E. L. MARSTON.

EXTENSION TABLE.

APPLICATION FILED MAY 5, 1909.

935,608.

Patented Sept. 28, 1909.

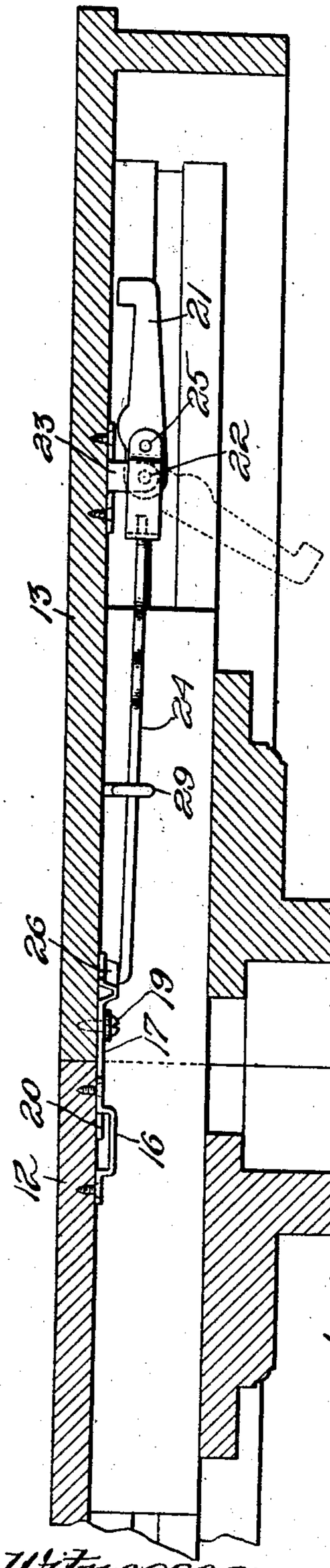

Fig. 1.

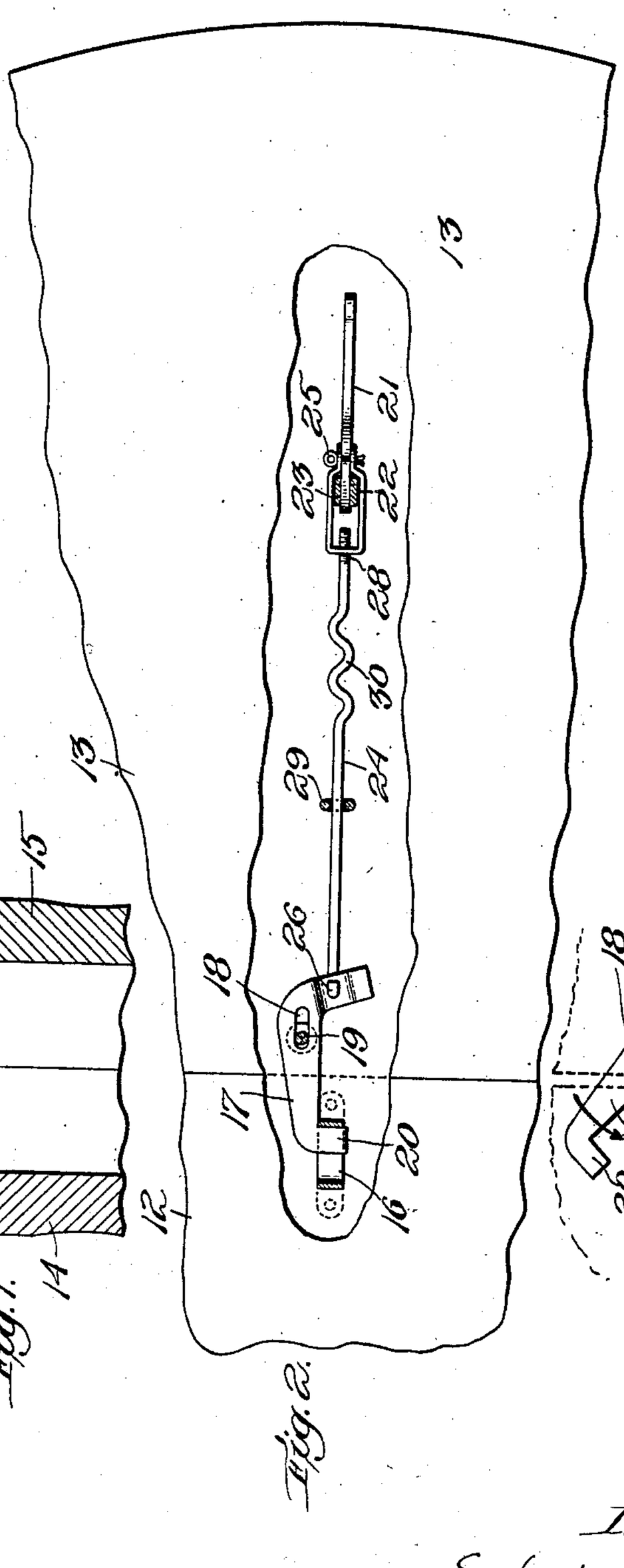

Fig. 2.

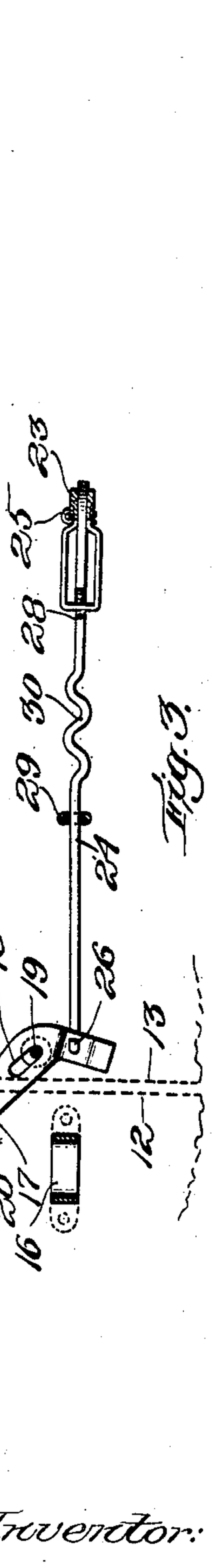

Fig. 3.

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UNITED STATES PATENT OFFICE.

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EXTENSION-TABLE.

935,608. Specification of Letters Patent. **Patented Sept. 28, 1909.**

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To all whom it may concern:

Be it known that I, EDGAR L. MARSTON, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Extension-Tables, of which the following is a specification.

This invention relates to means for detachably connecting and drawing together the permanent sections of the top of an extension table, said sections forming the end portions of the top, and being separable from each other to permit the interposition of detachable leaves between them.

The invention has for its object to provide simple and effective means for connecting and drawing closely together the meeting edges of the permanent top sections without interfering with the separation of the top sections to any extent desired for the interposition of intermediate leaves.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a longitudinal section showing one of the permanent top sections and a part of the other permanent top section of an extension table, and portions of the pedestal sections which support the top, mechanism for coupling the top sections together in accordance with my invention being also shown. Fig. 2 represents a top plan view, showing portions of the top sections represented in Fig. 1, with portions broken away, showing a plan view partially in section of the coupling mechanism illustrated in Fig. 1, the top sections being drawn together by the coupling mechanism. Fig. 3 represents a view similar to Fig. 2, showing the top sections slightly separated and ready to be drawn together by the coupling mechanism.

The same reference characters indicate the same parts in all the figures.

In the drawings,—12 and 13 represent the permanent top sections of an extension table, said sections being separable from each other to permit the extension of the table top by the interposition of leaves between the sections, suitable means being provided for supporting the top sections and intermediate leaves interposed between the latter when they are separated.

In the embodiment of the invention here shown, the table top is supported by separable pedestal sections 14, 15, which are movable with the top sections to extend and contract the table, the top sections being also movable independently of the pedestal sections, if desired, so that the top may be extended to a limited extent by the interposition of a relatively small number of leaves between them without separation of the pedestal sections.

In carrying out my invention, I provide the top sections 12 and 13 with coupling members, one of which is rigidly affixed to the section 12, while the other has a compound movement on the section 13, the latter being provided with means so organized that when the top sections are slightly separated, the movable coupling member will be first swung into alinement with the fixed member, and will then have a rectilinear movement causing it to engage the fixed member and draw the top sections firmly together.

The fixed coupling member is here shown as a loop 16 rigidly attached to the under side of the section 12, one end of said loop forming a guide and an abutment for the movable member 17. Said movable member is here shown as having the form of a bell-crank lever, one arm of which has a longitudinal slot 18 through which passes a stud 19 affixed to the top section 13, the outer end of said arm having a hook 20 adapted to engage the abutment end of the rigid member 16.

21 represents an operating lever pivoted at 22 to an ear 23 affixed to the section 13.

24 represents a connecting rod pivoted at 25 to the lever 21, and at 26 to the shorter bell-crank arm of the movable member 17, the said connecting rod being preferably provided with a bifurcated terminal member, the neck portion of which is adjustably engaged with a screw threaded portion 28 of the connecting rod, the arms of said terminal member bearing on opposite sides of the lever 21, and being connected therewith by the pivot 25 which is preferably a cotter pin.

29 represents a guide for the connecting rod 24, said guide being attached to the section 13, and arranged to prevent the rod 24 from swinging horizontally.

When the top sections 12 and 13 are separated by a space sufficient to permit the in-

terposition of one or more leaves between them, the coupling members are out of operative relation with each other, said members becoming operative only when there are no intermediate leaves present, and when the top sections are brought into relatively close proximity to each other, as shown in Fig. 3, where a narrow crevice is shown between the abutting edges of the top sections. The relative arrangement of the coupling members and of the above described means for moving and guiding the movable member 17 is such that when the lever 21 is depressed, as indicated by dotted lines in Fig. 1, the movable member 17 which extends across the crevice between the top sections, stands with its hook 20 out of alinement with the abutment on the rigid member 16. A movement of the lever 21 from the dotted line to the full line position, shown in Fig. 1, causes the movable member to swing in the direction of the arrow in Fig. 3, thus moving the hook into the rigid member 16, and causing one edge of the movable member to bear against the rigid member, which is thus caused to act as a guide for the movable member. This takes place before the completion of the upward movement of the lever 21. After the pivotal movement of hook 17 is limited by the rigid member 16 the completion of the movement of lever 21 causes said member 17 to move in a rectilinear direction against the abutment provided by the rigid member 16, this rectilinear movement causing the inner ends of the top sections 12 and 13 to come to a close bearing on each other, as shown in Figs. 1 and 2.

When the lever 21 is moved from the full line to the dotted line position shown in Fig. 1, the movable member 17 is first moved in a rectilinear direction away from its abutment on the rigid member 16 until the stud 19 bears on the inner end of the slot 18, the completion of the downward movement of the lever 21 then causing the movable member 17 to swing out of alinement with the rigid member 16, as indicated in Fig. 3.

It will be seen that the guide 29, by preventing the horizontal movement of the rod 24, insures a rectilinear movement of the movable member 17 until the stud 19 comes to a bearing on the inner end of the slot 18, after which a swinging outward movement is imparted to the member 17, the stud 19 and slot 18 also coöperating in causing a rectilinear movement of the member 17 in both directions.

The connecting rod 24 is provided with an undulating portion 30 which acts as a spring permitting a sufficient extension of the rod to prevent undue strain on the rod and the parts connected therewith after the inner ends of the sections 12 and 13 have come to a close bearing on each other.

I claim:

1. An extension table comprising separable top sections, a rigid coupling member carried by one of said sections, a bell crank lever constructed to engage said rigid coupling member and provided with a slot, a pivot stud carried by the other top section and engaging the slot of said bell crank lever, means secured to one end of said lever for swinging the same on said stud, said rigid coupling member being arranged to interrupt the swinging movement of said pivoted coupling member and to impart a rectilinear movement to the latter during a portion of the movement of said operating means.

2. An extension table comprising separable top sections, a pivot stud carried by one of said sections, a bell crank lever having a slot in one arm thereof to receive said pivot stud, said arm being provided with a hook, an operating rod engaging the other arm of said bell crank lever, means for moving said rod longitudinally, and a rigid coupling member attached to the other section and arranged to interrupt the swinging movement of said bell crank lever and to impart a rectilinear movement to the latter during a portion of the movement of said rod.

3. An extension table comprising separable top sections, a pivot stud carried by one of said sections, a bell crank lever having a slot in one arm thereof to receive said pivot stud, said arm being provided with a hook, an operating rod engaging the other arm of said bell crank lever, means for moving said rod longitudinally, means for preventing lateral movement of said rod, and a rigid coupling member attached to the other section and arranged to interrupt the swinging movement of said bell crank lever and to impart a rectilinear movement to the latter during a portion of the movement of said rod.

4. An extension table comprising separable top sections, a pivot stud carried by one of said sections, a bell crank lever having a slot in one arm thereof to receive said pivot stud, said arm being provided with a hook, an operating rod engaging the other arm of said bell crank lever, an operating lever fulcrumed to said section and pivoted to the connecting rod at a distance from said fulcrum, means for preventing horizontal lateral movement of said rod, and a rigid coupling member attached to the other section and arranged to interrupt the swinging movement of said bell crank lever and to impart a rectilinear movement to the latter during a portion of the movement of said rod.

5. An extension table comprising separable top sections, a pivot stud carried by one of said sections, a bell crank lever having a slot in one arm thereof to receive said pivot stud, said arm being provided with a hook,

an operating rod engaging the other arm of said bell crank lever, said rod being provided with a resilient portion constructed to yield under excessive pulling strain, means for moving said rod longitudinally, means for preventing lateral movement of said rod, and a rigid coupling member attached to the other section and arranged to interrupt the swinging movement of said bell crank lever and to impart a rectilinear movement to the latter during a portion of the movement of said rod.

In testimony whereof I have affixed my signature, in presence of two witnesses.

EDGAR L. MARSTON.

Witnesses:

CHARLES J. BROWN,

PETER N. PEZZETTI.