

W. L. DEMING.
FOLDING ARTICLE OF FURNITURE.
APPLICATION FILED JULY 9, 1910.

992,758.

Patented May 23, 1911.

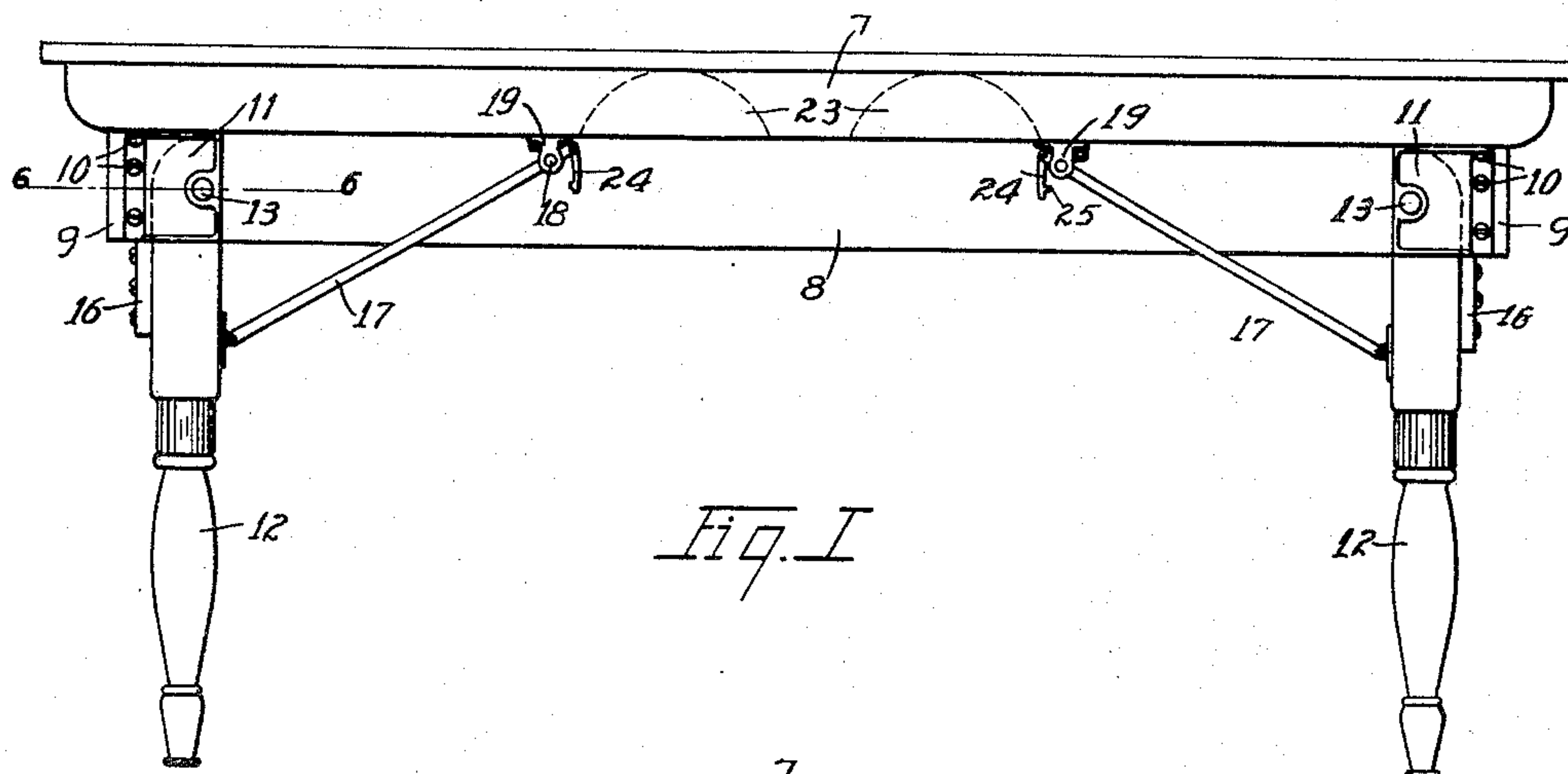


Fig. 1

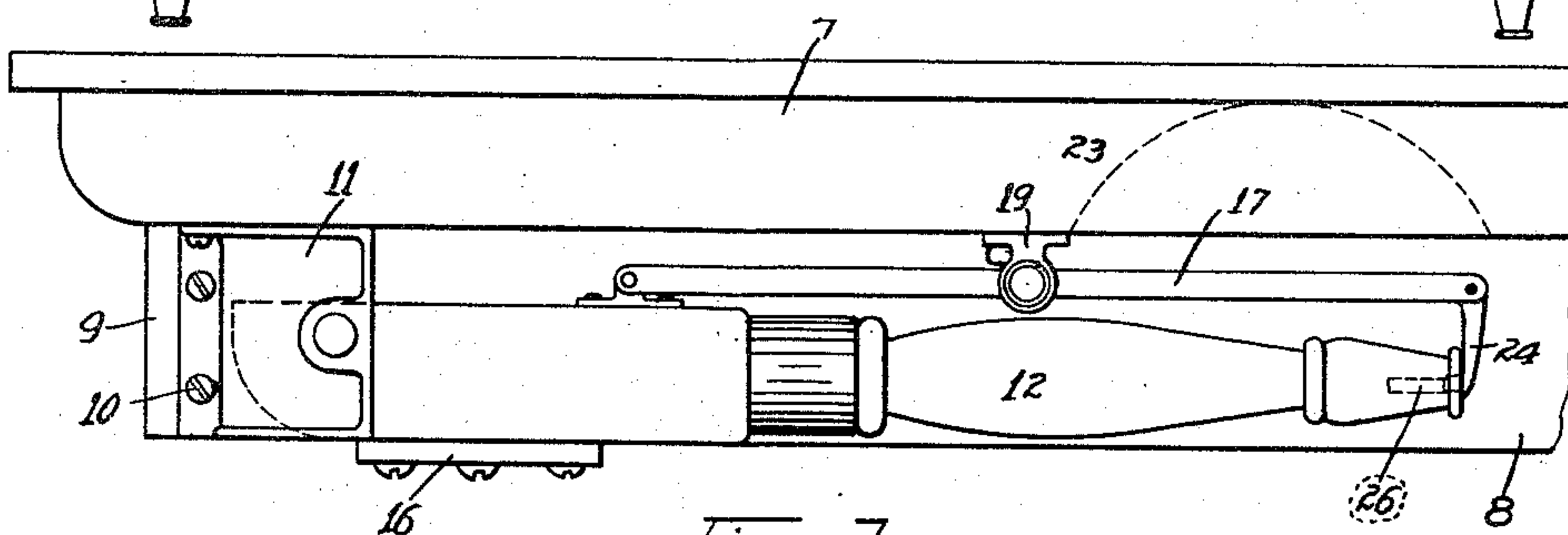


Fig. 2

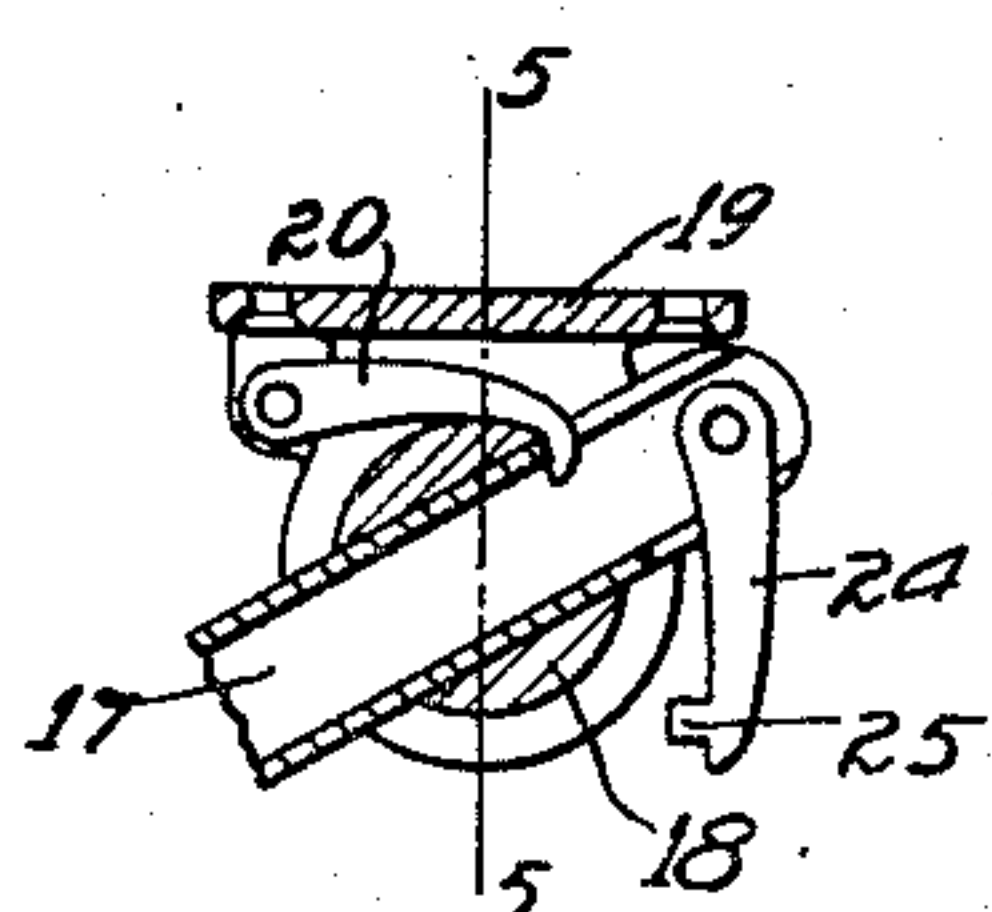


Fig. 4

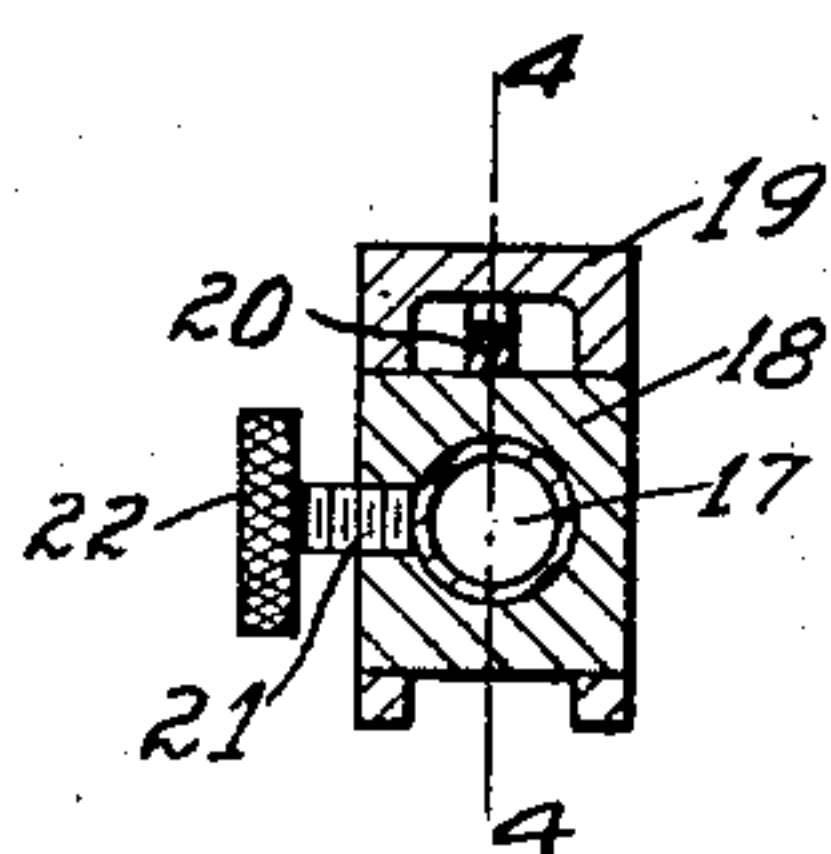


Fig. 5

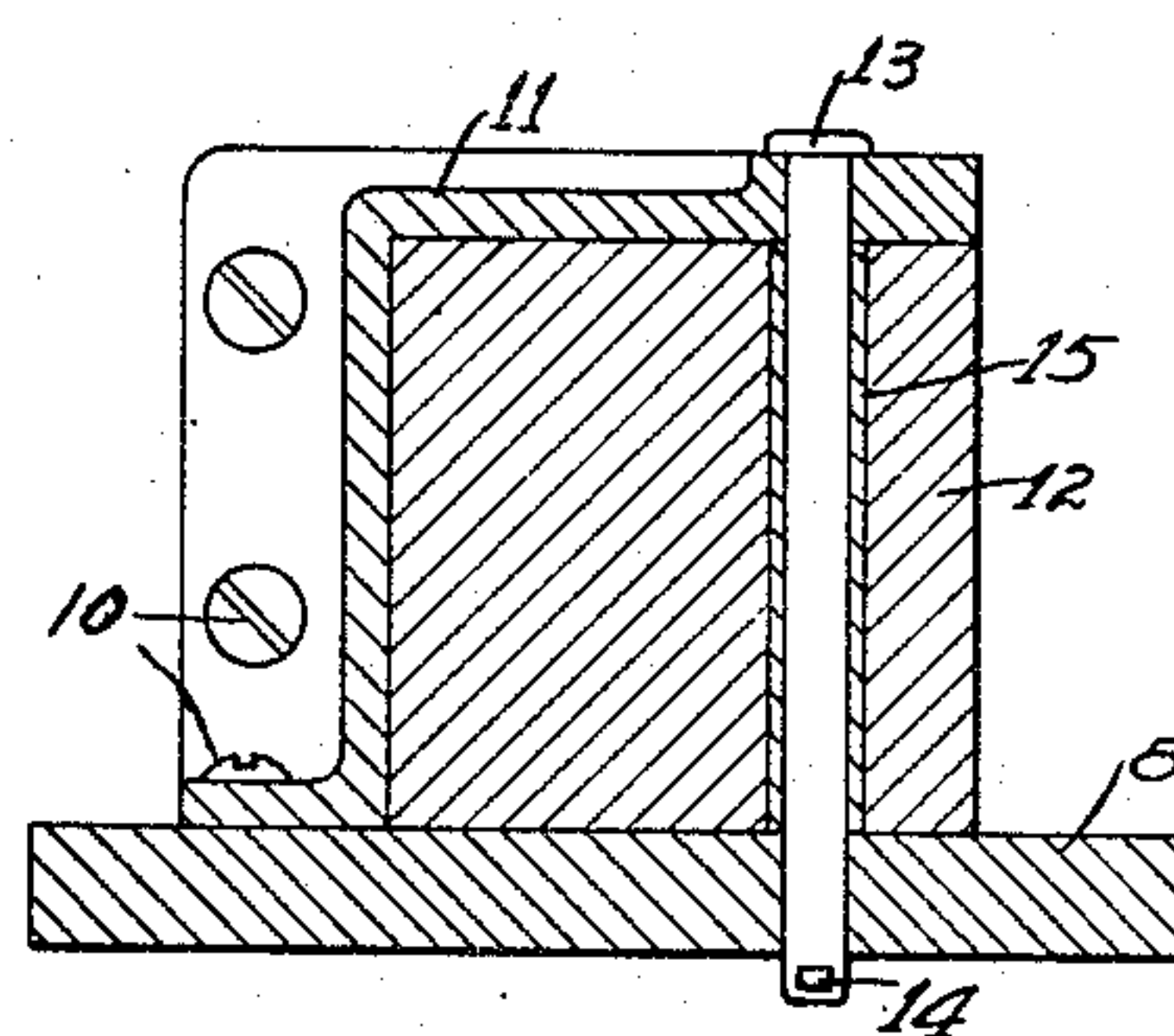


Fig. 6

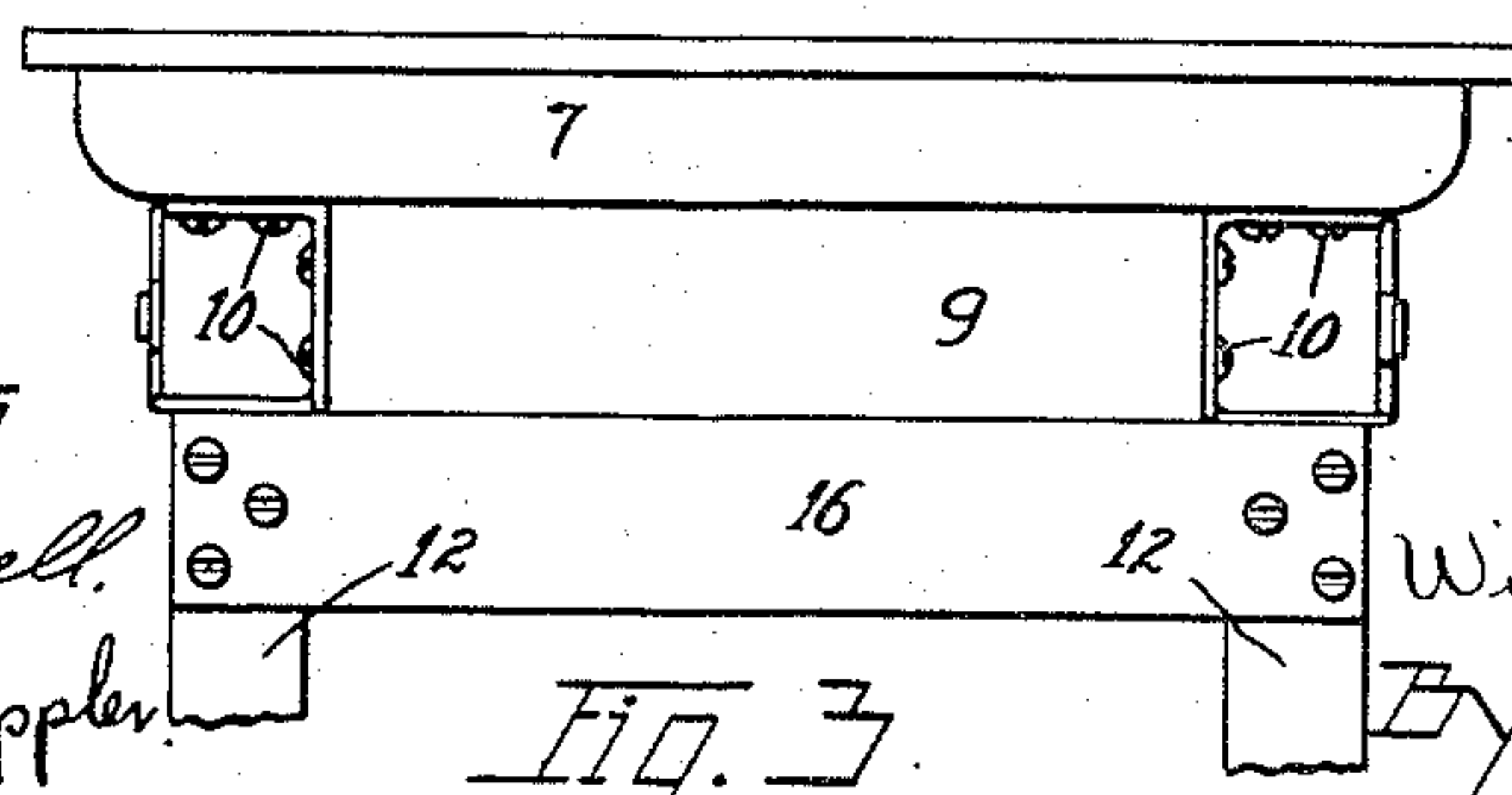


Fig. 3

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FOLDING ARTICLE OF FURNITURE.

992,758.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed July 9, 1910. Serial No. 571,180.

To all whom it may concern:

Be it known that I, WILLIAM L. DEMING, a citizen of the United States, residing at Salem, in the county of Columbiana and State of Ohio, have invented a certain new and useful Improvement in Folding Articles of Furniture, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to folding tables or similar articles of furniture, and it has for its object the production of an article of the character stated which shall be capable of folding into compact form when not in use or when the same is to be shipped, which shall be capable of being conveniently folded and distended, which shall be simple in construction, rigid when in use and economical in manufacture.

With the above stated object in view, I have invented a construction which, in its preferred form, I have shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a table with the legs extended; Fig. 2 is a side elevation of one end of the table, the same being on a larger scale than Fig. 1, and showing the table legs in their folded position; Fig. 3 is a view of one end of the table, the lower ends of the legs being broken away; Fig. 4 is a sectional view taken vertically on the line 4—4 of Fig. 5; Fig. 5 is a sectional view taken vertically on the line 5—5 of Fig. 4, and Fig. 6 is a sectional view on an enlarged scale taken on the line 6—6 of Fig. 1.

Taking up a complete description by the use of reference characters, 7 denotes the upper portion or top of the table, the same being provided with longitudinal and transverse cleats, 8 and 9 respectively, on its lower side. Secured by means of screws 10, or by other suitable fastening devices, to the under side of the table and to the cleats 8, are members 11, within which the upper ends of the table legs 12 are pivoted. The members 11 may be formed in any suitable manner, as by casting, the same having flanges through which the screws 10 may pass upwardly into the lower side of the table and horizontally into the cleats 8. As indicated by dotted lines in Figs. 1 and 2, the upper and outer corners of the legs 12 are rounded so as to be substantially concentric with pins 13 that pass through the respective members 11, through the legs and through the cleats

8, said pins being held in position in any suitable manner, as by the cotter pins 14. In order to form a smooth bearing and to prevent wear of the table legs, I prefer to line the openings through the legs with bushings 15, as shown in Fig. 6, said bushings fitting the pins 13, that extend there-through. I prefer to fold the end legs of the table simultaneously; and, for this reason, I connect the legs at each end of the table in pairs, by braces 16. These braces are attached to the legs in such position that, when the legs are extended, as shown in Fig. 1, the braces will engage the lower edges of the pivot members 11 and thus prevent the legs from swinging any further in an outward direction.

For holding the legs 12 in their extended positions, I pivot to each leg, or at least to one leg at each end of the table, a rod 17, said rods being preferably tubular, as shown in Figs. 4 and 5. When the legs 12 are unfolded, the brace rods 17 extend upwardly and toward the center of the table, passing through cylindrical rocking members 18 that are journaled in brackets 19, said brackets being secured to the lower side of the table. As is shown in Figs. 4 and 5, each bracket 19 is provided with a pair of downwardly extending side plates, the same being provided with aligned circular openings in which the cylindrical members 18 may turn. Each of these latter members is also formed with a transverse opening therein near the center through which the corresponding brace rod 17 projects. In folding the table legs from the position shown in Fig. 1 to that shown in Fig. 2, the brace rods 17 move through the cylindrical members 18, and they also move from the upwardly inclined position to a horizontal position below the table, this latter change in position necessitating a rocking movement of the cylindrical members 18.

In order to lock the legs 12 in their extended positions, I pivot detent pawls 20 to the brackets 19, said pawls extending over the cylindrical members 18 and between the side plates of the brackets 19. These pawls are each provided with hooked portions on their free ends, said portions being adapted to drop into slots in the ends of the brace rods 17 when the legs are extended, as shown in Fig. 3. When thus engaged by the detent pawls, the brace rods cannot move longitudinally and, consequently,

the table legs cannot be folded. To still further hold the rods 17 from longitudinal movement, I provide each of the cylindrical members 18 with thumb screws 21, said screws being formed with milled heads 22, as shown in Fig. 5. When screwed inwardly, these screws engage the brace rods 17 and hold the latter firmly against movement.

As will be understood, the upper or free ends of the brace rods describe a curve as the legs are folding; and, to permit such movement, the table may be cut away, as indicated by the dotted lines 23 in Figs. 1 and 2. When the legs are folded, it is desirable that they be held against movement; and, for this purpose, I pivot to the free ends of the brace rods 17 holding pawls 24, said pawls being provided with a projection or hook 25 that is adapted to enter a socket 26 in the lower end of the respective table leg. When thus engaged, the legs will be securely held in their folded positions, and to further secure them in this position, screws 21 may be screwed tightly against the rods 17. The socket 26 may also be used for casters when the table is unfolded. While the same has not been illustrated, the pawls 24 may be provided with springs so as to hold them in engagement with the legs.

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

1. In a folding article of furniture, the combination with a top and a pivoted leg, of a brace rod pivoted to the leg and slidably carried by the top, and means carried by the brace rod for engaging the foot of the leg when folded.

2. In a folding article of furniture, the combination with a top member, of a plurality of legs pivoted to said member so as to swing outwardly or to fold inwardly, brace rods pivoted to said legs, brackets secured below the top member, a cylindrical member journaled within each bracket, said latter members being each provided with an opening through which the respective brace rod extends, and means for securing said rods in their respective cylindrical members so as to hold the legs in either their extended or folded positions.

3. In a folding article of furniture, the combination with a top member, of leg supports secured to said member, a leg for and pivoted in each of said supports, a brace rod pivoted to each leg, a bracket for each brace rod, said brackets being secured below the top member, a cylindrical member journaled in each of said brackets, said latter member being provided with an opening therein through which the respective brace rod extends, and a pawl for and pivoted to each of said brackets, said pawls being adapted to engage the brace rods and lock them

against movement while the legs are extended.

4. In a folding article of furniture, the combination with a top member, of leg supports secured to said member, a leg for and pivoted in each of said supports, a brace rod pivoted to each leg, a bracket for each brace rod, said brackets being secured below the top member, a cylindrical member journaled in each of said brackets, said member being provided with an opening therein through which the respective brace rod extends, a pawl for and pivoted to each of said brackets, said pawls being adapted to engage the brace rods and lock them against movement while the legs are extended, and a set screw for each cylindrical member, said set screws being adapted for holding the rods against movement through the cylindrical members.

5. In a folding table, the combination with a top member, of a leg pivoted below said member, said leg having a socket in its lower end, a brace rod pivoted to said leg, means secured to the top member for engaging said rod and holding the leg in its extended position, and a hook on the free end of said rod for engaging in the socket in the leg when the latter is folded and thus holding the leg in its folded position.

6. In a folding table, the combination with a top member, of a leg pivoted below said member, said leg having a socket in its lower end, and a hook adapted to engage in the socket in the leg when the latter is folded and thus hold the leg in its folded position.

7. In a folding table, the combination with a top member, of a leg pivoted to said member, said leg being provided with a socket in its lower end, a brace rod pivoted to said leg, a bracket secured to the top member, means on said bracket for guiding the brace rod as the leg is folded and extended, a stationary pawl adapted to engage the said rod to hold the leg in its extended position, and a pawl on the end of said rod, said pawl being adapted to engage in the socket in the table leg when the latter is folded, whereby the leg is held in its folded position.

8. In a folding table, the combination with a top member, of a leg pivoted to said member, said leg being provided with a socket in its lower end, a brace rod pivoted to said leg, a bracket secured to the top member, a cylindrical member journaled in said bracket, said cylindrical member having an opening therein through which the brace rod passes, a pawl secured to the bracket and adapted to engage said rod to hold the leg in its extended position, and a pawl on the end of said rod, said pawl being adapted to engage in the socket in the table leg when the latter is folded, whereby the leg is held in its folded position.

9. In a folding table, the combination with a top member, of a leg support secured to said member, a table leg extending within said support, said leg having an opening therethrough, a bushing lining said opening, a pin extending through said support and through the bushing, a brace rod pivoted to said leg, a bracket secured to the top member, a cylindrical member journaled in said bracket, said latter member having an opening therethrough for the brace rod, a stationary pawl adapted to engage the brace rod and hold the leg in its extended position, and a second pawl adapted to enter the socket in the lower end of the leg and hold the latter in its folded position.

10. In a folding table, the combination with a top member, of a leg support secured to said member, a table leg extending within said support, said leg having an opening therethrough, a bushing lining said opening, a pin extending through said support and through the bushing, a brace rod pivoted to said leg, a bracket secured to the top member, a cylindrical member journaled in said bracket, said latter member having an opening therethrough for the brace rod, a pawl pivoted to said bracket so as to engage the brace rod and hold the leg in its extended position, a second pawl pivoted to

the end of the brace rod, said second pawl being adapted to enter a socket in the lower end of the leg and hold the latter in its folded position, and a set screw in the cylindrical member for holding the brace rod against accidental movement.

11. In a folding article of furniture, the combination of a top, a leg pivotally connected therewith, a bracket carried on the underside of the top, a member mounted to turn on an axis in said bracket, and a brace rod slidable through said member and connected with said leg.

12. In a folding article of furniture, the combination of a top, a leg pivotally connected therewith, a bracket carried on the underside of the top, a member mounted to turn on an axis in said bracket, and a brace rod slidable through said member and connected at one end with said leg, a hook carried by the brace rod near its other end, and means for locking the brace rod when the leg is extended.

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

WILLIAM L. DEMING.

Witnesses:

BRENNAN B. WEST,
OLIVER M. KAPPLER.