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## A DRAINING DEVICE FOR WEAK GROUND

### ABSTRACT OF THE DISCLOSURE

The present invention relates to the draining device for weak ground to provide the drainage in weak ground by clamping the paper into weak ground that would moisten the water thoroughly and drain off. In other words, the object of the present invention is to guarantee the credibility in operating the device, according to the present invention, by installing of the wire 4 matching the point that conforms to the central line P of the casing 2 thereof, such that the phenomenon of the eccentric loading to the front and the rear while operating the lifting of the casing 2 is prevented, beforehand, and the durability of the device highly improves thereof, by controlling the tension simply although the wire is expanded through a long time driving thereof, by installing wire drum 16 on both sides of the casing 2 that stabilizes the lifting of the casing 2 thereof, by establishing the spiral concave hole 16a on the surface of wire drum 16 of which would prevent the running off of the wire 4 thereof, as both sides of the upper end on the casing 2 are coupled with the holder 3 that is formed at the same point as the location of the center line P on the casing 2 by means of one end of the wire 4 thereof, and as the other end of the wire 4, that is coupled with the upper end of the holder 3, is fixed on one side of wire drum 16 of the driving mean 6 of which is established on each side of guide supporter 9 after passing through guide roller 21 of which is equipped axially on the top and lower parts of guide supporter 9 thereof, and as the wire 4 that is coupled with the lower parts of the holder 3 is installed on the lower parts of the guide supporter 9 and then fixed on the other side of wire drum 16 of the driving mean of which is installed in both sides of guide supporter 9 by passing through guide roller 24 that is lifted by the tension control device 23 thereof, moreover the spiral concave hole 16a is formed on wire drum 16 and the hydraulic motor 20 of which is installed could perform the static driving thereof, regarding of the casing 2 that has the connecting hole 11 of the paper 10 of which is lifted according to guiding supporter 9 to clamp off the paper 10 into the weak ground and regarding of the draining device 1 of weak ground of which has the driving mean 6 that operates the lifting of said casing 2.

1. A draining device (1) for weak ground having a casing (2) that is guided up and down by a guide supporter (9), with having a paper insertion hole (11) through which paper (10) is forcedly inserted to absorb the water from the weak ground, and driving parts (6) for operating the casing (2) upwardly and downwardly, characterized in that the casing (2) is formed integrally with holders (3) that are disposed on the same position as the center-line (P) of the casing (2), on the left and right sides of the top end thereof, each of the holders (3) connected to the one ends of wires (4) on the upper and lower sides thereof, the other ends of the wires (4) connected to the upper sides of the holders (3) are fixed on the one side ends of wire drums (16) of the driving parts (6) disposed on the left and right sides of the guide supporter (9), through guide rollers (21) that are mounted by a shaft on the upper and lower portions of the guide supporter (9), and the wires (4) connected to the lower sides of the holders (3) are fixed on the other side ends of the wire drums (16) of the driving parts (6), through guide rollers (24) that are mounted by a shaft on the lower end of the guide supporter (9) and are ascended and descended by tension adjusting parts (23), each of the wire drums (16) having a spiral reentrant groove (16a) for guiding the wire (4) on the surface thereof and an oil pressure motor (16) driven forwardly and backwardly for driving the wire drum (16).

(FIGURE 1—~~IS SUGGESTED FOR PUBLICATION~~)