

F. W. GENT.
FOLDING TABLE.

APPLICATION FILED SEPT. 11, 1908.

935,751.

Patented Oct. 5, 1909.

2 SHEETS—SHEET 1.

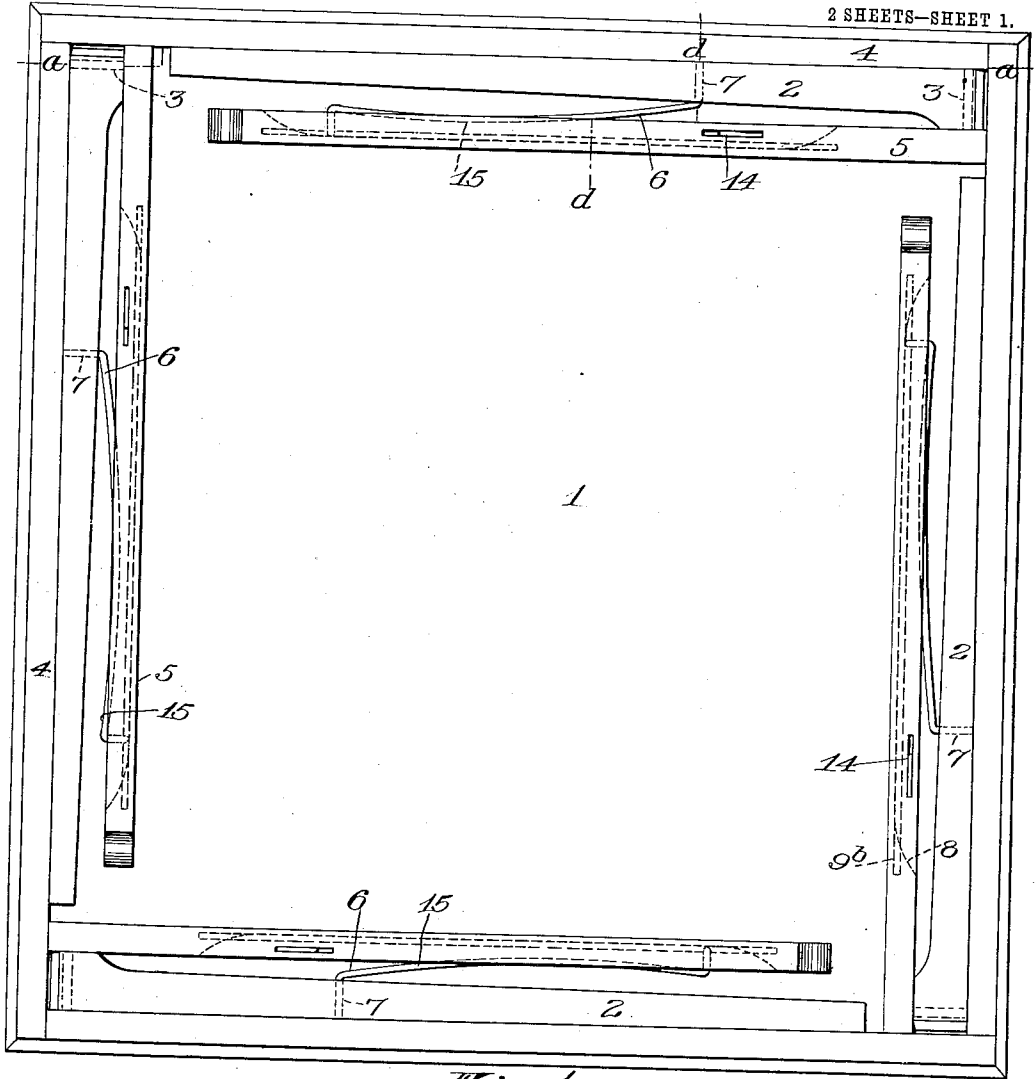


Fig. 1.

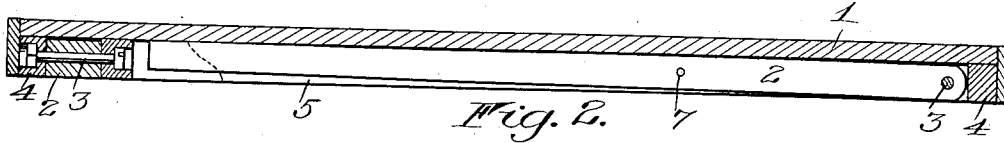


Fig. 2.

Witnesses

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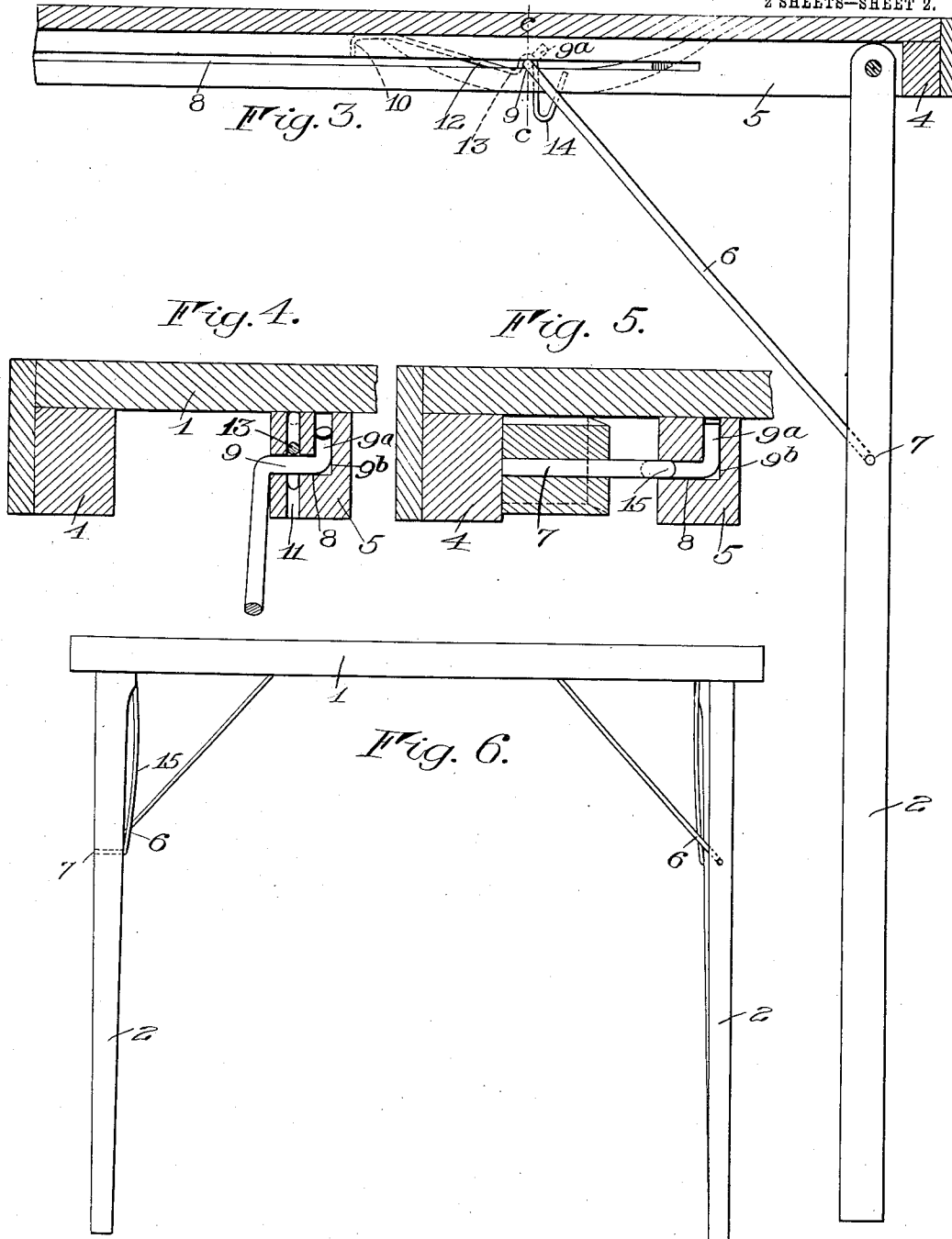
By Church & Dick
his Attorneys

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Witnesses
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UNITED STATES PATENT OFFICE.

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FOLDING TABLE.

935,751.

Specification of Letters Patent.

Patented Oct. 5, 1909.

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To all whom it may concern:

Be it known that I, FRANK W. GENT, of Wellsville, in the county of Allegany and State of New York, have invented certain new and useful Improvements in Folding Tables; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to folding tables of the type in which the legs or supports are hinged and it has for an object to make provision whereby the said legs or supports are automatically locked in folded and unfolded positions without the use of complicated or delicate parts.

To this and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a bottom view of a table embodying this invention. Fig. 2 is a section on line *a-a*, Fig. 1 showing one of the supports in folded position. Fig. 3 is an enlarged detail section on the same line showing the support in unfolded position. Fig. 4 is a section on line *c-c* Fig. 3. Fig. 5 is a section on line *d-d* Fig. 1; and Fig. 6 is a side elevation of the embodiment shown in Figs. 1 to 5.

The embodiment of the invention herein illustrated includes a top 1 which may be of any suitable shape but is preferably rectangular, and pivotally connected to the top is a plurality of supports (four in the present instance) which may consist of legs 2 each having its pivotal axis 3 parallel to one of the sides and at right angles to the axes of the legs on opposite sides thereof so that when folded, its free end will lie in proximity to the hinge of a proximate leg.

In order to secure the supports or legs to the top the latter may be provided with side pieces 4 and pieces 5, the pieces 5 being secured within the border formed by the side pieces and lying parallel with, but in spaced relation to the latter; and the bolts 3 which form the pivots connect a side piece with a piece 5, the leg being adapted to swing between them. Each piece 5 is preferably of less length than its leg so that the latter will

project beyond it at one end to permit the leg to be grasped for operation.

To hold the supports in operative or unfolded positions, each has a brace 6 pivoted at one end to the inner face thereof at 7 and at its other end working in a guide on the top. The guide is preferably in the form of a groove 8 arranged longitudinally of and in one of the vertical walls of the piece 5, and the brace 6 has a lateral extension 9 which works in the groove.

A novel means is provided for retaining each brace to its guide and at the same time permitting its being readily detached therefrom. It comprises in this instance a lateral extension 9^a on the guiding portion 9 of the brace, said extension having a width less than the width of the guide and being arranged at an angle to the plane of the brace and its extension 9 as shown in Figs. 3 and 4 in order that, when the brace, after being detached from its leg, is turned beyond the range of its normal movement and in a direction opposite to that in which it moves in folding, the extension 9^a may be caused to aline with the guide 8 and thus permitted to be withdrawn. The extension 9^a, when the brace is operatively connected to its legs, works in a slot 9^b that communicates with the inner end of groove 8.

Each brace is locked in supporting position preferably by a latch carried by the top and coöperating with that portion of the brace working in the guide. In this instance, the latch is in the form of a spring made from a single piece of metal, secured at one end beneath that face of the guide strip that is turned toward the table as by a deflected portion 10, and working in a slot 11 in the guide piece transverse to groove 8. Those portions of the latch which are positioned in the slot 11 comprise a bevel portion 12 and a locking portion 13 in the rear of the portion 12, while on the exterior of the slot is a portion 14 for the manual operation or depression of the latch. As the support is moved to unfolded position and nears the end of this movement, the deflected portion 9 of the brace coöperates with beveled portion 12 and depresses the latter; and, when the leg reaches the end of the opening movement, the locking portion of the latch coöperates with the portion 8 and holds the leg against movement until the latch is depressed manually by portion 14 when the

leg may be moved to folded position. The braces may also serve for securing the legs or supports in folded positions and may therefore be made of material which is transversely resilient such for instance as heavy spring wire, and each is slightly curved at 15 between its attached ends, so that near the last part of the folding movement the curved portions coöperate with the guide pieces 5 and place the brace under a slight lateral compression. When completely folded the brace lies parallel with the leg and the guide and therefore the curved portion of the brace will spring into the guide groove 8 and hold the leg against accidental displacement.

The legs are moved to supporting position by grasping those portions which extend beyond guide pieces 5 and pulling thereon causing the curved portions 15 of the braces to leave the guide grooves 8 and the deflected portions 9 to travel thereon until automatically locked by the latches. The folding of the legs is effected by depressing the latches and then moving the legs in the opposite direction until the curved or bowed portions of the braces spring into the guide grooves 8.

A table constructed in accordance with this invention is simple in operation and inexpensive to manufacture. The braces are secured to the guides by a simple means which permits of their being readily attached and detached therefrom but at the same time prevents accidental displacement, while the legs are effectively locked in both positions by simple devices.

What is claimed to be new and desired to be secured by Letters Patent is:

1. In a folding table, the combination with a top and supports pivoted thereto, of guides secured to the top, and transversely resilient braces each pivoted to a support at one end, movable on a guide at its other end, and having a portion between its ends adapted to enter the guide to hold the support in folded position.

2. In a folding table, the combination with a top and supports pivoted thereto, of guides secured to the top and braces each pivoted at one end to a support, moving on the guide at its other end and having a portion between its ends adapted to enter the guide to hold the support in folded position.

3. In a folding table, the combination with a top and supports pivoted thereto, of pieces secured to the top and each having a guide groove in one of its vertical faces, and transversely resilient braces each having one end pivoted to a support, another end movable back and forth in the guide groove and being curved between its ends to co-

operate with the walls of the guide groove to retain the support in folded position.

4. In a folding table, the combination with a top and supports pivoted to the top, of guide pieces each having a guide groove in one of its vertical faces and a slot intersecting the guide groove, braces each having one end pivoted to a support and its other end deflected and movable in the guide groove, and latches mounted in the intersecting slots, coöperating with the deflected portions of the braces and each having one end secured between a guide piece and the top.

5. In a folding table, the combination with a top and supports pivoted to the top, of guide pieces on the top each having a guide groove in one of its vertical faces and a slot intersecting the guide groove, braces each having one end pivoted to a support and its other end deflected and movable back and forth in the guide groove, and spring latches each having one end secured between a guide piece and the top and comprising a beveled portion and a locking portion projecting into one of the slots for co-operation with the deflected end of a brace and a portion projecting to the exterior of the slot for the manual operation of the latch.

6. In a folding table, the combination with a top having a guide groove of uniform width and supports pivoted on the top, of braces each pivoted at one end to a support and having its other end movable in the guide groove and provided with a retaining portion having a width less than the guide groove in order that the retaining portion may be passed through the guide groove when the brace is detached from its support and moved to a certain position.

7. In a folding table, the combination with a top and supports pivoted thereon, of guide pieces secured to the top and each having a groove in its vertical face and a groove at right angles to the first named groove at the inner end of the latter, and braces each pivotally connected at one end to a support and at its other end having a deflected portion working in the first named groove and a retaining portion at the end of said deflected portion having a width less than the guide groove, movable in the second named groove and adapted to be removed through the first named groove when the brace is moved beyond the range of its normal movement.

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Witnesses:

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