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FOLDING LEG OR SUPPORT FOR TABLES AND OTHER ARTICLES OF FURNITURE

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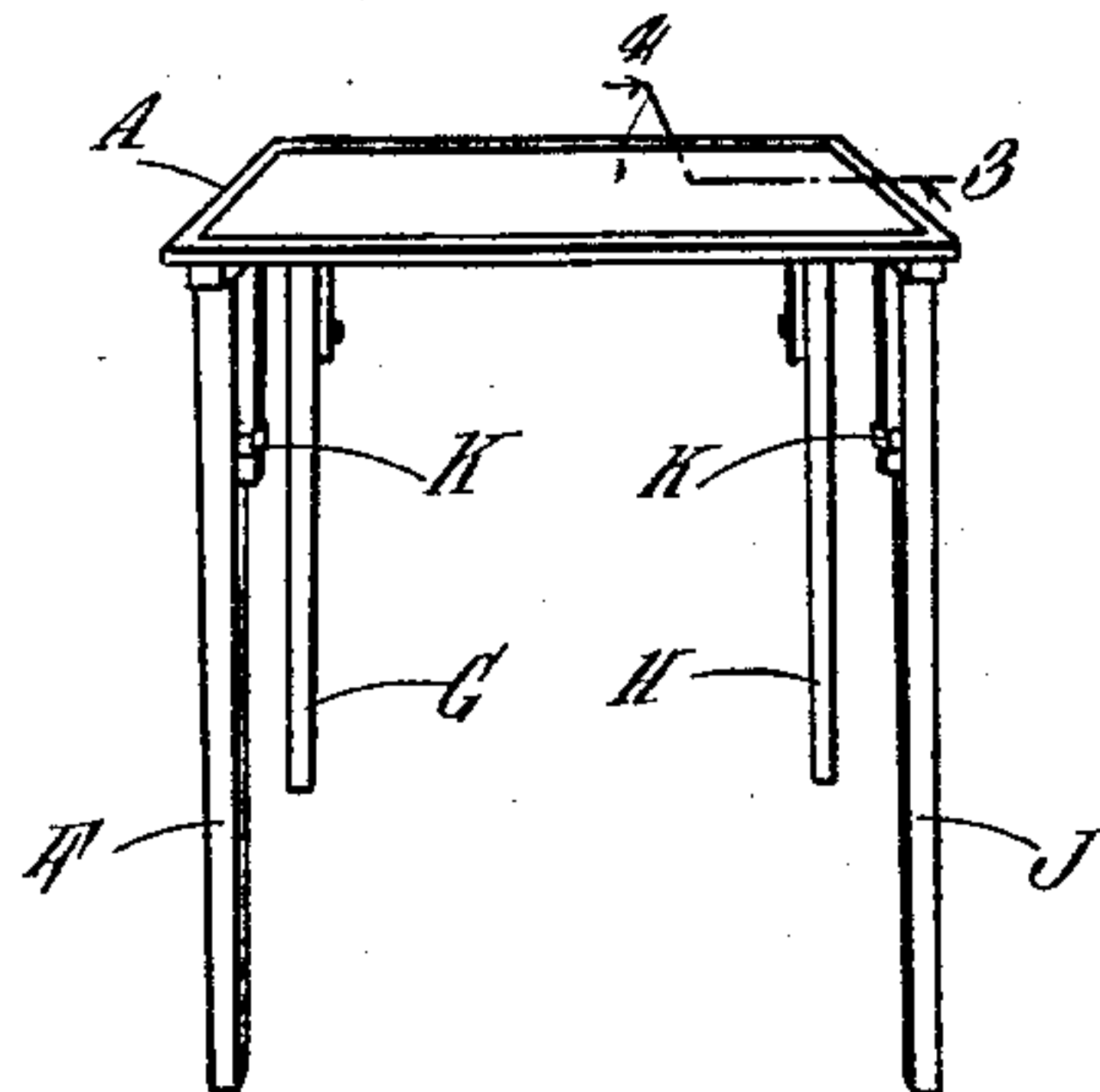


Fig. 1.

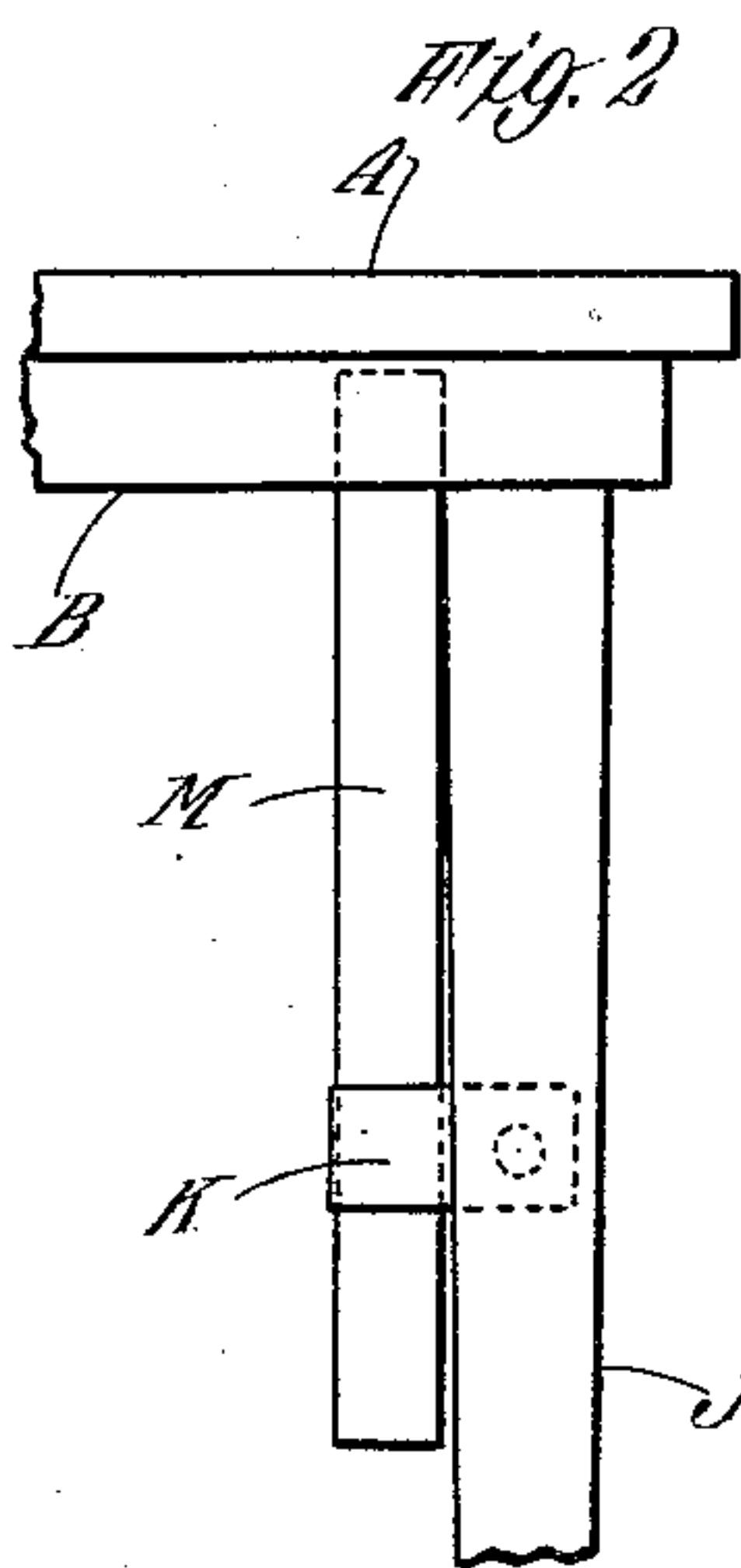


Fig. 2.

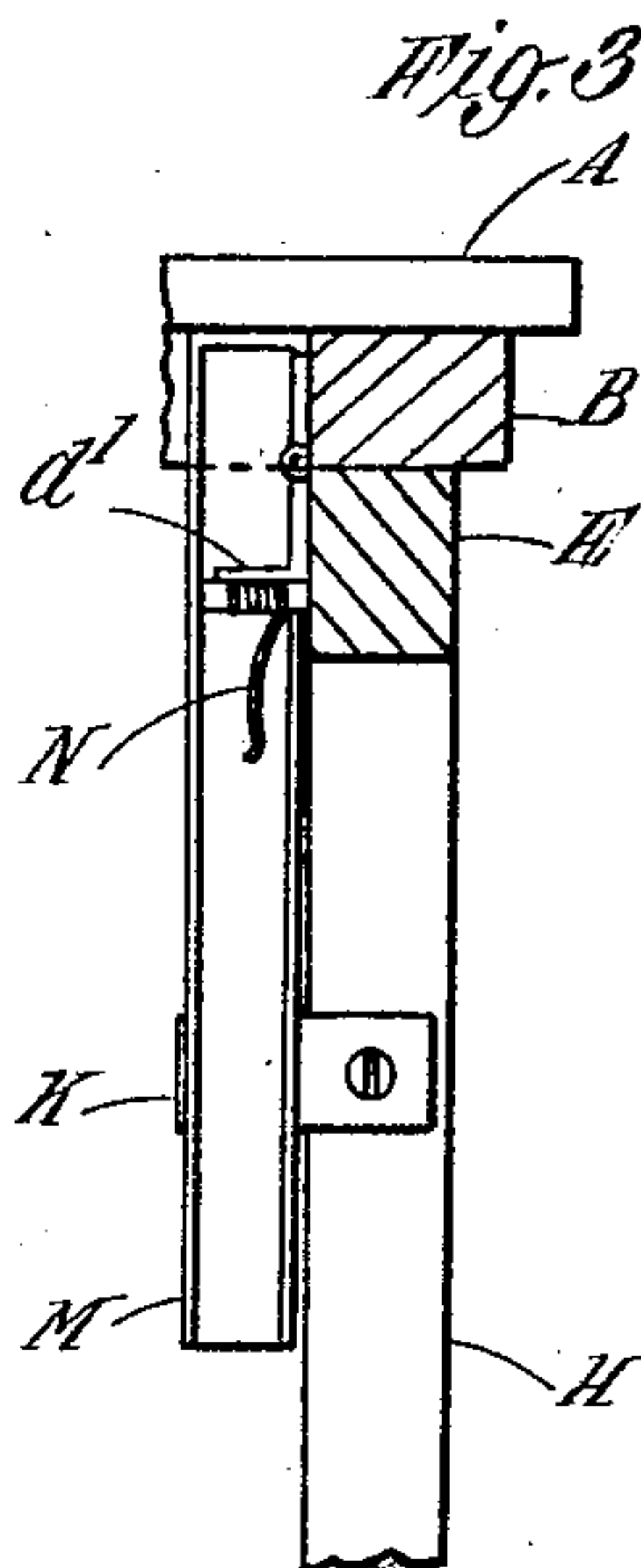


Fig. 3.

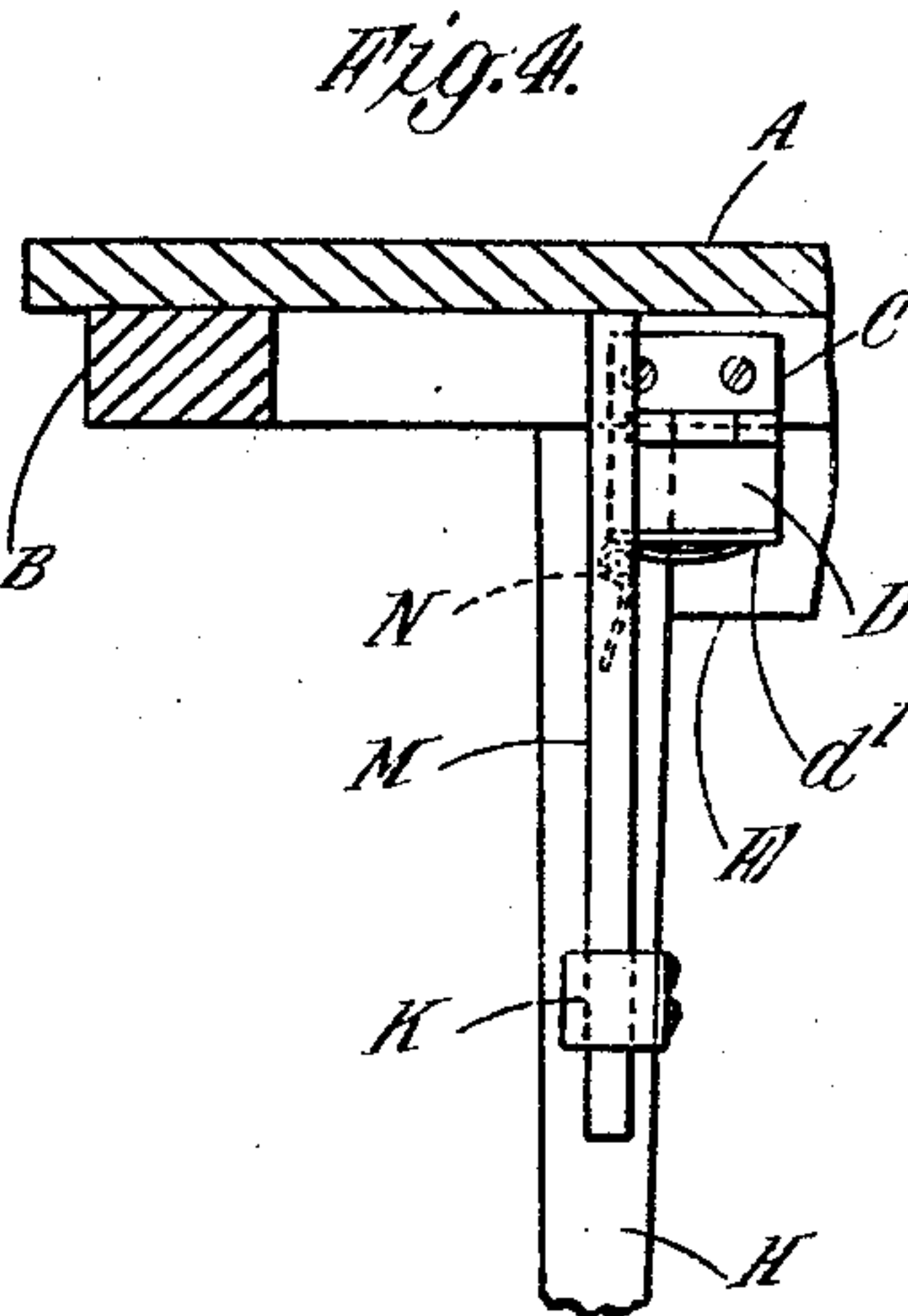


Fig. 4.

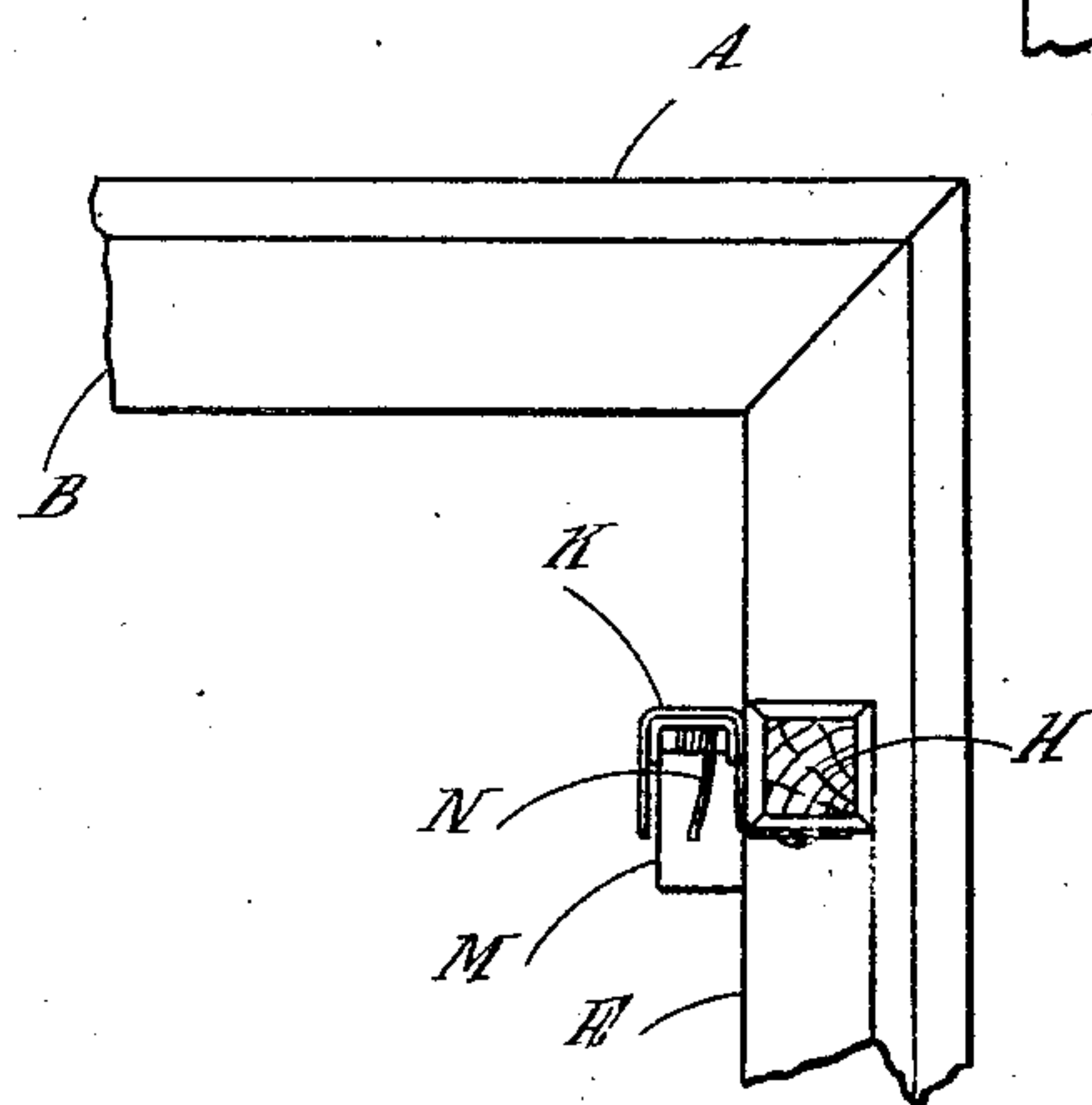


Fig. 5.

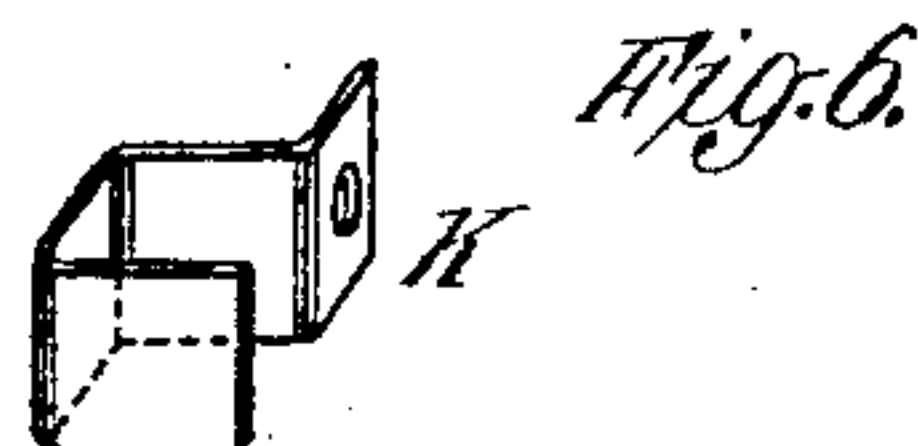


Fig. 6.

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## UNITED STATES PATENT OFFICE

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## FOLDING LEG OR SUPPORT FOR TABLES AND OTHER ARTICLES OF FURNITURE

Application filed February 11, 1928, Serial No. 253,642, and in Great Britain December 30, 1927.

This invention relates to folding legs or supports for tables and other articles of furniture.

An object of the invention is to provide hinge connections between the legs and the body of the table or the like (hereinafter briefly termed table) so arranged as to hold the legs rigidly and positively when extended. Another object is to provide a table with legs adapted to fold on it without the necessity of using crossbars or oblique struts to maintain the legs firmly in the extended position. Another object is to enable the legs to be opened out and collapsed at will in an easy and simple manner. Another object is to minimize the space occupied by the table when folded for storage, by reducing the aggregate thickness of the table when folded to the sum of the thickness of the table and its legs, that is to say, by avoiding any outstanding projection from the legs when folded. Other objects and advantages of the invention will be gathered from the following description read in conjunction with the accompanying drawings giving an example of construction in which:—

Figure 1 represents in perspective a table embodying this invention.

Figure 2 is a fragmentary view representing a portion of the corner of a table to which the legs are attached in accordance with the invention.

Figure 3 is an elevation, partly in section on the line 3, in Figure 1.

Figure 4 is an elevation, partly in section on the line 4, in Figure 1.

Figure 5 is an inverted plan illustrating one of the legs and a portion of the underside of one corner of the table.

Figure 6 is a perspective view of a hook detached which is shown in position in other figures.

In the example given A indicates the table top, B a stiffening frame or fillet secured to the underside of the table, C a hinge plate rigidly secured to the fillet B, D the ordinary movable plate of the hinge secured to a wooden or other cross-bar or yoke E which carries two adjacent legs F, G (Figure 1).

A similar yoke is assumed to carry the two

opposite legs H, J, one pair of legs being arranged to fold alongside the opposite pair. Each leg is provided with a hook K. This hook may be made from a strip of flat metal bent in three places as seen in Figure 6. On the side of the movable hinge plate D adjacent to the leg a locking bar M is pivoted in such manner that it can swing in a plane at right angles to the movement of the leg in the folding of the latter, this bar being adapted to engage the hook K when the leg is extended, and thus to hold the leg rigidly in the open position. The movable plate D may be provided with a flange  $d'$  to which the locking bar M is hinged. The locking bar may be channel-shaped in cross section, and a spring N may be confined between the flange  $d'$  and the web of the channel to throw the said bar into its locked position, that is, into the hook K, automatically when the leg is turned into its operative position; this spring may for instance be coiled round the pivot on which the locking bar turns.

The fixed hinge plate C may be of such length that its end registers in the channel or other recessed part of the locking bar M when the latter is in its vertical or operative position, thus providing a double locking of the leg in position, namely between the bar and the hook K and between the bar and the hinge plate, the end of the bar being disengaged from the hinge plate when laid in its horizontal position.

When two adjacent bars M are turned by hand into their folded positions against the resistance of their springs N, the legs with which they are associated are set free to fold inwardly, that is, at right angles to the folded locking bars, which are then lying between the yoke E and the table top A in the recess enclosed by the fillet B.

The locking bar, hook and hinge plates can be formed by stamping and bending sheet metal in known manner.

It will be seen that by the construction above described the aforesaid objects of the invention can be attained in a practical and inexpensive manner.

Although I have herein described the mode of giving practical effect to my invention



which at the present time I consider preferable with reference to a four legged table, it will be understood that the said invention is not limited to such application, and is capable of such variations, particularly as to the construction of the movable hinge plate for the attachment thereto of the pivoted locking bar, as may fairly fall within the scope of the following claims.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In an article of furniture such as a table, a fillet projecting downwardly from the under-side of said article, a plate fixed on the inner side of said fillet, a second plate hinged at its upper edge to the lower part of the first named plate and carrying a pivot pin, a support secured to said second plate, a brace angularly movable on said pivot pin in a vertical plane, said brace being adapted to be placed parallel with said support to engage both said support and said fillet to prevent said support turning on its hinge, and said brace being also adapted to be turned on its pivot out of said engagement to permit said support to turn on its hinge into a horizontal position.

2. In a table, a hinge plate fixed to the body thereof, a second hinge plate connected with a leg of said table and pivotally movable on said first named hinge plate, whereby said leg can be moved through an arc of approximately 90 degrees between a horizontal and a vertical position in relation to the said table, a hook on said leg, a brace pivotally connected with said second hinge plate and movable into a substantially vertical position to engage said hook and said fixed hinge plate, said brace being also movable through an arc of approximately 90 degrees in a plane at right angles to the plane of movement of said leg to lie between said leg and said table.

3. In a table, a fillet projecting downwardly from the underside of said table, a yoke hinged to said fillet, two legs rigidly connected with said yoke, said yoke being provided with two normally horizontal pivots, braces movable about said pivots adapted to engage said fillet and also each adapted to engage one of said legs to maintain said legs in vertical position, said braces being also adapted to be turned towards each other to permit said yoke and legs to be folded towards the underside of the table.

4. In a table, a fillet projecting downwardly from the underside of said table, a hinge plate fixed to said fillet and having an extension, a second hinge plate rigidly connected with a leg of said table and pivotally movable on said first named hinge plate, a normally horizontal pivot on said movable hinge plate, a brace movable about said pivot to engage said leg and said fixed hinge plate to prevent movement of said second hinge plate,

said brace having a recess in which the extension on the fixed hinge plate registers, said brace being also movable about said pivot to permit movement of the second hinge plate and leg in folding said leg.

5. In a table as in claim 4, a hook on the leg, and a brace channel shaped in cross section adapted to register in said hook in the operative position in which the top of said brace is in register with the hinge extension.

6. In a table, a fillet projecting downwardly from the underside of said table, a hinge plate fixed to said fillet, a second hinge plate rigidly connected with a leg of said table and pivotally movable on said first named hinge plate, a normally horizontal pivot on said movable hinge plate, a brace movable about said pivot to engage said leg and said fixed hinge plate to prevent movement of said leg, a spring confined between said brace and said movable hinge plate tending to throw said brace into its operative position, said brace being movable into a transverse position relatively to said leg against the resistance of said spring to permit folding of said leg about its hinge.

7. A table having on its underside a fixed vertical hinge plate, a support hinged to the lower part of said hinge plate, said support being adapted to be placed in a vertical operative position and also being adapted to be folded under the table, a brace pivoted on said support, said brace being adapted to be turned to a position parallel with said support and co-operating with said fixed hinge plate to prevent folding of the support, and said brace also being adapted to be turned to a position transverse to said support and clear of said fixed hinge plate to permit folding of the support.

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