Aug. 21, 1951 W. H. KRUMMEL, JR 2,564,907

TRASH PICKUP DEVICE

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FIG. 1.

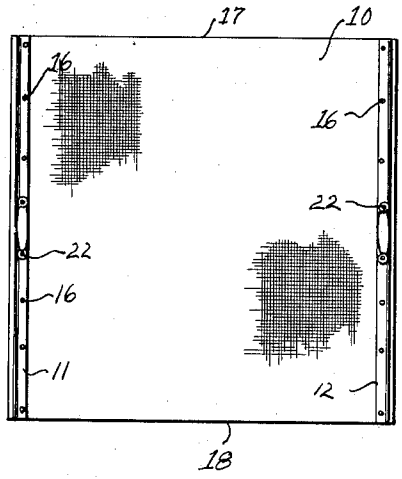


FIG. 4.

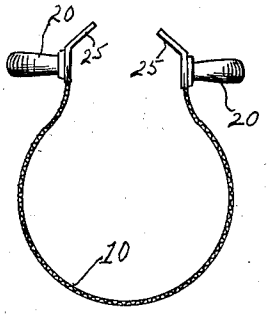


FIG. 2.

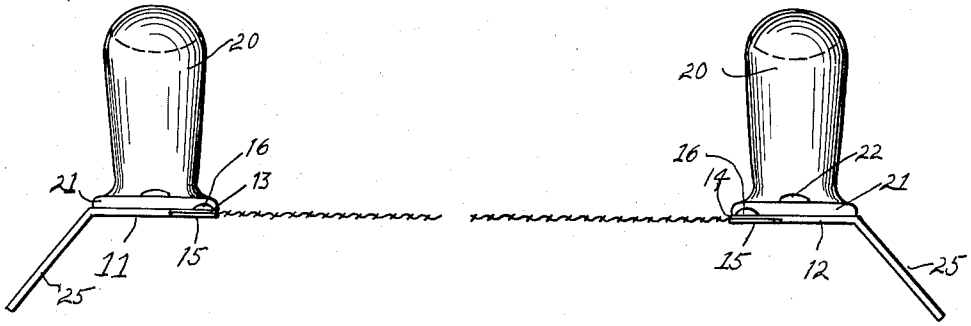
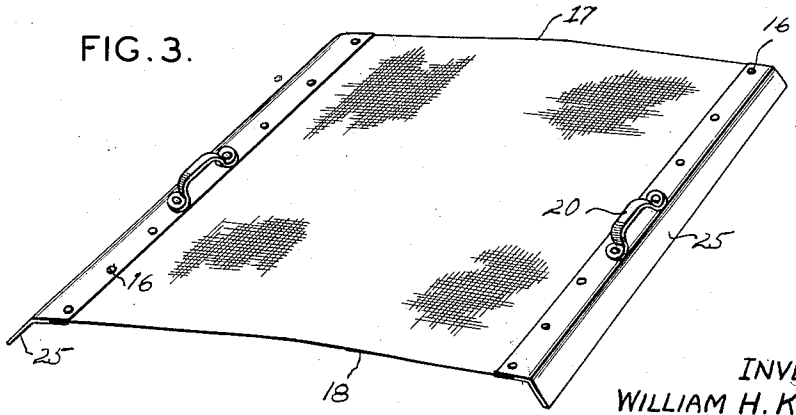


FIG. 3.



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TRASH PICKUP DEVICE

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3 Claims. (Cl. 294—1)

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This invention relates to pick-up devices for loose solid materials, and more particularly to a device adapted for consolidating, compacting and transporting solids such as leaves, trash, shavings and similar materials which are usually initially collected in piles on the earth or flooring.

The prevalent practice in cleaning up a lawn or other horizontal surface on which reposes a quantity of loose solid materials such as those named, consists in manually lifting the solids, sometimes with the aid of a fork, rake or other tined implement, then depositing the material in a basket, trash bin, wheelbarrow or similar container for movement to a place of storage or destruction. The present invention has as a primary objective, the provision of a light-weight foldable device for the aid of a worker in consolidating, then in transporting loose solids.

The present invention may be summarized by reference to its usual embodiments, as consisting of a sheet of flexible material such as a heavy fabric provided with marginal stays to maintain constant one of its dimensions, particularly the width; such a device by preference is formed with lateral scoop edges to facilitate bringing the margins of the enclosing and lifting device fully beneath the pile of loose material, and further in preferred embodiments, to provide rigid marginal portions of the device with handles or handle formations of such nature that, after consolidation or coalescence of a pile of solids, the handles may be brought to a parallel relation, so that when moderately loaded the device and contents may easily be carried in one hand.

In addition to the general objective above stated, a further advantage is desirably realized in the construction of the body of the carrier of a textile fabric such that one of the rigid margins of the device may be rolled in the fabric and then brought into parallelism with the opposite rigid margin, or alternately, both of the rigid marginal strips be brought into juxtaposition and both rolled within the doubled fabric body. Thus the device between periods of usage may be carried and stored in the form of a somewhat elongate yet compact bundle. This facility is of advantage in storage and shipment, and in enabling a maximum stock to be carried on a given area of dealer's shelving.

The foregoing and numerous other objects will more clearly appear from the following detailed description of a presently preferred embodiment of the device, particularly when considered in connection with the accompanying drawing, in which:

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Fig. 1 is a top or plan view of the device on a somewhat reduced scale;

Fig. 2 is a greatly enlarged, end elevational view of the device;

Fig. 3 is an elevation in perspective of the device of Fig. 1, and

Fig. 4 is an end elevational view of the device in a form it would assume when in partly embracing relation to a mass of loose solid material, the contents being omitted for clearness of illustration.

Referring now by characters of reference to the drawing, the flexible foldable body of the carrier unit is indicated at 10, and in accordance with present practice consists of a relatively heavy cotton canvas, duck, drill or the like. A drill of the grade of seven ounce weight has been found highly satisfactory for the body, although the selection of such specific material is by no means critical, inasmuch as a wide variety of flexible sheet plastic materials, metal screening and many other products will serve usefully in the combination to be described, as the flexible body portion thereof.

Attached to each of the lateral margins of the fabric body 10, in a manner later described, is a rigid marginal strip 11 along the left hand side (Figs. 1 and 2) and a similar strip 12 along the right hand side. Each of the strips 11—12 is preferably of a sheet or strip metal such as a mild steel of requisite gauge. In the particular form shown by the present drawing, the inner margin of each of the strips 11 and 12 is of a reduced thickness, such portions of reduced thickness being indicated at 13 and 14 respectively, on the left and right hand marginal strips. Such reduction in thickness is by no means essential to the full operativeness of the structure, but in the model shown, these portions form ledges for the reception in assembly of the margins of the cloth body 10, while overlying or underlying (according to the position of the device) each such ledge portion, is a securement strip 15, the strips 15 being attached to the portions 13 and 14 with the margin of the fabric 10 therebetween at each side of the device. Assembly of the adjacent pair of strips, with the edge therebetween, is preferably permanently effected as by a plurality of rivets 16 extending through suitable apertures of the fabric margins and the adjacent companion gripping elements such as 14—15 and 13—15.

It is a preference as shown by the drawing, to form each of the lateral strip portions 11 and 12 the full length of the body of the fabric, along each of two opposite margins as will appear in

Figs. 1 and 3. This arrangement serves to maintain the full length of the carrier under all conditions, and assures against casual infolding or the like in usage, so that a maximum capacity exists under all conditions. Consistent with the foldable character of the unit and the manner of usage yet to be described, it is equally preferred to leave the top and bottom margins indicated at 17 and 18 respectively, free to flex and thus to keep them free of any reinforcement or stiffening means.

As a considerable aid to manipulation of the device incident to its pick-up function as well as its transporting function, it is preferred to equip each of the marginal strips 11 and 12 with some form of handle or handle formation. In the present example, each of the marginal strips is equipped with a D-shaped handle 20, each such handle being provided with a securement ear 21 at each of its opposite ends, these ears being apertured for the reception of a handle attachment rivet there being a pair thereof for each handle, and these rivets being indicated at 22.

Although the device as thus far described is fully operative for its intended purpose, the speed of its manipulation and its effectiveness for most purposes are greatly enhanced by the addition of scoop margins, flanges or lips, for example as indicated at 25. In the form shown, each of flanges 25 is an integral part of the adjacent strip 11 or 12 and each such flange bears an obtuse angled relation to the adjacent body of the strip, as will best appear from Fig. 2. As will appear, the lips or flange 25 serve as scoop ends in bringing the margins of the carrier beneath a pile of loose solid materials to be picked up and transported.

Proceeding now to describe a preferred manner of manipulating the device incident to its usual manner of usage, let it be assumed that a pile of leaves, for example, is to be picked up from a lawn or the like. The device, positioned as shown by either of Fig. 1 or 2, is placed centrally over such pile, and with the scoop flanges or lips 25 presented downwardly. The operator grasps the now-spaced handles 20, one in each hand, then brings the marginal strips downwardly to ground level, turning the marginal strips 11 and 12 toward each other in a direction resulting from outward movement of the handles. In this manner the scoop margins 25 are brought laterally beneath opposite sides of the pile of leaves or the like, then the scoop edges 25 are moved across the surface of the ground and toward each other beneath the pile. It will now have appeared that this operation results in a distinct compacting action on the leaves by compressing the individual units or particles of the pile. When this operation is carried as near to completeness as possible, the now-embraced pile of loose materials is inverted and reposes in the loop or bight of the flexible body 10, with the marginal strips and handles now above the contents of the carrier. If it then be desirable or necessary to transport the carrier by one hand, the device with its parts substantially as shown by Fig. 4, will be further actuated to bring the right hand handle 20 about 90 degrees in a counterclockwise direction and the left hand handle will be oppositely moved through a similar range to bring the pair of handles 20 into parallel adjacence, further compacting the mass of loose solids in the carrier. With the handles thus brought into parallelism, the carrier and contents may be transported by grasping both handles concurrently with one hand.

Dumping of the contents of the device will, now obviously, be effected merely by again extending the fabric body with the effect of releasing the contents of the unit on a rubbish heap, bonfire or other selected place of deposit.

It will have been observed from the foregoing description of actuation and operation, that the act of bringing together the obtuse angled scoop edges 25 will materially aid in clearing the earth or other subjacent surface beneath the initial pile, thus requiring but a minimum, if any, of further raking, sweeping or cleaning work in order completely to clear the pile.

There was briefly referred to above, the facility for storing, carrying or shipping the device in a compact package form. As noted, this may be accomplished either by rolling the device on one of the marginal stays, or by first bringing such marginal strips into juxtaposition, then winding the doubled or folded fabric body around the adjacent marginal strips, and tying the roll if desired for maintaining same in compact form between periods of use.

Although the invention has been described by making detailed reference to a single preferred embodiment of the invention, the detail of description should be understood as illustrative and informative, rather than restrictive, many variants being possible without departing from the full intended scope of the invention as defined by the claims hereunto appended.

I claim as my invention:

1. In a consolidating, lifting and carrying device for trash, leaves and the like, a flexible foldable body formed of a sheet fabric and of a generally rectangular form, a planar metal strip secured to and substantially coextensive with each of a pair of opposite margins of the body, each of said strips being provided with an obtuse angled, outward lateral scoop extension, and a handle fixedly secured in upstanding relation to a central region of each of said strips.

2. In a pickup device for trash, leaves and the like, a rectangular body formed of a fabric, a pair of side strips secured along opposite linear margins of the fabric body, each of said side strips being of a sectional shape to constitute a channel of a substantially wide V section, a securement strip coextensive with each of said channels, and both thereof substantially coextensive with the margin of the fabric body to which the channels are attached, the fabric having its margins clamped between the attachment strip and the channel at each side of the body, a plurality of rivets by which attachment of the fabric is effected, and a handle of substantially D shape secured centrally of each of said side strips, both of said handles being presented upwardly or outwardly of one side of the body and located at a fixed angle thereto, inwardly of the outermost sides of the channelled elements, such outermost sides being set at a distinct angle such that they may be brought toward each other as scoop elements incident to loading the device.

3. In a device for aid in picking up, consolidating and carrying a mass of loose solid material such as leaves, trash and the like, a substantially rectangular body formed of a heavy woven fabric, a linear strip assembly on each of two opposite sides of the body, each such strip assembly including a metal channel member of a substantially wide V-shape section, an attachment strip overlying one side of each of the V-shaped members, and a plurality of rivets spaced along each of said strip assemblies and serving to secure

the attachment strip and one side of the channel member together in gripping relation to the fabric margin at each side of the device, and a substantially D shaped handle secured centrally of each of said strip assemblies and inwardly of the outermost sides of the channel members, whereby the outermost sides of the channel members are adapted to serve as opposed, free scoop edges and to be brought into adjacent relation by manipulation of the handles, and into fully embracing relation about the mass of leaves, trash or the like to be transported with the aid of the device.

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