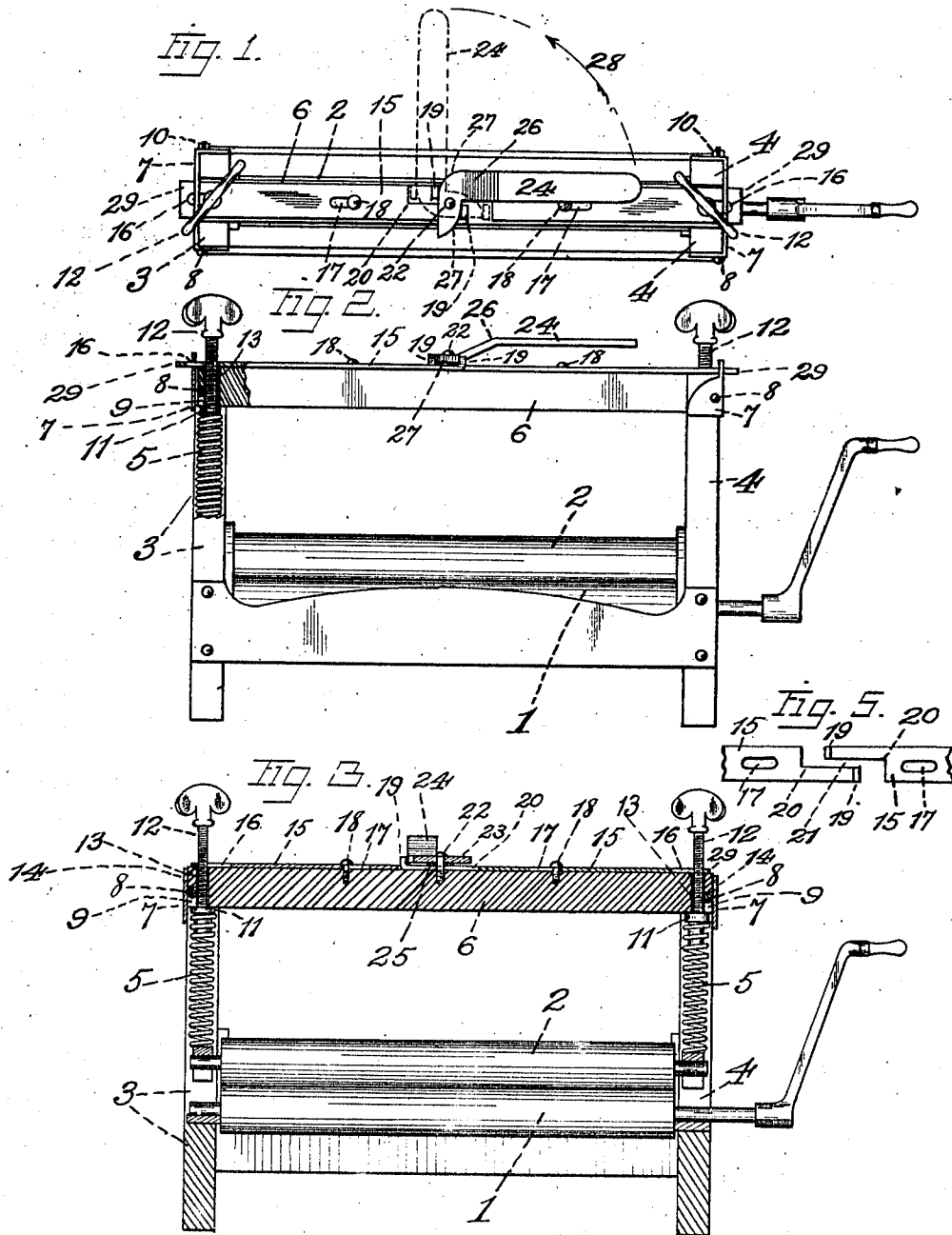


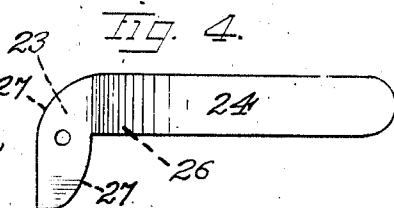
G. H. JANTZ.
CLOTHES WRINGER AND MANGLE.
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UNITED STATES PATENT OFFICE.

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CLOTHES WRINGER AND MANGLE.

1,004,271.

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To all whom it may concern:

Be it known that I, GUSTAVE H. JANTZ, a citizen of the United States of America, and a resident of Wyoming, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Clothes Wringers and Mangles, of which the following is a specification.

This invention relates to clothes wringers and mangles, and it has for its object the provision of a quick or instantaneous releasing device for use in connection with the roll pressure-mechanism whereby the pressure is immediately released from the rolls should any part of the operator or other object or objects become unduly or accidentally caught between the rolls and otherwise necessitating the backing or reverse movement of said rolls that would only add to or augment the injury to said parts or things between the rolls.

The invention herein consists of certain novel features of construction and arrangement of an auxilliary device that is adapted to be applied to the tension or pressure mechanism connected with the squeezing or mangling rolls of a clothes wringer or mangle, such as will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying sheet of drawings Figure 1 is a plan view of the device shown in operative position; Fig. 2, a front elevation of a clothes-wringer embodying my invention herein, showing it as it appears in operative position ready for the releasing-emergency referred to above; Fig. 3, a longitudinal sectional elevation showing the device as it appears when the tension or spring pressure has been released from the rolls; Fig. 4, a detail plan view of the releasing-lever showing its cam-formations; and Fig. 5, a fragmentary plan view of the auxiliary latch bolts or bars forming the device for locking the pressure mechanism in active engagement with the rolls and adapted for a quick release by the above-named cam-lever when it is desired to throw the pressure off said rolls.

In describing said views of the drawings, 1 indicates the lower roll and 2 the upper

roll of the pair of rolls used in a clothes wringer or a mangle, and duly mounted for rotation in bearings provided in the upright frame posts or side-stiles 3 and 4 as customary. The said side-stiles 3 and 4 are each provided with open vertical slots or guide-ways, as customary, for containing the bearings and journals of the rolls 1 and 2 and, also, for containing the vertical spiral springs 5, 5, and the opposite ends of the horizontal pressure-bar 6, as best seen in Fig. 3.

The open upper ends of the slotted side-stiles 3 and 4 are provided with metal straps 7, the latter being duly secured by horizontal bolts 8 that traverse open-bottom slots 9 made in the opposite ends of said pressure-bar 6. The said open-bottom slots 9 permit the ready removal of the pressure-bar 6 when it is desired. Said bolts 8 are provided to secure said straps 7 in place and both said bolts and straps serve the purpose of preventing the spreading of the upper open ends of the stiles. 11, 11 indicate headed pins whose shanks internally engage the upper coils of the springs 5, and 12, 12 are vertical thumb-screws whose shanks engage screw-threaded bushings or linings 13 provided in vertical holes made in said opposite ends of the pressure-bar 6 in axial alinement with the springs 5, the lower ends of said thumb-screws being brought into contact with the upper surface of the headed pins 11 when it is desired to exert or apply pressure or spring-tension on the upper roll 2 which latter, in turn, is thus brought into close contact with the roll 1 under the desired pressure for wringing or mangling clothes, as customary.

14 indicates a horizontal slot made in the upper part of each of the metal straps 7.

15, 15 indicate a pair of corresponding horizontal latch-bolts mounted on the upper surface of the pressure-bar 6 and adapted to reciprocate longitudinally upon said upper surface. Each latch-bolt 15 is provided with a short longitudinal slot 16 at its outer end and, also, with a similar slot 17 about mid-length, as best seen in Figs. 1 and 3, the screw-threaded shanks of the thumb-screws 12 passing downward through

said slots 16, and vertical screws 18 entering said upper surface of the pressure-bar through said slots 17 and duly connecting the latch-bolts to the pressure-bar, free to slide lengthwise thereover. Each of the latch-bolts is provided with an upturned inner end 19, and the inner ends of both latch-bolts are shouldered or reduced in width, as shown at 20, so that said inner ends can clear each other in the reciprocal movements of said latch-bolts, and a suitable space 21 (as best seen in Fig. 5) is provided between said shouldered inner ends to provide for the downward passage of the shank of a vertical screw 22, the latter, in turn, being provided to secure in horizontal, swinging position the cam-end 23 of a horizontal lever 24. An intervening washer 25 is supplied beneath the cam portion 23 of the lever 24 to provide a suitable turning or bearing surface over the spaced inner ends 20 of the latch-bolts 15, as best seen in Fig. 3. The lever 24 is curved or bent upward at 26 so as to elevate it somewhat above the latch-bolts for clear and positive horizontal movement when emergency demands. The arc or cam faces 27, 27 of the member 23 of the lever 24 intimately contact with the inner faces of the upright ends 19 of the latch-bolts, and, when said lever 24 is turned in the direction of the arrow 28, seen in Fig. 1, from normal position, said cam-faces 27, 27 force the latch-bolts to move toward each other centrally of the pressure-bar 6 and cause the outer ends 29 of said latch-bolts to withdraw from engagement with the horizontal slots 14 of the metal straps 7, such engagement of the latch-bolts with said slots 14 being previously provided for when said latch-bolts are in said normal position, such as is shown in Figs. 1 and 2, wherein the wringer is in active position or condition for use. In such active condition of the wringer, the springs 5 are under tension of the thumb-screws 12, and, when said lever 24 is turned in the direction of the arrow 28 as above stated, the spring-pressure is instantly released from the rolls 2 and 1, especially roll 2, so that any object or fabric that has become unduly or accidentally entered or clogged between the rolls, can be readily released or withdrawn without turning said rolls backward that would otherwise only injure said objects still the more, and especially if such object were the human hand or the like that would be already sufficiently hurt by the rolls of the wringer or the mangle without subjecting said part to only additional crushing injury to the operator. The operation of the lever 24 is instantaneous, the outer ends 29 of the latch-bolts immediately passing from locking-engagement with the slots 14 of the straps 7 when the cam-faces 27 have exerted their strong pressing-force

against the upturned ends 19 of the latch-bolts and the tension of the springs 5 being fully released at once, the expansion of such springs forces the pressure-bar 6 upward and the contacting-pressure between the rolls 2 and 1 is immediately withdrawn.

It is quite obvious that my emergency spring-pressure or tension device herein can be readily applied or added to a clothes wringer or mangle already in use, as well as to new devices of the same character and, in order that the opposite outer ends of the latch-bolts 15 can be directed to engage the horizontal keeper-slots 14 in the end-straps 7, it is simply necessary to swing the lever 24 back to the normal position seen in Fig. 1, the pressure-bar 6 brought into active compressing-engagement with the springs 5 by means of the thumb-screws 12 and latch-bolts 15 slid outward by hand when the outer ends 29 of said latch-bolts register or are in horizontal alinement with the said keeper-slots 14.

I claim:

1. In a device of the character described, the combination of a pair of compression rolls mounted in a suitable frame, means for exerting pressure or tension on said rolls, a pressure-bar contacting with said tension means, latch-bolts on said pressure-bar, latch-bolt keeper or engaging devices on said frame and means on said pressure-bar for conveniently operating and instantly releasing said latch-bolts from said keepers whereby the said tension is instantly released from said rolls and the parts that were under tension adapted to be immediately removed when emergency or other occasion requires.

2. In a device of the character described, the combination of a pair of compression rolls mounted for rotation in a suitable frame, springs in said frame for placing the upper roll of said pair of rolls under tension or pressure against the lower roll, thumb-screws for placing said springs under tension or compression, a pressure-bar whose opposite ends are engaged by said thumb-screws, metal straps engaging the upper guide-way ends of said frame and having horizontal slots provided therein, horizontally-sliding latch-bolts on said pressure-bar and having slots therein freely engaged by said thumb-screws, upright projections at the inner ends of said latch-bolts, a horizontally-swinging lever mounted centrally on said pressure-bar and having arc or cam formations adapted to engage said upright inner ends or projections on the latch-bolts, the outer ends of the latter being adapted to engage the horizontal keeper-slots in said metal straps on the frame when the pressure-bar is brought down into compressing-engagement with the tension-springs and the said

lever with its cam-formations being adapted to engage the said upright projections at the inner ends of said latch-bolts whereby the latter may be readily withdrawn from
5 locking-engagement with said keeper-slots when it is desired to instantly release the spring pressure or tension from said rolls,

and the parts that were under tension adapted to be immediately separated and removed.

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