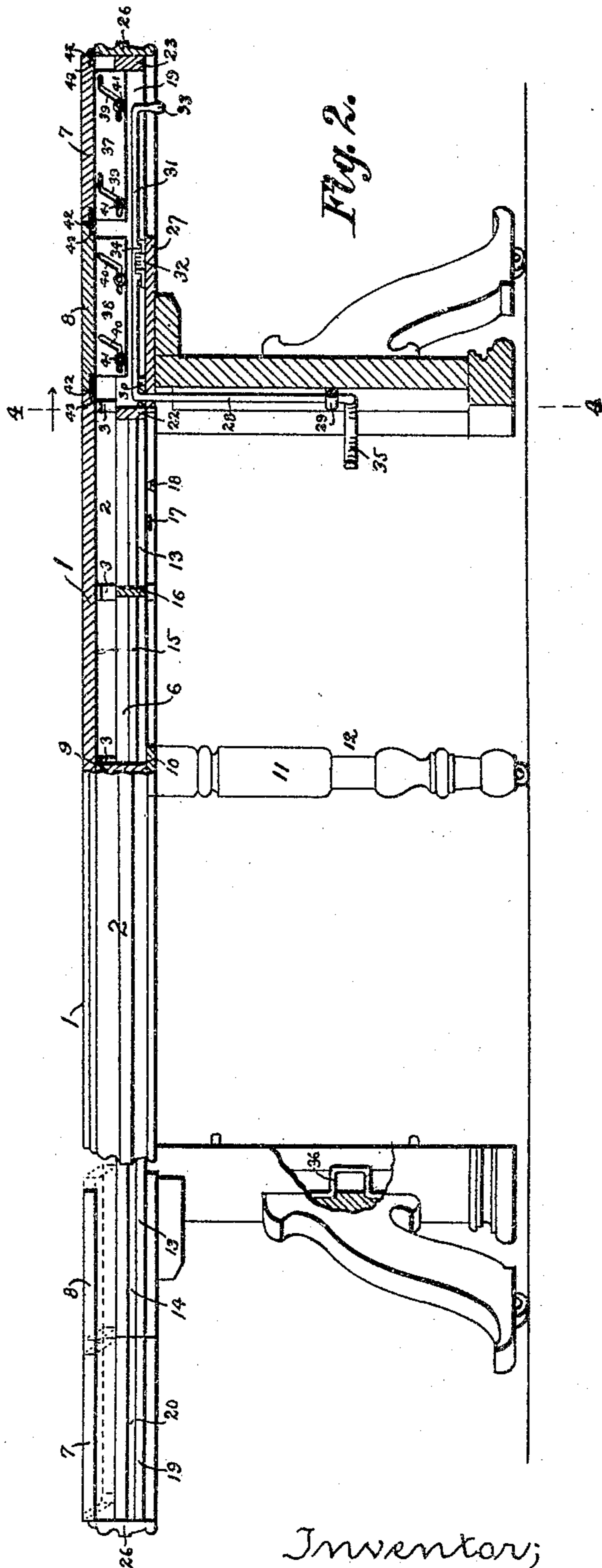
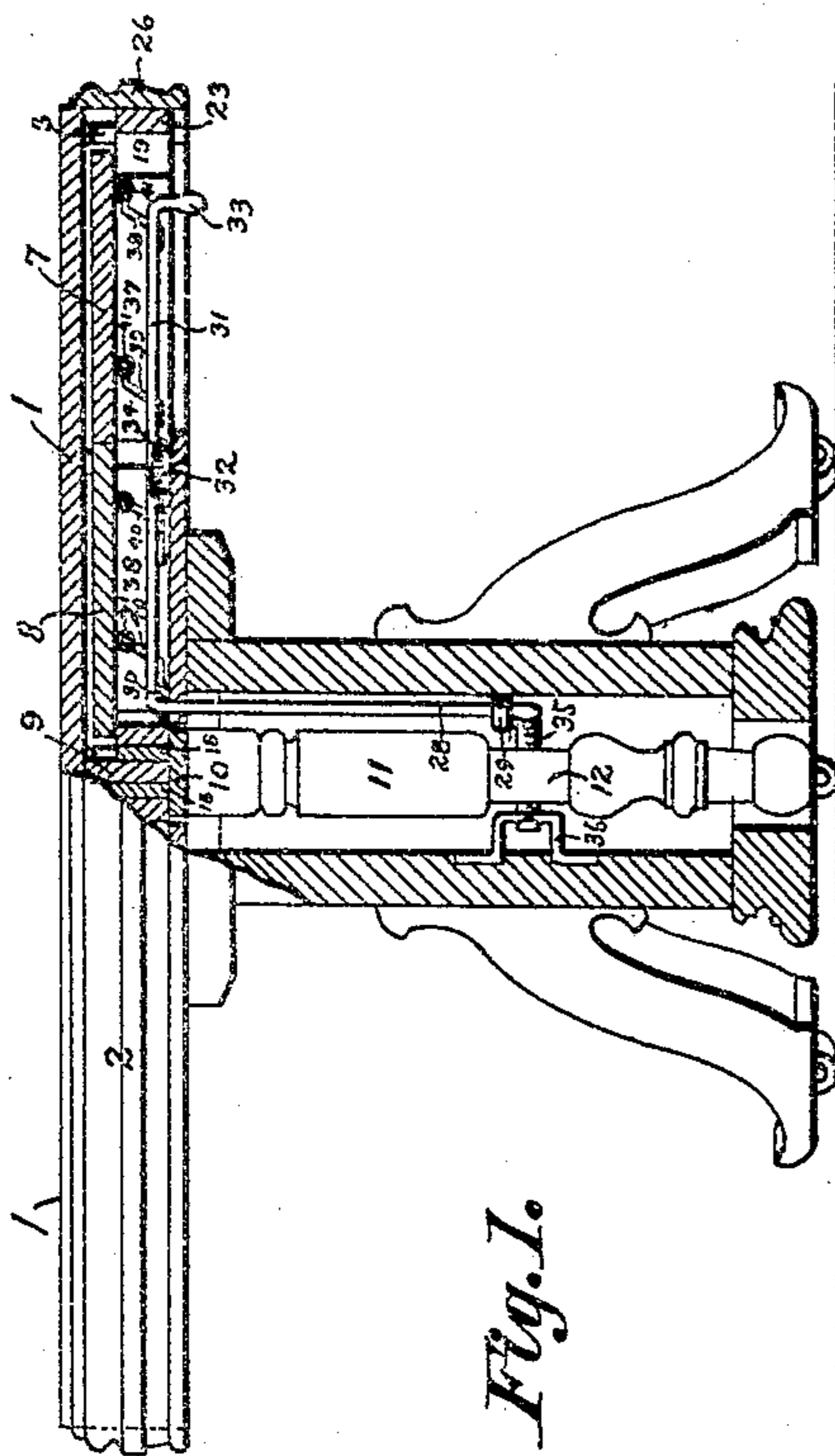


No. 778,471.

PATENTED DEC. 27, 1904.

J. F. ARNOLD.  
EXTENSION TABLE.  
APPLICATION FILED JULY 23, 1902.

3 SHEETS—SHEET 1.



Witnesses;  
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3 SHEETS—SHEET 2.

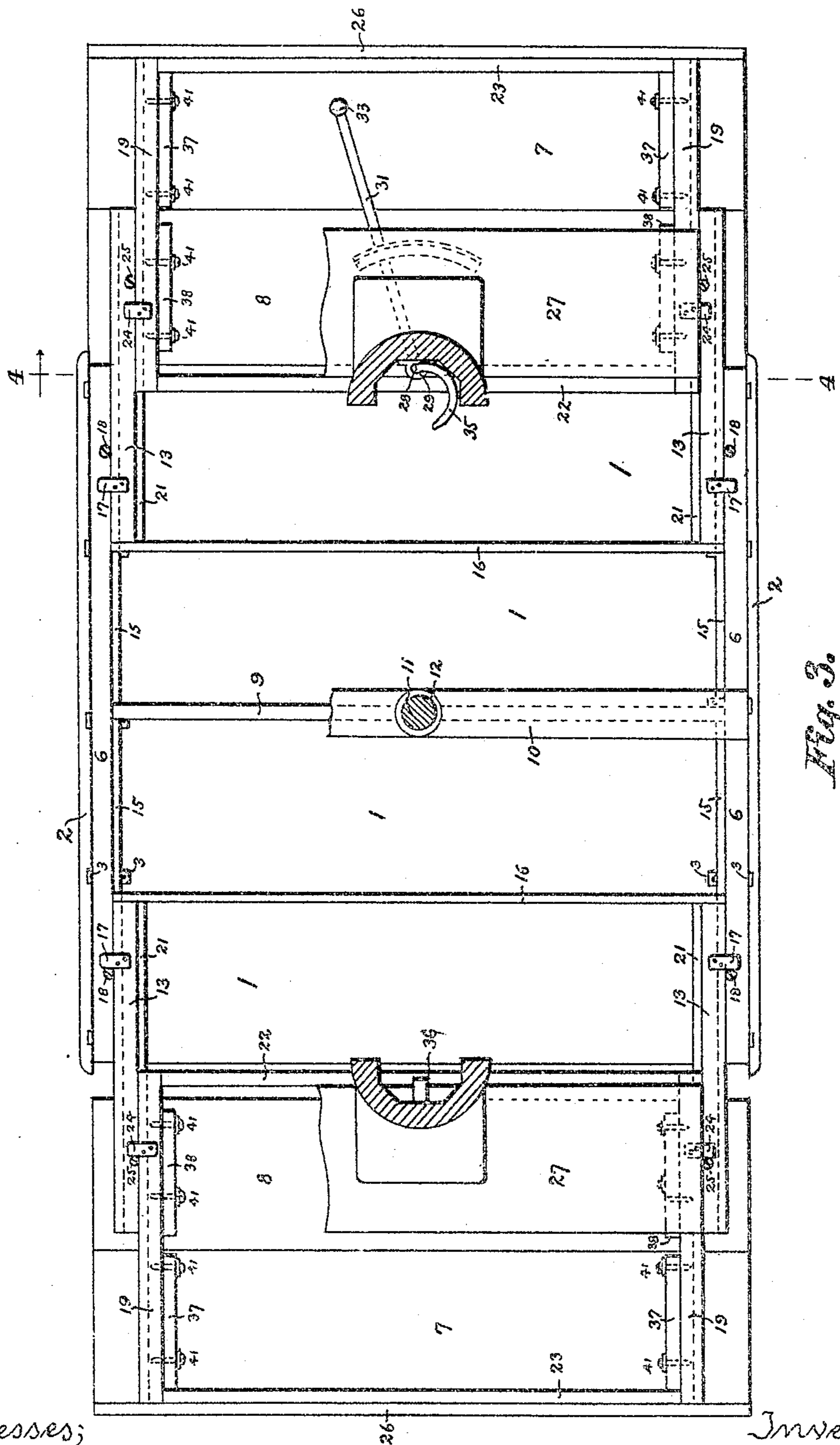


Fig. 3.

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3 SHEETS—SHEET 3.

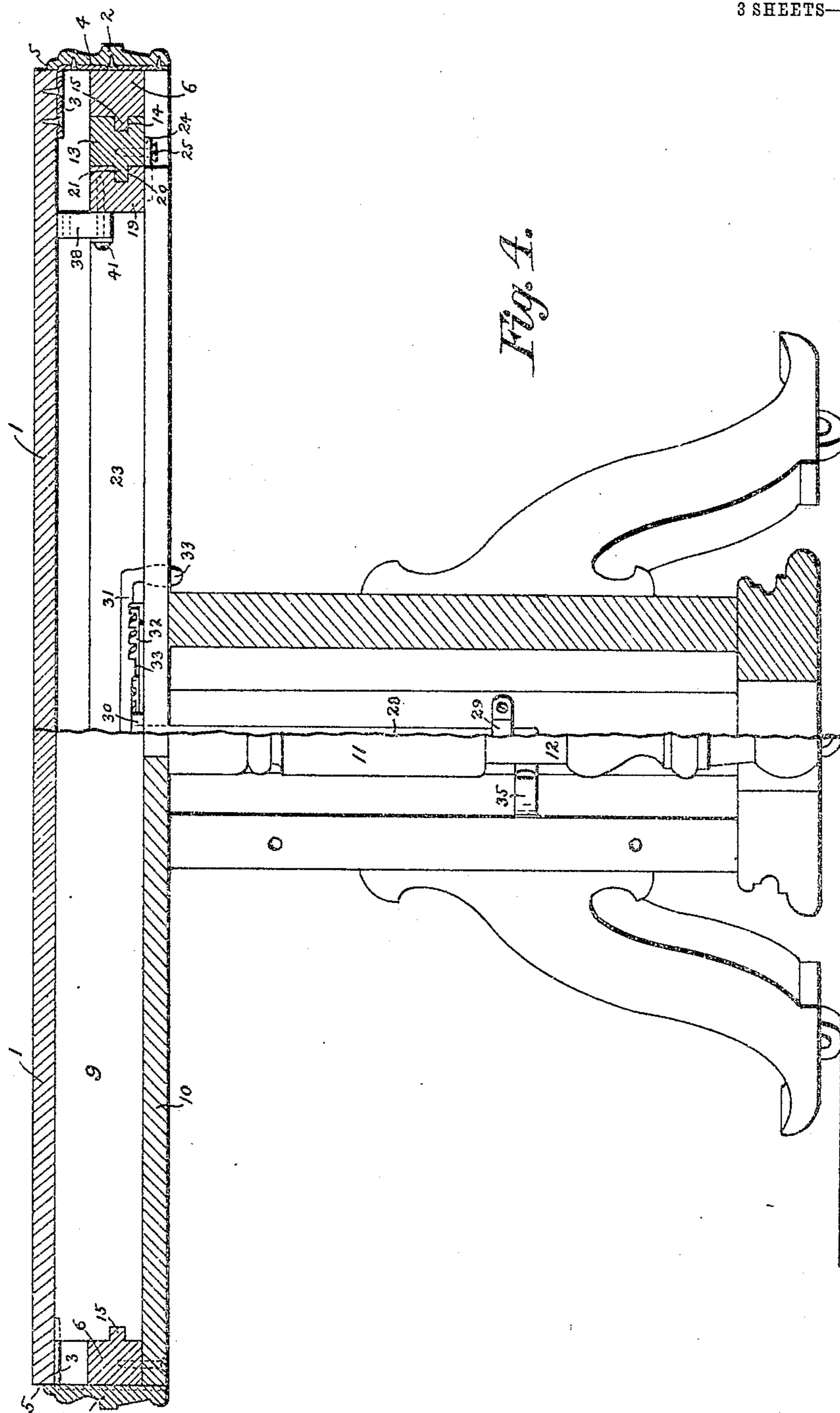


Fig. 4.

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# UNITED STATES PATENT OFFICE.

JACOB F. ARNOLD, OF MASSILLON, OHIO.

## EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 778,471, dated December 27, 1904.

Application filed July 23, 1902. Serial No. 116,602.

*To all whom it may concern:*

Be it known that I, JACOB F. ARNOLD, a citizen of the United States, residing at Massillon, in the county of Stark and State of Ohio, have invented a new and useful Extension-Table, of which the following is a specification.

My invention relates to tables which are extended at the ends and in which the extension parts and filling-boards are telescoped or nested in the table proper when the same is closed; and the principal objects of my improvements are to construct and connect the table-top and side rims in a manner to make a strong and rigid frame for receiving and operating the extension parts therein; to make the extension-slides with one member extending through the entire length of the table proper and forming part of its frame and the other members sliding, respectively, on the inner side thereof and either way from the middle of the table; to provide filling-boards depressibly connected with the extension-slides; to attach the center leg to the fixed frame of the table and the respective halves of the pillar to the extension-slides, thereby giving a firm support to the various parts of the table in all positions, and to provide a lock for the extension parts to hold them tightly together when the table is closed. I accomplish these and other minor objects by the construction and mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the table closed, showing part in vertical longitudinal section; Fig. 2, a side elevation of the table extended, showing part in vertical longitudinal section; Fig. 3, an inverted plan view with some parts removed to show the details, and Fig. 4 a vertical cross-section of one side half on the middle line and a cross-section of the other side half on line 4 4, Figs. 2 and 3.

Similar numerals refer to similar parts throughout the drawings.

The table-top 1 is made of one piece or of several pieces glued together and is preferably formed substantially square and of a suitable thickness to give it sufficient strength. Depending from either side edge of the top are the rims 2, which rims are attached to the top

by the angle-brackets 3. The horizontal arms of the angle-brackets are screwed to the under side of the top, and the vertical arms are screwed to the inner faces of the side rims, where recesses, as 4, are preferably provided for them; but at any event these arms are so located that their inner faces are clear outside of the edges of the table-top. The side rims can also be glued to the side edges of the top, as at 5; but the angle-brackets are depended upon to make this connection strong and rigid, and this construction gives free clearance for the filling-boards when the same are telescoped under the table-top. The through-slides 6 are securely attached by gluing or otherwise along the inner sides of the side rims, or they can be made integral therewith, if desired. The through-slides extend continuously from one end edge to the other of the top and are located far enough below the under side of the top to permit the filling-boards 7 and 8 when depressed to pass freely thereunder. The cross-rib 9 is glued or otherwise attached at its upper edge to the under side of the top along the cross middle line and is similarly attached at its ends to the through-slides, thereby stiffening the depending side rims on which these slides are attached or formed. Thus the top, the side rims, the through-slides, and the cross-rib together constitute a strong and rigid frame for the table proper.

The leg-plate 10 is located along the lower edge of the cross-rib, to which it may be attached, and extends each way to the inner faces of the respective side rims, the ends being securely attached by screws or otherwise on the under sides of the through-slides, and the center leg 11 is attached to the leg-plate at the middle, which leg supports the middle of the table at all times. The center leg is preferably made large enough in diameter to give it a suitable heavy appearance, and the annular groove or channel 12 is preferably provided intermediate the ends to accommodate the parts of the locking mechanism described below; but when a relatively small leg is used this groove can be omitted.

The intermediate extension-slides 13 are located immediately on the inner sides of the

through-slides each way from the cross-rib, and each intermediate slide has a longitudinal groove 14 on its outer side traveling on the longitudinal tongue 15, formed on the inner side of the through-slide. The intermediate slides are separated at their inner ends by the strut-bars 16, which come against the sides of the cross-rib when the table is closed and serve to keep the inner ends of the intermediate slides apart when the table is extended. Stop-plates 17 are attached on the under sides of the intermediate slides and project outward on the under side of the through-slides, and stop-screws 18 are located on the under sides of the through-slides at the proper places to limit the outward movement of the intermediate slides by acting against the stop-plates. The intermediate slides are preferably made long enough so their outer ends will be flush with the outer ends of the through-slides when the table is closed.

The end extension-slides 19 are located immediately on the inner sides of the intermediate slides either way from the cross-rib, and each end slide has a longitudinal groove 20 on its outer side traveling on the longitudinal tongue 21, formed on the inner side of the intermediate slide. The end slides are connected at their inner ends by the strut-bars 22, which come against the strut-bars of the intermediate slides when the table is closed and serve to keep the inner ends of the end slides apart when the table is extended, and the end slides are connected at their outer ends by the end bars 23, which are flush with the end edges of the top when the table is closed. The end slides have the stop-plates 24 attached on their under sides, which plates project outward on the under sides of the intermediate slides, the outward movement of which plates is limited by the stop-screws 25, located on the under sides of the adjoining intermediate slides. By thus limiting the outward movement of the slides by stop-plates and screws the slides can readily be taken apart by merely removing the proper screws, which can easily be done by an unskilled person.

The end rims 26 are attached on the outer sides of the end bars, and the upper edges of the end rims come against the end edges of the top when the table is closed. The end rims preferably conform in width and finish to the side rims and in length to the width of the top, and the side rims project beyond the end edges of the top to include the end rims when the table is closed, which projecting ends are preferably rounded and finished like the rim-faces.

The pillar-plates 27 are attached at their ends to the under sides of the end slides, so the inner edges of the plates will come near but not quite touching the edges of the leg-plate on each side when the table is closed. At the middle of each pillar-plate is attached one-half of the table-pillar, which pillar is

formed hollow and is bisected vertically on the cross middle line.

The bolt-rod 28 is vertically located in the concave side of one half-pillar and is rotatable in the bearings 29 and 30, respectively. The upper end of the bolt-rod is bent outward to form the operating-arm 31, which arm passes outward over the pillar-plate and the rack 32, attached on said plate, and is provided with a suitable handle 33 on its outer end near inside of the end rim. The sharp edge or flange 34 on the under side of the operating-arm normally engages the teeth of the rack and holds the arm in a given position, and when it is desired to move the arm along the rack it is bent or sprung up to disengage the flange from the teeth of the rack. The laterally-curved horizontal bolt 35 is formed on the lower end of the bolt-rod and is adapted to engage in the loop 36, attached in the concave side of the other half-pillar opposite the bolt. The table is locked by closing the extension parts together, or nearly so, with the bolt-rod rotated to carry the end of the bolt outward clear of the side of the center leg, as shown in Figs. 3 and 4. The bolt-rod is then rotated by moving its arm sidewise, and the end of the bolt is carried inward to engage in the loop 36, by which operation the two half-pillars are drawn tightly together, and at the same time the end rims are drawn tightly against the end edges of the top, which position of the parts is maintained by the bolt-arm flange engaging the teeth of the rack and is shown in Fig. 1.

The outer and inner filling-boards 7 and 8 are located above the extension-slides at either end of the table and have the brackets 37 and 38 depending immediately inside of the end slides. Inclined Z-shaped slots 39 and L-shaped slots 40 are provided, respectively, in the brackets 37 and 38, through which slots pass the stud-screws 41, which screws are attached on the inner sides of the end slides. These slots traveling on the screws permit the filling-boards to be raised and lowered and moved along the table in the direction of and within the limits of the slots. The normal position of the filling-boards of each end when the table is closed, as shown in Fig. 1, is with the inner board well in near the inner ends of the end slides and the outer board close against it. The upper horizontal parts of the slots 39 in the brackets of the outer board serve in a manner to lock the boards in their normal position in event the table is inverted, as for repairing or shipping, thereby preventing the upper side from being scratched by coming against the under side of the top.

To extend the table to its full length, the bolt is unlocked and the joined end bar and rim is grasped, preferably from below, and the slides are pulled out to their full extent until stopped by the stop plates and screws, as shown in the left parts of Figs. 2 and 3. The outer fill-

ing-board is then grasped by the hands, preferably at either end, and is first drawn directly outward, then diagonally upward and outward to the level of the top, and then again directly outward to join the end rim. The inner board is then grasped in a similar manner and is first drawn diagonally upward and outward to the level of the top and then directly outward to join the outer board, after which the extended end parts of the table are pushed inward until the inner board joins the end edge of the top. Wedge-shaped tongues, as 42, are provided to project from the inner side of the end rim and from the inner edges of the filling-boards, which tongues are adapted to enter and engage in similarly-shaped recesses, as 43, in the end edge of the top and in the outer edges of the filling-boards, thereby securing a neat joining of the respective edges. The table is closed by reversing the operations described for extending it, and if it is desired to extend it with only one filling-board at either end it is done in a similar manner by limiting the operations to the outer board alone. In these various movements the respective half-pillars move outward and inward with the end slides, thereby giving a firm and positive support near the end of the table in all positions, and by providing one member of the extension-slides on either side through the entire length of the table proper there is thus provided a firm and rigid base, from which the other slides are respectively extended, so that all parts of the table from end to end of the extension parts are unyield-

ingly held against any movement, excepting only that along the extension-slides.

If it is not desired to lock the filling-boards in their depressed position, the upper horizontal parts of the slots 39 can be omitted, thus leaving L-shaped slots similar to the slots 40, and instead of inclining the slots, as shown in the drawings, they can be made vertical without affecting the nature of my invention, and while I have described and illustrated a hollow bisected pillar the form of the supports of the extension parts can as well be made so as not to inclose the center leg, in which event these supports would more properly be called "end legs."

What I claim as my invention, and desire to secure by Letters Patent, is—

In a table, a central leg, extension ends operating each way from the leg, half-pillars on the ends closing around the leg, a loop on one half-pillar, a rotatable rod on the other half-pillar, a flexible arm extending outward and a curved bolt extending inward from the rod, a flange on the arm, a rack on the latter half-pillar, the bolt being adapted to engage the loop around the leg by the rotation of the rod, and the flange being adapted to engage the rack.

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

JACOB F. ARNOLD.

Witnesses:

JOSEPH FREASE,  
HARRY FREASE.