E. Brucker,

2. Sheets. Sheet 1.

Folding Table.

No. 106,318. Patented Aug. 16. 1870.

Fig. 1.

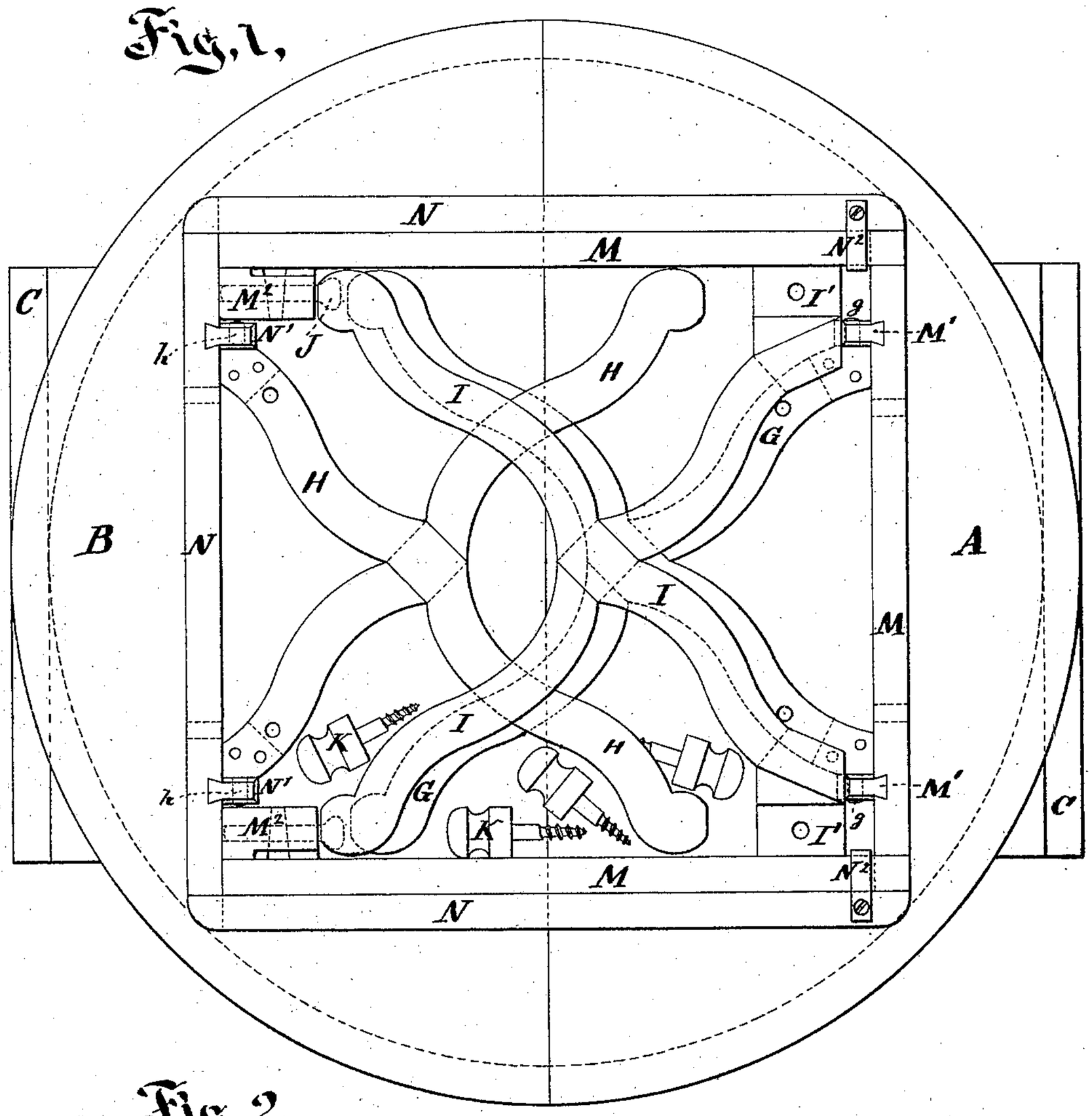
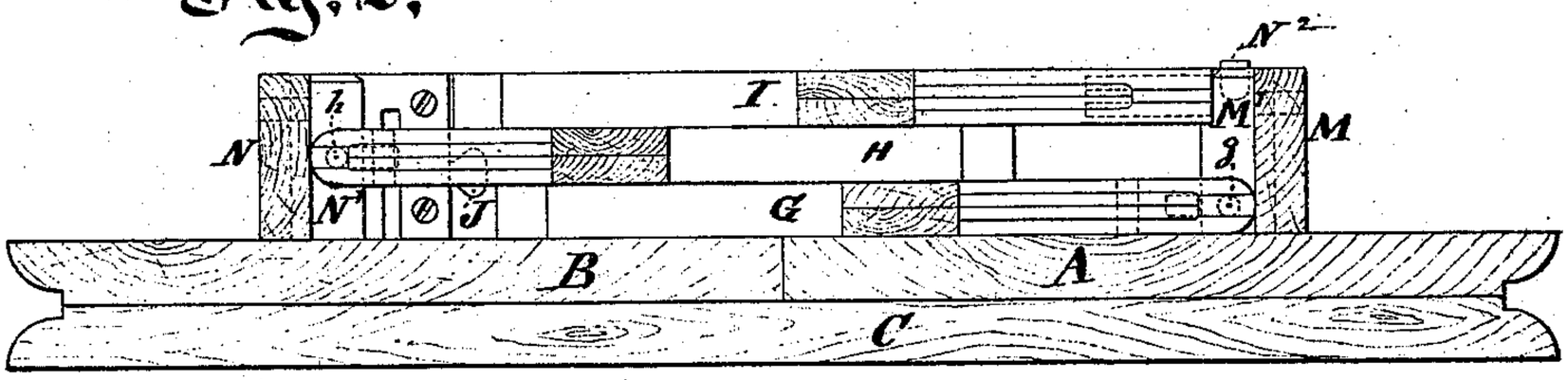


Fig. 2.



Witnesses,

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Wm. C. Dey

Inventor,

E. Brucker

by his Attorney F. P. Stetson.

2. Sheets, Sheet. 2.

E. Brucker,

Folding Table.

No. 106,318. Patented Aug. 16. 1870.

Fig. 3.

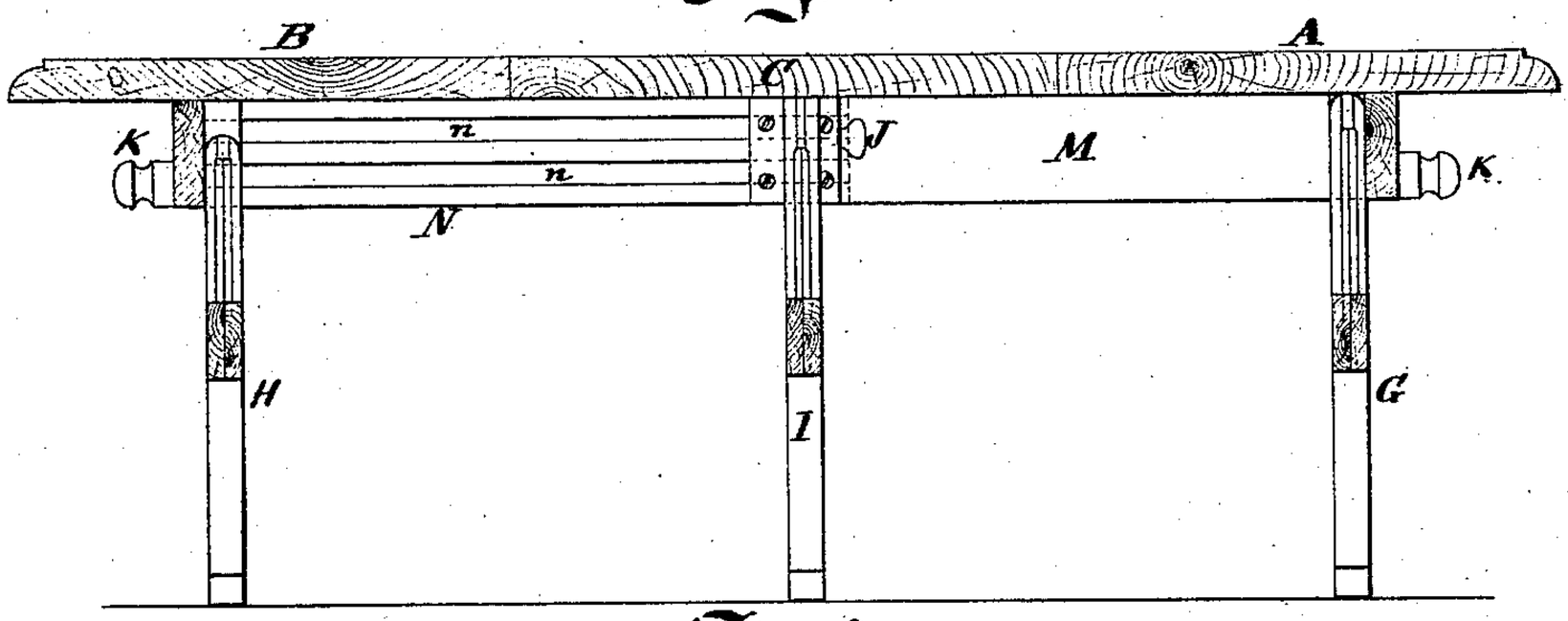


Fig. 4.

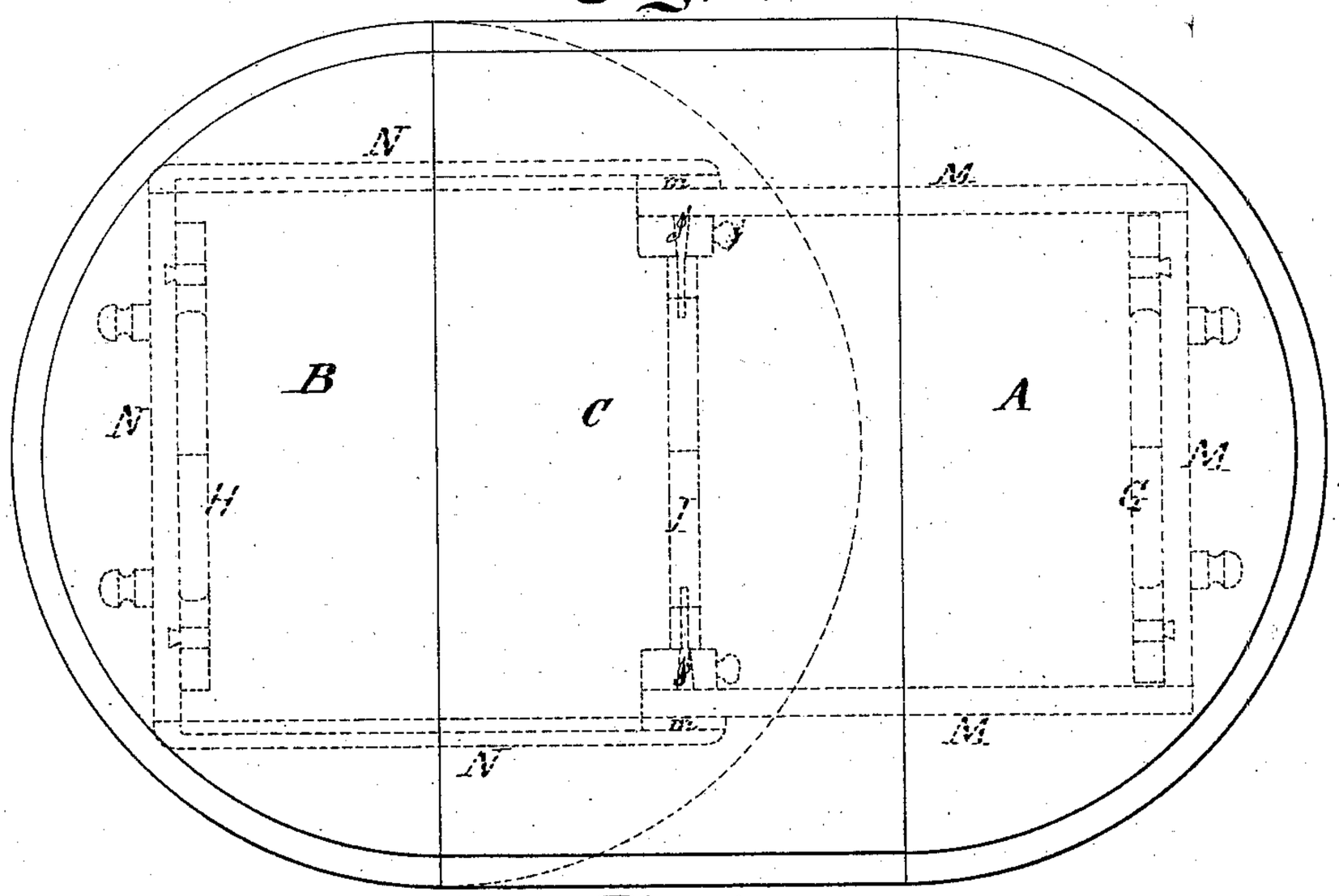
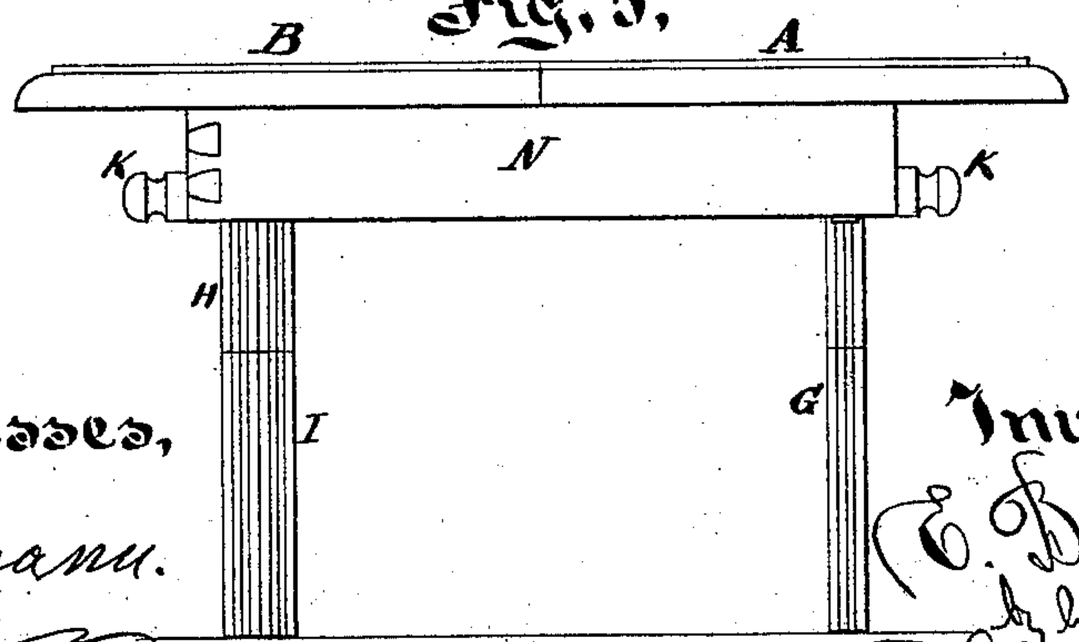


Fig. 5.



Witnesses,
A. Hoermann.
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Inventor,
E. Brucker
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United States Patent Office.

ERNST BRÜCKER, OF OLD TAPPAN, NEW JERSEY.

Letters Patent No. 106,318, *dated August* 16, 1870.

IMPROVED TABLE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern :

Be it known that I, ERNST BRÜCKER, of Old Tappan, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Tables; and I do hereby declare the following is a full and exact description thereof.

My invention relates to tables adapted for domestic and other purposes, and allows of their being changed in size, or extended and contracted to a moderate extent, sufficient to fulfill the conditions required in this respect in most ordinary families. It is well supported, and stiff at every point when in use, and is capable of being folded in a very small, compass for storage or transportation.

These qualities have been before attained in some degree, but my invention overcomes the difficulties, and makes a practicable and successful construction.

I will first describe what I consider the best means of carrying out the invention, and will afterward designate the points which I believe to be new.

The accompanying drawing forms a part of this specification.

Figure 1 is a plan view of the table in its closely-folded or compacted condition.

Figure 2 is a cross-section of the same.

Figure 3 is a cross-section of a table on a smaller scale, in its fullest expanded or extended condition.

Figure 4 is a plan view of the same.

Figure 5 is a side view of the table in an intermediate condition. Here the table is in a condition for use, but adapted to serve as a small table.

The dotted circle shown in fig. 4 gives the outline of the plan view of the condition shown in fig. 5.

Similar letters of reference indicate like parts in all the figures.

A is a semicircular board, of black walnut or other suitable material, and B is a corresponding board, mounted in the opposite position, so that, when the two are applied together by their straight edges, they will form a circular table.

M M M is a deep frame, firmly fixed on the under face of the partition A, and extending out beyond the edge thereof.

N N N is an analogous but larger frame, correspondingly fixed on the under surface of the part B. The frame N is sufficiently large to receive the framing M within it.

The frames N and M and their equivalents are adapted to slide together, and to slide apart, by dovetailed grooves and projections. There are two parallel dovetailed grooves, *n n*, on the interior surfaces of the two sides of the frame N. These receive projections, *m*, which extend out from the outer surfaces of the parallel sides of the frame M.

A stout, but thin hook, N^2, also extends out from the parts of the frame N, and reaching across the under edge of the adjacent portion of the frame M, turns up, and thereby strongly takes hold and compels the frames to be guided by each other as they are moved apart or together.

The effect of moving the frames apart is to separate the boards A and B by a considerable space, which is afterward to be filled with one or more boards, C, which may be secured in position by dowels, or other suitable means.

G and H are folding frames, which serve as legs, but which are adapted to fold very compactly within the frames M and N when the structure is to be packed. They may be formed by matching together properly-cut wood, or other suitable strong material, so that each frame supports the table upon two widely-spread feet. They are hinged by pivots, *g h*, on projections, M^1 N^1, within the corresponding frames M and N.

The frame G is taller than the frame H, and the pivots *g* are higher than the pivots *h*. When the frames are folded together the frame G lies up in contact with the under surfaces of the boards A B, and the frame H lies against the under surface of the frame G. When the frames G and H are extended, to serve as legs, they are rigidly confined in that position by means of stout hand-screws.

When the table is fully extended, it is important to provide an additional support for the center. I do this by means of a separate frame, I, which may have the same general form as the frames G and H, but is adapted to be entirely disconnected from the table when desired.

It is provided with narrow dovetailed tenons, I' I', which match into corresponding mortises in the enlarged ends M^2 of the frame M.

The frame I is introduced from above when the table is extended, and, of course, before the board C is applied.

When it has been firmly pressed down into its place, it is firmly secured at each side by a pin, J, which extends through a corresponding hole in the parts, as represented.

The arrangement of the frames G and H allows them to lie flat upon each other when the table is folded, and provides a sufficient space within the depth of the framing M N to receive, also, the frame I. One or more boards, C, may then be applied below the whole, and the structure occupies but a small space, while it is ready for convenient and rapid extension for use when required.

The connection of the central frame I affords a bearing the whole depth of the mortise, to resist a strain applied in the direction lengthwise of the table. The connection of my frames G and H affords a more than usual stiffness in this direction, as well as in every other, when the table is adjusted for use. The whole depth of the frame M is available in this posi-

tion as a bearing, to stiffen the frame G, and two-thirds of the depth of the frame is also available as a bearing to stiffen the frame H.

I have represented the work as entirely of wood, with the exception of a few portions which seem to require great strength within a small space. The hook N^2 is represented of thin metal, which may, in practice, be malleable cast-iron, and the part which carries the pivots *g h* may be made of the same material. I have represented the pivots *g h* as formed on a broad, thin casting or plate, which is fixed in a space provided in the center of the upper ends of the frames G and H, and firmly secured by screws.

I propose, in practice, to make a cast-iron shoe, which shall inclose the entire upper portions of the frames G and H, and to firmly bed in the wood cast-iron nuts, to receive the screws K; to make the thin mortises on the central frame I also of malleable cast-iron, and to make the pins J J of the same or other suitable metal. Many modifications of this kind may be made by any good mechanic, as will be obvious, without departing from the novel features of my invention.

I can, by making the frames M and N of hard wood, or other suitable strong material, and making them a little thinner than here represented, allow for one or more thicknesses of intermediate sliding frames, so as to increase the extent to which my table may be changed in its dimensions. The connections of the slides may, in such cases, be made on any of the approved plans, in making the corresponding parts of ordinary extension tables. The extra leg I may be kept in position for use in all the partially-extended conditions of the table, as also in the perfectly-closed condition. It is not, in such position, necessary to aid in supporting the table, but it tends to serve, to some extent, useful functions, and insures its being always at hand when the table is extended.

Some of the features of my invention may be used with advantage without the others. Thus, for example, I can use the folding legs G and H, arranged and mounted as herein represented, without the extra leg I.

I do not confine myself to the combination of all the features, or to the precise form here represented of the several details; but

Having now fully described my invention, together with what I esteem the best mode of carrying it out in practice,

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. The folding leg-frames G H, hung on centers *g h*, arranged one higher than the other, in combination with the extension frame M N of the table, and with confining means K, all adapted for joint operation, as herein specified.

2. In combination, the boards A B and frames M N, sliding upon each other, the folding legs G H, confining means K, intermediate frame I, and confining means J, all arranged for joint operation, as and for the purposes herein set forth.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

ERNST BRÜCKER.

Witnesses:

THOMAS D. STETSON,

A. HOERMANN.