



US 20020007574A1

(19) **United States**

(12) **Patent Application Publication**  
**Williams**

(10) **Pub. No.: US 2002/0007574 A1**

(43) **Pub. Date: Jan. 24, 2002**

(54) **SNOW SWEEPER**

**Publication Classification**

(76) Inventor: **Matilda E. Williams, Flint, MI (US)**

(51) **Int. Cl.<sup>7</sup> ..... E01H 5/06**

(52) **U.S. Cl. .... 37/264; 37/265; 37/279; 37/284**

Correspondence Address:  
**Matilda Elaine Williams**  
**1276 North Dye Road**  
**Flint, MI 48532 (US)**

(21) Appl. No.: **09/850,628**

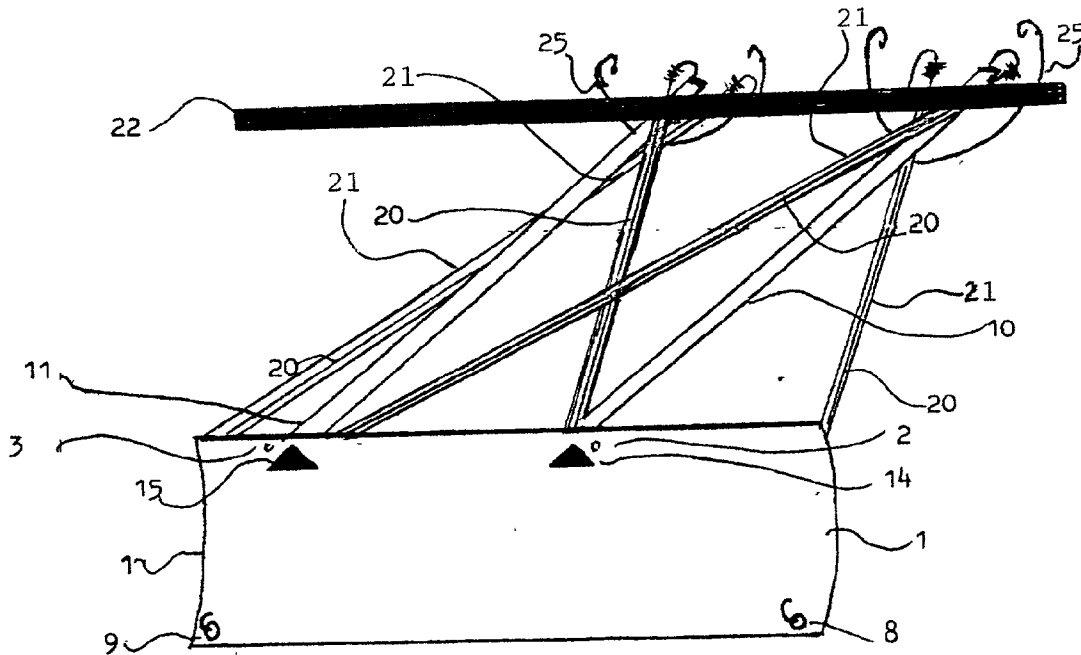
(22) Filed: **May 7, 2001**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/514,597,  
filed on Feb. 28, 2000, now abandoned.

(57) **ABSTRACT**

An easy portable snow sweeper for the movement of snow and of a type having a scooper (1) which communicates at its front with a scooper piece (14,15) and is joined by a beam (10,11). The beam is connected to the perch (22) by screws at the lower end of the beam for scooper screw and suspenders (20) with crooks (21) are used to hold all parts together to provide for moving snow and is made of sturdy light material so that it can be used repeatedly with ease and without fracture.



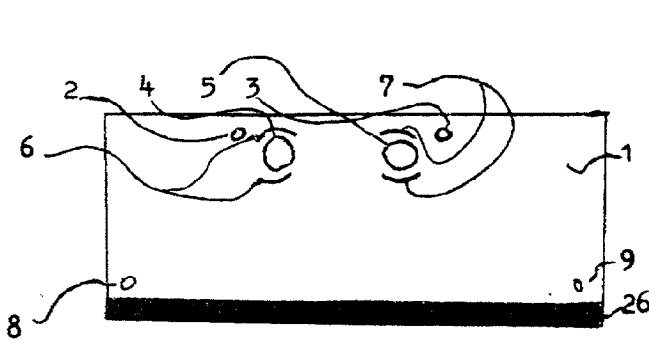


FIG 1A

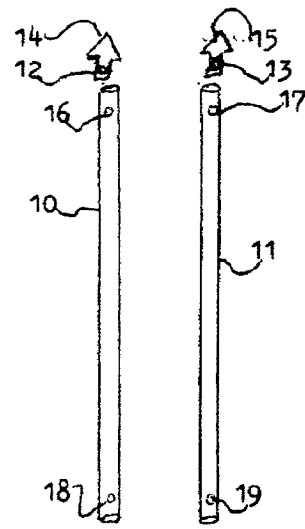


FIG 1B

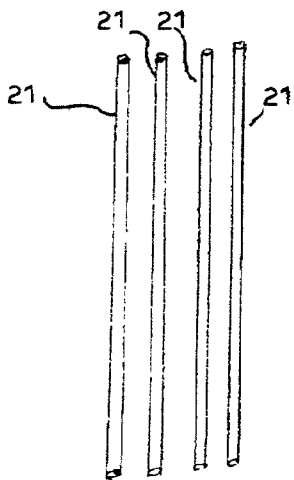


FIG 1C

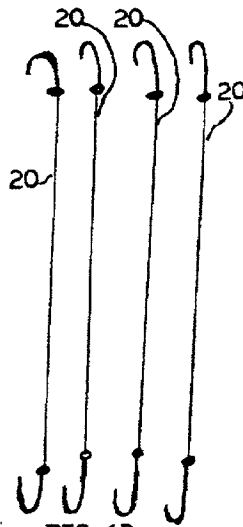


FIG 1D

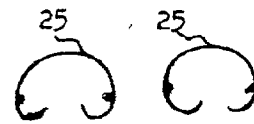


FIG 1E

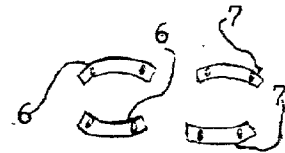


FIG 1F

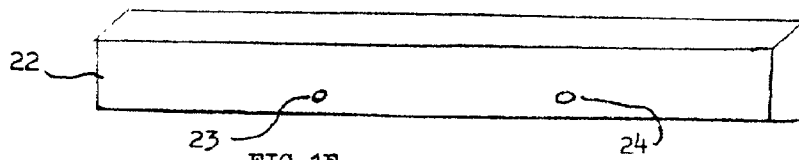


FIG 1G

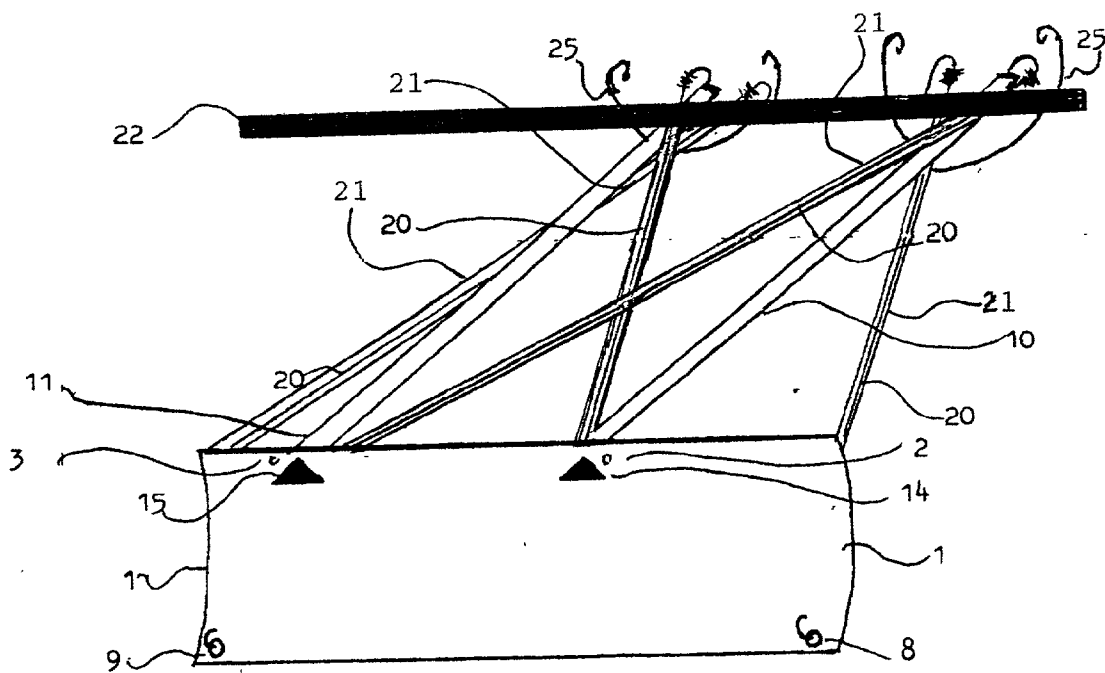
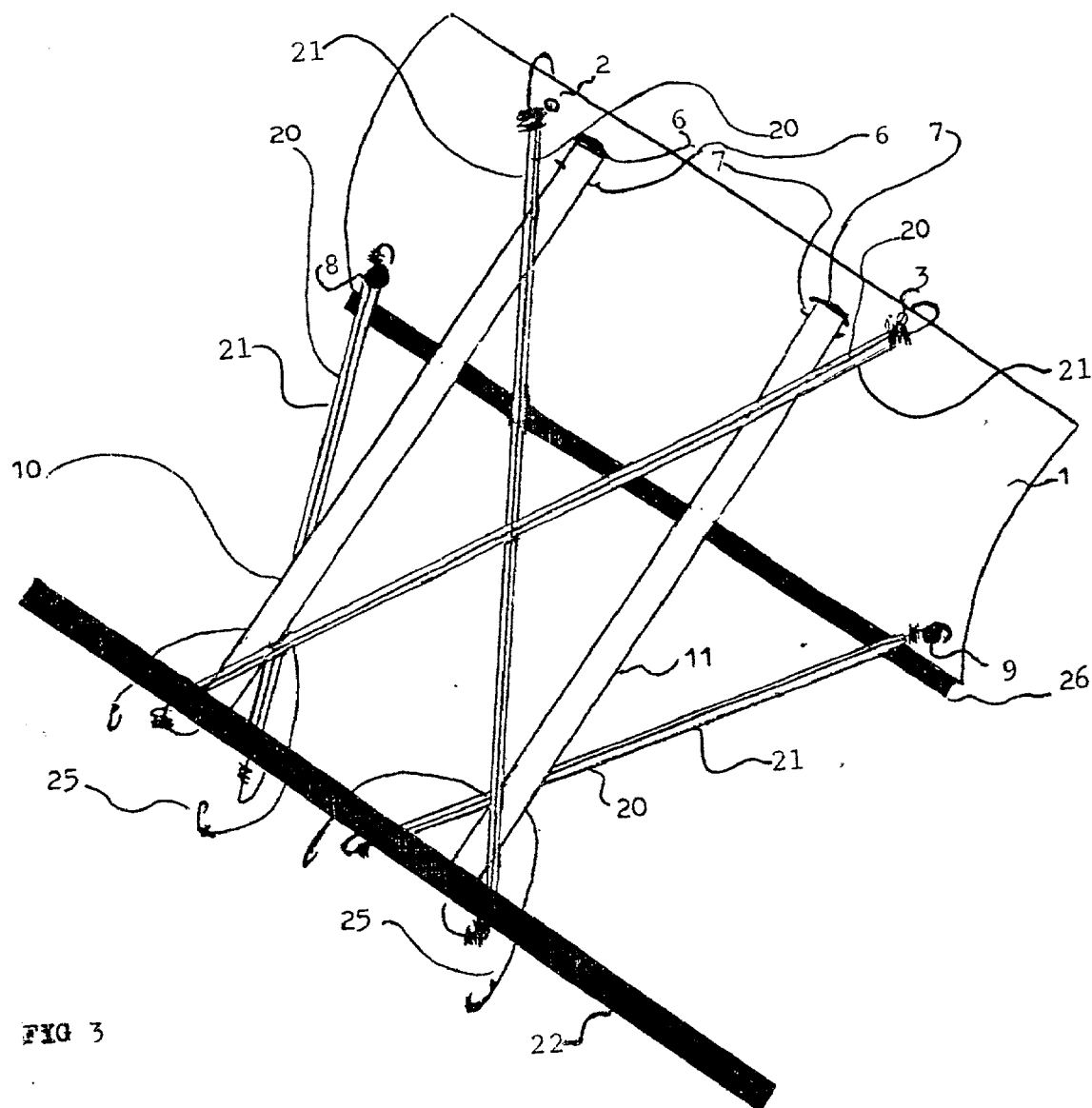


FIG 2



## SNOW SWEEPER

### BRIEF SUMMARY OF THE INVENTION

[0001] In accordance with my invention a snow sweeper is an article of hardware comprised of one scoop, two cylindrical beams attached to the plastic scoop, a plastic perch for the scoop to attach by suspenders which journey through the cylindrical beams and garter wraps to loop around the cylindrical beams and perch for attachment under the front of the automobile vehicle.

[0002] Accordingly, several objects and advantages of this invention are:

[0003] (a) to provide a snow sweeper that can remove snow without requiring exposure to cold air;

[0004] (b) to provide a snow sweeper whose production allows for convenient and extremely rapid economical movement of snow;

[0005] (c) to provide a snow sweeper which is both portable and light weight with no additional accessory parts or pieces is required i.e., a mounting pin, stop marker, rods, tongue, trailer, hitch, hydraulic apparatus, latch mount or chain, split halves of shovel or blade, auxiliary handles or secondary handles, hitch pins, skids, threshold shaft, crank assembly, accessory anchor rods or bottom rod, springs, motors, pivot, chassis

[0006] (d) to provide a snow sweeper which will present a superior attachment to automobile motor vehicles for the removal of snow and movement of snow where no additional part is needed for attachment purposes for propulsion and no device or part is needed to be placed on the ornamental exterior of the car i.e., on the hood of the car, as the hood of the car is not the power of the car.

[0007] Further objects and advantages are to provide snow sweepers hitch can be used easily and conveniently for the movement of snow, without excessive force by the consumer, which is simple to assemble and use and inexpensive to manufacture, which can be used with a variety of automobile motor vehicle models and makes, which can be used repeatedly and which obviates the need to have someone shovel the snow, purchase expensive plows or snow blowers for seasonal snow or put unnecessary strain on the human body by repetitious lifting of heavy salt bags or shoveling heavy chunks of snow repeatedly. This snow sweeper eliminates dragging and use of accessory motor as this sweeper has an automatic forward and reverse raise and since my sweeper uses crooks of any shape and size, not hooks that come with bungee cords this snow sweeper has no specific single area of place attachment as it does not require flag pins and washers, pins, washers, etc., to obtain a firm hold of attachment as using crooks allows for placement anywhere under the car, eliminating one specific place of attachment and position, and permits attachment to many areas of the automobile front or rear, no restriction to the chassis. And because of the size, weight and shape of my sweeper can be internalized within an automobile system for mechanical release for usage without altering the exterior ornamental design of any automobile motor vehicle. Still further objects and advantages will become apparent from a consideration of the ensuing description and drawings

### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

#### DRAWING FIGURES

[0008] In the drawings, closely related figures have the same number but different alphabet suffixes.

[0009] FIG. 1A to 1D shows various aspects of the snow sweeper parts with holes in the snow sweeper back view.

[0010] FIG. 2 shows front view of the snow sweeper.

[0011] FIG. 3 shows back view of the snow sweeper

#### DETAILED DESCRIPTION OF THE INVENTION

[0012] A preferred embodiment of the snow sweeper of the present invention is illustrated in FIG. 2 (front view) and FIG. 3 (back view). The snow sweeper has a large scoop 1 consisting of plastic material which can be repeatedly used without fracturing. The preferred embodiment, the large scoop 1, the cylindrical beams 10 and 11 and perch 22 are plastic. The entire invention is comprised of plastic and rubber with the exception of screws and bolts. However this sweeper can consist of any other material that can be used for moving snow without fracturing such as metal, steel, steel core plastic, rubber, fibrous material, etc.,.

[0013] At the front end of the snow sweeper is a scoop piece 14 on each side of the scoop 1 which terminates in beam-hole-for-scoop-piece 16 and 17 after going thru the beam-scoop hole 4 and 5 on the left and right side of the scoop. The two beams 10 and 11 attach by screws from the scoop 1 to the perch 22 where they screw for a firm fit. From scoop 1 to perch 22 suspenders 20 are placed thru crooks 21 for attachment to (1) scoop holes 2,3,8, and 9 and (2) attachment to perch holes 23 and 24 for end of beams.

[0014] The scoop 1 of the sweeper is typically rectangular in shape. The outer four corners of the scoop are typically beveled or rounded to avoid snagging and personal injury. also when suspenders 20 are placed in scoop holes 2,3,8 and 9 the beveled or rounded detent or guard 6 and 7 are placed for the positioning and holding and conveying of the scoop 1 and perch 22 in a solid position.

[0015] The scoop border 26 is typically a rectangular shape.

[0016] The beams 10 and 11 are typically oblong shape with holes 16 and 17 for screws at beam-hole-for-scoop-piece on the side facing upward from the edge; and on the perch end of the beam there are holes 18 and 19 for screws from the edge (also from the edge facing upward).

[0017] The perch 22 typically rectangular shape and typically inward from the left edge of the perch 22 is a perch hole 23 for the end of left beam 10 to fit thru perch 22 with a screw for a firm hold to perch. Inward from the right edge of the perch 22 is perch hole 24 for end of right beam 11 to fit thru perch with a screw for a firm hold to perch.

[0018] FIG. 2 has a front view of scoop 1 of snow sweeper with scoop pieces 14 and 15 fitted thru left and right beam scoop holes 4 and 5 at an elevated angle. The scoop piece is typically circular in diameter at its base with

outward triangular shape edges for a locking grip. It is this locking grip that provides a solid hold when contact is made with snow.

[0019] FIG. 3 shows the snow sweeper from the back with various attachments. The perch 22 encases suspenders 20 which go thru crooks 21 which attach above and below the beam 10 and 11 to the scooper 1. Each beam hole 18 and 19 is attached thru the perch at 23 and 24 and to the scooper on the opposite end 16 and 17.

[0020] From the description above, a number of advantages of my snow sweeper become evident:

- [0021] (a) There is no clean up from moving snow.
- [0022] (b) There is no exposure hazardous climate
- [0023] (c) With the use of this snow sweeper attached to the automobile motor vehicle there is no loud noisy sounds, drags or scuds
- [0024] (d) Time is saved from sprinkling salts to melt the snow, shoveling the snow or worst of all waiting for someone, while stranded, to plow the snow.
- [0025] (e) The snow sweeper provides superior movement of snow repeatedly.

#### OPERATIONS FIG. 2,3

[0026] the manner of using the snow sweeper to move snow is by placement of the snow sweeper by garter wraps 25 onto the front end or rear end of the car. To do this the snow sweeper must be put together with a few simple assembly steps. Take the beams 10 and 11 and hold them at the ends that have holes approximately 8 to 9 cm from the edge of the beam; these holes should face up toward the ceiling. Take the perch 22 with the deep side up and place the two beams 10 and 11 thru the perch 22 so that the holes from the beams line up with the holes in the perch 23 and 24 respectfully. Next place one screw into each hole. Now place the left beam 10 thru the left beam scooper hole 4 from the back of the scooper 1. The back of the scooper is identified by the location of the scooper border 26 which is located on the back of the scooper. Place the scooper piece 14 thru the hollow open end of the beam 10 which is piercing the scooper for that the scooper piece hole 12 lines up with the beam hole for scooper piece 16. Place a screw thru the scooper piece. You have just completed the left side of the snow sweeper.

[0027] Repeat the same steps with the right side of the sweeper.

[0028] Next place the suspenders 20 thru the crooks 21. Repeat this for the remaining three suspenders 20 and crooks 21. Screw one left beam hole protector 6 above and one below the left beam on the scooper. Repeat this with the two right beam hole protectors 7. Place one end of one suspender now is encased by a crook in the right upper scooper hole 2. Now place another suspender in the right upper scooper hole 3. Place another suspender into the left bottom scooper hole 8 and the last suspender in the right bottom scooper hole 9.

[0029] Now take the left bottom crook and run it under the left beam and attach its free end to the left open hollow end of the left beam 10. Take the right bottom crook and after running it under the right beam attach its free end to the right beam open hollow end just like you did the left side.

Now take the left upper crook 21 cross it over and insert the free end into the right beam open hollow end of the right beam 11. Place the right upper crook into the free open hollow end of the left beam 10 (See FIG. 3)). Finally take the garter wraps 25 and loop them around the bottom of each beam and the perch portion of said beam and loop them around the bottom of each beam 10 and 11 and perch 22 leaving enough of the garter wraps 25 free so that the suspending ends of the garter wraps 25 hang. It is this suspending wraps action which provides firm hold and thrusting drive balance without break, for bend movement and motion when attached to the automobile motor vehicle.

[0030] Accordingly, the reader will see that the snow sweeper can be used to move and remove snow easily and conveniently without damage to the vehicle. Since the garter wraps when looped around the perch provide an amazing hold for thrusting drive and balance the motion of the snow made by the scooper is set solid by the placement of crooks as it is the crooks which provide support and directive guidance for the large scooper thereby when the snow sweeper is used to move or remove snow the snow sweeper will motion the snow in such a way as to form a pile of snow without damage to the vehicle or person. Furthermore, the snow sweeper has the additional advantages in that

[0031] placement and detachment of the sweeper permits easy access to and from the vehicle as it does not require nuts, bolts, pins, or locks for attachment

[0032] storage of the snow sweeper is so light and durable it can be placed not only in a garage but in the truck of an automobile motor vehicle for easy access when needed

[0033] comfort and safety is provided while moving snow.

[0034] Although the description above contains many specifications, these should not be construed as limiting the scope of the invention but merely providing illustrations of some of the presently preferred embodiments of this invention. For example, the scooper can have other shapes, such as circular, oval, trapezoidal, triangular, etc., the perch can have other shapes, tops, coverings, wrappings; the scooper piece can have various shapes and can be replaced by a hinge which connects two otherwise unconnected halves, etc.,.

[0035] Thus the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.

What I claim as my invention is:

1. A snow sweeper for place in front of their automobile motor vehicle or human body for movement of snow, comprising:

- (a) a large scooper
- (b) cylindrical beams
- (c) suspenders
- (d) crooks for assignment to suspenders
- (e) a perch attachment of said beams and said crooks
- (f) garter wraps to loop around said beams

\* \* \* \* \*