(No Model.) 3 Sheets—Sheet 1.

J. W. CARVER.

TABLE.

No. 526,144. Patented Sept. 18, 1894.

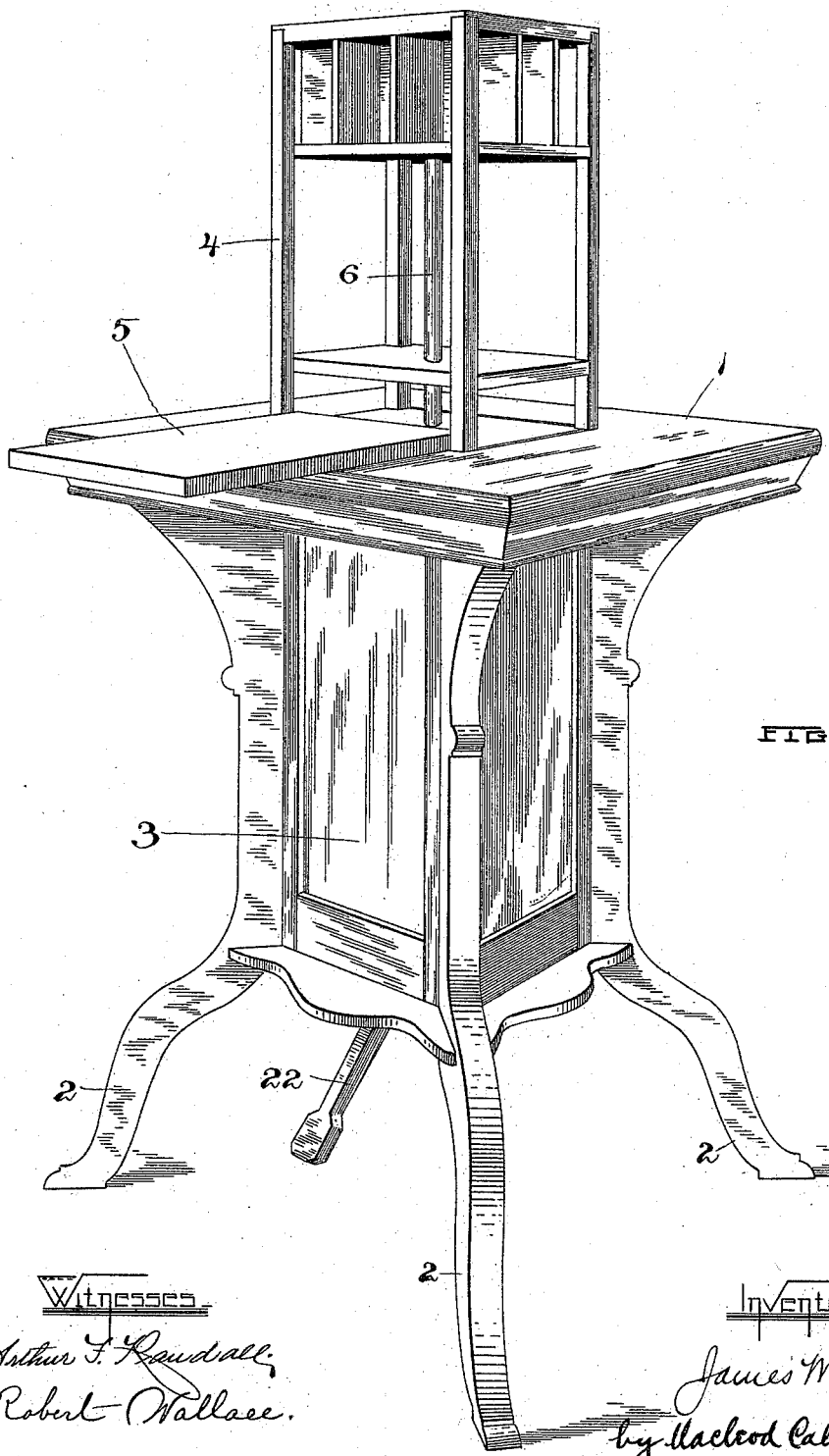

FIG. 1.

Witnesses
Arthur F. Randall,
Robert Wallace.

Inventor
James W. Carver
by Macleod Calver & Randall
his Attorneys.

(No Model.) 3 Sheets—Sheet 2.

J. W. CARVER.

TABLE.

No. 526,144. Patented Sept. 18, 1894.

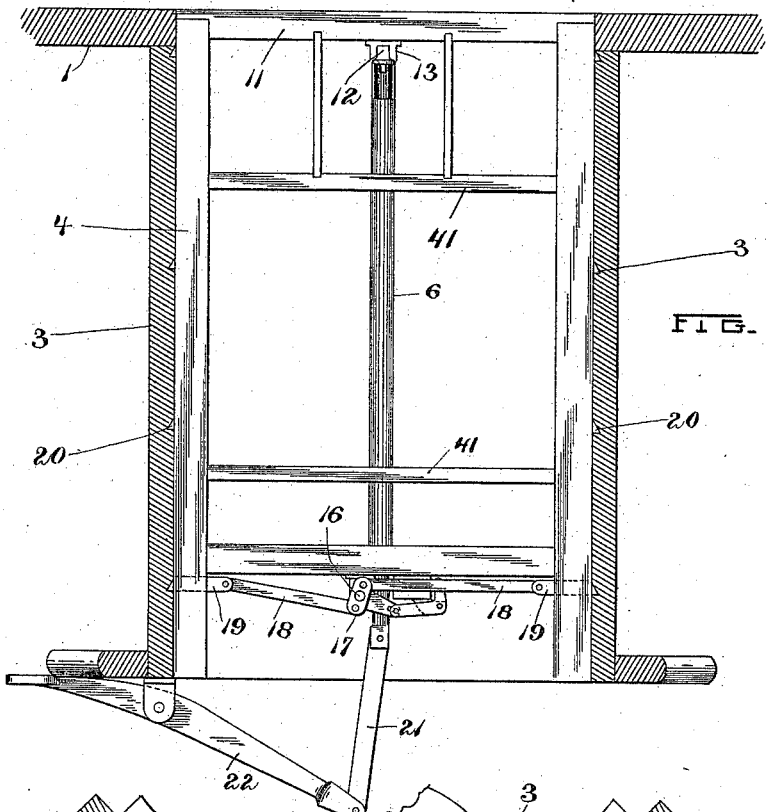

FIG. 2.

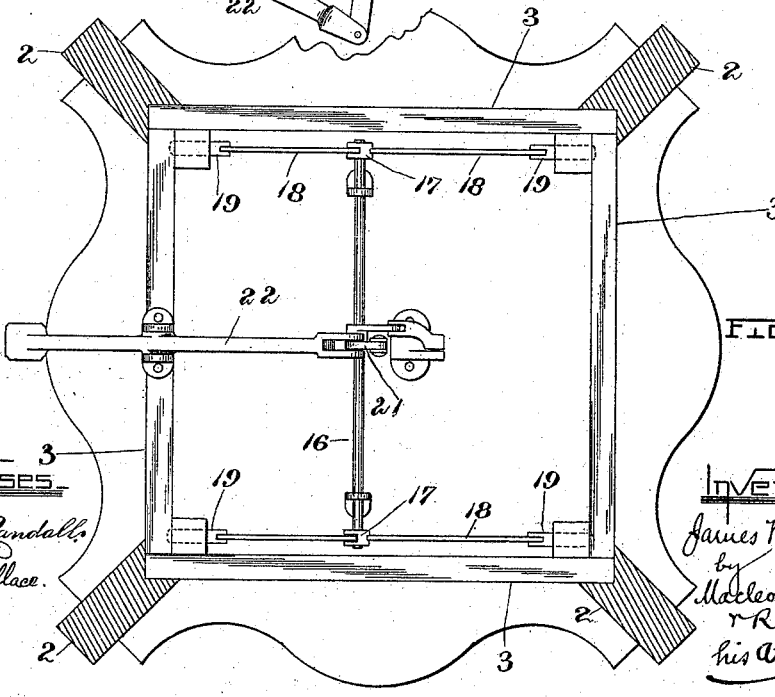

FIG. 3.

Witnesses.
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(No Model.) 3 Sheets—Sheet 3.

J. W. CARVER.

TABLE.

No. 526,144. Patented Sept. 18, 1894.

FIG. 5.

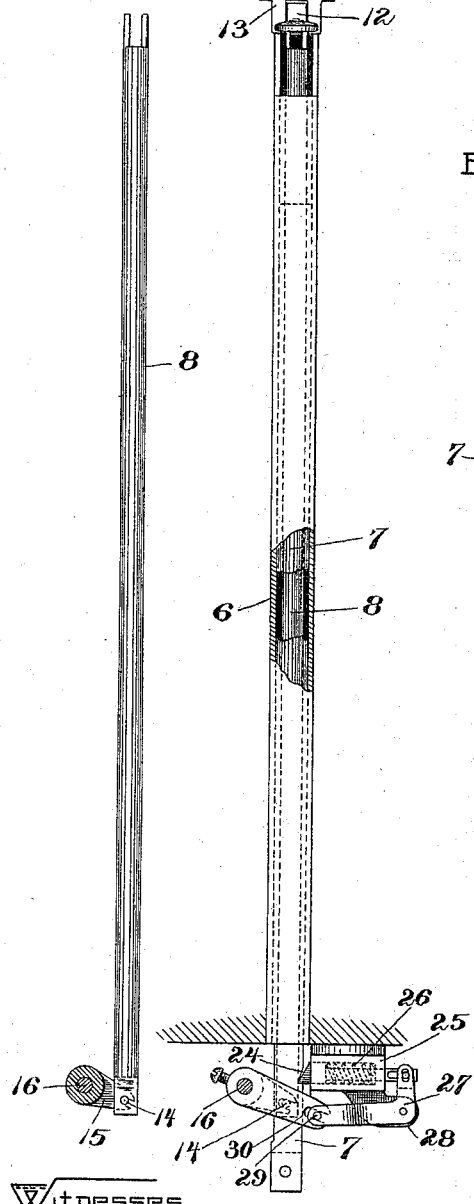

FIG. 6.

FIG. 4.

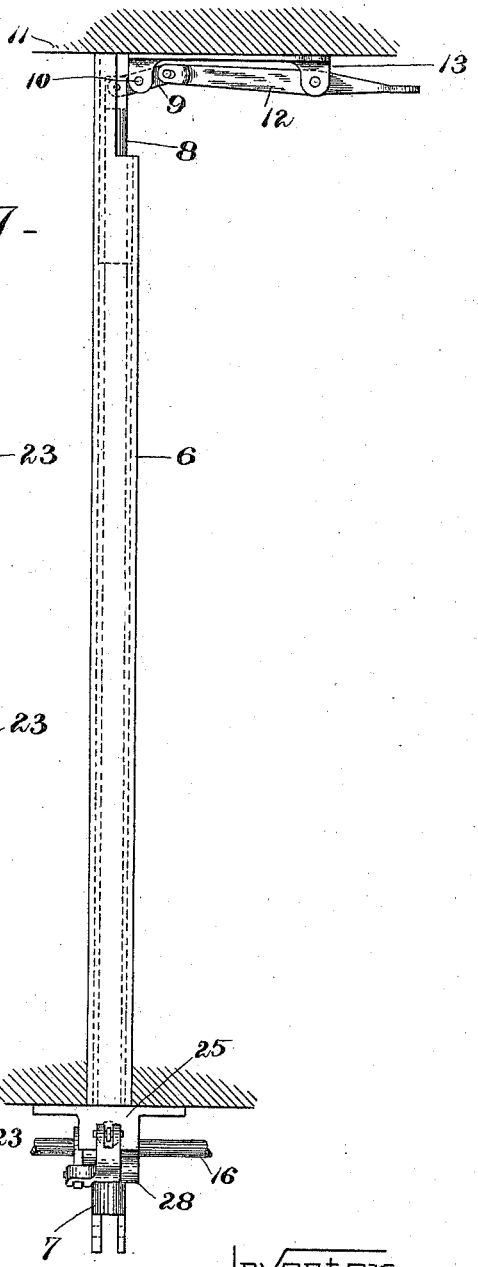

FIG. 7.

Witnesses.

Arthur F. Randall,
Robert Wallace.

Inventor.

James W. Carver
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UNITED STATES PATENT OFFICE.

JAMES W. CARVER, OF AUBURN, ASSIGNOR TO HIMSELF, AND ALFRED L. CHILDS, OF CANTON, MAINE.

TABLE.

SPECIFICATION forming part of Letters Patent No. 526,144, dated September 18, 1894.

Application filed November 21, 1893. Serial No. 491,604. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. CARVER, a citizen of the United States, residing at Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Tables, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide an improved table, and it consists in a table having a case capable of being raised and lowered relatively to the top thereof, and provided with suitable operating mechanism, whereby the raising and lowering of the said case may be readily effected, all as hereinafter more fully set forth.

The novel features of my invention are pointed out in the claims which are appended hereto.

I have shown my invention in the best form now known to me in the accompanying drawings to which reference is made in the following description, and in which—

Figure 1 is a perspective of a table embodying my invention, and showing the movable case in its raised position. Fig. 2 is a view of the table in vertical transverse section showing the movable case and adjacent portions of the table, and also the mechanism for raising the movable case and for supporting it in its raised position. Fig. 3 is a plan view of the table viewed from below. Figs. 4, 5, 6, and 7 are views showing details of the said operating mechanism.

My improvement may be applied to tables of various forms and styles, as will be obvious. The table shown in Fig. 1 to which my invention is applied, is of comparatively small size, such as might be employed for a card table or the like, but the size or style of the table is obviously immaterial. The top is shown at 1, and the legs or supports at 2. The central space between the legs and underneath the top is preferably cased up as shown at 3, and forms a well or receiver within which the case 4 is contained when the latter is in its lowest position. The case 4 may be provided with shelves, pigeon holes, drawers, or the like as may be desired, and is divided by one or more horizontal partitions 41, 41 into two or more vertical divisions, as shown. If desired at one side thereof the said case may have a desk or tablet 5 preferably pivoted near its lower end between the uprights of the case 4 and adapted when the said case is in its highest position to be swung down onto the table top 1 to form a convenient surface for use in writing or the like. When the tablet 5 is raised into a vertical position it lies between the uprights of the said case 4, and is flush therewith so that it presents no obstacle to the raising or lowering of the case 4. The top of the case 4 when the latter is in its lowest position is preferably flush with the top 1 of the table, it occupying a position centrally thereof so that when the case is in this position the table presents a smooth unbroken top and may be used for all the purposes of an ordinary table.

The movable case 4, as previously stated, may be sub-divided as desired, providing compartments for cards, writing materials, and the like, which when not in use may be securely kept in the case 4, and within the receiver of well 3. When it is desired to reach the contents of the case 4, the said case may be readily raised partially or wholly out of the well or receiver 3, or, if no inclosed well or receiver be employed, above the level of the top 1 of the table. The mechanism provided for thus raising the case 4, supporting it in its raised position and lowering it is as follows: I provide a tube 6 which is placed vertically and preferably centrally in the movable case 4. The tube is rigidly secured in place and extends from top to bottom of the case 4, the lower end of the tube being open. Within the tube 6 is a tube or rack piece 7, see Fig. 5, of lesser diameter than the tube 6 in order that it may slide freely within the same. Within the tube 7 is a rod 8, Fig. 6, which at its upper end is connected by means of a pivot to the lever 9 which is pivoted as shown at 10 between lugs on the under side of the top 11 of the movable case 4. The lever 9 is also pivoted to one end of the operating lever 12, see Fig. 4, which is also pivoted between lugs on the under side of the top 11, as shown at 13. The free end of the lever 12 is shaped to receive the thumb or finger to permit of its easy operation.

The lower end of the rod 8 is provided with

a pin 14 Fig. 6, which engages a slot in the end of an arm 15 which is rigidly set on a rod or rock-shaft 16 which extends across the bottom of the movable case 4, as shown in Fig. 3. The rock-shaft 16 is provided at each end with a lever 17 which extends on opposite sides of the shaft and to each end of which is pivoted a connecting-rod 18, the other end of which is pivoted to a sliding bolt or locking pin 19. The bolts 19 slide in holes or sockets formed in the lower ends of the upright frame pieces of the movable case 4. The engaging ends of the said bolts 19 are preferably beveled, as shown, and engage notches 20 cut in the sides of the well or receiver 3 as will be clear from Fig. 2. By this means when the said locking bolts 19 are each in engagement with a notch 20 the case 4 is securely supported and held in a given position, and by providing notches at different heights in the sides of the well or receiver the case 4 may be supported and held at any desired height relatively to the top of the table.

Since the engaging ends of the bolts 19 are beveled and engage correspondingly shaped notches the case 4 may be raised without withdrawing the said bolts, the latter being simply forced back as their beveled ends slide on the corresponding bevels of the notches. To lower the case 4, however, the bolts 19 must, as will be obvious be independently withdrawn and for this purpose the levers 9 and 12 which have been previously described are provided. By pressing upwardly the free end of lever 12, the rod 8 is raised, raising the lever arm 15, rocking the shaft 16, and withdrawing the bolts 19 from the notches with which they are in engagement. When this is done, the case 4 is free to be lowered into the well or receiver 3.

For the purpose of raising the case 4 the vertically sliding inner tube 7 shown separately in Fig. 7 is provided. The lower end of the tube 7 is pivoted to a connecting-rod 21 which is pivoted to a lever 22. The lever 22 is pivoted between lugs extending downwardly from a stationary part of the table and its free end is so formed as to adapt it to be operated by the foot of a person using the table.

The tube or rack-piece 7 is slotted lengthwise almost from end to end thereof to accommodate the arm 15 heretofore described, which engages a pin on the rod 8, which is placed inside the said tube 7. The tube 7 is provided with a number of notches 23 preferably three or more in number which engage a spring impelled sliding bolt or dog 24 which is mounted in a socket or bearing 25, secured to the bottom of the movable case 4.

The socket 25 is so formed as to accommodate a spiral spring 26 which encircles the shank of the bolt 24, and which tends to force the bolt outwardly into contact with the tube or rack-piece 7. The rear end of the bolt 24 is slotted and is connected with the upwardly projecting end of the bell-crank lever 27 by means of a pivot, the end of said bell-crank being also slotted to receive said pivot, as shown in Fig. 5.

The bell-crank-lever 27 is pivoted to an arm 28 which projects downwardly from the socket 25. The longer arm of the bell-crank lever 27 is off-set slightly, as shown in Fig. 4, and is provided with a pin 29 which engages a slot in the end of an arm 30 which is fast on the rock-shaft 16 so that when the rock-shaft 16 is turned, the arm 30 will be raised moving the bell-crank lever 27 and withdrawing the bolt 24 against the tension of spring 26 from contact with the tube 7. The engaging end of the bolt 24 is beveled and the notches 23 in the tube 7 are correspondingly beveled so that the tube 7 may be lowered without it being necessary first to retract the bolt 24 by hand. If now the case 4 be in its raised position, as shown in Fig. 1, the case may be lowered by pressing the free end of the lever 12 which causes the rod 8 to be raised slightly thus turning the rock-shaft 16, raising the arm 30, moving the bell-crank lever and withdrawing the bolt 24 while at the same time the connections 18 and bolts 19 are also withdrawn. The case 4 may then be lowered into the receiver or well 3.

If it be desired to raise the case 4 the user of the table depresses the foot lever 22, the parts being in the position shown in Fig. 2, and forces the case upwardly until the bolts 19 are opposite the series of notches 20 which is next above the lowest series. By removing the foot from the lever 22 the inner end of the lever falls downwardly carrying with it the tube 7 until the bolt 24 is opposite one of the notches 23 which is intermediate the length of said tube. The bolt 24 will then snap into engagement with said notch and if the foot lever 22 be again depressed the case 4 will again be moved upwardly. By varying the size of the operating parts, or of the case, the number of movements of the foot-lever 22 necessary to completely raise the case may be varied. When the case is of relatively large size two or three movements of the foot lever will ordinarily be sufficient to raise the case to its highest position.

In order that the bolt 24 may not be retracted when the case is lifted and the bolts 19 are forced backward into the holes or sockets in which they are situated, in consequence of the action of their beveled outer ends against the corresponding bevels of the notches which they enter, the slot in the rear end of the said bolt 24 is made long enough to permit sufficient play of the pivot which connects said bolt to the bell-crank 27. This slot is short enough, however, to enable the bolt to be retracted by hand when desired in consequence of movement imparted to the lever 12 and transmitted to the bell-crank 27 through the connections which have been described already.

The spiral spring 26 which encircles the

shank of the bolt 24 not only serves to impel the bolt toward the tube or rack piece 7 and into engagement with the notches therein, but it also serves while operating the bolt 24 to depress the long arm of the bell-crank lever 27 and thus to turn the rock-shaft 16 and to force the sliding bolt 19 into contact with the notches in the sides of the case 3 with which said bolts 19 engage.

What I claim is—

1. A table having a case movable vertically through the top thereof, a dog connected therewith, a vertically movable rack-piece adapted to engage with the said dog and means for moving said rack-piece whereby the said case may be raised to the desired height, substantially as set forth.

2. A table having a case movable vertically through the top thereof, a dog connected therewith, a vertically movable rack-piece adapted to engage with the said dog and a lever connected with the said rack piece for operating the same whereby the said case may be raised to the desired height, substantially as set forth.

3. A table having a case, movable vertically through the top thereof and a lever and connections whereby said case may be raised when the said lever is actuated, of spring-actuated bolts whereby the said case may be held at the desired height and devices for retracting the said bolts to permit the case to be dropped, substantially as described.

4. A table having a case vertically movable through the top thereof, a rock-shaft mounted on the said case, bolts connected with the levers on the said rock-shaft and acting to hold the case at the desired height, and a spring acting to produce the engagement of the said bolts, substantially as described.

5. A table having a case vertically movable through the top thereof, a rock-shaft mounted on the said case, bolts connected with the levers on the said rock shaft and acting to hold the case at the desired height and a spring acting to produce engagement of the said bolts, and disengaging devices also carried by the said case whereby the said bolts may be retracted to release the case and permit its descent, substantially as set forth.

6. A table having a case movable vertically as described, a dog connected with said case, a vertically movable rack-piece adapted to engage with the said dog, a lever connected with the said rack-piece whereby the said case may be raised, a rock-shaft mounted on said case, bolts connected with the levers of the said rock-shaft and acting to hold the case at the desired height, a connection between the said dog and the said rock-shaft, a spring acting to project the said dog and bolts into engagement, and means connected with the rock-shaft for moving the same to retract the said bolts and dogs when it is desired to lower the same, substantially as described.

7. A table having a case movable vertically as described, a dog connected with said case, a vertically movable rack-piece adapted to engage with the said dog, a lever connected with the said rack-piece whereby the said case may be raised, a rock-shaft mounted on said case, bolts connected with the levers of the said rock-shaft and acting to hold the case at the desired height, a connection between the said dog and the said rock-shaft, a spring acting to project the said dog and bolts into engagement, and a finger-piece mounted on the case and connected with the said rock-shaft whereby to move the latter and retract the bolts and dog when it is desired to lower the case, substantially as described.

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

JAMES W. CARVER.

Witnesses:

ALBERT S. PLUMMER,

PATRICK F. TREMBLAY.