilting table constructed in accordance with my invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 4. Fig. 3 is a sectional view on the line 3 3 of Fig. 4. Fig. 4 is a plan view with the revolving top or book-rest removed. Fig. 5 is an edge view of the revolving book-rest removed.

The numeral 1 designates the base-board, to each side of which are secured strips 2 2, which are inclined from their center downward to each end, these strips forming a support for a tilting table 3, hinged at the top or highest point of the side strips 2 2. This manner of mounting the table allows it to be tilted in opposite directions, and the inclined surfaces of the strips provide supports for the lower part of the tilting table.

Upon the opposite sides of the base-board 1 and within the strips which support the tilting table are located hollow standards 4, having base-flanges, by which they are secured to the said base-board. These hollow standards are provided on opposite sides with vertical slots 5, and at one side of each slot is formed a projecting flange 6, the lower edge of which is inclined or curved toward the standard. Within these hollow standards is located a lifting-rod 7, which has a sliding movement therein, this lifting-rod having catches 8,

which project through the slots 5 in the hollow standards. At opposite sides of the standards 4 are mounted short standards 9, forming a fulcrum for levers 10, the outer ends of which are bifurcated to engage a loop or cross-bar 11, carried at the under side of the tilting table. The ends of these levers are adapted to be thrown into engagement with the catches on the lifting-rods 7, and also engage the guides or flanges 6 of the hollow standards, to be moved thereby out of engagement with said catches. The inner ends of these levers are brought against the standards, to provide for the proper engagement with the catches and flanges, by means of springs 12, attached to the outer ends of said levers and to the under side of the tilting table. It may also be mentioned that the members of the short standards between which the levers are fulcrumed do not embrace the levers too closely, but permit a slight movement, in order to provide for the inner ends of the levers riding upon the inclined guides or flanges on the hollow standards. By this particular construction and arrangement of levers and vertically-movable lifting-rod it will be noted that the said rod will be lifted when the table is tilted in either direction, for when the said table is moved from one inclination to the opposite inclination the levers connected to the upper end of the table will raise the rods until the table assumes a level, when the inclined flange will move the said lever out of engagement with its catch, the rod dropping to its lowest point of movement. It will thus be seen that the lifting-rods 7 are elevated to the limit of their movement when the table is brought from an inclination in either direction to a level, this construction and arrangement being for the purpose hereinafter specified.

At the center of the base-board 1 is mounted a tubular standard 13, which is rigidly secured to the base, the latter having an opening therein surrounding this standard. In this opening is mounted a movable collar 14, the upper edge of which is shaped to present cam-surfaces 15 and 16, said collar having a projecting arm 17, which limits the throw or movement of the collar or cam by engaging pins 18 and 19, extending from the base-board. A spring 20 is connected to the arm and to

one of the pins for the purpose of throwing the said arm to the limit of its movement in one direction and consequently moving the collar or cam to its normal position.

5 It will be noted that the tilting table is provided with a circular opening, and within this opening the revolving top or book-rest 21 moves. This top or rest is provided centrally with a tube 22, hinged thereto, as shown, to permit the said tube or book-rest to have a tilting movement with respect to the tube. The under side of the top is also provided with flat springs 23 23, which bear against the tube and act to hold the top or rest level with respect thereto. This tube is provided with a collar or annular flange 24 and below this flange with projections having friction-rollers 25. The top is adapted to be placed in engagement with the tubular standard 13 by placing the tube over said standard, and when in this engagement the friction-rollers contact or bear upon the cam-surfaces of the collar 14 and the annular ring 24 operates a catch device, hereinafter described, which holds the tilting table level while the book-rest rotates. This catch device consists of a swinging plate 26, hinged to the base-board 1 and having a projection 27 at its upper end, which engages a rigid hook 28, depending from the tilting table. This plate is spring-actuated to insure its engagement with the hook, and is operated to release said hook by means of a lever 29, fulcrumed upon a standard attached to the base-board and extending to the tube 22, where it engages the under side of the annular flange 24, the outer end of said lever being intumed to engage an inclined edge of the hinged plate 26. The revolving top or book-rest is provided at its under edge with blocks 30, and the tilting table is provided with inwardly-projecting blocks or rests 31, and adjoining one of these blocks or rests is a pivoted stop-block 32, held in position by a spring and adapted to engage the blocks on the under side of the revolving top.

The device herein shown and described is particularly adapted for use in supporting a hotel-register, where the book is being turned constantly from a position facing the clerk to the opposite one, facing the guest or party desiring to register. In the operation one end of the tilting table is normally lowered, with the top tilted, the book being placed with the top of the page toward the highest part of the device. Now when it is desired to turn the book or register the tilting top is brought to a level, where it is held by the stop or catch. The book-rest is then automatically released by the rods being tripped and makes a half-turn, riding upon the cam-surface of the collar, its movement releasing the catch, which permits the movement of the table to be continued to place the register at the proper inclination facing the guest. In returning the register to its normal position the operation just described is repeated either by the guest lifting upon the lower end of the tilt-

ing table or the clerk depressing the higher end. It will be understood, of course, that any one perfectly familiar with the operation of the device could manipulate the same without the employment of the catch, for when the tilting table reaches the level it could be held manually until the top completes its movement.

From this description of the operation it will be understood that the rods 7 are elevated by the tilting table to raise the book-rest, so that it will be so positioned at the highest point of the cam-faces that when the said rods are released the weight of the book will cause it to rotate by riding upon said cam-faces, being stopped by the blocks and by contact with the shoulders formed at the lower ends of the cams, the catch preventing the tilting table being moved until the movement of the book-rest has been completed. The projecting arm of the collar or cam acts to turn the collar so that the highest part of the cam-faces will be under the rollers on the support or tube of the rotatable book-rest. The movement of the book-rest is limited each time by the stop-blocks which are carried by the book-rest and tilting table, the spring-actuated one preventing backward movement or recoil.

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

1. In a revolving support and tilting table for books, the combination with a base board or support, side strips supporting the tilting table, a disk or revolving book-rest supported by the base-board, hollow standards carrying vertically-movable rods, levers connected to the rods for moving them upward when the table is brought from a tilting position to a level, a swinging plate or catch engaging the tilting table, and a lever for releasing the catch operated by the rotation of the book support or rest, substantially as shown and for the purpose set forth.

2. A revolving support and tilting table for books, comprising a base-board supporting the tilting table having a circular opening therein, a standard supporting a disk or revolving book-rest within this opening, a swinging plate engaging the catch carried by the tilting table, a lever operating the swinging plate to release the same from the catch, and means carried by the revolving disk or book-support for operating the lever, substantially as shown and for the purpose described.

3. In a revolving support and tilting table for books, the combination with the base-board and tilting table thereon, the tilting table having a central opening therein, of a standard located at the center of the base-board, a revolving book-rest or disk having a tube which engages the standard, said tube having an annular flange and projections with antifriction-rollers, the collar at the base of the standard having cam-surfaces; together with devices for raising the disk or book-support when the table is brought from an incli-

nation to a level, substantially as shown and for the purpose described.

4. In a revolving support and tilting table for books, the combination with the base-board and tilting table, the latter having a central opening, of a disk rotatably supported in the opening, hollow standards secured to the base and having vertical slots with inclined flanges on one side of the same, rods sliding vertically in the standards and provided with catches which project through the slots, levers fulcrumed on the base so that their inner ends will engage the catches and inclined flanges, the opposite ends of said levers being connected to the tilting table; together with a hinged plate supported on the base-board engaging a catch carried by the table, a lever for releasing said hinged plate, and means carried by the rotatable disk or book-support for operating said levers, substantially as shown and for the purpose described.

5. In a revolving support and tilting table for books, the combination with the base and tilting table supported thereby, said table having a central opening, of a rotatable disk supported in said opening and having a depending tube with an annular flange and projections below the same, a collar having cam-faces upon which the projections ride, a lever supported on the base and engaging a swinging catch at one end and the annular flange at the other; together with mechanism for raising the rotatable disk when the tilting table comes to a level, substantially as shown and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM E. FULLER.

Witnesses:

ALBERT H. YOUNG,
JOHN T. SLOAN.