C. S. BURTON.

PEDAL OPERATED LOCK FOR EXTENSION TABLES.

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1,113,192.

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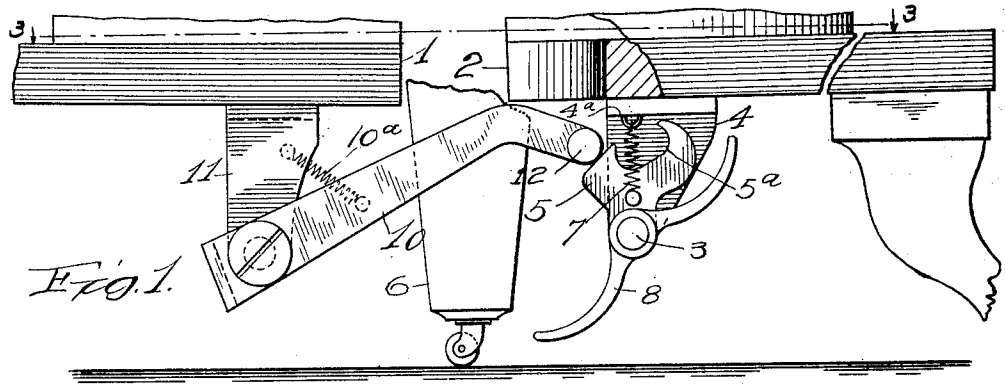


Fig. 1.

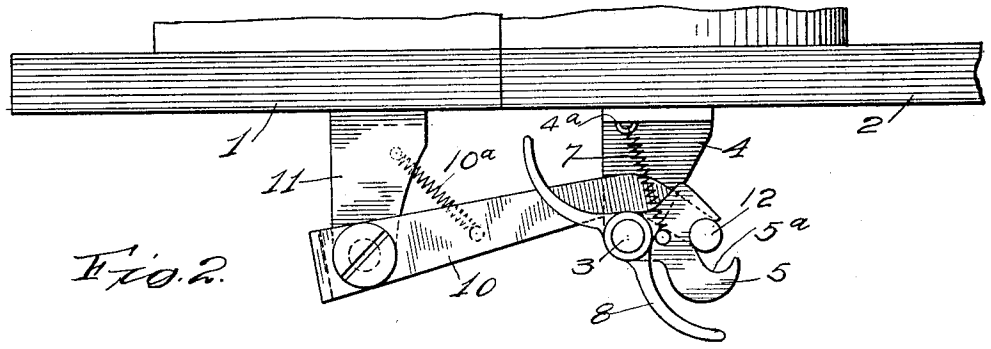
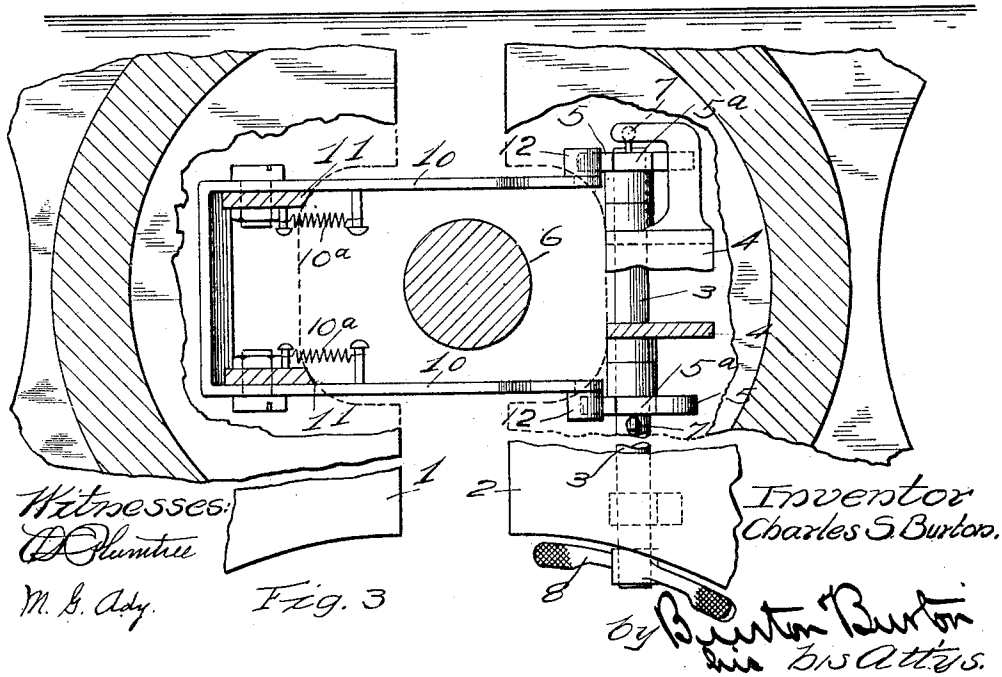


Fig. 2.



Witnesses:
C. D. Plumtree
M. G. Ady.

Fig. 3

Inventor
Charles S. Burton.
by Burton & Burton
his Attys.

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UNITED STATES PATENT OFFICE.

CHARLES S. BURTON, OF OAK PARK, ILLINOIS, ASSIGNOR TO EMIL TYDEN, OF HASTINGS, MICHIGAN.

PEDAL-OPERATED LOCK FOR EXTENSION-TABLES.

1,113,192. Specification of Letters Patent. Patented Oct. 13, 1914.

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To all whom it may concern:

Be it known that I, CHARLES S. BURTON, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented new and useful Improvements in Pedal-Operated Locks for Extension-Tables, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide an improved device for drawing and locking together the two halves of a divided pedestal of an extension table adapted to be located at the bottom of the pedestal and operated by the foot.

It consists of the elements and features of construction shown and described as indicated in the claims.

In the drawings:—Figure 1 is a side elevation of the bottom portion of a pedestal table equipped with a device embodying this invention, the parts being shown in unlocked position. Fig. 2 is a similar view showing the parts at locked position. Fig. 3 is a section at the line 3—3 on Fig. 1.

The two pedestal halves, 1 and 2, are shown in Fig. 1 in the position at which the locking devices are about to be engaged with each other, the pedestal halves having been brought toward each other until they are separated at the bottom a short distance, while it is assumed that the top members of the table may be in contact, the usual sagging apart of the pedestal halves at the bottom being indicated in the figure. The locking devices comprise on one of the pedestal halves a rock shaft, 3, which is journaled in a hanger, 4, mounted on the bottom of the pedestal and having rigid with it two lever arms, 5, 5, which are spaced apart on the rock shaft a sufficient distance to receive between them the counterpart engaging devices mounted on the other pedestal half, when the latter themselves are spaced apart sufficiently to admit between them a center leg, 6, with which the table may be equipped. In the absence of such center leg, the duplication of such devices on each pedestal half obviously may be dispensed with, a single engaging device on each half being sufficient. Each of the lever arms, 5, is provided with a notch, 5^a, opening upwardly and toward the meeting plane of the pedestal halves in the unlocked position, and opening almost directly away from the parting plane in the locked position of the parts. A spring or springs, 7, connected with one or both of the lever arms, 5, and with the bottom of the pedestal,—as by being engaged with an eye, 4^a, on the web of the hanger, 4,—operate to hold the lever arms, 5, with their inner edges normally inclined upwardly from the rock shaft axis at a sufficient angle outward from the vertical meeting plane of the pedestal half to cause the counterpart engaging members to readily ride up along said edges into engagement with the notches, 5^a, as hereinafter explained. This angle of inclination is, however, of no special importance, it being only essential that the said lever arms, 5, are normally held by the springs extending upwardly from the shaft. The rock shaft, 3, extends beyond the edge of the bottom at the side of the table, and at its protruding end it is provided with a rigidly attached pedestal cross bar, 8, in a position to permit either of its opposite ends to be engaged and depressed by the foot of the operator for rocking the shaft to perform the operations hereinafter described. Upon the other pedestal half, there is mounted a device comprising, as illustrated, a pair of latch bars, 10, 10, (one being sufficient if there is no center leg as above indicated) these latch bars being preferably formed as parallel arms of a rigid frame structure which is fulcrumed on a hanger, 11, secured upon the bottom end of said pedestal half. By a spring or springs, 10^a, connected with the hanger at one end and with the latch bar or bars at the other end, the latch bars are normally held at a position inclined slightly upward from the horizontal toward the opposite pedestal half, each latch bar having at its free end an outwardly projecting stud, 12, which is positioned so as to collide with the inwardly facing edge of the corresponding lever arm, 5, of the rock shaft on the opposite pedestal member when the pedestal halves are advanced toward each other for closing up the pedestal. The parts are proportioned so that the studs, 12, will encounter the lever arms, 5, when the pedestal halves are separated at the bottom a considerable distance,—say, one inch,—and as said pedestal members approach, the studs, 12, riding up on the edges of the lever arms, 5,

become lodged in the notches, 5ª, thus effecting engagement of the coöperating devices on the two pedestal members. When this engagement has occurred, if the pedestal members continue to approach at the bottom before the top members are in contact, the latch bars will simply push the lever arms, 5, over, down and outward to some extent, rocking the shaft correspondingly; but when the table is closed together at the top, the pedestal members still remaining somewhat separated at the bottom, or at least, not tightly bound together, the operator pressing with the foot upon the higher end of the pedal bar, 8, will rock the shaft, 3, throwing the lever arms, 5, downward and outward until the studs, 12, pass the plane containing the axis of the shaft and the axis of the latches, and at that position the latch bars collide with the rock shaft preventing further rocking of the shaft in the direction in which the operator is pressing it, and the parts are thereby held locked together until released by rocking the shaft in the opposite direction. For releasing and unlocking the opposite end of the pedal bar, 8, from that which was operated in the locking operation, being now the higher of the two ends of said bar, will be depressed by the foot of the operator, causing the lever arms, 5, to be swung upward until the studs, 12, pass above the plane containing the axis of the rock shaft and latch bars, and thereupon the reaction tending to separate the pedestal halves will continue the rocking of the shaft in the same direction, even though the pressure of the foot on the pedal bar being discontinued and the lever arms with the studs, 12, engaged with them will swing up to a position more or less above the level of the rock shaft axis, the engagement of the studs, 12, with the latch bars being now relaxed. If now the table halves are drawn apart for extension, the latch bars, 10, having their studs, 12, still engaged with the notches, 5ª, of the lever arms, 5, will swing said lever arms over toward the meeting plane, rocking the shaft, 3, until the studs, 12, slip easily out of the notches, 5ª, whereupon all parts will be returned by the springs, 7 and 10ª, to their normal position, as shown in Fig. 1.

I claim:—

1. In a divided pedestal extension table, in combination with the two halves of the pedestal, engaging devices mounted on the bottom ends of said halves, respectively, comprising a horizontal rock shaft upon one of the pedestal halves extending transversely of the direction of extension of the table and protruding horizontally beyond the bottom of the pedestal; a member operated by the rocking of said rock shaft adapted for engagement; a latch mounted on the opposite pedestal half adapted to engage said rock-shaft-operated member when advanced thereto-ward, and a pedal cross bar on the protruding end of the rock shaft in position for engagement of its opposite ends by the foot of the operator for rocking the shaft in either direction.

2. In a divided pedestal extension table, in combination with the two halves of the pedestal, a horizontal rock shaft mounted upon one pedestal half extending horizontally transversely of the direction of extension of the table, and a pedal cross bar on said rock shaft positioned for engagement by the foot of the operator to rock the shaft in either direction; means for holding the rock shaft normally at position at which said pedal cross bar is inclined; an engaging device operated by the rocking of the shaft; a coöperating engaging device pivotally mounted on the opposite pedestal half, and means for holding it yieldingly normally in position for encounter with the rock-shaft-operated engaging device when the pedestal halves approach, the pedal cross bar having a range of movement from the first-mentioned inclined position to an oppositely inclined position, and the rock-shaft-operated engaging device being positioned on the rock shaft for movement of its point of engagement with the coöperating engaging device past the plane containing the axes of the rock shaft and said opposite engaging device in said range of movement of the pedal cross bar.

3. In a divided pedestal extension table, in combination with the two halves of the pedestal-engaging devices mounted on the bottom ends of said pedestal halves, respectively, comprising a horizontal rock shaft journaled upon one of said pedestal halves, extending transversely of the direction of extension of the table; a latch pivoted on the opposite pedestal half; a member mounted on the rock shaft for rocking therewith, having a notch for engagement of the latch; means holding the rock shaft normally in position for holding said member thereon with said notch above the rock shaft and opening upwardly, said member being adapted to receive the encounter of the latch when the pedestal halves are advanced toward each other, and to guide the latch to a position above said notch for engagement of the latch therewith by gravity, and means for rocking the rock shaft from its said normal position to carry the notch away from the parting plane of the pedestal halves and to the opposite side of the rock shaft from the pivot of the latch.

4. In a divided pedestal extension table, in combination with the two halves of the pedestal-engaging devices mounted on the bottom ends of said pedestal halves, respectively, comprising a horizontal rock shaft journaled upon one of said pedestal halves,

extending transversely of the direction of extension of the table; a latch pivoted on the opposite pedestal half; a member mounted on the rock shaft for rocking therewith, having a notch for engagement of the latch; means holding the rock shaft normally in position for holding said member thereon with said notch above the rock shaft and opening upwardly, said member being adapted to receive the encounter of the latch when the pedestal halves are advanced toward each other, and to guide the latch to a position above said notch for engagement of the latch therewith by gravity; a spring connected with the latch for holding it normally in position for such encounter, and means for rocking the rock shaft from its said normal position to carry the notch away from the parting plane of the pedestal halves and to the opposite side of the rock shaft from the pivot of the latch.

5. In a divided pedestal extension table, in combination with the two halves of the pedestal-engaging devices mounted on the bottom ends of said pedestal halves, respectively, comprising a horizontal rock shaft journaled upon one of said pedestal halves, extending transversely of the direction of extension of the table; a latch pivoted on the opposite pedestal half; a member mounted on the rock shaft for rocking therewith, having a notch for engagement of the latch; means holding the rock shaft normally in position for holding said member thereon with said notch above the rock shaft and opening upwardly, said member being adapted to receive the encounter of the latch when the pedestal halves are advanced toward each other, and to guide the latch to a position above said notch for engagement of the latch therewith by gravity, and means for rocking the rock shaft from its said normal position to carry the notch away from the parting plane of the pedestal halves and to the opposite side of the rock shaft from the pivot of the latch, the rock shaft being free to be rocked in the opposite direction from its normal position by the pull of the latch in the notch of the notched member when the pedestal halves are drawn apart.

In testimony whereof, I have hereunto set my hand, at Chicago, Illinois, this 11th day of October, 1912.

CHARLES S. BURTON.

Witnesses:
M. GERTRUDE ADY,
LUCY I. STONE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."