

1,009,034.

Patented Nov. 21, 1911.

3 SHEETS—SHEET 1.

Fig. 1

Witnesses
L. R. L. White
R. H. White

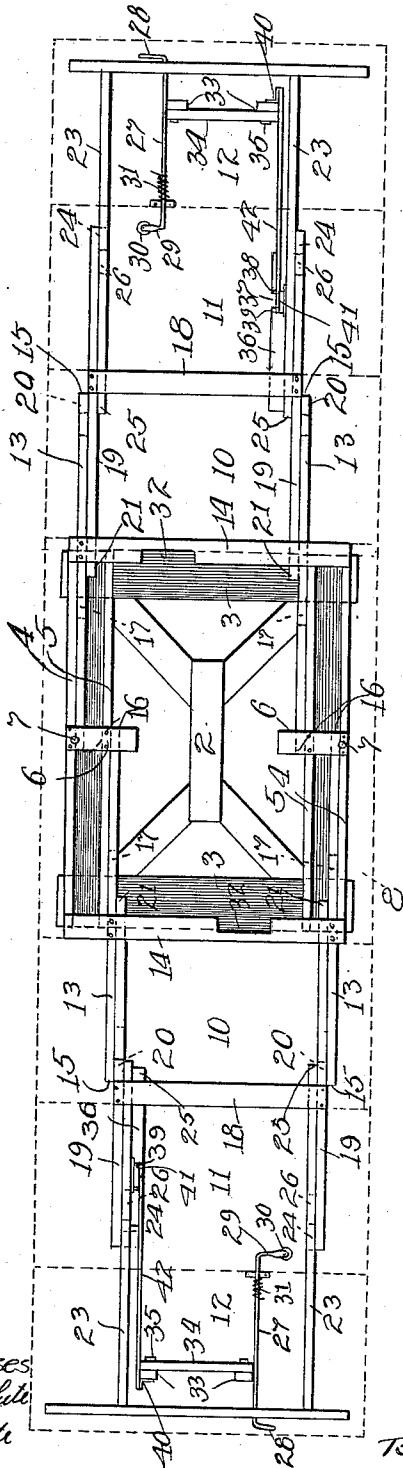
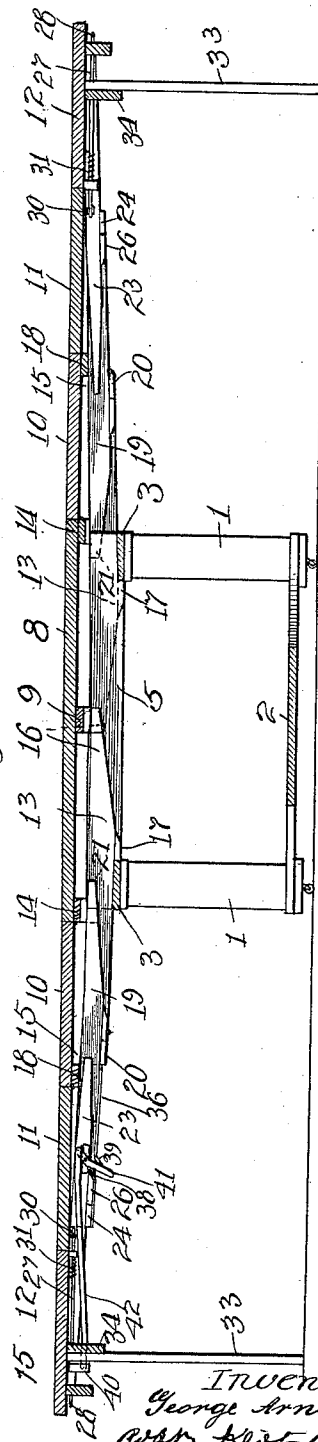


Fig. 2



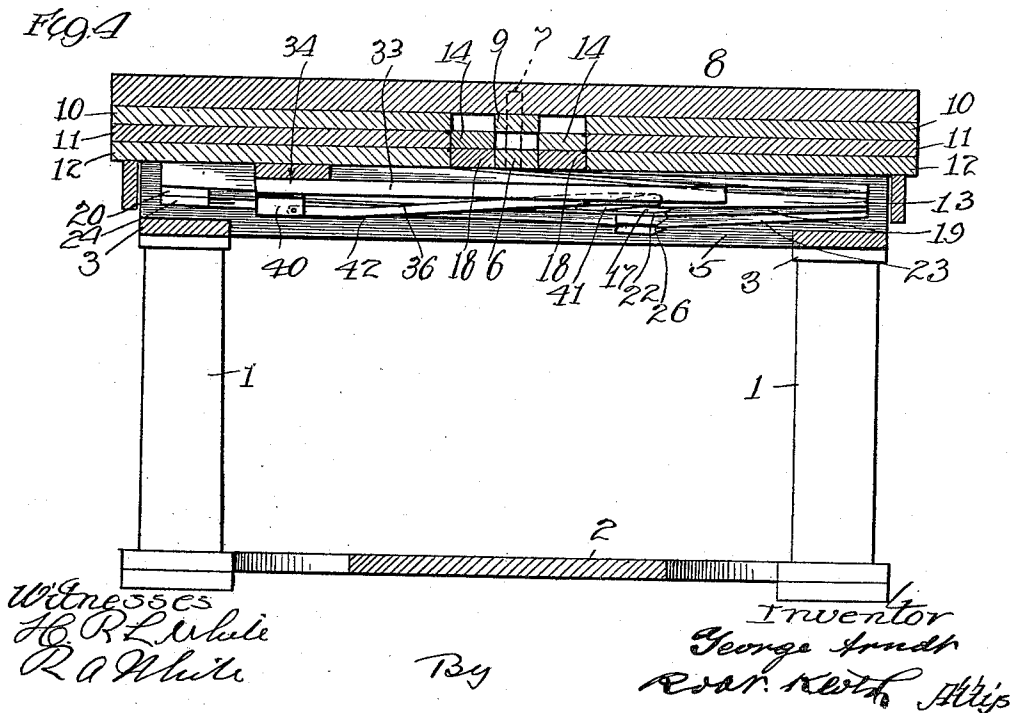
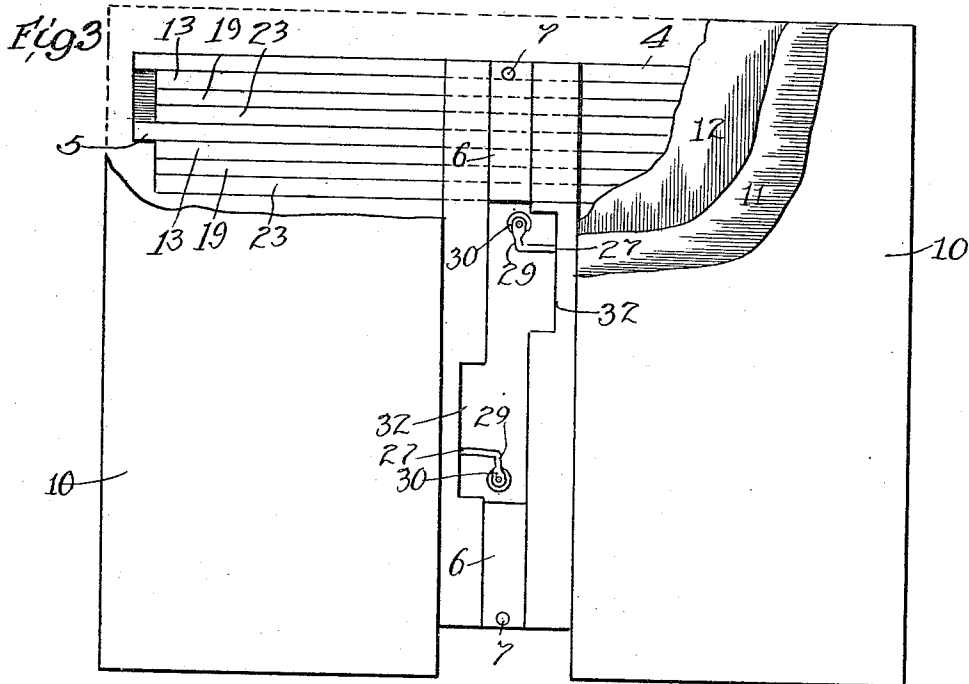
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G. ARNDT.
EXTENSION TABLE.
APPLICATION FILED AUG. 30, 1910.

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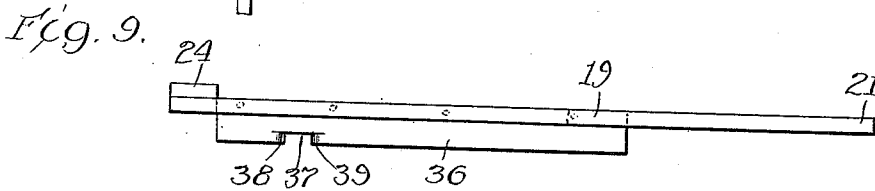
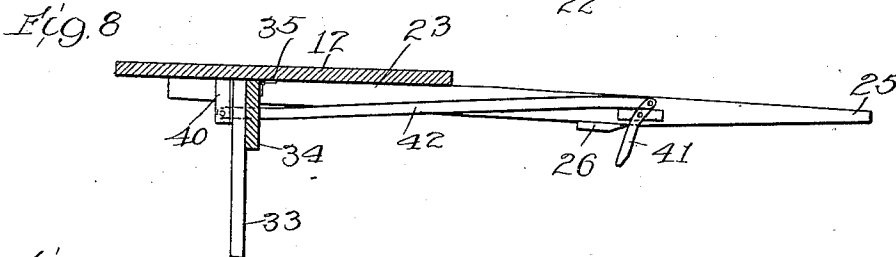
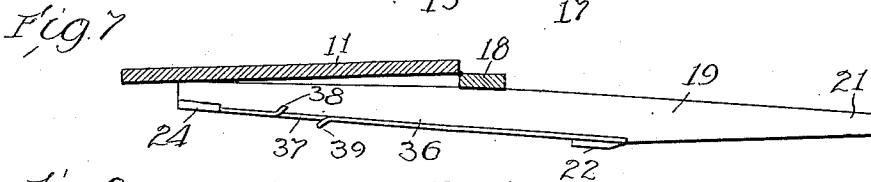
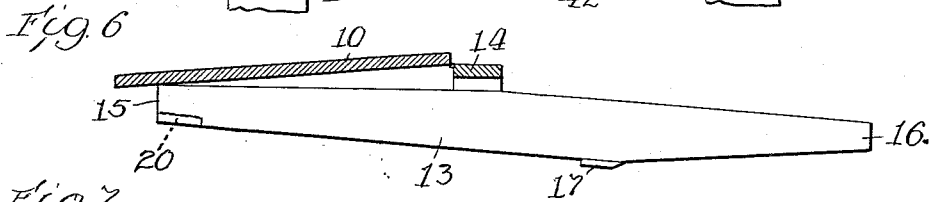
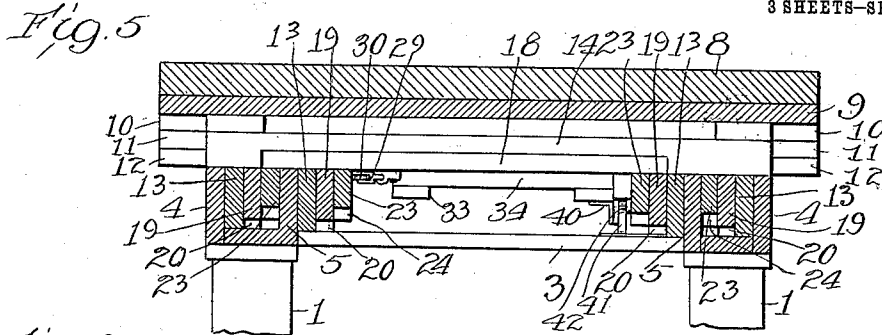


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3 SHEETS-SHEET 3.



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UNITED STATES PATENT OFFICE.

GEORGE ARNDT, OF CHICAGO, ILLINOIS.

EXTENSION-TABLE.

1,009,034.

Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed August 30, 1910. Serial No. 579,695.

To all whom it may concern:

Be it known that I, GEORGE ARNDT, a subject of the Emperor of Germany, and residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Extension-Tables, of which the following is a complete specification.

The main objects of this invention are to provide an extension table which is adapted to be extended at its ends to a greater or less length by simply withdrawing extension leaves from beneath the table top; to provide an extension table in which the extension leaves are adapted to be nested beneath the main table top when in closed position; to provide an extension table having a plurality of extension leaves which are adapted to be pulled from beneath the main table top and to assume the proper position in the plane of the top when extended; and to provide an extension table having legs beneath its end extension leaves which are adapted to be automatically turned to or from operative position by the movement of the end extension leaf.

A specific construction embodied in said invention is illustrated in the accompanying drawings, in which:

Figure 1 is a top plan view of the frame work of the table in extended position, and with the main top and leaves shown in dotted lines. Fig. 2 is a central longitudinal section of the table. Fig. 3 is a fragmentary plan view of the closed or collapsed table with the main top removed. Fig. 4 is a longitudinal section of the table in closed position. Fig. 5 is a transverse section of the table in closed position. Fig. 6 is a side elevation of one of the runners or carriers for one of the inner extension leaves, with the leaf shown in section. Fig. 7 is a side elevation of one of the runners or carriers for one of the middle extension leaves, with the leaf in section. Fig. 8 is a side elevation of one of the runners or carriers for one of the end extension leaves and the automatic operating means for the end legs, with the end leaf shown in section. Fig. 9 is a top plan view of the runner or carrier shown in Fig. 7.

In the construction, the main table frame has legs 1 which are rigidly connected together at their bottoms by frame members 2, and at their tops by transverse frame members 3, which are secured on the tops of

the legs 1, and by outer stationary sills 4 and inner stationary sills 5 which are arranged parallel and are preferably constructed of channel bars, as shown more clearly in Fig. 5.

Mounted on the tops of the sills 4 and 5 and extending inwardly from the sills 5 are the arms 6, which have dowel pins 7 extending upwardly from their outer ends. The main table top 8 has a central cross bar 9 on its under side, which has sockets therein adapted to receive the dowel pins.

At each end of the table is an inner extension leaf 10, a middle extension leaf 11, and an end extension leaf 12, which are adapted, when extended, to lie in the same plane as the main top 8, as shown in Figs. 1 and 2. When said leaves are retracted they are adapted to be stacked beneath the top 8, as shown in Figs. 4 and 5. The mechanism for supporting said leaves is the same at each end of the table, and it will therefore only be necessary to describe that at one end of the table.

The inner leaf 10 is supported upon a pair of runners or carriers 13 which are slidably mounted on the cross member 3 and are connected together about midway between their ends, by means of a cross beam 14. The upper surface of each runner from the outer end 15 to the beam 14 lies in a horizontal plane, and from said beam to the rear end 16 of the runner the upper surface slants downwardly. The under surface of the runner slants downwardly from the end 15 to a point beyond the center of the runner, and then upwardly to the end 16, all of which is more clearly shown in Fig. 6. When said runners are extended, as shown in Figs. 1 and 2, their inner ends 16 rest beneath the arms 6 which prevent the outer ends of the runners from tipping downwardly, and the adjacent edge of the top 8 rests on the beam. The leaf 10 is hinged to the outer edge of the beam 14, so that when the runners are extended the leaf 10 lies in the same plane as the top 8. Stop blocks 17 are secured on the bottoms of the runners 13 in such position that when the runners are sufficiently extended to bring the leaf 10 from beneath the top they will abut against the cross member 3 and limit the movement of said runners.

The leaf 11 is hinged on the cross beam 18 of a pair of runners 19 which are similar to the runners 13 but of less height. The

runners 19 are slidably mounted on bearing brackets 20 which are carried on the outer ends of the runners 13, and their inner ends bear against the bottom of the beam 14 when said runners are extended. Stop blocks 22 are provided on the bottoms of the runners 19 and abut against the brackets 20 to limit the outward movement of the runners. The blocks 22 are beveled on their rear sides to permit them to run over the cross member 3 when the runners are retracted.

The end leaf 12 is rigidly secured on a pair of runners or carriers 23 which are slidably mounted on bearing brackets 24 carried on the outer ends of the runners 19. The runners 23 are identical with the runners 19 and 13 except that they are of less height. The inner ends 25 of the runners 23 bear against the bottom of the beam 18 when the runners are extended, and stop blocks 26, similar to the blocks 22, are carried on the bottoms of said runners and abut against the brackets 24 to limit the outward movement of the runners.

When the table is being closed or collapsed the end leaves are inserted beneath the middle leaves, then the middle and end leaves are inserted beneath the inner leaves, and then all three leaves are inserted beneath the table top 8. It will therefore be seen that in order to insert one leaf beneath the next leaf, the latter must be raised to permit the former to enter beneath it. For this purpose a rod 27 is journaled on the under side of the end leaf and extends longitudinally of the table. On the outer end of said rod is an operating handle 28, and on the inner end of the rod, which projects beneath the edge of the middle leaf, is an arm 29 carrying a roller 30 which is adapted to engage the leaf 11. A coiled spring 31 is carried on said rod and normally acts to hold the roller out of contact with the leaf. By rotating the rod in one direction the roller 30 will bear against the leaf 11 and raise the edge adjacent to the leaf 12 sufficiently for the leaf 12 to enter beneath said edge. In like manner each succeeding leaf and the top 8 is raised to permit the preceding leaves to be moved inwardly. The beam 14 is provided with a notch 32 which permits the roller 30 to engage the edge of the top 8 to raise said top to permit the leaves to enter beneath it.

The leaves 10, 11 and 12 are supported on the runners, but to afford an additional support for the end leaves, legs 33 are secured to a cross piece 34 which is hinged to the under surface of the leaf 12 by hinges 35.

For the purpose of folding the legs 33 up beneath the leaves when the leaf 12 is retracted, or swinging said legs down to operative position when said leaf is extended, a guide plate 36 is secured on the bottom edge

of one of the runners 19 and projects laterally from the runner. Said plate is provided with a notch or recess 37 in its projecting edge near its outer end. At the outer end of said notch is an upturned lip 38, and at its inner end is a downturned lip 39, as shown more clearly in Figs. 7 and 9. A bracket 40 is secured to the leg 33 near the top of the leg, and a lever 41 is pivoted on the runner 23 in position to project downwardly through the notch 37 when the leaf 12 is extended. A connecting rod 42 connects the lower end of the bracket 40 with the upper end of the lever 41.

The operation of the construction shown is as follows: When the table is extended and it is desired to close it, the rod 27 is rotated to raise the edge of the leaf 11 sufficiently to permit the leaf 12 to enter beneath. When the leaf 12 is pushed in beneath the leaf 11 the lower end of the lever 41 engages the lip 39 and is turned outwardly to a horizontal position. This movement throws the connecting rod inwardly and swings the legs 33 up to a horizontal position beneath the leaves. As the leaf 12 moves inwardly the lever travels along the guide plate 36 and holds the legs in elevated position, and owing to the inclination of the lower surfaces of the runners 23 the leaf 12 is gradually lowered until it is fully beneath the leaf 11 and then the leaf 12 drops back to place. In like manner the edge of the leaf 10 is raised and the leaves 11 and 12 are pushed beneath it. The table top 8, which is simply seated on the dowel pins 7 is likewise raised and the leaves inserted beneath it. Owing to the inclination of the runners the leaves are all gradually lowered, and when they are all beneath the top the top rests on said leaves.

In extending the table the leaves are simply withdrawn, and as the runners run over their bearings they gradually raise and act to bring the leaves into the plane of the top 8. When each leaf has reached its proper position its movement is stopped by the stop block on the runner contacting with the bearing for the runner. As the runners 23 near their outer limit of movement the lever 41 is guided by the lip 38 into the notch 37 and is turned to a vertical position, thereby swinging the legs 33 downwardly to support the leaf 12. Obviously the table may be extended to full length or only partially as desired.

While I have shown but one specific embodiment of my invention, it will be understood that various details of the construction shown may be varied or omitted without departing from the scope of the claims.

I claim:

1. An extension table, comprising a main frame, a plurality of pairs of runners slidably mounted on said frame, a one piece

main table top mounted on the frame and adapted for vertical movement thereon, leaves mounted on said runners, legs hinged on the outer leaves, guide plates on the runners for the inner leaves and having notches therein with their edges turned oppositely out of the plane of the plate, a lever pivoted on the runner for the outer leaf and adapted to travel on said plate and to be operated by said notch, and a bar connecting said legs with said lever.

2. An extension table, comprising a main frame, a plurality of pairs of runners slidably mounted on the frame and each tapered from near its center toward each end, beams connecting the runners of each pair, leaves hinged on said beams and adapted to lie in the same plane when the runners are extended, levers pivoted on the end beams,

guide plates secured on the under side of the next adjacent beams and projecting inwardly therefrom and having notches therein adapted to operate said levers, the outer edge of each notch being turned upwardly and the inner edge being turned downwardly to cause the lever to travel into and out of the notch, legs hinged on the outer leaves, and bars connecting the legs with said levers and adapted when the leaves are operated to swing the legs into or out of operative position.

In witness whereof I have hereunto subscribed my name in the presence of two witnesses.

GEORGE ARNDT.

Witnesses:

A. R. KELLER,
GENDO E. LOLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."