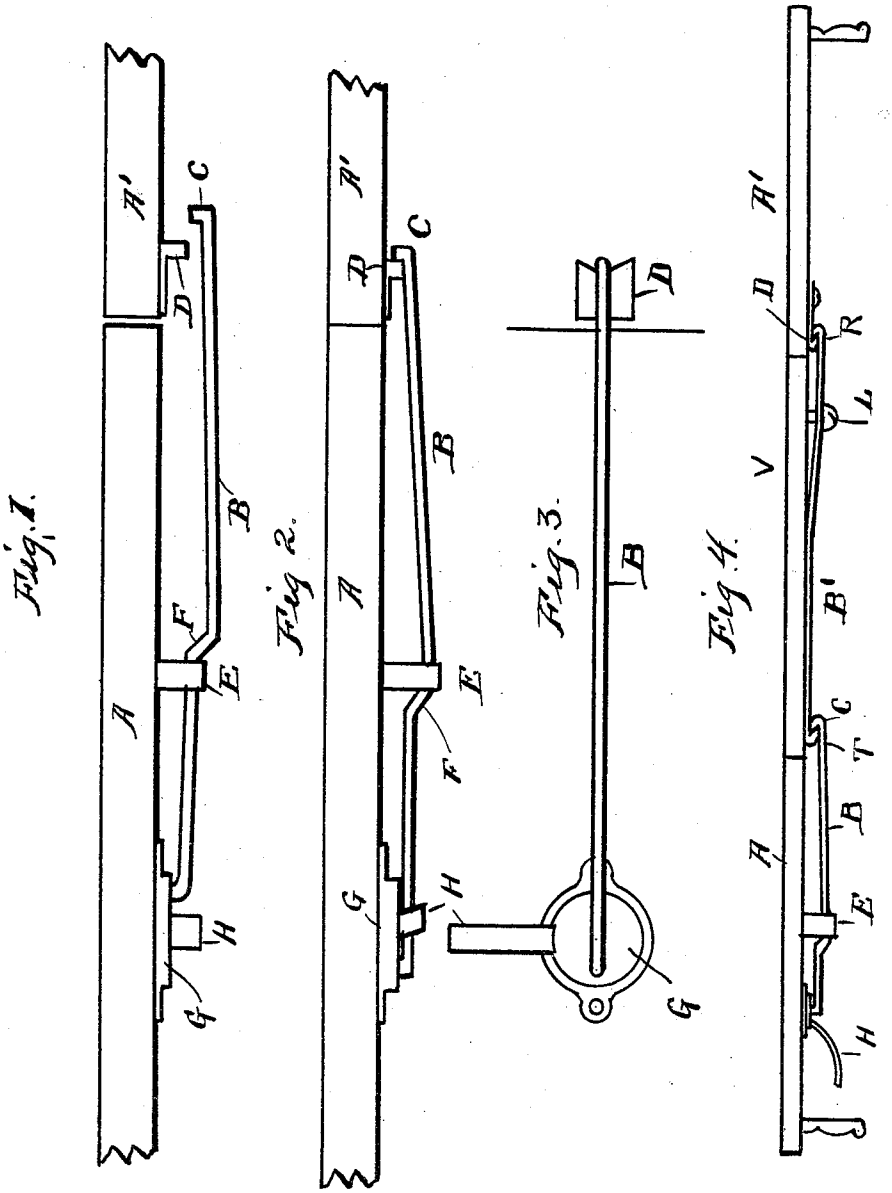
No. 774,046. PATENTED NOV. 1, 1904.

G. A. DAVIS.

TABLE LOCKING DEVICE.

APPLICATION FILED APR. 10, 1903.

NO MODEL. 4 SHEETS—SHEET 1.



WITNESSES.

Harry J Perkins

Mary S. Tooker

INVENTOR

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BY his ATTORNEY

Edward Taggart

PHOTO LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

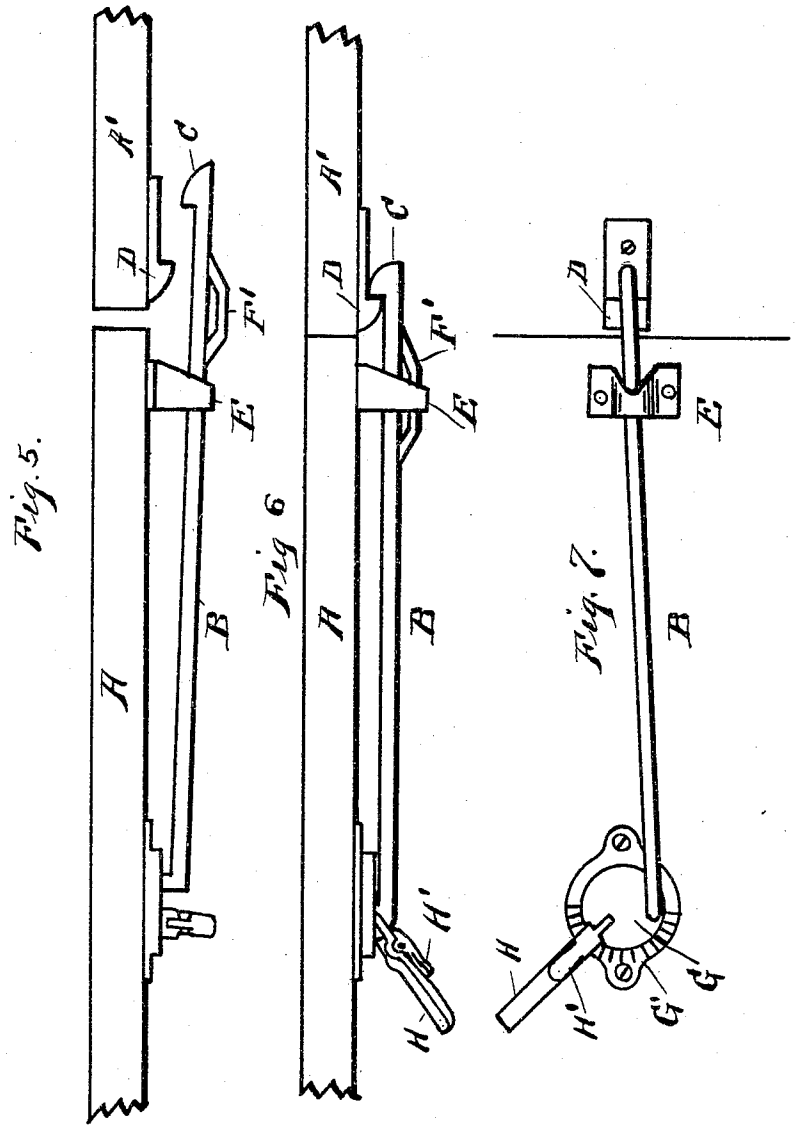
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NO MODEL. 4 SHEETS—SHEET 2.



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NO MODEL. 4 SHEETS—SHEET 3.

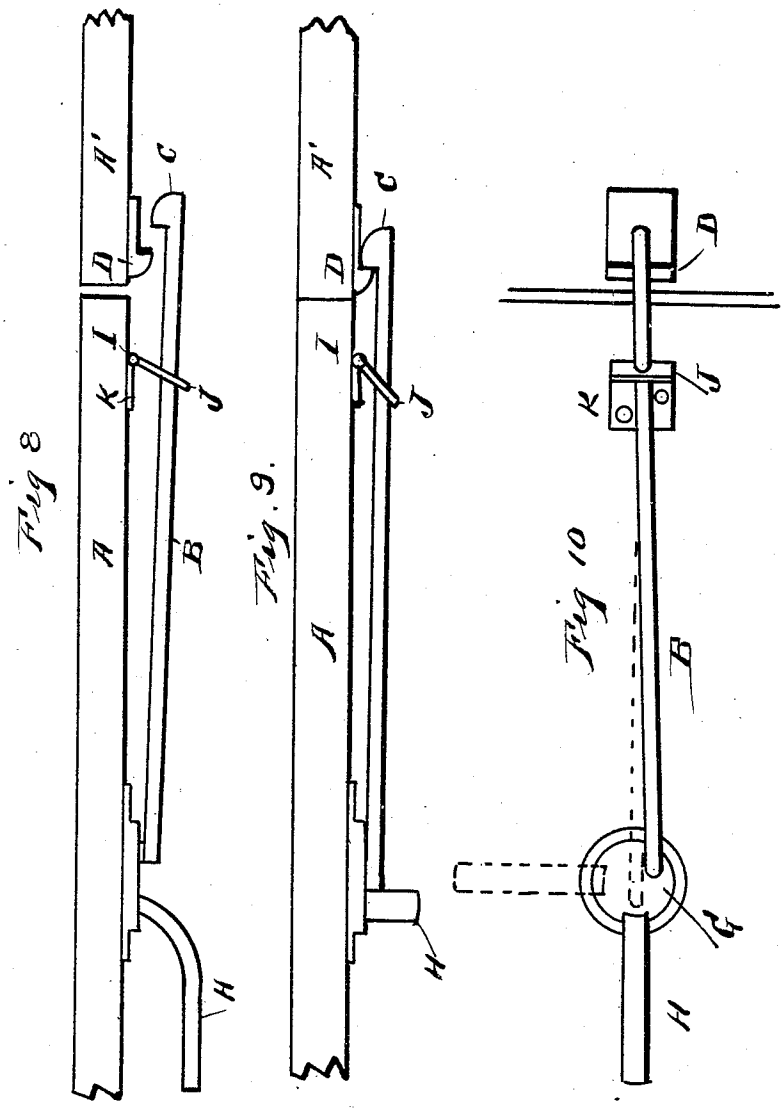


Fig 8

Fig. 9.

Fig 10

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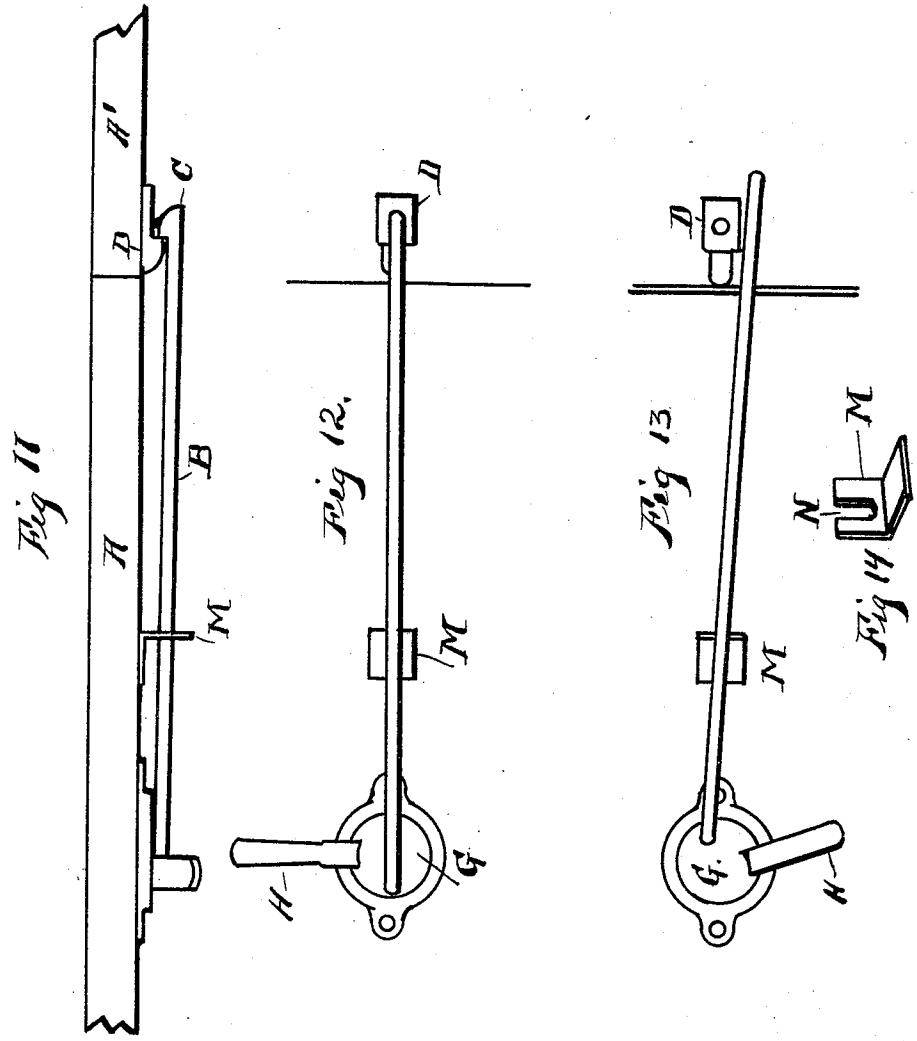
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NO MODEL. 4 SHEETS—SHEET 4.



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No. 774,046. Patented November 1, 1904.

UNITED STATES PATENT OFFICE.

GEORGE A. DAVIS, OF GRAND RAPIDS, MICHIGAN.

TABLE-LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 774,046, dated November 1, 1904.

Application filed April 10, 1903. Serial No. 152,021. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. DAVIS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Table-Locking Devices, of which the following is a specification.

This invention relates to a new and useful device for locking together the parts of an extension-table and also for drawing the parts securely together before they are locked.

The invention may be used either with or without extension-leaves; and the invention in a general way consists in combining with the table of a locking-rod suitable means for operating the said rod to engage the same with a catch or catches for drawing and locking the table firmly together.

The invention further consists in the construction and combination of parts hereinafter described.

The objects of my invention are, first, to draw together and firmly lock the top of an extension-table; second, to support a locking-rod beneath the table-top and upon one of the sections thereof and to combine with said rod suitable means for automatically engaging and disengaging the rod from a catch carried on the other section of the table; third, to furnish a locking device that may be used with any number of extension-leaves or without extension-leaves, as may be desired. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a side view of a portion of a table-top with my preferred form of locking device in its disengaged position. Fig. 2 shows a like view of the table with the locking device engaged, retaining the two parts of the table firmly together. Fig. 3 shows a detached inverted plan view of the locking-rod, the catch with which said locking-rod engages, and one form of operating the said rod whereby same may be engaged and disengaged. Fig. 4 shows the two sections of the table separated, with an extension-leaf in place and the means for using my invention when leaves are inserted in the table. Figs. 5, 6, 7, 8, and 9 show modified forms of the device illustrated in Figs. 1, 2, and 3. Fig. 10 shows the locking device illustrated in Figs. 8 and 9 detached. Fig. 11 shows still further the modified forms of the device illustrated in Figs. 1, 2, and 3. Fig. 12 shows the form illustrated in Fig. 11, when the locking-rod is in engagement with the catch. Fig. 13 shows the locking device illustrated in Fig. 11, when the locking-rod is thrown out of engagement with the catch. Fig. 14 shows a perspective view of the fulcrum-plate used in connection with the device shown in Figs. 11, 12, and 13.

Similar letters refer to similar parts throughout the several views.

In the drawings, A and A′ represent the two sections of the table-top. B shows the locking-rod, provided at its free end with a hook or catch C. The other end of the locking-rod B in the example of my invention as shown in the drawings is pivoted to the eccentric G, the eccentric G being carried or retained in a suitable case or other means for attaching the same to the table-section A. A handle or lever H is used to operate the eccentric G, which gives a longitudinal movement to the rod B. The section A′ of the table-top is provided with a catch of any suitable form, as shown by D. The rod B is supported by the loop E, the loop E allowing the rod to pass loosely through it, so as not to interfere with its longitudinal motion.

In order to furnish means for automatically engaging and disengaging the hook C with or from the catch D, the rod B is bent at F, as shown, so as to form a wedge or cam movement. The cam part of the rod engaging with the loop E as the said rod is drawn to the left, as shown in the drawings, will raise the hook or free end of the said locking-rod, thereby engaging the hook C with the catch D, and the further movement of the eccentric by means of the handle H will exert a longitudinal strain upon the rod, drawing the sections A and A′ of the table together, and the eccentric by its form will retain the rod in its locking position, as shown in Figs. 3 and 4. The reverse motion of the eccentric will give the reverse longitudinal motion to the rod B, removing the cam portion F from the loop E,

disengaging the hook C from the catch D. When extension-leaves are used, each leaf is provided with a locking-rod secured to the under side thereof, and the hook C of the locking-rod, which is attached to the table-section, engages directly with the hook on the locking-rod carried by the extension-leaf adjacent to the section of the table carrying the said locking-rod B.

In Fig. 4 I have illustrated the table-leaf by V and its locking-rod by B′. This rod B′ is secured to the under side of the leaf in any suitable manner. I prefer, however, to use a screw passing through a slot in the rod B′, which screw is shown by L. The object of using a slot is to allow this rod to adjust itself slightly to variations caused by shrinking and swelling or by other defects in the table-leaves. The rod B′ is preferably a spring-rod and is provided with a hook R, which hook R engages with the catch D on the table-section A′. This engagement may be automatic when the table-leaf is placed on the extension-bars and slid in contact with the section A′ of the table, as shown in Fig. 4. The rod B′ is provided also with a hook or catch T, with which the hook C on the rod B engages and disengages in the same manner as it engages and disengages with the hook D when no extension-leaves are used. Any number of leaves may be used, each leaf being constructed like all other leaves, so that the description of one will answer for all. When more than one leaf is used, the leaf nearest to the part A′ engages with A′, the leaf next to that engages with the leaf V, and so on, the locking-rod B engaging with the extension-leaf nearest or adjacent to the section A.

Referring now to Figs. 5, 6, and 7, F′ shows the modification of the means for raising and lowering the rod B, and the casing for the eccentric G is provided with the rack G′. The handle H is provided with a spring-dog H′, which dog engages with the rack G′ and holds the eccentric in any required position.

In Figs. 8, 9, and 10 I have shown a modified form of the device for raising and lowering the rod B. This device consists in a pivoted loop J. The pivoted loop J carries the rod B and is supported by a plate K or by other suitable means and turns upon the pivot I, which attaches the said loop to the plate K. The movement of the rod is longitudinal, and when thrown backward from the position shown in Fig. 8 to the position shown in Fig. 9 the free end of the rod is raised so that the hook C engages with the catch D.

The operation of the device modified as above described is precisely the same as the operation of the device shown in Figs. 1, 2, and 3.

In Figs. 11, 12, and 13 the locking-rod is moved by the eccentric or other suitable means the same as above described; but the free end of this locking-rod swings horizontally in order to make engagement and disengagement with and from the catch D. In order to accomplish this swinging result, I provide what I term a "fulcrum-block" M, which fulcrum-block is secured to the under side of the table-top section A in any suitable manner and is provided with an opening N, through which the rod passes, and thus by turning the handle H from the position shown in Fig. 12 to the position shown in Fig. 13 the free end of the rod B is swung laterally, so that the hook portion C engages and disengages with the catch D, as may be required.

Other forms of engagement and disengagement of the locking-rod with the catch may be used without departing from the spirit of my invention, and I do not wish to confine myself to the specific construction of parts herein described.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. In a locking device for sectional table-tops, a shiftable rod having its inner end provided with means adapted to engage with the other section of the table-top for connecting the sections together, means carried by one of said sections and connected with the outer end of said rod for shifting said rod in opposite directions, and means carried by one of the sections for moving said connecting means to engaging position when said rod is shifted in one direction and out of engaging position when said rod is shifted in the opposite direction.

2. In an extension-table, in combination with one of the sections thereof, of a locking-rod provided with a hook at its free end, a catch on the other section of the table, an extension-leaf adapted to fit between the said sections, a longitudinally-movable locking-rod suspended from the lower face of said extension-leaf and provided with a hook at one end adapted to engage with a catch on one of the said sections, said locking-rod carried by the extension-leaf further provided with a hook at its other end adapted to engage with the hook on the free end of said first-mentioned locking-rod, and means for longitudinally moving said first-mentioned locking-rod into and out of engagement with the rod carried by the table-leaf.

3. In an extension-table, the combination with a section thereof, of a longitudinally-moving locking-rod provided with a hook at its free end, a catch on the other section, a plurality of extension-leaves, a longitudinally-movable locking-rod suspended from the lower face of each leaf and provided with a hook at either end, whereby said movable locking-rods are adapted to be connected together and to the first-mentioned longitudinally-moving locking-rod and said catch and thereby connect the leaves to the sections of the table, and means for moving said first-

mentioned longitudinally-moving locking-rod into engagement with the locking-rod on the leaf adjacent thereto.

4. In a sectional extension-table, the combination with one of the sections thereof, of a locking-rod carried by said section and provided with a hook at its free end, a catch on the other section of the said table, an extension-leaf adapted to fit between the said sections, a movable locking-rod suspended from the lower face of said extension-leaf and provided with a hook at one end adapted to engage with a catch on one of the said sections, said locking-rod carried by said extension-leaf further provided with a hook at its other end adapted to engage with the hook on the free end of said first-mentioned locking-rod, and a pivotally-mounted plate provided with a handle and eccentrically connected with the first-mentioned locking-rod for giving longitudinal motion thereto for the purpose of engaging and disengaging the same from the hook on the rod carried by the table-leaf.

5. In a sectional extension-table, the combination with a section thereof, of a longitudinally-moving locking-rod carried by said section and provided with a hook at its free end, a catch on the other section, a plurality of extension-leaves, a movable locking-rod suspended from the lower face of each leaf and provided with a hook at either end, whereby said movable locking-rods are adapted to be connected together and to the said longitudinally-moving locking-rod and to said catch and thereby connect the leaves to the sections of the table, and a pivotally-mounted plate provided with a handle and eccentrically connected to said longitudinally-moving locking-rod for moving said rod into and out of engagement with the locking-rod on the leaf adjacent thereto.

6. In a sectional extension-table, the combination with one of the sections thereof, of a locking-rod provided with a hook at its free end, a catch on the other section of the said table, an extension-leaf adapted to fit between the said sections, a movable locking-rod suspended from the lower face of said extension-leaf and provided with a hook at one end adapted to engage with a catch on one of said sections, said locking-rod carried by said extension-leaf further provided with a hook at its other end adapted to engage with the hook on the free end of said first-mentioned locking-rod, means for imparting longitudinal motion to said first-mentioned locking-rod, and supporting means for the first-mentioned locking-rod carried by one of said sections, said supporting means when said rod is moved longitudinally adapted to cause the free end of said rod to automatically engage and disengage with one hooked end of said movable locking-rod.

7. In a sectional extension-table, the combination with a section thereof, of a longitudinally-moving locking-rod provided with a hook at its free end, a catch on the other section, a plurality of extension-leaves, a movable locking-rod suspended from the lower face of each leaf and provided with a hook at either end, whereby said movable locking-rods are adapted to be connected together and to the said longitudinally-moving locking-rod and to said catch and thereby connect the leaves to the sections of the table, means for imparting longitudinal motion to said first-mentioned locking-rod, and supporting means for the first-mentioned locking-rod, said supporting means carried by one of said sections, said supporting means when said first-mentioned rod is moved longitudinally adapted to cause automatic engaging and disengaging of the free end of said rod with one hooked end of the movable locking-rod suspended from the face of the adjacent leaf.

8. In a sectional extension-table, the combination with one of the sections thereof, of a locking-rod provided with a hook at its free end and having a portion of its length bent, a catch on the adjacent section of said table, suitable means for imparting a longitudinal motion to said locking-rod, and a supporting means for the locking-rod, said supporting means when said locking-rod is moved longitudinally adapted to engage with said bent portion and thereby cause the free end of said locking-rod to automatically engage and disengage with the catch on the adjacent section of the table.

9. A locking device for a sectional table-top, comprising a shiftable locking-rod provided with a projection, catch means coöperative with said projection, means engaging said rod intermediate its ends for suspending it and for moving said projection into and out of engagement with said catch means when said rod is shifted and means connected to the outer end of said rod for shifting it in both directions.

10. A locking device for a sectional table-top, comprising a shiftable locking-rod provided with a projection, catch means coöperative with said projection, means engaging said rod intermediate its ends for suspending it and for moving said projection into and out of engagement with said catch means when said rod is shifted and means connected to the outer end of said rod for shifting it in both directions and for locking said rod in its set position.

11. A locking device for a sectional table-top, comprising a shiftable locking-rod bent intermediate its ends and further provided with a projection, catch means coöperative with said projection, means for suspending said rod and engaging said bent portion and adapted when said rod is shifted to move said projection into and out of engagement with said catch means and means connected to the outer end of said rod adapted when operated to shift said rod in both directions.

12. In combination, in a sectional table, a longitudinally-movable rod carried thereby for connecting the sections together, a catch means carried by one of the sections, means carried by the other of the sections and adapted when said rod is operated to engage and move the free end of said rod into and out of engagement with said catch means, and means for imparting a longitudinal movement to the rod.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE A. DAVIS.

Witnesses:
EDWARD TAGGART,
MARY S. TOOKER.