

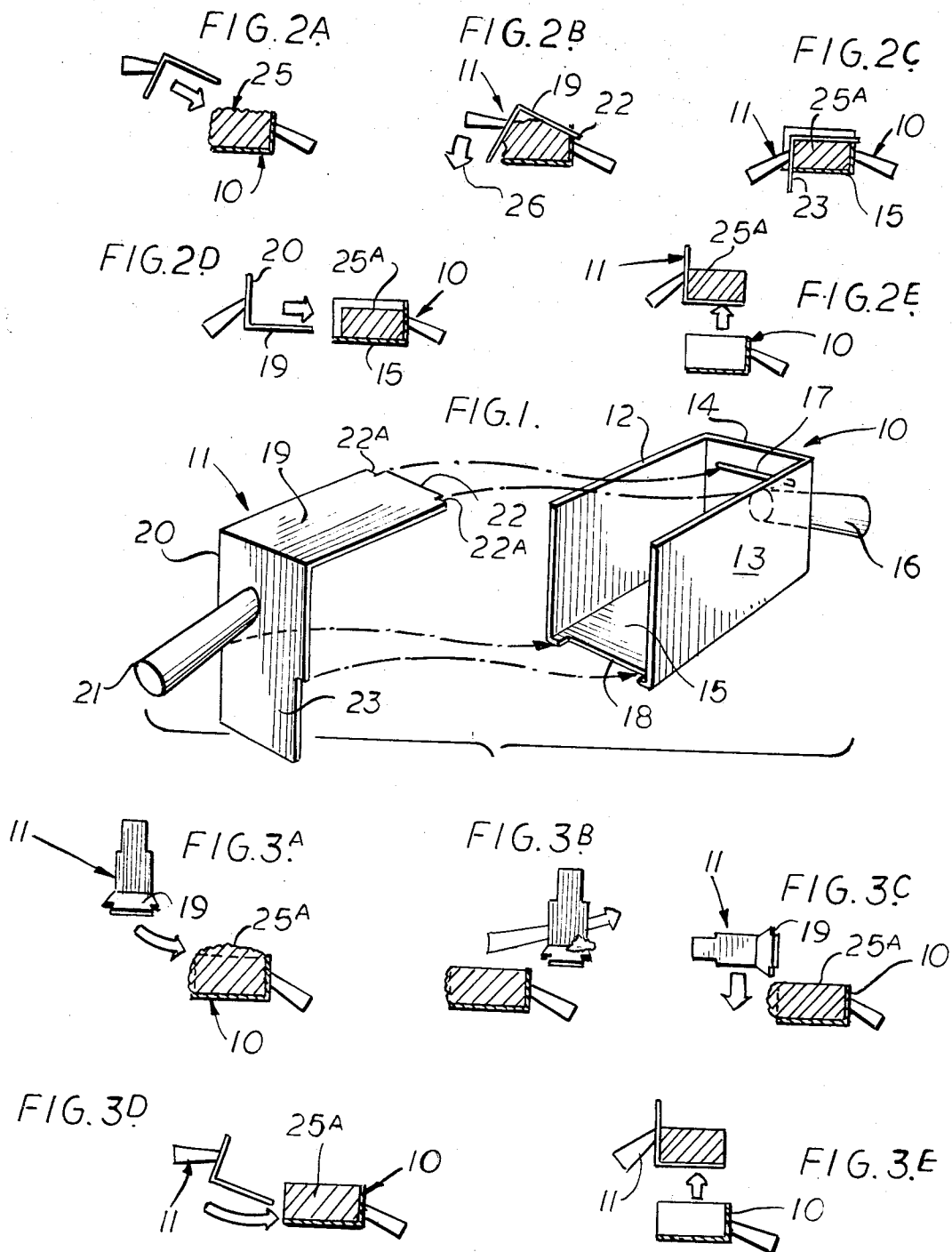
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SNOW BRICKER

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SNOW BRICKER

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5 Claims

ABSTRACT OF THE DISCLOSURE

A two-piece mold for forming snow bricks includes a scoop and a shovel formed in complementary relation to provide the mold. Each mold piece is provided with a handle. The shovel may be hingedly connected to the scoop for compressing snow into brick shape, or it may be used to level the sides of snow held in the scoop, depending on the degree of wetness of the snow. In either case, the shovel may be used to remove a molded snow brick from the scoop.

BACKGROUND AND SUMMARY

The present invention relates to a tool or toy useful in making brick-shaped forms out of snow.

Hand-actuated molds are known for forming butter patties as well as other food products such as meat patties and confectionaries. Such molds are not readily adaptable for use in forming snow bricks because of the desire to have a relatively large brick, as compared with meat patties, ice cubes and the like, and secondly, because of the varying conditions of the snow that may be encountered. For example, the conditions of snow may range from a very light, dry powdery snow to a heavy, wet snow.

The present invention provides a hand-actuated two-piece mold in which each mold piece is provided with a handle. When the mold is arranged for compression, the handles are in opposing relation for compressing the snow.

One piece of the mold takes the form of a scoop having a bottom and three upstanding side walls. Two side walls of the scoop are elongated, and the third side wall is provided with an upper slot. The other mold piece, called a shovel, has the missing side wall as well as the top of the mold. The top wall on the scoop is provided with an extension for fitting into the slot of the side wall of the scoop to form a hinge.

If the snow is relatively powdery and must be compressed, the scoop is used to gather the snow and then the shovel is hingedly connected to the scoop and rotated downwardly to compress the snow held by the scoop. The width of the top wall and side wall of the shovel are arranged to fit within the opposing side walls of the scoop to compress the snow.

If the snow is relatively wet, it is gathered by the scoop, and the shovel is used as a trowel to level off the top and front of a snow mound held in the scoop. Again, the snow brick is removed from the scoop by inverting the shovel to a lifting position. If bricks are formed by compression, they have a somewhat smaller depth and length, although the same width as bricks formed without compression.

The present invention thus provides for a simple and economical tool or toy useful in forming snow bricks and taking account of all the various conditions of wetness encountered in fallen snow.

Other features and advantages of the present invention will be apparent to persons skilled in the art from the following detailed description of a preferred embodiment together with the uses thereof, accompanied by the at-

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tached drawing wherein identical reference numerals will refer to like parts in the various views.

THE DRAWING

FIG. 1 is a perspective view of a two-piece mold for making snow bricks and constructed according to the present invention;

FIGS. 2A-2E illustrate the use of the mold of FIG. 1 for making compressed bricks of relatively light, powdery snow; and

FIGS. 3A-3E illustrate the formation of snow bricks with the mold of FIG. 1 using wet snow.

DETAILED DESCRIPTION

Turning now to FIG. 1, a two-piece mold is shown including a first mold piece generally designated by reference numeral 10 and herein referred to as a "scoop," and a second complementary mold piece generally designated by reference numeral 11 and referred to herein as a "shovel." The shovel 11 is shown in inverted relation in FIG. 1 for complementing the scoop 10 to form a closed compressive mold.

The scoop 10 includes a pair of opposed upstanding side walls 12 and 13, an upstanding back wall 14, a bottom 15, and a handle 16. The entire scoop comprising the elements just mentioned is preferably formed of high impact polystyrene or equivalent plastic material by injection molding techniques so that it is formed into an integral, unitary part.

In the upper portion of the back wall 14 there is formed a horizontally elongated slot 17, the purpose of which will be explained presently. At the forward or open end of the bottom 15 of the scoop 10 there is formed a recess 18 extending inwardly of the distal ends of the opposed side walls 12, 13. The intersecting planes of each of the walls 12, 13 and the bottom 15 are orthogonal to each other so as to form a rectilinear scoop, as shown, which is elongated in the direction of extension of the side walls 12, 13. Preferably, the distal end of the handle 16 is inclined downwardly from the horizontal to facilitate gripping and holding of the scoop.

The shovel 11 comprises two orthogonal wall members including a top 19 and a side wall 20, together with a handle 21. The shovel 11, as mentioned, is shown in FIG. 1 in inverted relation. The shovel 11 is preferably formed from the same material as scoop 10 and as an integral, unitary part by means of injection molding techniques. The top 19 of the shovel 11 includes, at its distal end an extension 22 of reduced width for being received in the slot 17 of the back wall 14 of the scoop 10. Similarly, the back wall 20 includes a tongue 23 of reduced width for being received in the recess 18 of the bottom 15 of the scoop 10. The width of the remainder of the top 19 and back wall 20 of the shovel 11 are dimensioned so as to fit between the opposed side walls 12, 13 of the scoop 10. When in the inverted relation shown in FIG. 1, it is preferred that the distal end of the handle 21 of the shovel 11 have the same downward inclination as the previously-described handle 16.

OPERATION

Turning now to FIGS. 2A-2E, there is shown a method of forming compressed bricks with the two-piece mold of FIG. 1. It may be desired to compress snow which is relatively light and powdery so as to yield better structural characteristics. As shown in FIG. 2A, a mound of snow generally designated by reference numeral 25 is gathered by the scoop 10.

When enough snow has been gathered in the scoop 10 as illustrated, the handle 11 is brought into hinged relation with the scoop, as shown in FIG. 2B, by placing the extension 22 of the top 19 of the shovel in the slot 17 of

the scoop until the shoulders 22a engage the back wall 14 thereof. This connection forms a hinge about a horizontal axis extending parallel to the direction of the elongation of the slot 17. Next, the inverted shovel 11 is rotated about the hinge thus formed in a downward direction as indicated by the arrow 2 in FIG. 2B until the tongue 23 of the back wall 20 of the shovel 11 is received in the slot 18 and engages the edge of the bottom 15 of the scoop, as shown in FIG. 2C, thus compressing the snow mound 25 into a rectilinear brick 25a.

In order to remove the brick 25a from the scoop 10, the shovel 11 is inverted as shown in FIG. 2D and the top 19 of the shovel is forced between the compressed snow brick 25a and the bottom 15 of the scoop 10. The insertion of the shovel into the scoop is facilitated, of course, because, as already mentioned, the width of the walls 19 and 20 is dimensioned to be less than the separation of the opposed walls 12, 13 of the scoop 10. The brick 25a is retrieved, then, from the scoop 10 by lifting as illustrated in FIG. 2E after the shovel is fully inserted.

Turning now to FIGS. 3A-3E, if the snow is relatively heavy and wet, the mere gathering of the snow in the scoop 10 may afford sufficient compaction to yield the desired structural quality. In this case, the shovel 11 may be held in the upright position shown in FIG. 3A and, by using the wall 19 as a trowel, the upper portion of the gathered snow mound 25a is leveled, as illustrated in FIG. 3B by passing the edge of the surface 19 of the shovel along the upper edges of the opposed side walls 12, 13 of the scoop 10.

Next, as shown in FIG. 3C, the same wall 19 of the shovel 11 is used to trim the front side of the snow mound 25a held in the scoop 10 by a downward motion of the shovel.

The squared brick 25a is then removed from the scoop 10 by using the shovel 11 as shown in FIGS. 3D and 3E, similar to the manner in which a compressed brick is removed, as described in connection with FIGS. 2D and 2E.

It will be observed that the compressed brick has a somewhat smaller height and length than the uncompressed brick; but both snow bricks thus formed do have the desired rectilinear shape.

Having thus described in detail a preferred embodiment of the invention, persons skilled in the art will be able to modify certain of the structure which has been described and to substitute equivalent elements for those which have been disclosed while containing to practice the principle of the invention; and it is, therefore, intended that all such modifications and substitutions be covered as they are embraced within the spirit and scope of the appended claims.

I claim:

1. An apparatus for forming bricks of snow comprising: a first mold piece including a flat bottom, a pair of upstanding parallel side walls perpendicular to said bottom, an upstanding back wall connecting said side walls and one edge of said bottom, means providing a slot in the upper edge of said back wall, and a handle formed integrally with said back wall, thereby to provide a scoop, the distal end of said bottom defining a recess; and a mold shovel formed in complementary relation with said mold scoop to provide a closed mold, said mold shovel including a top wall and a back wall in orthogonal relation, and a handle extending outwardly of said back wall, said top wall defining an extension at its distal end for being received in said slot of said mold scoop, and said back wall of said mold shovel defining a projecting tongue for being received in said recess of said bottom of said mold scoop, whereby when said mold shovel is inverted and said extension is placed into said slot, said shovel and said scoop may be rotated relative to each other about a line extending the direction of said slot for compressing snow held in said scoop until said tongue engages and is limited by the recess-defining portion of said bottom said mold scoop.

2. The apparatus of claim 1 wherein each of said mold pieces is formed of plastic material and injection molded.

3. The apparatus of claim 1 wherein said handles of said mold pieces are inclined relative to a horizontal line when said mold pieces are fitted together in complementary relation.

4. The apparatus of claim 1 wherein the width of said top and back wall of said mold shovel are dimensioned to be received within the said opposing side walls of said mold scoop, whereby said mold shovel may be used to remove a brick formed in said mold scoop.

5. The apparatus of claim 1 characterized in that the shape of each of the walls of said mold pieces when assembled in a mold position is perpendicular to adjacent mold walls.

References Cited

UNITED STATES PATENTS

2,752,631	7/1956	Wendt	425-DIG 57
3,059,273	10/1962	Blevins et al.	425-DIG 57
3,572,625	3/1971	Williamsen	249-66 UX
3,685,942	8/1972	Shaffer	425-276

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