TRASH PICK-UP DEVICE
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ABSTRACT OF THE DISCLOSURE
A tool similar to a walking cane for pickup up refuse, trash, and the like, having jaw members on the lower end thereof capable of clenching or grasping the object to be retrieved and retain it therebetween while being lifted and carried about, yet permitting full release of the object when the jaws are moved to open position by actuating means positioned in the vicinity of the upper end portion of the tool.

The present invention relates to improvements in devices for picking up trash, refuse, cans and the like. The principal object of the invention is the provision of a tool similar to a walking cane having jaws on the lower end thereof capable of closing over the object to be retrieved and operated by means of a rod extended to the upper end of the shaft.

Another object of the invention which distinguishes it from those of the prior art is arrangement of metallic spring "fingers" which permit a yieldable grip upon the object to be retrieved yet by which considerable force may be applied to the jaws. These and other objects will be readily apparent in the course of the following detailed description when viewed together with the accompanying drawing in which:

FIG. 1 is an elevational view, partly broken away, of the present invention in a trash retriever.

FIG. 2 is a side elevational view of the device shown in FIG. 1.

FIG. 3 is a detailed view illustrating the manner of connecting the end of one of the spring elements to the main actuating control rod.

In the drawing numeral 10 designates an elongated hollow shaft, the upper end of which is turned outwardly at approximately 90 degrees from the plane of the main shaft to serve as a handle grip 11. While this main shaft could be made of a length of pipe or even plastic, it is preferred that it be made of some thin-walled metal tubing.

At the lower end of the shaft 10 are outer spring members 12 and 13 the upper ends of which are pinned to the shaft 10 by means of rivets 14. These spring fingers are of thin, flat spring steel and extend somewhat below the bottommost end of the main shaft 10. At the extreme ends of these springs are two molded rubber cups 15, and 16 affixed to the spring ends by means of bolts and nuts 17 and 18 with the cups facing each other in the manner illustrated in FIG. 1.

A second set of springs is provided with an arrangement shown by FIG. 1. Here, the lower ends of the springs 19 and 20 are affixed to the outer springs 12 and 12 respectively by means of clamping bands 21 and 22. The upper ends of these inner springs 19 and 20 are connected to an operating rod 23 disposed to move within in the hollow main shaft 10. As further shown by FIG. 1 the upper end of the centrally disposed operating rod 23 is affixed to a guide plug 24 which has a diameter only slightly smaller than the inside diameter of the main shaft 10.

Affixed to the upper end of the guide plug 24 by means of a setscrew 25 is a finger-actuated lever 26 bent in the manner shown and extended through a slotted opening 27 provided through the side wall of the main shaft 10. The outer end of the lever is bent upon itself and directed through a hole 28 provided through the wall portion of the handle section 11.

When the actuating lever 23 is in the down position as shown by FIG. 1 the inner spring fingers 19 and 20 are also relaxed and are spread in a diverging fashion by the set of outer spring fingers 12 and 13. Thus the retrieving cups 15 and 16 are held in a normal maximum spaced relationship so that they may be slipped over the object to be retrieved.

Now, by placing the fingers of the hand beneath the lever 26 and squeezing it upwardly toward a position as shown by the dotted lines, the lower retrieving cups are made to close toward each other and hence upon the object between them.

The above action is unique, however, and simulates closely the grip of the human hand. Note that when the lever 26 is pulled upwardly, the flexible fingers 19 and 20 are pulled upwardsly into the bottom open end of the shaft 10. If there is an object between the cups 15 and 16, any continued upward pull of the aforementioned fingers will transfer a portion of this force to the outer spring fingers 12 and 13, causing them to bend toward an expanded position as indicated by the dotted lines 29 and 30. Such double spring action permits the cups to yieldably engage any refuse, whether soft or hard, with sufficient strength to lift it yet permit it to be released without employing the hand or fingers to drag or force it from some sharp prong or serrated jaws as found in devices of the former art.

While I have described the invention in detail in a particular embodiment, it is to be remembered that this has been by way of example only, and that changes could be made in its actual construction without departing from the spirit and scope of the invention as defined by the following claims.

What is claimed is:
1. A trash retriever comprising a hollow shaft simulating a walking stick, two pairs of spring fingers at the lower end of said shaft, one pair of said fingers being movable into and out of the lower end of said shaft, the other pair of said fingers having one of its ends affixed to the side walls of said shaft and the opposite ends affixed to said first mentioned fingers, flexible engaging means affixed to the lower ends of said first mentioned pair of fingers, said engaging means being normally held apart from each other by the spring action of each of said pairs of spring fingers, means for drawing said first mentioned pair of spring fingers upwardly into said shaft to bring said engaging means toward each other and hence to an engaging position with an object to be retrieved.
2. A trash retriever comprising a hollow shaft simulating a walking stick, two pairs of spring fingers at the lower end of said shaft, one pair of fingers being movable into and out of the lower end of said shaft, the other pair of said spring fingers having its ends affixed to both said shaft
and said first mentioned fingers, respectively, a pair of retrieving discs, one affixed to each lower end of said first mentioned pair of fingers, said discs being normally held apart in spaced relationship by the outward urging of said spring fingers, control rod means operatively connected to said first mentioned pair of fingers and projected upwardly through said hollow shaft, said control rod emerging from the side wall of said shaft and bent upon itself to constitute a means for drawing said first mentioned pair of spring members upwardly and into the lower end of said main shaft and consequently to move said retrieving discs toward each other into an engaging position with respect to the object to be retrieved.

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