Nov. 18, 1924. 1,516,323

G. E. BILTON

FALL LEAF TABLE

Filed Dec. 18, 1922

Fig. 1.

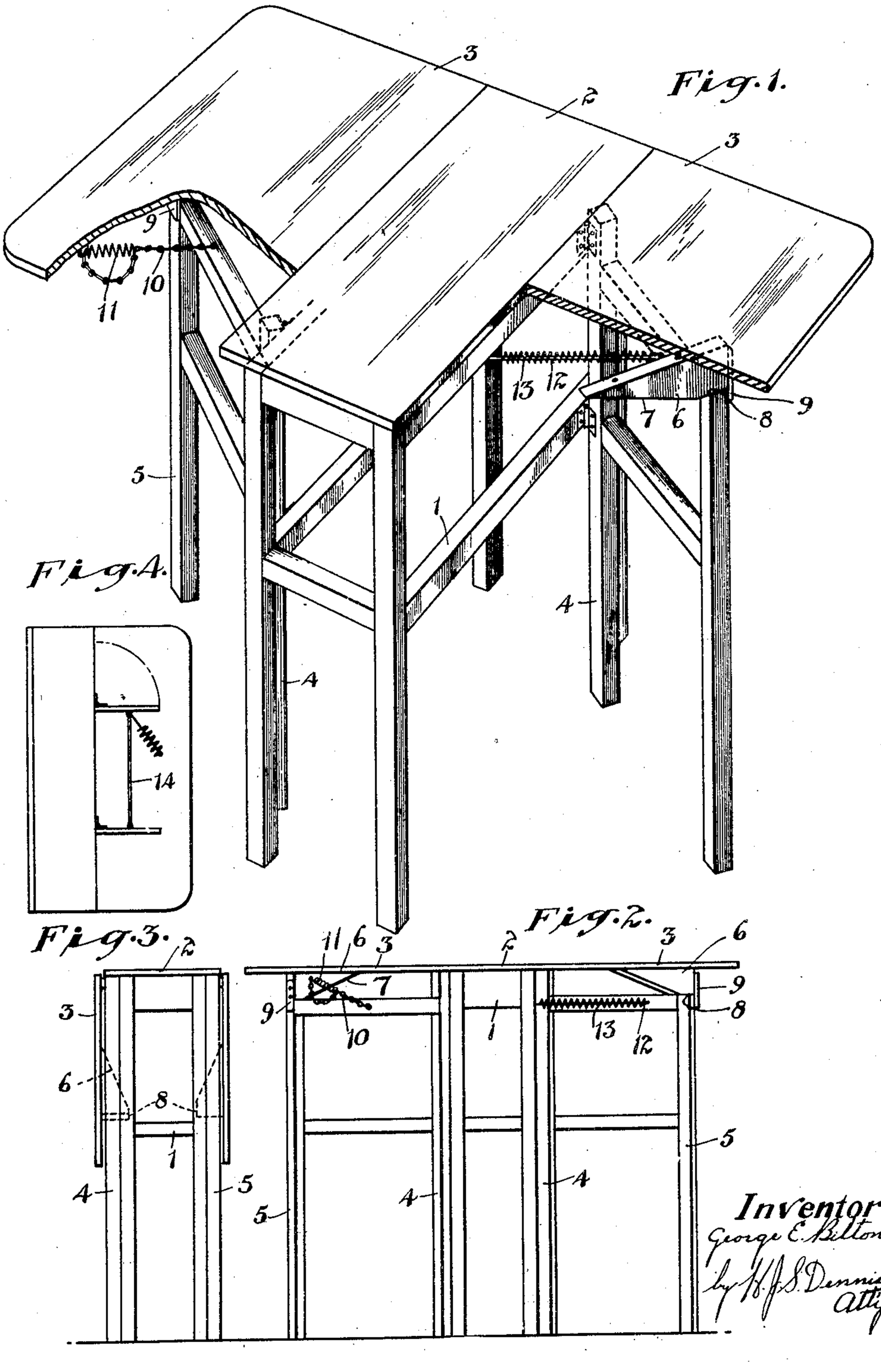

Fig. 4.

Fig. 3.

Fig. 2.

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Patented Nov. 18, 1924. 1,516,323

UNITED STATES PATENT OFFICE.

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FALL-LEAF TABLE.

Application filed December 18, 1922. Serial No. 607,635.

To all whom it may concern:

Be it known that I, GEORGE E. BILTON, a subject of the King of Great Britain, and resident of the city of Toronto, county of York, Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in a Fall-Leaf Table, described in the following specification and illustrated in the accompanying drawings, that form part of the same.

The principal objects of the invention are, to devise a table in which the leaves co-operate with the legs in opening or closing, so that upon the raising of the leaf the leg will automatically move out to support the leaf and the leg may be moved inwardly by pressing down upon the leaf after it is first released, or the leaf will move inwardly with the leg as it is moved into its closed position, thereby ensuring the proper support of the leaves and the stability of the table and providing a table which may be folded into very small compass but which may be extended to present a large top area.

The principal features of the invention consists in the arrangement of an inclined surface on the underside of the leaf to be engaged by the movable gate leg to raise the leaf and hold it in its raised position, and in the novel manner of automatic operation of the leg to move outwardly upon the raising of the table top.

In the drawings, Figure 1 is a perspective view of a table showing the leaves partly broken away to disclose the means for operating the gate legs.

Figure 2 is an elevational view on a smaller scale showing the legs extended.

Figure 3 is an elevational view showing the legs and leaves in the closed position.

Figure 4 is a small underside diagrammatic plan view showing an arrangement of double coupled gate legs.

Gate leg tables are desirable principally because they can be closed to small dimensions but will when opened out present a large top area which is rigidly supported from the floor.

In the accompanying drawings the main frame 1 of the table is of any suitable design having the rigid top 2 projecting beyond the frame.

To the longitudinal edges of the top 2 are hinged the leaves 3.

The legs 4 are preferably of the gate type hinged to the frame 1 preferably adjacent to one end so as to fold close in against the frame as shown in Figure 3, or to be swung outwardly to almost a right angular position, as illustrated in Figures 1, 2 and 4 so as to support the leaves 3 well out toward their outer edges when extended, the outer posts 5 of the legs extending to the floor.

Upon the underside of the leaves 3 are secured the brackets 6 which are formed with inclined under surfaces 7 which taper inwardly or upwardly toward the inner edges of the leaves. These brackets are set preferably at an angle of about forty five degrees to the longitudinal sides of the leaf and are arranged in the path of the outward movement of the legs so that the top bars of the legs will engage the sloping surface and sliding thereunder lift the leaves.

Each bracket is provided with a squared surface 8 at the outward end which when the leaf is fully extended rests upon the top of the leg structure.

Suitable stop lugs 9 are formed at the outward ends of the brackets to limit the outward movement of the legs.

When the legs are moved to their outermost position as illustrated in Figures 1 and 2 they will rigidly support the leaves and require to be swung slightly upon their hinges in an inward direction to clear the flat surfaces 8 before the leaves can be closed. Then the legs can be swung inwardly with the hand or with the foot or a downward pressure upon the leaf through the inclined surface of the bracket will cause the leg to swing inwardly.

It is extremely desirable that the legs be operated with the leaves and two different forms are shown. In one form a length of chain or cord 10 is secured at one end to the underside of the leaf and at the other end to the leg so that when the leaf is lifted the chain pulls the leg outwardly. A short coil spring 11 is inserted in the chain so that its spring pull will carry the leg outward to its stop and hold it securely in its outward position.

In the other form shown a rod 12 is pivotally attached to the inner side of the leg and slides through a support in the table frame and a coil compression spring 13 encircles the rod. Upon the lifting of the leaf the compression spring 13 forces the leg outwardly. A sliding leg may be similarly operated to engage the bevelled bracket on the underside of the leaf.

In Figure 4 I show a pair of legs coupled together by a link 14 so that both will operate together.

In using a table such as described it is merely necessary to lift the leaf and the leg will automatically move outwardly and lock to hold the leaf raised.

When it is desired to lower the leaf the leg is pushed inwardly a short distance and the leaf will fall with it, or if the leg is pushed inwardly until sufficient to release it from the lock on the squared portion of the block 6, a downward pressure on the leaf will move the leg to its closed position.

This construction and arrangement obviates breakage through careless handling as either the leaf or the leg will operate with the operation of the complement member.

What I claim as my invention is:—

1. A fall leaf table, comprising, a frame, a leg shorter than the frame and hinged to the side thereof to swing in a vertical plane and resting on the floor, a leaf hinged to the table top, and a bevelled bracket secured to the underside of the table top to engage the outer end of the leg, said bracket having a portion parallel with and spaced from the table top to rest upon the top of the leg when said leg is in its extended position.

2. A fall leaf table, comprising, a rigid frame, a leg shorter than the frame hinged at the side of the frame toward one end to swing in a vertical plane, a leaf hinged to the table top, a beveled block angularly arranged on the underside of the table top adapted to engage the leg and rest upon the top thereof, a flexible member connected to the table top and to the leg to pull the leg outwardly on the raising of the table top, and a spiral spring arranged within a loop of said flexible member.

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