No. 628,153. Patented July 4, 1899.

A. J. YORK.

SELF WAITING TABLE.

(Application filed July 12, 1898.)

(No Model.) 2 Sheets—Sheet 1.

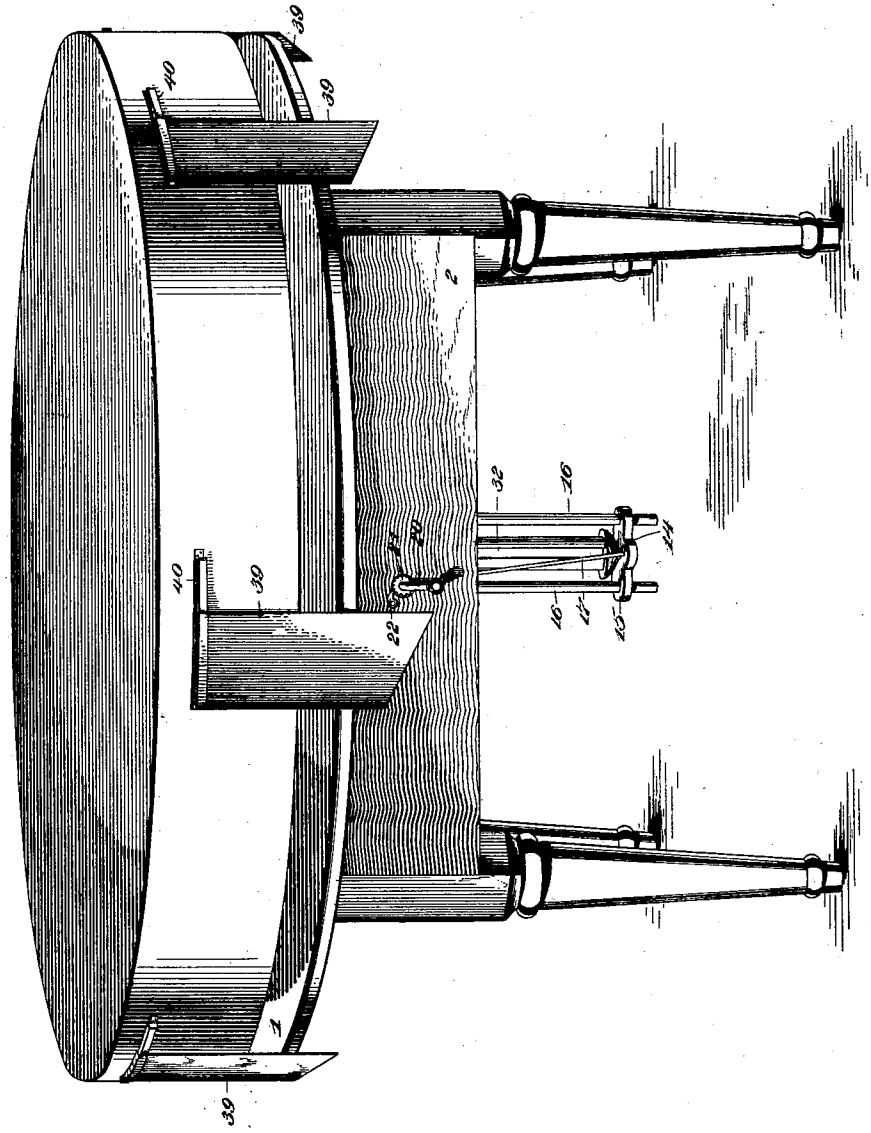


Fig. 1.

Witnesses
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O. E. Hoyle

Andrew J. York Inventor
By his Attorneys,
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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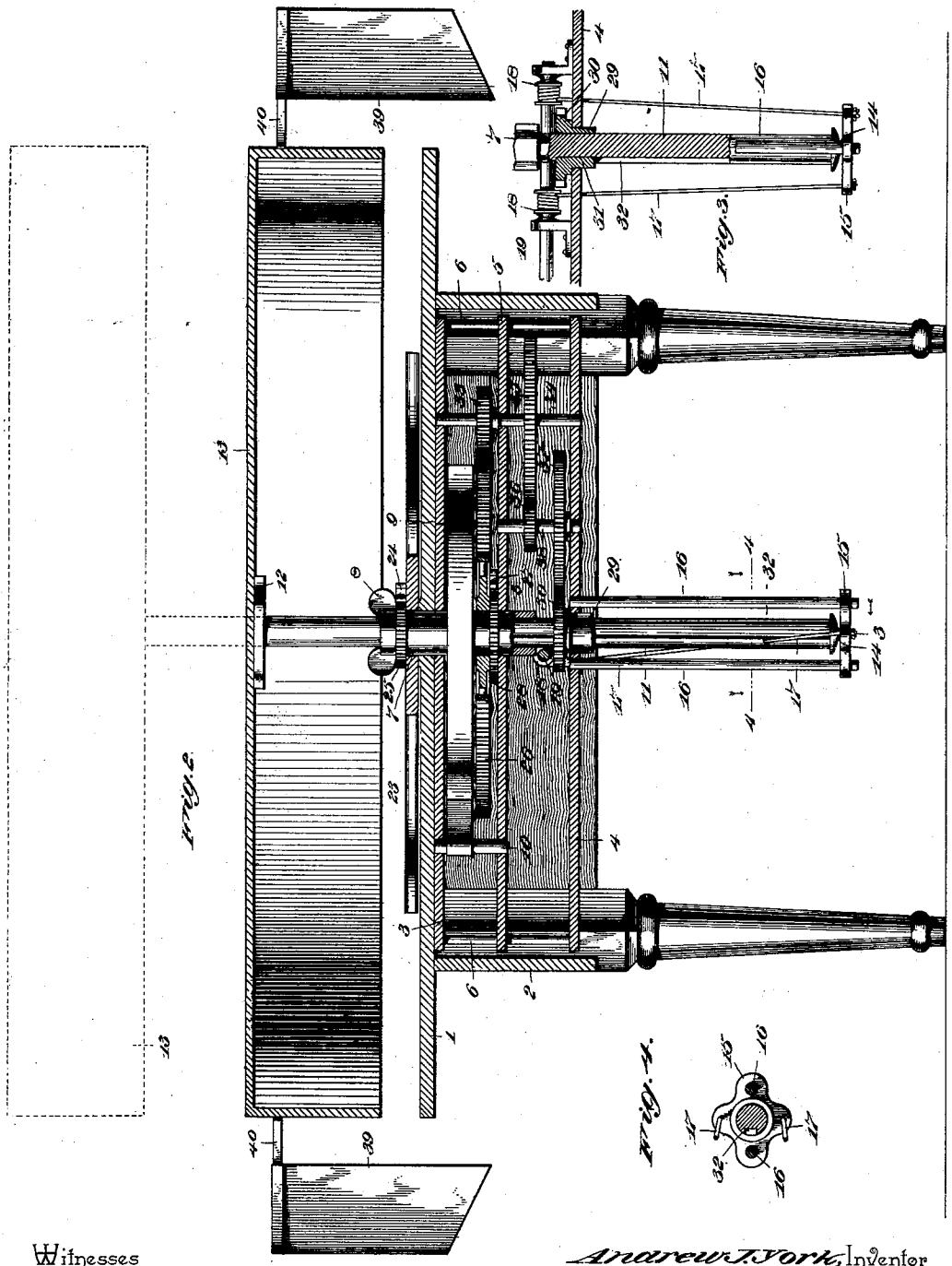


Fig. 2.

Fig. 4.

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UNITED STATES PATENT OFFICE.

ANDREW J. YORK, OF RED BOILING SPRINGS, TENNESSEE, ASSIGNOR OF ONE-HALF TO WILLIAM C. CANADA, OF SAME PLACE.

SELF-WAITING TABLE.

SPECIFICATION forming part of Letters Patent No. 628,153, dated July 4, 1899.

Application filed July 12, 1898. Serial No. 685,777. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. YORK, a citizen of the United States, residing at Red Boiling Springs, in the county of Macon and State of Tennessee, have invented a new and useful Self-Waiting Table, of which the following is a specification.

My invention relates to self-waiting tables, and particularly to the combination, with a dumb-waiter and means for operating the same, of a table-cover and fan mechanism, together with operating devices.

The objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a table constructed in accordance with my invention, the cover being shown in its depressed position and the fans folded. Fig. 2 is a central vertical sectional view of the same, showing in full lines the cover in its lowered and in dotted lines the same in its elevated position. Fig. 3 is a detail view of the means for elevating the table-cover. Fig. 4 is a horizontal sectional view of the same, showing the supporting-plate in plan.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the main table-top, which is preferably circular, and 2 the table-frame, including skirting-boards and supporting-legs. Supported under the table-top is a frame consisting of an upper plate 3, a lower plate 4, and an intermediate plate 5, connected by bolts or rods 6, which also serve as the means whereby said frame is secured to the table-top, and mounted in vertically-alined bearings in the upper and intermediate plates of the frame and also extending through a central opening in the table-top is a tubular shaft 7, terminating at its upper end in a wing-nut or operating-grip 8. To this tubular shaft is affixed the inner end of an actuating-spring 9, of which the outer extremity is attached to a fixed object, such as a pin 10, supported by the frame. Extending through the tubular shaft is a spindle 11, which projects at its upper end above the plane of the table-top and is provided with a securing-plate 12, fastened to the under side of a peripherally-flanged cover 13, adapted when lowered, as indicated in Fig. 1 and in full lines in Fig. 2, to rest upon the upper surface of the table-top 1 and cover the objects arranged thereon, such as the table furniture. By means of said spindle, however, the cover is adapted to be elevated to the position indicated in dotted lines in Fig. 2, and in order to facilitate this operation the lower extremity of the spindle 11 is seated in a socket-bearing 14 in a supporting-plate 15, which is mounted upon guide-rods 16, depending from the under side of the spring supporting-frame, or preferably from the lowermost plate 4 of said frame. The supporting-plate 15 is provided with suitable guide-openings fitted upon the guide-rods 16, and attached to the plate are elevating-cords 17, extending upwardly through the plate 4 and reeled upon spools 18, supported by a spindle 19, which is mounted in the spring supporting-frame. This spindle is provided near the side of the table-frame with a terminal crank 20, by which motion may be communicated to the spools to elevate the plate 15, and hence the cover 13, and in order that said spool-spindle may be secured at the desired adjustment to maintain the cover in its elevated position a ratchet mechanism, including a ratchet-wheel 21 and a pawl 22, may be employed.

Loosely mounted upon the tubular shaft 7 above and contiguous to the plane of the upper surface of the table-top 1 is a serving-table or dumb-waiter 23, having a ratchet connection with said tubular shaft, such connection in the construction illustrated consisting of a pawl 24, engaging a ratchet 25, and also loosely mounted upon the shaft 7, preferably below the plane of the spring 9, is a master-gear 26, having a ratchet connection with the shaft, including a pawl 27 and a ratchet-wheel 28. These ratchet connections provide for the manual rotation of the spindle to wind the spring 9 without affecting either the serving-table or dumb-waiter or the master-gear, whereas the rotary movement of said tubular shaft when actuated by the spring 9 causes the corresponding rotation of both the dumb-waiter and the master-gear.

Mounted in a bearing in the lower plate 4,

concentric with the spindle 11, is the hub 29 of a pinion 30, and a sliding connection is provided between said pinion (which I will refer to in the following description as the "driven" pinion or gear) and the spindle 11 to provide for the communication of rotary motion from the pinion to the spindle, while allowing the latter free axial movement or movement parallel with its axis through the pinion. In the construction illustrated the pinion is provided with a key or feather 31, engaging a longitudinal slot 32 in the spindle. The connection between the driving or master gear 26 and the driven gear 30 may consist of a train of gears constructed and proportioned to multiply speed and at the same time reverse the direction of rotation of the table-cover 13 (which is actuated by the spindle 11) from that of the serving-table or dumb-waiter, and in the construction illustrated said train of gears includes a pinion 33, meshing with the master-gear and having upon its spindle 34 a gear 35, which in turn meshes with a pinion 36 and a gear 37 on the spindle 38 of said pinion 36, said gear 37 meshing with the pinion 30. It will be understood, however, that the train of connections between the driving and driven gears may be varied to suit the relative speeds of rotation of the serving-table and the table-top; but in practice I prefer to so dispose the members of the train of gearing as to insure an opposite rotation of said members. The table-top carries fan-blades 39, preferably having stems 40, which are foldably or hingedly mounted upon the rim or flange of the cover to provide for the folding of the flange parallel with the periphery of the table-cover when the device is not in use or when the cover is lowered.

From the above description it will be seen that when the table-cover is lowered the table-furniture is protected from dust and insects, whereas by the turning of the operating-crank on the spindle 19 of the spools 18 said cover may be elevated to the desired height to accommodate the persons occupying positions at the table, and that by winding the actuating-spring through the wing-nut 8 rotary motion in opposite directions may be communicated to the dumb-waiter and the fan, consisting in the construction illustrated of the table-cover and fan-blades carried thereby, to convey dishes on the dumb-waiter to the various occupants of the table and at the same time prevent insects from approaching the table. The fan serves as a governor to prevent the too-rapid movement of the operating mechanism, and thus regulates the speed of rotation of the serving-table or dumb-waiter.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. The combination with a main table-top, of a revoluble serving-table, a tubular shaft terminating above the plane of the serving-table, and centrally thereof, in an operating-grip, the serving-table being loosely mounted upon said tubular shaft, a clutch connection for communicating motion in one direction from the shaft to the serving-table, an operating-spring connected with the said shaft, a fan-spindle extending axially through said tubular shaft to a point below the lower end thereof, speed-multiplying gearing for communicating motion from the tubular shaft to the spindle, and means for moving the spindle axially to the shaft, substantially as specified.

2. The combination with a main table-top, of a revoluble serving-table, operating mechanism for the serving-table, and a governor mechanism to control the speed of rotation of the serving-table, said governor mechanism including a table-cover mounted for vertical adjustment with relation to the plane of the table-top, and fan-blades hingedly mounted upon the periphery of the table-cover, to fold compactly in one direction against said periphery when the table-cover is lowered, and means for holding said table-cover at the desired vertical adjustment, substantially as specified.

3. The combination with a main table-top, of a revoluble serving-table and a revoluble fan having coaxial spindles, the spindle of the fan being vertically adjustable, and the serving-table having a clutch connection with its spindle, means for securing the fan-spindle at the desired vertical adjustment, operating devices for rotating the spindle of the serving-table, and connections to communicate rotary motion from the spindle of the serving-table to that of the fan, substantially as specified.

4. The combination with a main table-top, of a revoluble serving-table, and a revoluble table-cover having concentric spindles, the spindle of the table-cover being vertically adjustable, and the serving-table having a clutch connection with its spindle, means for holding the spindle of the table-cover at the desired vertical adjustment, an actuating-spring terminally attached to the spindle of the serving-table, and connections between the spindle of the serving-table and that of the table-cover, the same including a driven gear concentric, and having a sliding connection with, the spindle of the table-cover, and speed-multiplying gearing for communicating motion from the spindle of the serving-table to said driven gear, substantially as specified.

5. The combination with a main table-top, of a revoluble serving-table and a revoluble table-cover, coaxial spindles for said serving-table and table-cover, a clutch connection between the serving-table and its spindle, an actuating-spring connected with the spindle of the serving-table, means for vertically adjusting the spindle of the table-cover, a driven

pinion having a sliding connection with the spindle of the table-cover, and gearing for communicating motion from the spindle of the serving-table to said driven gear, said gearing including a master-gear loosely mounted upon the spindle of the serving-table, and a clutch connection between said spindle and the master-gear, substantially as specified.

6. The combination with a main table-top, of a revoluble serving-table and a revoluble table-cover, coaxial spindles respectively connected with said serving-table and table-cover, the spindle of the serving-table being loosely mounted in and having a clutch connection with the serving-table, a driven gear having a sliding connection with the spindle of the table-top, an actuating-spring for the spindle of the serving-table, connections, including a clutch, between the spindle of the serving-table and said driven gear, a supporting-plate for the lower end of the spindle of the table-cover, and elevating devices for said plate including spools, connections between the plate and said spools, and means for rotating the spools to wind the connections, substantially as specified.

7. The combination with a main table-top, of a serving-table and a table-cover mounted for rotation and having coaxial spindles, the spindle of the table-cover being vertically adjustable, operating mechanism for communicating rotary motion to the spindles of said serving-table and table-cover, a supporting-plate for the lower end of the table-cover spindle, guides for said supporting-plate, spools flexibly connected with said supporting-plate for communicating vertical motion thereto to elevate the table-cover, and operating devices for the spindle of said spools, the same including a crank, and a clutch mechanism for holding the same at the desired adjustment, substantially as specified.

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

ANDREW J. YORK.

Witnesses:
D. J. BURFORD,
B. B. BEYONT.