

E. TYDEN.
EXTENSION TABLE.
APPLICATION FILED NOV. 15, 1909.

981,145.

Patented Jan. 10, 1911.

3 SHEETS-SHEET 1.

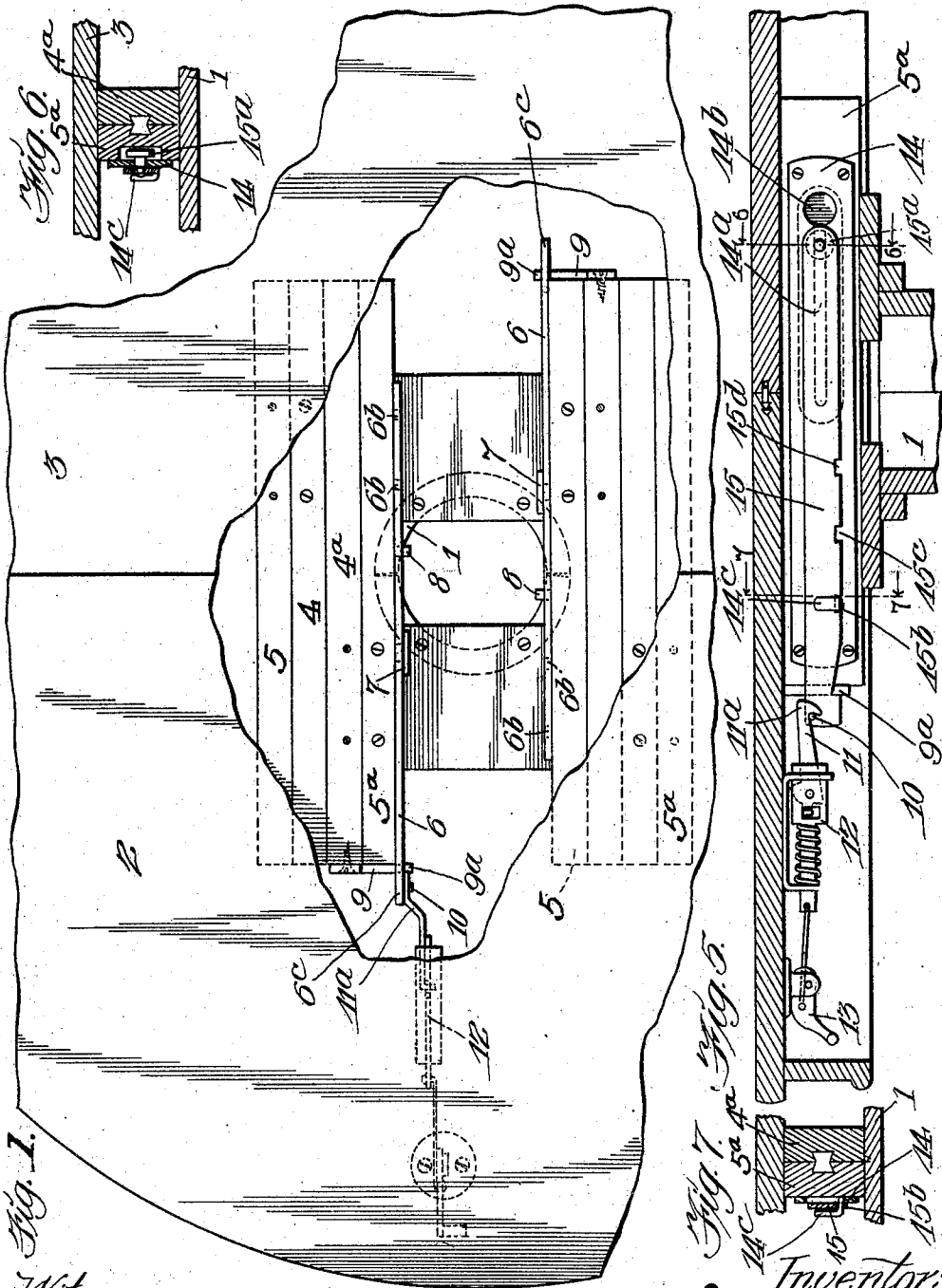


Fig. 1.

Fig. 7.

Witnesses:
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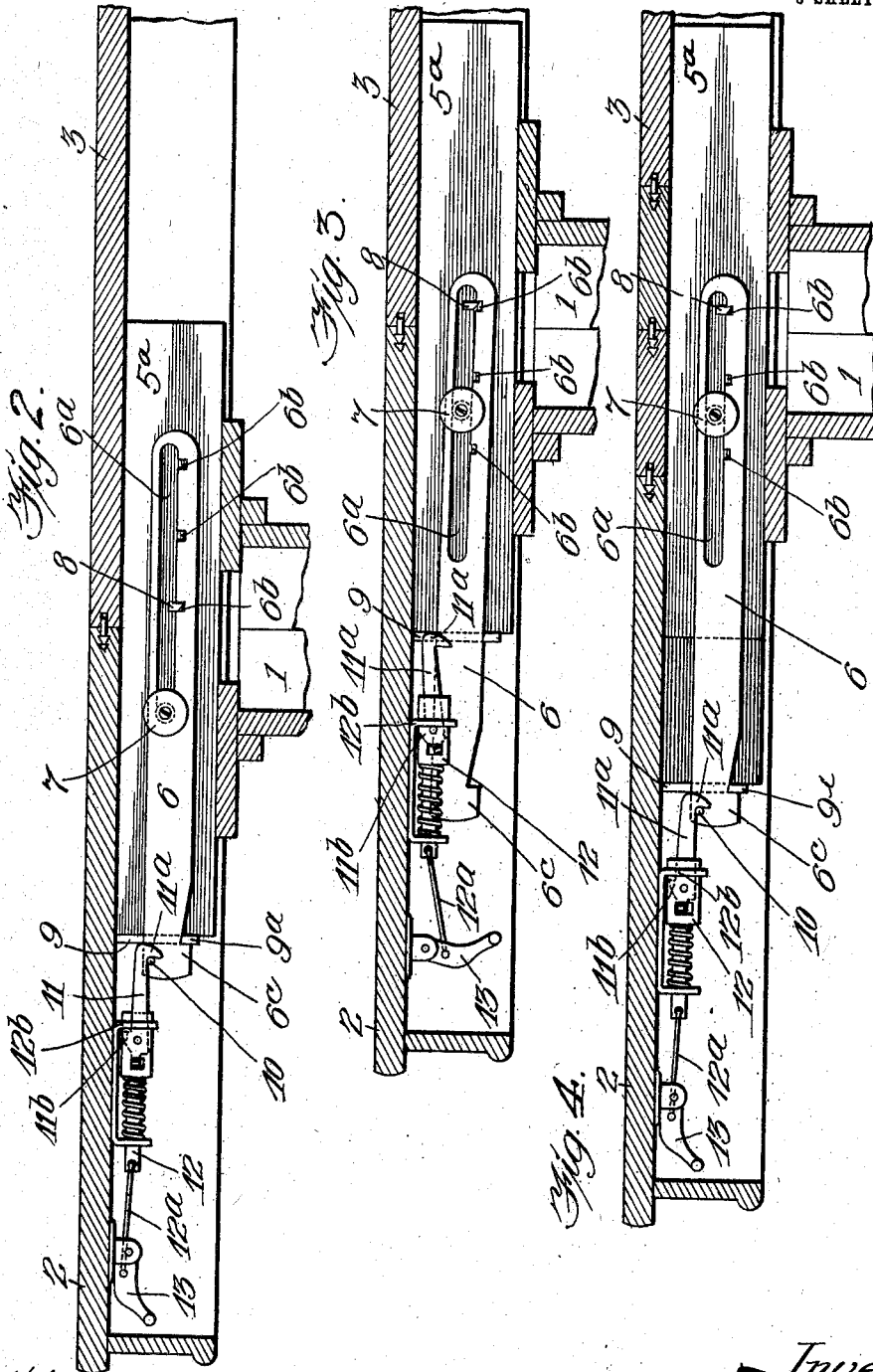
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3 SHEETS-SHEET 2.



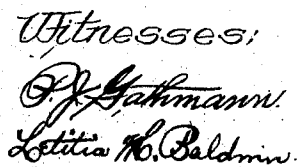
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

EMIL TYDEN, OF HASTINGS, MICHIGAN.

EXTENSION-TABLE.

981,145.

Specification of Letters Patent.

Patented Jan. 10, 1911.

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To all whom it may concern:

Be it known that I, EMIL TYDEN, a citizen of the United States, residing at Hastings, in the county of Barry and State of Michigan, have invented new and useful Improvements in Extension-Tables, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to extension tables having special purpose of providing improved means for limiting the extension of top members at steps corresponding to filler widths, and binding such top members and interposed fillers securely at the several steps of extension.

It consists of the features of construction shown and described as indicated in the claims.

In the drawings, Figure 1 is a top plan view of an extension table, embodying this invention, the top being broken away to disclose the construction of the devices peculiar to the invention. Fig. 2 is a section at line 2, 2, of Fig. 1, parts being shown extended for admission of a filler. Fig. 3 is a view similar to Fig. 2, showing the parts at a different position. Fig. 4 is a similar view showing the parts at a third position. Fig. 5 is a view similar to Fig. 4, showing a modified form of the parts. Fig. 6 is a detail section at the line 6—6 on Fig. 5. Fig. 7 is the detail section at the line 7—7 on Fig. 5. Fig. 8 is a view similar to Fig. 1, showing a further modified construction. Fig. 9 is a section of the line 9—9 on Fig. 8.

In the drawings the customary parts of an extension table are shown, consisting of a supporting member, or pedestal, 1, which is represented as divided for extension, although this is not material to the invention, the top members, 2 and 3 and the customary slides, 4, 4, 4^a, 4^a, for connecting to the two parts of the pedestal, when it is made extensible as illustrated, and 5, 5, 5^a, 5^a for connecting the top members with the respective pedestal members, or with the pedestal as a whole.

The connection of the parts for extension is the customary one so far as the elements thus far described are concerned, except that, preferably, as represented in the drawings (except Figs. 8 and 9), the slides of the two sets are arranged in same order so that the two innermost slides, instead of pertaining to the same pedestal member, pertain to op-

posite halves of the pedestal—when the latter is divided, and the adjacent slides pertain to opposite top members which move apart in the extension of the top. The reason for this will hereinafter appear. Upon the inner sides of each of the said innermost slides, 5, 5^a, there are mounted latch bars, 6, 6, the means and manner of mounting being that each of said latch bars has a longitudinal slot, 6^a, 6^a, and is pivotally mounted on the inner side of the slide by a headed pivot stud, 7, whose head retains the latch bar on the slide, permitting it to slide thereon the length of the slot. The lower edge of the slot, 6^a, has a plurality of notches, 6^b, which are adapted to be engaged one at a time with the tooth, 8, formed by a square stud projecting rigidly from the side of the slide into the slot, being no wider than the slot so that the latch bar can slide upon it, but being adapted to engage one of the notches mentioned when the latch bar is depressed at the outer end so as to throw the portion which stands inward from the pivot stud and which contains the notches mentioned, upward to permit one of the notches to engage the tooth. The latch bar is normally overbalanced at its outer end, so that the inner end is held upward for engagement of a notch with the tooth whenever the bar is longitudinally positioned to register a notch with the tooth.

Upon the outer end of the adjacent slides, 4, 4^a, of the respective sets, there is secured a bracket, 9, extending endwise out, having an offset tooth, 9^a, which is adapted to engage with a downwardly projecting nose, 6^c, formed by notching the lower edge of the slide, 6, near its outer end. The inner side of the notch is preferably sloped, as illustrated, to permit the latch to ride upon the tooth, 9^a, when the table top member is pushed inward for closing up the table after it has been extended. The notches, 6^b, are located at intervals equal to a half filler width, the first notch inward from the pivot stud being at position for engaging the tooth, 8, when the hook nose, 6^c, of the latch, 6, is in position for engaging the offset tooth, 9^a, of the bracket, 9, with the top member to whose slide the bracket is secured, when said member is withdrawn a half filler width from closed position. It will be seen, therefore, that when both top members are thus withdrawn, being thereby separated the necessary distance to admit one filler between

them, both of said top members are stopped against further extension by the engagement of the teeth, 9^a, with the hook noses, 6^c. The notches 6^b being situated at half filler width intervals, the operator may adjust the device for admitting any desired number of fillers by lifting the latch at its outer end, rocking it over its pivot to disengage the tooth 8 from the notch 6^b with which it may have been engaged, drawing it outward to engage the notch corresponding to the number of fillers which he desires to insert. Both latches being thus adjusted for engagement of the corresponding notches with the tooth, both members of the table top are limited to an equal number of steps of extension, corresponding to the number of fillers to be inserted. The position of the first notch, 6^b, although situated generally as described, for engagement with the tooth with the parts adjusted for admission of one filler, is, in fact, preferably positioned for admitting such filler with its tenons. The other notches being spaced apart one half filler width, the total spacing resulting from the engagement of the tooth in any one of the notches will be in excess of full filler widths by the amount of one tenon length; this allowance being necessary for introduction of the fillers, when they are provided with tenons as usual, make it necessary to provide means for crowding the parts together to take up the tenon-length. This is provided for by furnishing one of the latches with an inwardly projecting stud, 10, which may be engaged by the hook nose, 11^a, of a hook latch, 11, which is mounted upon the top member, being pivoted to a slide, 12, which is connected by a link, 12^a, with a lever, 13, fulcrumed upon the table top near the end, and rocked upon its fulcrum for drawing the hook-latch, 11, outward toward the end of the table, thereby crowding the table top member inward to take up the tenon length, as desired. The lever, 13, is so fulcrumed with respect to its pivotal connection to link, 12^a, that that pivot is carried past the fulcrum in the rocking of the lever which draws the members together, and thereby the members are locked at closed up position. In order to cause the latch, 11, to become disengaged from the stud, 10, when the lever, 13, is rocked inwardly for thrusting the latch inward to relax the engagement, the latch has a tail projection, 11^b, near the pivot on the slide, 12, and the bearing, 12^b, of the slide is encountered by the projection in the inward movement of the slide.

A modified form of latch bar is shown in Figs. 5 and 7. In this form there is mounted upon the inner side of the end of the slides, 5 and 5^a, a plate, 14, having a longitudinal slot, 14^a, which at the inner end terminates in an enlargement 14^b. Near the opposite end of the slot there is formed by

striking up from the plate crosswise of the slot, a guard tooth, 14^c, which is offset from the plate. Between this upstanding guard tooth and the plate there is provided an interval sufficient to accommodate a latch bar, 15, which has at its inner end an inwardly offset button, 15^a, which can be inserted through the enlargement, 14^b, of the slot in the plate, 14, the stem or shank of the button being adapted to slide in the slot, 14^a. The lower edge of the latch has a plurality of notches, 15^b, 15^c, 15^d, the first of which engages the guard tooth, 14^c, when the latch has been drawn outward from the position at which the button is entered through the enlargement a sufficient distance to prevent the escape of the button, the succeeding notches being located at intervals of half a filler width along the length of the lower edge of the latch. At the position at which the notch, 15^b, of the latch is engaged with the guard tooth, the latch projects beyond the end of the slide and is provided with a hook terminal, 15^e, for engagement with the tooth, 9^a. The construction and operation of this form in other respects is substantially the same as that of the first form described, the latch, 15, being operated for adjusting it along the slide in the same manner as the other form, being lifted at the outer end to disengage it from the guard tooth, and drawn or pushed to engage the different notches with that tooth.

Another modified form of the invention is shown in Figs. 8 and 9 which consists in mounting the latch bar upon a slide which pertains to one of the table top members, the engaging device comprising the hook latch, 11, being upon the other table top member, so that one such latch bar and engaging device suffice for connecting and locking the opposite top members together at any degree of extension within the range of adjustment of the latch bar on the slide on which it is mounted. The construction of the latch bar and its mounting on the slide for this purpose being identical with the construction and mounting when it is on a slide pertaining to the support, the pedestal will not be further described. In Fig. 9 the particular form of slide of latch bar shown is that illustrated in Fig. 5, but it may be understood that either form of latch bar may be employed in this modification. Preferably in this modified form the usual arrangement of slides is retained, that is they are symmetrically arranged in the two sets so that the two inner slides, 5^x, 5^y, pertain to one top member and the two outer slides, 5^x, 5^y, pertain to the opposite top member, the intermediate slides, 4^x and 4^y, pertaining to the respectively corresponding members of the pedestal, the latch bar being mounted preferably on one of the inner slides, 5^x. When thus arranged it may be

found advantageous to mount a latch bar upon each of the inner slides, 5^x, and to connect the two latch bars by a rod, 10^x, which performs the function of the stud, 10, in the other forms, that is, affords engagement for the hook nose of the latch, 11. Said latch, and its connections being mounted midway in the width of the table, so that the hook nose of the latch engages the rod, 10^x, at about the middle of its length, the elasticity or spring of the rod affords accommodation for the swelling of the table-top and fillers which is liable to occur, and when several fillers are inserted, makes it difficult without such accommodation to operate the clamping device.

I claim:—

1. In an extension table, in combination with a supporting member and top members which are movable thereon for extension to admit fillers, slides which connect the top members with the supporting member for such extension; a latch bar mounted for sliding longitudinally of one of the slides and means for engaging such latch bar with such slide at half filler width intervals along the path of its sliding movement thereon, and a cooperating device carried by a part of the table which moves away from the slide in extension of the table, for engaging such latch bar.

2. In an extension table, in combination with two members which are movable relatively to each other for extension to admit fillers, slides which connect them for such extension, and a latch bar mounted for sliding longitudinally of one of the slides; means for engaging such latch bar with said slide at filler-width intervals along the path of its longitudinal movement on such slides, and a cooperating device for engaging such latch bar carried by the table member which moves for extension in the opposite direction from the movement of said slide.

3. In an extension table, in combination with a supporting member and top members which are movable thereon to admit fillers, slides which connect the top members with the supporting member and with each other for such extension and a latch bar mounted on a slide attached to a top member for sliding longitudinally thereof; means for

engaging such latch bar with said slide at step intervals along the path of sliding movement of the latch bar on the slide, and a cooperating device mounted for longitudinal movement on the opposite top member for engaging such latch bar; means for withdrawing such device on the member which carries it away from the meeting plane of the two members and for locking it in drawn position.

4. In an extension table, in combination with a supporting member and top members which are movable thereon for extension to admit fillers, slides which connect the top members with the supporting member for such extension; a latch bar mounted on each of the slides attached to one top member and means for engaging such latch bars with said slides respectively at filler width intervals along the path of the sliding movement of the latch bars on the slides; a rod which connects the two latch bars, and cooperating device carried by the other table member for engaging such connecting rod.

5. In an extension table, in combination with a supporting member and top members which are movable thereon for extension to admit fillers, slides which connect the top members with the supporting member for such extension; a latch bar mounted for sliding longitudinally of one of the slides; means for engaging such latch bar with such slide at step intervals along the path of its longitudinal movement on the slide, and a cooperating device for engaging such latch bar carried by the table member, which moves for extension in the opposite direction from the movement of said slide, and mounted for movement thereon longitudinally of the table, and means for withdrawing said device along the table member which carries it away from the meeting plane of the two members and for locking it at withdrawn position.

In testimony whereof, I have hereunto set my hand, in the presence of two witnesses, at Chicago, Illinois, this 10th day of November, 1909.

EMIL TYDEN.

Witnesses:

CHAS. S. BURTON,
M. GERTRUDE ADY.