Research Report ই



INVENTORS: ICLĂNZAN TUDOR ALEXANDRU

INSTALLATION FOR COLLECTING GARBAGE

• The invention relates to an installation for collecting garbage in a public space or in the proximity of dwellings. According to the invention, the installation consists of some support and turret assemblies, respectively, the support assembly being placed underground and consisting of a pedestal plate, provided with a central opening, for the full access of a container, which is fixed on a pedestal, which delimits the mouth of an underground compartment, on the plate there being fixed three columns, which support, inside the compartment, a common reinforcing plate, so that a leading screw supported in the plates, actuates a leading nut mounted on a mobile intermediary support plate, whereon the container is placed, on the lower side of the intermediary plate, in front of the column opposite to the leading screw; there being placed a profiled apron roll, on a shaft supported by some supports fixed on the intermediary plate, the turret assembly consisting of a thin-walled semi-cylindrical cover, between some straight lateral walls thereof there being provided a lamellar protuberance which enables the supporting of the cover of the container in semi-opened position, on the semi-cylindrical cover there being provided a sectorial radial opening, closed by an oscillating semi-circular valve, which has an undercut frontal sector covered with a transparent plate () which allows the filling condition of the container to be viewed, the turret assembly made this way being tiltable into the discharging position due to some hinges by means of which it is attached to the support assembly.





INVENTORS: ICLĂNZAN TUDOR ALEXANDRU

INSTALLATION FOR COLLECTING MUNICIPAL GARBAGE



• The invention relates to an installation for collecting garbage in a public space or in the proximity of dwelling houses. According to the invention, the installation consists of a parallelipipedal concreted enclosure, wherein there may be vertically moved a parallelipipedal metallic frame which, at the upper side has a cover, consisting of many segments, provided with some turrets for supplying some containers placed within the frame on some rail-type supports , the frame touching with the base the ground of the enclosure, and its weight and that of the containers is balanced by two counter-weights, which are suspended by four cables at the upper side of the enclosure, an end of the cables being connected to the base of the frame, and the other end to the counter-weights, the cables passing over four rollers, placed at the corners of the structure of the frame, in the central part of the frame there being placed a sleeve with a certain clearance, which guides the outer end of a leading screw, which may rotate inside an actuating nut, mounted on a cylindrical support, which is supported, at the opposed end, on the lower part of the ground from the concreted enclosure, a bushing fixed in the lower side of the frame carrying out a sliding adjustment with the cylindrical support and, consequently, the vertically guided movement when the leading screw is rotated, during the lifting and lowering operations, the lifting and lowering of the frame structure bearing the containers may be carried out with a portable direct current gearmotor, by coupling them at the outer end of the leading screw by an operator.





INVENTORS: MICEA MIHAI VICTOR, STANCOVICI ANDREI, CREŢU VLADIMIR IOAN

SYSTEM AND METHOD FOR ORIENTATION AND RELATIVE LOCALIZATION OF AUTONOMOUS SUBSYSTEMS



• The invention relates to a system and a method for orientation and relative localization of autonomous subsystems as related to a common reference system. According to the invention, the system consists of a set of autonomous subsystems, each of which are provided with an orientation and localization hardware device, and communicating by electromagnetic and mechanical waves, and a central node having the role of summarizing the coordinates, which can be a steady equipment or a preset system. The method, as claimed by the invention, comprises a first stage of subsystem localization based on mobility prediction, a second stage of localization by distributed processing and cooperation with the proximal subsystems and a third stage of coordinate summarizing and subsystem mobility management with a view to maintaining the localization accuracy coefficient at high values.



INVENTORS: POPA GABRIEL NICOLAE, POPA IOSIF, DEACONU SORIN IOAN

esearc

ELECTRONIC TIME RELAY FOR USE IN CONTROL INSTALLATIONS OF ELECTRIC DRIVERS, HAS TWO DELAY CIRCUITS WITH VARIOUS DELAYS



• The invention relates to an electronic relay for all normal functions, with actuating an electromagnetic relay which can be used in plants for the control of electric drives. Electronic time relay ensures that after the state of bi-positional switches, perform the following tasks: attracting delay, or delaying the release, or to keep it attracted a certain time, or delay the release of attracting mobile armature electromagnetic relay, with local control or from a command facility.

• The problem to be solved by the invention is to provide an electronic relay for all functions which are customary requirements by means of bi-positional switches in connection with AND-OR-NOT gates integrated circuits.

• The invention relates to an electronic time relay which may be used in the control installations of the electric drivers. According to the invention, the relay comprises two delay circuits (1, R1, C1, D1, D2; 2, R2, C2, D3, D4), with various delays, where to the command is transmitted by means of two inverters (8, 9), the output of the first delay circuit (1, R1, C1, D1, D2) being connected, on the one hand to the input of a first AND-OR-NOT gate (5), on the other hand through an AND-NOT gate (10), which has the other input connected to the input of the first inverter (8), to an input into a second AND-OR-NOT gate (6), and on the other hand to the SET input of a flip-flop circuit R-S (12, 13) which has the output connected to another input of the second AND-OR-NOT gate (6), and the second delay circuit (2, R2, C2, D3, D4) has the output connected to another AND-NOT gate (11) which has the other input connected after the first inverter (8) and whose output is connected, on the one hand, to the RESET input of a flip-flop circuit R-S (12, 13), and on the other hand, through an inverting gate (14) it is connected to an input of the first AND-OR-NOT gate (5), the outputs from the two AND-OR-NOT gates (5, 6) are connected to the inputs into a third AND-OR-NOT gate (7) whose output, through an inverting gate (15) and a logical amplifier with transistor (R3, R4, T1), controls an electromagnetic relay (K1), the functions of the electronic time relay being changed by means of two bi-positional switches (S1, S2) connected both directly and by means of some inverters (3, 4), to the free inputs of the three AND-OR-NOT gates (5, 6, 7) so as to allow the transmission, in four different ways, of the commands given from a contact (16) at the input of the first inverting gate (8), to the coil of the electromagnetic relay (K1).