United States Patent

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[54] PORTABLE CARREL CONSTRUCTION

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[51] **Int. Cl.** **A47b 41/02**

[58] **Field of Search** 108/60, 61, 53, 55, 56, 111, 108/91, 101; 211/184, 148; 312/140.3, 196, 237

[56] **References Cited**

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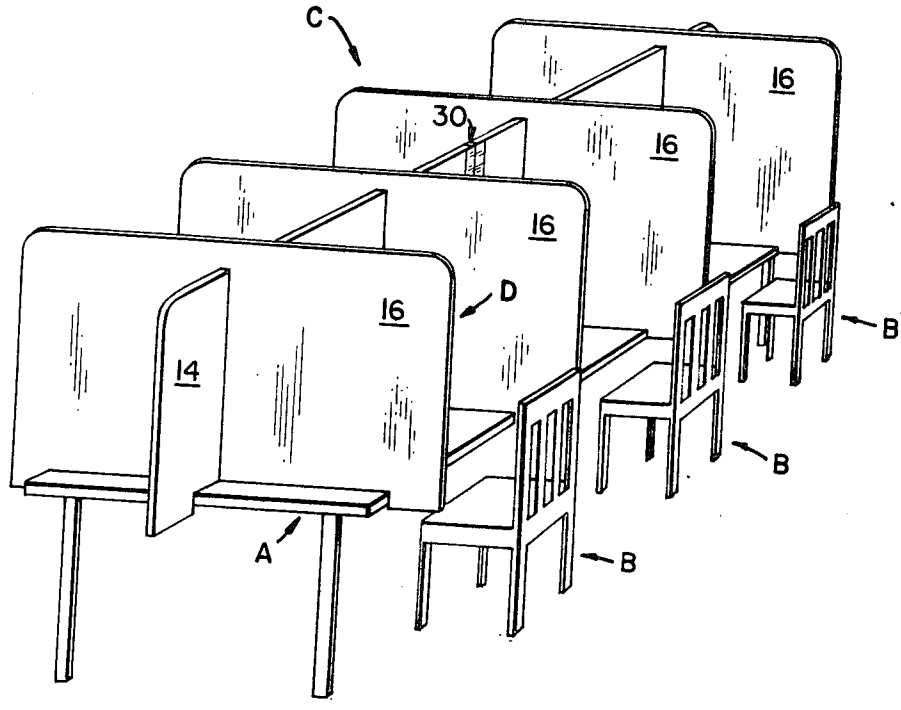
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Assistant Examiner—Darrell Marquette
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[57] **ABSTRACT**

A portable carrel construction consisting of a plurality of longitudinal and transverse crossing opaque barriers is adapted for removable attachment to the upward surface of a table. When a student occupies a chair pulled to the side edge of the table between the crossing barriers, the spatial volume immediate the barriers and above the table is isolated into an individual study space which is insulated from ambient classroom distraction.

4 Claims, 3 Drawing Figures



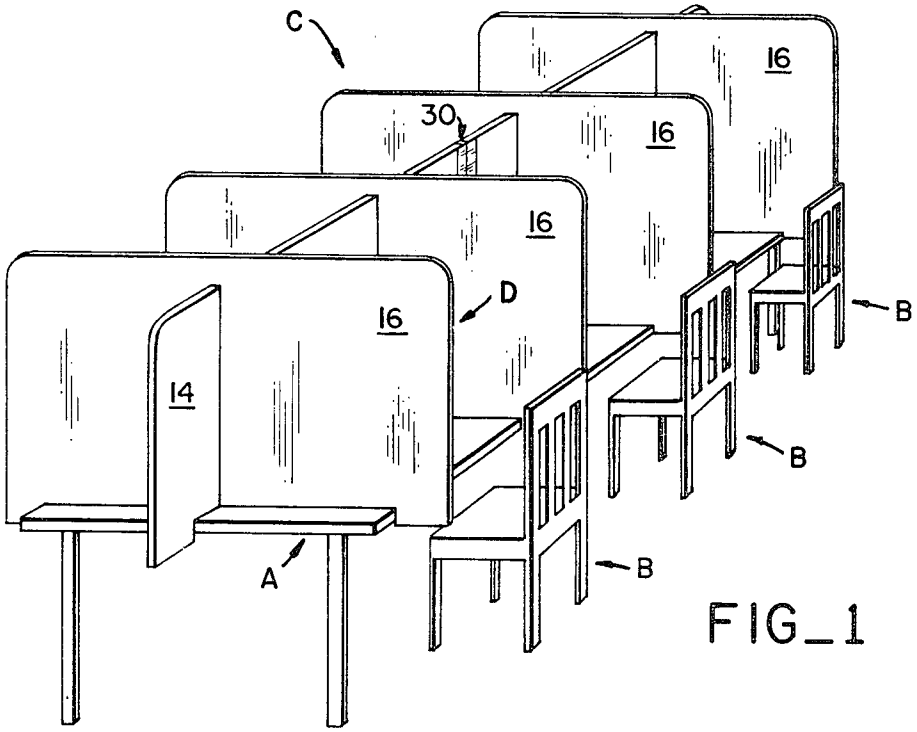


FIG_1

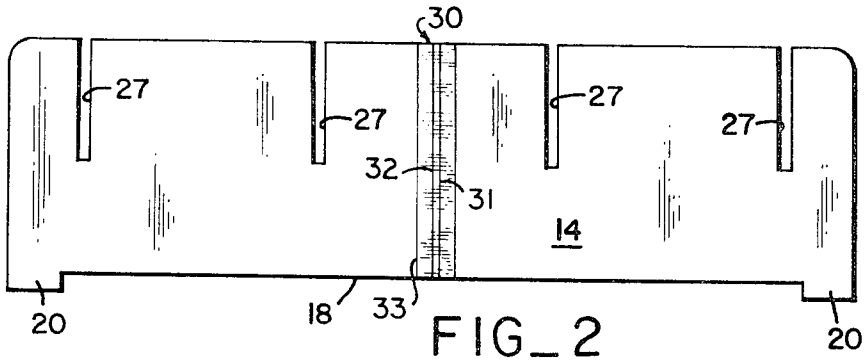


FIG_2

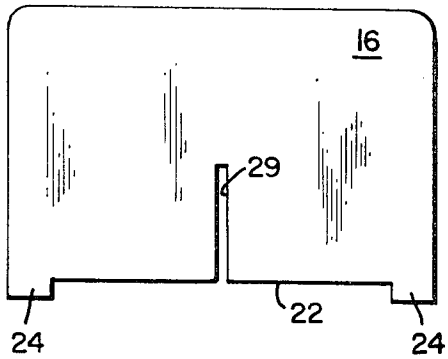


FIG_3

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PORTABLE CARREL CONSTRUCTION

This invention relates to an apparatus which in combination with a table and at least one chair provides an isolated study cell for use within a classroom.

Partitioned desks have been used in large spatial areas to provide isolated study cells or carrels. Commonly, such carrels include a unitary construction in which the partitions are rigidly and integrally formed with and attached to a desk or the like.

Unitary carrel constructions are generally unacceptable for modern classroom use. While such carrels provide isolated study cells for each student when individual study is desired, they have the disadvantage of presenting numerous visual barriers when the teacher wishes to lecture to a group of students. Because of the visual barriers provided by such carrel constructions, they are usually omitted in the entirety from classrooms with the undesired result that the students, during their individual study, are afforded little privacy.

Accordingly, an object of this invention is to disclose a portable carrel construction which can be used in combination with a table and at least one chair to provide an individual study space for each student within an open and unpartitioned classroom.

An advantage of the carrel construction herein illustrated is that it is portable and readily disassembled. Accordingly, the carrel construction can be easily removed to provide unobstructed group teaching when individual study is not required.

A further advantage of the carrel construction herein illustrated is that it is designed to fit removably on and extend upwardly from the surface of the table. As protruding upwardly from the top surface of the table only the student's upper body in the seated position is isolated; the student's feet and the space overhead of the study area can be observed by the teacher to ascertain that the students are present and to maintain necessary classroom discipline.

A further object of this invention is to disclose a carrel construction which rigidly fastens to the table by gripping the side edges thereof when placed thereon so as to prevent inadvertent dislodgement.

A still further object of this invention is to provide a carrel construction which can be removed from a table top, disassembled and stored where it will not occupy substantial portions of space within a classroom. An advantage of this application is that one or more of the opaque partitions defining the removable carrel construction can be joined with a hinge member so that when the carrel construction is removed and disassembled, the unit can be stored or packaged in a relatively small spatial area.

Other objects, features and advantages of this invention will be more apparent after referring to the following specification and attached drawing in which:

FIG. 1 is a perspective view of the carrel construction of this invention mounted to a table with chairs drawn to some of the individual study cells defined thereby;

FIG. 2 is a side elevation view of the central longitudinally extending member of the carrel construction shown in FIG. 1; and,

FIG. 3 is an end elevation view of one of the four transverse barriers utilized in the carrel construction of FIG. 1.

With reference to FIG. 1, table A and chairs B are shown having a portable carrel construction C defining individual study cells D on the table surface. When a student seated at chair B is faced inwardly of the study cell D, a visual and sound barrier is provided against ambient classroom distraction.

As here illustrated, the carrel construction includes longitudinally extending central barrier **14** and four transverse barriers **16**. Longitudinal barrier **14** is mounted to the table top overlying the central longitudinal axis of the table and divides each side of the table into separate study areas. Transverse barriers **16** extending across the table normal to longitudinal barrier **14** are provided on each side of the separate study cells D to define a complete three-sided enclosure above the table surface.

With respect to FIG. **2**, the central barrier **14** is illustrated. This barrier has an overall length from end to end which exceeds the longitudinal length of table A.

Longitudinal partition **14** is configured at the bottom portion thereof to grip the table ends. Typically the partition is designed to rest on the table top at its lower edge **18**. At either end of lower edge **18** and extending downwardly from the partition there are two partition protrusions **20**. Typically, protrusions **20** are spaced along edge **18** a distance which slightly exceeds the longitudinal length of rectangular table A from end to end. This construction permits partition **14** when resting on the top of table A at edge **18** from being moved longitudinally of the table.

With reference to FIG. **3**, the construction of one of the four transverse partitions **16** is illustrated. Typically, transverse partitions **16** each have a length which slightly exceeds the transverse dimension or width of rectangular table A. At the lower portion thereof, partition **16** defines lower surface **22**, which surface rests on the top of table A when the partition is in place.

At the opposite ends of surface **22**, transverse barrier **16** is provided with two protrusions **24**. Typically, protrusions **24** extend below the plane of surface **22** at a distance slightly exceeding the width of the table and grip the table at its side edges, preventing transverse movement of the partition **16** across the table.

Assembly of the transverse partitions **16** to the longitudinal partition **14** is provided by a plurality of grooves or notches configured in the respective partitions. Typically, longitudinal barrier **14** is provided with a plurality of spaced upwardly extending grooves or notches **27**. Notches **27** have a width equal to the width of the material from which partitions **16** are formed and extend from the upward edge of the longitudinal barrier **14** downwardly approximately one-half the distance to lower edge **18**. As shown in FIG. **2**, the notches are spaced longitudinally of partition **14** in anticipation of the placement of the transverse partitions **16**.

Likewise, partitions **16** each include a notch **29**. Notch **29** is configured centrally of the partition **16** extending downwardly from approximately the central portion of the partition to edge **22**. Typically, notch **29** has a width the same as the width of the material of longitudinal partition **14**. Both notches **27** and **29** provide for their respective partitions or barriers **14** and **16** to be fastened one to another in an interleaving self-supporting construction.

In the assembly of the unit herein illustrated, longitudinal barrier **14** is typically held in the erect position. Thereafter, a transverse barrier **16** is inserted at its notch **29** into one of the notches **27**, the partitions each being held at right angles to one another during such insertion. By slideably moving partitions **14** and **16** along their confronted notches **27** and **29**, respectively, the units interlock in a self-sustaining and supporting interleaving relation. Thereafter, the remaining transverse barriers **16** are all placed to the central longitudinal barrier **14**.

Placement of the units on the table top is accomplished by grasping longitudinal barrier **14** at either end thereof and elevating it to a position where it overlies the longitudinal axis of table A. In such an overlying position, the longitudinal barrier **14** is lowered and placed on the table top at lower edge **18**. During this lowering process, partitions **16** come to rest on the table top A at their lower surface **22**.

When placed upon the table, the carrel construction herein illustrated is locked against all inadvertent movement across or sliding on the surface of table A. Typically, protrusions **20** at either end of longitudinal barrier **14** prevent longitudinal movement of the interlocked carrel construction; likewise, protrusions **24** at either end of edge **22** prevent transverse movement of the transverse barriers **16**. As the transverse barriers **16** are interlocked to longitudinal barriers **14**, the protuberances of each partition prevent movement of the attached partitions.

Preferably barriers **14** and **16** are fabricated from a light material such as cardboard, cardboard encased styrofoam, or the like. Additionally, the cut edges of both the individual partitions and their interconnecting grooves can be reinforced with channel-shaped plastic.

It will be noted that transverse partitions **16** extend beyond the elongate side edges of table A. This extension extends the side visual barriers of the carrel construction beyond the side edges of the table to a point where the peripheral vision of a carrel occupant will be obscured.

It will be noted that longitudinal barrier or partition **14** has a substantial length, which length makes either its shipment in a small, readily handled package or storage within a small space inconvenient. Such inconvenience can be overcome by providing one or more hinges **30** intermediate the ends of partition **14**.

Hinges **30** are typically constructed by cutting or forming the longitudinal partition **14** along two straight edges **31** and **32**. Thereafter, the two portions of the partition **14** are moved in closely spaced relation, and a flexible tape **33** fastened therebetween.

Typically, tape **33** is a web of flexible material having an adhesive coating on one side thereof. When applied, the tape fastens the two edges **31** and **32** of the partition together in spaced relation and permits foldable movement of the partition members so that the hingeably joined sections of the longitudinal partition **14** can be moved to overlie one another.

With a hinge **30** installed in longitudinal barrier or partition **14**, transverse barriers or partitions **16** provide an additional advantage. Typically, flexure of the hinged longitudinal barrier **14** when placed upon a table will be prevented by each transverse barrier **16**. Moreover, it has been found that so long as one portion of the hinged longitudinal barriers has at least two transverse partitions **16** and the remaining portion of the hinged longitudinal barrier **14** has at least one transverse partition **16**, the carrel construction will be locked to the table by the protrusions **20** and **24** so that all movement of the hinged barrier **14** is prevented.

It should be apparent that the partition construction herein illustrated can be used with a variety of rectangular, square or circular tables. Moreover, the word "table" as used herein can include virtually any flat surface on a standing piece of furniture; such furniture can include desks, benches and the like. Still further, while one embodiment of this invention has been shown and described, it will be apparent that other adaptations and modifications of this device can be made without departing from the true spirit and scope of the invention.

What is claimed is:

1. A portable carrel construction for forming a three-sided individual study cell on a table having first and second pairs of opposed edges comprising: a first partition adapted to be removably disposed on and to extend longitudinally of said table substantially normal to the upper surface thereof between the first pair of opposed edges of said table to thereby define a first wall of said study cell; a pair of spaced, second partitions coupled to and extending transversely of said first partition and adapted to extend transversely of the table substantially normal to the upper surface thereof between the second pair of opposed side edges thereof to thereby define respective second and third walls of said study cell, each partition having opposed end portions adapted to extend beyond respective edges of the table when the partition is disposed thereon; and depending, table-engaging protrusion means on each end portion, respectively, of each partition for holding the partition against movement of the same over said upper surface of the table in a respective direction.

2. In combination, a rectangular table having two parallel and elongate side edges and two parallel and shortened end edges; a first opaque partition removably mounted on and extending vertically upward of the surface of said table overlying the central longitudinal axis thereof; said first opaque partition defining a lower edge for contacting the top of said table and having opposed end portions extending beyond the end edges of said table; a plurality of second opaque partitions mounted on and extending vertically upward of the surface of said table parallel to the short and end edges of said table; said second partitions each defining at their lower portion a surface for contacting said table top and having opposed end portions extending beyond respective side edges of the table, said second partitions each being spaced and attached transversely of said first partition to define between pairs of said second opaque partitions three-sided study cells; and a protrusion on each end portion of each partition, respectively, the protrusions of each partition extending downwardly from respective end portions and being in proximity to the adjacent edges of the table to prevent horizontal movement of the partition relative to the surface of the table in a respective direction.

3. The invention of claim **1** and including a hinge dividing said first partition into first and second portions, which portions can be folded in overlying relation.

4. The invention of claim **3** and wherein one of said hinged portions of said partition has one second partition conjoined thereto and the other of said portions of said hinged partition has two second partitions conjoined thereto and wherein said protrusion means include protuberances at either end of all said first and second partitions for extending immediately below and beyond the side edges of said table for preventing movement of all said partitions in said respective direction.

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