

No. 771,232.

PATENTED OCT. 4, 1904.

C. J. & G. H. COOK.
EXTENSION TABLE.

APPLICATION FILED NOV. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

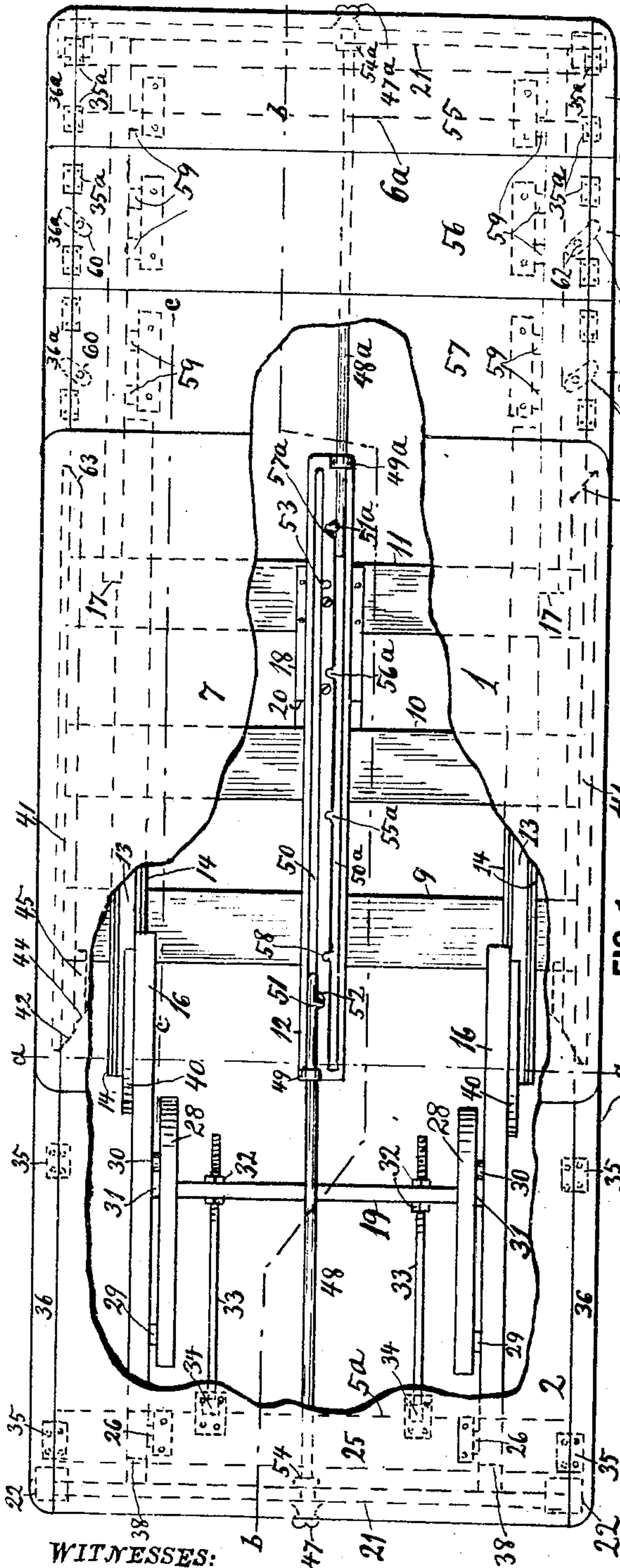


FIG. 1.

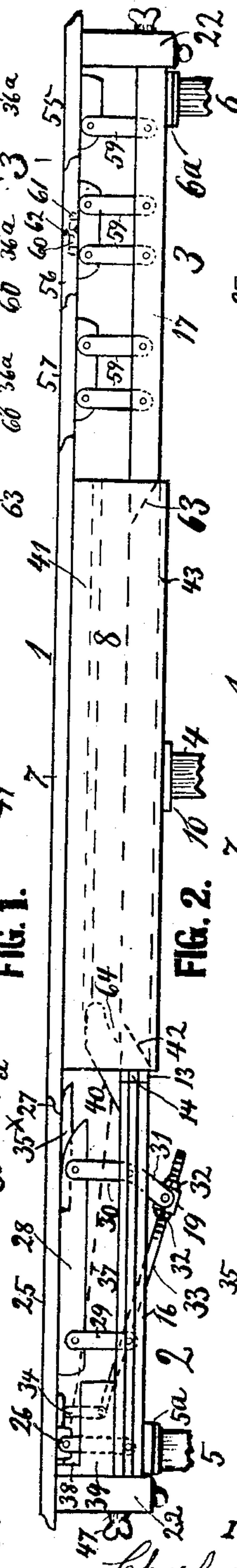


FIG. 2.

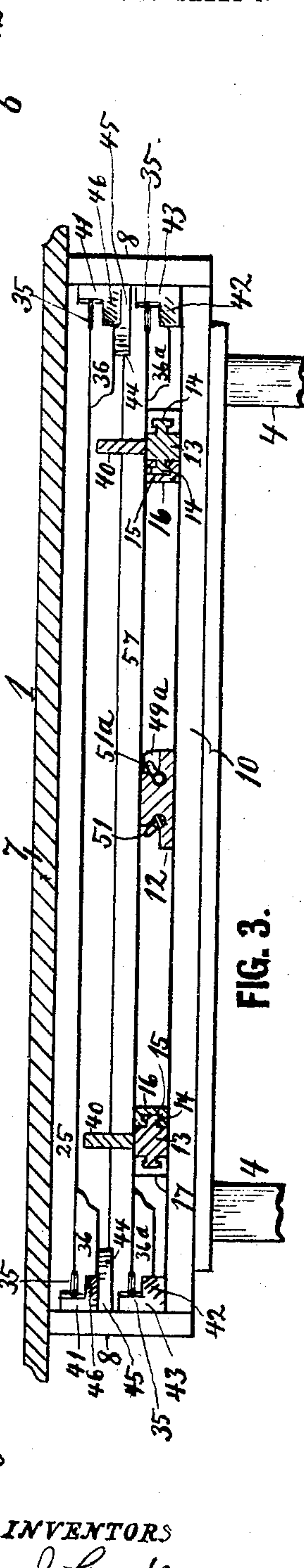


FIG. 3.

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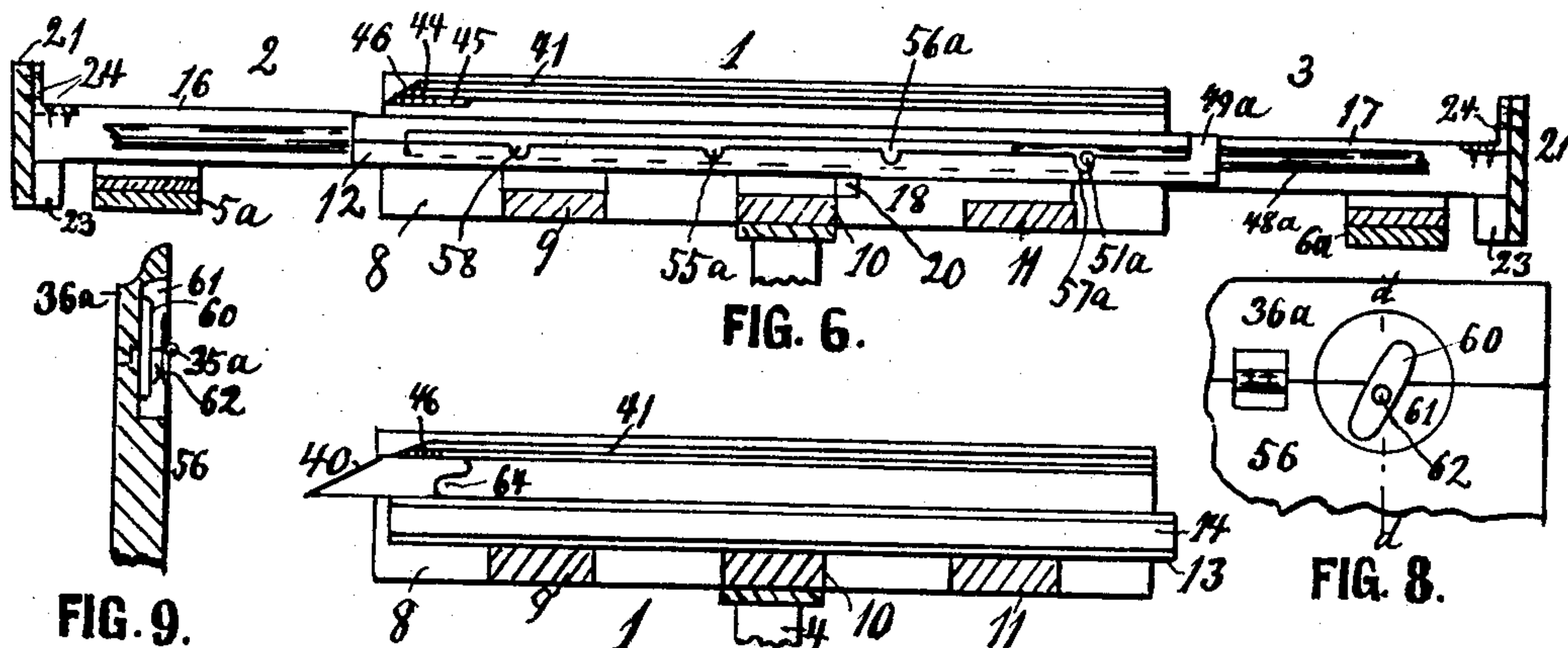
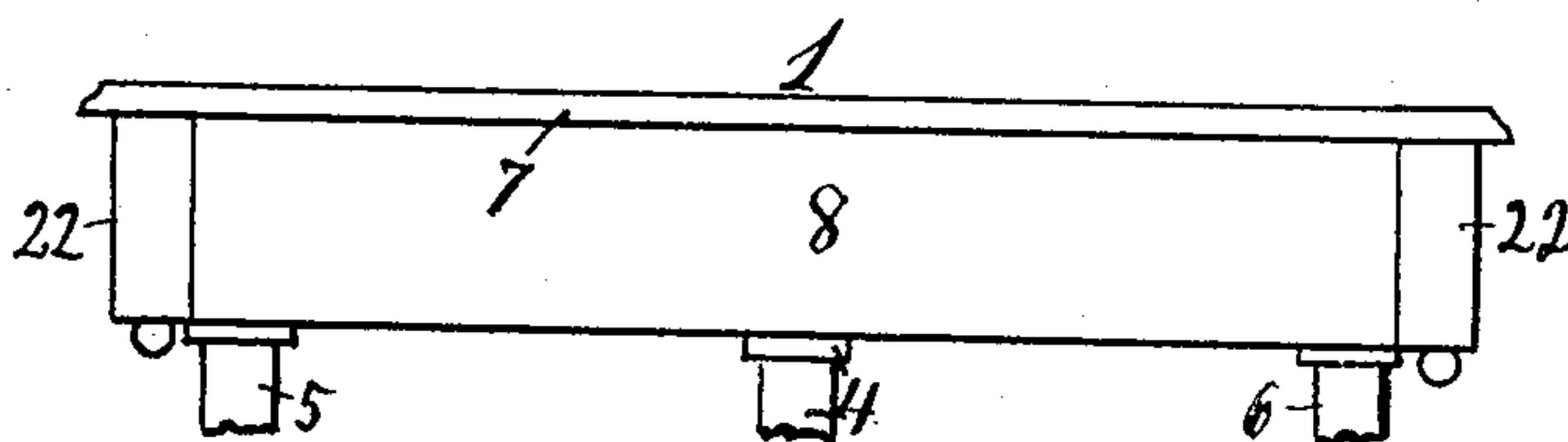
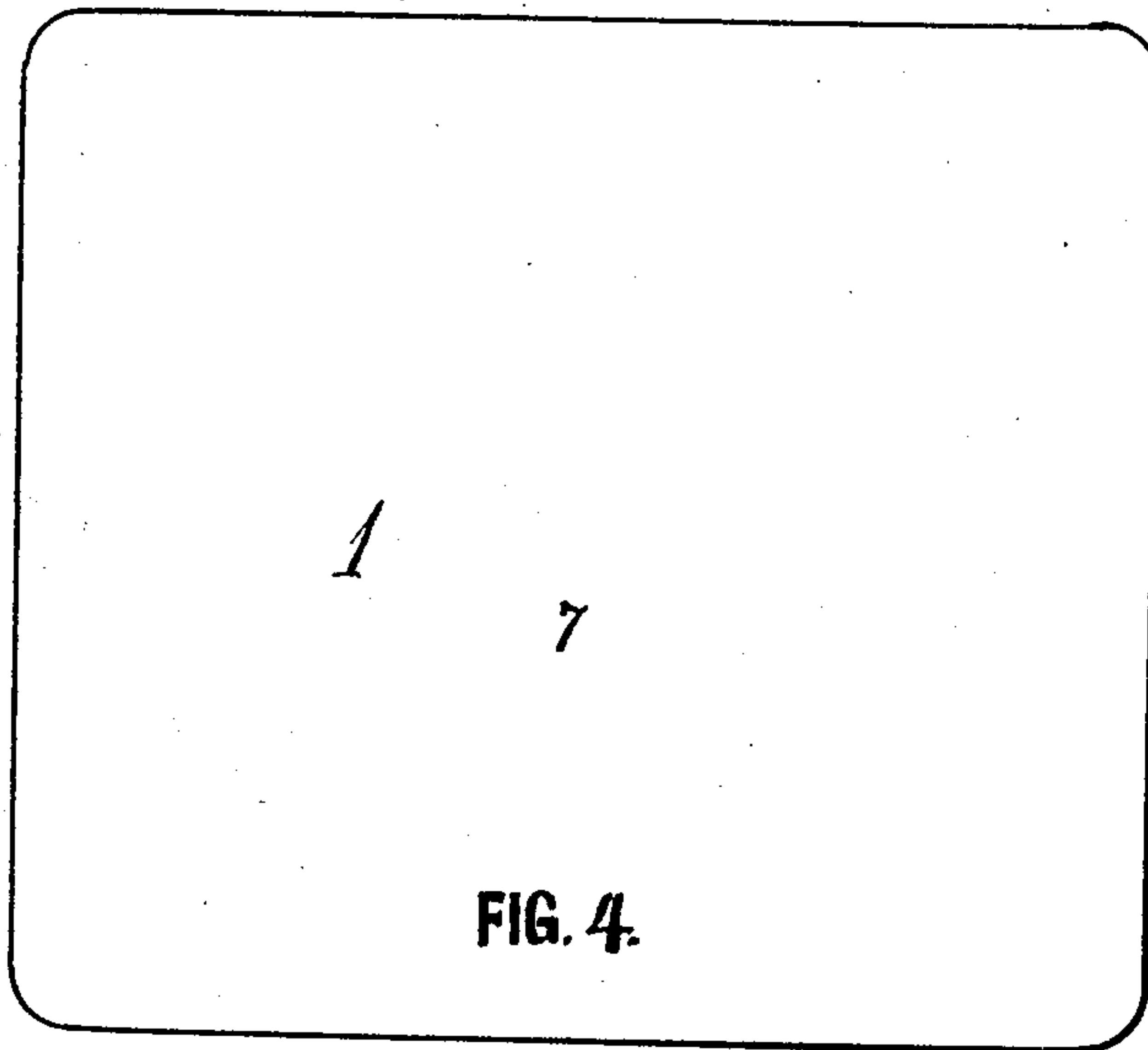


FIG. 9.

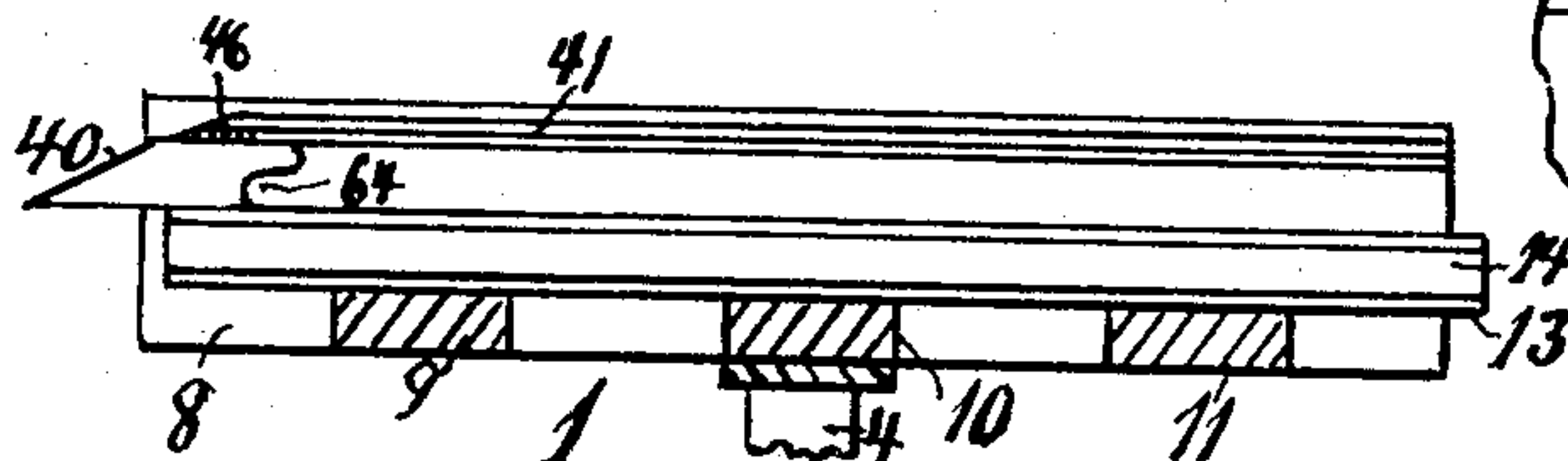


FIG. 8.

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CHARLES J. COOK AND GEORGE H. COOK, OF ST. PAUL, MINNESOTA.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 771,232, dated October 4, 1904.

Application filed November 9, 1903. Serial No. 180,343. (No model.)

To all whom it may concern:

Be it known that we, CHARLES J. COOK and GEORGE H. COOK, citizens of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Extension-Tables; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to extension-tables of the class in which all the leaves are permanently connected with the table and so arranged that the end sections of the table may be pushed in under the middle section; and the same consists in the feature of construction and in the combination or arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of the improved table fully extended and with a large central portion of the leaves broken away. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a cross-section on the line *a a* in Fig. 1 looking from left to right. Fig. 4 is a top view of the table fully pushed together. Fig. 5 is a side elevation of Fig. 4. Fig. 6 is a vertical longitudinal section on the line *b b* in Fig. 1, with all leaves and most of the mechanism removed. Fig. 7 is a vertical sectional view on the line *c c* in Fig. 1. Fig. 8 is a bottom view of an enlarged piece of the second leaf from right-hand end of Fig. 1. Fig. 9 is a sectional view on the line *d d* in Fig. 8.

Referring to the drawings by reference-numerals, it will be seen that the table is made up of a stationary central section 1 and movable end sections 2 and 3, respectively, the central section 1 being supported by legs 4 and the end sections 2 and 3 supported by legs 5 and 6. The central section 1 comprises a fixed leaf or top 7 and vertical side frames 8 secured thereto and to three cross-bars 9 10 11, of which the bar 10 is secured

on the top of the two legs 4 supporting that section. As further parts of the central section may be considered the central rail 12 and the two side rails 13, of which the latter two are secured upon all the frame-bars 9 10 11 and provided upon both sides with T-shaped ribs 14 to receive T-shaped grooves 15 in the sliding rails 16 and 17 of the end sections, while the central rail 12 is secured upon a block 18, (see Fig. 6,) fixed to the frame-bars 10 and 11 and holding the rail high enough above the bars 9 and 10 to permit the cross-bar 19 (seen to the left in Figs. 1 and 2) to pass along close below the rail 12 as far as to the shoulder 20 of the block 18 to allow insertion of the end section 2. Each end section consists of a vertical end rail 21, with corner-pieces 22 at the ends, while to the inner side are secured by the strip 23 and angle-irons 24 (see Fig. 6) the ends of the slidable rails 16 in one section and 17 in the other section, to which are secured the legs 5 and 6 by means of the cross-bars 5^a 6^a.

Section 2 has a single folding leaf 25, which is connected with the rails 16 by a single pair of links 26, and is supported when in use by the end rail 21 and the edge 27 of the central leaf 1, which for that purpose is beveled to an ogee or similar form. The leaf 25 is raised and lowered by two short supporting-bars 28, connected to the rails 16 by links 29 30, of which the latter have depending arms 31, pivotally engaging the ends of the bar or rock-shaft 19, and in the latter are adjustably secured by nuts 32 the threaded ends of two rods 33, having their opposite ends pivoted to depending arms 34, fixed underneath the leaf 25.

35^x represents guides secured under the edge of the leaf 25, and touching under the edge of the central leaf so as to prevent the leaf 25 from being forced upward by the central leaf. At the ends of the leaf 25 are hinged at 35 the divisions or end pieces 36, which when in use are supported by the edge of the central leaf and by the corner-pieces 22, and when not in use are folded down and inward flat up under the leaf 25, and with the latter and the frame-section pushed into the central section. This operation is partly automatic and may be here

described as follows: When the end section 2 is to be inserted in the central section, the end section is first pulled out to its limit, so that the leaves separate, say, two or three inches. The
 5 leaf 25 is then pushed inward, (toward the center leaf,) with the result that it drops to the position shown in dotted line 37 in Fig. 2, while the supporting-bars 28 fall outward and down, being operated by the arms 31, rods 33, and
 10 pendants 34 of the pushed leaf. The frame-section 2 is then simply pushed into the central section to the position shown in Figs. 4 and 5. During the latter pushing the shoulders 38 of the leaf-supporting blocks 39 force the
 15 leaf with its inner edge up along the inclined blocks 40, secured on the rails 13, so that the leaf lodges upon the ledges 41 close up under the central leaf, as best shown in Figs. 3 and 7, and the end pieces 36 are during said pushing automatically folded from a hanging position to a complete folding, as in Fig. 3, by
 20 contact with the inclines 42 on the ledges 43 44 on cam-blocks 45 and 46 at the ends of the ledges 41. When the leaf is to be pulled out
 25 for use, the end section is first pulled out to its limit. The operator then raises the pieces 36, one with each hand, and at the same time gives a pull, which raises the links 26 and 29 in opposite directions to a vertical position,
 30 so that the leaf is supported on the bars 28. The section is then pushed in sufficiently to bring the leaf 25 close to the central leaf, and in that position it is locked by giving the thumb-piece 47 about one-fourth of a turn, so
 35 that its rod 48, sliding in the lug 49 and groove 50 of the center rail 12, engages with its side finger 51 in the notch 52 of the rail. When the end section is inserted, said finger interlocks in the notch 53, and when the end section
 40 is pulled out to its limit the finger 51 stops against the lug 49 and prevents separation of the sections. It will be understood that the rod 48 has a collar 54, which, together with the shoulder of the thumb-head 47, prevent sliding of the rod in the frame-piece 21.

The end section 3 has a rod 48^a arranged exactly the same as rod 48 in section 2, only that as section 3 has several small leaves 55 56 57 the rail 12 is provided with corresponding
 50 notches 55^a 56^a 57^a for the finger 51^a to engage, according to which of the small leaves is to be held in contact with the edge of the center leaf, and when all the small leaves are pushed into the center section the finger interlocks in the notch 58. Said notches may be
 55 above the grooves 50 and 50^a, as in Fig. 1, or below same, as in Fig. 6, or pegs may be used in place of notches. In the section 3 the small leaves are each mounted on two pairs
 60 of links 59, except leaf 55, which has only one pair of links, so that its outer edge may be freely entered above the supporting corner-pieces 22, which supports in level position also the hinged end pieces 36^a of said leaf,
 65 while the end pieces of leaf 57 are supported

by the beveled edge of the central leaf, but may also have, like leaf 56, supporting-latches 60, pivoted at 62 in a cavity 61 below the leaf and engaging the end piece, as best shown in Figs. 8 and 9.

In the operation of section 3 the small leaves and their end pieces are raised by the hands to a level with the central leaf; but in closing and pushing in the section the small leaves are simply pushed inward, so that they
 75 fall upon the rails 17 with their end pieces hanging down, and as the section is pushed home the inclines 63 at the adjacent ends of the lower ledges 43 fold the end pieces 36^a in and upward to the position shown in Fig. 3, 80 while the small leaves themselves are lodged upon said ledge 43, the shape of which is such as to engage the hinged edges of the small leaves and hold them in position after they have passed the inclines folding them. The
 85 cam-blocks 40 have notches 64 (see Fig. 7) at their inner ends to admit the small leaf 57 to its fully-inserted position.

From the above description it will be understood that the small end pieces 36^a are folded
 90 by a single slightly spiral-shaped incline 63 at the end of each of the ledges 43 supporting said leaves, while the heavier end pieces 36 in section 2 are preferably given further guidance farther from the hinges by the auxiliary
 95 cams 44, and may even receive the initial folding movement from the inclines 42, while the leaf is moving on the elevating inclines 40. It will also be noted that by our construction of this class of tables we attain
 100 the much desired, but, as far as we know, heretofore never-accomplished object of covering the end sections of the table entirely by the central section, so that the table in its contracted position gives the impression of
 105 being a neat single table, and obviates the unpleasant lodging of dust, bread-crumbs, and water in crevices appearing between the sections when the table is contracted for daily use and only extended, when so required, for
 110 company or visitors, as is often the case in small or even ordinary families.

We are aware that it is not new to make folding leaves with folding end pieces, nor to mount folding leaves on links, so we do not
 115 claim these points broadly; but

What we do claim, and desire to protect by Letters Patent, is—

1. An extension-table comprising a stationary section and one or more sections connected
 120 thereto and adapted to slide in under the stationary section, said slidable sections having each one or more leaves connected thereto by and supported on links adapted to fold so as to bring the leaves below the leaf of the stationary section, said leaves of the sliding sections having hinged end pieces adapted to be folded down and inward under the leaves, and the stationary section having ledges positioned
 125 to receive and support the ends of the folded 130

leaves when the table is closed together, and at the end of said ledges, cams or inclines adapted to engage and fold the end pieces automatically against the leaves as the sections 5 are pushed together.

2. An extension-table comprising in combination a stationary section, and a slidable section having link-supported folding leaves with down and inward foldable hinged end pieces 10 adapting the leaves to slip into the stationary section, one or more of said leaves and end pieces having adjacent cavities at their under sides and thumb-buttons pivoted therein and adapted to support the end pieces in level position, and to allow the end piece to be folded 15 flat against the under side of the leaf when the thumb-buttons are turned into longitudinal position to the end pieces.

3. In an extension-table, the combination 20 with a stationary table-section having internal side ledges, of a movable section having rails and a folding leaf adapted to slide into the stationary section upon said side ledges in the frame thereof near up under the leaf or

top of the stationary section, said movable 25 section having the two links 26 supporting the outer edge of the leaf, the leaf-supporting bars 28 and links 29 30 connecting same with the rails, two of said links having the downwardly-extending arms 31, the bar 19 30 journaled with its ends in said arms, the rods 33 adjustably inserted in the bar 19 and having to their outer ends pivoted the depending arms 34 fixed up under the folding leaf, so that the pushing of the leaf inward causes the 35 bars 28 to fall outward and permit the leaf to drop, the inclined blocks 40 fixed upon the rails of the stationary section, and means for supporting and engaging the outer edge of the leaf to move it up along said inclined 40 blocks and into the stationary section.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES J. COOK.
GEORGE H. COOK.

Witnesses:

CHAS. E. HOWE,
TILLIE C. COOK.