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CEILING SUSPENDED ELEVATABLE TABLE

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FIG. 1.

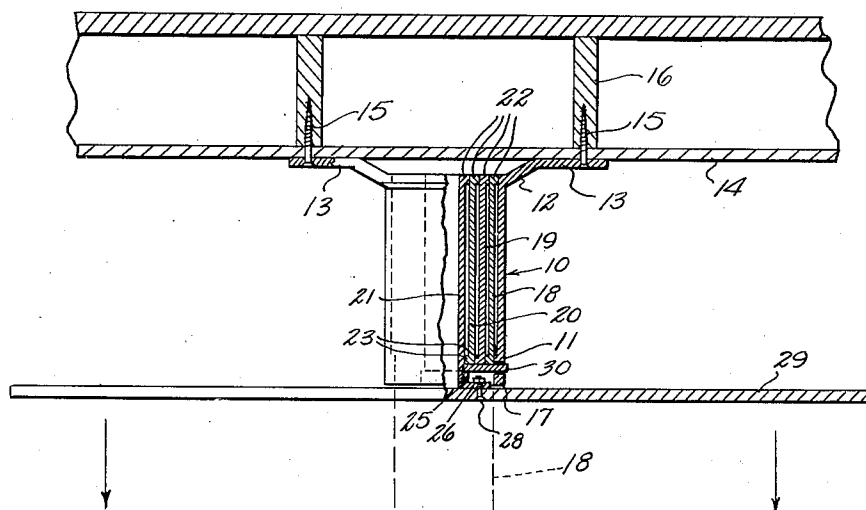


FIG. 2.

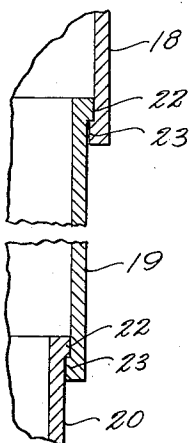


FIG. 3.

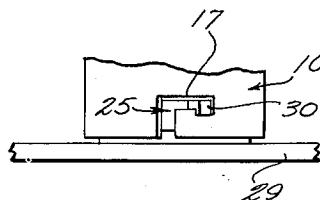
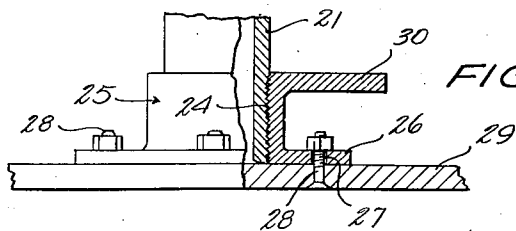


FIG. 4.

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## UNITED STATES PATENT OFFICE

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## CEILING-SUSPENDED ELEVATABLE TABLE

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2 Claims. (Cl. 311-17)

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My invention relates to an improved ceiling-suspended, elevatable table.

A primary object of my invention is to provide a ceiling-suspended table for use in homes, apartments and the like, the table being constructed so that it can be readily raised and lowered with minimum effort by a housewife.

A further object of the invention is to provide a ceiling-suspended, elevatable table which may be raised to an inoperative or stowed position close to the ceiling, so as to be well out of the way of occupants of the room.

A further object is to provide a ceiling-suspended table of the above-mentioned character which may serve as a dining, card, cocktail table or the like, and which is highly simplified in construction, compact, sturdy and durable.

A further object is to provide a ceiling-suspended, elevatable dining room table having no depending legs to interfere with the occupants seated about the table, the table being neat and attractive in appearance, and very easy to install.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application, and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a fragmentary vertical transverse central section taken through a ceiling suspended elevatable table embodying my invention, partly in elevation, the table being shown in a lowered or operative position in dotted lines;

Figure 2 is an enlarged fragmentary, central, vertical, transverse, sectional view through extended or lowered telescopic tube sections;

Figure 3 is a fragmentary side elevational view of my table in the elevated or stowed position, and showing locking means for releasably holding the table elevated; and

Figure 4 is an enlarged, fragmentary, central, vertical, transverse sectional view through the lower part of the table, partly in elevation.

In the drawings, where, for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a first or top, cylindrical suspension tube or sleeve having its bottom end open and provided thereon with a narrow, internal, annular flange 11 forming a suspension shoulder. The top end of the tube 10 may likewise be open, if desired, and the tube 10 is provided at its top with an external, annular, lateral flange 12 integral therewith, and having a pair of diametrically oppositely dis-

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posed, flat, radial suspension plates or arms 13 integrally secured thereto, as shown. The top faces of these arms 13 are disposed at the same elevation, and preferably a slight distance above the top end of the suspension tube 10. The arms 13 are adapted to engage against a room ceiling 14, and the arms are apertured for receiving a pair of upwardly directed lag screws 15, of the like, which engage in a pair of adjacent ceiling joists 16, as shown, for suspending my elevatable table from the ceiling. The suspension tube 10 preferably extends approximately fifteen inches below the ceiling 14, although this distance may be varied as desired. The tube 10 has a smooth, cylindrical bore, and is provided at any desired point around its lower end with a bayonet-type locking slot 17 opening through the lower edge of the tube 10 for a purpose to be described.

Telescopically slidably mounted within the bore of the suspension tube 10 are a plurality of straight, cylindrical tube sections or sleeves 18, 19, 20 and 21, each successively smaller in diameter than the next outer sleeve, so that all of the sleeve sections may be telescoped or nested within the outer suspension tube 10 when my table is elevated, Figure 1. The tube sections 18, 19, 20 and 21 are each provided at their top ends with external, annular, radial flanges 22, and at their bottom ends with internal, annular flanges 23 forming suspension shoulders. The tube sections all have smooth, cylindrical bores, and the external flanges 22 of the tube sections have a smooth, sliding fit within the bores of the next outer tube sections. As best shown in Figure 2, the internal, annular flanges 23 project radially inwardly of the external flanges 22 so that the flanges 22 and 23 may interlock, as shown, for holding all of the tube sections suspended from the outer or first tube 10 when my table is lowered for use. The bores of the tube sections and the flanges 22 and 23 should be accurately formed or machined, so that there will be substantially no play or wobble between the various tube sections when the table is lowered or extended. I prefer to form the tube 10 and the several telescopic tube sections from aluminum tubing, or the like, but if desired, these parts may be formed of any other suitable lightweight material, such as a sufficiently strong and durable plastic material.

As shown in Figure 4, the lowermost and smallest tube section 21 has its bottom end screw-threaded, as at 24, into a short, internally screw-threaded sleeve or adapter 25 provided at its bottom end with a flat, annular, lateral

flange 26. This flange 26 has a plurality of circumferentially spaced openings 27 for the reception of flathead bolts 28, or the like, which serve to rigidly secure a flat, wide table board or plate 29 to the bottom of the flat flange 26. The table board 29 may be any desired shape, such as round or square, and the table board may be formed of wood, plastic materials, Masonite or the like. If desired, the bottom face of the table board 29 may be painted the same color as the ceiling 14.

The sleeve or adapter 25 is provided at its top with a horizontal, radial extension or locking pin 30 suitably rigidly secured thereto, and this locking pin is adapted to enter the bayonet slot 17 of the suspension tube 10 when the table is elevated for releasably locking the table in the raised or stowed position. As shown in Figure 1, the lowermost tube section 21 and the suspension tube 19 are longer than the other tube sections 18, 19 and 20, so that when the table is elevated, the locking pin 30 engages the bottom edges of the tube sections 18, 19 and 20 and holds them elevated slightly above the bottoms of the tube 10 and tube section 21. When the table is lowered, the suspension tube 10 and the several tube sections constitute a central vertical hanging pedestal.

While I have shown four telescopic tube sections 18, 19, 20 and 21 in the drawings, it should be understood that any desired number of the tube sections may be employed, depending upon the height of the ceiling 14 and the length of the tube sections which it is desired to use. It is preferred that the table board 29 be arranged approximately three feet above the floor when it is lowered or extended, as shown dotted in Figure 1. If the suspension tube 10 is made approximately fifteen inches long, as previously stated, there will be ample head room or clearance in the room when the table is elevated, assuming that the table is installed in an average or conventional home or apartment having 8-foot ceilings.

My table may obviously serve a variety of purposes, such as for a dining room, card or cocktail table. The various parts are preferably formed from light, strong materials, as previously stated, so that the table may be raised and lowered with a minimum of effort. When lowered, the various flanges of the tube 10 and the other telescopic tube sections interfit and coact, as shown, for securely suspending the table board 29 from the ceiling. It should be evident that my elevatable table is very easy to install upon the ceiling, and the various component parts are very readily assembled for forming a highly simplified, compact and extremely sturdy construction. The table is very easy to manipulate, so that it may readily be raised and lowered by a housewife or other person.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. In a ceiling suspended elevatable table, a vertical suspension tube adapted to be secured to depend from a ceiling, a plurality of slidably telescoped tube sections including an outer tube section slidably telescoped in the suspension tube, means precluding downward separation of

the outer tube section from said suspension tube and downward separation of the other tube sections from each other in the depressed operative position thereof, said plurality of tube sections comprising an innermost tube section arranged to occupy the lowermost position in the depressed operative position of the tube sections, said innermost section being axially rotatable relative to the suspension tube, said suspension tube being formed with a bayonet slot having a vertical arm opening through the lower edge of said suspension tube and a horizontal arm and a table plate mounting member on the lower part of said innermost tube section for mounting a table plate thereon, said mounting member having a pin projecting laterally outwardly therefrom with respect to the vertical axis of the innermost tube section, said pin being insertable through the vertical arm of the bayonet slot as the tube sections are elevated to a stowed position of the table and supportably engageable with the horizontal arm of the bayonet slot by rotating the innermost tube section relative to the suspension tube in one direction.

2. In a ceiling suspended elevatable table, a vertical suspension tube adapted to be secured to depend from a ceiling and having an open lower end, a plurality of downwardly extensible tube sections, said tube sections being slidably telescoped in each other and including an outermost tube section slidably telescoped in said suspension tube and an innermost tube section which is axially rotatable relative to said suspension tube, said tube sections being shorter than said suspension tube so that in the elevated positions thereof said tube sections can telescope substantially entirely into said suspension tube, said suspension tube having a bayonet slot at its lower end including a vertical arm opening through the lower edge of said suspension tube and a horizontal arm spaced above the lower edge of the suspension tube, and a member fixed in the lower end of said innermost tube section comprising a locking pin projecting radially outwardly from said innermost tube, said locking pin being insertable upwardly through the vertical arm of the bayonet slot in said suspension tube as the tube sections are telescoped upwardly into said suspension tube to produce an elevated inoperative position of the table and supportably engageable with the horizontal arm of the bayonet slot by rotating the innermost tube section relative to the suspension tube in one direction whereby the table is locked in elevated inoperative position with the tube sections telescoped substantially entirely with said suspension tube.

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