(No Model.)

3 Sheets—Sheet 1.

J. GRUBE.

EXTENSION TABLE.

No. 355,817. Patented Jan. 11, 1887.

Fig. 1.

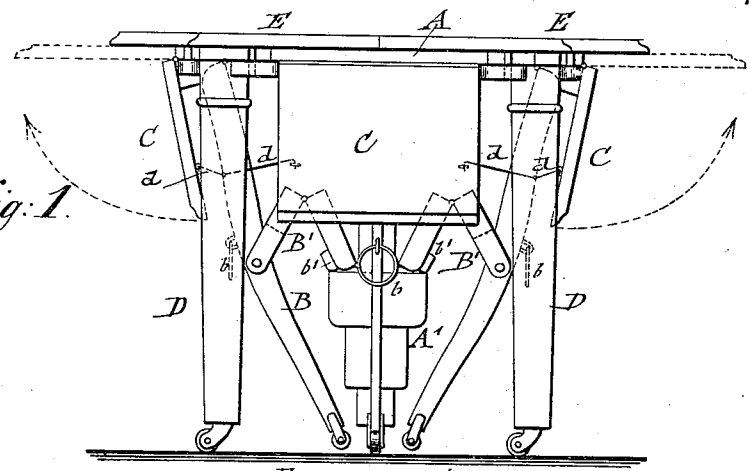


Fig. 2.

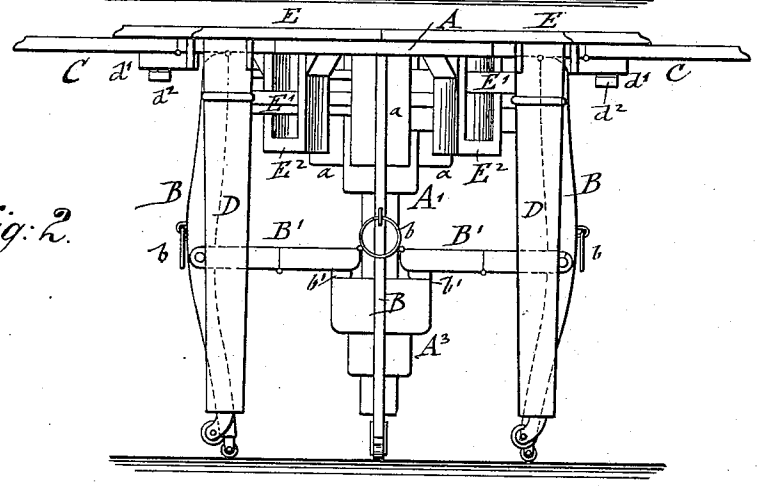
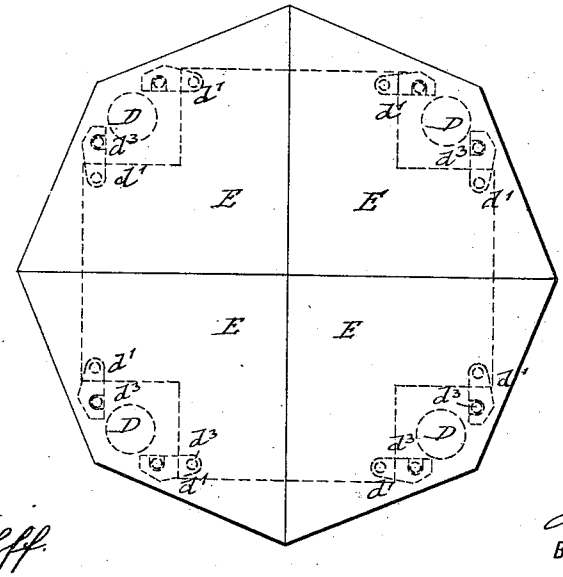


Fig. 3.



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(No Model.) 3 Sheets—Sheet 2.

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Fig. 4.

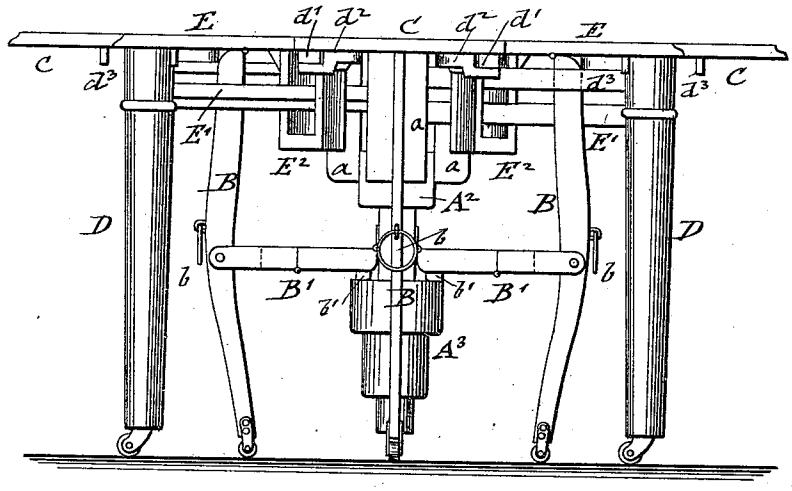
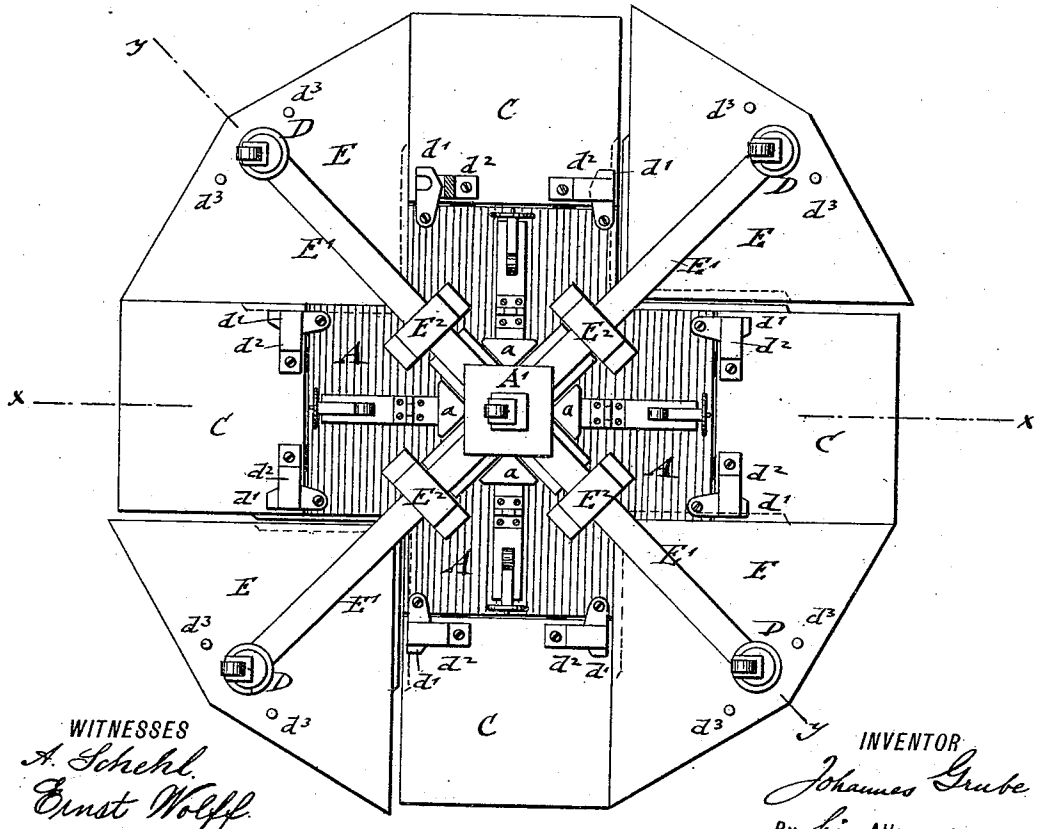


Fig. 5.



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Fig. 6.

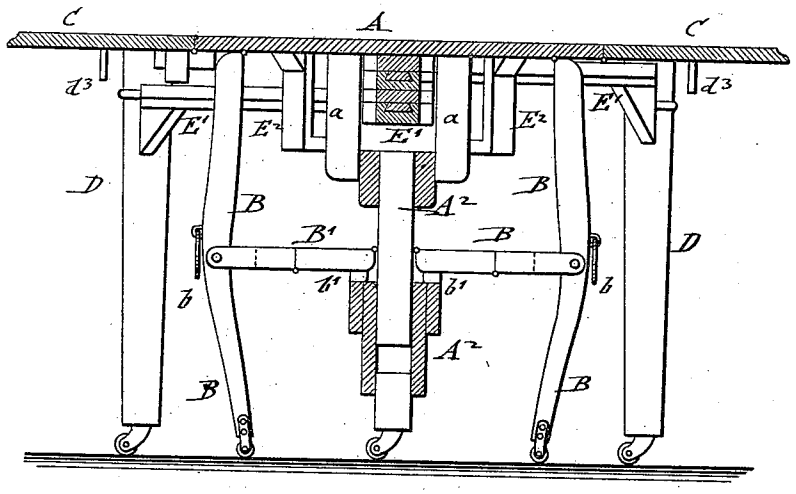
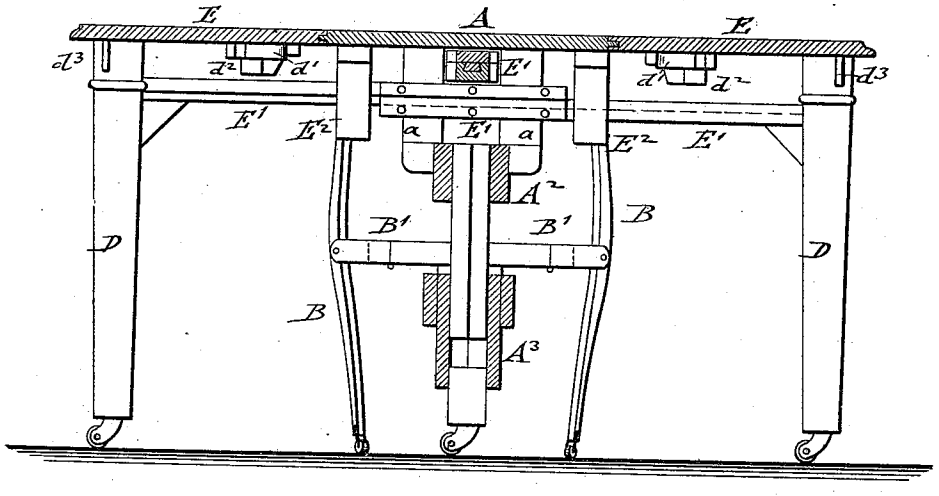


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHANNES GRUBE, OF NEW YORK, N. Y.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 355,817, dated January 11, 1887.

Application filed June 22, 1886. Serial No. 205,872. (No model.)

To all whom it may concern:

Be it known that I, JOHANNES GRUBE, of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Extension-Tables, of which the following is a specification.

This invention relates to an extension-table that is capable of extension in four directions, so as to make a larger or smaller table of round or polygonal shape; and the invention consists of an extension-table the middle cross-shaped part of which is provided with hinged leaves and supported by an extensible center pillar, and hinged auxiliary legs connected by toggle-levers to the center pillar. Adjustable corner extension-leaves are attached to diagonal extension-slides that are guided, one below the other, in keepers of the middle part. The adjustable corner leaves are supported on main legs and locked into one plane with the middle part and its extension-leaves, after being drawn out, so as to fill the corner spaces of the cross-shaped middle part.

The invention consists, further, of certain details of construction and combination of parts, which will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of my improved extension-table, showing it in its smallest state. Fig. 2 is a side elevation, showing the extension-leaves raised and the table supported on the hinged auxiliary legs. Fig. 3 is a plan of Fig. 1. Fig. 4 is a side elevation of the table in entirely extended position; Fig. 5, a bottom view of Fig. 4; and Figs. 6 and 7 are vertical central sections, respectively, on lines *x x* and *y y*, Fig. 5.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, A represents the middle part of my improved extension-table, which part is made in the shape of a cross having rectangular corners, as shown in dotted lines in Fig. 3, and in full lines in Fig. 5.

The middle part, A, is supported by a center pillar, A′, which is attached by four triangular pieces, *a*, to the part A, and made in two sections—a square top section, A^2, and a socket-shaped lower section, A^3, which latter has a caster at its lower end. To the middle part, A, are also applied hinged auxiliary legs B B, which are provided with casters at their lower ends and hinged rings *b b* at their middle parts, by which they are conveniently taken hold of when moved into vertical position. The hinged auxiliary legs B B are connected by hinged and toggle-jointed braces B′ with the square top section, A^2, of the center pillar, A′, and provided with small cushions *b′*, by which they rest on the lower socket-shaped portion, A^3, of the pillar A′.

By pushing in the auxiliary legs B B, so that the toggle-jointed braces B′ assume a V shape, as shown in Fig. 1, the legs B are retained in inwardly-inclined position, as shown in Fig. 1, close to the lower part of the center pillar, A.

The middle part, A, is provided at the outer edges with hinged extension-leaves C C, which are retained in downwardly-inclined position by means of hooks *d d*, pivoted to the main legs D D, as shown in Fig. 1.

To the main legs D D are rigidly attached four adjustable corner-leaves, E, of quadrantal shape, which are fitted closely to each other over the middle part, A, when the table is not extended, as shown in Figs. 1 and 3.

When the hinged leaves C C are placed into horizontal position, they are supported by pivot-lugs *d′ d′*, that engage keepers d^2 at the under side of the hinged leaves C C, the pivot-lugs *d′* being recessed, so as to engage fixed pins d^3 d^3 of the adjustable corner leaves, E E, and lock the same firmly together when they are placed over the middle part, A, as shown in dotted lines in Fig. 3. When the extension-table is in normally-unextended position, the adjustable corner leaves, E E, cover the middle part, A, and its hinged leaves entirely, in which position the table is supported on the main legs D D and the center pillar, A′, while the auxiliary legs B B are folded inwardly, as shown in Fig. 1.

The corner extension-leaves, E, are attached to diagonal extension-slides E′, which are guided in U-shaped keepers E^2 of the middle part, A, and arranged one below the other, the slides being extended through the keepers and attached at their outer ends to the main legs D D, as shown in Figs. 2, 4, and 5.

The slides E′ E′ of two diagonally-opposite extension-leaves, E, are guided by means of dovetailed cleats one upon the other, while the slides of the remaining corner extension-leaves

are guided in the same manner upon each other, but below the first pair of slides, as shown clearly in Figs. 6 and 7.

My improved extension-table is operated as follows: The hinged extension-leaves C C are first moved up into horizontal position and supported by the pivot-lugs *d d* in the same plane with the middle part, A, as shown in Fig. 2. The auxiliary legs B B are then moved outwardly by taking hold of the rings *b* until their hinged braces are fully extended and brought in line, so as to lock the legs in position, as shown in Fig. 2. In this position the table is supported on the auxiliary legs B B while the main legs D D are lifted away from the ground. Two diagonal corner extension-pieces, E, are next pulled out in opposite direction until they arrive in the spaces formed by the middle part, A, and its hinged extension-leaves C C, after which the other pair of corner leaves are pulled out and placed in position in the remaining spaces of the middle part, A, and leaves C C. The corner extension-pieces, E, are then locked by the projecting cleats or tongues at one of their sides to the correspondingly-grooved sides of the middle part and its extension-leaves C C, while cleats of the part A and leaves C C engage grooves in the sides of the corner leaves, E, as shown in Fig. 5. Before the interlocking of the corner leaves with the part A and its extension-leaves C C can be accomplished the corner leaves, E, and the main legs D D have to be lowered to the level of the middle part, together with their extension-slides, so as to assume the position shown in Fig. 4. The lowering of the corner leaves, E E, main legs D D, and extension-slides E′ is facilitated by the guiding action exerted by the triangular pieces *a a* and the keepers E^2 of the middle part, A. The corner leaves, E, are then pushed inwardly, so as to lock with the middle part, A, and the hinged leaves C C, the table being then ready for use as an enlarged center-table.

For setting the table into contracted position the corner leaves are first drawn outwardly, so as to be unlocked from the middle part and its leaves, and are then lifted over the middle part and pushed toward each other until the corner leaves cover entirely the middle part. The hinged braces of the auxiliary legs are then moved in upward direction and the auxiliary legs drawn inwardly toward the center pillar, whereby the table is lowered so as to rest again on the main legs and center pillar, as shown in Fig. 1. The hinged extension-leaves are then lowered and locked by the pivot-hooks to the main legs, after which the table is in normal position for use, as shown in Fig. 1. The extensible center pillar adjusts itself to the change of height of the middle part, so as to support always the center of the same.

My improved extension-table has the advantage that it can be enlarged whenever required in four directions, so as to furnish a round or polygonal table of greater size, which is especially useful for sitting-rooms, while it takes up but a small space when in contracted state. Another advantage is, that my extension-table can be used conveniently for playing cards and other games, in which case simply the hinged leaves of the middle part are raised, which, being below the level of the middle, serve to support the glasses, ash-cups, &c., while the middle portion is used for playing.

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

1. The combination of a cross-shaped middle part, having a center pillar, hinged auxiliary legs, and hinged extension-leaves, with adjustable corner extension-leaves having main legs and extension-slides, said adjustable corner leaves being adapted to cover the middle part when pushed over the same, or to fit into the angular spaces of the same when drawn out, substantially as set forth.

2. The combination of a cross-shaped middle part having hinged extension-leaves, an extensible center pillar attached to the middle part, and formed of an upper square section and a lower socket-shaped section, auxiliary legs hinged to the middle part and connected by hinged braces with the center pillar, and corner extension-leaves having main legs and extension-slides guided in fixed keepers of the middle part, substantially as set forth.

3. The combination of a cross-shaped middle part having hinged extension-leaves, hinged auxiliary legs, and an extensible center pillar, recessed lugs pivoted to the middle part and engaging keepers of the hinged leaves, and adjustable corner extension-leaves having main legs and diagonal extension-slides, said corner leaves having fixed studs that interlock with recessed pivot-lugs, substantially as set forth.

4. The combination of a cross-shaped middle part having a center pillar, auxiliary legs hinged to the middle part, and hinged braces connecting the auxiliary legs with the center pillar, substantially as set forth.

5. The combination of a cross-shaped middle part having hinged extension-pieces, and means for locking the same in horizontal position, auxiliary legs hinged to the middle part, an extensible center pillar, hinged braces connecting the auxiliary legs with the extensible pillar, extension corner leaves, main legs attached to said leaves, diagonal extension-slides connecting said legs, and keepers attached to the middle part for guiding said diagonal extension-slides, one pair of slides being located below the level of the other pair of slides, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHANNES GRUBE.

Witnesses:
PAUL GOEPEL,
SIDNEY MANN.