(No Model.)

# C. A. KOHL.

## WRINGER.

No. 604,765. Patented May 31, 1898.

*Fig. 1.*

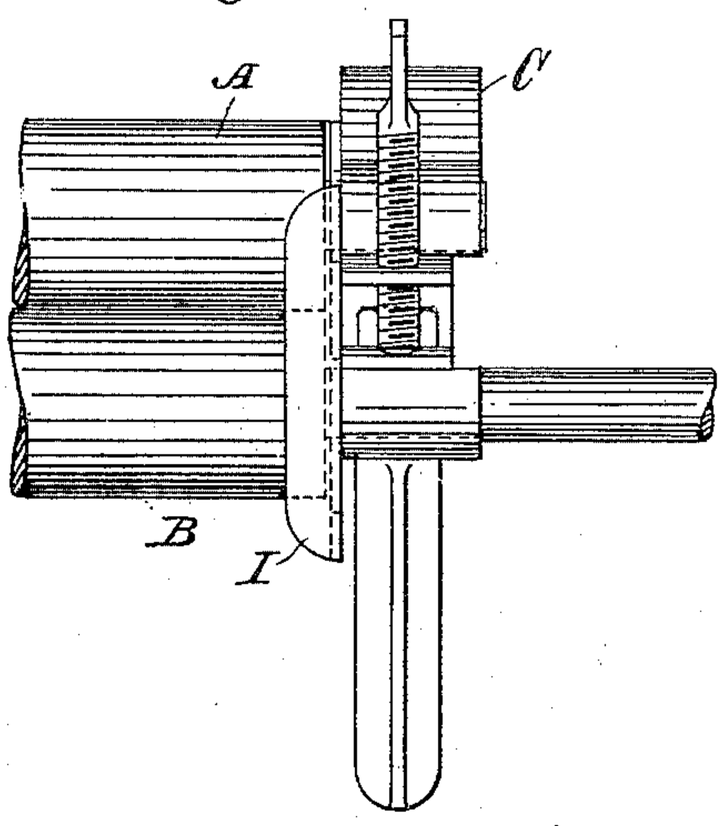



*Fig. 2.*

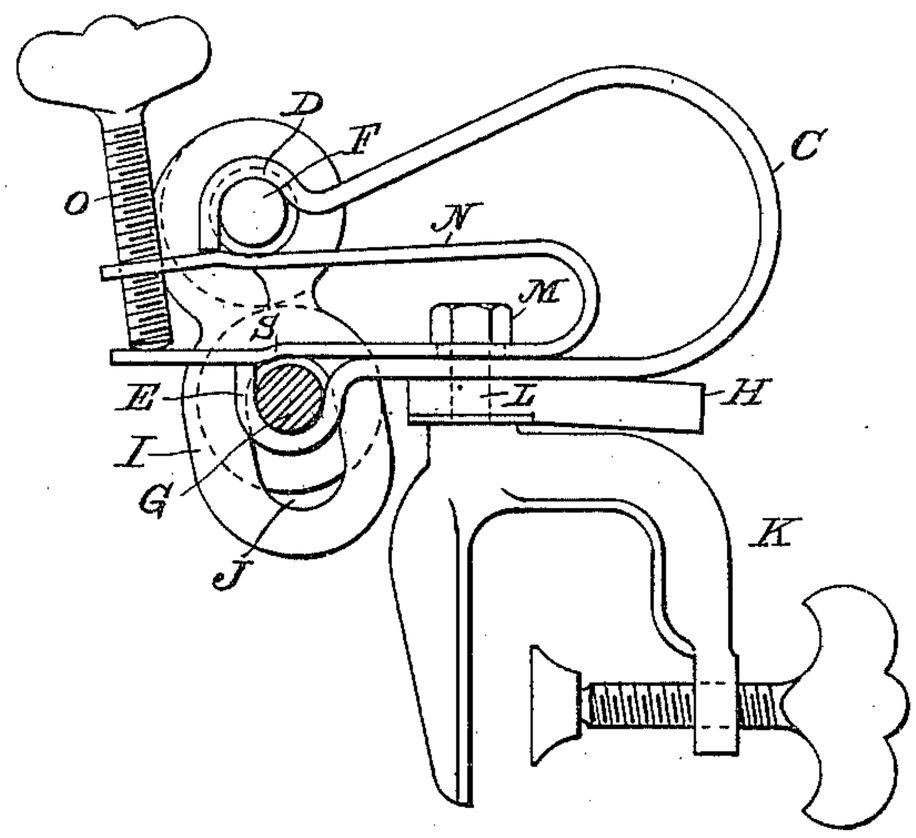



*Fig. 3*




*Fig. 4.*

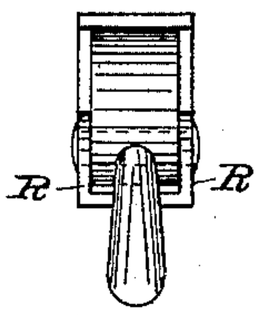
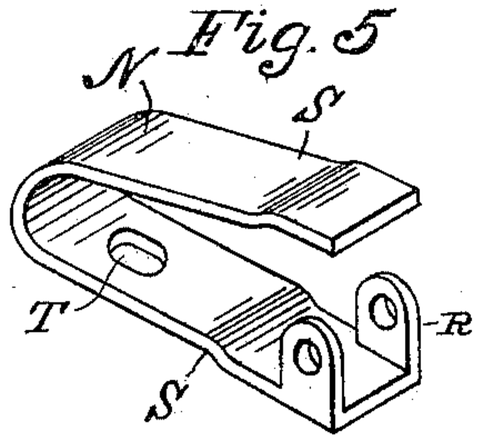



*Fig. 5*

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# UNITED STATES PATENT OFFICE.

CHARLES A. KOHL, OF CLEVELAND, OHIO.

## WRINGER.

SPECIFICATION forming part of Letters Patent No. 604,765, dated May 31, 1898.

Application filed December 17, 1897. Serial No. 662,287. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. KOHL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Wringers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention has reference, broadly, to clothes-wringers; and the object of my invention is to provide means for separating the rolls thereof when the wringer is not in use to prevent the portions in contact from becoming flat, whereby the life of the wringer may be prolonged to a considerable extent.

A further object of the invention is to construct the roll-separating mechanism in such manner that it may be applied easily and quickly to wringers and may be manufactured at a small cost.

With these objects in view my invention consists in the peculiar construction and location of the separating mechanism and in the novel arrangement and combination of its various parts, all as more fully hereinafter described, and shown in the drawings, in which—

Figure 1 represents one end of an ordinary clothes-wringer with my improved separator attached thereto. Fig. 2 is a side elevation of a wringer, illustrating the peculiar construction and arrangement of the separator. Fig. 3 is a similar view of a modification, showing the rolls separated by my improved device. Fig. 4 is a detached view of the separator proper, and Fig. 5 is a perspective view of the same.

As the mechanism for separating the rolls is employed in the wringer at each end thereof and is of precisely the same construction, only a part of the wringer has been shown, and the particular construction of one of the separating devices will be described.

In Fig. 1 the letter A represents an upper roll, and B a lower, of a wringer of ordinary construction, and these rolls are held in contact with each other by means of horseshoe-springs C. The latter devices are of ordinary construction, and each is provided at its ends with the half journal-bearings D and E. The ends of the spring thus described bear against the journals F and G of the rolls, for the purpose before set forth, and the spring proper is rigidly secured to a water-board H.

The letter I represents the usual clothes-guard, which is slotted at J to permit the upper roll to be raised when material of more than ordinary thickness is passed through the wringer.

The wringer proper is secured to the tub by means of the clamp K, which is provided with a bolt L, extending through the water-board and horseshoe-spring, and a nut M holds the parts rigidly together.

Thus far the construction as described and shown is the same as the ordinary wringer, wherein the rolls are kept constantly in contact through the tension of the horseshoe-springs. To separate the rolls when the wringer is not in use, so that portions of the surfaces will not flatten, I have employed a simple separating mechanism which is applicable to a wringer in which a spring, preferably of the horseshoe type, is employed as a tension device for the rolls. In construction the device consists, preferably, of a U-shaped bar N, which is interposed between the journals F and G of the rolls at each end, and each bar is provided on one of its legs with a slot T, as shown in Fig. 5, so that when placed in position in the wringer between the roller-journals and resting upon the horseshoe-spring the bolt L of the clamp will pass through the slot, and after the proper adjustment is made the separator may be rigidly attached to the wringer by means of the nut M.

Various means may be employed for operating the separator, such as a winged screw O, Fig. 2, which engages one member of the separator and bears upon the complementary member, so that when the screw is turned the free ends of the bar will be moved apart, thereby spreading the rolls.

In Fig. 3 a modified type of actuating device for the separator is shown, consisting of a lever-actuated cam P, pivoted upon a spindle Q, which has bearings in ears or lugs R, formed upon one end of the separator, as shown in Fig. 5. In this type of separator the bar is formed of spring-steel, so that when the actuating device is returned to its initial

position the separator will automatically resume its normal form and the rolls will again be in contact.

In order that the separating device will not bear against the journals when the rolls are in contact with each other, each leg of the bar N is depressed or provided with an offset S, so that a sufficient clearance is provided for the journals. When the separator is actuated, as shown in Fig. 3, the lower roll is at the bottom of the slots J, and the top roll is supported by the top members of the separators, so that the latter, besides performing their ordinary function, also act as a support for the rolls, thereby requiring much simpler construction of a wringer and dispensing with journal-boxes and like devices.

While I have shown and described a separating device of a particular type and means for operating said device, I do not wish to be limited strictly to this type, as various others may be employed without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a wringer, the combination with the rolls, journals at the ends thereof, a spring bearing against the journals adapted to keep the rolls normally in contact, and a roll-separating device in connection with each pair of journals, comprising a horizontally-arranged bar provided with two transverse members interposed between the journals, and means for spreading said members, whereby the rolls will be forced out of contact with each other.

2. In a wringer, the combination with the rolls, of journals at the ends thereof, a horseshoe-spring, the free ends of which form bearings for the journals, a separating device, comprising a curved bar, interposed between the journals and arranged upon and detachably secured to the spring; the free ends of said bar bearing against the free ends of said spring, and means for spreading the ends of the curved bar, substantially as described.

3. In a wringer comprising two rolls provided at their ends with journals, and horseshoe-springs in which said journals are adapted to bear; a roller-separating device, interposed between the journals at each end of the wringer, comprising a U-shaped bar N, each member of said bar having an offset S formed thereon, and one of said members being slotted, and a device for spreading the free ends of said bar, substantially as and for the purpose described.

4. In a wringer comprising two rolls provided at their ends with journals, and horseshoe-springs in which said journals are adapted to bear; a roller-separating device, interposed between the journals at each end of the wringer, comprising a U-shaped bar N, each member of said bar having an offset S formed thereon, and one of said members being slotted, and a device for spreading the free ends of said bar, comprising a lever-actuated cam P, pivoted in one end of the bar, substantially as described.

5. In a wringer comprising a pair of rolls provided at their ends with journals, and horseshoe-springs in which said journals have bearings; a roller-separating device interposed between the journals at each end of the wringer, comprising a U-shaped bar N, one of the members of said bar being slotted whereby the bar may be detachably and adjustably secured to the spring, and means for spreading the ends of said bar, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. KOHL.

Witnesses:
L. J. WHITTEMORE,
CHARLES L. STOCKER.