

C. S. BURTON.
EXTENSION TABLE.
APPLICATION FILED NOV. 15, 1909.

1,062,884.

Patented May 27, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

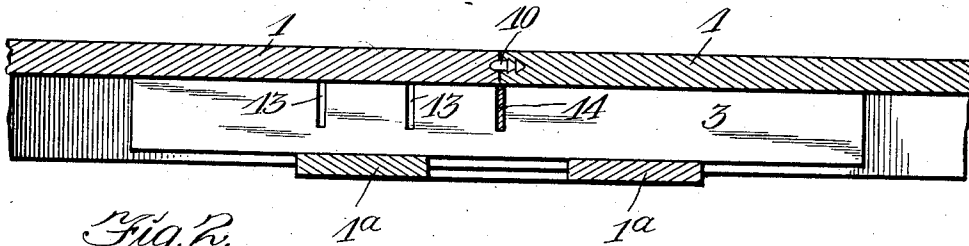
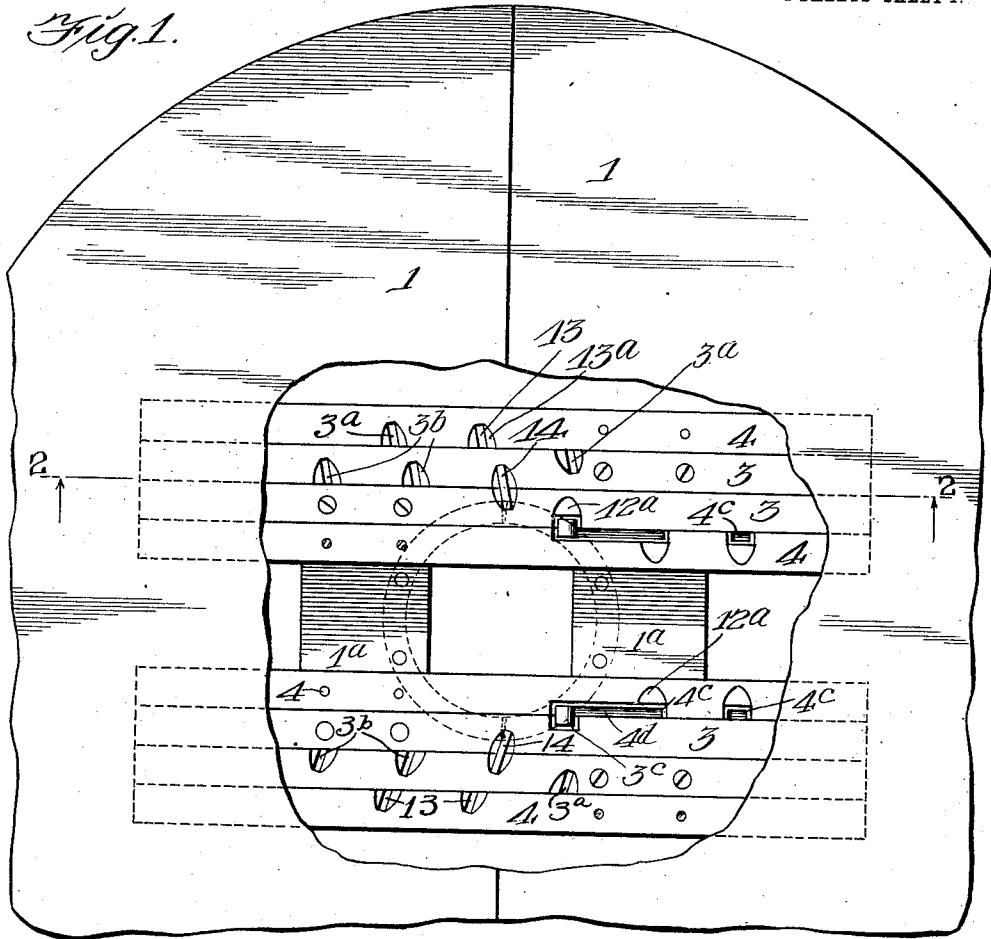


Fig. 2.

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2 SHEETS-SHEET 2.

Fig. 3.

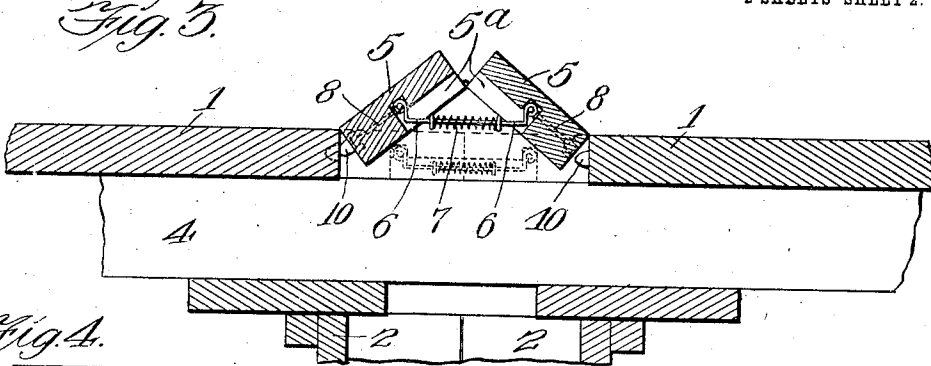


Fig. 4.

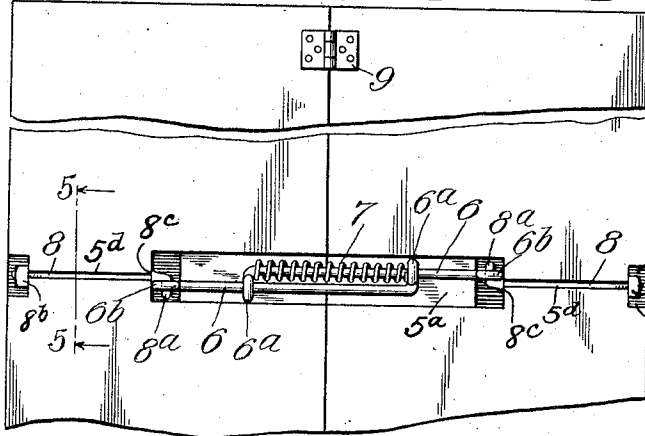


Fig. 5.

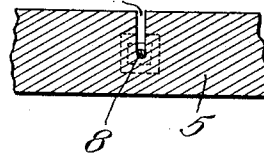


Fig. 6.

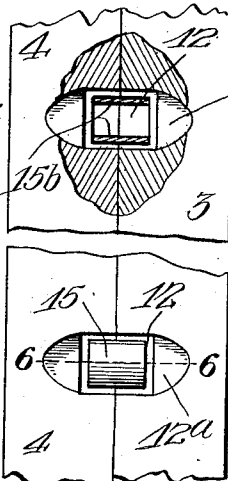
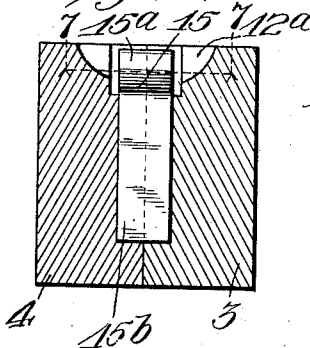


Fig. 8.

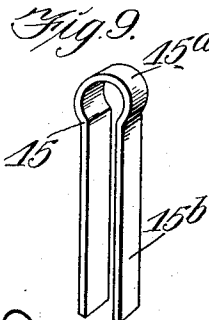


Fig. 9.



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EXTENSION-TABLE.

1,062,884.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed November 15, 1909. Serial No. 528,089.

To all whom it may concern:

Be it known that I, CHARLES S. BURTON, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented new and useful Improvements in Extension-Tables, of which the following is a specification, reference being had to the drawings forming a part thereof.

10 The purpose of this invention is to provide an improved construction of extension tables for conveniently limiting the extension and adapt the parts to be locked snugly together.

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

In the drawings: Figure 1 is a plan view of an extension table equipped with this invention, having the table top members broken away to disclose the connecting parts. Fig. 2 is a section at the line 2—2 on Fig. 1. Fig. 3 is a longitudinal vertical section of the upper portion of the table showing the same extended for the admission of a filler, such filler being shown in full line, partly inserted and in dotted line fully inserted. Fig. 4 is an inverted plan view of the portion of the filler shown in Fig. 3. Fig. 5 is a detail section at the line 5—5 on Fig. 4. Fig. 6 is a detail section on an enlarged scale at the line 6—6 on Fig. 1. Fig. 7 is a detail plan view of the partly sectional plan view of the same parts shown in Fig. 6, the upper edges of the two slides being broken away and shown in section which cuts also the head of the locking key, being indicated on the line 7—7 on Fig. 6. Fig. 8 is a detail plan view of the same parts. Fig. 9 is a perspective view of a locking key employed at one part of the structure. Fig. 10 is a perspective view of a locking key employed at another part.

20 The drawings represent the customary parts of an extension table, comprising two top members, 1, 1, mounted upon two pedestal members, 2, 2, which it may be understood are designed to be secured together, the securing devices not being shown; the connection between the top members and pedestal members being made by the customary slides, 4, 4, secured to the two opposite top members, and slides, 3, 3, secured to the two opposite pedestal members, the slides being arranged in two sets, that is two

slides, 3, 3, at the middle of each set, and two slides, 4, 4, at the extremes of two sets, each top member having two slides and each pedestal member having two slides attached to it, as usual, the two pedestal slides, 3, 3, being connected and secured to the pedestal by mounting upon the bridge bars or pedestal caps 1^a, as usual.

It has been customary heretofore in the construction of pedestal extension tables in providing devices for limiting the extension of the top members at steps for the admission of one or more fillers, to allow for the length of the necessary tenons which engage the top members and fillers; that is, the extension provided for by the position of the stop devices being a tenon-length more than the width of the slides to be inserted, the excess being taken up by means for connecting the top members for drawing them together after the fillers are thus inserted, such an operation being necessary in order that the table may present a compact closely fitting appearance when extended with fillers. This construction is designed to avoid the necessity for allowing for such excess in the extension, the stop devices for limiting the extension at filler width intervals being positioned for extension only just the amount of the width of the fillers to be inserted. This is rendered possible by employing a filler comprising two parts, 5, 5, hinged together at the lower longitudinal meeting edges and adapted thus to be buckled or folded, as seen at full line, Fig. 3, so that it may be inserted as shown in that figure between the two members which are extended only the amount of the fillers or even less, and flattened or straightened as shown in dotted line in said figure, to the proper position between the two top members.

In Fig. 3 the two-part filler is shown in full line at the position which the parts would occupy after having crowded the top members apart to the limit necessary for admission of the filler when straightened, the remainder of the flattening or straightening of the two-part filler being made without increasing the extension of the top members; and if the top members have been extended to their precise limits the filler will be inserted without any changed position of said top members but will come snugly into its place fully occupying the interval between the top members.

In order that the filler may not be in danger of buckling up after insertion, the two members, 5, 5, are preferably connected by a contractile link which may consist of two rods, 6, 6, engaged with each other by means of eyes, 6^a, 6^a, a spring, 7, being coiled about either of the rods, reacting to contract the link by increasing the lap of the two rods to the full amount of the expansion of the link. The two rods, 6, 6, are both bent at their outer ends at right angles in the same direction, and their opposite ends are terminated in eyes, 6^b, 6^b, by which the rods are pivoted to the filler members, 5, 5, respectively, at a plane as far above the lower surface of said filler members as convenient or consistent with avoiding undue weakening of the filler members, which must be channeled at 5^a, to accommodate the extensible link so that it will not protrude below the lower surface of the filler when flattened, this being preferable though not essential, the advantage being that it permits the filler to be stored or piled with other fillers as if it were a plain, ordinary, single board whereas if the link protruded, it would interfere with convenient storage or piling of the filler with others. The location of the pivotal connection of the two members of the extensible link at a plane above that at which the two members are hinged to each other, being the lower surface, causes the contractile action of the link due to its spring 7, to hold the two members of the filler with their proximate edges abutting, and the filler flat, the spring then operating to resist the upward buckling of the filler.

In order to pivotally connect the links, 6, 6, with the fillers in a substantial manner by means of a pivot which will not be liable to be torn out by the strain to which it is subjected in use, I provide for this purpose in each filler a bolt, 8, which is lodged in a saw-cut or slot, 5^a, formed transversely in the filler on the under side and extending from the end of the recess, 5^a, to the outer edge of the filler where there is provided in the edge a recess, 5^c, to receive a nut, 8^b, applied to the outer end of the bolt which is threaded for that purpose. The inner end of the bolt has an angle head, 8^a, which forms the pivot for engagement with the eye, 6^b, of the link, and the bolt is provided with a shoulder, 8^c, back of the pivot terminal which stops against the end of the recess, 5^a, being drawn tightly thereagainst by the nut, 8^b, when it is screwed on to the end of the bolt. By this means, the bolt is clamped firmly to the filler, a very substantial portion of which is embraced between the shoulder, 8^c, and the nut, 8^b, by which the clamping is effected, so that the bolt cannot be dislodged from its position by any ordinary strain or pull which can be exerted

upon it by the links even in the careless handling of the fillers which are thus connected.

In order that such a filler as that above described may serve as a means of clamping the top members and any intervening fillers together snugly, it is only necessary that the extension of the top members should be positively resisted at the several steps of extension corresponding to one of any number of fillers to be inserted, only one of the fillers requiring to be of the type described, and that being the last one inserted. For so limiting the extension of the top members, each of the pedestal slides 3, 3, has a notch 3^a, on its face which abuts against the slide, 4, of the corresponding top member, and each of said slides, 4, has a notch, 13, on its face abutting the slide, 3, for each half step of extension which the slide, 4, is intended to make relatively to the slide 3 for admission of the fillers, the first of said notches, 13, being a half filler width distance from the point opposite to the notch, 3^a, when the slides are even, that is unextended, and subsequent notches, 13, being at intervals of a half-filler-width outward. Two such notches, 13, are shown on each of the slides, 4, but it will be understood that the number which can be employed is limited only by the number of steps of extensions desired, and the length of the slide adapting it for such extension. The notches, 3^a, and 13, are preferably slightly oblique to the meeting plane of the two slides, 3, and 4, and they are adapted when registered with each other, to receive a flat key, 14, (see Fig. 10) which connects them together, the oblique position of the notches being preferable, because the stress of extension operating in opposite lateral portions and opposite sides of the keys causes the key when thus set obliquely to tend to hold two slides together. The two slides, 3, 3, of each set are provided with similar notches, 3^b, one of said slides having only one such notch, and the other having as many as the number of half-steps of extension contemplated. The one notch 3^b of the slide having only one such notch, registers with the innermost of the notches 3^b, of the other slide, when the slides are in unextended position, and a key, 14, inserted in the two notches, locks the two pedestal slides together at extended position. This key will be undisturbed when pedestal extension is not required but when the pedestal is to be extended it will be withdrawn, and reinserted when the extension has been made as many half-steps as desired for registering a different notch, 3^b of the slide having a plurality of notches with the notch of the slide having only one of them. When the extension of the table is thus positively limited at exact steps to accommodate one or a plurality of fillers, swelling of the fillers and

top member which is liable to occur from changes of moisture and temperature, must be accommodated in some manner, especially when a considerable number of fillers are to be inserted. For this purpose there may be employed at one of the sliding connections an elastically yielding key which may be compressed sufficiently to accommodate any swelling of the table top members. Such a key is shown connecting each of the inner top slides, 4, with the necessary adjacent pedestal slides, 3. This key, 15, may be a fork of spring metal, preferably provided with an enlarged bow 15^a, so that when the two fork-limbs, 15^b, are crowded toward each other, the bow 15^a, will yield elastically to accommodate their approach, re-acting to hold the two slides with which the two limbs of the key are respectively engaged against any more extension than is compelled by the pressure applied in forcing in the last filler. In order to accommodate this yielding key the slides, 3, and 4, between which it is inserted, are provided on their abutting faces with rectangular notches or recesses. The slide, 3, has only one notch or recess, 3^c, and the slide, 4, has as many as the number of half steps of extension contemplated, the first one, 4^a terminating a half filler distance outward from the point opposite the notch 3^c, so that the first stop engagement of the spring key, 15, will occur after the top members have been separated by the movement of each one of them a half filler width away from closed position. This is necessary in order that access may be obtained to the keys for positioning them according to the number of steps desired. In order that the key, 15, may not have to be removed from the table but may be always safely stored therein, said first notch 4^a, of the slide, 4, is extended inward a half filler width distance, as described above, forming a channel, the inner end of which laps over the notch 3^c of the adjacent slide, 3, so that the key may be lodged in that notch, engaging said channel of the slide, 4, when the slides are in unextended position, the key however at that position having no function, but being merely stored, its first service being performed when the extension is made to bring it to the outer end of the channel where it operates as a stop to limit the extension, being withdrawn by the operator if a second stop of extension is desired and reinserted in the next notch, 4^c. For convenience of withdrawing the keys, finger recesses, 12^a, are provided at the upper ends of the several notches.

I claim:

1. In an extension table, in combination with the top members which are movable for extension to admit fillers, a filler comprising two members hinged together at a longitudinal edge of their lower surfaces re-

spectively, a contractile link consisting of two rods each having an eye which engages the other for sliding, and a spring coiled about one of the rods between said eyes, such rods being bent at their ends to form eyes offset in the same direction, the filler members having their under surfaces respectively recessed to admit said eyes and channeled from the eye-receiving recesses transversely to their meeting edges to accommodate the link, and means for pivotally attaching the offset eyes to the members respectively in the recesses.

2. In an extension table, a two part folding filler comprising two members which are hinged together at a longitudinal edge of the inner surface of each, both said members being recessed from the under surface upward at points remote from their meeting edges, and channeled transversely from said members to said meeting edges; a contractile link having its opposite ends provided with eyes for entering the recesses, the link being accommodated in the channels, the means for pivoting such link to said members respectively being bolts having at their inner ends heads adapted for pivotal engagement with the link ends, the heads being lodged in the recesses respectively, and the bolts extending thence outward to the edges of the filler members remote from their meeting plane, said edges having nut-receiving recesses and nuts on the bolts in said recesses.

3. In an extension table, a folding filler comprising two members which are hinged together at the longitudinal edges of their inner surfaces respectively, a contractile link which connects the two members pivoted to the members respectively at points back from their meeting edges and above their under surfaces, said members having recesses extending from their under surfaces to admit the ends of the links for such pivoting; pivots for the ends of the link in the members respectively, consisting of bolts having their inner ends adapted to engage the link ends, the filler members being transversely grooved on their under surfaces from the outer edges inward to the pivot sockets to permit such bolts to be introduced laterally from the under surfaces of the filler members.

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 them with each other and with said supporting member for extension; adjacent slides having notches which are positioned for registering at half filler width intervals of extension; keys adapted to be lodged in such notches for stopping the slides against extension, a two-part folding filler having its members hinged together at longitudinal edges of the inner surfaces respectively and

having an aggregate width when extended equal to twice the interval between the consecutive notches of the slides one of the keys in each set of slides being yieldably compressible in the plane of sliding engagement of the slides which it connects.

In testimony whereof, I have hereunto set

my hand in the presence of two witnesses, at Chicago, Illinois, this 12th day of November, 1909.

CHARLES S. BURTON.

Witnesses:

LETITIA M. BALDWIN,
M. GERTRUDE ADY.

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