

(No Model.)

2 Sheets—Sheet 1.

H. COBHAM, Jr.
EXTENSION TABLE.

No. 482,620.

Patented Sept. 13, 1892.

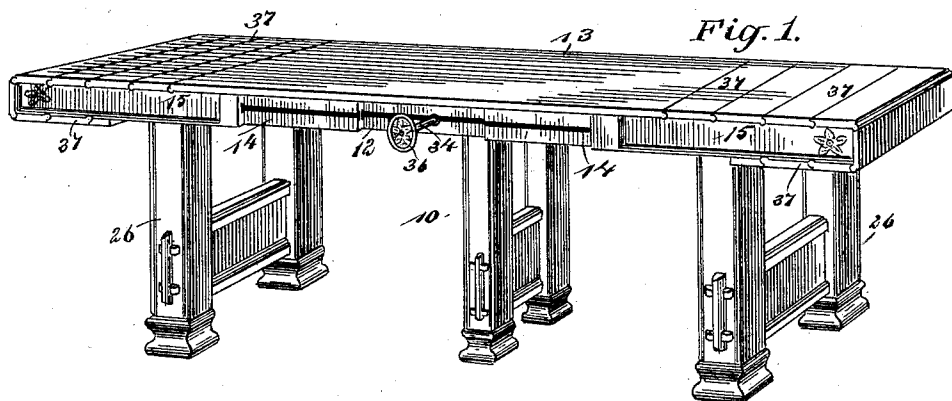
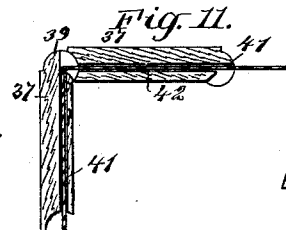
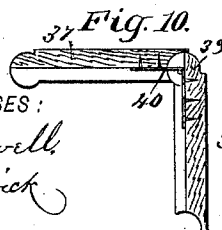
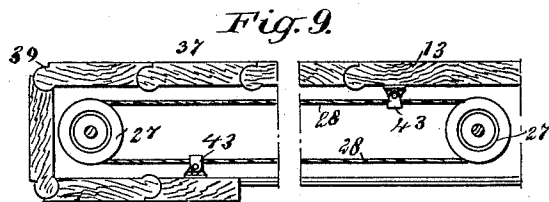
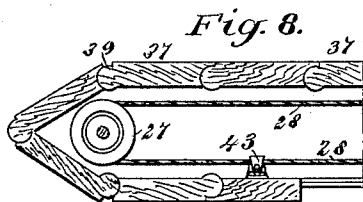
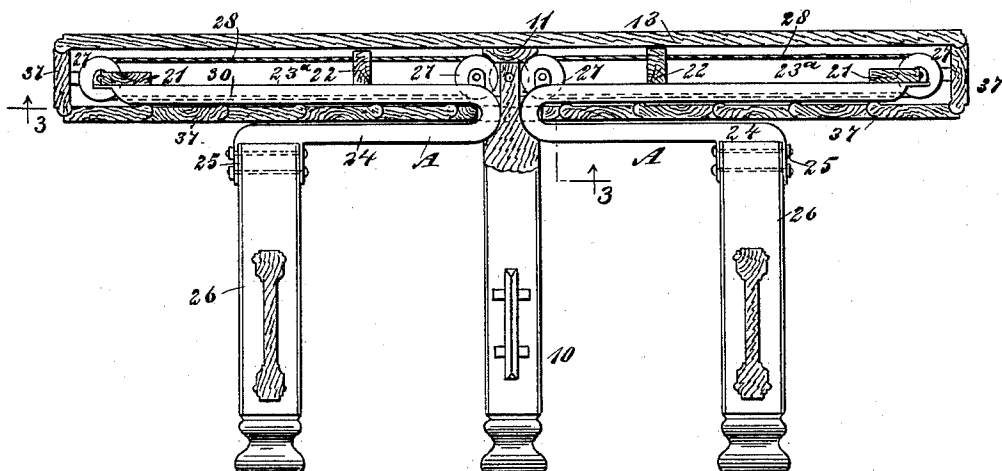


Fig. 2.



WITNESSES:

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INVENTOR

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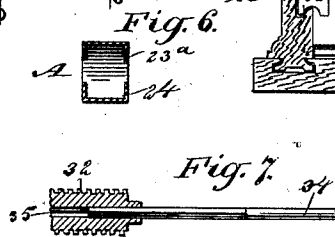
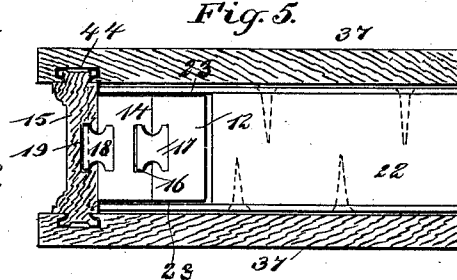
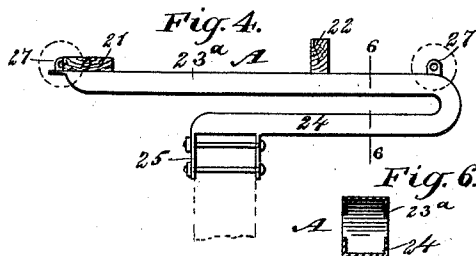
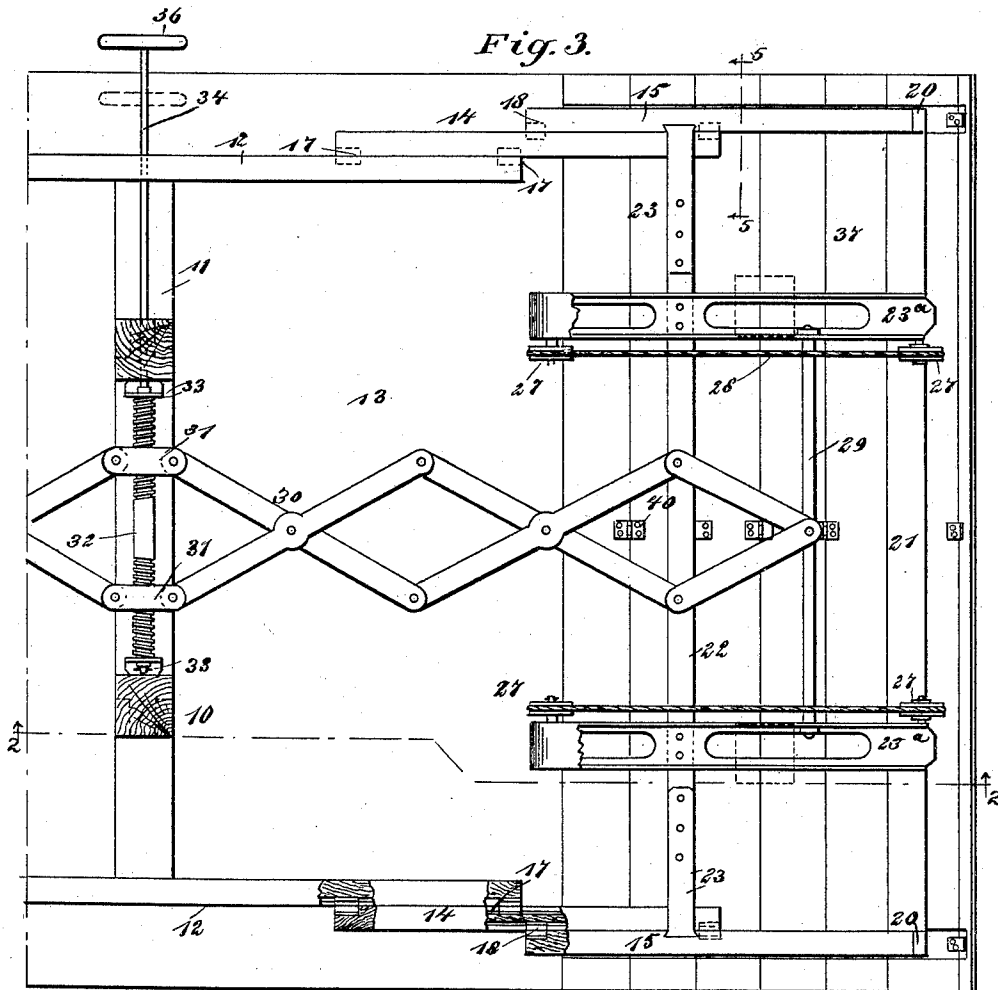
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2 Sheets—Sheet 2.

H. COBHAM, JR.
EXTENSION TABLE.

No. 482,620.

Patented Sept. 13, 1892.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY COBHAM, JR., OF WARREN, PENNSYLVANIA.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 482,620, dated September 13, 1892.

Application filed March 25, 1892. Serial No. 426,362. (No model.)

To all whom it may concern:

Be it known that I, HENRY COBHAM, Jr., of Warren, in the county of Warren and State of Pennsylvania, have invented a new and useful Improvement in Extensible Tables, of which the following is a full, clear, and exact description.

My invention relates to improvements in extensible tables, especially to an improvement in that style of table known as the "roll-top."

The object of the invention is to provide a means whereby the ends of the table will present a square flat appearance and whereby the table will not only be exceedingly durable and simple in construction, but will also be very economic.

Another object of the invention is to provide a simple means for extending and contracting the table-top and to so construct the upper portion of the table that each and every part thereof will work noiselessly and with the least possible amount of friction.

It is another object of the invention to provide brackets connected with the top of the table and moving with the movable parts thereof, to which brackets legs may be expeditiously and conveniently secured.

It is a further object of the invention to construct a roll-top table in such a manner that when it is carried to its reduced position it will not be apparent that said table is an extension-table, and whereby when it is extended to its full length the top will be perfectly flat and as strong as an ordinary table, and also to provide a means whereby the adjusting mechanism when the table is folded will be concealed, it appearing as an ornament.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improved table, it being illustrated as extended to nearly its extreme length. Fig. 2 is a longitudinal section taken through the table, practically on the line 2 2 of Fig. 3, the table

being in its closed position. Fig. 3 is a partial bottom plan and sectional view of one-half of the table, the section being taken practically on the line 3 3 of Fig. 2, and thus the lower leaves are not visible. Fig. 4 is a side elevation of one of the brackets adapted for supporting the legs and removed from the table. Fig. 5 is a transverse section taken practically on the line 5 5 of Fig. 3, illustrating the relative positions of the side boards of the table. Fig. 6 is a transverse section through the bracket shown in Fig. 4, the section being taken practically on the line 6 6 of that figure. Fig. 7 is a sectional view of a portion of the adjusting-screw and the adjusting-stem connected therewith. Fig. 8 is a section taken longitudinally through a portion of the rolling section of the table, illustrating two of the sections as turning a corner. Fig. 9 is a similar section to Fig. 8, illustrating, however, one section forming an end of the table. Fig. 10 is a transverse section through two slats of the rolling section, illustrating one means of connecting them; and Fig. 11 is a similar view illustrating another means of uniting the slats.

In the construction of the table the central legs 10 are adapted to remain stationary, and the said legs support a cross-beam 11, to which beam at its ends fixed side rails 12 are attached in any suitable or approved manner, these rails extending longitudinally beneath the table-top. The central section of the table-top is rigidly secured to the cross-beam 11 and is stationary with the legs. This top is designated in the drawings as 13, and the length of the stationary top represents the length of the table when the top is in its folded or collapsed position.

In addition to the fixed side rails 12 two or more auxiliary rails 14 and 15 are preferably employed. Ordinarily two are sufficient, as shown in the drawings, and these auxiliary rails are adapted to slide one upon the other, and the inner of the auxiliary rails slides upon the outer faces of the fixed rails 12. The outer auxiliary rails 15 are adapted to constitute the outer side rail of the table-top when the table is folded. It will be understood that there are two sets of rails at each end of the table, each set comprising a fixed rail 12 and auxiliary rails 14 and 15. These

rails are made to move one upon the other by producing upon the inner face of the inner auxiliary rail 14 a groove 16, adapted to receive blocks 17, secured to or embedded in 5 and projecting from the outer faces of the inner fixed rails 12, and similar blocks 18 are secured in and project from the outer faces of the auxiliary rails 14. These latter blocks 18 slide in ways 19, produced in the inner 10 faces of the outermost auxiliary rails 15, as is best shown in Fig. 5. The outer ends of the outer auxiliary rails 15 are preferably beveled, as shown at 20 in Fig. 3, and the said ends of these outer auxiliary rails are connected by cross-bars 21, as is best shown in 15 Fig. 3. The outer auxiliary rails 15 are also connected between their inner ends and center by a second cross-bar 22, and the intermediate or inner auxiliary rails 14 and likewise 20 the ends of the fixed rails 12 must pass through the cross-bar 22. To that end the bar is solid only for a portion of its length, each end having attached thereto at top and bottom a strap 23, and these straps are sufficiently spaced to 25 admit of the inner auxiliary rails 14 passing between them and likewise the ends of the fixed rails, while the outer extremities of the straps are embedded in any approved manner in the outer of the auxiliary rails 15, as 30 is likewise best shown in Fig. 3.

Longitudinally of the table-top, between the center and each side at each end, a bracket A is secured to the cross-bars 21 and 22. These 35 brackets are of the return pattern and comprise an upper horizontal preferably-straight member 23^a, which is secured to the cross-bars 21 and 22 and extends from the outer cross-bar 21 inward beyond the inner cross-bar 22 and a return member 24, parallel with 40 the upper member 23^a, the latter member being produced by curving the brackets downward at their inner ends and carrying the member 24 thus produced in direction of the outer end of the upper member to a point at 45 or near the center of the latter. At the extremity of this lower member a socket 25 is formed, and these sockets of the brackets are adapted to be firmly attached to the end legs 26 of the table. These legs are removable 50 ones and are adapted to be carried in direction of or away from the fixed central leg 10. The upper member of each of these brackets A at each end is provided with a pulley 27. These pulleys revolve loosely upon their bearings, and the pulleys of each bracket carry an 55 endless cable 28.

The brackets at each end of the table are connected by a rod or bar 29, and to each rod or bar 29 the outer extremity of a set of lazy-tongs 30 is secured. These lazy-tongs beneath 60 the central fixed cross-bar 11 have short link-sections 31, and these link-sections are provided with apertures, the walls of which are threaded, the aperture in one link being 65 threaded with a left-hand thread and the aperture in the other link with a right-hand thread. The lazy-tongs are drawn together

or contracted or forced outward or expanded through the medium of an adjusting-screw 32. This screw is held to turn at its ends in boxes 70 or brackets 33, as shown in Fig. 3, attached to the fixed cross-bar 11. The central portion of this screw is smooth and unthreaded. One end, however, is provided with a right-hand and the other with a left-hand thread, and 75 these ends pass through the correspondingly-threaded apertures in the links 31 of the lazy-tongs. Thus it will be observed that by operating the screw 32 in one direction the lazy-tongs will be forced outward or lengthened, 80 and when turned in the other direction the tongs will be brought together or contracted longitudinally. This manipulation of the adjusting-screw is accomplished through the medium of a rod 34, which rod at its inner 85 end is preferably made polygonal in cross-section and enters a correspondingly-shaped bore 35 in the screw, as shown in Fig. 7. While the polygonal portion of the rod is in the screw the latter may be turned. The rod 90 extends outward through one of the fixed side rails 12 and terminates in a hand-wheel 36, a knob, or the equivalent thereof, and when the table is closed the rod 34 may be pushed far enough into the screw 32 to bring the hand-wheel 36 close to the outer side rail, and the 95 wheel when properly ornamented will appear simply as an ornament.

In order to make the brackets A as light as possible, their upper members are preferably 100 provided with longitudinal openings, and the brackets are made from thin metal and flanged at the sides, as shown in Fig. 6.

In addition to the board 13, forming the fixed top of the table, a series of transverse 105 slats 37 is employed. These slats constitute the roll-top portion of the table and are of such width that one of them when located at the end of the table will form a perfect end surface therefor. These slats 37 are connected 110 by a table-joint, as illustrated at 39 in Figs. 10 and 11—that is to say, while the joint may be termed a “table-joint,” it is practically a ball-and-socket one—but the movement of one leaf or slat 37 upon the other is vertical only. 115 In Figs. 10 and 11 two ways are illustrated for hinging these slats or leaves. In Fig. 10 I have shown an ordinary hinge 40, secured to the under surfaces of the slats at their abutting ends, and any desired number of 120 hinges may be used to connect two opposing slats. In Fig. 11 the slats are provided with transverse bores 41, extending through from side to side, and the hinge connection is effected by passing a cable 42 or the equivalent 125 thereof through all of the aligning bores in the slats, the ends of the cable being secured in any suitable or approved manner. These slats when the table is closed, as shown in Fig. 2, are adapted to lie beneath the table and 130 will enter the spaces between the upper and lower members 23^a and 24 of the brackets A, and the innermost slats will constitute the ends of the table. When the table is extended,

the slats are removed from the bottom upward, taking their position as shown in Fig. 1. This movement of the slats simultaneously with the carrying outward of the legs 26 is effected, primarily, by the outward extension of the lazy-tongs 30; but the lower slats are held in proper position with respect to the upper slats—that is, in parallel position—by means of clips 43, one secured to the under surfaces of the outermost slat of each series and one to the under surface of the solid top near its outer edge, which clips are attached to the cables 28. It is necessary only, ordinarily, that but two clips should be connected with each endless cable, and they are arranged as shown in Fig. 9. As the table is extended the slats turn the corner, as shown in Fig. 8. Therefore the beveling of the ends of the rails 20, over which these slats must pass, and when the table is extended as far as it is possible to do so the slat next to the outermost one—that is, the outermost of each end series—will constitute the end of the table and the top will be perfectly flat, as the slats at the top will run upon the outer rails 15 and be held with their upper faces level.

In order to insure a perfect movement of the slats upon the rails 15, the latter are dovetailed at their upper and lower edges, as shown in Fig. 5, to enter undercut slots 44, formed in the under faces of the slats near their ends.

It will be observed that a table of this construction is not only simple, durable, and economic, but that it is capable of being artistically finished and may be made to constitute an ornamental piece of furniture for a dining-room, a library, or other apartment in which such tables are employed. When the table is in its closed position, the inner ends of the outer side rails 15 will abut, and as all of the slats, with the exception of the slats constituting the ends of the table, will be concealed from view the table will appear as an ordinary one.

The principal features of the table may be mentioned, as follows: first, the turning of a square corner; second, the use of wide sections, rendering the table when extended very smooth and level; third, the rapidity and ease with which the expanding and contracting medium may be manipulated; fourth, the method of attaching the legs, and, fifth, the entire absence of friction at the ends of the table as the sections fold in or out, as the sections are not “pulled” around the corner by force of the extending frame, but the proper motion is transmitted to the lower sections by the endless cords passing over

friction-rollers. Hence as the sections come to the end they fold over without strain upon the joints or friction of any kind whatever.

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

1. In an extension-table, the combination, with the sliding rails, of a top formed of a central fixed section and end sections hinged to the central section and formed of a series of slats hinged together, and depending brackets carrying the end legs and receiving the slats of the end sections between the members thereof, substantially as described.

2. In an extension-table, the combination, with the sliding rails, of brackets carried by the rails, having parallel and spaced members and provided with sockets, end legs secured in the said sockets, and a top consisting of a fixed central section and end sections hinged to the central section and formed of hinged slats adapted to enter the space between the members of the brackets when the table is contracted, substantially as described.

3. In an extensible table, the combination, with a fixed top section and roll-sections connected with the fixed section at its ends, the said roll-sections consisting of a series of hinged slats, of side rails adapted to slide beneath the roll-sections, brackets supported by the side rails and adapted as supports for the legs of the table, and an expanding and contracting medium operated from the fixed portion of the table-top and connected with the sliding side rails, as and for the purpose set forth.

4. In an extensible table, the combination, with a fixed top section, roll-sections connected with the ends of the fixed section, and sliding side rails adapted as an upper and lower support for the roll-sections, of beam connections between opposite sliding side rails, return-brackets attached to the said beams and adapted as supports for the lower folds of the roll-sections, said brackets being provided with sockets to receive legs, friction-rollers carried by the brackets, endless cables passed over the friction-rollers of each bracket and connected with the roll-sections and top, and an expanding and contracting mechanism, substantially as shown, connected with the sliding side rails, as specified.

HENRY COBHAM, JR.

Witnesses:

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W. V. N. YATES.