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CONVERTIBLE SPORTS EQUIPMENT

5 Sheets-Sheet 1



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3,399,889

CONVERTIBLE SPORTS EQUIPMENT

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5 Sheets-Sheet 2

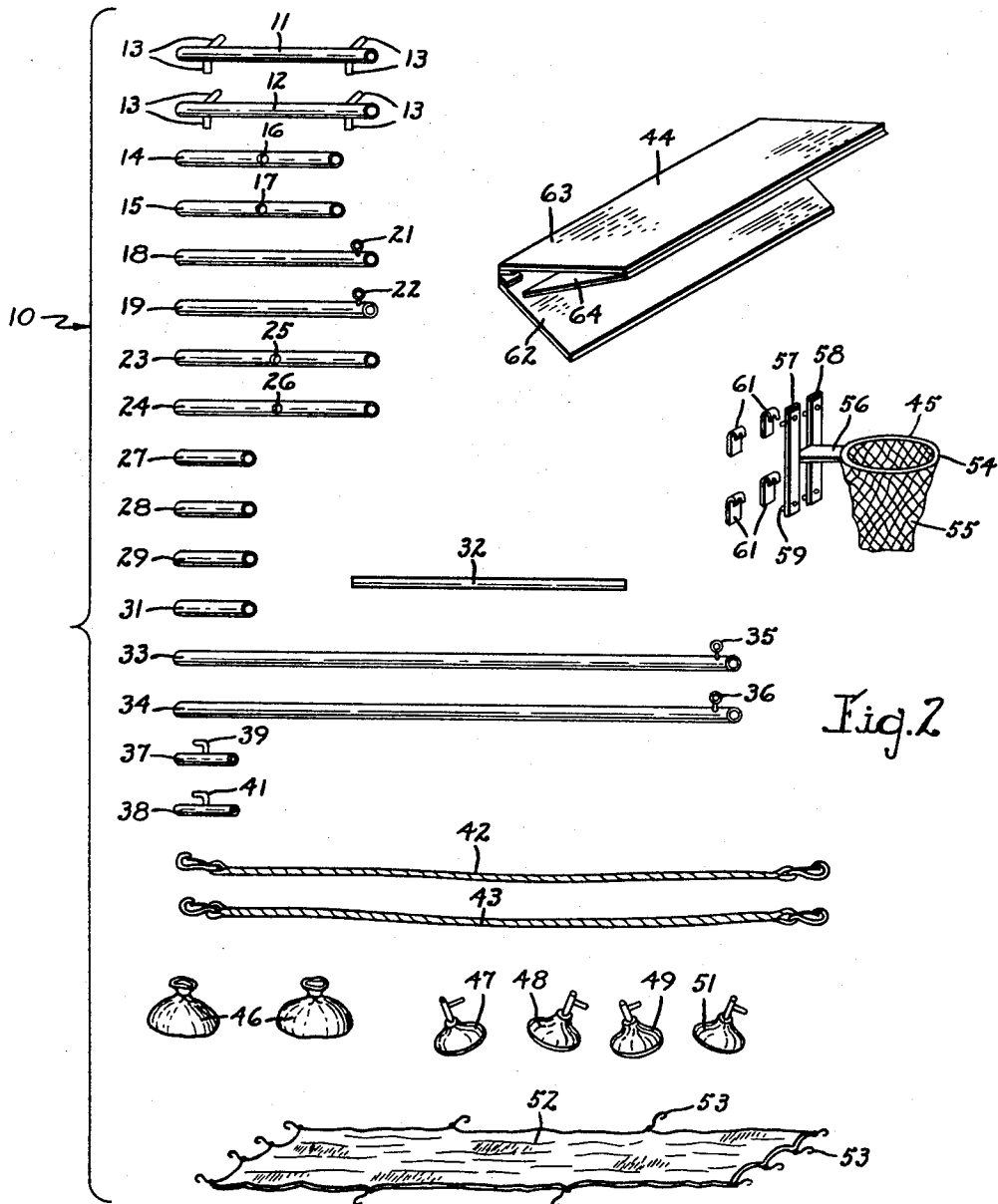


Fig. 2

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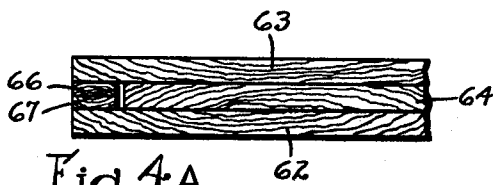
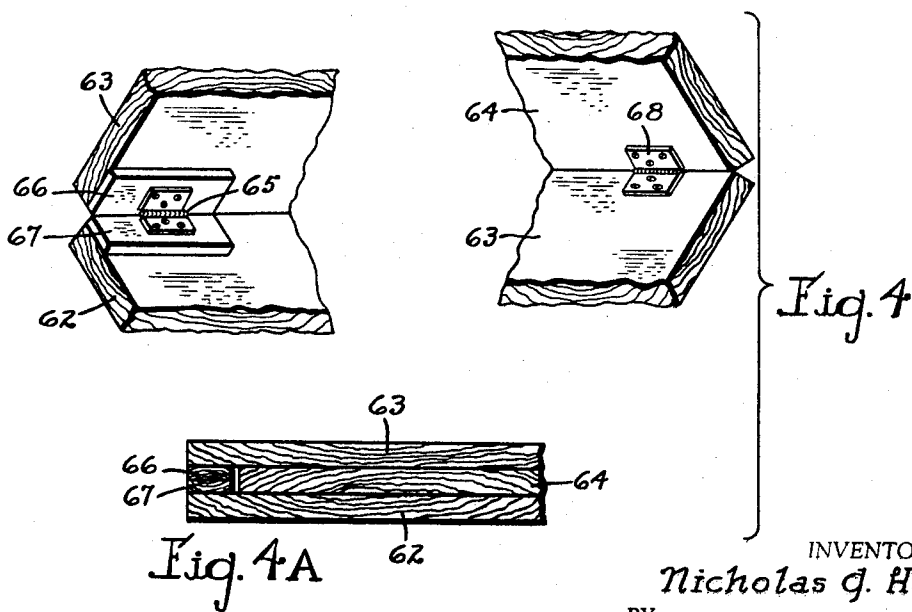
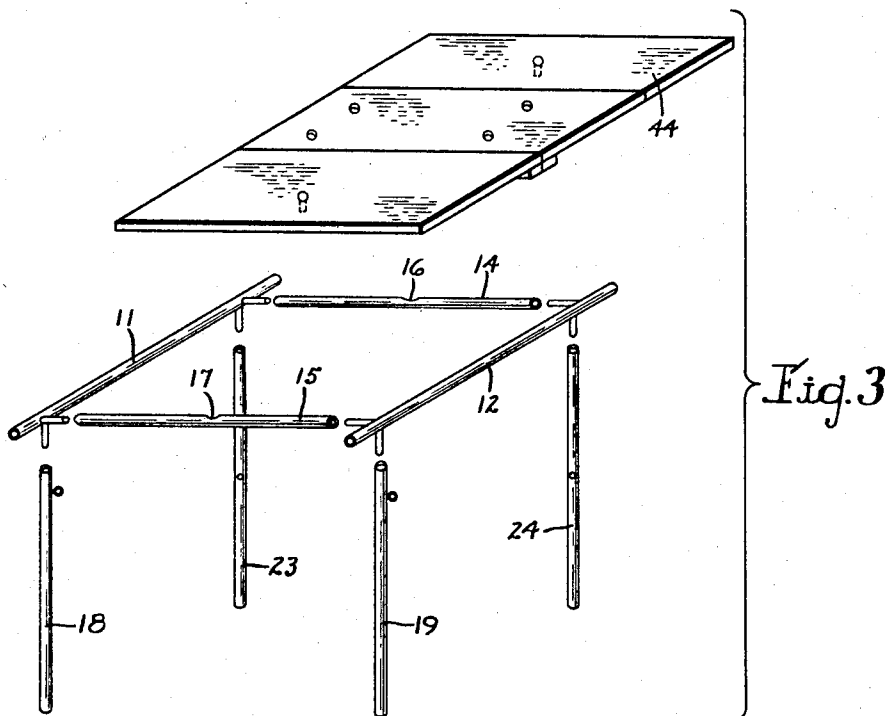
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CONVERTIBLE SPORTS EQUIPMENT

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5 Sheets-Sheet 3



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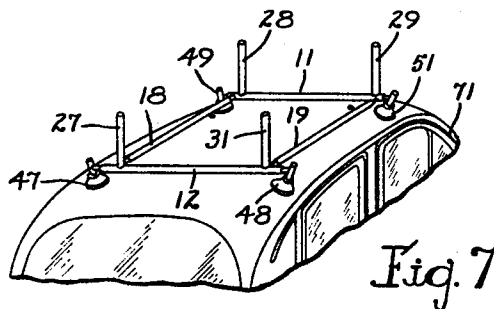
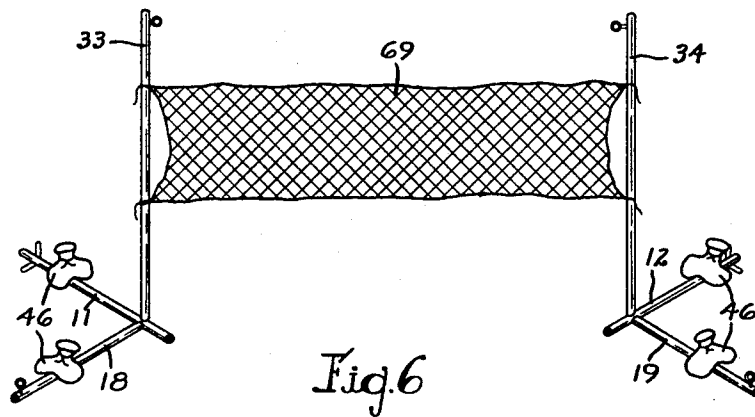
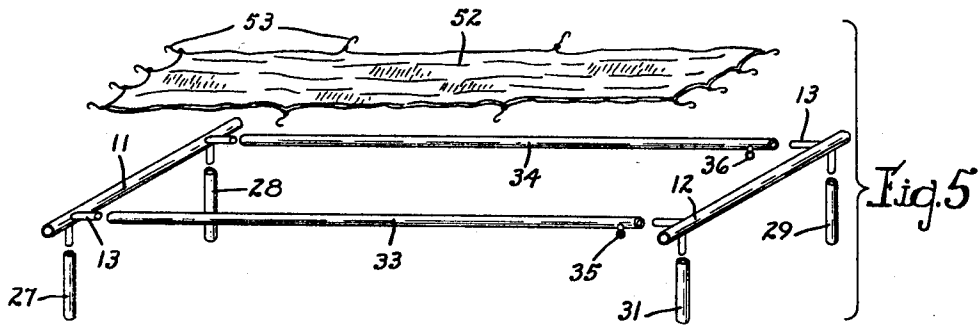
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5 Sheets-Sheet 4



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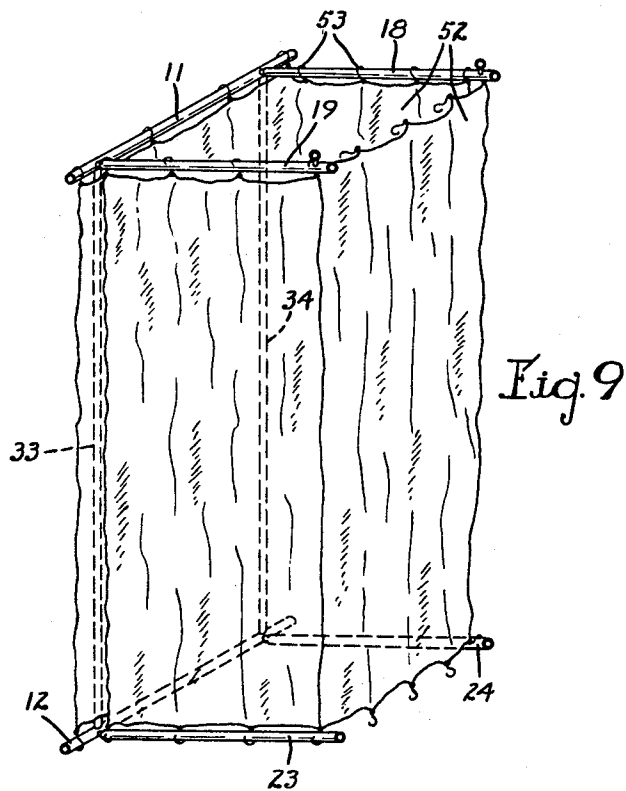
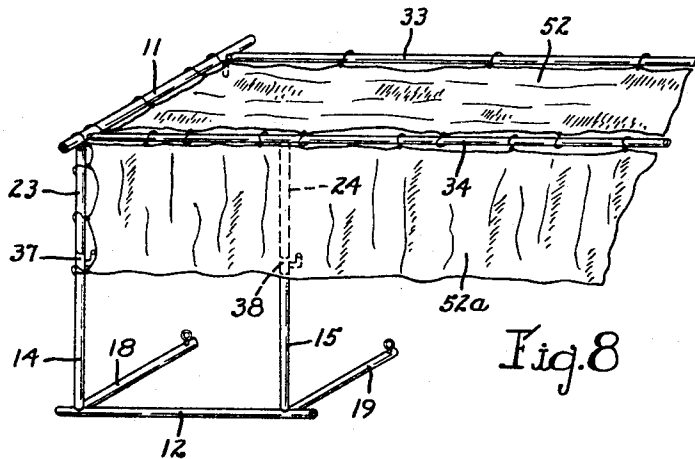
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CONVERTIBLE SPORTS EQUIPMENT

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5 Sheets-Sheet 5



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1

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CONVERTIBLE SPORTS EQUIPMENT

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1 Claim. (Cl. 273-1.5)

This invention relates to convertible sports equipment and, more particularly, to apparatus arranged to produce a number of articles useful in sports and camping by a rearrangement of certain basic elements.

In family camping, there is always the problem of providing lightweight, functional equipment which will take up very little room. With the increased interest in camping in recent years, there has been an increased need for articles useful in such a pursuit but (because of the limitations of space in the automobile) it is difficult for the camper to bring with him all of the things that he would like. Attempts have been made in the past to provide equipment which is convertible from one function to another, but most of these have been very expensive and have not operated well in practice. These and other difficulties experienced with the prior art devices have been obviated in a novel manner by the present invention.

It is, therefore, an outstanding object of the invention to provide convertible sports equipment wherein a few basic elements are capable of being converted into a large number of functional articles.

Another object of this invention is the provision of convertible sports equipment which is rugged in construction, which is inexpensive to manufacture and to produce, and which is capable of a long life of useful service with a minimum of maintenance.

A further object of the present invention is the provision of convertible sports equipment made up of a number of elements which pack very closely together, which occupy very little space, and which, nevertheless, can be converted into a number of functional articles.

It is another object of the instant invention to provide convertible sports equipment which is capable of a considerable amount of abuse and which may be subjected to the action of rain and other weather without being damaged.

It is a further object of the invention to provide convertible sports equipment which, on occasion, may be used as a basketball backstop, a table, a cot, a volleyball apparatus, a car top rack, a tent, and a dressing enclosure.

With these and other objects in view, as will be apparent to those skilled in the art, the invention resides in the combination of parts set forth in the specification and covered by the claim appended hereto.

The character of the invention, however, may be best understood by reference to certain of its structural forms as illustrated by the accompanying drawings in which:

FIG. 1 is an exploded perspective view of convertible sports equipment embodying the principles of the present invention shown while used in one of its functional aspects;

FIG. 1A is a perspective view of certain equipment useful in the apparatus shown in FIG. 1;

FIG. 2 is a perspective view of the various elements making up the invention;

FIG. 3 is a perspective exploded view of the equipment;

FIG. 4 is a perspective view of a portion of the apparatus shown in FIG. 3;

FIG. 4A is a vertical sectional view of a portion of the apparatus shown in FIG. 3;

FIG. 5 is an exploded perspective view of the equipment shown in another aspect of its use;

2

FIG. 6 is a perspective view of the equipment used for another function;

FIG. 7 is a perspective view of the equipment showing it in use as a car top rack;

FIG. 8 is a perspective view of the equipment in use as a tent, and

FIG. 9 is a perspective view of the equipment in use as a dressing enclosure.

Referring first to FIG. 2, the convertible sports equipment, indicated generally by the reference numeral 10, is separated into its various elements. These elements consist of two tubular elongated elements 11 and 12 which are provided with connecting members 13. Each of these connecting members consists of a short length of metal rod having an outside diameter approximately the same or a little smaller than the inside diameter of the main bodies of the tubular elongated elements 11 and 12. These elements are provided adjacent the ends of the elongated elements and extend at right angles to one another. Also forming a portion of the equipment are two elongated elements 14 and 15 of intermediate length having apertures 16 and 17 in their center portions, respectively. Forming part of the equipment are elongated elements 18 and 19 of the intermediate length, having screw eyes 21 and 22 mounted adjacent one end of each, respectively. Elongated elements 23 and 24 of intermediate length are provided having in their central portions apertures 25 and 26, respectively. Four elongated elements 27, 28, 29, and 31 of short length are provided, as is an elongated bar 32 of intermediate length. Two elongated elements 33 and 34 of great length are provided and have screw eyes 35 and 36 fastened at one end. Two connecting members 37 and 38 are provided with brackets 39 and 41, respectively. Metallic cables 42 and 43 are provided with a clip at each end.

Forming part of the apparatus is a foldable board 44 and a basketball basket 45, both of which will be described more fully hereinafter. The equipment is provided with sandbags 46 and with four suction cups 47, 48, 49, and 51. Extending from the top of each suction cup is a vertical tube member with a connecting member of rod form extending at a right angle therefrom. Finally, the equipment is provided with a rectangular piece of fabric 52 on the edges of which are arranged a connecting member such as hooks 53.

The basketball basket 45 consists of a ring 54 from which extends a net 55. From the ring 54 extends a tongue 56 which is attached to two vertical bars 57 and 58, the end of each bar having a peg 59 extending therefrom. Four fastener clips 61 are provided to lock the pegs in place, as will be described more fully hereinafter. The board 44 consists of three sections 62, 63, and 64 which are hingedly fastened together.

FIG. 1 shows the manner in which the elements may be fastened together to form a basketball backstop. The elongated elements 18 and 19 are placed on the ground with sandbags 46 holding them in place. Connecting these elongated elements is the elongated element 11 with its connecting members extending therefrom. Each of the connecting members is a solid peg having the same external diameter as the internal diameter of the tubes 18 and 19 and, therefore, fits into them tightly. The other one extends vertically, and over this peg is inserted the elongated elements 33 and 34. The elongated elements 33 and 34 extend vertically in spaced parallel relationship and the cable 42 joins the upper end of the screw eye 35 at the upper end of the elongated element 33 to the screw eye 21 at the outer end of the elongated element 18. Similarly, the clip on one end of the cable 43 is attached to the screw eye 36 of the elongated element 34, while the other clip on the other end is attached to

3

the screw eye 22 on the other end of the elongated element 19. Inserted in the upper end of the elongated tubular member 33 is the connecting member 37 with its bracket 39; in the upper end of the elongated element 34 is inserted the connecting member 38 with its bracket 41. Then, the bar 32 is laid between the two brackets 39 and 41. Extending upwardly from the connecting member 37 is an elongated element 15, while extending upwardly from the connecting member 38 is the elongated element 14, while the elongated element 12 has its connecting members inserted in their upper ends and connects them together. The foldable board 44 is fastened to the elongated elements 12, 14, and 15 with its hinges facing rearwardly. The pegs 59 on the bars 57 and 58 of the basketball basket 45 are inserted through corresponding holes extending through the central panel 63 of the board 44. Fastener clips 61 extend over these pegs to lock them in place. The manner in which this is accomplished is shown in FIG. 1A in which it can be seen that the peg 59 extends through the bar 57 of the basketball basket and through the board 44; each peg is provided with a groove at its outer end over which a slotted portion of the fastener clip 61 passes to lock the basketball basket in place. Furthermore, fasteners extend through the apertures 16 and 17 on the vertically arranged elongated elements 14 and 15 to hold the board in place, its weight resting on the bar 32 which, in turn, lies in the brackets 39 and 41. It can be seen, then, that what is provided is a sturdy basketball backstop which may be quickly set up in a camp site and used by members of the family.

FIGS. 3, 4, and 4A show the manner in which the equipment may be used to form a table. The elongated members 18, 19, 23, and 24 are arranged vertically to provide the legs for the table. Extending between the elongated elements 18 and 23 is the elongated element 11, while the elongated element 12 extends between the elongated elements 19 and 24 which serve as the legs. The elongated elements 14 and 15 then extend between the ends of the elongated elements 11 and 12 to provide with them a rectangular form. Then, the board 44 is laid in place on top of this rectangle with fasteners extending through the apertures 16 and 17 in the elements 14 and 15, respectively. In this way, a sturdy table is formed.

FIG. 4 shows the manner in which the panels 62 and 63 are connected together by a hinge 65 mounted on cleats 66 and 67, while the portions 63 and 64 are joined by a simple hinge 68 without the cleats. This permits the portion 64 to be folded between the portions 62 and 63, the cleats 66 and 67 separating these two last-named portions sufficiently to permit this, as is evident in FIG. 4A.

FIG. 5 shows the manner in which the equipment can be re-arranged to provide a sleeping cot or bed. The elongated elements 27, 28, 29, and 31 of short length are arranged vertically as the legs of the cot. Extending between the elongated elements 27 and 28 is the elongated element 11 with its connecting members 13 inserted into the upper ends of these legs to hold them together. Similarly, the elongated element 12 extends between the elongated elements 31 and 29 with its vertical connecting member or peg inserted into the hollow tube. Extending between the ends of the elements 11 and 12 are the elongated elements 33 and 34 of great length forming with the elements 11 and 12 a large elongated rectangle. Finally, the fabric 52 is placed on this rectangle with the hooks 53 engaging the elongated elements 11, 12, 33, and 34 to hold the fabric in place. In this way, the cot is complete.

FIG. 6 shows the way in which the elements can be arranged to provide a volleyball apparatus with a volleyball net 69. First of all, the elongated members 33 and 34 are arranged vertically and in spaced parallel relationship. Connected to the bottom of the elongated element 33 and extending away from it are the elongated element

4

11 with one of the connecting members extending upwardly in the tubular element 33 and the other one extending along the ground and having impaled on it the elongated element 18. Sandbags 46 are put in place on these elements 11 and 18 to form a base for the element 33. In a similar manner, the bottom of the element 34 is supported by an elongated element 12 with its connecting members and an elongated element 19 with sandbags 46 in place. The volleyball net 69 extends between the elements 33 and 34 to provide a completed volleyball apparatus.

FIG. 7 shows how the elements may be used as a car rack, possibly to hold the other elements of the equipment on an automobile 71. The elongated element 12 extends along the automobile and on one end has inserted in it the connecting member of a suction cup 47, while at the other end the suction cup 48 is provided so that its connecting member is inserted in the tubular end of the element 12. At the other end of the automobile 71 is arranged the elongated element 11 which has inserted in its ends the connecting members of the suction cup 49 and the suction cup 51. The elements 11 and 12 are, therefore, in spaced parallel relationship and are joined by the elongated elements 18 and 19 whose ends are inserted on the connecting members of the elements 11 and 12. When arranged in this way, the heretofore free connecting members of the elements 11 and 12 extend vertically and on these connecting members are arranged the elongated elements 27, 28, 29, and 31 of short length. When arranged this way, these make up a complete car rack wherein the vertical pegs formed by the elements 27, 28, 29, and 31 can be used to tie loads to the rack.

FIG. 8 shows the equipment used as a sunshade or tent fly. First of all, the elongated element 12 is arranged along the ground; impaled on its connecting members and extending along the ground are elongated elements 18 and 19. This forms a base for the tent and the heretofore free connecting members of the element 12 extend vertically. On these elements are impaled elongated elements 14 and 15 to the tops of which are connected the connecting members 37 and 38 to the tops of which are connected the elongated elements 23 and 24. Fastened to the top of the vertical member formed by the elements 14 and 23 is the elongated element 11 which extends horizontally above the element 18, which rests on the ground. The other end of the element 11 has a connecting member extending horizontally and on this is impaled the elongated element 33. Impaled on the connecting member at the same end of the element as is occupied by the elongated element 23 is the other elongated element of great length 34. The elements 33, 34, and 11 form a U-shaped configuration to which is attached the fabric 52. If desired, another fabric 52a may also be used to provide a vertical drop.

FIG. 9 shows the manner in which the equipment may be used as a dressing enclosure. First of all, the elongated element 12 is laid along the ground and to it are attached elements 23 and 24. Extending vertically from the element 12 and attached by means of its connecting members are the elongated elements 33 and 34 of great length joined at their upper ends by the elongated element 11. Extending horizontally from the ends of the elements 11 are the elements 18 and 19 and hanging down from them is a plurality of fabrics 52 attached to the elements by means of their hooks 53.

It will be understood from an examination of the above description that the equipment 10 consists of a relatively few numbers of parts which, because of their compact nature (being mostly metal tubing), are not only light but are compact. A great number of functions are thereby served by a relatively few of the elements. Furthermore, the elements are of relatively inexpensive metal tubing so that the apparatus can be made and sold for a relatively low price. Furthermore, because of the simple nature of the mechanism, the apparatus can be

5

subjected to considerable abuse and to the action of weather without affecting its ability to be used to any great extent. It is not necessary to be careful in packing these elements together and, as a matter of fact, it is contemplated that most of the elements would be wrapped up in the fabric elements to be carried in the trunk of an automobile.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material spirit thereof. It is not, however, desired to confine the invention to the exact form herein shown and described, but it is desired to include all such as properly come within the scope claimed.

The invention having been thus described, what is claimed as new and desired to secure by Letters Patent is:

1. Convertible sports equipment, comprising

- (a) two elongated elements of great length mounted vertically in spaced, parallel relationship,
- (b) a board member having hinge means for folding and adapted to be mounted in vertical position at the upper ends of the elements of great length,
- (c) two elongated elements of intermediate length having connecting members extending from each end and connected to the lower end of the elements of great length to form a base,
- (d) two elongated elements of intermediate length adapted to be connected to the upper ends of the

6

first-mentioned elongated elements to function as extensions thereof,

- (e) an elongated element having connecting members extending from the ends thereof adapted to be connected horizontally between the upper ends of the previously mentioned elongated elements,
- (f) a basketball basket having a tongue member radially projecting from a basket ring and bracket means connected to said tongue, and
- (g) mounting means releasably joining said basketball basket to said board, said means comprising peg means adapted for insertion through corresponding holes in said bracket means and said board and clip means for releasably engaging said peg means.

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