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(54) **A TOOL FOR PICKING AND LIFTING OBJECTS FROM THE GROUND, IN PARTICULAR DOG DROPPINGS**

(57) A device for picking and lifting various objects from the ground having a vertical handle 1 and a loop 2 located in guides 4. Arms 3 are fixed with the upper ends in the handle 1. The free ends of the cord forming the loop 2 are inserted from the bottom into the handle 1 and routed at the top where they are connected together with the drive handle 5. In use, a plastic bag is put on the loop 2, the loop 2 is pressed with the arms 3 against the ground around the object lying on it. Then the handle 5 is pulled and the loop 2 is clamped around the object which is stuck between the arms 3. The device is then raised with the contents trapped in the bag, then the bag is removed from the space between the arms 3, closed and thrown away.

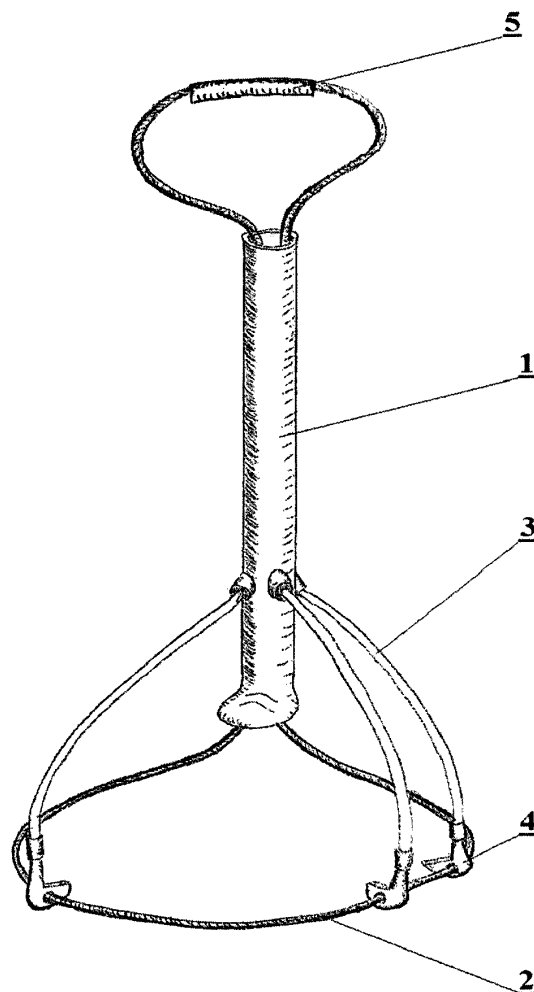


Fig.1

Description

[0001] The subject of the invention is a device for picking and lifting various objects from the ground, especially dog droppings as well as other objects whose picking and lifting is, for various reasons, burdensome for man or if it is undesirable, dangerous or unpleasant to grasp such objects directly with bare hands.

[0002] There are different devices for picking and lifting various objects from the ground, in particular such as dog droppings. The simplest one is an ordinary scoop by means of which the droppings are put into the bag or it is just a bag which is wrapped around the hand through which dog droppings are put into it. Other devices have a vertical handle equipped at the bottom with movable blades opening and closing like jaws in the excavator. The blades are closed and opened through lever arrangement controlled by one hand while the device is being held by the handle with the other hand. Plastic or paper bag is placed on the vanes so that when the jaws are clamped the contents of the bag is trapped inside it. Then the bag with its contents is removed from the vanes and closed, after that the whole is thrown into the proper container.

[0003] According to the invention, a device for picking and lifting various objects from the ground, particularly dog droppings, is a vertical handle, which at its bottom has a gripper in a form of an adjustable length loop located in the elements which press the loop to the ground.

[0004] The loop pressing elements are arms made of resilient material, swiveling around the point of attachment of the arms in the handle.

[0005] The handle has at least three arms, whose upper ends are fixed in the handle, at their lower ends they have guides through which a cord forming an adjustable length loop is threaded.

[0006] The free ends of the cord forming a loop are inserted into the handle at its bottom part and are located slidably inside the handle and above the handle the free ends of the loop are connected with each other into a drive handle to control the loop, or in another version, inside the handle they are attached to the drive device for loop length regulation.

[0007] The drive device is in the form of a transmission belt placed inside the handle and spread around the pins mounted in the handle walls. The free ends of the cord forming the loop are fastened to the lower point of the transmission belt and the drive pusher is attached to the upper point of the transmission belt on the opposite side of the transmission belt relative to the point of attachment of the free ends of the cord forming the loop.

[0008] The device according to the invention allows the collection of various objects from each surface, which along with other beneficial features will be better explained when presenting an exemplary solution.

[0009] The device according to the invention is shown in exemplary solutions on the drawing, in which Fig 1 presents the device in perspective view, Fig. 2 and Fig.

3 show schematically the second version of the device in longitudinal section through a handle of the device to show the loop drive assembly.

[0010] As shown in Figure 1 the device is a vertical handle 1 by means of which it is held with one hand. At the bottom, the handle 1 has a loop 2 of the adjustable length made of the cord, located in the guides 4, which are the bottom ends of the arms 3. The arms 3 are fixed with the upper ends in the handle 1. The free ends of the cord forming the loop 2 are inserted from the bottom into the handle 1 and routed at the top where they are connected together with the drive handle 5.

[0011] In the version shown in Figures 2 and 3, the free ends of the cord forming the loop 2 are attached to the lower point of the transmission belt 6 placed inside the handle 1 and stretched around the pins 7 and 8 mounted in the walls of the handle 1. To the upper point of the transmission belt 6 on the opposite side of the transmission belt 6 in relation to the attachment point of the cord forming the loop 2, the drive pusher 9 is attached.

[0012] The operation of the device is as follows: a plastic bag (not shown in the drawing, as it is not always necessary to use it) is put on loop 2, then holding the handle 1 with the hand, the loop 2 is pressed with the arms 3 against the ground around the object lying on it. Then, depending on the version, the handle 5 is pulled or the pusher 9 is pushed. The loop 2 is clamped around the object which is stuck between the arms 3. In a version with a pusher the device can be operated with one hand which holds the pusher 9 and pressing on it simultaneously causes the device to press against the ground, in a version with the drive handle 5 it is necessary to hold the handle 1 with one hand and pull with the other hand the drive handle 5 of the loop 2, controlling at the same time the pressure of the device to the ground. After clamping, by holding the handle 1 the device is raised with the contents trapped in the bag, then the bag is removed from the space between the arms 3, closed and thrown into a suitable container. The flexible arms 3 cause that after the clamping force is released the loop 2 is again expanded and the device is ready for reuse.

[0013] As mentioned above, the device enables lifting of various objects from different surfaces, because loop 2 made of the flexible cord adapts to any unevenness and is well pressed against the ground owing to the pressure of the arms 3. It is possible to collect objects many times to one container (bag) and you can pick up objects of different consistency, from soft as jelly to solid objects. There is no direct contact of the hand with the collected objects, which is particularly important in case of dangerous or unpleasant to touch objects such as dog droppings. The device can also have other applications, such as fruit picking, catching fish, catching crayfish, etc.

Claims

1. Device for picking and lifting various objects from the

ground, in particular dog droppings with a vertical handle which at its bottom has elements for gripping lifted objects, **characterized in that** the vertical handle (1) has at its bottom a gripper in the form of an adjustable length loop (2) made of flexible cord placed in the elements which press the loop (2) to the ground. 5

2. Device according to claim 1, **characterized in that** the elements which press the loop (2) are in the form of arms (3) made of resilient material, swiveling around the attachment point of the arms (3) in the handle (1). 10

3. Device according to claim 1, **characterized in that** the handle (1) has at least three arms (3) attached with the upper ends in the handle (1), at the lower ends they have guides (4) through which a cord forming an adjustable length loop (2) is threaded, the free ends of the cord forming the loop (2) are inserted into the handle (1) at its bottom part (1) and are located slidably inside the handle (1), wherein above the handle (1) the free ends of the loop cord (2) are connected together with the drive handle (5) for adjusting the length of the loop (2) or within the handle (1) they are fixed to the drive device for adjusting the length of the loop (2). 15 20 25

4. Device according to claim 3, **characterized in that** the drive device is in the form of a transmission belt (6) placed within the handle (1) and stretched around pins (7) and (8) fixed in the walls of the handle (1) and to the lower point of the transmission belt (6) the free ends of the cord forming the loop (2) are fastened, and the drive pusher (9) is fastened to the upper point of the transmission belt (6) on the opposite side of the transmission belt (6) relative to the attachment point of the free ends of the cord forming the loop (2). 30 35 40

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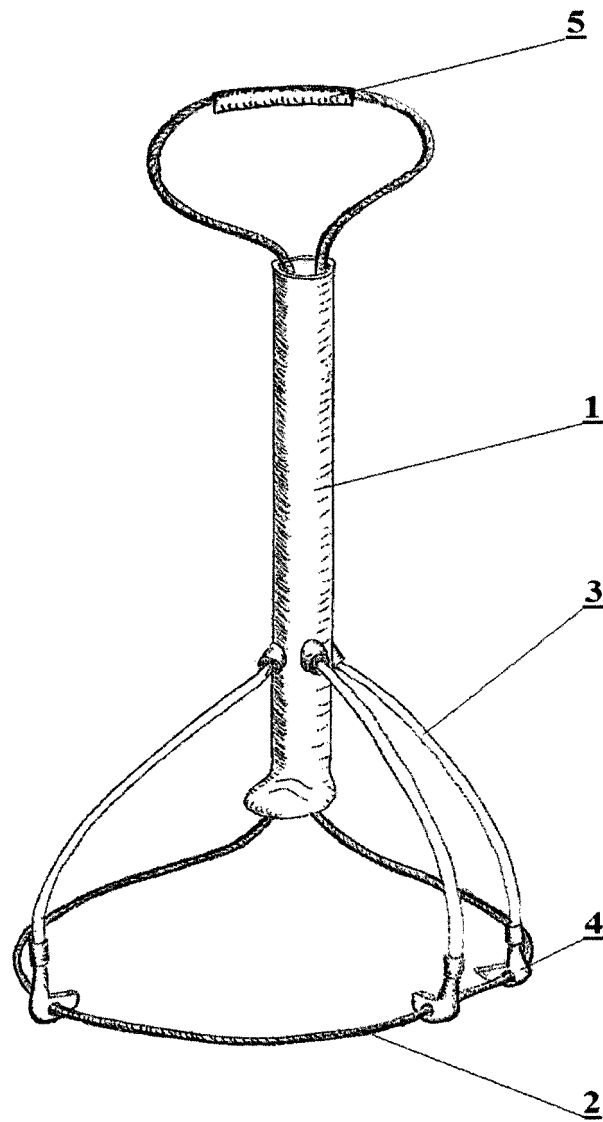


Fig.1

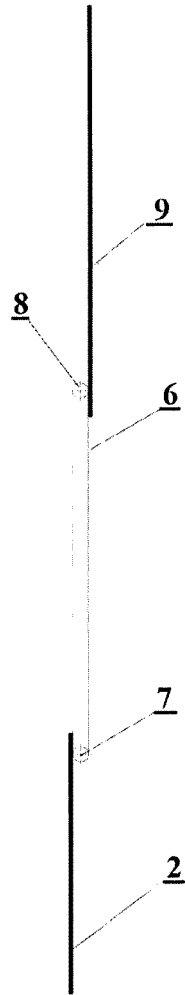


Fig. 2

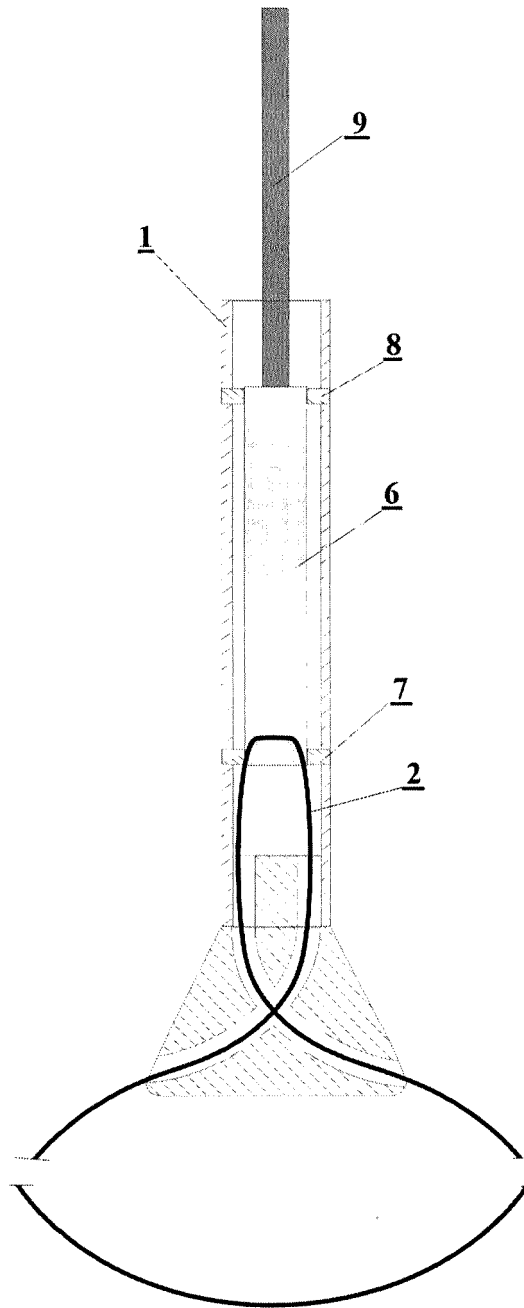


Fig. 3



EUROPEAN SEARCH REPORT

 Application Number
EP 17 46 0025

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 9 187 871 B1 (CONTRERAS ALBA I [US]) 17 November 2015 (2015-11-17) * the whole document *	1-4	INV. E01H1/12
X	US 4 995 661 A (AURNESS HAROLD O [US] ET AL) 26 February 1991 (1991-02-26) * the whole document *	1-3	
X	GB 2 168 596 A (KUBIN STANLEY) 25 June 1986 (1986-06-25) * the whole document *	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
			E01H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 10 October 2017	Examiner Kerouach, May
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 46 0025

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 9187871	B1	17-11-2015	NONE
US 4995661	A	26-02-1991	NONE
GB 2168596	A	25-06-1986	CA 1183742 A 12-03-1985 GB 2168596 A 25-06-1986

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