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A. W. KRATZ, JR

SAFETY DEVICE FOR POWER DRIVEN WRINGERS

Filed April 3, 1918

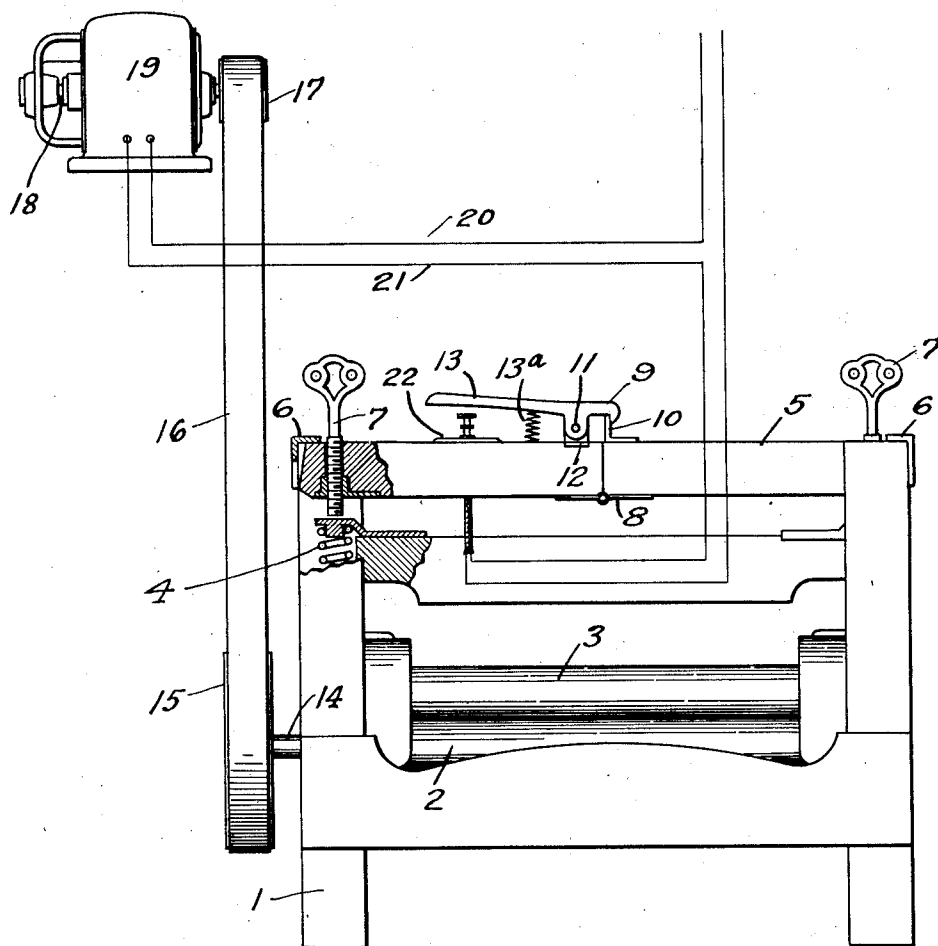


Fig. 1.

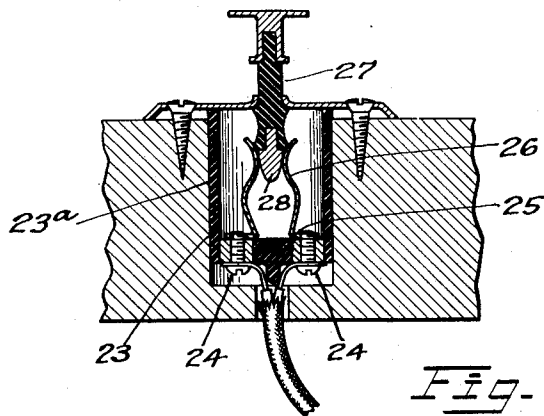


Fig. 2.

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SAFETY DEVICE FOR POWER-DRIVEN WRINGERS.

Application filed April 2, 1912. Serial No. 226,556.

To all whom it may concern:

Be it known that I, AUGUST W. KRATZ, Jr., a citizen of United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Safety Devices for Power-Driven Wringers, of which the following is a specification.

This invention relates to safety devices for power-driven wringers and consists in certain improvements in the construction thereof as will be hereinafter fully described and pointed out in the claim.

With the introduction of power wringers, particularly for domestic use, it was found that there was an element of danger in their operation in that a hand of an operator was sometimes drawn into the wringer inflicting in many instances quite a serious injury. To obviate this danger a number of safety releases have been devised for instantly relieving the tension on the rolls of the wringer and these have been quite effective in attaining the results desired. It has been found, however, that the continued rotation of the wringer rolls even with the pressure released is often attended with some injury both to the operator and to the goods being operated upon by the wringer. With the present invention all danger is obviated by providing means whereby the motor driving the rolls is stopped whenever the safety release is operated.

The invention is illustrated in the accompanying drawings as follows:—

Fig. 1 shows an elevation, partly in section, of the invention.

Fig. 2 a central section of the controlling switch.

The wringer has the usual side stiles 1, lower roll 2, upper, or movable roll 3, pressure springs 4, top bar 5, brackets 6 on the stiles retaining the top bar normally in position and the adjusting screws 7 for adjusting the tension of the springs.

The wringer shown has the safety release as follows:—The top bar 5 is vertically breakable and is provided with a hinge 8 at the meeting ends of the top bar parts. A hook 9 engages a shoulder 10. The hook is carried by a pivot pin 11 on a mounting 12, the mounting being secured to one end of the top bar. It will readily be observed that when the hook 9 is in engagement with the shoulder 10 the top bar is made rigid and

when released the top bar can swing upwardly withdrawing the ends from under the brackets 6. In this way the springs are released and all pressure on the rolls relieved. The hook 9 is provided with a lever 13 and is normally held in its upper, or engaging position, by a spring 13^a. The particular release device herein described is the one specifically disclosed in the patent to Nathan B. Hutton, #1,139,122, May 11th, 1915. The particular type of safety release does not form a feature of this invention.

The stationary roll 2 has a shaft 14. A drive pulley 15 is arranged on this shaft. A belt 16 extends from the drive pulley 15 to a pulley 17 on the rotating shaft 18 of the motor 19. In this way the wringer is driven by this connection from the motor 19 but it will be understood that various connections may be used between the motor and the wringer.

The motor is supplied with current by way of the wires 20 and 21 and a switch 22 is formed in one of the wires, as shown in the wire 21. This switch is so formed that the switch is opened by the operation of the lever 13. A switch suitable for the purpose is shown in detail in Fig. 2. The switch is mounted in an insulated plug 23 arranged in a socket 23^a in the top bar.

The wires going to and from the switch are secured to the screws 24. The screws 24 extend into the bases of the spring switch plates 26. The movable element 27 of the switch is arranged between the plates 26. A portion of this movable element is formed of insulating material. Its lower end 28, however, is of material capable of carrying current. In the position shown in Fig. 2, therefore, the switch is closed, the current passing from one wire by way of the screws 24, spring plate 25, through the metal tip 28, spring plate 26, base 25, screw 24 to the companion wire. When the movable element 27, however, is moved downwardly it brings the insulated portion of said element between the plates 26 and consequently opens the switch. Inasmuch as the movable element 27 is in the path of the lever 13 it will be readily seen that as the lever 13 is depressed to operate the safety release the element 27 is depressed, thus opening the switch. It follows, therefore, that not only is the pressure on the rolls released instantly by the operation of the safe-

ty release but the motor is also instantly stopped.

What I claim as new is:—

5 In combination, a wringer comprising wringer rolls, means for exerting pressure on the rolls, and a safety release for said means comprising a catch device normally locking the means in pressure position, and instantly letting go the means when actuat-

ed, an electric motor driving the wringer, a 10 switch controlling said motor and means in the path of the releasing movement of the catch device for opening the switch as the safety release is operated.

In testimony whereof I have hereunto set my hand.

AUGUST W. KRATZ, JR.