

Jan. 27, 1959

J. R. F. SWANSON
TABLE ADAPTED FOR VERTICAL STACKING AND
HORIZONTAL GROUPING

2,871,073

Filed March 12, 1956

2 Sheets-Sheet 1

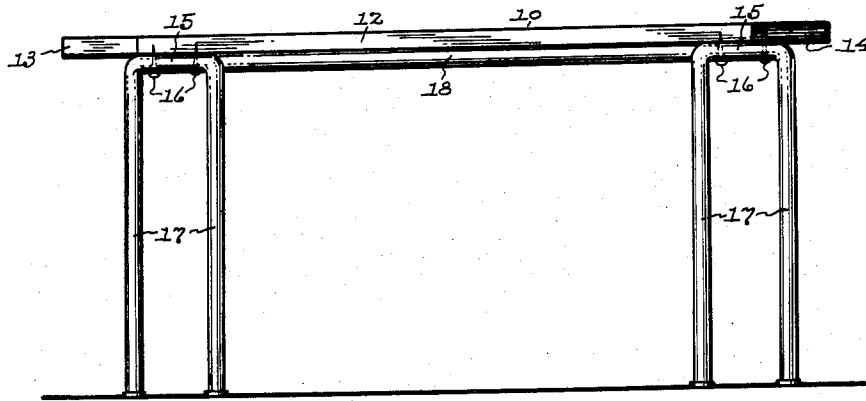


Fig. 1

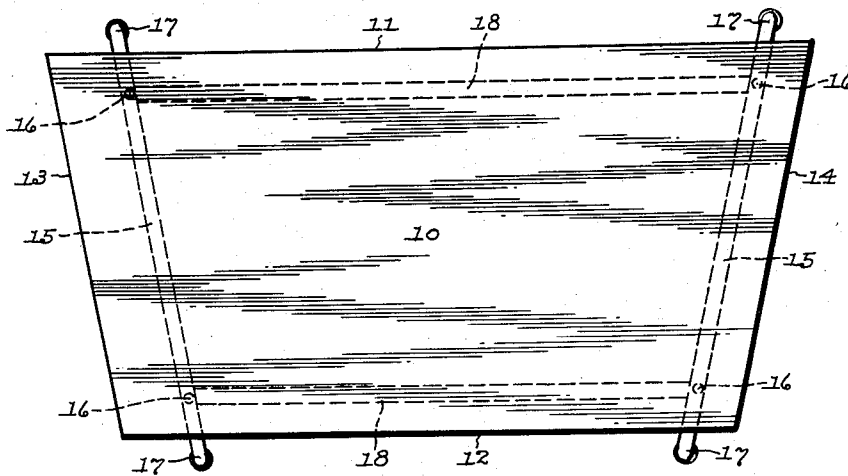


Fig. 2

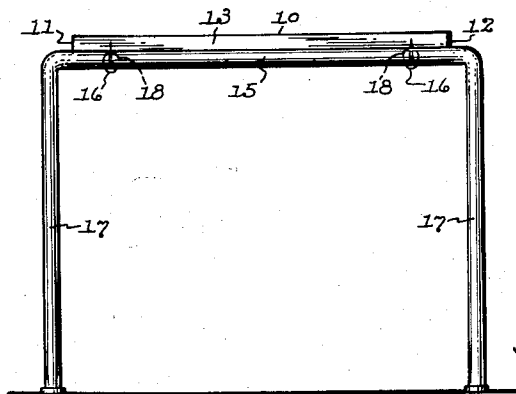


Fig. 3

INVENTOR
JONS ROBERT F. SWANSON

BY

Gregory S. Dolgorsky

ATTORNEY

Jan. 27, 1959

J. R. F. SWANSON
TABLE ADAPTED FOR VERTICAL STACKING AND
HORIZONTAL GROUPING

2,871,073

Filed March 12, 1956

2 Sheets-Sheet 2

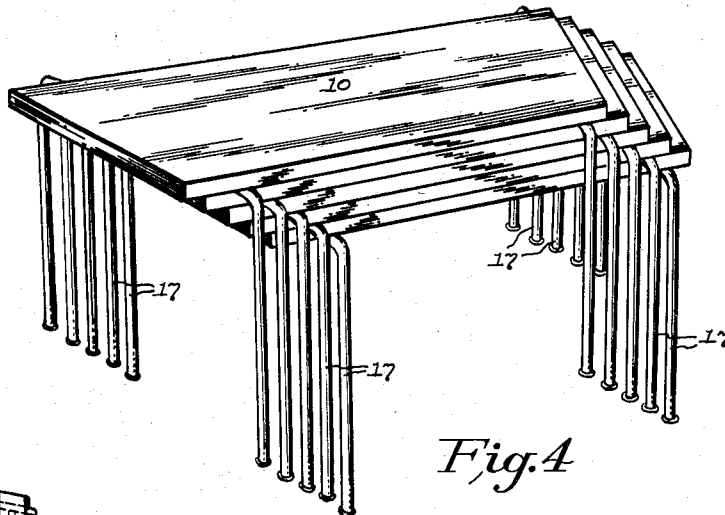


Fig. 4

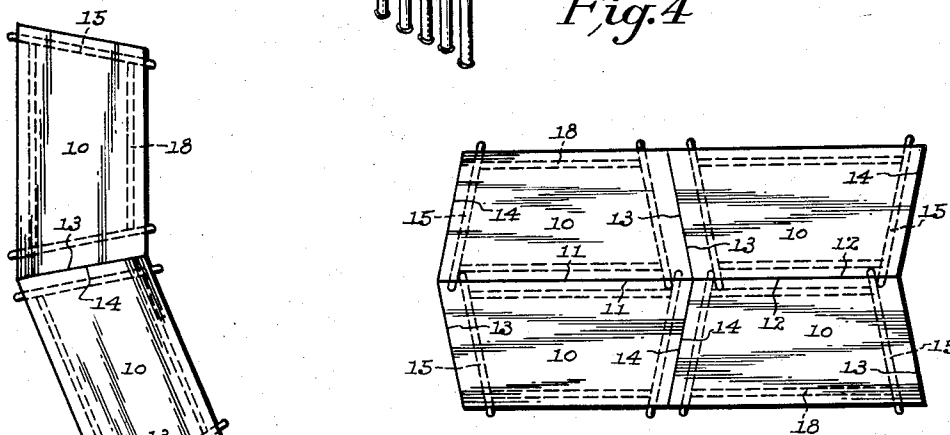


Fig. 5

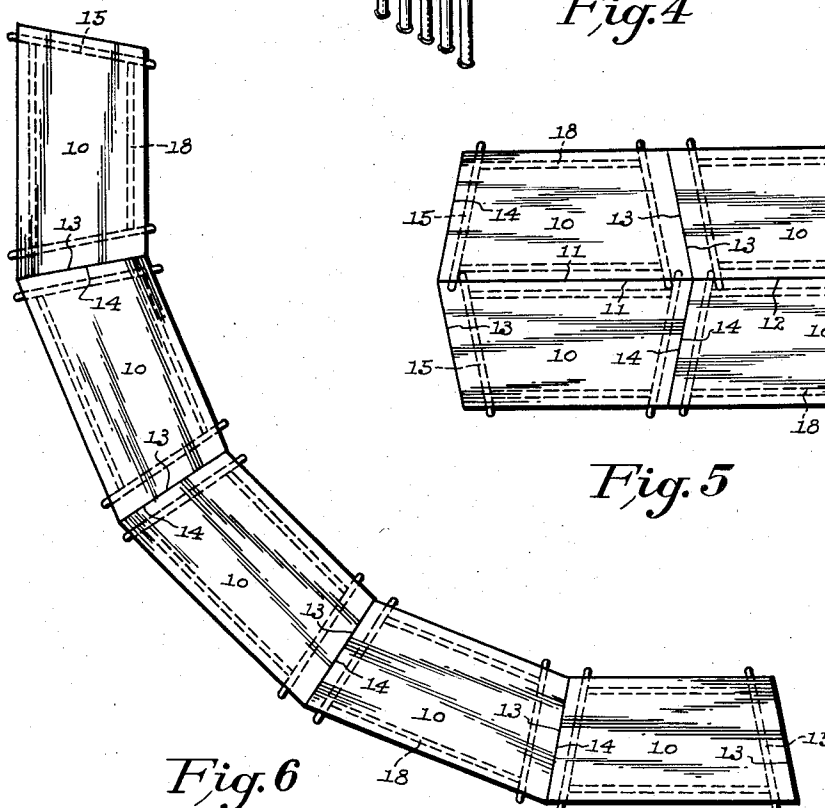


Fig. 6

INVENTOR
JONS ROBERT F. SWANSON

BY *Raymond S. Dolgorsky*

ATTORNEY

1

2,871,073

TABLE ADAPTED FOR VERTICAL STACKING AND HORIZONTAL GROUPING

Jons Robert F. Swanson, Bloomfield Hills, Mich.

Application March 12, 1956, Serial No. 570,803

1 Claim. (Cl. 311—1)

This invention relates to an improved article of furniture, such, for instance, as a table which is adapted both for vertical stacking for storage and for variety of horizontal groupings for use. The present application is a continuation-in-part of my co-pending application, now abandoned, Serial No. 340,593 filed on March 5, 1953, for Article of Furniture Adapted for Stacking.

In the use of articles of furniture, such as tables, in schools, there become evident a number of important requirements which appear as contradictory or mutually exclusive. For instance, while school tables are used individually, it is often desired to group such tables into various group combinations which vary widely, depending on conditions. For instance, it may be desired to group tables end to end into a single, long row; or a long double, triple or quadruple row; a circle or semi-circle, and so on. When so grouped, the tables must present a smooth and unbroken surface to prevent falling of books, pencils and other articles through the gaps between the edges of adjacent tables. In addition, the tables so grouped must be locked together sufficiently strong to prevent shifting of the tables.

While conventional rectangular tables can be grouped into straight rows, they are not locked in such an arrangement, and groups of conventional tables are easily disorganized by a relatively light push. Attempts to group such conventional tables into circular or semi-circular rows leave wide triangular gaps between the tables, and grouping of conventional tables does not afford the possibility of forming a continuous, unbroken surface. Conventional tables are also difficult to remove and to store when it becomes necessary to clear the room of tables for some special event.

One of the objects of the present invention is to provide an improved table whereby the above difficulties and disadvantages are overcome and largely eliminated, and the table is made adaptable both for horizontal grouping and for vertical stacking.

Another object of the present invention is to provide an improved table which can be grouped with similar tables into single, double, etc. straight rows and become interlocked with one another in such groupings, with such interlocking being strong and secure and yet effected without providing any special latching means therefor.

A further object of the present invention is to provide an improved table which does not include curved lines complicating manufacturing, but which, nevertheless, can be grouped in curved rows such as arcuate, semi-circular, etc.

A still further object of the present invention is to provide an improved table of the foregoing nature which can be stacked in a vertical stack and when so stacked form a stable and safe stack presenting little or no danger of overturning or sliding off, which consideration is important for schools.

It is a further object of the present invention to provide a table adapted for horizontal grouping as explained above, which table, when grouped, presents a continuous

2

and unbroken working surface, uninterrupted by any gaps, and in which one end abuts with the other without any protruding corners or other imperfections of groupings, which may be annoying or dangerous.

It is an added object of the present invention to provide an improved table of the foregoing nature which is simple and sturdy in construction, is convenient and safe in use, is relatively inexpensive to manufacture, and easy to repair.

Further objects and advantages of this invention will be apparent from the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification, wherein like reference characters designate corresponding parts in the several views.

Fig. 1 is an elevational view of a table embodying the present invention.

Fig. 2 is a top view of the table of Fig. 1.

Fig. 3 is an end view of the table.

Fig. 4 is a perspective view of five tables in a vertical stack.

Fig. 5 is a top view showing four tables grouped into a straight double row to form a continuous and unbroken surface with the tables interlocked.

Fig. 6 is a top view showing five tables grouped into an arcuate row.

It is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein is for the purpose of description and not of limitation.

In accordance with the invention I provide a table having the top of the right trapezoidal shape, whereby such tables may be grouped into straight rows and into curvilinear rows, the radius of curvature of the latter depending on the relation of the sides of the trapezoid. In order to provide for stacking, the legs of the table are made protruding for a considerable distance beyond the top in order to go over the top of the subjacent table in vertical stacking. Such protruding legs are secured to the table at unequal distances from its ends, the precise distances being so selected with respect to the thickness of the legs that in horizontal grouping the legs clear each other but remain in contact, thereby permitting the tops of the tables to come close together without any gaps and with the legs of the adjacent tables becoming interlocked.

Referring specifically to the drawings, there is shown therein, by way of example, a table embodying the invention. The table illustrated in the drawings comprises a flat trapezoidal top 10 having parallel side edges 11 and 12, and edges 13 and 14. The edges 13 and 14 are of equal length and form equal angles with the edges 11 and 12.

The table top 10 is mounted on an unitary frame to which the top is secured in a simple manner, permitting removal of the top without disorganizing the frame.

The frame comprises two supporting members of an inverted U shape made preferably of metal tubing and connected by braces 18, the ends of which are welded or otherwise secured to the closed portions 15 of the supporting U-shaped members. The frame is secured to the table top 10 with the aid of screws 16. While it is preferable to have the entire frame as a unitary construction, under certain conditions the braces 18 may be separable from the U-shaped members, or such braces may be dispensed with entirely. The four legs 17 so formed serve for supporting the table, and they protrude beyond the

confines of the top 10, as is best shown in Figs. 2 and 3, in order to provide for vertical stacking.

As is best shown in Fig. 2, the closed portions 15 of the inverted U-shaped members are disposed at the underside of the table top near and parallel to the opposite end edges 13 and 14, respectively, but with the closed portion adjacent the end edges 13 being spaced inwardly from said edge at a greater distance than the other closed portion from its adjacent end edge 14 for the purpose of clearing the protruding legs of the adjacent table in horizontal grouping.

Fig. 4 illustrates a plurality of my improved tables stacked vertically for storage. It may be appreciated that because of the construction described above, a stack so formed is stable and safe, and the possibility of its overturning, as well as of sliding off of the upper tables, is eliminated. This condition is of extreme importance in schools where playing children may easily upset stacks of furniture, inviting an accident.

Fig. 5 illustrates horizontal grouping of a plurality of my improved tables in a straight row of double width. It will be noted that in such an arrangement, in spite of the outwardly protruding legs, the edges of the table come into a perfect contact, leaving no gaps. Moreover, the legs not only clear one another but interlock producing a strong and dependable row that cannot be unintentionally disorganized. It will be noted, for instance, that pushing to the left the table in the lower right corner of the group of Fig. 5, will be resisted by the two tables on the left hand side of the row. The disorganization of the row transversely thereof is resisted by the angular disposition of the end edges of the tables adjacent to the table being pushed as well as by the table immediately in front thereof. In other words, in the group shown in Fig. 5, transverse pushing of one table will be opposed by all of the remaining three tables.

Fig. 6 illustrates grouping of a number of tables in an arcuate arrangement which is often desirable in schools such as for directing the vision of persons seated at the tables toward a focal point. It will be noted that in such an arrangement, in spite of all the edges of the table top being straight, the curvilinear row is formed without any gaps and the top or working surface thereof is continuous and unbroken. It can be appreciated that the ends of the curved rows so formed may be continued straight and extended as far as desired.

By virtue of the above construction, the objects of the invention illustrated above and numerous additional advantages are attained.

I claim:

A table required to stack vertically to have the full weight of the superjacent tables of the stack supported by the lowermost table of the stack, said table being further required to group horizontally with identical tables to form selectively an arcuate row, a full circular row, a straight row of single table width, and a straight row of multiple table width, forming in all such horizontal grouping a continuous horizontal surface having no through gaps, and in straight horizontal row grouping having two continuous straight and parallel edges; said table comprising a flat top having two parallel and two non-parallel sides forming a right trapeze, with all four sides being straight; two members of inverted U-shape arranged under the trapeze top in two vertical planes parallel to the non-parallel sides of the trapeze and secured to said top to form four legs therefor, with said U-shape members extending in said planes beyond the edges of the parallel sides of the top for a sufficient distance to clear the top of the subjacent table in vertical stacking, with the vertical planes of the U-shape members being disposed at different distances from the respective non-parallel edges at the trapeze-shape top in order that when the parallel edges of the tops of the grouped tables are brought in contact alignment with one another, the protruding portions of the U-shaped member contact and lock each other from movements along the parallel edges of the tables, with the planes of the U-shape members which are in locking contact forming an appreciable angle with each other.

References Cited in the file of this patent

UNITED STATES PATENTS

1,941,340	Dellert	Dec. 26, 1933
1,989,426	Pollak	Jan. 29, 1935
2,004,934	Dellert	June 18, 1935
2,596,663	Duffy	May 13, 1952
2,657,965	Bergen	Nov. 3, 1953
2,694,611	Lorber	Nov. 16, 1954
2,709,119	Chapman et al.	May 24, 1955

FOREIGN PATENTS

168,080	Switzerland	Mar. 31, 1934
184,842	Switzerland	Jan. 30, 1934
591,234	Austria	Dec. 28, 1933
618,804	Great Britain	Feb. 28, 1949
640,867	Great Britain	Aug. 2, 1950
689,749	Great Britain	Apr. 1, 1953