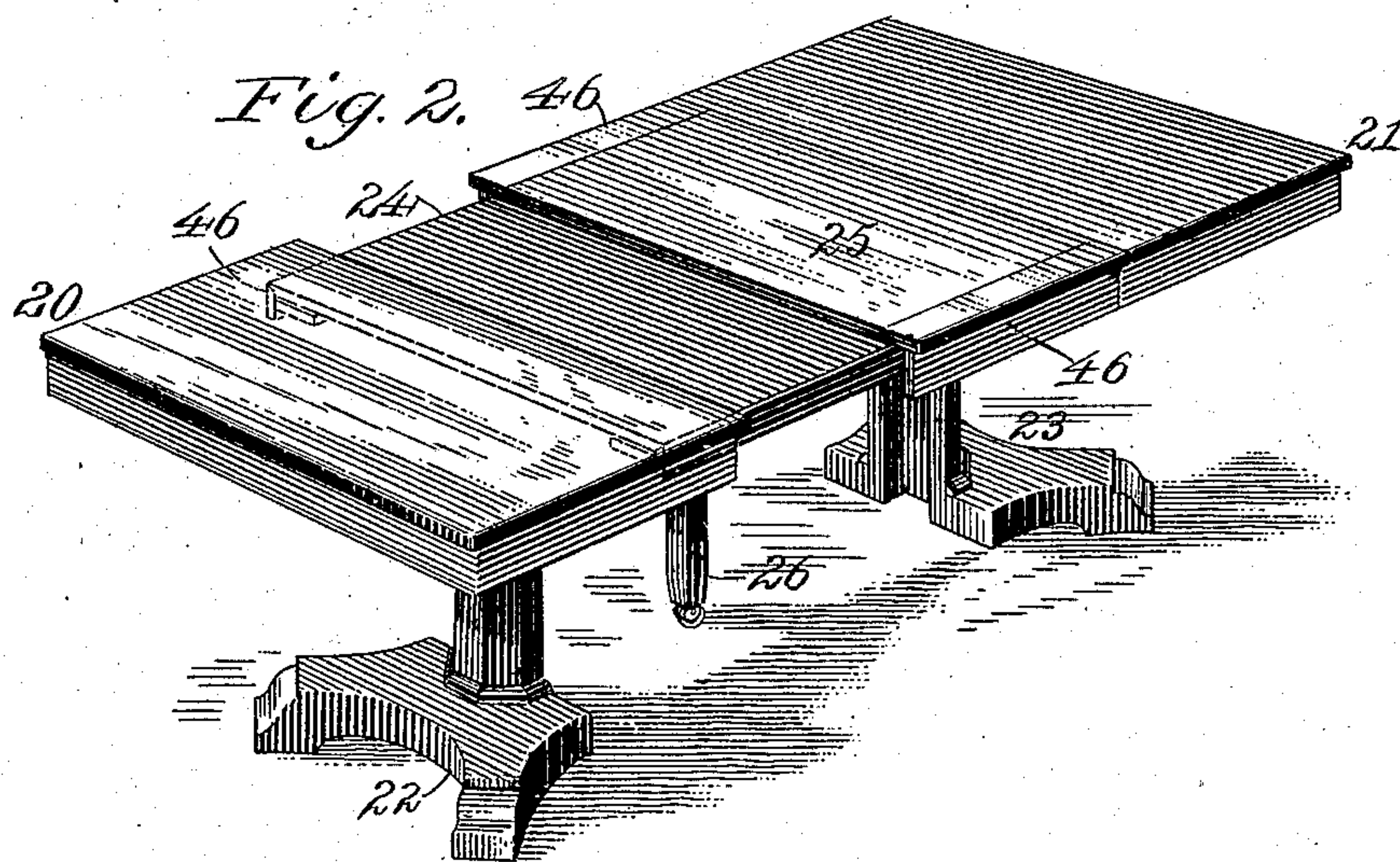
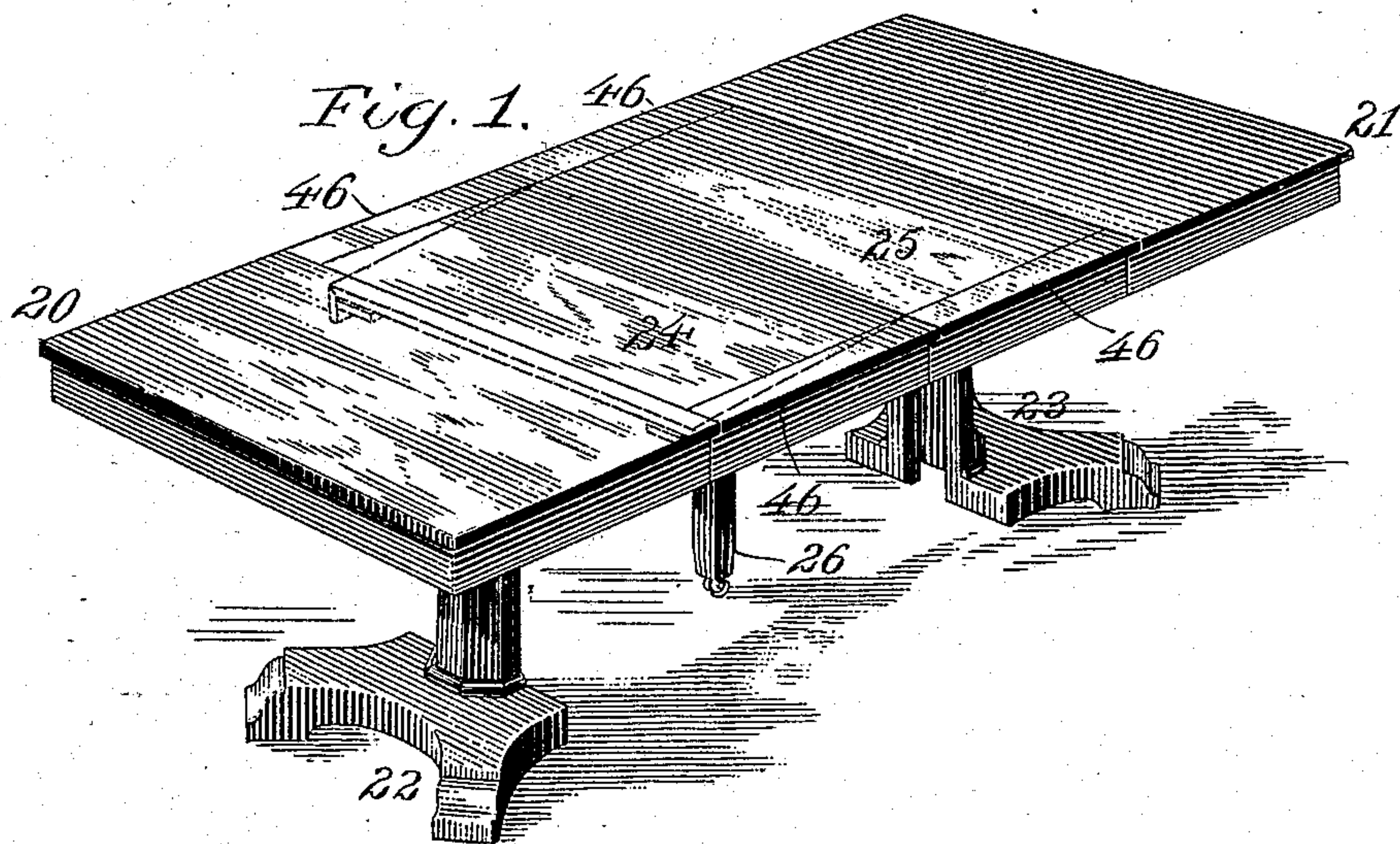


907,926.

R. F. WESTERFIELD.
EXTENSION TABLE.
APPLICATION FILED SEPT. 27, 1907.

Patented Dec. 29, 1908.
4 SHEETS—SHEET 1.



Witnesses:
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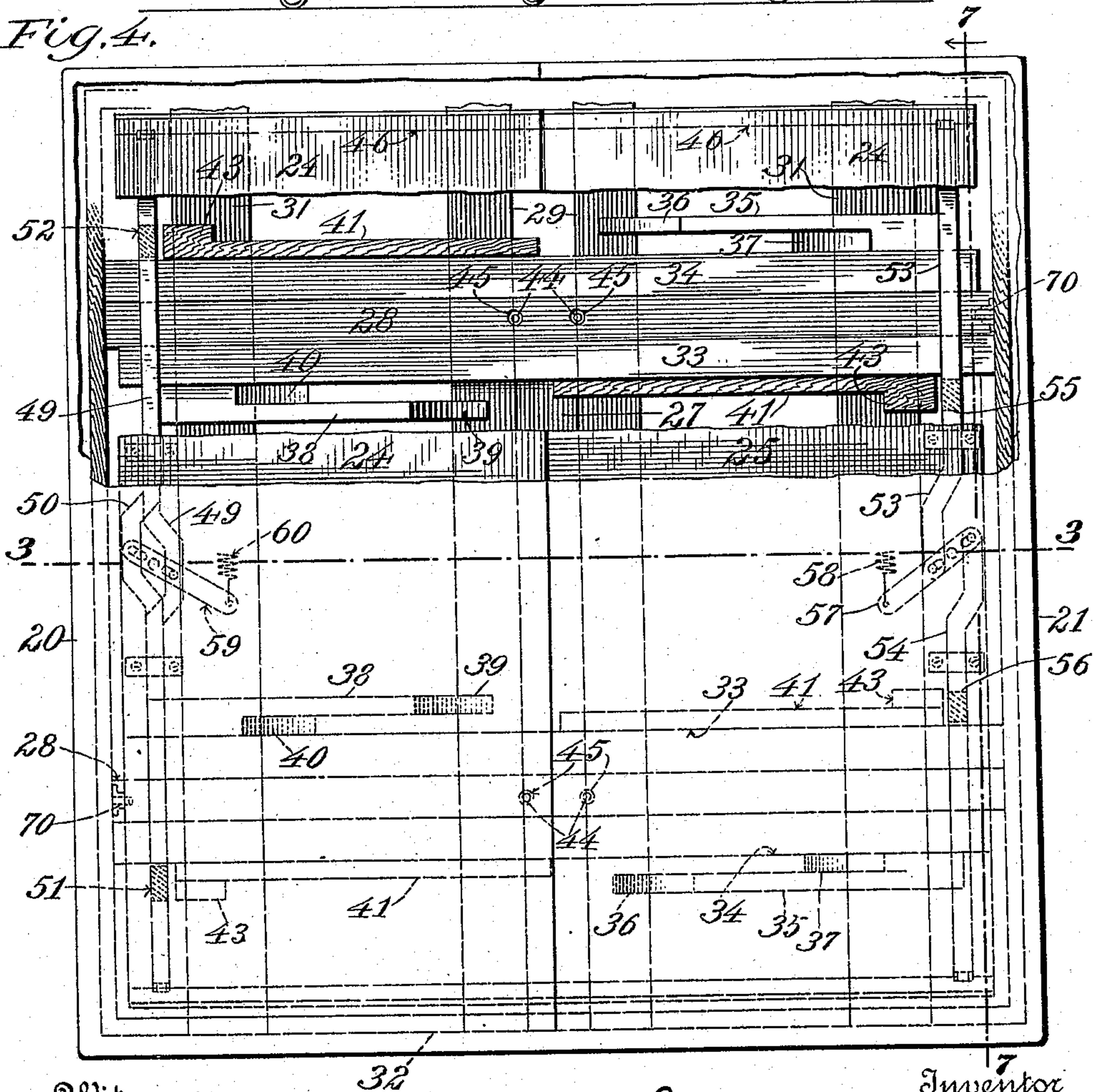
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EXTENSION TABLE.

Patented Dec. 29, 1908.

4 SHEETS—SHEET 2.

Fig. 4.



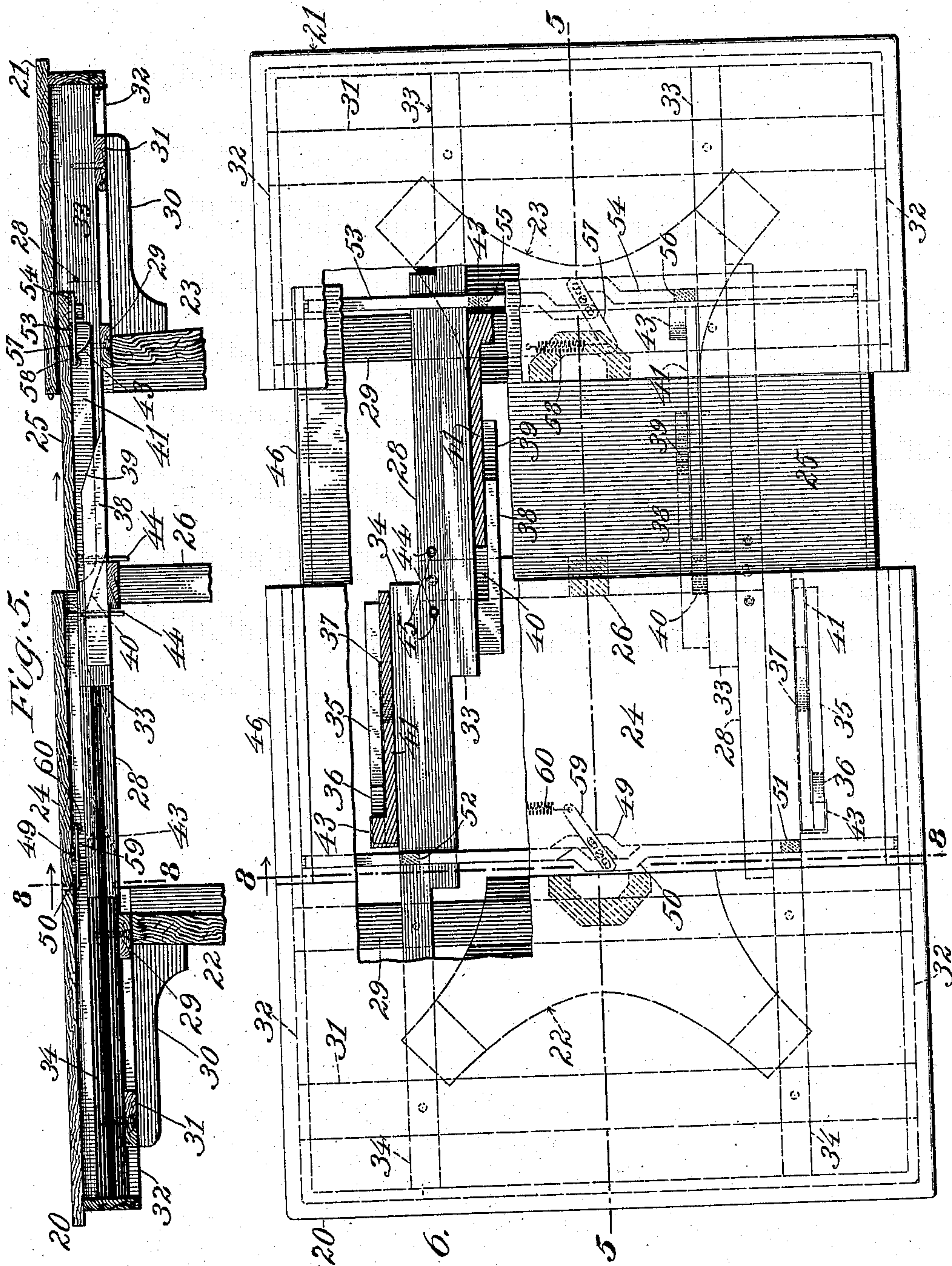
Witnesses: 34
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EXTENSION TABLE.
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907,926.



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Fig. 6.

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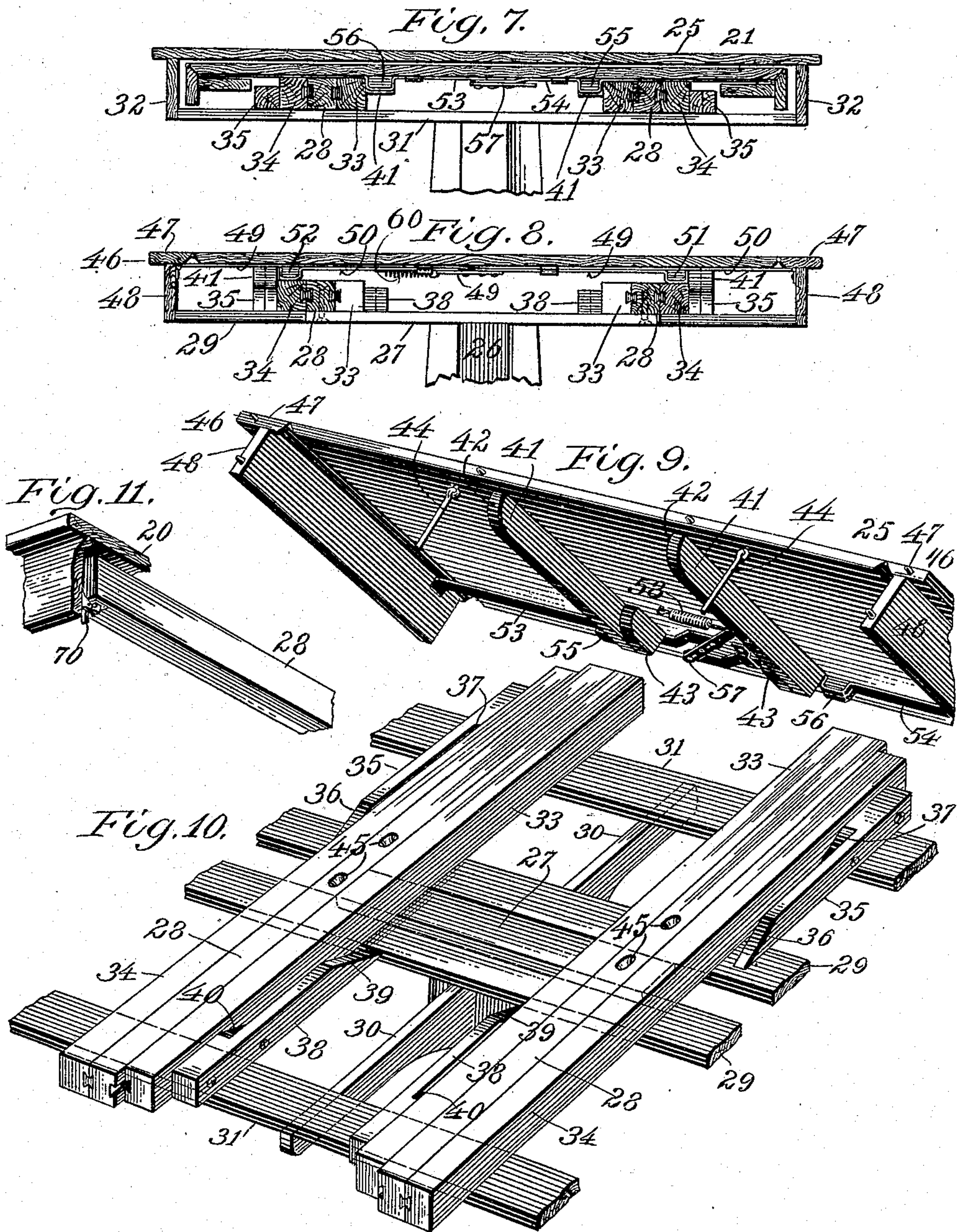
EXTENSION TABLE.

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4 SHEETS—SHEET 4.

907,926.



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UNITED STATES PATENT OFFICE.

RANDOLPH F. WESTERFIELD, NEW YORK, N. Y.

EXTENSION-TABLE.

No. 907,926.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed September 27, 1907. Serial No. 394,791.

To all whom it may concern:

Be it known that I, RANDOLPH F. WESTERFIELD, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Extension-Tables, of which the following is a specification.

The invention relates to improvements in extension tables; and it consists in the novel features and combinations of parts hereinafter described, and particularly pointed out in the claims.

The invention pertains more especially to an extension table adapted to conceal within itself an extension leaf or extension leaves and provided with suitable means for effecting, upon the table being extended, the elevation of said leaf or leaves to the horizontal plane of the table top and, upon the contraction of the table or the shoving together of the end sections thereof, causing said extension leaf or leaves to disappear below the table top.

My invention while applicable to various constructions of extension tables, relates more particularly to improvements on the extension table shown and described in Letters Patent of the United States No. 780,927 granted January 24, 1905 to Eugene T. Westerfield and Randolph F. Westerfield. The table shown in said Letters Patent is adapted upon being extended to expose and elevate the extension leaves and upon being contracted to depress and close in said leaves. When the table of said patent is extended and the extra leaves elevated to position, the objectionable condition exists of there being no side frames along the ends of the extension leaves to match or coincide with the side frames along the sides of the main end sections of the table, and one of the main objects of the present invention is to remedy this objection and provide an extension table in which the extension leaves are formed with hinged side frames adapted to be folded under when the extension leaves are concealed below the main table top and to be turned outwardly when the table is extended, to match the remaining edge and side portions of the table, whereby the table when completed possesses a finished appearance and is uniform throughout the length of each side thereof.

My invention also comprises means connected and cooperating with the hinged side

sections on the ends of the extension leaves for rendering their use convenient and efficient.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a perspective view of a table constructed in accordance with and embodying the invention, the table being shown in its extended condition; Fig. 2 is a like view of the same, the table being shown partly extended; Fig. 3 is a vertical central longitudinal section, partly broken away, of the table, the latter being shown in its contracted condition with the extension leaves concealed below the table-top, and the section being on the dotted line 3—3 of Fig. 4; Fig. 4 is a top view, partly broken away, of the table in its contracted condition; Fig. 5 is an enlarged central vertical longitudinal section through the upper portion of the table, the latter being illustrated in a partly extended condition and the section being on the dotted line 5—5 of Fig. 6; Fig. 6 is a top view, partly broken away, of the same; Fig. 7 is a vertical transverse section through the upper portion of the table on the dotted line 7—7 of Fig. 4; Fig. 8 is a like section through the upper portion of the table on the dotted lines 8—8 of Figs. 5 and 6; Fig. 9 is a detached perspective view, partly broken away, of one of the extension leaves; Fig. 10 is a detached perspective view, partly broken away, of a portion of the supporting frame and guide rails of the table, and Fig. 11 is a detached sectional view through a portion of one end of the table at the point where a latch (70) is provided for securing the end section of the table to one of the stationary rails.

In the drawings, 20, 21 designate the main table top sections, 22, 23 the sections of the main support for the table, and 24, 25, the extension leaves normally concealed below the end sections 20, 21, as shown in Fig. 3. In addition to the supports 22, 23, which are of pedestal character, the table is provided with a middle supporting leg 26, which, when the end sections are together, is concealed within a chamber formed by the supports 22, 23, the latter matching each other in the contracted condition of the table and presenting the appearance of an integral pedestal support.

With reference to the general supporting

frame of the table, a transverse bar 27 is secured upon the upper end of the middle leg 26, and upon the ends of the bar 27 are secured the longitudinal stationary rails 28. Upon the upper portions of the pedestal sections 22, 23 are secured the transverse bars 29, while upon the horizontal extensions 30 attached to said sections are secured the transverse bars 31. The bars 29, 31 extend entirely across the table and are secured to the sides 32 of the end sections thereof, said end sections when separated from one another each carrying one of the pedestal sections with the bars 29, 31 connected therewith.

The bars 29, 31 of the right hand section 21 of the table, looking at Fig. 6, have secured upon them the corresponding slide-rails 33, and the bars 29, 31 of the left hand section 20 of the table have secured upon them the corresponding slide-bars 34. The bars 33, 34 are disposed at opposite sides of the longitudinal center of the table and guide upon the sides of the stationary bars 28, as usual, tongues and grooves being provided in the adjoining faces of said bars for guiding them. When the table is in a contracted condition (Fig. 4) the left hand ends of the bars 33 of the table section 21 are above the transverse bars 29, 31 of the left hand end section 20, and the right hand ends of the bars 34 of the table-section 20 are above the transverse bars 29, 31 of the right hand end section 21.

The features of the supporting frame hereinbefore designated and so far as they have been described, are of usual form and construction and require no special description.

My invention pertains to the extension leaves 24, 25 and the features connected therewith and with the bars 33, 34 for effecting their convenient use and operation.

In the present instance I employ two extension leaves, numbered 24 and 25 respectively, but the invention would be present if only one of said extension leaves were made use of, and in actual practice only one extension leaf is exposed for use, unless a table of extra length is required, under which condition both extension leaves will be exposed.

I secure upon the outer sides of the inner ends of the rails 34 cam bars 35 having cam or inclined surfaces 36, 37, said surfaces being set one in advance and one at the side of the longitudinal plane of the other, as clearly illustrated in Figs. 4, 6 and 10; and upon the inner sides of the inner ends of the rails 33 I secure cam bars 38 corresponding with the bars 35 and having inclined or cam surfaces 39, 40, one being in advance and at one side of the longitudinal plane of the other. The cam bars 35, 38 are all alike, but arranged in pairs and point inwardly or toward the central transverse bar 27. The cam bars 35, 38 being secured to the rails 34, 33 of the main

end table-sections move with said sections, and they are utilized to cooperate with the extension leaves and for effecting the elevation of said leaves when the end sections are extended and the depression of said leaves when said end sections are pushed together in contracting the table.

One of the extension leaves is shown detached in Fig. 9, in which it may be seen that the leaf has secured upon its lower side two parallel bars 41 whose inner ends are inclined or rounded, as at 42, and whose outer ends, at the inner sides thereof, carry cam-blocks 43, the inner ends of which are also rounded or inclined correspondingly with the ends of the bars 41. Both leaves 24, 25 are provided with the bars 41 and blocks 43, the bars and blocks of the leaf 25 cooperating with the cam bars 38 carried by the slide-rails 33, and the bars and blocks of the leaf 24 cooperating with the cam bars 35 carried by the slide rails 34, as may be understood by reference to Figs. 4, 6, 9 and 10. The blocks 43 of the leaf 24 are at the outer sides of the ends of the bars 41 for said leaf. The leaves rest upon the rails 28, 33, 34 when the table is in its contracted condition, and when the end sections of the table are drawn out, the rails 33, 34 carry the cam bars 35, 38 against the bars 41 and blocks 43 of the extension-leaves and effect the elevation of said leaves, the inclined surfaces 40 and 39 of bars 38 respectively engaging the bars 41 and blocks 43 of the leaf 25, and the inclined surfaces 37, 36 of the bars 35 respectively engaging the bars 41 and blocks 43 of the leaf 24, and said inclined surfaces by riding below said bars and blocks forcing the leaves to elevate to the plane of the main table top.

The inner or adjoining ends of the extension-leaves 24, 25 carry vertical hinged pins 44 which are loosely housed in vertical apertures 45 for holding the leaves in a fixed location with relation to each other and with the stationary part of the table but allowing said leaves to be moved vertically upward by the cam bars 35, 38. The pins 44 and apertures 45, the latter being in the stationary rails 28 are disclosed in the aforesaid Letters Patent No. 780,927 and not separately claimed herein. In the present instance, however, the pins 44 are employed in connection with cam-bars 41 and cam-blocks 43, the latter not being shown in the aforesaid Letters Patent.

The extension-leaves 24, 25 are each formed at its ends with hinged sections 46 comprising members 47, 48 and adapted to be folded under the body of the leaf, as shown in Fig. 7, and also to turn outwardly, as shown in Figs. 8 and 9 for imparting a uniform appearance to the table, the members 47 of the hinged sections matching, when said sections are turned outwardly, the top of the table and the edge of the end sections 20, 21, as

shown in Figs. 1 and 2, and the members 48 of said hinged sections matching the sides 32 of the said end sections, whereby, when the table is extended, its edges and sides become uniform throughout, in which respect the present invention constitutes a marked improvement over the table shown and described in the aforesaid Letters Patent No. 780,927. The adjoining edges of the extension-leaves and hinged sections 46 are mitered, as shown in Fig. 7, so that when the leaves are to be concealed the members 48 of said hinged sections may turn up under the ends of the leaves and the members 47 thereof stand vertically and pass above the transverse bars 29, 31 of the table frame.

It is desirable that the hinged sections 46 of the extension-leaves shall be locked in their folded position when the table is contracted and automatically spring to their unfolded or operative position when the table is extended, and to this end I provide the leaf 24 with bars 49, 50 carrying blocks 51, 52, respectively, and hinged at their outer ends to the sections 46 of the said leaf, and equip the leaf 25 with bars 53, 54 carrying blocks 55, 56, respectively, and hinged to the sections 46 of said leaf 25. The bars 53, 54 are at their inner ends pivotally connected with a pivoted lever arm 57 to which a spring 58 is connected and which spring normally exerts its force to push the bars 53, 54 outwardly. When the leaf 25 has its hinged sections 46 folded under its end portions the bars 53, 54 are in their extreme inner position and the blocks 55, 56 press against the inner facing edges of the inner rails 33, as shown in Fig. 4, said blocks operating as shoulders to resist the outward movement of the bars 53, 54 under the stress of the spring 58. When the end-section 21 of the table is pulled outwardly to carry the cam surfaces 39, 40 of cam-bars 38 against the cams 42, 43 of the leaf 25, said cams 39, 40 by riding against the cams 42, 43 will elevate the leaf 25 and raise the blocks 55, 56 above the rails 33, the spring 58 the moment the blocks 55, 56 become released from the inner facing sides of the rails 33, forcing said blocks and bars 53, 54 outwardly and thereby automatically opening or unfolding the hinged sections 46 of the leaf 25 and causing the said blocks 55, 56 to pass upon the tops of said rails 33, where said blocks will operate as supports for the leaf 25 and cooperate with the bars 41, blocks 43 and cam-bars 38 in holding said leaf on a level with the main table top. When it is desired to contract the table and effect the lowering of the leaf 25 down upon the rails 28, 33, 34, the attendant after pulling outwardly on the end of the table so as to secure freedom for the leaf 25 will press downwardly and inwardly upon the hinged sections 46 of said leaf so as to turn said sections under the ends of the leaf and, through the bars 53, 54,

force the blocks 55, 56 inwardly toward each other and from over the top of the rails 33, under which condition the end section of the table will be pushed inwardly and the leaf 25 will lower upon the supporting rails, the blocks 43 and bars 41 riding down the cam surfaces 39, 40 of the bars 38, and the blocks 55, 56 passing downwardly along the facing sides of the rails 33, where they operate as shoulders to bind the said hinged sections 46 in the folded position. When it is desired to conceal the leaf 25 the attendant may press inwardly upon both hinged sections 46 for folding them under the ends of the leaf or may press only against one of those sections, since by reason of the pivoted lever arm 57 the movement of one section 46 will, through the bars 53, 54, be communicated to the other hinged section 46. The bars 53, 54 with their blocks 55, 56, lever arm 57 and spring 58, enable the securing of the hinged sections 46 at their inward position when the table is in contracted condition, the automatic turning outwardly of said hinged sections 46 when the table is extended and the imparting of movement from one of the hinged sections 46 to the other thereof when either is moved either inwardly or outwardly. The blocks 55, 56 also operate, when the table is extended, as supports for the outer edge of the leaf 25.

The bars 49, 50 for the leaf 24 carry their blocks 51, 52 in position for cooperation with the outer rails 34, said blocks engaging the outer sides of said rails 34 when the table is contracted, as shown in Fig. 4 and permitting said blocks to rest upon said rails when the table is extended (Fig. 6) so that they may then operate as supports for the outer edge of the leaf 24. When the hinged sections 46 of the leaf 25 are folded inwardly they move the bars 53, 54 and blocks 55, 56 inwardly so that the latter may pass inwardly from off the rails 33, but when the hinged sections 46 of the leaf 24 are folded inwardly they must move the blocks 51, 52 outwardly, so that said blocks may pass to the outer sides of the rails 34, and therefore the bar 49 carrying the block 51 is hinged to the section 46 shown at the left hand side of Fig. 8 and the block 52 is carried by the bar 50 hinged to the section 46 shown at the right hand side of Fig. 8, said bars 49, 50 lapping one upon the other from the middle of the table outwardly so as to occupy as little room as possible, as indicated in Figs. 4, 6 and 8. The bars 49, 50 at about the middle portion of the table are pivotally secured to a lever arm 59 connected with a spring 60, whose normal tension is exerted to force the bars 49, 50 outwardly in a direction from each other, this resulting, when the table is extended, in the hinged sections 46 of the leaf 24 being forced outwardly to the position illustrated in Fig. 8. When the

hinged sections of the leaf 24 are thus forced outwardly by the spring 60 the bars 49, 50 have their free end portions drawn inwardly, due to the fact that said portions pass by the center of the table, and draw the blocks 51, 52 inwardly to a sufficient extent for said blocks to pass upon the rails 34 and act as supports. When the hinged sections of the leaf 24 are pressed inwardly, the bars 49, 50 have their ends moved outwardly in opposite directions and carry the blocks 51, 52 off the rails 34, said blocks then engaging the outer sides of said rails 34 and operating as stops to resist outward movement of the hinged sections 46 of the leaf 24. When the table is extended the cam bars 35 engage the bars 41 and blocks 43 of the leaf 24 and elevating the same raise the blocks 51, 52 clear of the rails 34, this allowing the spring 60 to drive the bars 49, 50 outwardly for the purpose of opening the hinged sections 46 of said leaf and carrying the blocks 51, 52, inwardly upon the rails 34.

The operation of the table will be largely understood from the foregoing description. Figs. 3 and 4 show the table in its contracted condition, the extension-leaves 24, 25 being below the main table-top sections and having their pins 44 loosely within the apertures 45 of the stationary rails 28. At this time the end sections 46 of the extension-leaves are in folded position under the ends of the leaves and thus held by the engagement of the blocks 51, 52 of the leaf 24 with the outer faces of the rails 34 and the engagement of the blocks 55, 56 of the leaf 25 with the facing sides of the rails 33; and the said leaves are supported by the rails 28, 33, 34. When it is desired to extend the table the end sections 20, 21 will be pulled outwardly from each other, if both leaves 24, 25 are to be exposed, being drawn outwardly to a distance greater than the width of said leaves 24, 25, so that the latter may have abundant opportunity to become elevated, and will then be pushed inwardly against the outer edges of said leaves 24, 25. The outward movement of the end section 21 will, through the rails 33, cause the cam bars 38 to be drawn against the bars 41 and blocks 43 of the leaf 25 and effect the elevation of said leaf, the hinged sections 46 of said leaf springing outwardly as soon as the blocks 55, 56 carried by the leaf are raised to the level of the rails 33. The movement of the end section 20 outwardly or toward the left (looking at Figs. 3, 4, 5 and 6) will result in the rails 34 being drawn toward the left and carrying the cam bars 35 secured to them against the bars 41 and blocks 43 of the leaf 24, thereby elevating said leaf and causing it to carry the blocks 51, 52 thereof to a plane at which they may spring inwardly upon the rails 34 and the spring 60 be enabled to unfold or move outwardly the hinged sections 46 of said leaf 24.

If it is only desired to extend the table to such length as one of the extension-leaves might furnish, one end section of the table will be pulled outwardly, while the other one is stationary, this resulting in only one leaf being exposed. When the end section 21 of the table is pulled outwardly from the section 20 the rails 33 will elevate the leaf 25, and when the section 21 is allowed to remain at rest and the section 20 pulled outwardly, the rails 34 will elevate the leaf 24.

It is customary in the employment of extension tables to provide means for latching the end sections of the table to the stationary middle rails 28, and in Figs. 4 and 11 I indicate diagrammatically a latch 70 at each end of the table for securing the end sections to the rails 28, as usual. When it is desired to extend the section 21 and not the section 20, the latch securing the section 21 to the rail 28 will be released so that said section 21 may be drawn outwardly. Should it be desired to extend both sections of the table, both of the latches 70 would be released, and the latch 70 for the end section 20 of the table would be released when it is desired to extend that section only.

The leaves of the table are provided with dowel pins, as usual, at their edges, and likewise the hinged sections 46 are provided with dowel pins (Fig. 9) for rendering them rigid when in use. When the table is extended the end-sections are drawn outwardly considerably beyond the leaves 24, 25 so that the latter may be elevated and the blocks 51, 52, 55, 56 spring to position upon the adjacent rails, and thereupon the end-sections are pushed together, the dowel pins and their sockets then engaging each other and the extension leaves being supported by the bars 41, cam blocks 35, 38 and blocks 51, 52, 55, 56.

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

1. An extension-table comprising a supporting frame, separable main end-sections, slide-rails secured to one of said sections, stationary guide-rails therefor, cam-bars 38 secured to the sides of said slide-rails and having at their opposite end portions cams 39, 40 one of which is in advance and at the side of the longitudinal plane of the other, and an extension-leaf to be concealed below the table-top when the table is in contracted form and elevated to position for use when the table is extended, said leaf having secured upon its lower side parallel bars 41 whose inner ends form cams 42 and whose outer ends at the sides thereof carry cam blocks 43, said bars 38 and cams 39, 40 being arranged to cooperate with said bars 41 and cams 42, 43; substantially as set forth.

2. An extension-table comprising a supporting-frame, separable main end-sections, slide-rails 33 secured to one of said sections,

slide-rails 34 secured to the other of said sections, stationary guide-rails 28 for said slide-rails, cam-bars 35 secured to the sides of said rails 34 and having at their opposite end portions cams 36, 37 one of which is in advance and at the side of the longitudinal plane of the other, cam bars 38 secured to the sides of said rails 33 and having at their opposite end portions cams 39, 40 one of which is in advance and at one side of the longitudinal plane of the other, and extension leaves to be concealed below the table-top when the table is in contracted form and elevated to position for use when the table is extended, said leaves having secured upon their lower sides parallel bars 41 whose inner ends form cams 42 and whose outer ends at the sides thereof carry cam blocks 43, said bars 35, 38 with their cams being arranged to respectively cooperate with the bars 41 and their cams of the said leaves; substantially as set forth.

3. An extension-table comprising a supporting frame, separable main end-sections, an extension leaf adapted to be concealed below the table-top when the table is in contracted form and having on its ends hinged sections to be turned outwardly, when the table is extended, to match the main adjacent portions of the table, means for automatically elevating said leaf when the table is extended, means for automatically turning said hinged sections outwardly when the leaf is exposed, and means for imparting corresponding motion from one of said hinged sections to the other when either is folded inwardly; substantially as set forth.

4. An extension-table comprising a supporting frame, separable main end-sections, slide-rails carried thereby, inclined cams carried by said rails, and extension leaves adapted to be concealed below the table top

when the table is in contracted form, cams carried by said leaves to be engaged by said rail-cams when the table is extended for elevating said leaves, said leaves having on their ends hinged sections to be turned outwardly, when the table is extended, to match the main adjacent portions of the table, combined with transverse bars hinged to said leaf sections and carrying blocks on their inner portions, and springs for moving said bars and sections outwardly when the table is extended, said blocks being located on said bars to rest upon said rails when the table is extended and to engage the sides of the same when the hinged leaf sections are folded inwardly; substantially as set forth.

5. An extension-table comprising a supporting frame, separable main end-sections, slide-rails carried by one of said sections, an extension leaf to be concealed below the table-top when the table is in contracted form and having on its ends hinged sections to be turned outwardly, when the table is extended, to match the main adjacent portions of the table, means carried by said rails for elevating said leaf when the table is extended, and transverse bars hinged to said leaf sections and carrying blocks on their inner portions and having a spring tension outwardly to unfold said leaf sections, said blocks being located to rest upon said rails when the table is extended and to engage the sides of the same when the leaf sections are folded inwardly; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 24th day of September A. D. 1907.

RANDOLPH F. WESTERFIELD.

Witnesses:

ARTHUR MARION,
CHAS. C. GILL.