Oct. 20, 1959 R. A. WASSON ET AL 2,909,399

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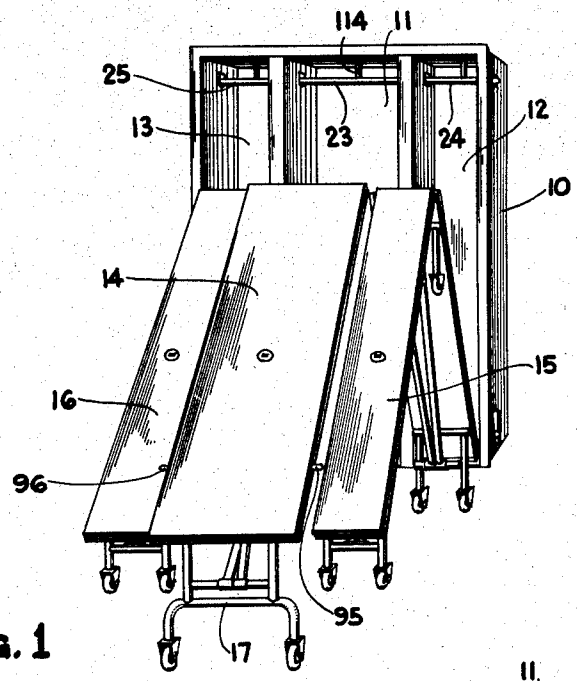


FIG. 1

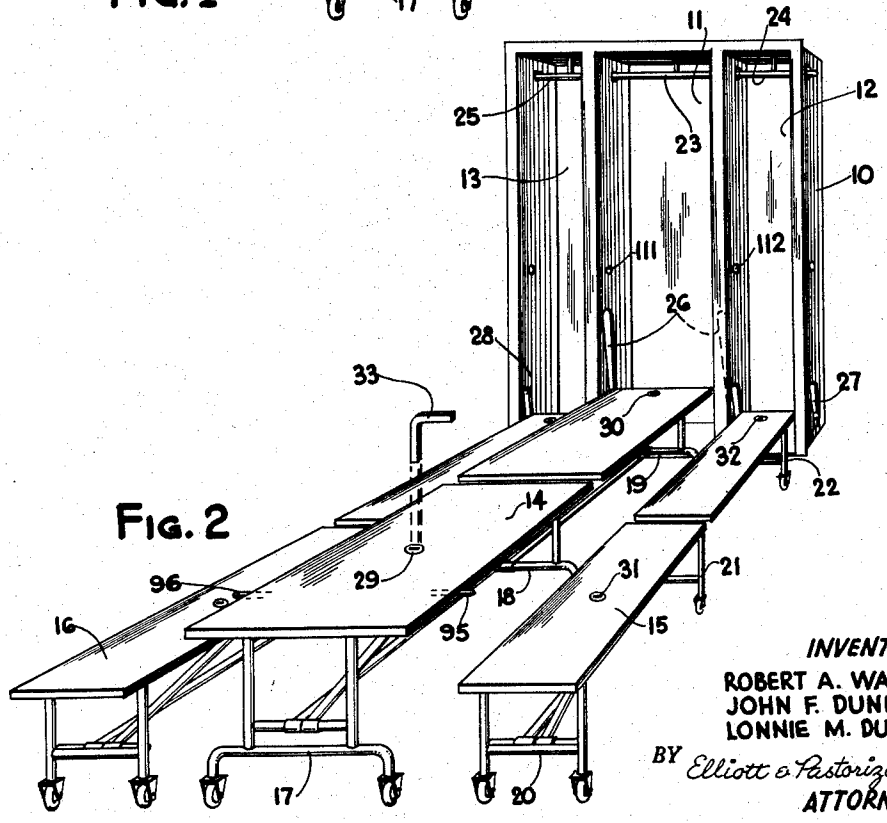


FIG. 2

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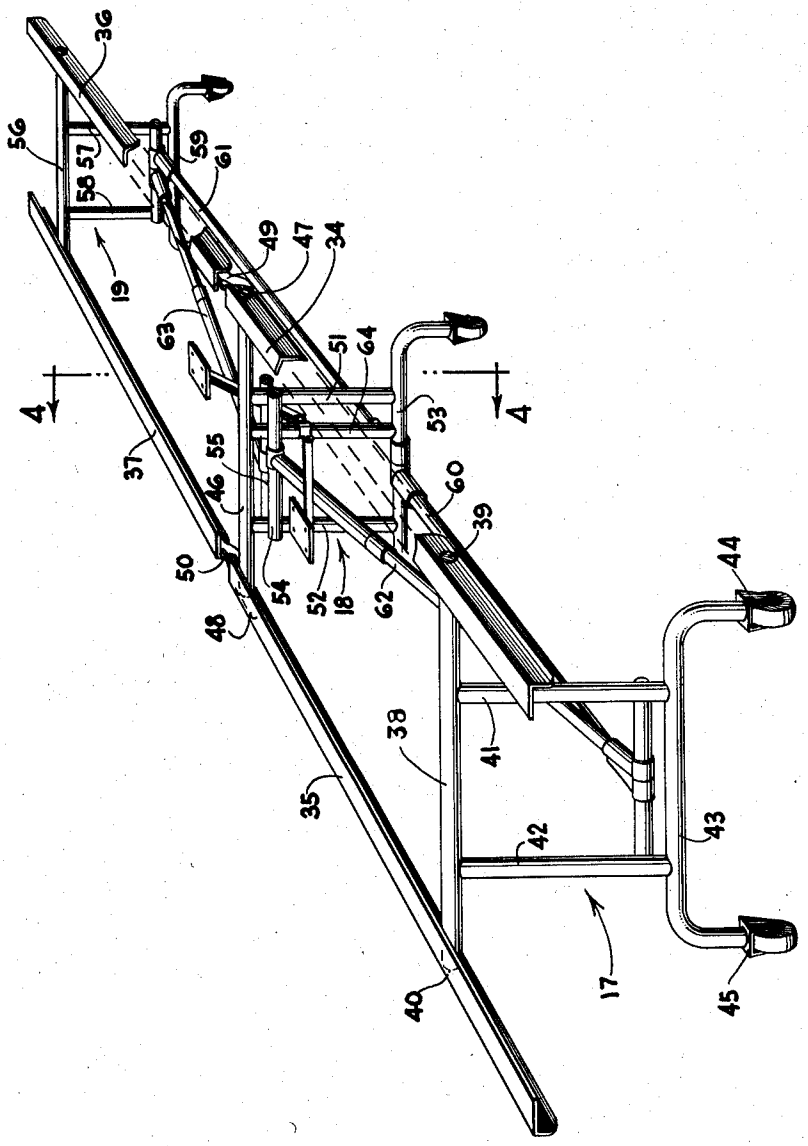


FIG. 3

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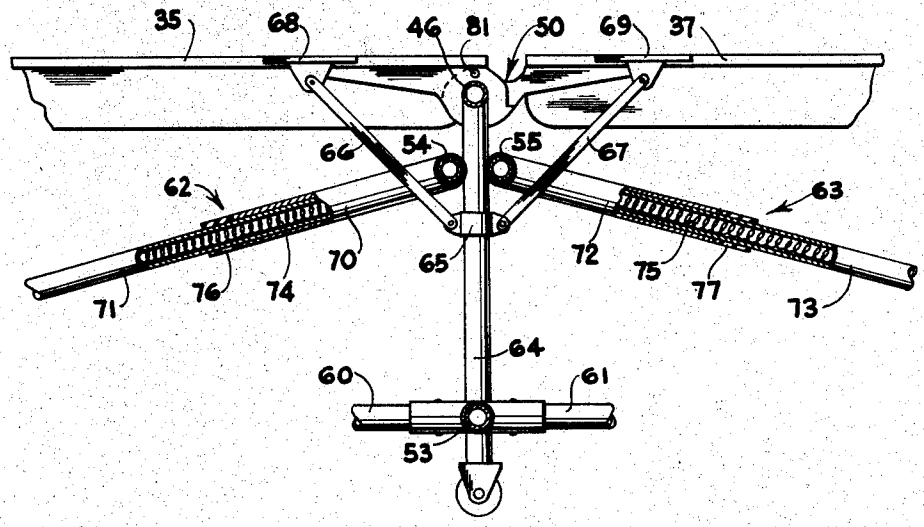


FIG. 4

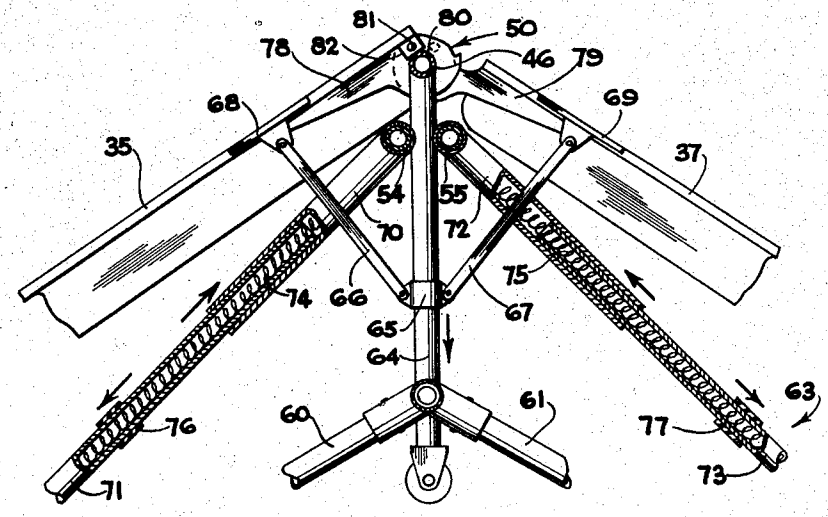


FIG. 5

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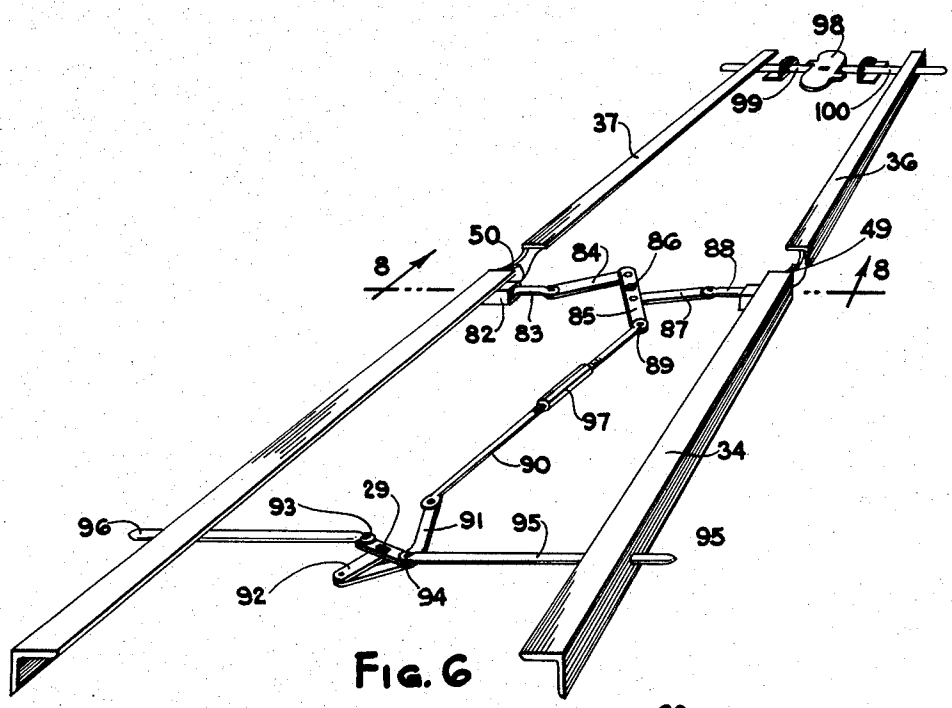


FIG. 6

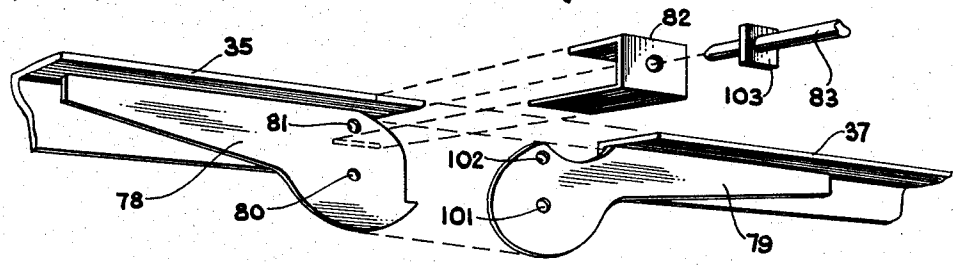


FIG. 7

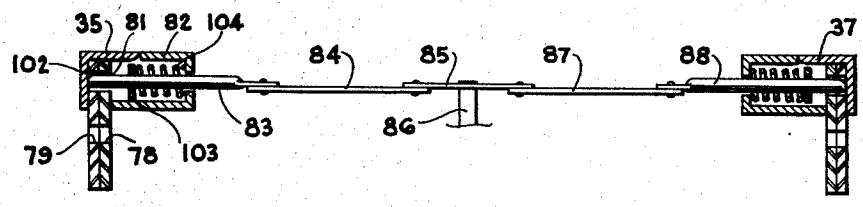


FIG. 8

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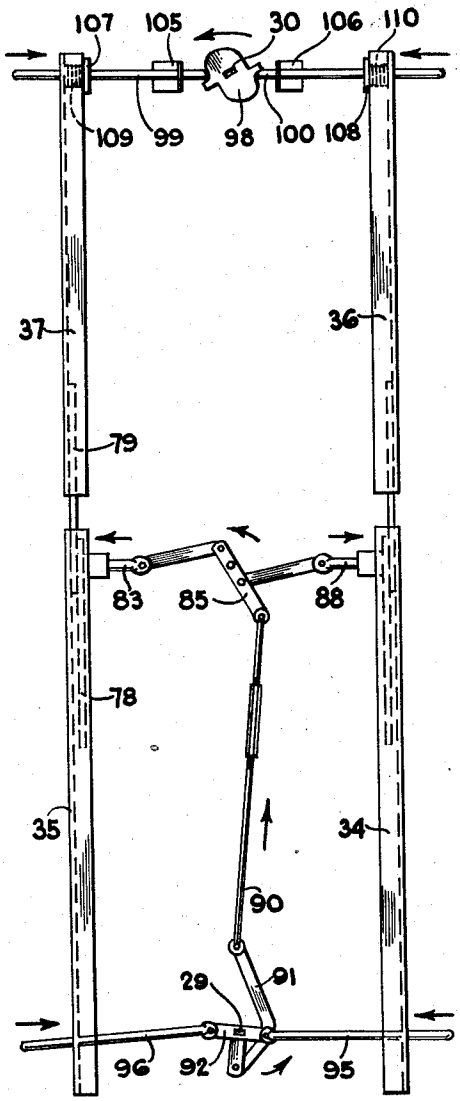


FIG. 9

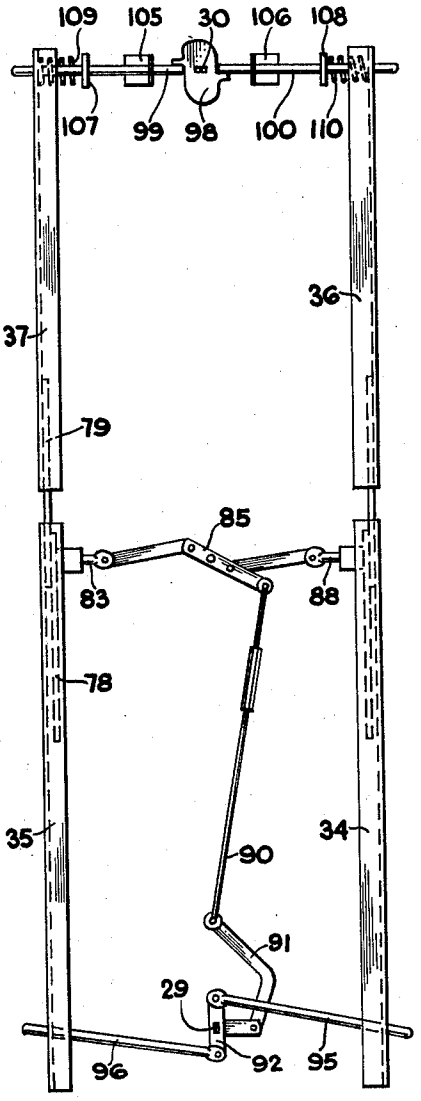


FIG. 10

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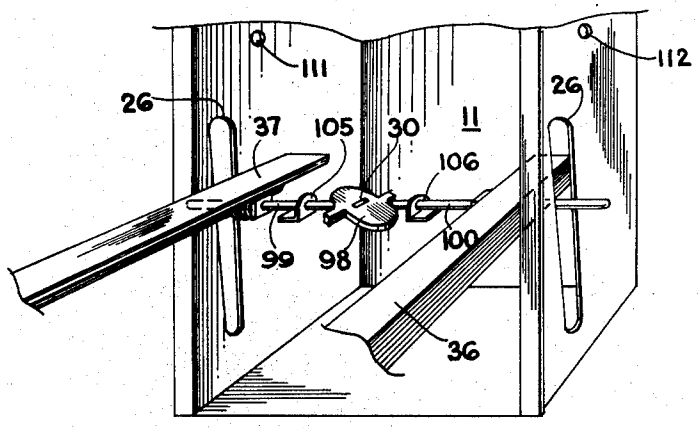


FIG. 11

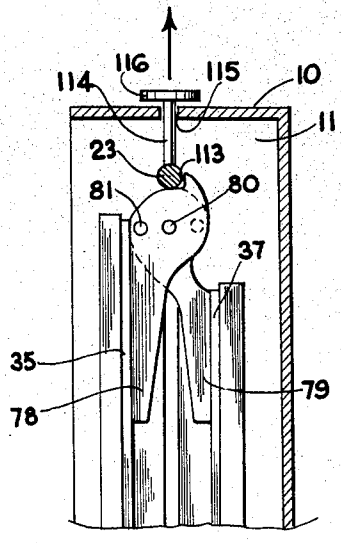


FIG. 12

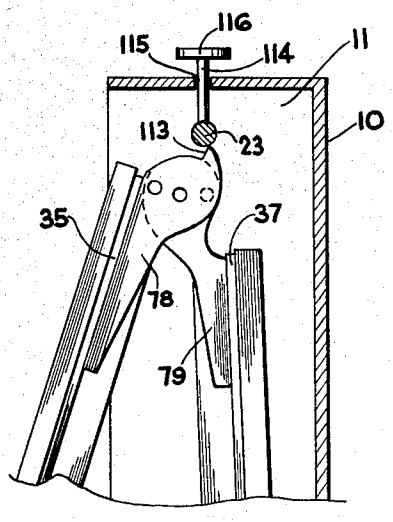


FIG. 13

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United States Patent Office 2,909,399 Patented Oct. 20, 1959

2,909,399

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Application May 7, 1956, Serial No. 582,992

5 Claims. (Cl. 311—16.5)

This invention relates generally to tables, and more particularly to a folding table adapted to seat a relatively large number of people when in unfolded position and be stored away in compact form in a cabinet when in folded position.

A primary object of this invention is to provide a portable table for banquets, conventions, and the like, preferably with benches, all of which may be neatly folded away in a vertical end wall cabinet when not in use.

More particularly, an object is to provide a table of the above type which is extremely rugged and sturdy in unfolded position and yet capable of being manually folded by one person.

Another object is to provide a folding table incorporating novel structural braces which facilitate the actual folding and unfolding operation.

Still another object is to provide a folding table having novel hinge means in which a person's fingers cannot be caught nor damaged and in which is combined a novel locking feature for securing the hinge means in unfolded position.

Another object is to provide a novel lock means in combination with a table of the above type for securing the table with an end wall cabinet whereby it may be neatly folded out of the way when not in use without chance of accidental dislodgment of the table from the cabinet.

Still another object is to provide in combination with a folding table and cabinet of the above type, a retaining bar for securely holding the table within the cabinet and permitting it to be unfolded from the cabinet only if certain sequential steps are followed, whereby there is no possibility of the table falling on a person while he is attempting to remove it.

These and other objects and advantages of the present invention are attained by providing an elongated table surface transversely divided substantially midway between its ends to provide a front table section and a rear table section. Front and rear pairs of angle irons are secured to, and run under, the longitudinal sides of the front and rear sections respectively to provide an extremely sturdy and rugged structure. Hinge means for the two sections are secured to the angle irons adjacent the dividing line so that the sections may be folded into an inverted V shape. A feature of the invention resides in the use of diagonal brace elements in the form of pairs of telescoping tubes carrying inner elongated compression springs which normally bias the braces into extended positions tending to urge the table into its folded position. The forces exerted by the compression springs are normally balanced by the weight of the table which tends to unfold the table, whereby relatively little force is necessary to operate the table.

The hinge means at each end of the dividing line are in the form of overlapping plates having rounded edges so that relative rotation of the plates may be effected without any pinching surfaces coming together or apart during the unfolding and folding operation. These overflapping plates additionally include offset openings adapted to register for reception of locking pins when the table is in unfolded position so that there is no possibility of the table accidentally folding when in use.

The manner of securing the folded table within the cabinet is effected by means of pin projections adapted to be moved transversely from the edges of the front and rear sections of the table to engage suitable openings and slots within the cabinet, whereby the table is securely held within the cabinet when in folded position. Further, one of the overlapping plates of each pair of hinges is provided with an extended radial portion adapted to engage a retaining bar within the cabinet when the table is folded therein whereby the table must be partially unfolded before it can be removed from the cabinet. Thus, the possibility of the table toppling over on the operator is eliminated.

A better understanding of the various features of this invention will be had by referring to a preferred embodiment thereof as illustrated in the accompanying drawings in which:

Figure 1 is a perspective view illustrating the folding table together with benches adapted to be unfolded on each side of the table, and a retaining cabinet for the table and the benches, the table and benches being shown in partially unfolded position during the process of removing them from the cabinet;

Figure 2 is a perspective view similar to Figure 1 illustrating the table and two benches in unfolded position ready for use;

Figure 3 is a perspective view of the table structure with the table top surface removed to illustrate the supporting mechanism;

Figure 4 is an enlarged side view of a portion of the structure taken in the direction of the arrows 4—4 of Figure 3;

Figure 5 is a side view similar to Figure 4 showing the same structure when the table is in partially folded position;

Figure 6 is a perspective view of the table similar to Figure 3 with only the lock means illustrated for purposes of clarity;

Figure 7 is an exploded perspective view of one of the hinge means employed in the table construction;

Figure 8 is a cross section taken in the direction of the arrows 8—8 of Figure 6;

Figure 9 is a plan view showing the lock means in one position;

Figure 10 is a plan view similar to Figure 9 illustrating the lock means in a second position;

Figure 11 is an enlarged perspective view of one end of the table within one of the compartments of the retaining cabinet with certain portions broken away to expose the rear lock means;

Figure 12 is a side view showing the upper portion of the table in folded position within the cabinet; and,

Figure 13 is a view similar to Figure 12 illustrating the initial step necessary to remove the table from the cabinet.

Referring first to Figures 1 and 2, there is shown a retaining cabinet 10 provided with a central compartment 11 and two side compartments 12 and 13. These compartments are arranged to receive a folding table, designated generally by the numeral 14, and two side benches 15 and 16 respectively. As shown more clearly in Figure 2, the table 14 is divided transversely substantially midway between its ends to form two table sections which are adapted to be folded into an inverted V shape for storage in the cabinet as illustrated in Figure 1. Similarly, each of the benches are divided transversely midway between their ends so that they may be

folded into an inverted V shape for storage. The table sections are supported on rollers by three sets of legs illustrated as a front end leg 17, central leg 18, and rear end leg 19. Similarly, each of the benches 15 and 16 are provided with roller legs such as indicated at 20, 21 and 22 for the bench 15.

Within the compartment portions 11, 12 and 13 of the cabinet 10 adjacent the upper ends thereof, there are provided retaining bars 23, 24 and 25 respectively, the purpose for which will become clearer as the description proceeds. Also provided in the partitions at the lower ends of these compartments are central locking slots 26 for the center compartment 11 and outside locking slots 27 and 28 for the bench compartments 12 and 13. These slots are arranged to receive pin projections when the table and benches are folded within the cabinet for securing the lower ends of the folded structures within the cabinet, all as will also become clearer as the description proceeds. The pin projections for the table 14 are operated by means of an Allen wrench receiving socket in the front table section as at 29 and a similar socket 30 in the rear end of the rear table section. Pin projections for the benches 15 and 16 are similarly operated by Allen wrench receiving sockets 31 and 32. In Figure 2, there is shown a conventional Allen wrench 33 available for operating the pin projections by simply inserting it into the respective sockets and rotating them. The mechanical mechanism by which the various pin projections are operated by the sockets will be described in detail as the specification proceeds.

Referring now to Figure 3, the structural arrangement of the table will be described in detail. The structural arrangement for each of the benches is substantially the same and, therefore, description of the table structure will also suffice for the benches. As shown in Figure 3, the frame structure for the table comprises a front pair of angle irons 34 and 35 adapted to be secured to and run longitudinally under the sides of the front table section (not shown). A similar pair of rear table section angle irons 36 and 37 similarly are arranged to support the rear table section.

The front end leg 17, as shown in Figure 3, comprises a pivoting rod 38 journaled in the angle irons 34 and 35 as at 39 and 40 whereby the leg structure may rotate about a transverse axis extending between the angle irons. A pair of downwardly directed leg supports 41 and 42 are rigidly secured at their upper ends to the pivoting rod 38 and at their lower ends to a roller support cross rod 43 terminating at its ends in downturned portions supporting roller trunnions 44 and 45. The center leg 18 similarly comprises a pivoting rod 46 mounted for rotation between the angle irons 34 and 35 as at 47 and 48. The ends of the pivoting rod 46 also pass through and serve as pivots for hinge means 49 and 50 secured between adjacent ends of the pairs of angle irons. Pivoting rod 46 includes downwardly directed legs 51 and 52 secured at their upper ends rigidly to the rod 46 and at their lower ends to a roller support cross rod 53 terminating in similar roller trunnions as shown. The center leg also includes a pair of support bars 54 and 55 disposed on either side of the upper ends of the legs 51 and 52 and are rigidly secured thereto. The rear end leg 19 is identical to the front end leg in that it comprises a pivoting rod 56 and downwardly directed legs 57 and 58 connected at their lower ends to a roller support cross rod 59.

Stability between the three sets of legs is provided by horizontal braces 60 and 61 connecting respectively between the cross rod 43 of the front end leg and the center cross rod 53 of the center leg, and the cross rod 59 of the rear end leg and the cross rod 53 of the center leg. The ends of the horizontal braces are mounted to the cross rods 43, 53 and 59 by suitable collars whereby these braces may rotate about the cross rods yet rigidly maintain the spacing between the lower cross rods of the respective legs.

Also provided are a pair of diagonal braces 62 and 63 extending between the front end leg cross rod 43 and the support bar 54 of the center leg and between the rear end leg cross rod 59 and the support bar 55 on the center leg. The diagonal braces 62 and 63 connect to the center leg at a level adjacent the upper end of the leg to provide stability in a diagonal direction when the table is completely unfolded.

The center leg 18 is also provided with a vertical guide rod 64 extending between the upper pivoting rod 46 and lower cross rod 53. As shown best in Figure 4, this vertical guide rod 64 is provided with a slidable collar 65 from which two laterally extending pivoted links 66 and 67 extend to terminate in plates 68 and 69 longitudinally spaced on either side of the dividing line between the table sections. These plates are secured to the undersurface of the table sections. By this arrangement, during the folding operation, the collar 65 may slide along the guide bar 64 and will serve to retain the center leg in a generally vertical position during the folding operation thereby maintaining the front and rear end legs in vertical positions so that all three legs remain parallel while the table is being folded or unfolded. In Figure 5 the relative positions of the diagonal braces 62 and 63 and horizontal braces 60 and 61 with respect to the supporting bars 54 and 55 and the lower cross rod 53 are clearly illustrated.

In Figures 4 and 5 the diagonal braces 62 and 63 are illustrated in greater detail as each comprising a pair of telescoping tubes 70, 71 and 72, 73. Within each of the tubes there are respectively disposed elongated compression springs 74 and 75 normally biasing the telescoping tubes into an extended position. The inner telescoping tubes 71 and 73 are respectively provided with stop collars 76 and 77. Referring particularly to Figure 5, it will be noted that as the table sections are folded towards an inverted V position, the pairs of telescoping tubes 70, 71, and 72, 73 are elongated or telescoped outwardly as indicated by the arrows. This extension of the diagonal braces is a result of the increased distance between the cross rod 43 and 59 of the front and rear end legs and the supporting bars 54 and 55 on the center leg during the folding operation. The compression springs 74 and 75 in each of the diagonal braces respectively tends to aid this extension of the pairs of tubes so that the folding is facilitated by forces from the springs. In other words, forces tending to move the telescoping tubes into extended position will tend to force the table into an inverted V shape. Normally, these forces are balanced by the gravitational forces established when the front and rear end legs are on the floor and the table is in partially unfolded position as shown in Figure 1. The stop collars 76 and 77 on the inner telescoping tubes 71 and 73 respectively are arranged to engage the end of the outer telescoping tubes 74 and 75 when the table is in completely unfolded position whereby a rigid compression diagonal brace is provided for rigid support of the table when in such position.

In Figures 4 and 5 the hinge means 50 is illustrated in greater detail. Since this hinge means is identical to the hinge means 49 of Figure 2, description of one will suffice for both. As shown in Figure 5 the hinge means 50 comprises inner and outer hinge plates 78 and 79 rigidly secured to the angle irons 35 and 37 respectively. The near ends of the hinge plates 78 and 79 are in overlapping relationship and are adapted to be pivoted about the pivoting rod 46 of the center leg, the end of the rod 46 passing through a central opening in the overlapping center portions of the hinge plates as indicated at 80. Each of the overlapping portions of the hinge plates 78 and 79 also include offset openings such as the opening 81 for the hinge plate 78. These offset openings are adapted to be in registration when the table is

in an unfolded position such as indicated in Figure 4, but out of registration when in partially folded or in completely folded position as shown in Figure 5. A guide bracket **82** is positioned in front of the offset opening **81** of the hinge plate **78** for purposes of guiding a locking pin into the offset opening.

The manner in which such locking pin functions on each of the hinge means **49** and **50** can best be described by reference to Figures 6, 7 and 8. As shown in Figure 6, which illustrates a view of the table structure similar to Figure 3, but with only the lock means illustrated for purposes of clarity, the guide bracket **82** is arranged to receive a locking pin **83** pivotably connected to one end of a link **84** in turn connected to a plate member **85** centrally pivoted as at **86** for lateral swinging movement. Intermediate the pivot point **86** and the other end of the member **85** there is pivoted one end of a second link **87** connected to a second locking pin **88** adapted to lock the hinge means **49**. A similar guide bracket and similar offset openings are provided in the hinge means **49** but are identical to the hinge means **50** and need not be described in detail. To the near end **89** of the member **85** is pivoted a driving rod **90** extending towards the front end of the table section to a bell crank **91** in turn pivoted to a **T** plate **92** provided with the Allen wrench receiving socket **29** as shown. The ends of the cross bar of the **T** **92** are each pivotably connected at **93** and **94** to locking pin projections **95** and **96** respectively adapted to pass through suitable openings in the angle irons **34** and **35**. The driving rod **90** is preferably provided with a turn buckle **97** whereby its length may be adjusted. The rear end table section angle irons **36** and **37** are also provided with lock means comprising a central cam plate **98** and co-operating pin projections **99** and **100**. This lock means is operable independently of the front section locking mechanism and will subsequently be described in detail.

Referring particularly to Figure 7, the hinge plates **78** and **79** are illustrated in exploded perspective view in greater detail wherein it will be evident that the offset opening **81** will be in registration with a corresponding offset opening **102** of the hinge plate **79** when the two are in overlapping unfolded position. The bracket **82** is shown in exploded position for receiving the locking pin **83**. The locking pin **83** is provided with a rigid plate **103** for engaging one end of a compression spring **104** housed between the plate **103** and the rear wall of the bracket **82** when in assembled condition as shown in Figure 8. The arrangement is such that the locking pins **83** and **88** are biased by the spring **104** to pass through the registered openings in the hinge means such as the openings **81** and **102** of the hinge members **78** and **79** of hinge means **50**. If the table is in partially folded condition whereby the offset openings **81** and **102** are not in registration, the pin **83** will simply abut against the side of the outer hinge plate **79** until the offset openings come into registration. On the other hand, when the plate member **85** is rotated to retract the locking pins **83** and **88**, as will be described shortly, the compression spring **104** and the corresponding compression spring associated with the right hand hinge means as shown in Figure 8 are compressed and the pins are retracted from the outer hinge plate offset openings.

Referring now to Figures 9 and 10, the various locking pins and pin projections, and their operation will be described in detail. Referring first to Figure 9, the locking pins **83** and **88** are shown in retracted position, whereas the pin projections **95** and **96** towards the front end of the table are shown in extended position. In order to retract the pin projections **95** and **96** and at the same time extend the locking pins **83** and **88** into position to be received into the offset openings **81** and **102** of the hinge means **50** and the corresponding openings in the hinge means **49** when the hinges are in registration, the **T** plate **92** is rotated in a counter clockwise direction by inserting the Allen wrench **33** of Figure 2 into the Allen wrench receiving socket **29** in the **T** plate. Rotation of the **T** plate **92** in a counter clockwise direction as indicated by the arrow positions the **T** plate as shown in Figure 10 wherein the pin projections **95** and **96** are retracted and the bell crank **91** is moved to urge the driving bar **90** in a forward direction as indicated by the arrow to twist the plate member **85** thereby pushing the locking pins **83** and **88** against the outer hinge plates. This motion is aided by the action of the springs such as the spring **104** within the bracket **82**, but complete retraction of the pin projections **95** and **96** and complete extension of the locking pins **83** and **88** will not take place until the offset openings such as **81** and **102** in each of the hinge plates are in registration, that is, when the table is in unfolded position whereby the locking pins **83** and **88** may pass through both openings to lock the hinges securely in alignment.

Retraction of the locking pins is effected by the reverse movement described above. Thus when the Allen wrench is inserted in the socket **29** and turned in a clockwise direction, the driving bar **90** is drawn towards the front of the table to twist the member **85** and retract the locking pins **83** and **88** from the registered openings. Simultaneously, the pin projections **95** and **96** are extended out to the sides of the angle irons at the front end of the table. After the table sections have been partially folded to place the offset openings of the hinges out of registration, the **T** bar **92** may again be rotated to the position shown in Figure 10 to retract the pin projections **95** and **96** to enable the table to be folded into the cabinet.

With regard to the rear end table section pin projections, the cam plate **98** is provided with the Allen wrench receiving socket **30**, and upon rotation from the position shown in Figure 9 to the position shown in Figure 10, suitable retraction is effected. The pin projections **99** and **100** are guided by suitable guide brackets **105** and **106** and are biased inwardly by means of rigid plates **107** and **108** adjacent the ends of the pins serving to compress suitable compression springs **109** and **110** between the plates and the angle irons respectively. Twisting of the cam plate **98** by the Allen wrench thus serves to cam the projections in or out, the guide brackets **105** and **106** maintaining the pin projections **99** and **100** in proper alignment during this operation.

Referring once again to Figure 2, it will be noted that the partitions of the center compartment **11** of the cabinet **10** are provided with small openings **111** and **112**. These openings are arranged to receive the pin projections **95** and **96** at the front end portion of the table when the table is in folded position within the cabinet. On the other hand, the elongated slots **26** are arranged to receive the rear end pin projections **99** and **100** when in extended position.

Referring to Figure 11, the manner in which slots **26** co-operate with the rear end pin projections **99** and **100** and the corresponding guide brackets **105** and **106** are illustrated in greater detail. The side slots **26** are slightly angulated and elongated in nature, tapering towards their lower ends to a narrow width such that upon sliding movement of the rear end of the table together with rotational movement upon folding the table up into the cabinet, the movement of the pin projections **99** and **100** may be accommodated by the slot. It will be clear that as the table is folded into the cabinet, the pin projections **99** and **100** ride downwardly in the slots until, with the table in completely folded position, the pins **99** and **100** are at the lower ends of the slot where the dimension of the slot is narrowest thereby securely holding the pins in place and the lower end of the table within the cabinet. When the table is in completely folded position the front pin projections **95** and **96** are extended to fit in the openings **111** and **112** whereby the entire table is securely held in the cabinet.

Referring now to Figures 12 and 13, it will be noted

that the inner hinge plate **78** is provided with a radially extending flat edge portion **113** adapted to engage the retaining bar **23** in the compartment **11** when the table is in folded position within the cabinet. The retaining bar **23** is supported transversely within the upper portion of the cabinet compartment **11** by means of center vertical support rod **114** passing through an opening **115** in the ceiling of the compartment and terminating in a flat plate **116** secured to the bar at its upper end. The arrangement is such that when the table is inserted into the cabinet, the upper rounded portion of the hinge plate **78** will engage the retaining bar **23** camming the same upwardly against gravity until the top end of the folded portion of the table is inserted completely within the compartment **11**, at which time the cross bar **23** will drop downwardly to engage the radial edge **113** and securely hold the upper portion of the folded table within the compartment.

In order to remove the table from the compartment, however, it is first necessary to partially unfold the table whereby the hinge plate **78** is rotated sufficiently to enable the radial portion **113** of the hinge plate to disengage itself from the retaining bar **23**. This partially unfolded position is shown in Figure 13 and it will be evident that by this construction the only way the upper portion of the table may be removed, is to initially unfold the front table section sufficiently to release it from the retaining bar **23**. Thus, by insuring that the front table section is partially unfolded before the table can be removed from the upper portion of the cabinet, the possibility of the folded table toppling over on an operator is eliminated. Once the front table section has been partially unfolded, the front end leg rollers will rest on the floor and the table will tend to unfold by gravity as illustrated in Figure 1.

The complete folding and unfolding operation of the table will be evident from the above description. Thus, to remove the folded table from the cabinet the front end section locking pin projections **95** and **96** must first be retracted from the openings **111** and **112**. This retraction is accomplished by rotating the T plate **92** by means of the Allen wrench **33** as described in connection with Figures 9 and 10. It will be remembered that upon retraction of the pin projections **95** and **96**, the hinge locking pins **83** and **88** were simultaneously pressed against the offset openings so that they were in ready condition to snap through both openings when the same were in registration upon complete unfolding of the table. Thus, retraction of the pins **95** and **96** to enable removal of the table from the cabinet automatically places the locking pins **83** and **88** in position to securely lock the hinge plates when the table is completely unfolded. The front section is then first unfolded to release the upper portion of the table from the retaining bar **23** as described in connection with Figures 12 and 13, and the table then unfolded from the position in Figure 1 to the position in Figure 2.

The rear end locking means comprising the cam **30** and pin projections **99** and **100** need not be retracted unless it is desired to move the table entirely away from the cabinet. In this case, the rear end locking means may be retracted by simply rotating the cam plate **98** as shown in Figures 9 and 10 to remove the pin projections from the slots **26**.

When the table is to be inserted in the cabinet, the rear end pin projections **99** and **100** are first arranged to be extended into the slots **26** to properly align the lower end of the table with the cabinet. During the folding operation, the locking pins **83** and **88** for the hinge plates are first retracted by twisting of the T plate **92** as shown in Figures 9 and 10 whereby partial folding of the table may take place. This folding may be readily accomplished by a single person by simply bearing down on the extreme front end of the table, employing the front end legs **17** as a pivot, to raise the center

portion of the table. This motion is considerably aided by the compression springs within the diagonal brace members. The table is then continuously moved or rolled towards the cabinet whereby the angle of the inverted V is decreased until the table is up against the front end of the cabinet compartment **11**. The pin projections **95** and **96** may then be retracted by again moving the cross T plate **92** with the Allen wrench whereby the table may be pushed entirely within the enclosure. As described previously, the rounded surface of the inner hinge plate **78** cams upwardly the retaining bar **23** until the latter snaps down into place when the table is completely within the cabinet thereby holding the upper end in position. The pin projections **95** and **96** are then extended to pass through the openings **111** and **112**.

The folding and unfolding operation of the two benches **15** and **16** shown in Figures 1 and 2 is identical to that of the table and description thereof is not thought to be necesasry.

It will be noted that in both the table and the two benches, the table surfaces are sufficiently separated at the central dividing line and remain separated even when in unfolded position such that there can be no pinching of fingers between the two sections. Further, because of the construction of the overlapping hinge plates, there is no point wherein a pinching action could occur to an operator inasmuch as the plates are rounded at their ends with the exception of the radially extending abutment portion **113** shown in Figure 12 for engaging the retaining rod support. However, there is no surface against which this abutment **113** could press during the folding or unfolding operation except the retaining bar **23** which is out of the way of the operator's hands when the table is being closed within the cabinet.

It will be evident from the above description that the present invention provides an extremely rugged and easily operated table adapted to seat a relatively large number of people. Further, it will be clear that the table and corresponding benches may be folded away into a compact cabinet when not in use and that danger to personnel unfolding the table is minimized in view of the various safety locking features described. Finally, the use of compression springs in the diagonal braces facilitates enormously the problem of folding and unfolding the table and the benches, which job cannot readily be accomplished by a single person when the tables are of the size necessary to accommodate large numbers of people.

Various modifications within the scope and spirit of the present invention will occur to those skilled in the art. For example, in the case of the benches, it is not necessary that two locking pins be provided for each of the hinges inasmuch as the width of the benches is relatively narrow and one locking pin would be sufficient for locking the benches in unfolded position. Further, while various mechanical arrangements have been shown for causing extension or retraction of the locking pins, other types could be employed as well with the same beneficial overall combinational advantages attained. This invention is, therefore, not to be thought of as limited specifically to the particular type of folding table benches, and retaining cabinet described for illustrative purposes.

What is claimed is:

1. In an end wall table transversely divided substantially midway between its ends to provide front and rear table sections, said sections being hinged together for folding into an inverted V-shape and said table including in unfolded position downwardly extending front, center, and rear legs, the combination comprising: a pair of diagonal braces pivotally connected to lower portions of said front and rear legs respectively and extending upwardly and towards each other to pivotally connect to said center leg at a higher level than their pivoted connection to said front and rear legs, each of said diagonal braces including a pair of telescoping tubes; a compres-

sion spring within said tubes normally urging said tubes into an extended position to provide horizontal components of force against said center leg which substantially cancel each other, and upward vertical components of force which add to each other to urge said center leg vertically upwardly and thereby facilitate folding of said table into said inverted V-shape; and stop collar means on each of one of said tubes for limiting retracted telescopic movement of said bracees upon engagement of said collars with the ends of each of the other of said tubes respectively when said table is in unfolded position, whereby said diagonal braces are rigid with respect to compressive forces.

2. An end wall table adapted to be folded into a retaining cabinet, comprising, in combination: an elongated table surface transversely divided substantially midway between its ends to provide a front table section and a rear table section, said sections being hinged together for folding into an inverted V-shape; a front end leg, a center leg, and a rear end leg extending downwardly from said table surface when said table is in an unfolded position; a pair of horizontal braces pivotally connected to and extending from said front end leg and said rear end leg towards each other to pivotally connect to said center leg, respectively; a pair of diagonal braces pivotally connected to said front end leg and said rear end leg about axes co-axial with the pivot axis of said horizontal braces and extending from said front end leg and said rear end leg upwardly towards each other to pivotally connect to said center leg respectively, at a higher level than the points of connection of said horizontal braces; and means pivoting said front end leg, said center leg, and said rear end leg for rotative movement about transverse axes secured beneath said table sections, said diagonal braces including telescoping tubes; and means biasing said telescoping tubes in a direction to increase their lengths to provide horizontal components of force against said center leg which substantially cancel each other and upward vertical components of force which add to each other to urge said center leg vertically upwardly whereby folding of said table by forming said table sections into said inverted V-shape is aided by said biasing means.

3. In an end wall table transversely divided substantially midway between its ends to provide a front table section and a rear table section, the combination comprising: pairs of front and rear angle irons secured to and running under the longitudinal sides of the front and rear sections respectively; and hinge means secured to each of the adjacent ends of said pairs of angle irons at the dividing line of said sections, each of said hinge means including an inner hinge plate and an outer hinge plate respectively secured to adjacent front and rear angle irons and lying in overlapping relationships; a central opening passing through the overlapping portions of said plates; offset openings in overlapping portions of said plates in registration when said table is in unfolded position; and hinge locking pins mounted to said angle irons and biased to pass through said registered openings, such that when said table is unfolded, said locking pins pass through said offset openings to hold said hinge means in unfolded position.

4. The combination of claim 3, including a retaining cabinet for receiving said table in folded position and front lock means for securing said table front section in folded position within said cabinet; and linking means connecting said front lock means with said hinge locking pins whereby operation of said front lock means to unlocking position to enable said table to be removed from said cabinet, simultaneously positions said locking pins in biased condition to pass through said offset openings when said table is unfolded.

5. The combination of claim 3, including a retaining cabinet for receiving said table in folded position; said outer hinge plate of each of said hinge means including a radially projecting edge portion; a retaining bar transversely positioned within the upper portion of said cabinet; and vertical rod passing from the midpoint of said bar through the top of said cabinet; and a restraining plate connected to the end of said rod limiting downward movement of said bar whereby said retaining bar is positioned to be cammed upwardly by said outer hinge plate and drop downwardly in front of said radially projecting edge portion to secure the upper portion of the table in folded position within said cabinet.

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