

No. 675,577.

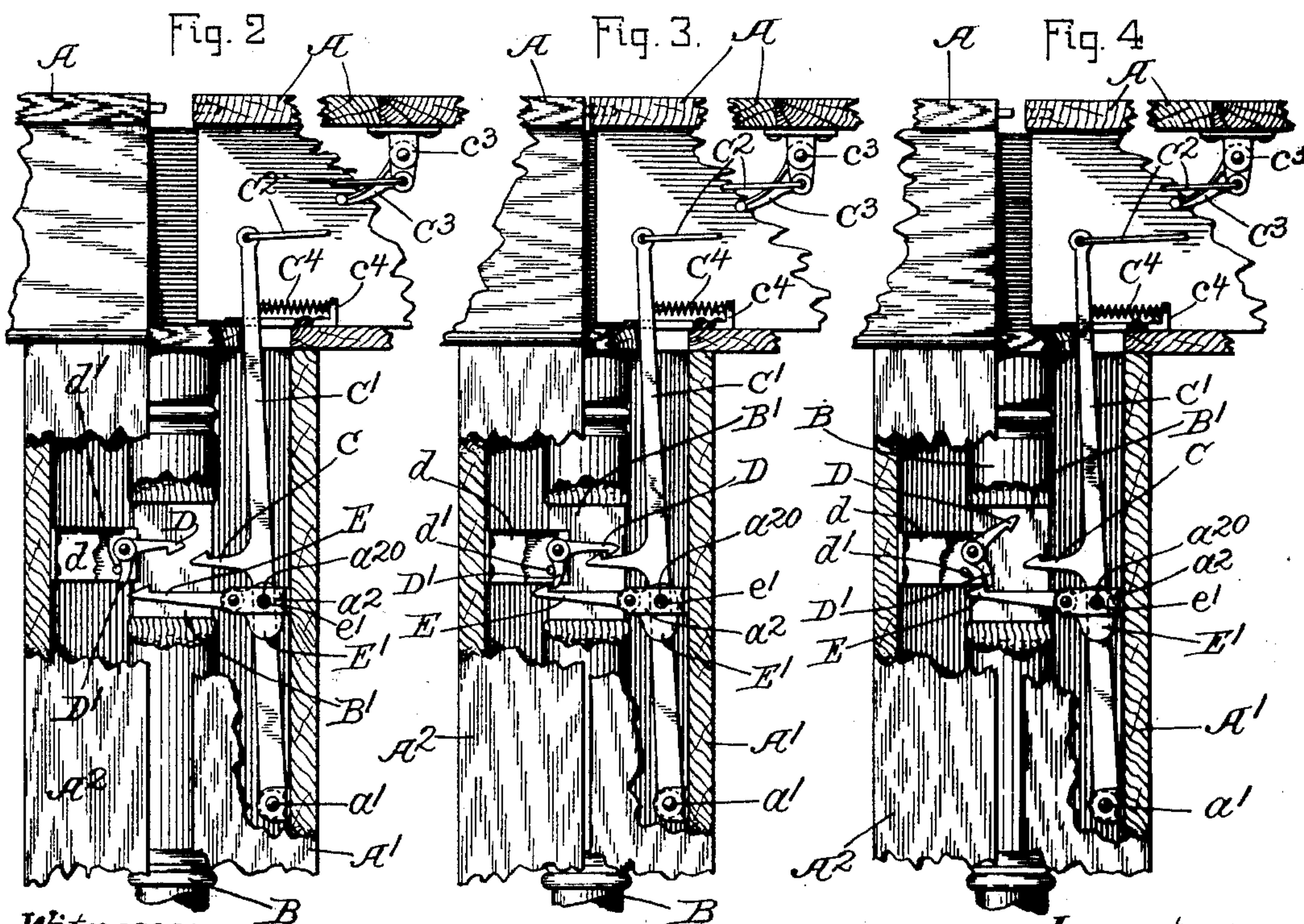
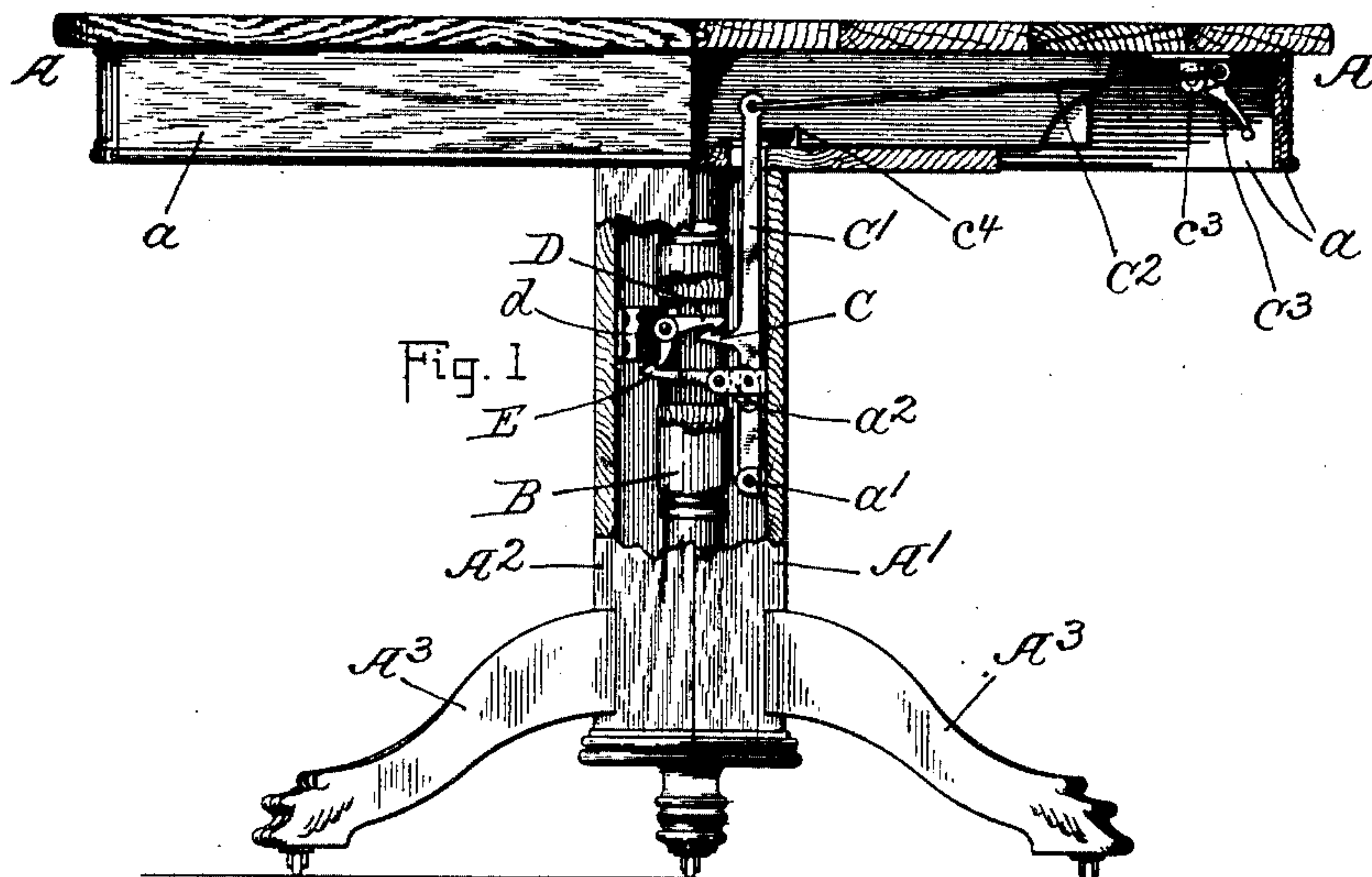
Patented June 4. 1901.

E. TYDEN.

LOCKING DEVICE FOR PEDESTAL TABLES.

(Application filed Dec. 29, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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LOCKING DEVICE FOR PEDESTAL-TABLES.

SPECIFICATION forming part of Letters Patent No. 675,577, dated June 4, 1901.

Application filed December 29, 1900. Serial No. 41,444. (No model.)

To all whom it may concern:

Be it known that I, EMIL TYDEN, a citizen of the United States, residing at Hastings, in the county of Barry and State of Michigan, have

5 invented certain new and useful Improvements in Locking Devices for Pedestal-Tables, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

10 The purpose of this invention is to provide means for overcoming a difficulty hitherto experienced in the use of what are known as "pedestal extension-tables"—that is, tables

15 which when closed up without the extension-leaves have a support consisting of a central pedestal with spreading feet at the base, the pedestal being vertically divided, and one part pertaining to each of the two parts of the table-top and having rigid with it two of the

20 feet. In such construction the center leg, which is attached to the cross-bar connecting the opposite slides pertaining to the extension devices, is inclosed within the two parts of the pedestal when the table is closed up,

25 said pedestal parts being made hollow for the purpose. The difficulty above referred to consists in the fact that this leg always being made a trifle short in order that it may not drag unduly when the table is being extended

30 (the slight sag at the center of the table when extended, which is due to this shortness, being a negligible defect) the pedestal is without support at its center, and the tendency of the weight resting upon the wide-spread

35 feet is to spread apart the pedestal toward the bottom even though the parts of the table-top are close together, and this difficulty and defect increases with use and destroys the neat and finished appearance of the table.

40 Devices of a simple sort for locking the two parts of the pedestal together when they are closed up, if applied exteriorly, mar the effect and interfere with the design of the pedestal, and, besides, they are inconvenient of operation, because one must get down on the floor

45 to be able to latch and unlatch them, and in practice their use, even if they are attached, is neglected.

My present invention consists of means for

50 locking the two parts of the pedestal together in such manner as to close them up from top to bottom, said means being adapted not only

to secure them together, but to draw them tightly together in the process of securing them, the means for operating the device being located conveniently near the margin of the table-top, so that it may be operated both to lock and unlock the parts by one standing at the end of the table.

In the drawings, Figure 1 is a side elevation of an extension-table containing my invention, the table-top and pedestal being broken away and shown in vertical section, disclosing the interior parts of the mechanism. Fig. 2 is a detail side elevation of a portion of the pedestal and part of the table-top similarly broken away and shown in vertical plane, presenting the operating parts of my locking device in the position occupied prior to their engagement as the parts of the table are being closed together. Fig. 3 is a view similar to Fig. 2, but showing the locking devices in the position occupied after they have been released, but before the parts have been separated sufficiently to entirely disengage them. Fig. 4 is a view similar to Figs. 2 and 3, but showing the parts of the locking device as fully disengaged by the separation of the two parts of the table a short distance.

In the drawings, A A are the two parts of a table-top; A' A², the two parts of the pedestal pertaining to said table-top parts, respectively.

A³ A³ are the spread feet at the base of the pedestal.

B is the center leg inclosed within the pedestal when the table is closed up.

The pedestal is of the "box" form, adapted to encompass and inclose the center leg, except as to the lower protruding portion thereof, which rests upon the floor. Mechanism for locking the two parts of the pedestal, and thereby the two parts of the table, securely together and for unlocking them comprises, primarily, two catches C and D, one mounted upon each part of the pedestal within the same. The catch C is rigid with the lever C', fulcrumed at a' toward the lower part of the pedestal part A', said lever extending up within said pedestal part and protruding into the space inclosed under the table-top by the marginal curtains or panels aa, its upper end being connected by a link C² to the operating-lever C³, which is fulcrumed at

c^3 on the under side of the table-top, near the margin, just within the curtain or panel a at one end of the table. The pivotal connection of the link C^2 to the operating-lever is such that while the lever swings from the position shown in Fig. 4 to the position shown in Fig. 1 said pivotal connection of the link is carried past and to the farther side of the fulcrum of the lever C^3 and past the line containing said fulcrum and the opposite pivotal connection of the lever C' . At this position, as shown in Fig. 1, the movement of the lever is stopped against the flange of the hanger c^3 , by which it is connected to the table-top. A spring C^4 , reacting between the lever C' and a bracket c^4 , which is mounted on the upper end of the pedestal on the under side of the table-top, tends to hold the lever C' away from the operating-lever C^3 , and thus tends to hold the lever C^3 in the position shown in Fig. 1 when it has once been rocked to that position—that is, with the connection of the link to said lever C^3 slightly above the line produced containing the fulcrum of the lever C^3 and the connection of the link to the lever C' . The other catch D is pivoted to the bracket d , attached to the pedestal part A^2 , and extends horizontally from its pivotal connection with its catch-nose projecting downward in position to become engaged with the catch-nose of the catch C , which projects upward. The catch D has a projection or tail D' projecting downward from the pivot and stopped by a pin d' on the bracket d , preventing the catch from swinging down to a position where it cannot engage the catch C when the latter is brought into proper position.

From the description thus far given of the structure it will be understood that as the two parts of the table are being closed together and when the pedestal parts are nearly together, the operator having first thrown the operating-lever C^3 around to position permitting the catch D to take the position shown in Figs. 2, 3, and 4, the nose of the catch C engaging under the nose of the catch D as the two parts of the pedestal are caused to approach will lift the latter catch, which will shortly after fall into engagement with the catch C . This will occur, as the parts are designed to be constructed, before the two parts of the pedestal and table are brought fully together; but such engagement having occurred the operator may swing the operating-lever C^3 from the position shown in Figs. 2, 3, and 4 around to the position in Fig. 1, thereby drawing the lever C' back toward the end of the table at which the operator stands and by reason of engagement of the catches drawing the two parts of the pedestal and table closely and firmly together. The encounter or abutment of the two parts will occur first at the upper edge of the table-top, because the weight of the parts tends to let the table sag at the middle and spread the pedestal at the lower end, and as the operating-lever is moved around the

two parts fulcruming on each other at the upper end, where they are in contact, will be drawn closely together at the lower end by reason of the fact that the catches are located so far below the upper end as to afford good leverage for their action. When it is desired to extend the table, the operator, swinging the operating-lever C^3 back to the position shown in Figs. 2, 3, and 4, will cause the catch C to recede somewhat from its engagement with the catch D ; but the two catches will not be disengaged by this movement, and, on the contrary, the separation of the two parts of the table and pedestal would bring the catch-noses again into close engagement. In order, therefore, to make it possible to proceed and disengage the catches when the parts of the table are to be separated, I provide a trip-finger E , fulcrumed on the bracket a^2 , mounted a little below the position of the catch C upon the inner side of the pedestal part A' . This trip-finger projects horizontally and is kept normally in such position by having its inner end weighted, as shown at E' , tending to cause said inner end to descend and the outer end having the nose to rise, a pin e' being provided projecting through an aperture a^{20} in the bracket a^2 and having only sufficient play in that aperture to allow a proper movement of the catch-finger, as hereinafter described. The nose of the catch-finger extends in proper position to encounter the projection or tail D' of the catch D and be forced downward by such encounter, so that the catch-nose will rise beyond the end of the projection and be engaged by the same a little after the catches C and D have become engaged by the approach of the two parts of the table and pedestal in closing up the table, the position of the parts after this has occurred being shown in Fig. 3, wherein it will be seen that the facing shoulders of the catch-noses of the catches C and D are a little separated, showing that the two parts of the pedestal have been moved a little nearer together since the catches C and D became engaged. The same figure represents the position of the parts after the operator desiring to extend the table has released the operating-lever C^3 , permitting the lever C' to yield to the action of the spring C^4 and permitting the table and pedestal parts to become slightly separated, as they are liable to do when not held firmly together, for the reason above expressed. Now if the operator draws the table parts apart the catch-nose of the trip-catch E , being engaged with the projection or tail D' of the catch D , will swing said catch up far enough to take its nose out of the path of the nose of the catch C before the shoulders of said noses come into engagement, and as the separation of the table parts proceeds the position of said catches and trip will be that seen in Fig. 4, from which it will be apparent that nothing in the structure of the catches prevents the full separation and extension of the table.

It will be noticed that in order to provide the locking devices and have them serve the purpose indicated it is necessary to have them located at a considerable distance below the top of the table, so as to afford the necessary leverage for forcing the pedestal together at the bottom after the table-top parts have come together at the top. Also it will be seen that it is necessary practically that the two elements of the locking device, consisting of the catches C and D, should extend through the center leg, which leg is therefore necessarily apertured for this purpose, as shown at B' in all the figures.

I do not limit myself to the specific mechanism here shown, though for its special advantages it is claimed specifically, but any locking elements adapted to be engaged to lock the parts of the table together when located within the pedestal and provided with means for operating such locking devices to lock and unlock them and also any devices so located and having operating connections accessible near the margin of the table-top and also any locking devices which penetrate the center leg are considered within the scope of my invention.

I claim—

1. In a pedestal extension-table, in combination with a vertically-divided pedestal and the two separable parts of the table-top attached to the respective parts of the pedestal, means for binding the pedestal parts together, comprising an element on each part at a substantial distance below the top of the pedestal, and means whereby they are adapted to be connected when the pedestal parts approach; means for operating on said elements after they are connected to cause them to bind the pedestal parts together, extending from said elements upward and thence under the table-top toward the margin thereof.

2. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts of the pedestal respectively; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal, said elements being adapted to become engaged before the pedestal parts are fully closed together; one of said locking elements being movable on the part of the pedestal to which it pertains, and operating connections by which it may be moved in direction to draw the parts of the pedestal together.

3. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts respectively of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal; a lever connected to one of said elements, and adapted to be operated

to draw the parts of the divided pedestal together.

4. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts respectively of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal, said elements being adapted to become engaged before the pedestal parts are fully closed together; operating connections from one of said elements, adapted to move it to draw the parts of the pedestal together after their said parts are engaged; and means for locking the element thus moved at the position at which the pedestal parts are closed together.

5. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts respectively of the pedestal; a locking device for connecting the parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal, said elements being adapted to come into engagement automatically as the parts of the pedestal approach and before they are fully closed together; and means for moving one of said elements on the part of the pedestal to which it pertains after the two elements are engaged to draw said pedestal parts together; and means for locking the locking element thus moved at the position at which the pedestal parts are thus closed together.

6. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts respectively of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal; said elements being adapted to be engaged while the pedestal parts are yet slightly separated; means for moving one of the elements on the pedestal part to which it pertains to draw the pedestal parts close together; and means for moving the other element to disengage it from the first at will.

7. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts respectively of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal; said elements being adapted to be engaged while the pedestal parts are slightly separated; means for moving one of said elements on the pedestal part to which it pertains to draw the pedestal parts together; and a device on the same pedestal part, adapted automatically to engage the element of the other pedestal part as said pedestal

estal parts approach after said locking elements are engaged and before the pedestal parts are closed together, and to move said element out of engagement with the other
5 element when the pedestal parts are separated.

8. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with
10 the parts respectively of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal; said elements being adapted
15 to become engaged as the parts of the pedestal approach and before they are fully closed together; a latch on one of the pedestal parts adapted to additionally engage the locking element of the other pedestal part
20 after the locking elements are thus engaged and before the pedestal parts are closed together, and to move said engaged element out of engagement with the other locking element when the pedestal parts are moved apart after
25 said additional engagement.

9. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid with the parts respectively of the pedestal; an automatic catch on one pedestal part, and a co-
30 operating catch on the other part, and a trip-finger on said other part which automatically engages the automatic catch during the approach of the pedestal parts and after said catches are engaged, and disengages the
35 catches when the pedestal parts are moved apart.

10. In a pedestal extension-table, in combination with a vertically-divided pedestal, the
40 two separable parts of the table-top rigid with the parts respectively of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising coöperating elements, one on each part of the pedestal; said
45 elements being adapted to allow limited separating movement of the parts of the pedestal; and means on one of the pedestal parts for actuating the locking element on the other part to disengage it from its coöperating element during and by means of such limited
50 separating movement.

11. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid
55 with the parts respectively of the pedestal, a locking device for connecting the two parts of the pedestal together, comprising two catches, C and D, mounted on the pedestal parts respectively, and adapted to become mutually
60 engaged as the parts approach and before they are closed together; a lever, C', actuating the catch C, and arranged to move it toward and from the opposite pedestal parts, the catch D being movable to effect its en-
65 gagement and disengagement, the former being automatic and the catch having a projection D'; the trip-catch E normally project-

ing in position to pass and become engaged with the projection D' as the pedestal parts approach, after the catches C and D are en- 70 gaged and before the pedestal parts are fully closed together.

12. In a pedestal extension-table, in combination with a vertically-divided pedestal, the two separable parts of the table-top rigid re- 75 spectively with the parts of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising an automatic catch on one pedestal part, and a co-operating catch on the other part, such catches 80 being adapted to engage as the pedestal parts approach and before they are fully closed, a lever, fulcrumed on one of the pedestal parts, the catch pertaining to said part being mounted on such lever, and connections for operat- 85 ing such lever from a point near the table-margin.

13. In a pedestal extension-table, a vertically-divided pedestal, the two separable parts of the table-top rigid with the separa- 90 ble parts of the pedestal; a locking device for connecting the two parts of the pedestal together, comprising two mutually-engaging elements, one on each part of the divided pedestal, said elements being adapted to be- 95 come engaged before the pedestal parts are fully closed together; a lever to which one of said locking elements is connected, fulcrumed on the part of the pedestal to which it pertains; an operating-lever fulcrumed under 100 the table-top near the margin thereof, and a link connecting said levers; the operating-lever being adapted to be rocked over its fulcrum to carry the pivotal connection of the link thereto past the line containing said 105 fulcrum and the other pivotal connection of the links, and suitable means for stopping the lever after the pivotal connection of the link thereto passes such line; whereby the levers are locked in that position. 110

14. In a pedestal extension-table, in combination with a vertically-divided pedestal and the two separable parts of the table-top attached to the respective parts of the pedestal, means for securing the two parts of the ped- 115 estal together, comprising elements on the respective parts of the pedestal at a substantial distance below the upper end of the pedestal adapted to be connected, and connections for operating on said elements to close 120 up the pedestal parts, such connections extending upwardly from the points of operation on the elements and thence under the table toward the edge thereof.

15. In a pedestal extension-table, means for 125 uniting the two separable parts, comprising two coöperating elements, one on each part of the pedestal, at a substantial distance below the upper end thereof, adapted to be connected when the pedestal parts approach; 130 and means on one of said parts for moving the element on that part after they are connected, to draw and bind the pedestal parts tightly together.

16. In a pedestal extension-table, a hollow pedestal comprising two separable parts, one on each of the separable parts of the table; means for uniting the two separable parts, comprising two coöperating elements, one mounted on each part of the hollow pedestal within the cavity thereof, at a substantial distance below the upper end of the pedestal, adapted to be connected when the pedestal parts approach; means mounted on one of said pedestal parts within the cavity thereof for moving the element on that part after the elements are connected, to draw and bind the pedestal parts tightly together, extending up within the cavity of the pedestal and thence under the table-top horizontally toward the margin of the table.

17. In a pedestal extension-table, a hollow pedestal comprising two parts rigid respectively with the two separable parts of the table, and a fifth, or center, leg inclosed within such hollow pedestal parts when the latter

are closed together; means for uniting the two parts, comprising two coöperating elements mounted one on each part of the pedestal within the cavity thereof adapted to be connected when the pedestal parts approach; the fifth or center leg being apertured, and one of said coöperating elements extending through the aperture when said elements are connected; and means mounted on one of said pedestal parts, within the cavity thereof, for moving the element on that part after said elements are connected, to draw and bind the pedestal parts tightly together.

In testimony whereof I have hereunto set my hand at Hastings, Michigan, in the presence of two witnesses, this 24th day of December, 1900.

EMIL TYDEN.

In presence of—

A. C. BROWN,
NORA COOPER.