(No Model.)

F. L. CASPER.

TABLE LEAF SUPPORT.

No. 421,384. Patented Feb. 18, 1890.

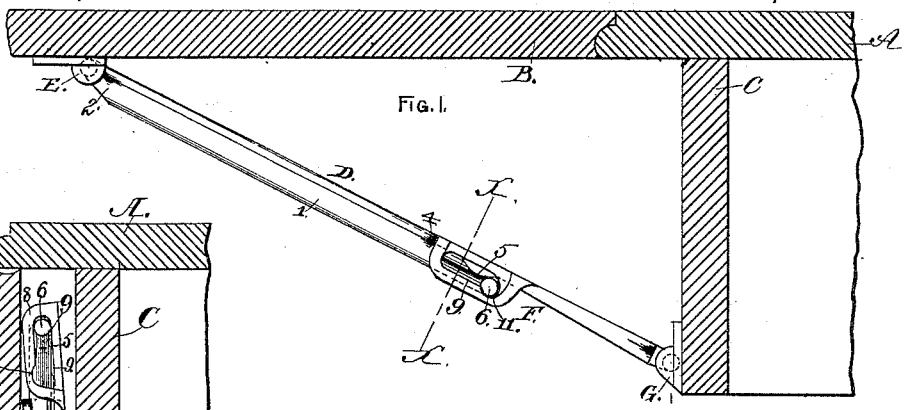

Fig. 1.

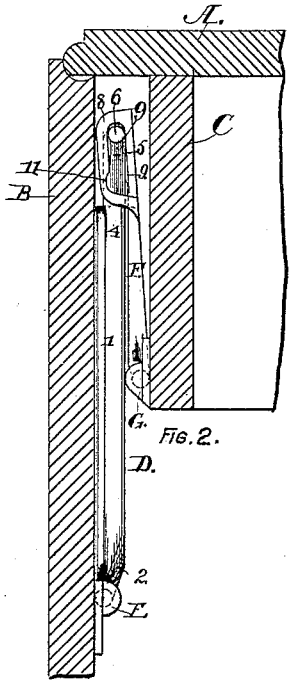

Fig. 2.

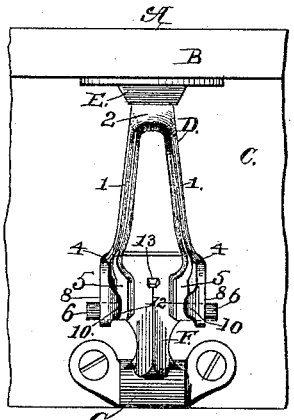

Fig. 3.

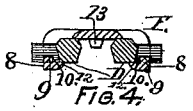

Fig. 4.

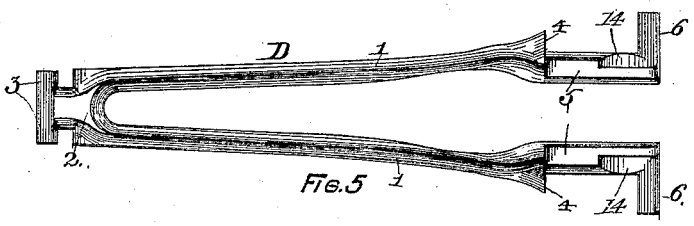

Fig. 5.

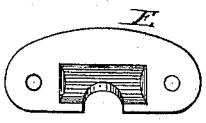

Fig. 7.

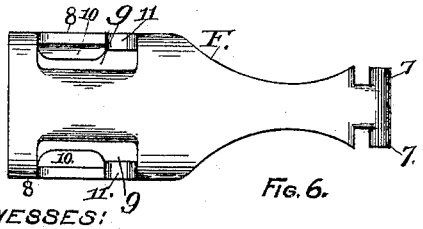

Fig. 6.

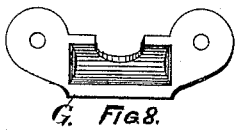

Fig. 8.

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UNITED STATES PATENT OFFICE.

FRANK L. CASPER, OF HOWE'S CAVE, NEW YORK.

TABLE-LEAF SUPPORT.

SPECIFICATION forming part of Letters Patent No. 421,384, dated February 18, 1890.

Application filed January 10, 1889. Serial No. 295,952. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. CASPER, of Howe's Cave, in the county of Schoharie and State of New York, have invented new and useful Improvements in Table-Leaf Supports, of which the following is a specification, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a vertical section of part of a table provided with my invention, showing the table-leaf in its raised position and held by my support, the latter being shown in side elevation. Fig. 2 is a like section with the table-leaf in a hanging position. Fig. 3 is a front elevation of Fig. 1. Fig. 4 is a transverse section at the line X X of Fig. 1. Fig. 5 is an enlarged plan view of the bifurcated joint-piece of my device. Fig. 6 is an enlarged plan view of the slotted joint-piece, and Figs. 7 and 8 are enlarged rear elevations of the hinge-plates for said joint-pieces.

My invention relates to improvements in supporting devices for table-leaves which are hinged to the body of the table, so as to allow them to be swung upwardly into a horizontal position or downwardly into a vertical position; and it consists of a combination of parts of a novel form and construction, as hereinafter set forth and described.

As represented in the accompanying drawings, A designates the top of the table, B one of the swinging leaves hinged to said top, and C the frame to which the top is secured. All of said parts, being old and well known, form no part of my present invention.

D is the bifurcated joint-piece, which is preferably made of cast metal having sufficient strength and elasticity to afford a proper degree of resilience for the limbs 1, which extend from one end of said joint-piece to a point near the other end, where they are merged into a single arm 2, which has on its opposite edges pintles 3, that fit into the hinge-plate E to form hinge-joints, by means of which said joint-piece is attached to the table-leaf. Each limb 1 of said joint-piece is provided with shoulders 4 for a purpose hereinafter explained, a flattened portion 5, and at the outer edge of the end of the latter a pintle 6, by which said joint-piece is articulated to the slotted joint-piece.

F is the slotted joint-piece, which has at one end oppositely-extending pintles 7, that fit into a hinge-plate G, to form a hinge-joint by which said slotted joint-piece is attached to the frame C of the table. Said joint-piece is widened out toward its swinging end, and standing flanges 8 are erected at the opposite edges of said widened part. Slotted openings 9 are formed in said standing flanges, to receive the pintles 6 of the bifurcated joint-piece and to permit said pintles to have a sliding movement therein. Each standing flange is provided with an inwardly-turned lip 10, whose lower face is nearly on a plane with the upper side of the slotted openings, and each of the latter has at its inner end an upwardly-cut notch 11, with which the corresponding pintle 6 of the bifurcated joint-piece engages when the two joint-pieces are extended to support the table-leaf, as shown in Fig. 1. The outer end of the standing flanges 8 are rounded off to allow the shoulders 4 to pass over and engage with the end of the joint-piece F, and thereby prevent any endwise movement of the joint-piece D when the support is extended to sustain the table-leaf. The inner end of the lips 10 has a rounded or beveled form, as at 12, for the purpose of effecting an automatic movement of the two arms 1 toward each other by the operation of raising the table-leaf, and thereby bringing the two joint-pieces to range in a direct line, as shown in Fig. 1. A stop or stud 13 is formed on the widened part of the joint-piece F, intermediately between the standing flanges 8, and the purpose of said stud is to prevent an inward movement of the limbs 1, or either of them, to such a degree that either of the pintles 6 will be thrown out of its corresponding slotted opening 9 in the joint-piece F.

The joint-pieces D and F are first fixed together before the support is secured to a table, and this is effected by placing the joint-piece D at about a right angle to the face of the joint-piece F, so as to insert one of the pintles 6 of the former into one of the notches 11 of the latter; then by slightly pressing together the limbs 1 the other pintle 6 can be inserted in the outer end of the opposite slotted opening 9, the end of the joint-piece D during this operation being held diagonally across the

center line of the joint-piece F; then by a twisting motion of the joint-piece D the second pintle of the latter can be carried into the other notch of the joint-piece F.

My supporting device operates in the following manner: The table-leaf B being in the pendent position shown in Fig. 2, the joint-pieces D and F will be folded together, as shown in said figure, and will be held in place by their respective pintles 3 and 7. While in said position the pintles 6 will be at the outer extremity of the slotted openings 9. On swinging the table-leaf upwardly into the position shown in Fig. 1, the pintles 6 will move toward the inner end of the slotted openings 9, attaining the latter point, the edges of the flattened portion 5 of the limbs 1 will come into contact with the rounded ends of the inwardly-turned lips 10, and thereby the limbs 1 will be pressed toward each other. When the two joint-pieces D and F attain the point where they are in a direct line with each other the resilience of the limbs 1 will cause the said limbs to spring outwardly into their natural positions. Simultaneously therewith the flattened portions 5 of said limbs will engage under the lips 10 of the joint-piece F, and by so doing lock the two joint-pieces together in a perfectly rigid condition to firmly support the table-leaf in its raised position. To restore the table-leaf to its pendent position the limbs 1 are pressed toward each other by a squeezing movement of the hand of a person operating the device, and when the flattened portions 5 are moved out from beneath the lips 10 the joint-pieces D and F will then swing toward each other, thereby leaving the table-leaf free to resume its pendent position. Preferably the joint-piece D has its limbs 1 provided on the upper side, adjoining the pintles 6, with longitudinal depressions 14, which extend outwardly to the edges of said limbs, said depressions being formed for the purpose of facilitating the operation of bringing the flattened portions 5 into contact with the ends of the lips 10 at the initial movement of the joint-pieces when the table-leaf is being raised.

I claim as my invention—

1. In a table-leaf support, the combination of a bifurcated joint-piece provided with pintles at each end, the two corresponding limbs being provided with flattened portions, which are contiguous to their pintles, a slotted joint-piece provided with parallel standing flanges, said flanges having longitudinal slotted openings and inwardly-turned lips, which lie directly over said openings, the pintles of the two arms of the bifurcated joint-piece being fitted to slide and roll in said slotted openings, and said flattened portions of said arms being adapted to engage under said lips, and hinge-plates which are fitted to receive the pintles at the outer ends of said joint-pieces, as and for the purpose herein specified.

2. In a table-leaf support, the combination of a slotted joint-piece having at one end a pair of oppositely-extending pintles and at the opposite end a flat seat provided with parallel standing flanges containing longitudinally-slotted openings, each of said openings having an inwardly-turned lip formed directly over it, a bifurcated joint-piece provided with pintles at each end, the pintles on the separated arms being fitted to receive a sliding and a rolling motion in the slotted openings of the other joint-piece, and the flattened portions of said arms being fitted to engage under the inwardly-turned lips of the slotted joint-piece, and hinge-plates which are fitted to receive the pintles of the outer ends of said joint-pieces and form the complementary parts of hinges therewith, as and for the purpose herein specified.

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