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(54) **Extension leaf for extensible tables.**

(57) The invention relates to an improved board of composition for tables formed by two leveled juxtaposed lateral parts which may simultaneously shift and separate from each other, and a third central part hidden between and under both upper lateral shifting parts, being both lateral shifting parts linked to the respective edge of a cable, having the lower surface of the central hidden part some perpendicular supports which lower edges, in their hidden position, lean against the lower upright part of a zigzagging slope ; when both lateral shifting parts simultaneously separate from each other by the traction of the cable, at the same time the central part raises till it matches the opening left by the separation of both lateral shifting parts, being the descent and hiding of the central part achieved in the same manner but on the contrary way. The necessary mechanisms are located inside two opposite and joint tubes, fixed to two major sides.

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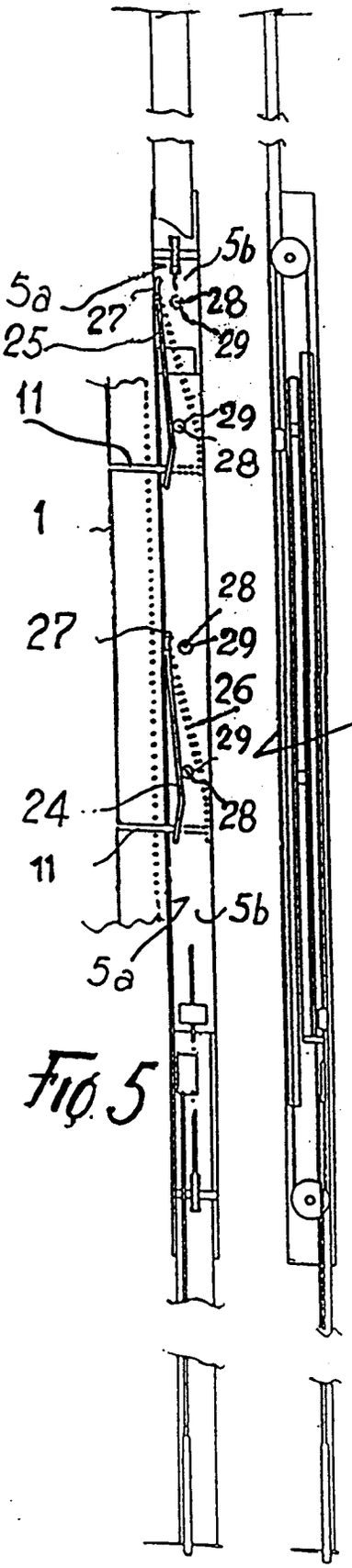

Fig 5

Fig 6

The object of the present Patent of Invention relates to an improved board of composition for tables.

The boards of composition for tables are currently known, allowing the board of the table to be enlarged, voluntarily, so that more people may sit at the table.

Such temporarily enlargements are made by juxtaposed auxiliary wings which are descended from the correspondent edge of the estatic main board of the table and joint to the same through the correspondent articulation pin-hinges allowing their articulation and elevation, being held by additional hidden legs of the own table rotating and being laterally emerging with an arched movement. Such wings have the great inconvenient that when dejected they impend from the lateral edge of the main fixed board and when the user of the table sits in front of it then such descended wings make the table to be uncomfortable because the legs of the said user involuntarily touch the descended wing.

The heavy weight of the descended wings creates as well a hard weight which must be held by union and articulation pin-higes in their resting position most of the time, thus deteriorating them in the short run.

On the other hand, such type of tables cannot have a protection and ornament crystal covering the whole surface of the board of the table, including the enlarging parts.

In other cases the enlargement of the central fixed part of the board of the table is made by two separable longitudinal elongations under the central hidden part, emerging when both are removed and extracted by hand from the lower part of the respective extremes of the central fixed part of the board. This extraction is made by the hands of the user of the table. The removed extremes are joint and held by two parallel arms emerging from the internal minor side of each wing and leaning against the internal part of each extreme of the central estatical part of the board.

In this case although the separable wings do not bother when they are out of use, there is the inconvenient that it is quite easy for the fingers to be grasped during the extraction of the longitudinal elongations, if there is a lack of experience.

Apart from the referred problems concerning tables with a central estatic board and the parts voluntarily disposed under it, there is another one, since the tables with voluntarily hidden parts can only have protected the surface of the central estatic part of the board.

The central estatic part of the board allows an ornament and protective crystal to be disposed but the other two hidden lateral parts do not, thus resulting that when the table is fully unfolded the result of the enlarged board demerits because the central estatic part has got a protective and ornament glass on its surface while the other lateral emerging parts have not.

With the object of the present Patent of Invention the above referred problems are solved.

On the other hand, with the new board of composition of the table it is not necessary to pull one of the two shifting extremes and then the other one so they emerge. Only with pulling one of them the opposed one separates as well simultaneously, at the same time raising the central part which was hidden under both lateral sides and being automatically placed in the separation created by those ones when they separate, and the space originated let the central part to rise up and remain at the same level than the two sides now separated, thus being the board formed by three leveled parts: a central one which was hidden and two separable lateral ones, being the butts of the juxtaposed lateral ones touching each other.

To obtain their working position without enlargement, the same operation than before is to be performed, unblocking the position of enlargement and pulling it with the fingers of one hand; then the emerged central board goes down and simultaneously the two lateral parts which have momentarily been separated approach until their adjacent sides touch, so the central part which uprightly goes up and down is hidden under the disappeared opening created when the two lateral parts of the table separated, being now this disappeared cental space approached to each other and juxtaposed.

In this way any part of the board may have its correspondent crystal, since they have the same level.

For a proper understanding of the object of this application herewith an example of practical performance is described, not limiting, with two sheets of drawings in which figures 1 and 2 are both scheme views, one forming right angle from the other one, of a mechanism shorted by different places and constructed according to the object of the invention. Figure 3 is a scheme of a board of composition for tables with hiding central part and figure 4 is the same figure as before but with the emerging central part. Figures 5 and 6 are scheme views, one forming right angle from the other one, of the variation of the same mechanism performance represented in figures 1 through 4, shorted by different areas.

The invention consists in disposing the central part (1) of the board of composition in a raising and descending way between two longitudinal lateral shifting parts (2 and 3) separating and approaching to each other. When the board is in a shorted position both lateral shifting parts (2 and 3) are juxtaposed at the same level forming the board with two visible parts and the descended central hidden part (1) is placed under and between both lateral shifting parts (2 and 3).

In the step of enlargement of the board of composition the hidden central part (1) is raised and automatically placed in the separation (4) simultaneously

produced by the lateral separation of the two lateral parts (2 and 3) which were laterally close, then reaching the level of the two separated lateral parts (2 and 3), forming the three a unique compound and continuous surface without any variation of level.

At this stage two tubes of laying "U" section (5) are disposed, parallel and facing their longitudinal section, being each one joint to a major side of the armour of the table and two pulley-blocks (6 and 7) placed inside each tube of laying "U" section close to the extreme of such tubes and a cable (8) passing through the throat of both pulley-blocks (6 and 7), being one of the extremes of the cable (8) joint to the edge of one of the two lateral shifting parts (2 or 3) of the board of composition and the opposed extreme of the cable (8) to the edge of the second shifting part (3 or 2) of the same board of composition so that when pulling one of the lateral shifting parts (2 or 3) it is displaced from the centre of the table to the edge, the same happening simultaneously with the opposed shifting piece (3 or 2), and consequently leaving a wide separation (4) between both separated pieces, there being raised the third piece (1) forming the board of composition, which piece was hidden under both lateral shifting parts (2 and 3) and being its surface leveled with the other ones.

The elevation and further hiding of these third central part (1) is achieved by proper elevation and descent slopes (9 and 10) which have each of the upright supports (11), descending from the lower central part (1) of the board, being the raising and descending movement achieved by the pulling butts (12) disposed in the own cable which meet the emerging beads (13) disposed in the slopes.

At least in the extreme of a lateral shifting part (2 or 3) a button (14) is also disposed for automatic release of the position of separation of the lateral shifting part or parts which form the compound board of the table.

This button (14) raises the click (17) for fixing the position of the extremes (2 and 3) by means of a brace (15) and a spring of recovery (16).

The three parts (1, 2 and 3) forming the board of the table have a rim or flange (18) to dispose the convenient ornament soffit (19) and the embellishment and protective crystal (20).

The armour works as follows. Being the central part (1) hidden under both upper lateral parts (2 and 3) closed to each other and touching their juxtaposed edges without any separation between them, the lower edge of the perpendicular support of the hidden central part (1) leans against the lower upright section (21) of each slope (9 and 10).

When the simultaneous separation of both juxtaposed upper lateral parts (2 and 3) is done through the cable (8) which simultaneously pulls in opposite directions from one and another lateral shifting parts, the butt (12) linked to the same cable (8) displaces and meets with the bead (13) of the interleaved piece (1) which is as well pulled and follows the movement of displacement of the upright supports (11) which pass shifting from the lower straight area, go up by the inclined area (22) and are placed in the upper straight area (23) located at a higher level, thus the central part (1) which may be hidden filling the gap (4) left by both lateral parts (2 and 3) separated from each other and being leveled with those ones, so forming a table board made of three parts (1, 2 and 3) and therefore being it bigger than the position of hidden central part (1).

Between both facing tubes of laying "U" section a traverse (24) is linked close to their edges.

When the fixed slopes (9 and 10) which lean against the lower extremes of the upright supports of the central hiding part (1) for elevation and descent of such central part (1) are to be modified, they are changed by other equal ones, being each of these new slopes articulated by one of its edges, which is articulately joint to the lower surface of the upper horizontal arm of the tube of laying "U" section (5) and moreover some little wheels are disposed, such slopes leaning against them, and obliging to raise or descend the central hidden part (1) of the board of the table.

When the mechanism is desired to be lighter and smoother during the opening and closure work of the table, then there is no need for excessive efforts, since the weight of the central board gravitates over the slopes and it is held by the little wheels.

The above referred variation consist in disposing the slopes (25 and 26) in the internal surface of the upper horizontal arm (5a) of the tube of laying "U" section (5) in the same manner as the fixed slopes (9 and 10), and these ones are removed.

The union is articulated by one of the extremes (27) of each slope with edges elbowed (25 and 26) to the lower surface of the upper horizontal arm (5a) of the tube of laying "U" section (5), remaining the slopes aligned with enough separation between them.

In the upright wall (5b) of the same tube of laying "U" section (5) the respective axis (28) of the corresponding fixed and rotating little wheels (29) are pependicularly joint.

The axis (28) of each little wheel (29) is disposed in the upright internal part (5b) of the tube of laying "U" section (5) at a suitable height so that with its lateral shifting movements for the elevation of the central hidden part (1) the respective little wheel meets with the highest point of the inclined back of the corresponding slope and with its rotating advance pulls upwards the slope, one of the upright supports (11) leaning against it, which are joint to the lower surface of the central hidden part (1).

When a shifting movement on the contrary sense to the aforementioned of the tube of laying "U" section (5) is produced, there being the little wheels (29),

since these ones are following the movement of the tube (5) they go backwards rotating around themselves and following the inclination of the slopes (25 and 26), thus articulately changing their position, descending, and with them the central hidden part (1), this one being in a hidden position under the lateral parts of the board, one shifting on the contrary sense to the other (opening) or getting close to each other (closure).

Since the weight of the hidden board (1) leans against the rotating little wheels (29) through the articulated slopes (25 and 26), in the moment of the elevation of the part (1) such weight rests on the wheels so it must not be held in the air and therefore the effort to raise it is minimum.

It is understood that the details of construction may vary in so far as they do not alter, change or modify the essence of the invention.

Claims

1.-IMPROVED BOARD OF COMPOSITION FOR TABLES, characterised by being formed by two leveled lateral juxtaposed parts which may simultaneously shift and separate from each other, and a third central part hidden between and under both upper lateral shifting parts, being both lateral shifting parts linked to the respective edge of a cable mounted on pulley-blocks, having the lower surface of the central hidden part some perpendicular supports which lower edges, in their hidden position, lean against the lower upright part of a zigzagging slope; when both lateral shifting parts simultaneously separate from each other the cable enchains a projection of the central part by means of a butt, pulling it and making it raise the slope until the horizontal area of the same, thus being the central part leveled in the opening left by the separation of both lateral shifting parts being the descent and hiding of the central part in the same manner but on the contrary way.

2.-IMPROVED BOARD OF COMPOSITION FOR TABLES, according to claim 1, in which at least in one of the external heads of one of the lateral shifting parts a command button is disposed, with brace and spring, to unblock the click of fixation of the separation of the two lateral shifting parts.

3.-IMPROVED BOARD OF COMPOSITION FOR TABLES, according to the above claims, in which any set of the described mechanisms of setup is located inside a tube of laying "U" section, disposing one of such tubes under the major lateral of the support legs of the table and the other one with its longitudinal opening facing the one of the tube in the opposed side.

4.-IMPROVED BOARD OF COMPOSITION FOR TABLES, according to the above claims, in which between both facing tubes a traverse is disposed, close to their edges.

5.-IMPROVED BOARD OF COMPOSITION FOR TABLES, in which to facilitate the shifting opening, insertion of the central hidden part by elevation and the same operations on the contrary sense for newly hiding the said central part, the slopes of elevation and descent of the hidden part are articulately joint by an extreme and aligned one with another, under the upper horizontal arms of the tubes of laying "U" section, and the axis of the corresponding rotating little wheels are disposed perpendicular to the upright wall of the said tube of laying "U" section, being such little wheels located at a height under the back of each slope so that with the advance and back movements of the opposed extremes of the table board, these act as rotating butt and press against the back of the respective slope, which sometimes raise as well as the central hidden part of the table, and in other cases descend together with the central hidden part, depending on the advance sense of the two lateral edges of the table.

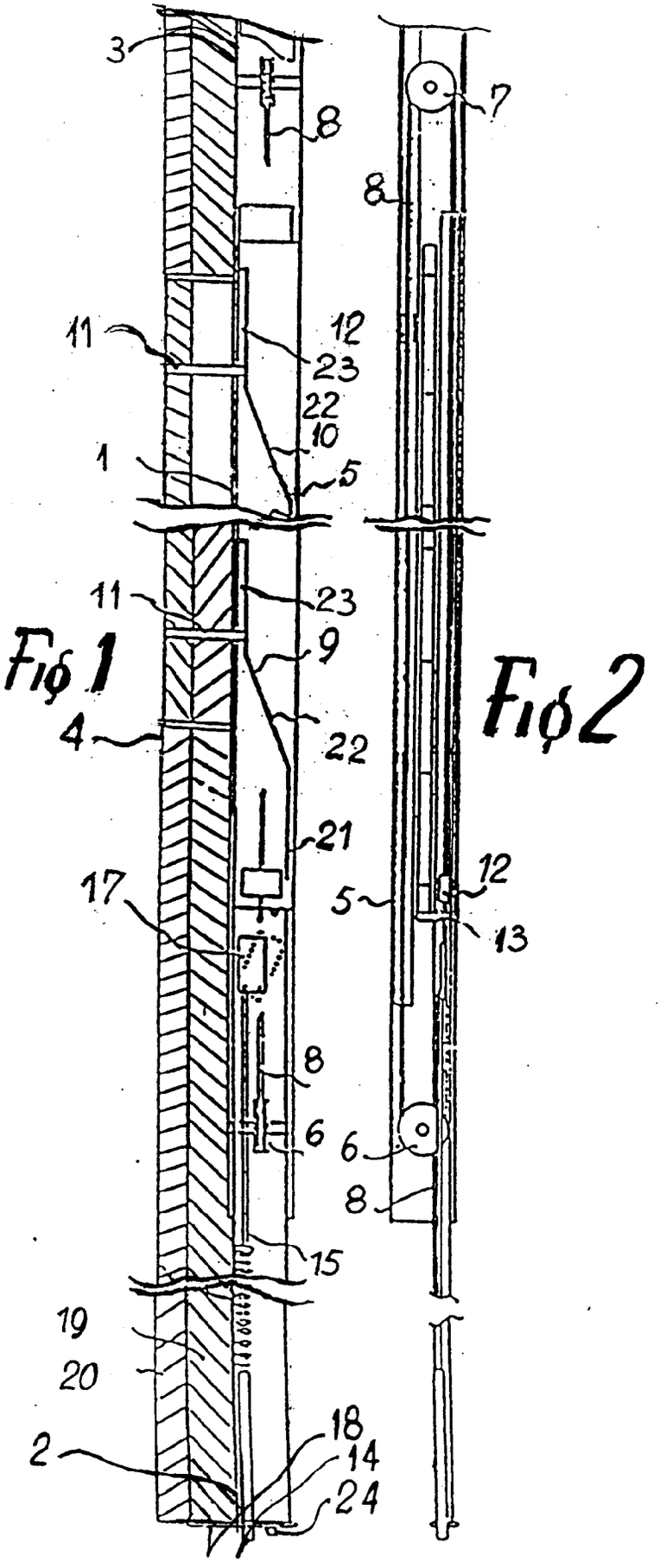
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Fig 1

Fig 2

Fig. 3

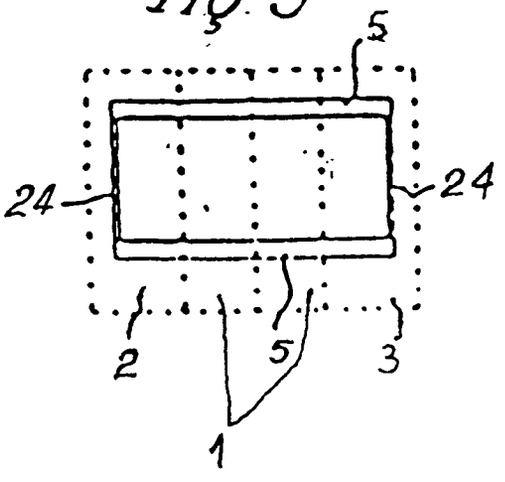
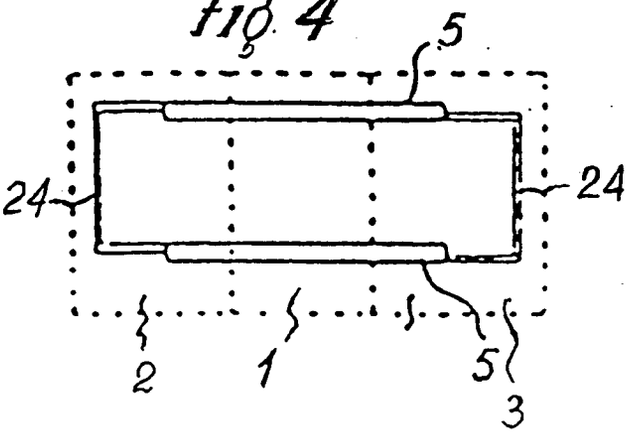


Fig. 4



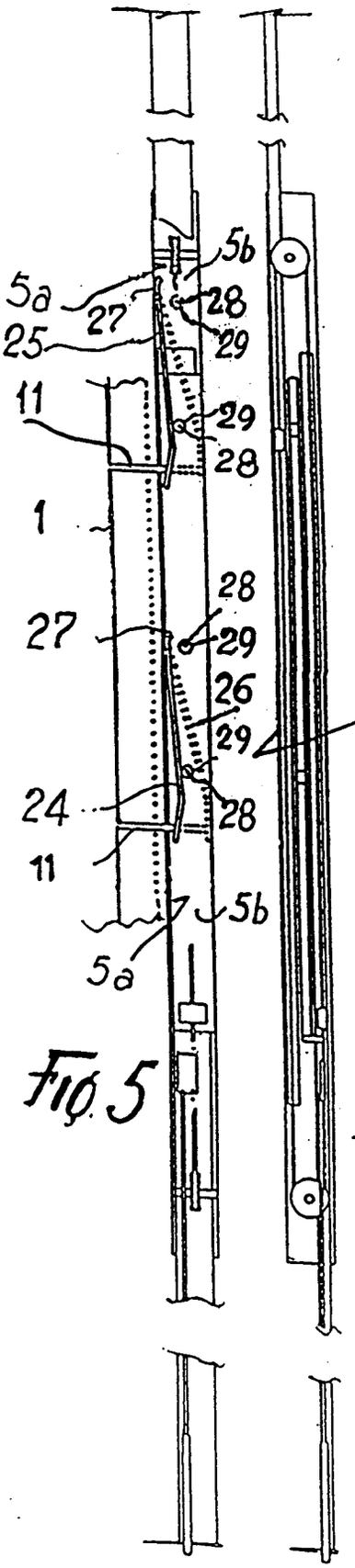


Fig 5

Fig 6