(No Model.)

H. J. CHAPMAN.

TABLE LEAF SUPPORT.

No. 382,952. Patented May 15, 1888.

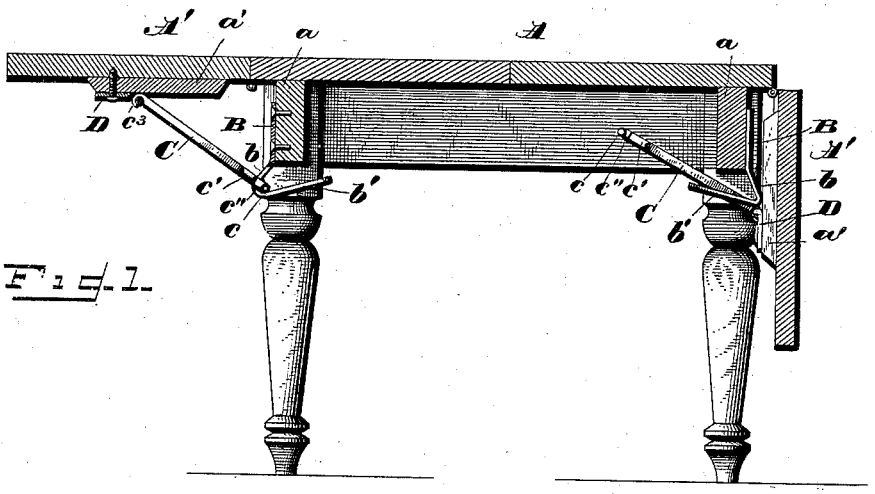

Fig. 1.

Fig. 2.

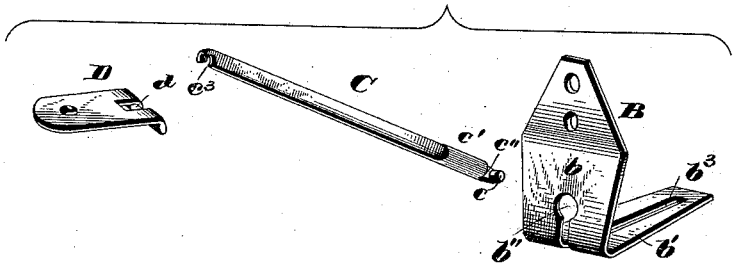

Fig. 3.

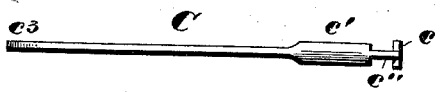

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TABLE-LEAF SUPPORT.

SPECIFICATION forming part of Letters Patent No. 382,952, dated May 15, 1888.

Application filed April 21, 1887. Serial No. 235,662. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. CHAPMAN, a citizen of the United States of America, residing at Middleville, in the county of Barry and State of Michigan, have invented certain new and useful Improvements in Table-Leaf Supports; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of table-leaf supports designed to be automatically moved in position and locked to support the leaf by raising the leaf to a level with the table-top. It has been proposed heretofore in constructions of this character to hinge to the table-leaf a supporting-rod the inner or free end of which is bifurcated to form spring-legs, each having an outwardly-facing notch to engage the sides or walls of a slot formed in the keeper-plate, which is secured to the side sill or rail of the table-frame; also, to hinge to the table-leaf a supporting-bar the inner end of which is provided on the upper side with a cross-piece of a length to bridge the slot of the oblique-angled cast-metal keeper through which said inner end moves, said keeper carrying at its lower end a solid abutment, upon which the inner end of the supporting-bar rests, and a hook or projection to retain the end of the bar upon said abutment; also, to hinge to the table-leaf a supporting-bar the lower side of the inner extremity of which is provided with an offset to engage with shoulders formed by the sides or walls of a slot in the right-angled keeper; also, to hinge to the side rail or sill of the table a curved supporting-bar the outer end of which is provided with an offset to engage a cross-piece forming the end of the slot in the keeper-plate.

Various objections have been urged against the construction here generally referred to, among which are the cost, difficulty of operation, weight, and liability to become disengaged through accident.

The object of my invention is to construct an inexpensive, light, easily-operated leaf-support which, when locked in position to support the leaf, will not be liable to become disengaged through accidental contact of foreign bodies.

To this end my invention consists in novel combinations resulting from particulars of construction to be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a vertical section of a table provided with my improved leaf-support. Fig. 2 is a detail view showing the parts of my support in perspective detached from each other. Fig. 3 is a perspective view of the brace-rod.

The table A and hinged or folding leaves A′ may be of any usual or preferred construction.

The keeper B may be constructed of a piece of strap metal of sufficient length, in which is formed a long key-hole slot, b^2 b^3. This keeper-plate is bent near its upper end at an obtuse angle to form for the supporting-rod C a stop or abutment, b, which is disposed at a slight inclination from a right line with said rod when the latter is drawn out to support the leaf, and again bent at an acute angle at a point just below the upper end of the key-hole slot to form an inwardly and upwardly inclined guide, b', to hold the inner end of supporting-rod C well up beneath the table-top when the leaf is not extended. The upper end of this keeper is secured to the side sill, a, of the table, with the abutting surface b inclined outward and downward and the supporting-guide b' extending upward and inward toward the center of the table, as shown.

The support or brace rod C is provided at its lower or free end with a cross-bar, c, of a length exceeding the diameter of the loop b^2 of the key-hole slot, and at a little distance from the cross-bar with a boss, c', of a size to pass freely through said loop b^2, but not through the narrow part or tail b^3 of the slot. The cross-bar c and boss c' are connected by a narrow shank or neck, c^2, of a size to pass freely within the tail b^3 of the slot. The upper end of the brace C is provided with a hook, c^3, to engage with the pintle d' of a hinge-plate, D, secured to the table-leaf A′, the body of said brace between the boss c' and hook c^3 being of a size to pass freely within the tail b^3 of the key-hole slot in the keeper.

The hinge-plate D is bent downward at one end and provided with a slot, *d*, extending to a point near the end of the plate, the metal between the outer end of the slot and the end of the plate forming the pintle *d'*, with which the hook c^3 of the brace-rod C engages. The hinge-plate and keeper are of course provided with the necessary screw-holes to admit of their attachment to the table.

The keeper, brace-rod, and hinge-plate may be cast, though I prefer to punch them from a flat blank or sheet of malleable metal, the keeper and hinge-plate being afterward bent to the proper shape in dies and the cross-bar *c* and boss *c'* being swaged or upset in proper dies.

In securing my improved leaf-support to a table the hinge-plate D may be screwed directly to the under side of the leaf, though I prefer to interpose a batten, *a'*, to prevent warping of the leaf. The parts are assembled and secured as shown, the hinge-plate being attached to the table-leaf A' and the upper end of the keeper to the side sill, *a*, of the table. The inner end or guide, *b'*, of the keeper is so disposed with relation to the loop b^2 and hinge-plate D as to support the inner or free end of the brace-rod C and guide the boss *c'* through the loop b^2 as the table-leaf approaches a horizontal position in the operation of rising. The boss *c'* will pass entirely through the loop b^2 of the slot, and the neck c^2 be brought opposite the narrow part or tail b^3 of the slot just before the table-leaf has reached a horizontal position, and a further upward movement of the leaf will cause the inner or free end of the brace to drop down in the tail b^3 of the slot and securely lock the leaf at its upper limit of movement.

To lower the leaf, the inner end of the brace-rod is raised to bring the boss *c'* opposite the loop b^2, when the leaf may be dropped to the position shown at the right hand of Fig. 1.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with a folding-leaf table, of a leaf-support consisting, substantially as before set forth, of a hinge-plate secured to the table-leaf, a brace-rod hinged to said plate at one end and provided at its opposite end with an enlarged boss and a cross-bar connected by a narrow neck, and a slotted keeper-plate secured to the side sill of the table, and having its abutting surface so disposed that its upper end is at a greater distance from the hinge-pintle *d* than the lower end when the table-leaf is at the limit of its upward movement.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY J. CHAPMAN.

Witnesses:

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