

No. 759,966.

PATENTED MAY 17, 1904.

C. S. BURTON.
PEDESTAL TABLE LOCKING DEVICE.

APPLICATION FILED OCT. 27, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

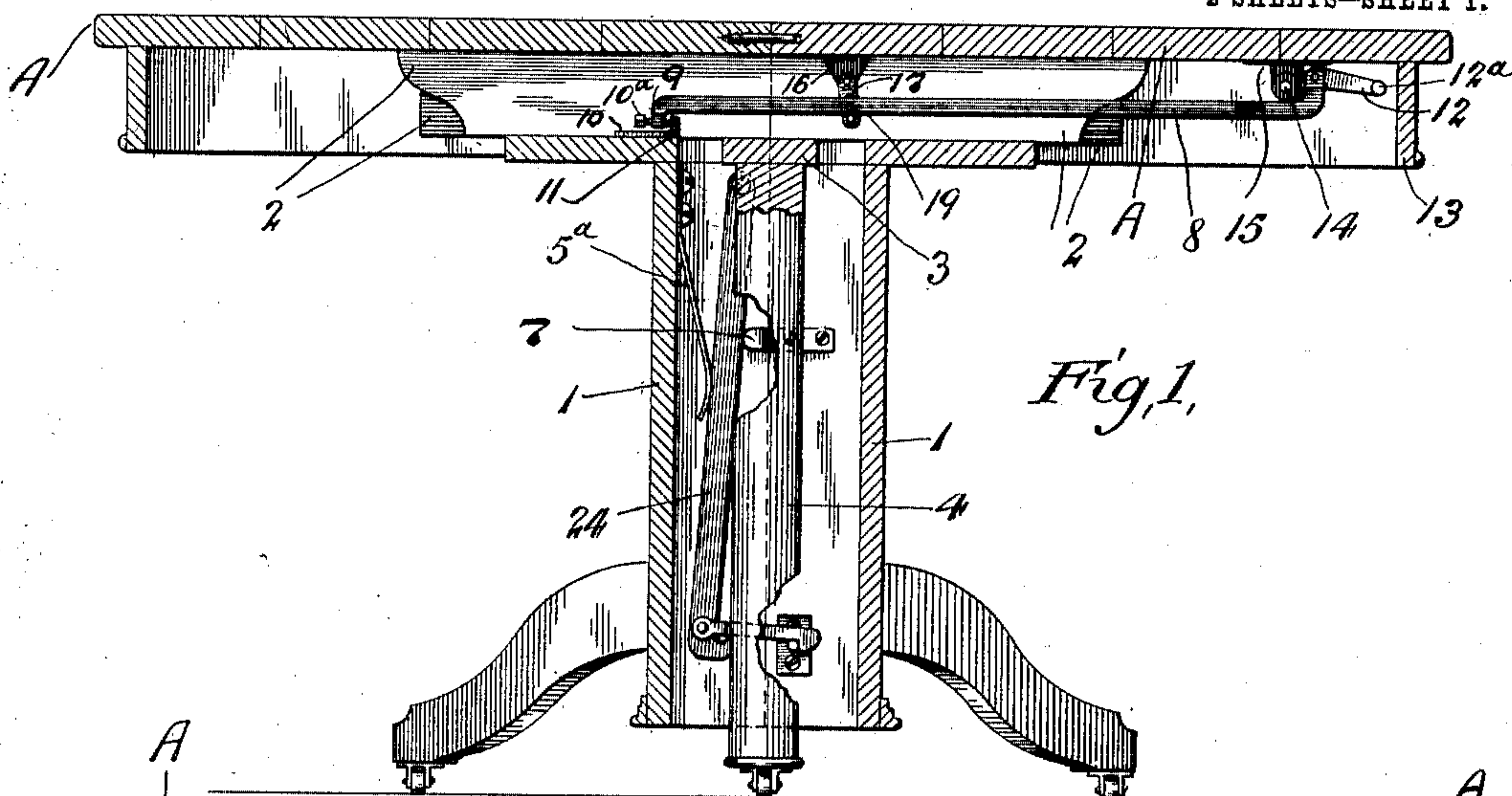


Fig. 1.

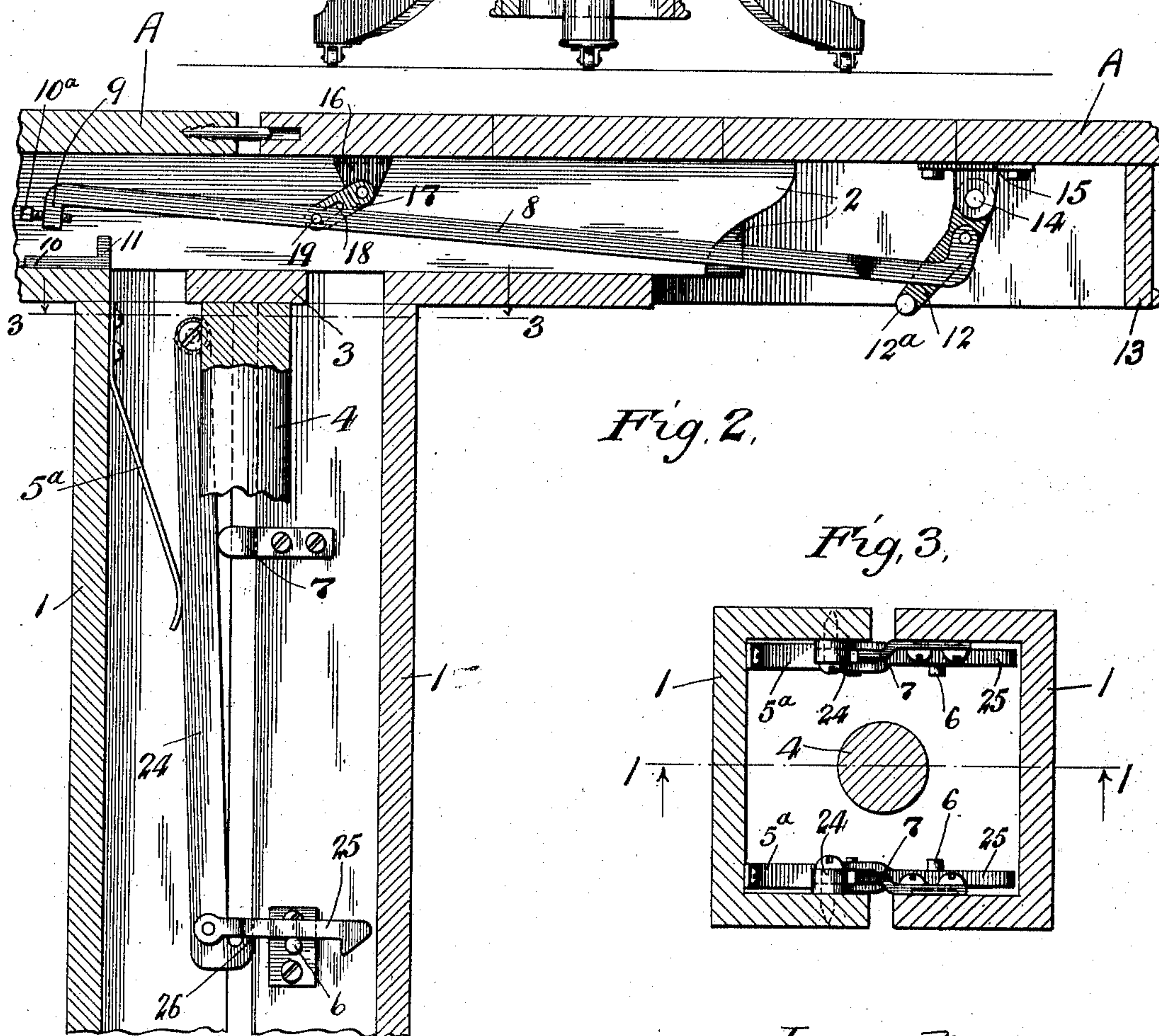
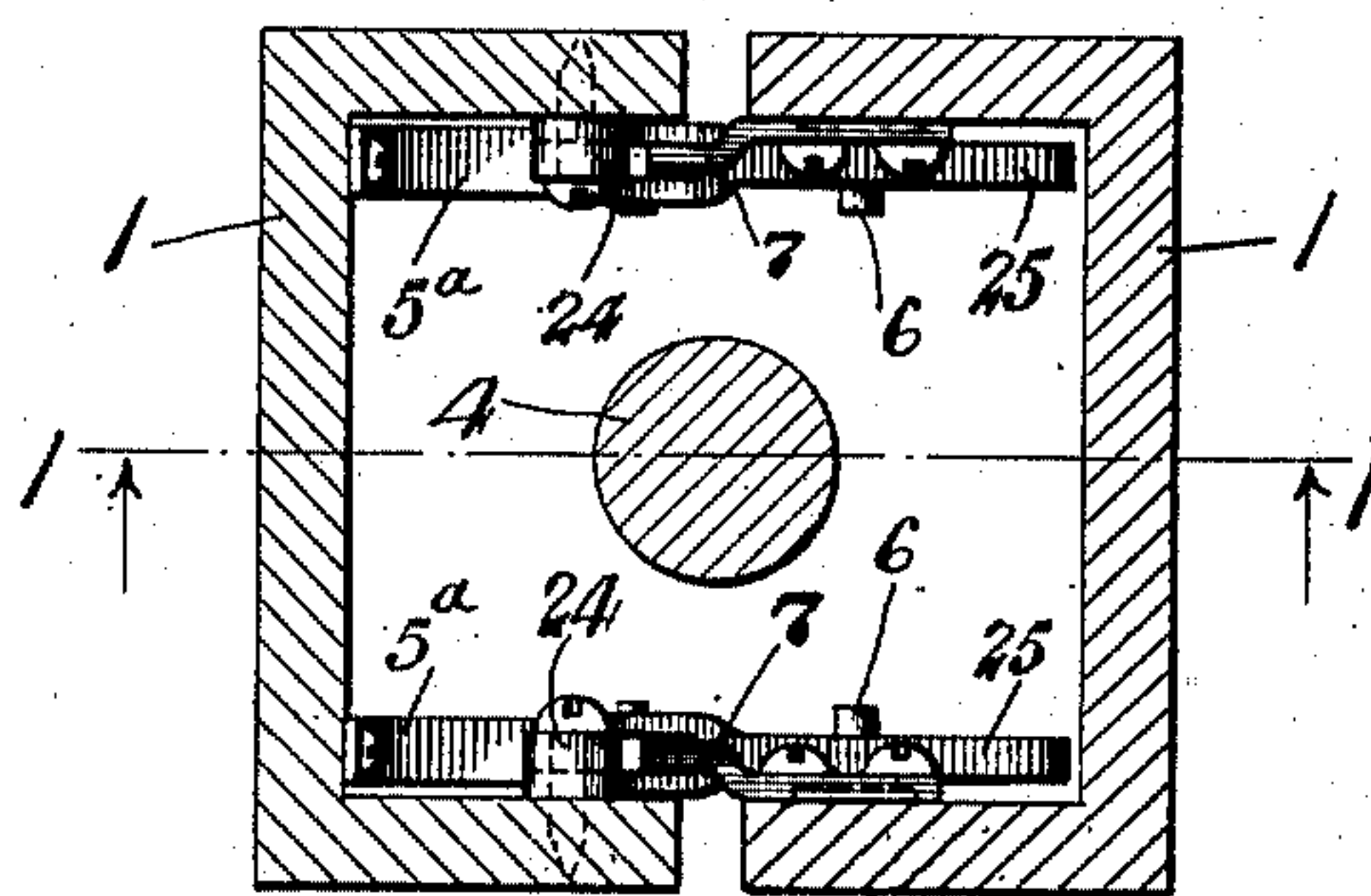


Fig. 2.

Fig. 3.



Witnesses:
Watson Hurlburt,
Edward T. Wray.

Inventor:
Chas. S. Burton
By Burton & Burton Attys

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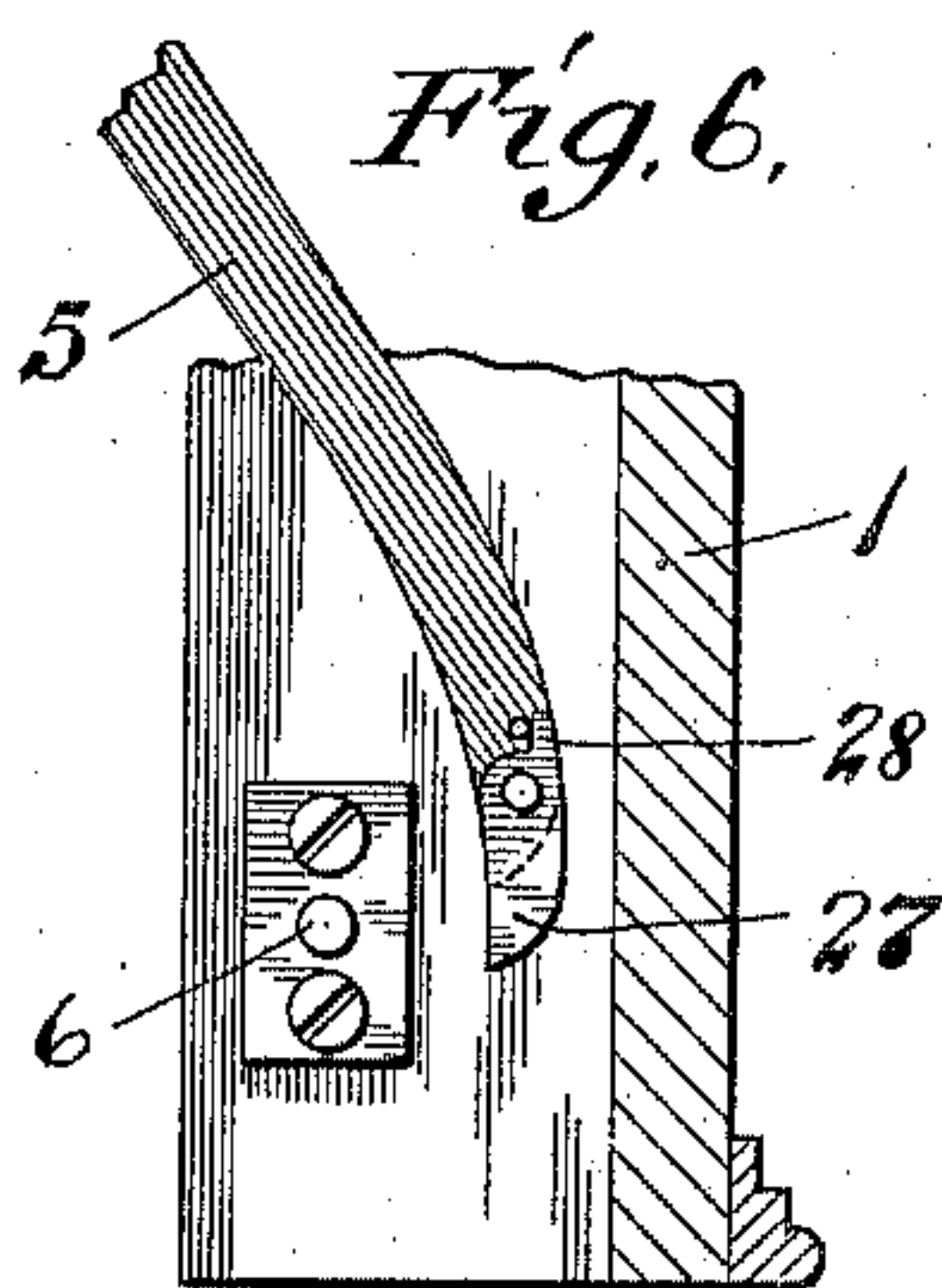
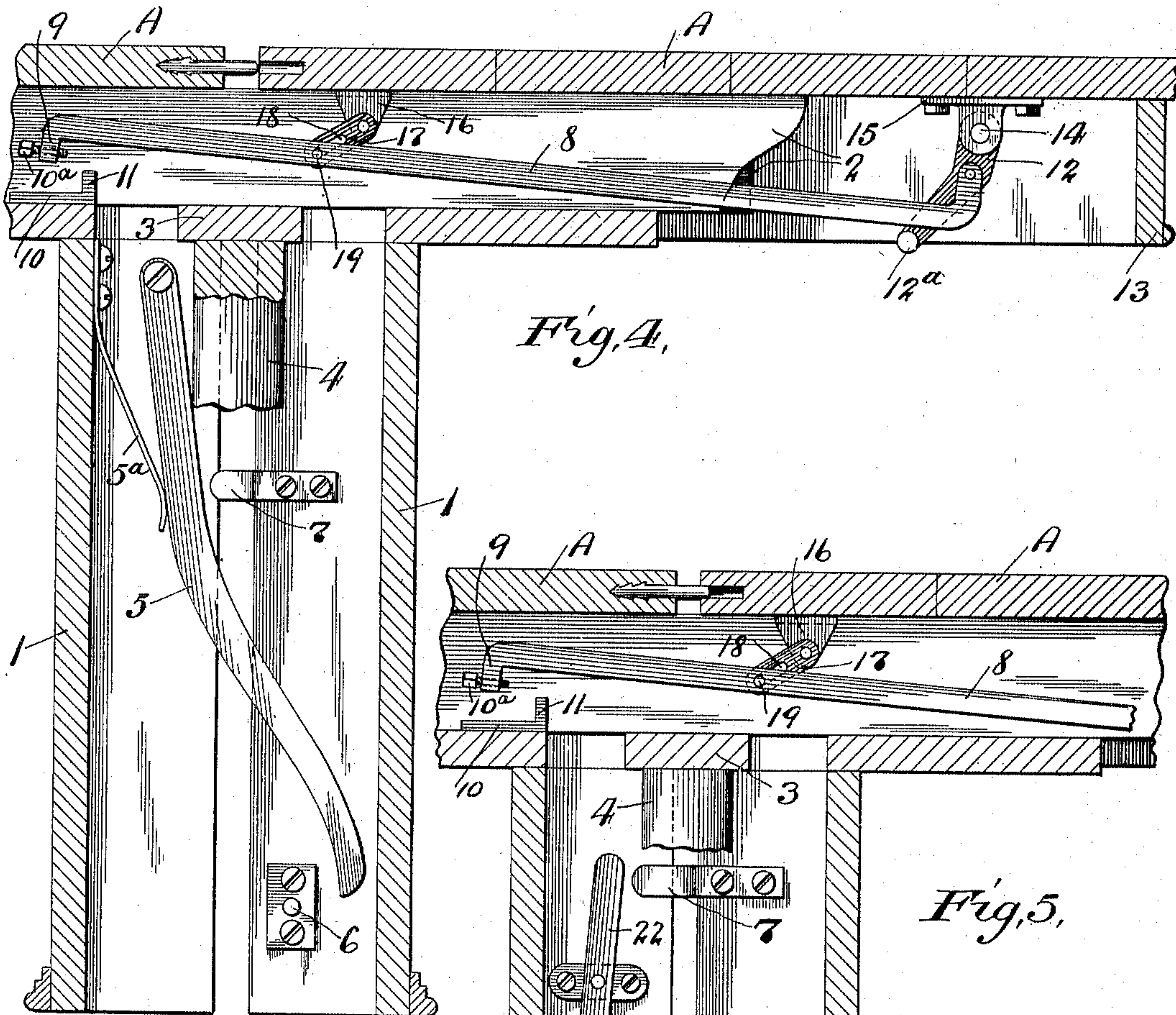
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UNITED STATES PATENT OFFICE.

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

PEDESTAL-TABLE-LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 759,966, dated May 17, 1904.

Application filed October 27, 1902. Serial No. 128,903. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. BURTON, a citizen of the United States, and a resident of Oakpark, Illinois, have invented certain new and useful Improvements in Pedestal-Table-Locking Devices, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

This invention is designed to afford improved means for preventing the separation at the lower end of the two parts of a pedestal extension-table which occurs by the tendency to sag due to the relation of the weight to the points of support of the two parts, respectively.

It consists in the features of construction which are set out in the claims.

In the drawings, Figure 1 is a longitudinal vertical section at line 1 1 on Fig. 3 of a pedestal extension-table having one form of my improvements, the parts being shown in closed and locked position. Fig. 2 is a view similar to Fig. 1 of the middle portion of such table, including both pedestal members, showing the parts in position occupied as they approach in closing up and at the commencement of the action by which the lower ends are drawn together. Fig. 3 is a horizontal section at the line 3 3 on Fig. 2. Fig. 4 is a view similar to Fig. 2, showing a modified and somewhat simpler construction embodying the same principle as the other figures. Fig. 5 is a similar figure, showing a second modification. Fig. 6 is a detail view showing a modification of the terminal of the pedestal-closing lever represented in Fig. 4.

I have shown a pedestal extension-table of usual construction as to the division of the pedestal, so that each member A of the table has rigid with it one member 1 of the pedestal, the extension devices comprising the customary slides 2 2, connected by the bridge-piece 3, to which the center leg 4 is attached. The pedestal is hollow, as necessary, to inclose the center leg, and within it there are mounted the devices pertaining to my invention. I will first describe the simplest though not the preferred form. (Shown in Fig. 2.) On the two opposite side walls of one of the members,

preferably near the top, there are fulcrumed the levers 5 5, which extend downward, normally inclining also toward the opposite pedestal member extending across the plane of parting, so that they enter said opposite member while the two members are still considerably separated. Springs 5^a 5^a are arranged to operate on the levers 5 5, holding them normally in the position described, but adapted to yield upon very little pressure added to the weight of the levers. The other pedestal member has at the lower end of the two opposite side walls abutments 6 6, in such position that the lower ends of the levers, respectively, pass over said abutments in entering the pedestal member having the latter and are in position to swing down behind them when the lever is rocked on its fulcrum. Toward the upper part of the second pedestal member the opposite side walls thereof have rigid studs or fingers 7 7, projecting directly toward the opposite pedestal member and protruding across the plane of parting, so as to enter within the corresponding side walls of the other member when the members are closed together. These fingers are in position to collide with the levers 5 5, fulcrumed on said opposite pedestal member at a short distance below the fulcrums of the levers, respectively, so that as the pedestal members are forced together the fingers or studs will first encounter said levers, and upon further approach of the pedestal members at the upper part where said encounter occurs the lower ends of the levers being swung inward and downward, entering in behind the abutments 6 6 and engaging the same, drawing the lower ends of the pedestal members together more rapidly or with fuller movement than said members are approaching at the height at which the fingers collide with the levers. If the pedestal members are spread apart at the lower end by the sag, as is usually the case, this excess of movement of the lower end of the levers above their movement at the point where they are actuated by the fingers will compensate for the spread of the members and cause the lower ends to come together by the time the table members are

together at the top. Preferably the allowance for such action should be somewhat greater than the maximum separation by sag, so that the pedestal members will be close together at the bottom even before the table members are close together at the top, so that when the top is closed the bottom will be held together by the elastic reaction of the levers, which will be somewhat sprung in the final forcing together of the table at the top.

Ordinarily it will be possible to force the two members of the table together at the top without any special means provided for drawing them or binding them together, and the friction of the parts of the extension devices and the engagement of the usual tendons and sockets will hold them together at the top without special locking means; but I prefer to provide means for positively drawing and securing the table members together, so as to spring the levers and cause them to hold the pedestal members together at the bottom with some force. The most convenient device for this purpose which I have considered is shown in the drawings, comprising a bar 8, suspended by a link 17 and a short lever 12 from one member of the table and extending from near one end of the table longitudinally past the parting plane of the two members and having at the farther end a hook 9, which is adapted to engage a lip 11 of a bracket 10, mounted on the other table member. The lever 12 is fulcrumed at its upper end at 14 on a bracket 15, and at its lower end it has a finger 12^a for operating it. When the lever is swung inward, as in Fig. 4, the link 17 causes the remote end of the bar 8 to be uplifted, so that its hook 9 passes in over the lip 11 as the table members are caused to approach; but by swinging the lever 12 around to the position seen in Fig. 1 the hook 9 is carried down and drawn toward the lip 11 and, engaging it, draws the table members together, and the parts are calculated so that the table members are fully closed up by the time the lever 12 is in the locked position shown in Fig. 1—that is, with the pivot of the bar to it behind and slightly above the fulcrum of the lever. To compensate for slight changes and looseness of the parts which may occur in use, an adjusting-screw 10^a is set through the hook 9 to afford by its protruding end the immediate point of encounter and engagement of the hook with the lip 11. It will be noticed that after the hook engages the lip during the further movement of the bar for closing up the table the link 17 will be still swinging downward toward its lowest position, whereas the bar cannot pass down any farther, and in order to accommodate the pivot 19, by which the bar is connected to the link, the latter has a slot 18, in which the pivot 19 plays during the remainder of the movement, as will be understood by comparison of Figs. 1 and 4.

In order to obtain a better engagement of

the lower end of the levers behind the abutments 6 6 and so reduce liability to disengagement when devices are operated to draw the table members together at the top, the lower ends of the levers may be provided each with a hinged terminal 27, the hinge being formed with shoulders 28 28, which prevent the terminal from yielding in one direction, while it is permitted to yield in the other direction in which it is required to yield in order to pass by the abutments with which the terminals collide as the members approach. This construction (which is shown in Fig. 6) requires the levers to extend farther toward the opposite pedestal member, so that a sufficient movement of approach of the two members may occur after the hinged terminals reach the abutments to permit them to pass over the same and drop behind them before the members of the table are together at the top.

In Fig. 5 I have shown a modification which consists in the employment of two levers at each side instead of a single lever, as above described. In this construction levers 20 20 fulcrum on the opposite side walls of one pedestal member, having their downwardly-extending arms adapted to pass in above abutments 6 6, as in the other construction, as the pedestal members approach and their upwardly-extending arms in position to be actuated, as by means of the connecting-links 23, by the lower ends of levers 21 21, respectively, which are fulcrumed on the pedestal members and have their upwardly-extending arms 22 22 in position to be encountered by the studs or fingers 7 7 as the parts of the table approach and after the lower ends of the lower levers have passed in above the abutments 6 6. The advantage of this construction is simply that the radius of movement of the lever-arms, which must by their swinging come in behind the abutments 6 6 after they have passed in over them, is made shorter than it can be in the other construction, and thereby the descent of the engaging terminals of the levers behind the abutments is more rapid and the engagement more likely to be effective.

In Figs. 1, 2, and 3 I have shown the preferred form, which has some advantage over the two preceding forms, but embodies the same principle. In this form there is fulcrumed to each side wall of the pedestal member 1 a lever 24, which at the lower end carries a latch 25, stopped on the lever by the abutment 26, so that it projects from the lever toward the opposite pedestal member and entering that member as the members approach becomes engaged with the abutment 6. The levers in this construction are encountered and actuated by the studs 7 7 with the same effect as in the other constructions of drawing the pedestal members together more rapidly at the bottom than at the top. When the members are separated in extending the table, the

separation at the bottom being no more rapid than at the top the studs 7 withdraw from the levers as fast as the levers themselves are drawn out at the lower end by the engagement of the latches with the abutment 6; but since this causes the movement of the levers at the point where the studs encounter them proportionately less than at the lower end, as said points of encounter are nearer the lever-fulcrum, the levers are free to swing out as far as they may be drawn by the engagement of their latches; but in so swinging outward they also swing upward, and after a few inches of separation of the pedestal members the latches rise clear of the abutments 6 and the levers swing back to their normal position ready for the next engagement.

I claim—

1. In a pedestal extension-table, in combination with the table members and the pedestal members pertaining thereto, respectively, lever mechanism on one pedestal member and an abutment on the other member which acts on the lever mechanism as the members approach, said mechanism having an engaging terminal which derives from the action of the abutment movement greater than the abutment communicates at the point of its encounter, the second pedestal member having means which the lever-terminal engages lower than the encounter of the abutment as the members approach, and draw the latter together faster at the bottom than at the top.

2. In a pedestal extension-table, in combination with the table members and the pedestal members pertaining thereto, respectively, a lever fulcrumed at its upper end upon one pedestal member and having a latch projecting from the lower end toward the other member, and devices on the other member with which the latch engages as the members approach; and an abutment on the second member which encounters the lever above the latch and actuates it after the engagement of the latter during the further approach of the members.

3. In a pedestal extension-table, in combination with the table members and the pedestal members pertaining thereto, respectively, lever mechanism on one pedestal member and an abutment on the other member which acts on the lever mechanism as the members approach, said mechanism having an engaging terminal which derives from the action of the abutment movement greater than the abutment communicates at the point of its encounter, the second pedestal member having means which the lever-terminal engages lower than the encounter of the abutment as the members approach and draw the latter together faster at the bottom than at the top; and means for positively drawing the table members together at the top.

4. In a pedestal extension-table, in combination with the table members and the pedestal

members pertaining thereto, respectively, a lever fulcrumed at its upper end upon one pedestal member and having a latch projecting from the lower end toward the other member, and devices on the other member with which the latch engages as the members approach; and an abutment on the second member which encounters the lever above the latch and actuates it after the engagement of the latter during the further approach of the members; and means for positively drawing the table members together at the top.

5. In a pedestal extension-table, in combination with the table members and the pedestal members pertaining thereto, lever mechanism on one pedestal member and an abutment on the other member which acts on the lever mechanism as the members approach, said mechanism having an engaging terminal which derives from the action of the abutment movement greater than the abutment communicates at the point of its encounter, the second pedestal member having means with which the lever-terminal engages nearer one end of the pedestal than the point of encounter as the members approach, and means for positively drawing the members together at the opposite end.

6. In a pedestal extension-table, in combination with the table members, means for drawing said members together at the top, consisting of a lever on one table member, a link by which it is suspended near the parting plane of the two members, an abutment on the other table member to be engaged by the lever to draw said member toward the first member as the lever is retracted, and means guiding the end of the lever, remote from the parting plane, to cause it to be depressed at the opposite end as it is retracted, whereby it comes in engagement with said abutment, and means for securing the lever in retracted position.

7. In a pedestal extension-table, in combination with the table members, means for drawing them together, comprising a lever and two links by which it is suspended from one of the table members, said lever extending across the parting plane of the members, the opposite member having an abutment for engagement with the lever, the links being wider spread at their connection with the lever than at their pivotal supports on the table, whereby the longitudinal retraction of the lever toward the end remote from the parting plane causes the opposite end to be depressed to engage the abutment, and the further retraction draws the members together, the link remote from the parting plane being adapted to swing up past the plane containing its pivotal axis and the point of engagement of the lever with the abutment by the time the members are closed together.

8. In an extension-table in combination with the table members and the pedestal members pertaining thereto, respectively, cooperating

elements of a locking device for connecting the pedestal members at one end; means on one of the pedestal members for carrying the locking element pertaining to said member, 5 arranged to move said element in direction for drawing the pedestal members together after engagement; means on the other pedestal member in position to give said carrying means such movement by the approach of the pedestal 10 members at the other end from that at which said locking elements are located, and means for positively closing up the pedestal members at said other end.

9. In a pedestal extension-table, the combination with a pedestal made up of two members, of a locking element within one of the pedestal members, a cooperating latch within the other member; a latch-actuating lever carried by the same member of the table which 20 carries said latch, and an element on the other table member carried, in the approach of the table members positively and directly against said lever for pushing the same at the point of encounter therewith substantially in the 25 direction of approach of said element to said lever, the fulcrum of said lever being disposed with respect to the latch and said point of encounter to give the latch greater movement than said point of encounter receives.

30 10. In a pedestal extension-table, the combination with a pedestal made up of two members, of a locking element within one of the pedestal members, and a cooperating latch within the other member; a lever carried by 35 the same member of the table which carries said latch and connected thereto for giving the latch longitudinal movement substantially

transverse to the parting plane of the table members, and an element on the other table member carried thereby against the lever as 40 the table members approach, the fulcrum of the lever being disposed with respect to the point of encounter of said last-mentioned element and the connection of the lever with the latch to cause the latch to receive longitudinal 45 movement greater than that communicated to the lever at said point of encounter.

11. In a pedestal extension-table, the combination with a pedestal made up of two members, of a locking element within one of the 50 pedestal members; a cooperating latch within the other member; a lever carried by the same member of the table which carries said latch, and connected to the latch for giving it longitudinal movement substantially transverse 55 to the parting plane of the table members; an element on the other table member which is carried in the approach of said members directly toward and against said lever for pushing the same substantially in the direction of 60 approach of said element thereto, the fulcrum of said lever being disposed with respect to the latch connection and said point of encounter to give the latch longitudinal movement greater than the approaching movement of 65 said members to each other.

In testimony whereof I have hereunto set my hand, in the presence of two witnesses, at Chicago, Illinois, this 20th day of October, 1902.

CHAS. S. BURTON.

In presence of—

EDWARD T. WRAY,
FRED. G. FISCHER.