

No. 228,066.

A. B. HAYDEN.
Extension-Table.

2 Sheets—Sheet 1.

Patented May 25, 1880.

Fig. 1.

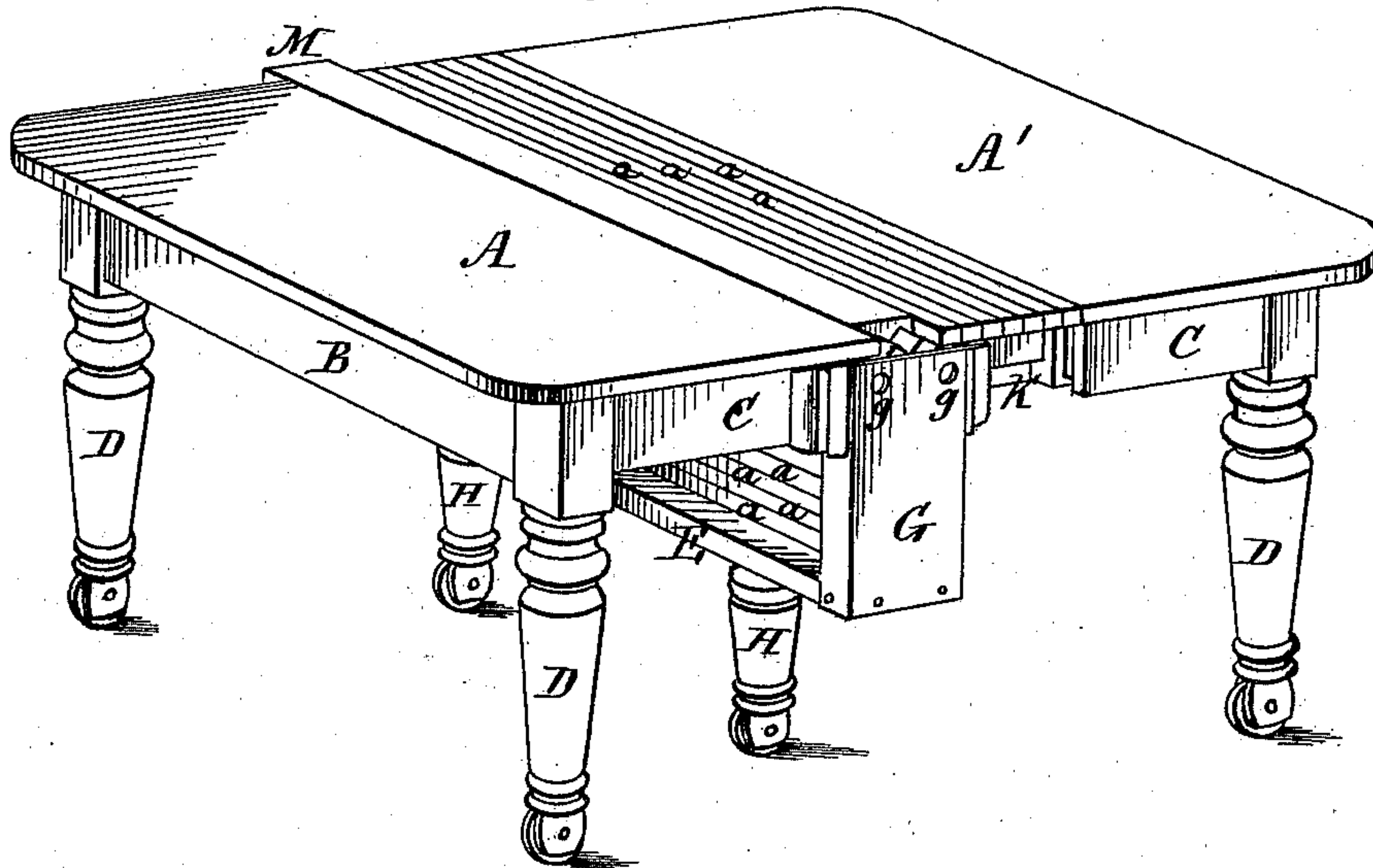
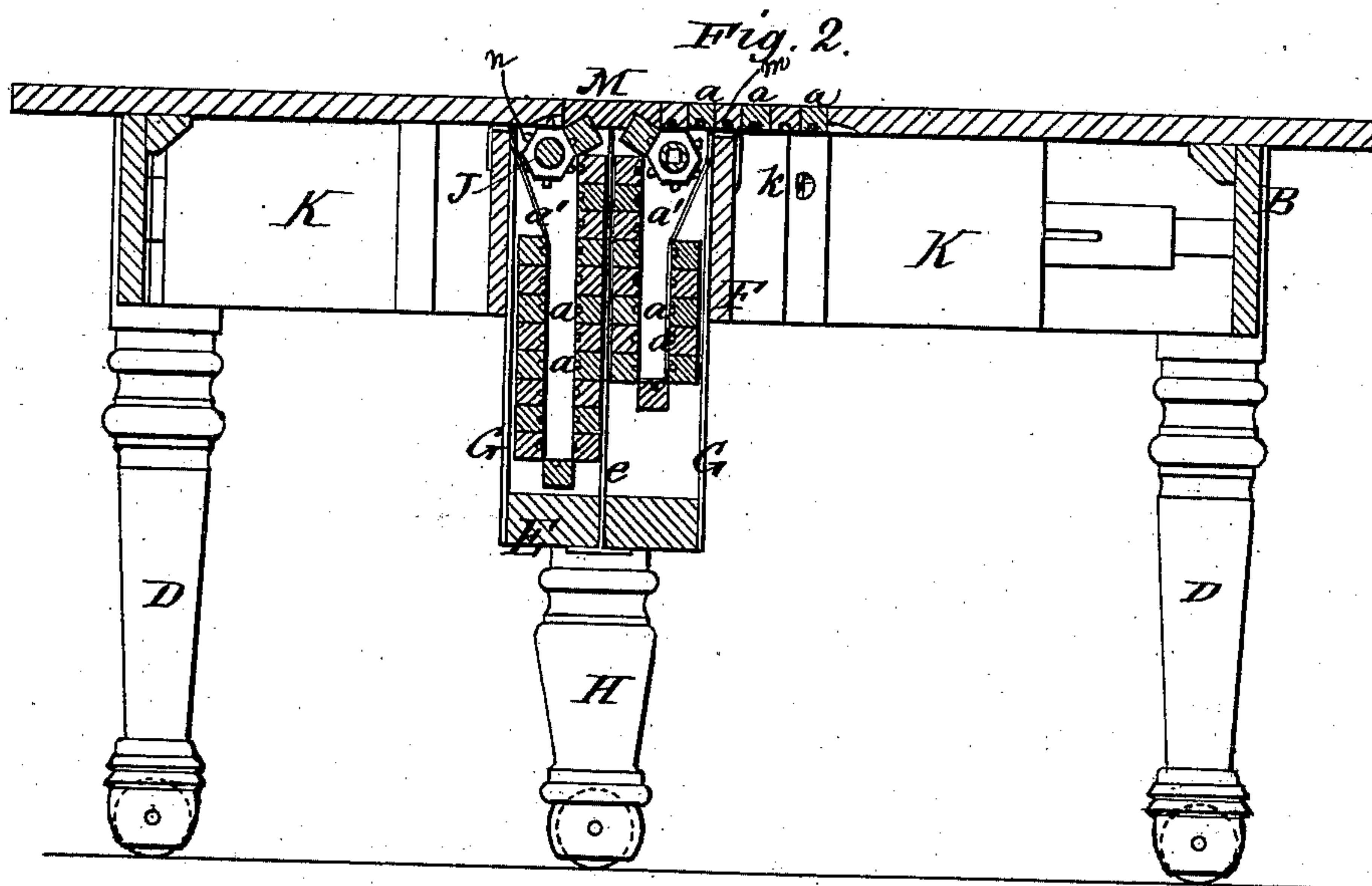


Fig. 2.



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Fig. 3.

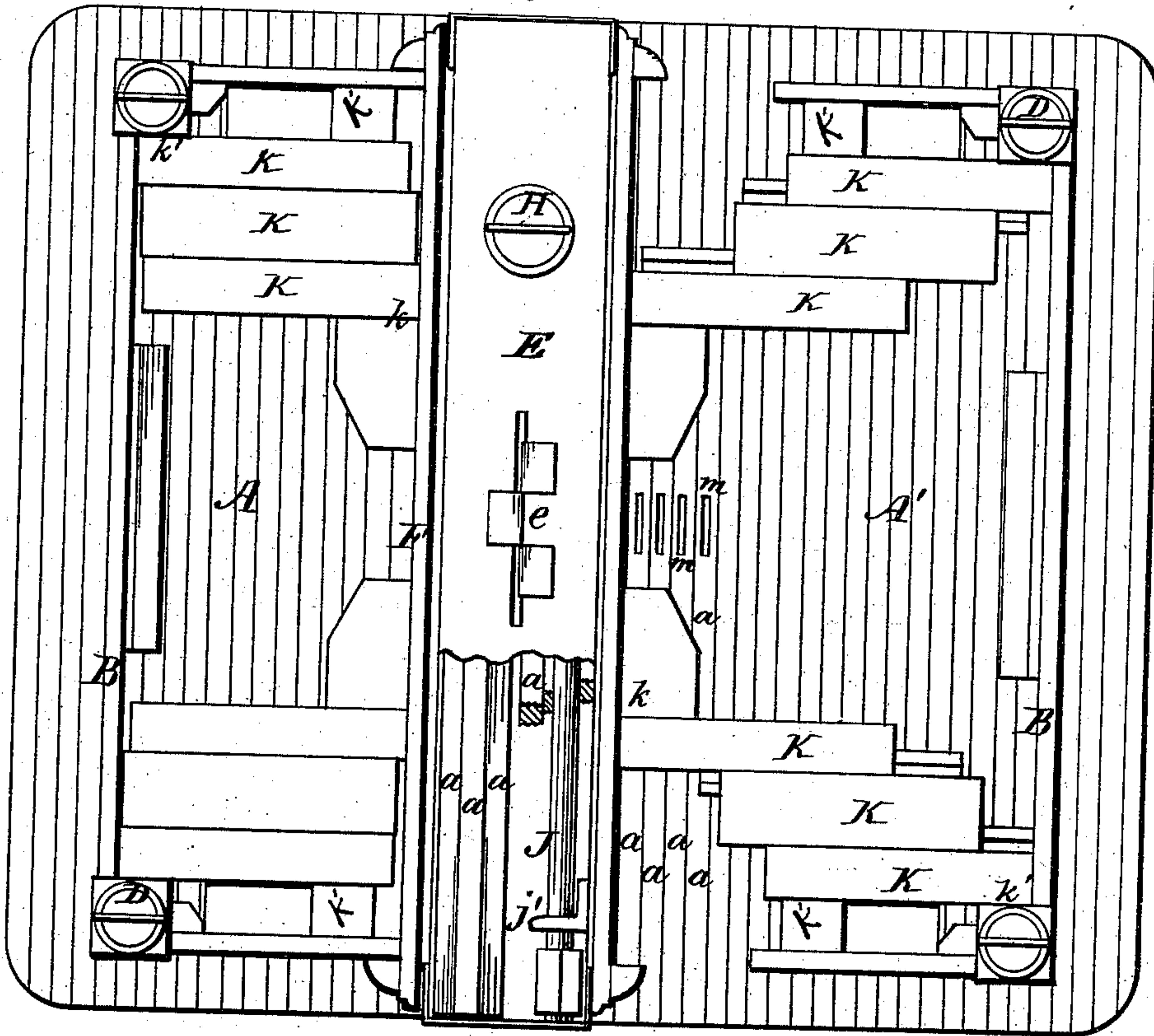


Fig. 4.

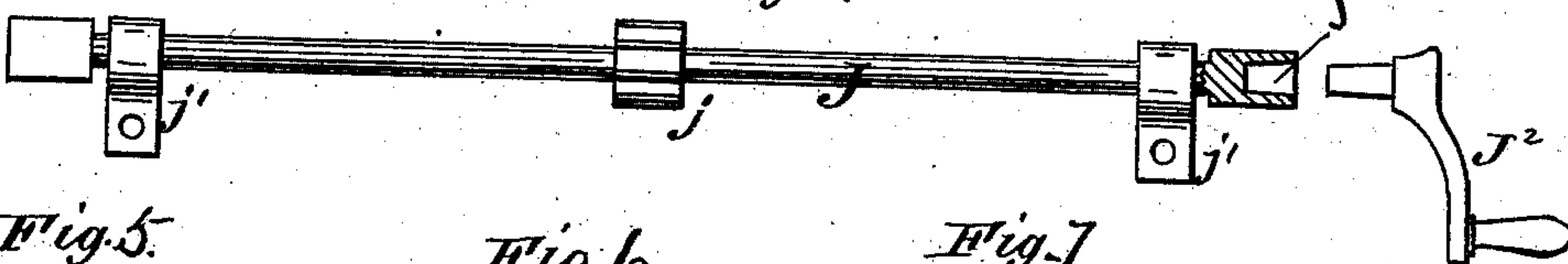


Fig. 5.



Fig. 6.



Fig. 7.

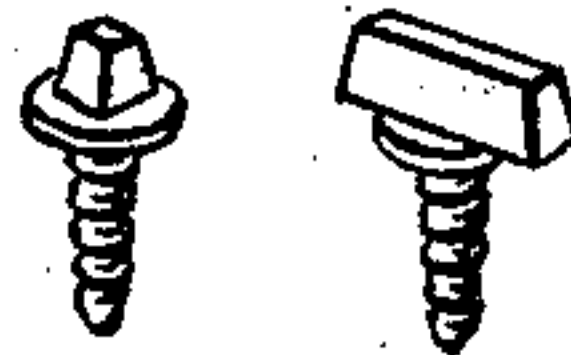
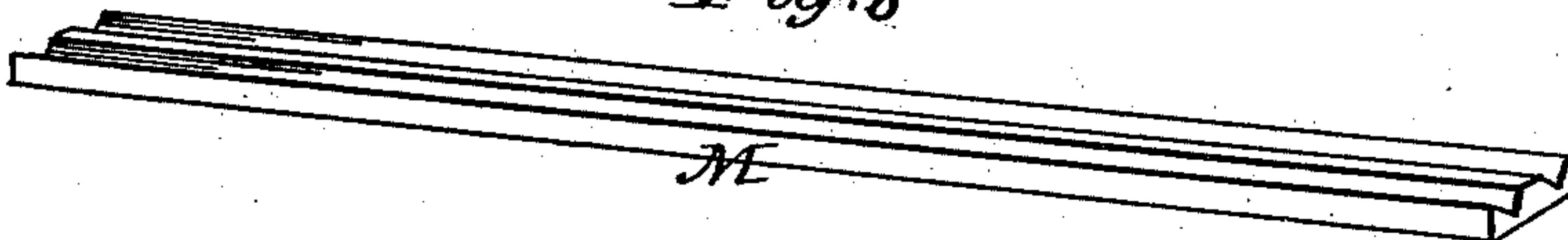


Fig. 8.



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UNITED STATES PATENT OFFICE.

AUSTIN B. HAYDEN, OF AUBURN, NEW YORK.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 228,066, dated May 25, 1880.

Application filed September 15, 1879.

To all whom it may concern:

Be it known that I, AUSTIN B. HAYDEN, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Extension-Tables; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of my extension-table partly extended, and with the central slat partly removed from its normal position. Fig. 2 represents a vertical section of the same. Fig. 3 represents, in plan, a bottom view of the same with the central portion partly removed to show internal parts. Fig. 4 is a crank-shaft and crank to operate the same. Figs. 5, 6, and 7 are detached views of parts to be secured to the under side of the slats forming the table-top. Fig. 8 is a bottom view of the central slat detached.

My invention relates to extension-tables in which the leaves are permanently united to the table and connected together by a flexible sheet or strip of canvas.

Heretofore in tables of this class the leaves or slats forming the flexible extension have been made to turn down, and either hang edgewise under the table and adjacent to each end of the solid central portion thereof, or the flexible portion has been wound around a roller or rolled under the table at or near the end thereof. The main objection to this construction is that the folded leaves or roll at the end of the table is in the way of persons sitting there, and if the extremity of the top projects too far to cover this roll it has not sufficient support from the frame or legs of the table.

The object of my invention is to remedy these defects by looping the flexible portion of the table-top in housings placed in the center thereof and operating the parts from said center by means of crank-shafts and gear-wheels or their equivalent engaging with the slats of the flexible portion to extend and contract the table.

My invention consists in an extension-table

provided with housings in the central portion thereof, and a flexible top adapted to be looped in said housings.

It consists, also, in providing an extension-table with a central support and four sets of slides, to extend it both ways from the center, and in providing it with a flexible top formed of slats united to webbing and operated by gearing or its equivalent located in the center of the table, as will be hereinafter described, and more fully pointed out in the claims.

In the drawings, A A' represent the two solid parts of the top of the table. Each of these solid parts is firmly fastened to one-half of the frame of the table in the ordinary manner—viz., to the end rails, B, and to the half of the side rails, C, the legs D of the table being secured to the corners or point of meeting of said rails B and C.

The central portion of the table is supported by a frame forming an open box or housing, composed of a bottom piece, E, and two upper rails, F, united at each end by a sheet-metal shield, G, the bottom piece, E, of the housing thus formed being supported by two legs, H. The housing or the upper rails thereof are connected to the frame or end rails, B, by means of four sets of slides, K, fastened to the rails F at *k*, and to the end rails, B, or side rails, C, at *k'*.

The above-described construction may be used to form an extension-table in connection with broad removable leaves, to be placed over the slides when extended, and also over the central housing.

But the object of my invention is mainly to produce an extension-table with permanently-connected narrow slats adapted to be rolled or looped within the central housing. For this purpose I secure, by means of glue or other suitable adhesive substance, a series of narrow slats, *a*, (generally three-quarters of an inch wide, or equal to the thickness of the table-top, although they may be from half an inch to an inch and a half,) to a piece of webbing, *a'*, and one end of this webbing is glued to the under side of the solid top of one-half of the table. The slatted webbing is then looped in the housing, as shown in Fig. 2, and

the free end of said webbing is secured to the upper rail, F.

To bring the slatted webbing close to the center of the table, support it there, and also to facilitate the extension and contraction of the table, a roller, J, is placed adjoining to each upper corner of the housing under the slatted webbing. This roller is preferably made hexagonal or polygonal, at least centrally and adjoining each end, to form flat bearings at these points for the slats, and is supported in suitable bearings j' , attached to the upper rails, F.

To facilitate the extension and contraction of the table, I provide this roller J with a central gear-wheel of a polygonal form, j' , having a tooth or projection, n , upon each face, each tooth to engage in a groove or mortise, m , formed centrally in the under side of each slat; and, as a protection to the mortises against wear, I strengthen the edge with a slotted plate, m' , as shown in Fig. 5.

In large tables I have reversed this arrangement and attached teeth or gears n' , as shown in Fig. 6, to the under side of the slats, to engage with a suitable central gear on the shaft J; and for smaller tables I have used for the same purpose simply a screw with a square or oblong rectangular head, as shown in Fig. 7.

To rotate either of the shafts J, I provide them at one or both ends with a socket, J' , into which a crank, J^2 , can be placed.

The position of the shaft or shafts with gears may be changed to the opposite side of the housing-rail F, if it is deemed advisable to have the gear-wheel engage with a rack running straight, instead of turning, as it does when passing over rolls placed within the housing.

In the manufacture of low-priced tables having this general appearance the crank, gears, and rack or mortises may be dispensed with, and plain wood rolls used within the upper part of the housing for the slats to pass over, and the table extended and closed by pulling apart or pushing together the solid ends, as in ordinary extension-tables.

Tables constructed as above described present a smooth top, with the exception of a small orifice in the center, where the flexible parts are bent in entering the central housing. This orifice is closed by a strip of wood, M, of suitable width and of a length equal to the width of the table. It has grooves on the under side to engage with the upper edge of the slat resting on the turn of the supporting-rolls, and when in position forms a part of the table-top, and a locking device, by its engagement with the "slats on the turn," keeping the table from extending or closing up by the weight of the slatted top, looped within the housing.

To make the orifice closed by the slat M as small as possible, each flexible half-top enters the housing close to the other, and to prevent

their mutual abrasion I place in the center of said housing a dividing-plate, e , of thin sheet metal; or, as a substitute, I connect the bottom piece, E, of the housing to the top slat, M, by two or more pieces of elastic webbing, that allow the top slat, M, to be only temporarily removed.

Ordinary cotton cloth or webbing may be used for the same purpose by making that connection slack.

The metal end pieces, G, of the housing have openings g , for the admission of the crank to the crank-sockets in the shafts J. These end pieces, G, are shown as plain and with square corners in the drawings; but their corners may be half round or molded to match the moldings on the edge of the table.

The solid portions A and A' of the table-top may be made of wide planks, as shown in Fig. 1, or of united slats matching the flexible portion.

Having now fully described my invention, I claim—

1. An extension-table provided with a central housing resting on legs and a central flexible top formed of two series of jointed slats, each series connected to the solid top at one end and to the frame or upper rail of the housing at the other end, and adapted to be looped in said central housing, substantially as and for the purpose described.

2. In an extension-table, the combination of two framed end sections, each section provided with two legs and a solid top, with a central housing carrying two rolls, and a flexible top attached to the solid top at one end and to the table-frame at the other end, and adapted to be looped in said central housing, substantially as and for the purpose set forth.

3. In a central housing of an extension-table, the combination of the bottom piece, E, rails F, and metallic end pieces, G, with upper rolls to support a slatted flexible top secured to the solid top at one end and to the table-frame at the other end, and adapted to be looped in said housing, substantially as described.

4. In an extension-table, the combination of two end frames, each supported on legs and carrying a solid top, with a central housing supported on legs and a flexible top made of two series of slats adapted to be looped therein, and four sets of slides, each set attached to and connecting the end frames with the central housing, substantially as and for the purpose described.

5. In an extension-table, the combination of two end frames, each supported on legs and carrying a solid top, a central housing supported on legs, rollers mounted in the upper part of the central housing, each roller carrying a gear-wheel, and a flexible top formed of connected slats provided with mortises or projections to engage with said cog-wheels, substantially as and for the purpose described.

6. In an extension-table, the combination
of two end frames, each supported on legs and
carrying a solid top, a central housing, sub-
stantially as described, and having rollers J,
5 a central flexible top made of two series of
slats united to the solid top at one end and
to the housing at the other end, and a central

slat, M, substantially as and for the purpose
set forth.

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