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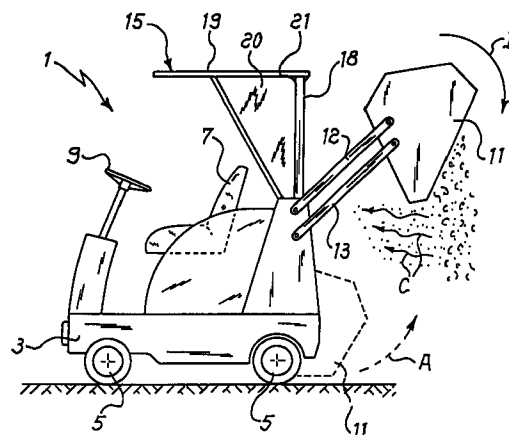
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(54) Improved motor sweeper

(57) An improved roadsweeper (1) comprises: a body (3), a driver's seat (7,9) on the body (3), a container (11) which may be moved from a dirt collecting position to a dirt dumping position by means of activating mechanisms (12, 13) located between the body (3) and the container (11). Said roadsweeper has a device (15) for protecting the operator from the dirt.



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Description

This invention relates to an improved road sweeper.

Road sweepers are small vehicles used for cleaning very large areas of floor. They have wheels and rotating brushes underneath for collecting dirt, as well as a driver's seat for the operator. The dirt is collected into a container located at the front or rear of the vehicle. The container is connected to the body of the vehicle by mobile arms. These arms allow to raise the container above a rubbish skip and tip the dirt into it. The dirt is largely composed of very light fine dust.

The tipping of the dirt from the container and the fall of the dirt into the skip cause a displacement of air with the result that part of the dust does not fall into the rubbish skip but floats on the air towards the operator.

Dust of this kind enters the respiratory system or in the eyes of the operator and due to the nature of said dust may give rise to disturbances or illness.

In order to solve this problem, the operator may cover his face with a special mask which covers the mouth, nose and eyes. However, it is a nuisance to wear, especially in hot environments and it prevents the operator from speaking easily with others. Furthermore, the masks must be changed frequently since their filtering capacity decreases with use and they therefore represent a considerable cost.

An object of the present invention is to solve the problems described above by means of an improved road sweeper.

The advantages of the present invention will be apparent from reading the detailed description aided by the drawings.

The drawing shows a road sweeper 1 comprising a body 3 and wheels 5. Under the body rotating brushes (not shown) allow to clean a floor and collect dirt. The body has a driver place comprising a driver's seat 7 for an operator and a steering wheel 9 for steering the vehicle.

At the rear a mobile container 11 is provided to hold the dirt collected by the brushes. It can be moved from a lower position where it fits onto the body 3 and an upper position for unloading the dirt. Arrow A illustrates this upward movement. This movement is obtained by means of two pairs of mobile arms 12, 13 which are activated by means of a hydraulic mechanism. Two ends of each pair are functionally connected to the sides of the body while the other two ends are functionally connected to the sides of the container.

When the container 11 is in its upper position the arms 12, 13 rotate the container 11 downwards, arrow B, to tip the dirt into a rubbish skip (not illustrated).

A protective device 15 is mounted on the body to protect the operator from the dust contained in the dirt. It is located behind the seat 7. The device is basically composed of a vertical wall 18, a roof 19 and side walls 20. These parts are preferably made of a scratch-proof transparent plastic material and are mounted on a

frame 21.

The advantages of the invention will be now explained. In order to dump the dirt collected in the container 11, the driver will move the same by means of the arms from the lower to the upper position so as to tip the dirt into the rubbish skip. While the dirt is falling into the skip, the lightest dust will separate from it and float on the air. Part of this will go towards the operator in the direction indicated by the arrow C.

However its movement will be blocked by the protection device 15 which will prevent it from reaching the operator. Therefore the operator will effectively be protected from dust and at the same time the transparency of the device will allow him to watch the dumping phase.

In the shown embodiment, the device is positioned behind the operator since the road sweeper illustrated is a rear dumper. In the case of a front dumper road sweeper, it would be positioned in front of the operator.

Claims

1. An improved roadsweeper (1) comprising:
 - a body (3),
 - a driver's seat (7,9) on the body (3),
 - a container (11) which may be moved from a dirt collecting position to a position for dumping said dirt by means of activating mechanisms (12, 13) located between the body (3) and the container (11), characterized in that it further comprises a device (15) for protecting the operator from the dirt when the container is in its dumping position.
2. An improved roadsweeper according to claim 1, characterized in that said protective device (11) comprises a roof (19), a vertical wall (18) and side walls (20).
3. An improved roadsweeper according to claim 2, characterized in that the roof (19), vertical wall (18) and side walls (20) are transparent.
4. An improved roadsweeper according to claim 3, characterized in that the roof (19), vertical wall (18) and side walls (20) are made of a scratch-proof plastic material.
5. An improved roadsweeper according to claim 2, characterized in that the roof (19), vertical wall (18) and side walls (20) are mounted on a support frame (21).

