Claims

1. A viewing method after cleaning pipeline for viewing the interior's status of the cleaned pipeline, wherein, comprising the following steps:

a. providing a viewing apparatus arranged inside an inlet end of the cleaned pipeline, wherein said viewing apparatus has a flexible cylinder whose outer diameter is more larger than an inner diameter of the cleaned pipeline, the front end of which is provided with a camera and a lighting unit providing lighting for said camera;

b. providing a pressurization apparatus arranged outside inlet end of the cleaned pipeline, said the viewing apparatus being pushed from the inlet end to inside of the pipeline with pushing pressure generated by the pressurization apparatus, and being forced to go ahead from the inlet end of the pipeline to the outlet end of the pipeline, at the same time, the camera views the status of the interior of the pipeline, and the pipeline images are saved or stored in a memory of the camera;

c. taking the camera out of the viewing apparatus, reading the caught image in the memory and viewing the interior of the pipeline using a screen; and

d. calculating, according to the known total length of the pipeline from the inlet end of the pipeline to the outlet end of the pipeline, and the time displayed on the screen and spent by the viewing apparatus in reaching the outlet end, the average speed of movement of the viewing apparatus can be calculated, and the positions existing uncleanness, damage or corrosion can be calculated by multiplying the average speed by the journey time displayed on the screen, for a reference for re-cleaning, replacement or maintenance.

2. The viewing method after cleaning according to claim 1, wherein the camera is a high speed camera.

3. The viewing method after cleaning according to claim 1, wherein the pressurization apparatus works in the manner of water pressurization or air pressurization.

4. The viewing method after cleaning according to claim 1, wherein the camera has an USB slot and a memory slot for connection with a computer through the USB slot to read and display contents of the caught images on the screen, or to take the memory out of the memory slot and connect the computer through a card reader, or insert the memory to the computer for reading, then, to display the contents of the caught images in the memory on the screen, in order to view the interior of the pipeline, or the camera also provides a radio frequency technology to display the caught image on a cell phone's screen for viewing the interior of the pipeline by use of the cell phone's APP program's cooperation to receive an video.

5. A viewing apparatus after cleaning pipeline for viewing the interior's status of the cleaned pipeline, wherein the viewing apparatus comprises

a flexible cylinder having an accommodation space at its one end;

a camera in which a memory for accessing a photographed content is provided, arranged inside the accommodation space of the flexible cylinder; and

a lighting unit arranged at the same side with the flexible cylinder and the camera for providing lighting for said camera~~,~~

wherein the flexible cylinder forms a closed end facing the inlet end of the pipeline after cleaning, and one end of the flexible cylinder, far away from the closed end, forms a pyramid; wherein the camera comprises a lens with an outer screw connection portion, wherein the viewing apparatus also comprises:

an accommodation portion positioned inside of the accommodation space of the flexible cylinder and connected together with the closed end, the accommodation portion forming an accommodation room with an opening;

a lock fixing portion, its one end having an opening portion connected in a mutual communication with the opening of the accommodation portion and having a first water proof zone and a second water proof zone extended and mounted facing the upper of the opening portion in a regular order, the first water proof zone having a first circle slot for a first water proof gasket, the inner rim edge of the second water proof zone having a inner screw portion and the bottom end of the second water proof zone providing a second water proof gasket, and peripheral rim of the lock fixing portion having at least one detention slot for connection with the flexible cylinder;

a fixing block mounted in the interior of the lock fixing portion of the flexible cylinder and connected in a sleeve joint to one end of the camera, comprising a main body arranged in the interior of the lock fixing portion of the flexible cylinder, a sleeve cover arranged in the main body, a transparent protection eyeglass installed in one end of the main body for providing the lens of the camera, two cables respectively electrically connected to the lighting unit of the main body, and a battery electrically connected with the lighting unit and each of the cable, wherein the outer rim of the main body forming a first extrusive sleeve portion connected in the manner of sleeve joint with the sleeve cover and a second extrusive sleeve portion arranged outward facing the bottom rim the first extrusive sleeve portion, and a third extrusive sleeve portion extended at one side of the second extrusive sleeve portion, the outer diameter of which is larger than the second extrusive sleeve portion, in the interior of first extrusive sleeve portion a opening hole being formed, and in the outer rim of the opening hole a declined inner block edge being formed for providing the transparent protection lens a support; in the interior of the declined inner block edge a third water proof gasket is provided for a third water proof zone, while in the inner rim of the main body a first accommodation room for insertion of the camera and a second accommodation room for receiving each of the cables in a sequence being formed by the declined inner block edge facing the third extrusive sleeve portion, and the main body facing the end of first accommodation room having a inner screw connection portion connected by a outer screw with the outer screw connection portion of the camera, the main body having a slot room facing the second accommodation room, the slot room being communicated with the first accommodation room the second accommodation room; the second extrusion sleeve and the third extrusion sleeve having at least two cable holes being communicated with the slot room, respectively, the sleeve cover having a circle extrusion portion connected with the lock fixing portion by sleeve, the outer diameter of which is less than that of the sleeve cover, in the central part of the sleeve cover and the circle extrusion portion a sleeve joint hole being provided for insertion of the first extrusion sleeve portion of the main body, in the outer side of the sleeve joint hole a circle extrusion block for support of the first extrusion sleeve portion, a first concave portion connected in the manner of sleeve joint with the first extrusion portion of the main body and a second concave portion connected in the manner of sleeve joint with the second extrusion portion of the main body being provided, the sleeve cover having two opening holes respectively arranged facing each of the cable holes and correspondent to the first concave portion, the lighting unit being provided between each of the correspondent opening holes and the circle extrusion portion, while the lighting unit being respectively connected to each of the cables, and electrically connected with the battery by entering each of the correspondent cable holes and going out of the slot room; and

a cover body covering the flexible cylinder for accommodating the camera and the fixing block in the flexible cylinder, and the cover body comprising a extrusion wall, a contact portion annularly arranged facing the inner rim of the extrusion wall and an extrusion connection portion extended to the inner side of the contact portion, a concave slot for provision of sleeve joint of the lock fixing portion each other being formed in the back of extrusion wall, a fourth water proof gasket being provided in the contact portion, contacted and integrated with the circle extrusion portion of the sleeve cover to form a fourth water proof zone, in the inner side of the extrusion connection portion a sleeve hole is provided for sleeve joint of the fixing block of the main body, and in the outer side of the extrusion portion an outer screw portion is provided for a bilateral screw connection of the inner screw portion of the lock fixing portion.

6. The viewing apparatus after cleaning pipeline according to claim 5, wherein multiple clutch closing slots are annularly provided in the surface of the extrusion wall of the cover body, each of clutch closing slot is a half circle concave slot, and a tool is provided, one end of which are provided multiple extrusion implant bodies corresponding to each of the clutch closing slots to constitute an implant connection for opening or closing the cover body by the tool.

7. The viewing apparatus after cleaning pipeline according to claim 5, wherein the lighting unit is a LED lighter, a switch being provided between the lighting unit and the battery, the switch respectively being electrically connected to the lighting unit and the battery.

8. The viewing apparatus after cleaning pipeline according to claim 5, wherein the camera is a high speed one, the camera having a switch for operation switch off or switch on of the camera, positioned on the outer peripheral rim of the camera, an USB slot positioned on one end of the camera and a memory slot for receiving the memory.

9. The viewing apparatus after cleaning pipeline according to claim 5, wherein at least one passageway is provided in a longitudinal direction of the periphery of the flexible cylinder during the viewing apparatus being pushed by an air pressure, having a decompression valve.