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LA FAYETTE WILDERMUTH.

GRASS COLLECTOR FOR LAWN MOWERS.

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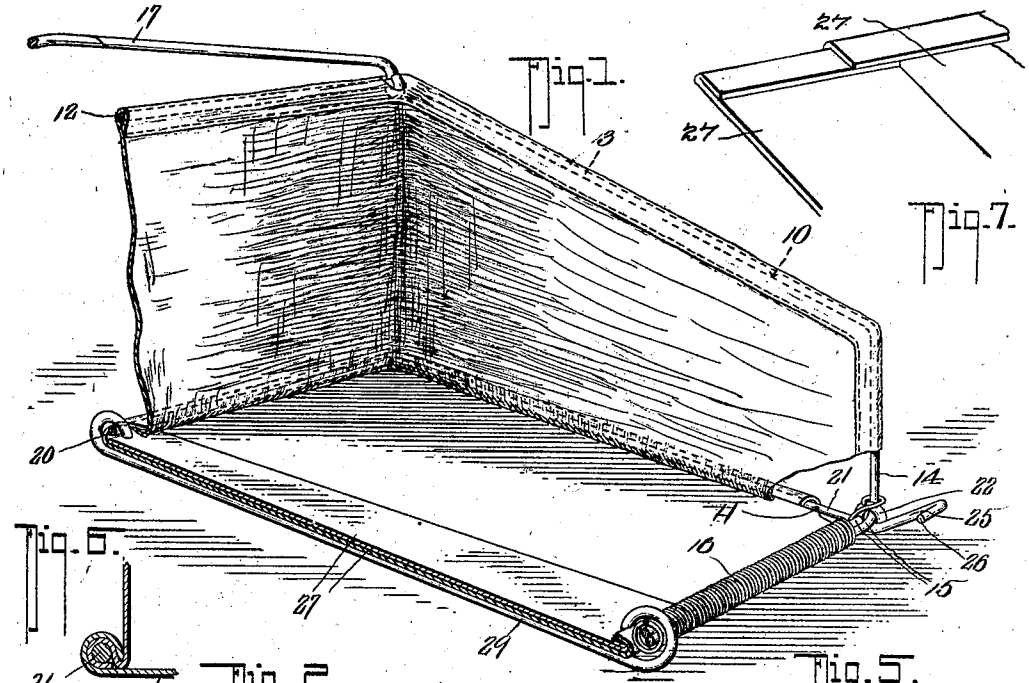

Fig. 1.

Fig. 7.

Fig. 6.

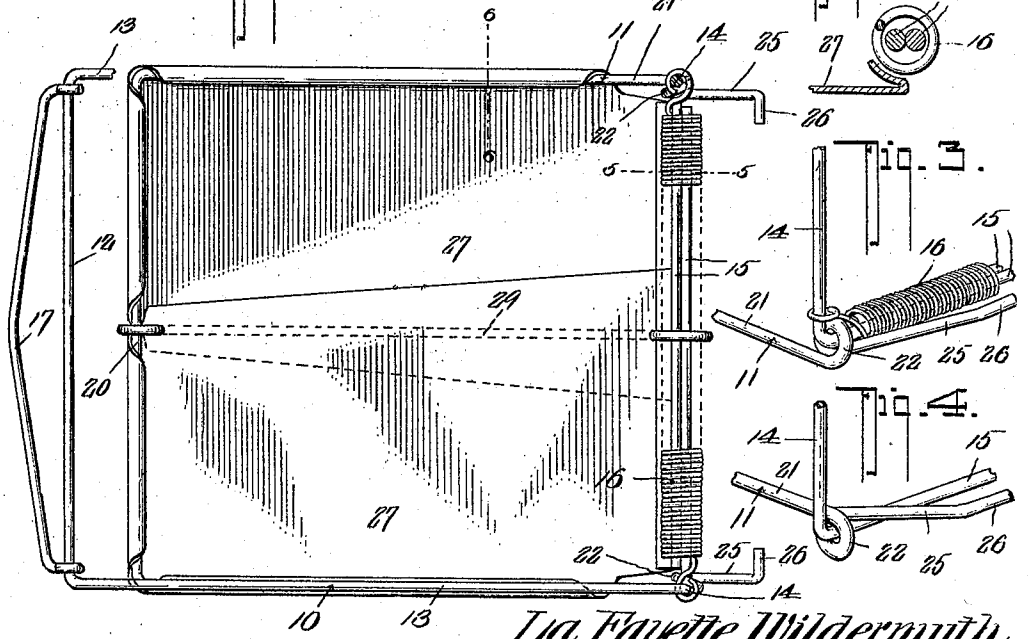

Fig. 2.

Fig. 5.

Fig. 3.

Fig. 4.

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GRASS-COLLECTOR FOR LAWN-MOWERS.

No. 815,242. Specification of Letters Patent. Patented March 13, 1906.

Application filed March 6, 1905. Serial No. 248,673.

To all whom it may concern:

Be it known that I, LA FAYETTE WILDERMUTH, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a new and useful Grass-Collector for Lawn-Mowers, of which the following is a specification.

This invention relates to grass collectors or catchers for lawn-mowers, and has for its principal object to provide a grass-receptacle of simple and economical construction which may be readily attached to the frame of lawn-mowers of the ordinary type and will serve as a receptacle for the collection of the grass during the mowing operation.

A further object of the invention is to provide a novel form of frame in which the members are so arranged and constructed as to reduce to a minimum the vibration and shaking of the lower frame and to avoid the escape of fine grass from the front of the receptacle.

A still further object of the invention is to provide a novel form of grass-catcher having a bottom portion formed of overlapped sheets to permit variations in the width of such bottom to suit different classes of lawn-mowers and to permit the proper connection of the device to the lawn-mowers.

A still further object of the invention is to simplify and cheapen the construction of the device by the employment of improved means for supporting the bottom and for connecting the flexible sides and back to the bottom and lower frame.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a sectional perspective view of a grass-collecting device constructed in accordance with the invention. Fig. 2 is a plan view of the same, partly in section, the flexible back and sides being removed. Fig. 3 is a detail perspective view of a portion of the upper and lower frames at the point where the two are connected. Fig. 4 is a similar view showing a slight modification of the construction of the lower frame. Fig. 5 is a detail sectional view of the front of the collecting device on the line 5 5 of Fig. 2. Fig. 6 is a detail sectional view on the line 6 6 of Fig. 2, showing also the lower portion of one of the flexible side members of the receptacle. Fig. 7 is a detail perspective view of a portion of the front of the metallic bottom plates.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The general frame includes an upper member 10 and a lower member 11. The upper member is formed of a piece of stiff wire or similar material bent to form an upper rear bar 12, thence at right angles to form side members 13, and thence downwardly to form the front side bars 14. The wire is thence bent inwardly, forming a pair of parallel arms 15, which extend within the coils of a helical tension-spring 16, located at the front of the collector. To this upper frame is connected a suspension member 17 for engagement with the handle of the machine. The lower frame is also formed of wire and is bent to form a rear bar 20, thence at right angles to form a pair of side bars 21, and at the front of the machine these side bars are turned to form a single coil or eye 22, which may be formed by turning the wire up to locate the eye above the general plane of the side bars or down to arrange the eye below the side bars, as shown in Fig. 4. The wire is thence continued forward at an obtuse angle to the planes of the arms 21, forming extensions 25, the terminals of which are bent to form hooks or trunnions 26, which engage with suitable slots or openings formed in the frame of the lawn-mower. The front bars 15 of the upper frame extend inward through the eyes or coils 22, and the ends of the helical coil 16 are connected to the vertical front bars 14 of the upper frame, so that said bars are yieldably pressed toward each other, the construction being such that said side bars may be spread to permit the engagement of the trunnions 26 with the frame of the machine, and as the spring retracts the said bars are again drawn toward each other, and the collecting device is held in proper position.

The bottom of the receptacle is formed of a plurality of pieces of sheet metal 27, the rear edges and sides of which are bent around the corresponding members of the lower frame,

while the adjacent edges of the sheet overlap, and thus permit spreading of the side members of the frame to a considerable extent without separating the sheets.

In order to hold the bottom properly in position, a brace or braces 29 may be employed. Each brace is in the form of a strip of wire, having its rear end coiled over the rear bar of the lower frame, while the forward end of the brace is curved upward and over the helical spring 16, the bar forming an approximately rigid support for the bottom and preventing sagging of the central portion of such bottom and the formation of a space below the spring through which the grass could escape.

In devices of this class or ordinarily constructed the bottom, usually formed of textile material, is arranged to pass over or partly over the top of the spring 16, and there is nothing to prevent the escape of fine grass from the front of the receptacle. In the present instance the bottom extends to a point under and to the rear of the spring, and the latter thus forms a guard which will prevent the grass falling from the front of the receptacle. The retention of the grass may be further insured by bending the front edge of the sheet metal upward, as shown in Fig. 5, the front edges of the sheets being turned over or flanged in such manner as to interlock and mutually support each other at the overlapping point, as shown in Fig. 7.

The back and sides of receptacles of this class are usually formed of textile material, and in order to simplify the construction the lower edge of the sheet of material is passed around the back and side members of the lower frame before the edges of the metallic sheets are coiled therearound, so that such coiled or turned edges of the metallic sheets serve to firmly hold the textile material in proper position. The upper edge of the textile strip may be connected to the upper frame members by stitching or otherwise.

It is obvious that the vertical side and rear members of the receptacle may be formed of sheet metal and that the bottom may be formed of textile or similar material, if desired; but as a rule the sheet-metal bottom is found preferable, owing to its greater rigidity and wearing qualities.

By forming the extended trunnion members on the lower frame the latter will be held more securely in place on the frame of the lawn-mower and the vertical play of the bottom of the receptacle will be limited, so that the danger of accidental discharge of the grass will be reduced to a minimum.

Having thus described the invention, what is claimed is—

1. In a grass-collector for lawn-mowers, a lower frame having side members coiled to form eyes at points near their front ends, and thence extended forward and bent to form trunnion members for engagement with the frame of the lawn-mower, an upper frame bent to form rear, side and vertical front members, the ends of the upper frame being bent into parallel relation and extending through said eyes, and a helical tension-spring coiled around said parallel members and having its opposite ends connected to the vertical portions of the upper frame.

2. In a grass-collector for lawn-mowers, upper and lower frame members, a helical tension-spring arranged at the lower forward edge of the collector and connecting the side members of the frame, and a bottom-section having its forward edge extending under said spring.

3. In a grass-collector for lawn-mowers, a frame, side, rear and bottom members supported thereby, a coiled spring arranged above the lower forward edge of the collector, and connecting the side members, said spring forming a front guard to prevent the escape of material from the collector.

4. In a grass-collector for lawn-mowers, a distensible frame, rear, side and bottom members carried thereby, and a coiled spring having its opposite ends connected to the side members of the frame and arranged immediately above the forward edge of the bottom and forming a guard to prevent escape of material from the receptacle.

5. In a grass-collector for lawn-mowers, a distensible frame, side and rear members carried thereby, a coiled spring connecting the opposite side members at the front of the frame, and a sheet-metal bottom having its front edge below the spring, said edge being flanged and bent upward to prevent the escape of grass between the bottom and the spring.

6. In a grass-collector for lawn-mowers, a distensible frame, side and rear members carried thereby, and a bottom member formed of a plurality of sheets of metal, the outer edges of which are secured to the frame, and the inner edges of the sheets overlapping, the front edges of both sheets being provided with inturned flanges, said flanges interfitting and serving to prevent independent vertical play of the sheets.

7. In a grass-collector for lawn-mowers, a distensible frame, side and rear members supported by the frame, a bottom member formed of a plurality of overlapping plates, the outer and rear edges of which are secured to the frame, the front edges of the sheets being provided with inturned flanges, said flanges interfitting and preventing independent vertical play of the sheets.

8. In a grass-collector for lawn-mowers, a frame, side and rear members carried thereby, a bottom member formed of a plurality of overlapping sheets, the outer edges of which are secured to the frame, and the front edges of which are provided with interfitting flanges, a coiled spring connected to the op-

posite side members, and a brace extending under the bottom and having one end connected to the rear portion of the frame and its opposite end being bent over the front edges of the overlapping sheets and the spring for retaining said spring in proper relative position with respect to the bottom member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LA FAYETTE WILDERMUTH.

Witnesses:

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