No. 764,990. PATENTED JULY 12, 1904.

A. L. CRANDALL.

LOCK FOR EXTENSION TABLES.

APPLICATION FILED AUG. 28, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

FIG. 1

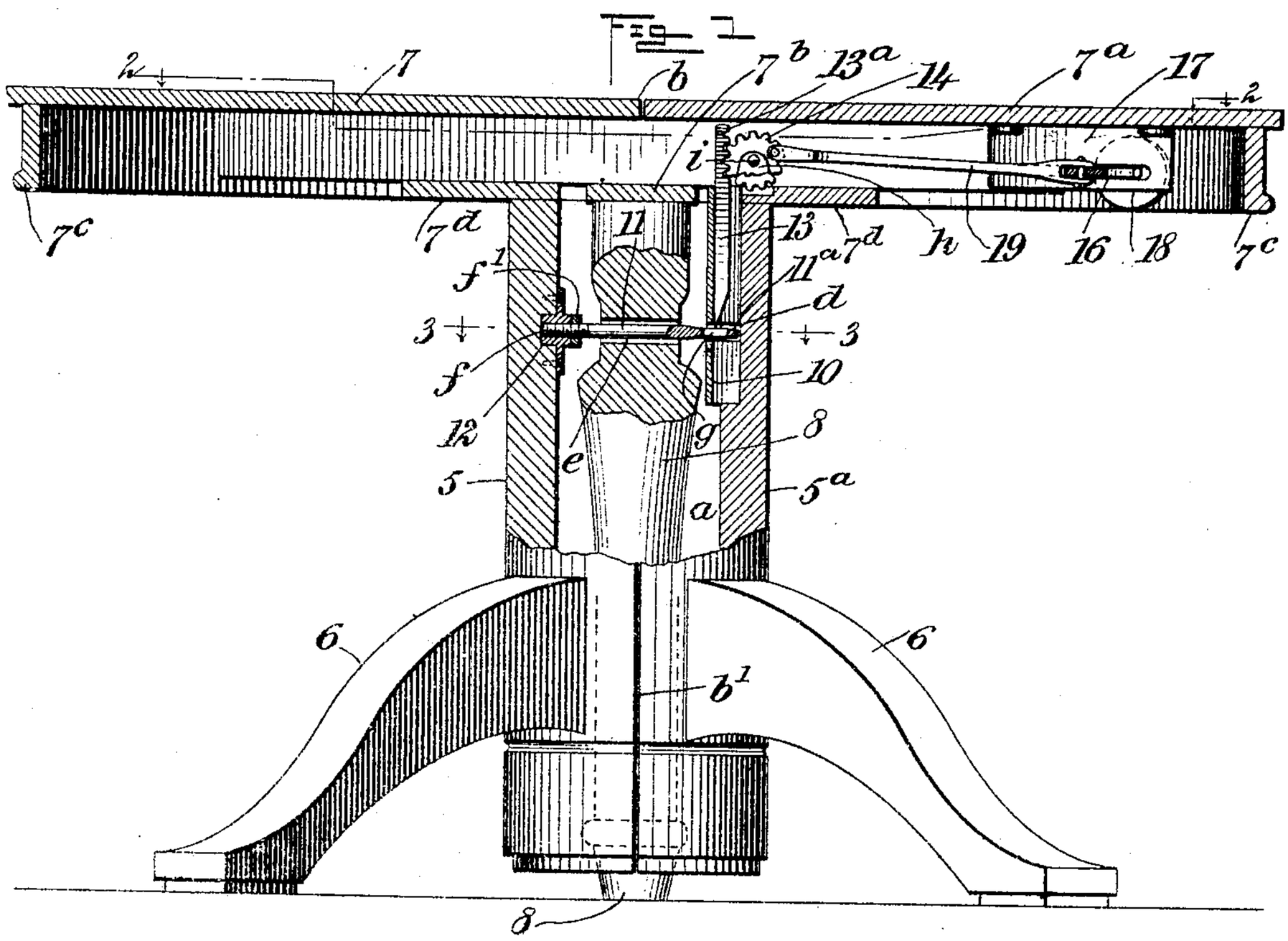
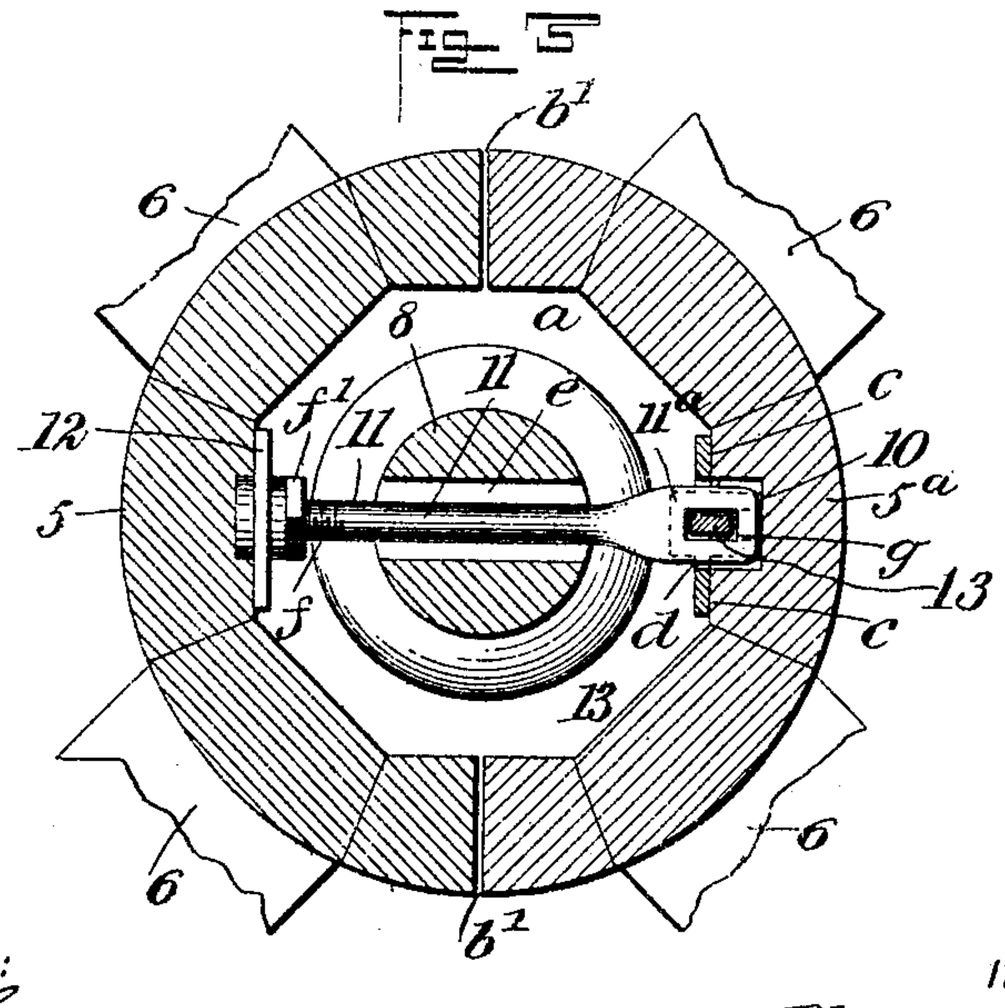


FIG. 5



WITNESSES:

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NO MODEL. 2 SHEETS—SHEET 2.

FIG 2

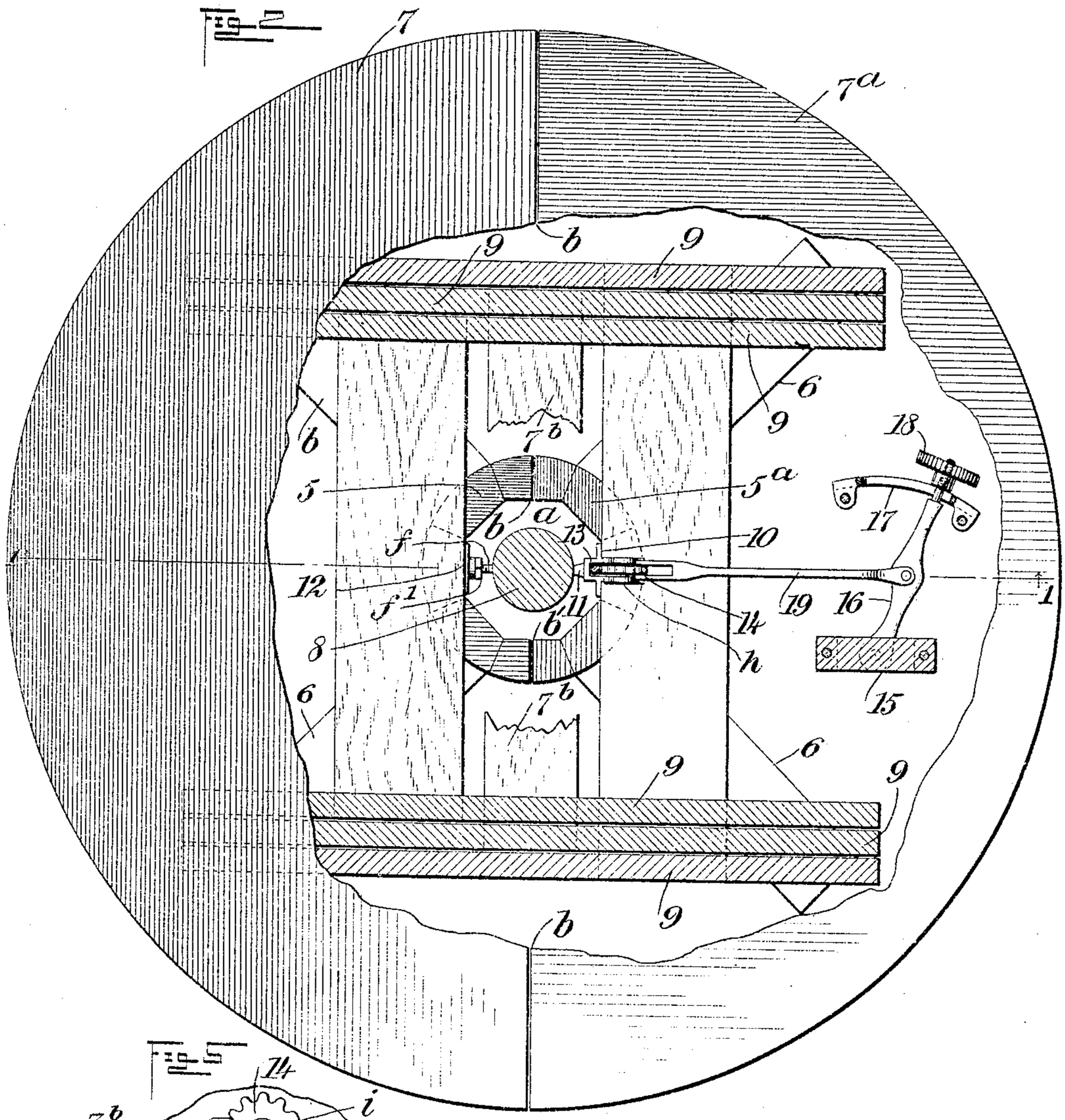
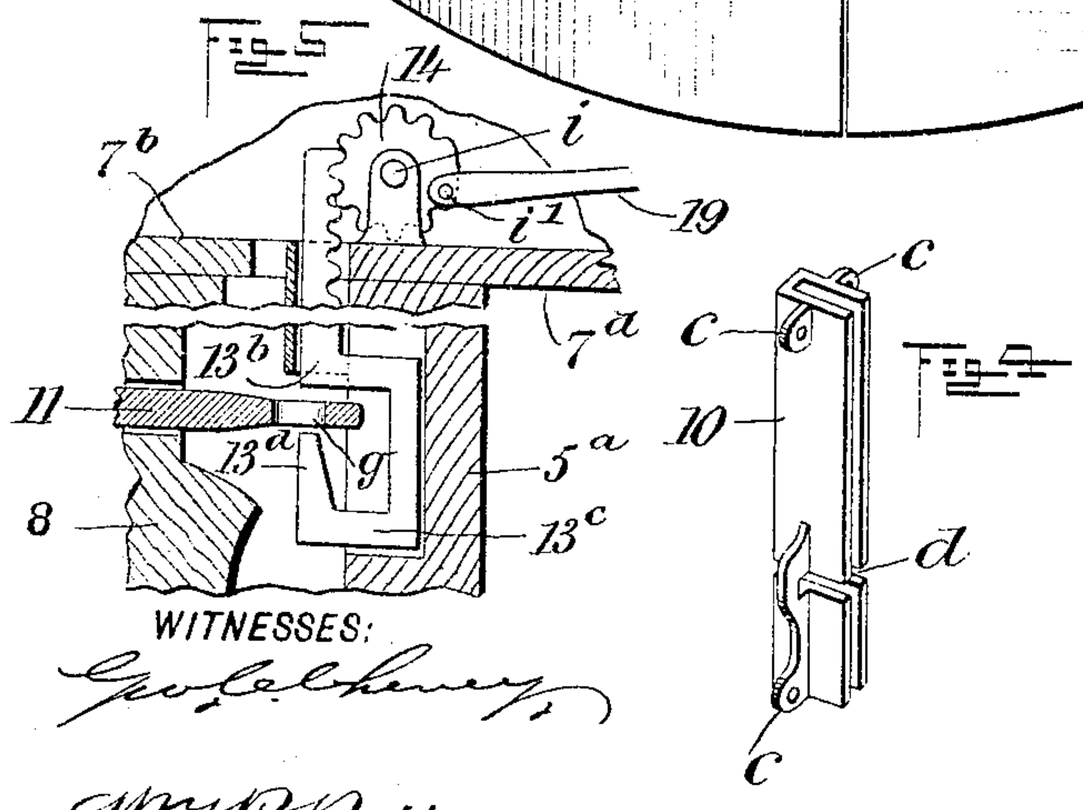


FIG 5



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UNITED STATES PATENT OFFICE.

ALFRED L. CRANDALL, OF HANOVER, PENNSYLVANIA.

LOCK FOR EXTENSION-TABLES.

SPECIFICATION forming part of Letters Patent No. 764,990, dated July 12, 1904.

Application filed August 28, 1903. Serial No. 171,070. (No model.)

To all whom it may concern:

Be it known that I, ALFRED L. CRANDALL, a citizen of the United States, and a resident of Hanover, in the county of York and State of Pennsylvania, have invented a new and Improved Lock for Extension-Tables, of which the following is a full, clear, and exact description.

This invention relates to means for closing the center joints between the two main sections of an extension-table, and has for its object to provide novel details of construction for a device of the character indicated, which enable the complete closure of the joint and the positive lock of the main sections of the table in closed position, affording convenient means for effecting such a locked closure and also for releasing the sections of the table when this is desired.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a partly-sectional side view of an extension-table having the improvements, taken substantially on the line 1 1 in Fig. 2. Fig. 2 is a plan view of the table having its top broken away and its center support shown in section on the line 2 2 in Fig. 1, the improved lock being shown in position connected with the table-top and its supports. Fig. 3 is an enlarged sectional plan view of the table-support, comprising two hollow pedestal-sections, a center leg occupying the hollow pedestal, and details of the improved locking device that connect the pedestal-sections together. Fig. 4 is a perspective view of a slotted guide-bracket that is a detail of the invention; and Fig. 5 is a sectional side view of details, showing a modified construction of the locking device which holds the pedestal-sections drawn together.

In the drawings that represent the improved locking device and its application, 5 5^a represent the two half-sections of the supporting-pedestal for the table, each having a longitudinal channel in one side, these channels that are contiguous when the pedestal-sections are in closed adjustment providing an opening through the same, as shown at *a* in the drawings.

On the lower portions of the pedestal-sections 5 5^a are secured the spaced feet 6, that project outward and downward for contact at their free ends with a floor or like support. The projection of the feet 6 from the two-part pedestal at even distances apart affords a wide base therefor when the table is closed and a substantial support for the ends of the table when it is opened.

The table-top, as usual, embodies two main sections 7 7^a of any preferred contour, said sections having straight meeting edges *b*, that aline with similar edges *b'* on the pedestal-sections 5 5^a. The two similar main sections 7 7^a of the table-top are secured on their lower sides by the usual or any approved means upon the upper ends of the pedestal-sections 5 5^a, respectively, so that the edges of these parts are disposed in contact when brought together.

A center leg 8 is secured upon the lower side of the two-part table-top by an attachment of the upper end of the leg upon the center of a horizontal bracket-piece 7^b, carried by one main section of the table-top, and from its relative position the leg 8 is adapted to occupy the opening *a* and be incased by the two-part pedestal when the latter is in closed position.

The half portions of the table-top may be and preferably are each provided with a depending skirt-board 7^c, whereon the ends of the two transverse bottom boards 7^d are rigidly secured and are respectively joined upon portions of the pedestal-sections 5 5^a. Upon the bottom boards 7^d, as indicated in Fig. 2, the usual extension-slides 9 are carried and are adapted to hold the main top sections 7 7^a loosely connected for extension of the table, as usual, said telescoping slides affording support for one or more additional top boards for the table when it is to be lengthened.

The table that has been described is of well-known construction and is presented to illustrate the application and advantages of the

improvement, as will appear from the subjoined description.

In a channel formed in the inner surface and near the upper end of the pedestal-section 5^a and extending through said end an elongated longitudinally-slotted bracket 10 is secured by screws or the like engaging perforated laterally-projected ears *c*, formed on the bracket. The bracket 10 is transversely slotted, as at *d*, to receive the flattened end portion 11^a of a horizontal locking-bar 11, that passes through the slot and into the recess in the pedestal-section wherein the bracket is embedded. The leg 8 is transversely perforated at *e* opposite the slot *d*, and through said perforation the locking-bar 11 is loosely passed, its extended end portion having a thread *f* cut thereon to receive a lock-nut *f'* and also have threaded engagement within the nut-block 12, secured upon the inner surface of the pedestal-section 5, as shown. The flattened end portion 11^a is perforated vertically, so as to form a preferably elongated rectangular hole *g* therein, and it will be seen that this perforated portion may be adjusted longitudinally in the transverse slot *d*, so as to project more or less into the slot in the bracket 10 by lengthening or shortening the locking-bar, this being readily effected by screwing the threaded end of said bar more or less into the nut-block 12 and by a subsequent clamping adjustment of the lock-nut *f'*.

In the longitudinal slot of the bracket 10 a slide-bar 13 is held to reciprocate by its frictional engagement with the side walls and back wall of the slot. The slide-bar is preferably rectangular in cross-section and at and near the lower end thereof is given wedge form, thus producing a sloped end for engagement within the rectangular hole *g*.

On the upper end of the slide-bar 13 a short rack 13^a is formed, and adjacent thereto a pinion or toothed segment 14 is held to rock by pivoting the latter in or on a bracket *h*, seated and secured on one of the bottom boards 7^d, whereby the teeth of the pinion or gear-segment are adapted to mesh with the teeth of the rack 13^a.

On a bracket-block 15, that projects down from the lower side of the table-top section 7^a, one end of a lever 16 is pivoted, said lever trending crosswise of the top section it is hung upon and at the opposite end is positioned close to an arched sector-bar 17, having a longitudinal slot in it, this bar being secured by screws upon the lower side of the table-top main section 7^a, as indicated in Figs. 1 and 2. A diametrically-reduced end portion of the lever 16 projects through the slot in the sector-bar 17, and a thread is formed on said portion of the bar for the reception of the thumb-nut 18, which engages with an end of its hub against the adjacent side of the sector-bar, and it will be seen that the frictional contact of the nut with the sector-bar will hold the lever 16 at any desired point in the slot of the sector-bar. At a suitable point between the sector-bar 17 and the bracket-block 15 one end of a connecting-rod 19 is pivoted upon said bar and thence extends toward the gear-segment 14, said extended end of the connecting-rod being preferably slotted to loosely embrace the gear-segment above its pivot-center and is pivoted thereon, as indicated at *i'* in Fig. 1.

Assuming that the two main top sections 7 7^a have been moved toward each other, so that the straight edges *b* of the tops and the like vertical edges of the pedestal-sections 5 5^a are made to have contact, respectively, this closed adjustment of the main portions of the extension-table may be secured positively by turning the thumb-nut 18, so as to loosen it, then pushing the lever toward the leg 8, which will turn the gear-segment 14 at its upper side toward the teeth in the rack 13^a. The turning of the gear-segment downward, where engaged with the rack on the bar 13^a, slides said bar downward into the rectangular hole *g*, causing the sloped side of the bar to press upon the adjacent transverse end of this hole or opening, which will pull the two sections of the table-top and the pedestal-sections closely together, and when the parallel edges of the slide-bar are fully entered in the opening or hole *g* the two main sections of the table will be held immovably but releasably connected together. Obviously when it is desired to release the locking device, so that the pedestal-sections and main top sections of the table may be moved apart, a reverse sliding movement of the lever 16 will elevate the slide-bar 13^a and release the locking-bar 11, whereupon the table-sections may be freely moved apart. It will be seen that the screwed adjustment of the locking-bar 11 in the nut-block 12 will permit such a disposal of the opening or slot *g* as will cause more or less pull on the locking-bar by a downward adjustment of the slide-bar 13^a for reducing the width of a crevice between the table-sections.

In Fig. 5 the locking device for the pedestal-sections is shown in slightly-changed form. The slide-bar 13^b in this case has a loop 13^c formed on the lower end, so that a locking member or toe 13^d may be formed as a portion of the loop and project upward for insertion into the slot *g* in the end of the bar 11. The opposite edges of the toe 13^d are sloped upwardly and toward each other, which facilitates the insertion and locking adjustment of the slide-bar 13^b, that is effected in this construction by pressure endwise on the lever 19, as before explained; but it will be noted that the point of pivotal connection *i''* between the toothed wheel 14 and the end of said lever is below the pivot-center *i* of said wheel instead of above it, which adapts the wheel to rock in a proper direction for the upward sliding movement of the bar 13^b, that is necessary for a proper engagement of the

toe 13[d] with the bar 11 to draw the pedestal-sections together.

Slight changes in the form and relative proportions of parts of the improvement may be made advantageously within the scope of the invention, and I claim the right to make all such changes as are manifestly within the latitude of the claims.

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

1. The combination with an extension-table, comprising a central leg, a two-part hollow pedestal, two main top sections carried by the leg and by separable parts of the pedestal, and means for holding the two sections of the pedestal connected but free to move from and toward each other, of a locking-bar held by one end on one pedestal-section and projected horizontally through an opening in the leg toward the other pedestal-section, said bar having a vertical hole therein near its free end, an upright slide-bar supported upon the other pedestal-section near said free end of the locking-bar, and means for reciprocating the slide-bar, so as to interlock the lower end thereof within the perforation in the locking-bar.

2. The combination with an extension-table, comprising a central leg, two pedestal-sections adapted to receive the leg, two main top sections mounted upon the leg and pedestal-sections, and means for holding the sections of the top and sections of the pedestal slidably connected, of a locking-bar carried at one of its ends horizontally by one of the pedestal-sections, and movable toward and from the other pedestal-section, and having a vertical hole in its free end, a vertical slide-bar carried by the last-mentioned pedestal-section, and adapted to interlock with or release the locking-bar by successive engagement of its lower end within or retraction from the hole in the locking-bar, and means for moving the slide-bar, comprising a toothed rack on the upper portion of the slide-bar, a toothed gear meshing with the rack and held to rock on a top section of the table, and means to rock the gear.

3. The combination with an extension-table, comprising a central leg, two pedestal-sections adapted to receive the leg and have close-jointed contact at their adjacent edges, two main top sections mounted on the leg and on the pedestal-sections, and means for holding the top sections and the pedestal-sections slidably connected together, of a locking-bar adjustably secured upon one of the pedestal-sections, said bar passing through an opening in the leg and at the opposite end having a vertical hole, a slide-bar carried by the other pedestal-section and having a sloped lower end for engaging within the hole in the locking-bar, and means for manually sliding the slide-bar to lock it to or release it from the locking-bar.

4. The combination with two pedestal-sections of an extension-table, and two top sections mounted thereon, of a locking device for holding the adjacent edges of the pedestal-sections and top sections impinged together, comprising a longitudinally-adjustable locking-bar projected from one of the pedestal-sections toward the other section and having a vertical perforation in its free end, an upright bar slidably supported on the said other pedestal-section, said bar being sloped at the lower end for engagement in the perforation in the locking-bar, a toothed rack on the upper portion of the slide-bar, a toothed gear held to rock on one table-top section and in mesh with the rack, and a connecting-rod pivoted by one end thereof on the toothed gear and adapted for rocking said gear by a longitudinal movement of the rod, and means for manually moving the rod.

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

ALFRED L. CRANDALL.

Witnesses:
JULIUS W. FISCHER,
OSCAR R. BOWMAN.