July 14, 1936. S. S. SCHMIDT 2,047,748

TOY AND THE LIKE

Filed Jan. 9, 1935 2 Sheets-Sheet 1

Fig. 1.

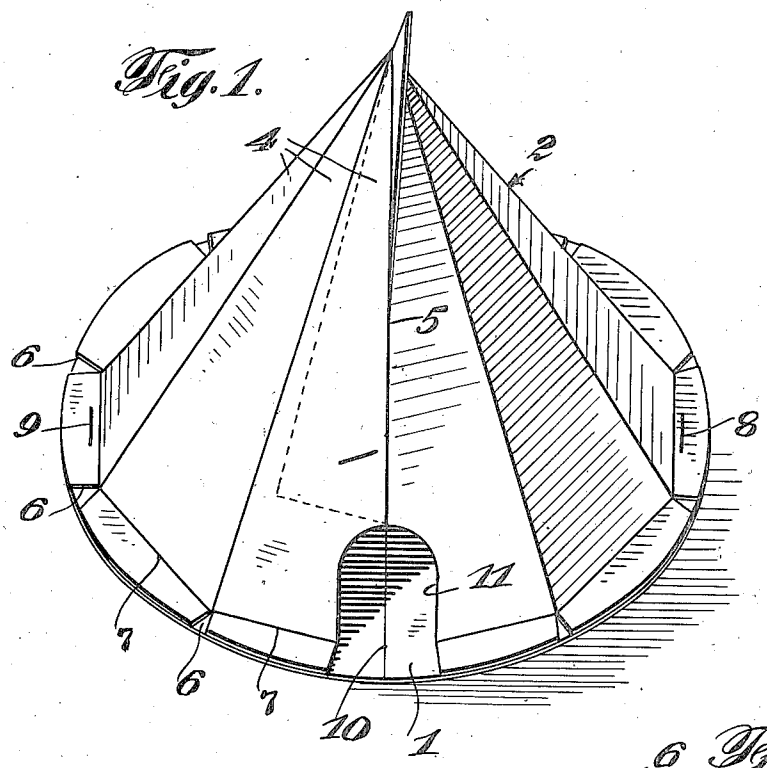


Fig. 2.

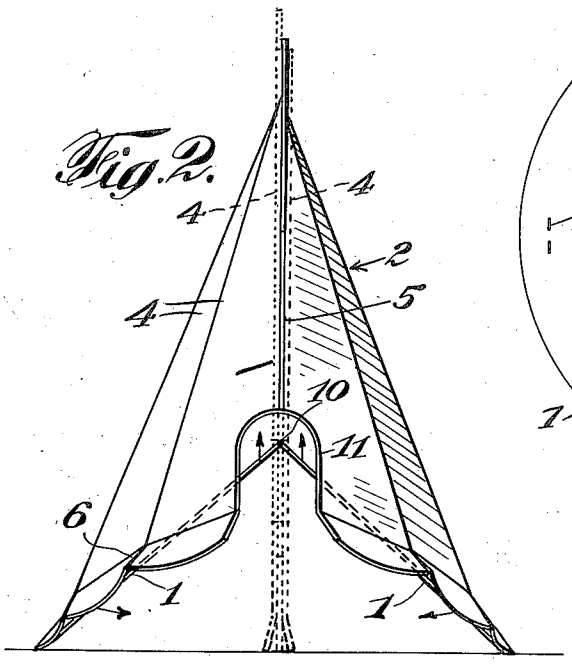
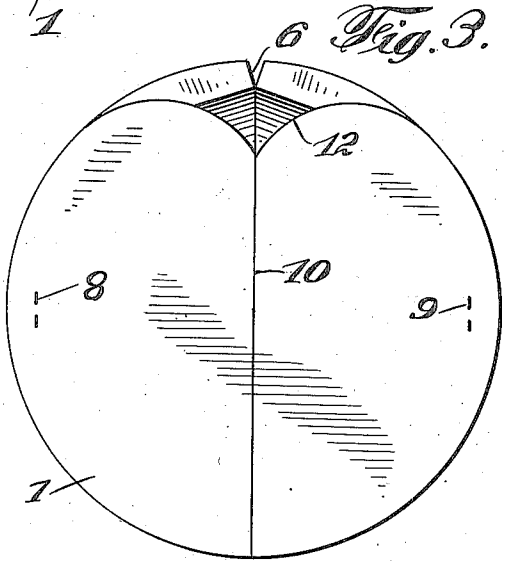


Fig. 3.



INVENTOR.
Samuel S. Schmidt
BY
Norman R. Holland
his ATTORNEY.

July 14, 1936. S. S. SCHMIDT 2,047,748

TOY AND THE LIKE

Filed Jan. 9, 1935 2 Sheets-Sheet 2

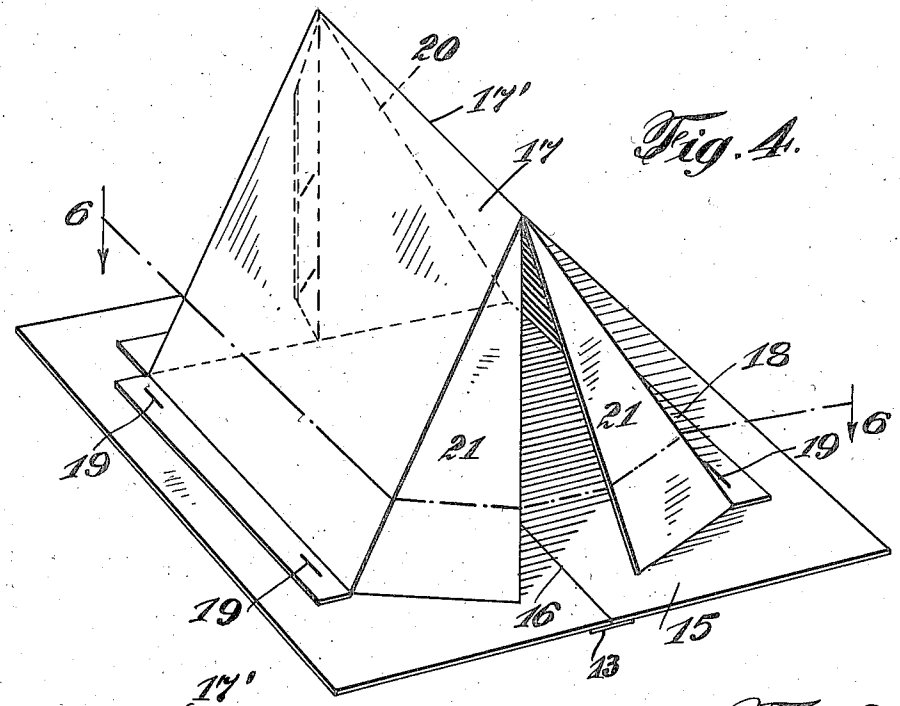


Fig. 4.

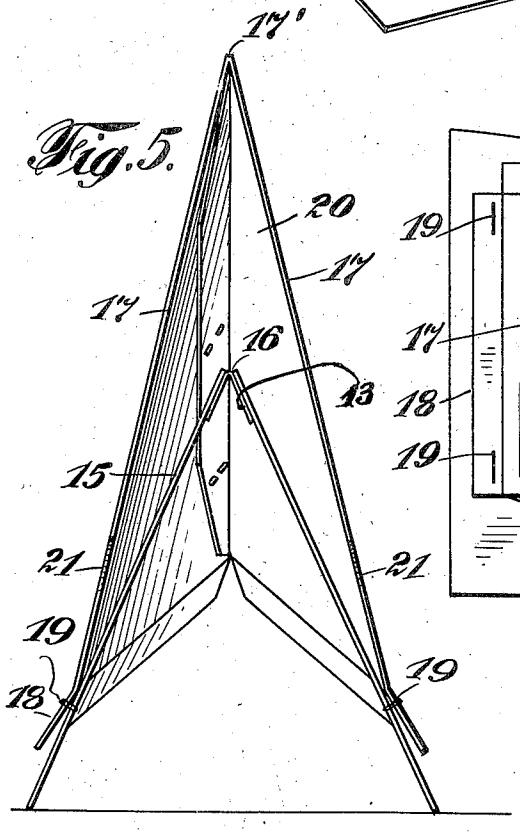


Fig. 5.

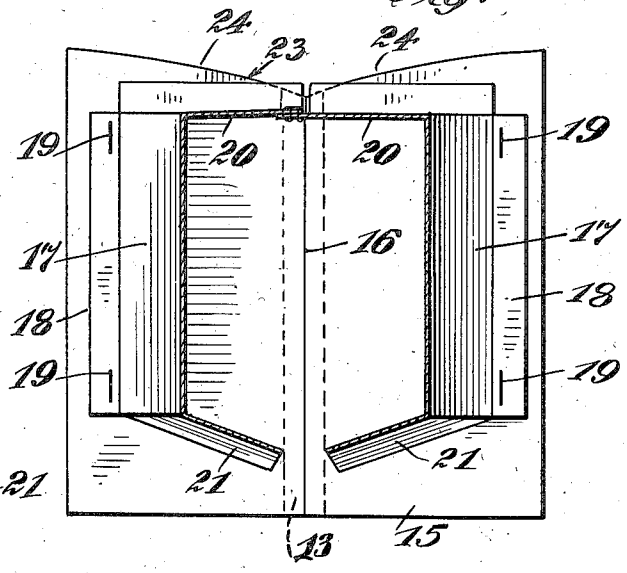


Fig. 6.

INVENTOR.
Samuel S. Schmidt
BY
Norman N. Holland
his ATTORNEY.

Patented July 14, 1936 2,047,748

UNITED STATES PATENT OFFICE

2,047,748

TOY AND THE LIKE

Samuel S. Schmidt, Spring Garden Township, York County, Pa., assignor to Grey Iron Casting Company, Mount Joy, Pa., a corporation of Pennsylvania

Application January 9, 1935, Serial No. 936

10 Claims. (Cl. 46—21)

The present invention relates to toy structures, and more particularly to foldable or collapsible structure, such as tents and tepees made of cardboard or other sheet material, although certain of its features may be utilized in other types of structures.

Children are quite fond of tents, houses, and other types of toy constructions. The present invention pertains to constructions of this character adapted to be collapsed for shipping and storage and readily set up again by a child or by anyone else. Foldable objects which have been made heretofore have not been of a type adapted for use by children. Such toys and structures should be relatively inexpensive and easy to manufacture. Also, it is very tiresome to grown-ups to be continually asked to assemble or disassemble toys or to erect them. The present construction is peculiarly adapted for children's use because it is sturdy and, at the same time, operates sufficiently easily to be collapsed and set up by a very small child, without help. In addition, the structure may be readily made from two pieces of cardboard attached to each other at two or more points, thereby reducing the cost of material and the manufacturing operations to a minimum. The preferred embodiment of the invention is particularly useful in connection with cowboy and Indian sets, toy soldiers, Boy Scout sets and the like.

An object of the invention is to provide an inexpensive tent, tepee or other toy construction.

Another object of the invention is to provide a tent or other collapsible construction which can be readily assembled from inexpensive parts.

Another object of the invention is to provide a tent or other construction which may be readily collapsed after assembly to facilitate shipping and storing.

Another object of the invention is to provide a collapsible cardboard construction which may be readily set up by a child without the assistance of older persons.

A further object of the invention is to provide a collapsible tent or tepee construction from a minimum number of parts readily assembled.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawings, forming a part of the specification, wherein

Fig. 1 is a perspective view of a tepee or tent illustrating the present invention;

Fig. 2 is a front elevational view illustrating the tepee or tent partially collapsed in full lines and completely collapsed in dotted lines;

Fig. 3 is a bottom view of the tent or tepee illustrating the invention;

Fig. 4 is a perspective view illustrating the invention applied to another form of tent;

Fig. 5 is a sectional view illustrating the tent shown in Fig. 4, partially collapsed; and

Fig. 6 is a sectional view along the line 6—6 of Fig. 4, illustrating the invention.

Referring again to the drawings, and more particularly to Figs. 1 to 3 thereof, there is shown a tepee having a bottom 1 and a top or tent portion 2. The bottom may be round, as shown in Fig. 3, or polygonal to support the bottom of the tent. The top portion may be made from a triangular sheet which is scored to form a series of triangular side portions 4. The triangular sheet is folded and the side edges are glued or stapled together, preferably at 5, so that a substantially conical or pyramidal tent portion is formed, simulating an Indian tent or tepee. The lower ends of the side portions 4 are slitted at 6 and scored at 7 to provide tabs for attaching the tent portion 2 to the bottom or base 1.

A construction of this type may be readily made from two pieces of cardboard suitably scored and cut by automatic machinery. Since a child desires to have groups of structures of this sort, it is desirable for them to be stored in as small a space as possible. Likewise, it is difficult and much more expensive to ship a construction of this sort or to store it in stores unless it can be collapsed. Furthermore, where a toy is to be used by a child, its operation should be sufficiently simple for a child to operate, otherwise the child is consistently troubling its parents or other grown-ups to assist it. One of the primary objects of the present invention is to provide a construction of this character which may be folded for the purposes noted above and which is sufficiently simple to fold so that any child can do it.

To achieve this object, the top part of the tent is preferably secured to the bottom at two points, 8 and 9, and the bottom is scored, creased or weakened at 10 so that it folds along its middle. To facilitate folding, the points 8 and 9 are at opposite sides of the tent and substantially perpendicular with respect to the crease 10. The

creased or weakened line 10 preferably passes under the door 11 of the tent so that it may be folded up into the opening or door 11 as shown in Fig. 2. At the other end of the score or crease 10, the base 1 is cut away at 12 so that the base at this point terminates slightly inside of the bottom of the tent part. Where the back of the tent tapers upwardly or is conical in shape, the recesses or cutaway portion 12 should be greater than in a case such as the one described hereinafter, where the back of the tent is upright or substantially perpendicular. In either case, the cutaway portion may terminate substantially adjacent the inner side of the bottom of the tent part.

Referring more particularly to Fig. 2 of the drawings, it will be noted that the tent or tepee may be folded into collapsed position merely by pushing upwardly on the bottom 1. Such pressure on the bottom causes it to fold upwardly and inwardly, as shown in Fig. 2, with one end of the apex of the folded bottom projecting upwardly into the opening or door 11 of the tent and the other end of the apex extending upwardly on the inside of the tent by reason of the cutaway portion 12. Without the cutaway portion 12, it would not be possible for the bottom to be folded upwardly into the tent part. Furthermore, the tent may be readily set up again by a child or anyone else merely by pushing downwardly on the apex of the folded bottom, which is exposed through the opening 11 in the tent proper. It can also be set up by inserting a finger through the cutaway portion 12 at the other end of the apex and pulling the apex of the bottom downwardly into its flat form. When the bottom is in its flat position, the tent is held in set up position, since the cutaway portion does not extend sufficiently inwardly of the sides of the tent to permit the bottom to fold upwardly of its own accord. In addition, the weight of the top part tends to hold the bottom in its flat position. It will be understood that the bottom 1 may be scored to fold downwardly but better results are obtained by folding it upwardly as illustrated in the preferred embodiment.

Referring more particularly to Figs. 4, 5 and 6, substantially the same principle is applied to the type of tent known as a soldier tent or Boy Scout tent. Such a tent is usually substantially square at the bottom and has substantially perpendicular triangular ends or flaps and sloped square sides. Referring more particularly to the drawings, the construction comprises a base or bottom 15 formed from a single sheet of cardboard creased or weakened at 16 to fold along its middle. If desired, the weakened portion 16 of the bottom may be reinforced by a strip of tape or other material 13 as shown. The tent or top part is likewise preferably formed from a single piece of cardboard material with the sides 17 having tabs or flaps 18 stapled at one or more points 19 to the bottom. The sides 17 slope to form an apex 17'. The rear end 20 of the tent is substantially triangular and substantially perpendicular to the bottom. The front end may be formed with suitable flaps 21 for access to the tent.

As described in connection with the Indian tent or tepee, a suitable cutaway portion 23 is provided in the bottom 15 adjacent one end of the crease or folding line 16 of the bottom. The innermost part of the cutaway portion is substantially in line with the rear end 20 of the tent. When it is desired to fold the tent, the bottom is pressed upwardly to fold along the line 16. The rear end of the tent has a vertical crease through its middle so that it can fold outwardly and the sides 24 of the V-shaped cutaway portion 23 are suitably curved or shaped to force the middle of the rear end outwardly into its folded position as the middle of the bottom is raised upwardly. The apex of the bottom at the front of the tent, passes through the flaps as it is folded upwardly so that the entire tent may be folded together, as shown more particularly in Fig. 5.

The soldier or Boy Scout tent operates on the same principle as the tepee tent and illustrates the invention applied to a slightly different construction. It will be understood that in describing the invention applied to two structures, it is not intended to exemplify all the embodiments of the invention. The term "tent" or "tepee", as used herein, applies to any type of construction wherein simple and effective means for collapsing and setting up are desired.

In manufacture, the top part of the tent can be made from a single piece of cardboard and attached to the bottom part by a simple stapling operation, two or more staples being used. Automatic machinery for cutting and scoring cardboard in any desired configurations are well known and may be utilized to reduce the cost of manufacture to a minimum. The tent may be collapsed merely by holding the top portion in one hand and pressing upwardly on the bottom portion. The upward pressure on the bottom, as well as the grip on the top, tends to fold the tent along diagonal lines. The recess or door in the front end of the top part permits the middle part of the bottom to fold upwardly without obstruction. The recess or cutaway portion in the bottom adjacent the other end of the folded or creased portion 10 permits the bottom to be folded upwardly without obstruction from the side of the tent. Such a folding operation is so simple that children can perform the operation without help from grown-ups. The tent may be set up with equal ease, since it is merely necessary to grasp the upper end of the tent and press the bottom downwardly on a flat surface. The flat surface forces the sides of the tent outwardly, which, in turn, pulls the middle or apex portion of the bottom down into its flat position. This method of setting the tent up can be done without injury to it but, if desired, the tent may be more carefully set up by pressing downwardly on the apex of the folded bottom at the exposed part extending through the recess or door 11. The same result may also be obtained by inserting the finger through the cutaway portion 12 and pulling the apex or folded part of the bottom downwardly into its flat position. It is believed that the construction and operation of the structure shown in Figs. 4 to 6 will be clear from the above description.

It will be seen that the present invention provides an attractive toy for children, which may be readily manufactured from a minimum number of parts and which may be readily assembled. The tents or other structures may be shipped and stored in collapsed condition and may be readily set up. The setting up and collapsing operations are sufficiently simple so that a very small child may perform them without troubling its parents or others. The resulting structure is rugged and fully capable of withstanding the rough usage to which it may be subjected.

As various changes may be made in the form, construction and arrangement of the parts herein without departing from the spirit and scope

of the invention and without sacrificing any of its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. In a toy tent constructed of cardboard or the like, the combination of a foldable bottom and a foldable tent part attached to said bottom, said bottom having a cutaway portion adjacent a portion of the tent part extending over the line along which the bottom folds so that the middle portion of the bottom may fold upwardly into the tent part to collapse the structure.

2. In a tent or the like constructed of cardboard or the like, the combination of a foldable bottom, and a foldable tent part, said bottom having a cutaway portion adjacent a portion of the tent part at one end of the line along which the bottom folds, said tent part having a door or recess adjacent the other end of said line on which the bottom folds so that the middle portion of the bottom may fold upwardly into the tent part to collapse the structure.

3. In a foldable toy constructed of cardboard or the like, the combination of a bottom creased or weakened to fold substantially along the middle thereof, and a foldable top part attached to said bottom, said bottom having a cutaway terminating inwardly of the portion of the top extending thereover so that the bottom may be folded upwardly into the top part to collapse the structure.

4. In a toy constructed of cardboard or the like, the combination of a bottom creased or weakened to fold substantially along the middle thereof, and a top part attached to said bottom part at two or more points, the crease or weakened portion in the bottom part being substantially perpendicular to a line connecting certain of said attaching points, said bottom having a cutaway portion adjacent one end of said crease to permit the bottom to be folded upwardly into the top part.

5. In a collapsible toy constructed of cardboard or the like, the combination of a bottom creased to fold substantially along its middle, and a foldable top part attached to said bottom at two or more points, the crease in said bottom being substantially perpendicular to a line joining certain of said attaching points, said bottom having a cutaway portion adjacent one end of said crease and said top part having an opening adjacent the other end of said creased part to permit said bottom to be folded upwardly into said top part.

6. In a collapsible toy constructed of cardboard or the like, the combination of a substantially rectangular bottom creased or weakened to fold along its middle, and a foldable top part attached substantially at the edges of the foldable bottom portions, said bottom having a cutaway portion at one end of the creased or weakened portion and said top portion having an opening at the other end of the crease so that the bottom may be folded upwardly into the top part to collapse the structure.

7. In a toy structure made of cardboard or the like, the combination of a bottom portion creased to fold along its middle, and a foldable top portion substantially polygonal in shape adjacent the bottom, said bottom portion having a cutaway portion adjacent one end of said creased portion to facilitate collapsing the structure.

8. In a toy structure made of cardboard or the like, the combination of a bottom portion creased to fold along its middle, and a foldable top portion substantially polygonal in shape adjacent the bottom, said bottom portion having a cutaway portion adjacent one end of said creased portion to facilitate collapsing the structure, said top part having a cutaway portion adjacent the other end of said crease in the bottom to facilitate collapsing the structure.

9. In a toy tent made of cardboard or the like, the combination of a bottom having an articulate portion along its middle to facilitate folding said bottom, and a foldable top portion attached to said bottom being substantially polygonal in shape adjacent its bottom, said bottom having a recess adjacent one end of said articulated portion to facilitate collapsing the structure.

10. In a toy tent resembling a tepee made of cardboard or the like, the combination of a substantially circular bottom portion having a diametrical extending articulated portion, a tent top having a series of substantially triangular foldably connected wall portions, said bottom having a portion adjacent to one end of said articulated portion extending under the side wall of said tent top to permit said bottom to be folded upwardly into said tent top.

SAMUEL S. SCHMIDT.