March 31, 1959 R. T. KEATING 2,879,553

TOY IGLOO

Filed May 31, 1957

Fig. 1.

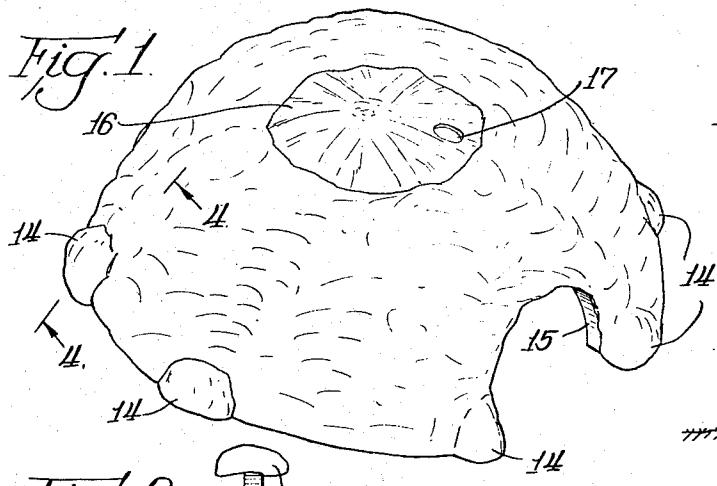


Fig. 4.

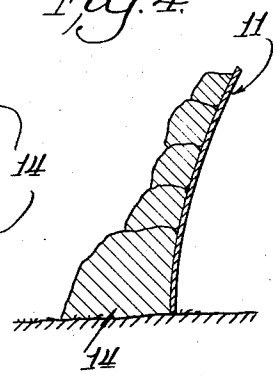


Fig. 2.

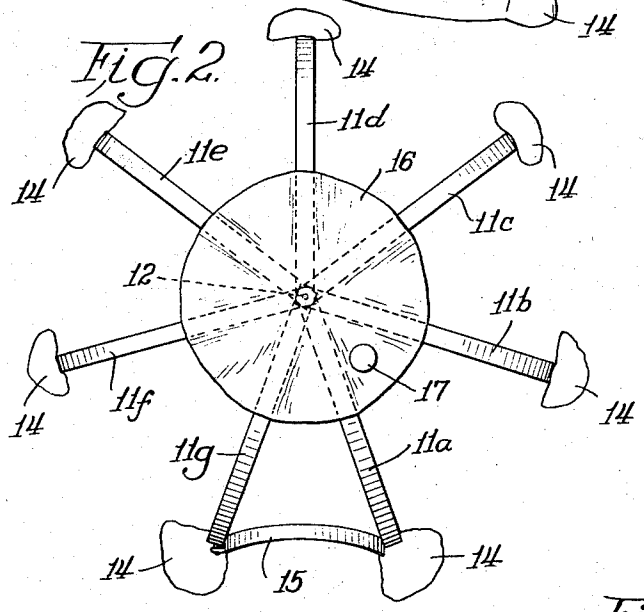


Fig. 5.

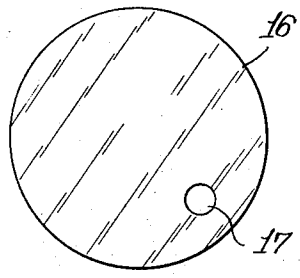


Fig. 6.

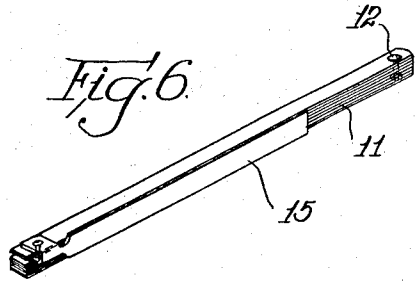
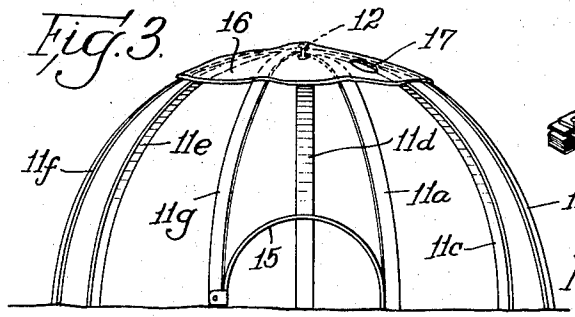


Fig. 3.



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TOY IGLOO

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Application May 31, 1957, Serial No. 662,703

3 Claims. (Cl. 20—2)

This invention relates to a building toy, and has particular reference to a device suitable for easy assembly into a dome-shaped frame capable of supporting an outer covering of snow for constructing a structure commonly called an igloo.

Applicant has observed that normally to build an igloo it requires blocks of snow to be carefully placed in spaced relation to each other to form an enclosed dome-shaped structure. Blocks of snow are normally not obtainable until the snow has been compressed or packed, and with the snow in this packed condition children are generally unable to cut the blocks needed especially of the larger size required.

It is, therefore, an object of this invention to provide a device to aid in making an igloo structure that eliminates the need of large numbers of blocks of snow and, instead, allows the use of freshly fallen snow, when the interest and desires of children in building such a structure are usually greatest. It is of interest to note that applicant has found the type of snow that generally falls in the United States is of the consistency and packability to readily construct an igloo with applicant's novel frame construction.

Another object of this invention is to provide a toy device that can be readily assembled by children and requiring relatively little skill to construct the snow structure.

Another object of this invention is to provide a device of the character described which may be readily and rapidly assembled and disassembled, and which may be used to construct a large number of igloo type structures during the course of a winter season.

Another object of this invention is to provide a device of the character described which, although it may be used to produce objects of considerable size, may be readily packaged in a relatively small container for ease in storing when not being used.

Still another object of this invention is to provide a building toy in which the component parts may be quickly and easily assembled and which coact to form a relatively firm framework capable of being easily covered by snow to form an igloo type structure.

Still another object is to provide an outdoor type toy for children that accomplishes all of the above and yet can withstand the rough usage of children, is protected against the elements, and is inexpensive to produce.

The foregoing objects are accomplished in the present invention by the unique frame assembly disclosed in the drawings of this specification attached hereto, wherein:

Figure 1 is a perspective view of the igloo type structure which may be constructed with the invention;

Figure 2 is a plan view of the frame structure assembled;

Figure 3 is an elevational view of the frame structure assembled;

Figure 4 is a sectional elevation along line 4—4 of

Figure 1 showing the free end of a frame member in assembled position;

Figure 5 in a plan view of the cover showing the vent hole; and

Figure 6 shows the frame members in their closed or storage position.

A plurality of uniform, flexible frame members **11** having a greater width than thickness, are pivotally connected at one end by a rivet type fastening **12**, allowing each frame member rotary movement about the longitudinal axis of said fastening. The frame members are positioned on the rivet type fastening **12** such that their broad faces abut each other when in the closed or storage position as shown in Figure 6.

The number of frame members **11** required for satisfactory operation varies as to the size of the finished structure desired. Applicant has found that seven members made a frame that proved entirely satisfactory for the construction of an igloo structure that was adequate for providing cover for several children.

Members **11***a*—*g* can be of any material that has the desired degree of resiliency. They must be able to flex approximately 90° and yet return to their original shape when the bending force is removed. The material must also retain the desired flexibility at the temperatures expected to be encountered during its use which is below 32° F. Applicant has found that flexible steel bands, which are well known in the art, give an entirely satisfactory performance. A suitable protective coating bonded to the metal surface protects the metal from rust or corrosion, as well as keeping the members looking neat and attractive at all times.

To set up the structure, members **11***a*—*g* are initially disposed about the axis of rivet **12** so that the area of the base circle is divided into substantially equal segments.

The frame assumes a dome shape when each of the frame members **11***a*—*g* is flexed so that the free end of each member is disposed in substantially an upright relationship to the ground. When the frame members are flexed inwardly as shown in Figure 3, an outward springing force acts on the free end of each member. Snow packed on the ground, indicated at **14**, abutting the outside of the frame members **11***a*—*g* has been found sufficient to resist this outward springing force. The flexible members **11***a*—*g* coact to brace and support each other by reason of the fastening **12** and are held fixedly in relation to the ground by the outward force against the packed snow **14** to make a relatively firm and stable framework.

Using the frame as a supporting member and with the consistency of the snow as generally found in the United States, it is a relatively simple matter to pile the snow around the outside of the frame to make a snow igloo of a size large enough to accommodate several children.

As an aid in making the entranceway of the structure, a flexible band **15**, preferably of the same material as band members **11***a*—*g*, is fastened to the free end of one of the main supporting strips, **11***g*, having its broad face perpendicular to the broad face of band **11***g*. After the frame members **11***a*—*g* are in their dome-shaped position, member **15** is flexed as shown in Figure 3 between its adjoining member **11***a*. The packing of snow around the base members **11***g* and **11***a* prevent any lateral movement due to the springing force of member **15** being flexed.

A cover **16** is positioned on the top of the dome-shaped frame. A small hole **17** in the cover **16** acts as a vent for the completed igloo. Cover **16** aids in supporting the snow on the top portion of the igloo and is especially useful for smaller children, facilitating their completely covering the frame with snow. If the covering **16** is

made of a transparent of translucent material, a portion of cover 16 can be left free of the snow cover and used as a source of light for the completed igloo structure.

From the foregoing it should be apparent that the toy building construction here disclosed achieves important practical advantages in several respects. For one thing, the frame members are light weight, and easily handled by children, yet being of such a nature as to offer little possibility of harm due to mishandling. The frame members are of flexible construction yet so coacting as to brace and support each other that the structure as a unit is relatively firm and stable. The light weight frame members permit easy storing during periods of non-use and require no oiling or cleaning for storage or after use.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A building toy capable of producing a frame for supporting a snow cover composed of a plurality of uniform flexible unitary frame members of width greater than thickness pivotally connected at one end, and adapted to be rotated about said pivot connection to selected positions and there assuming a dome shape when the free ends of said frame members are positioned substantially upright to the ground and fixedly held in position by the resilient outward pressure exerted by the free end of each of the said members.

2. A building toy capable of producing a frame for supporting a snow cover, comprising a plurality of flexible unitary metal frame members of width greater than thickness, said frame members pivotally joined at one end by a rivet fastening and adapted to be rotated about said fastening to selected positions and having the free ends flexed substantially upright to the ground with the said flexible members assuming a stable dome shape in association with one another; and a plastic cover supported by the aforementioned frame members partially enclosing the dome-shaped frame.

3. A building toy capable of producing a frame for supporting a snow cover, comprising a plurality of flexible unitary metal frame members of width greater than thickness having an opening at one end therethrough; a fastener adapted to be received through said openings allowing rotatable movement of the aforementioned frame members to selected positions; said frame members adapted to having their free ends flexed substantially upright to the ground and coacting to support and brace each other to make a stable dome-shaped frame unit.

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