

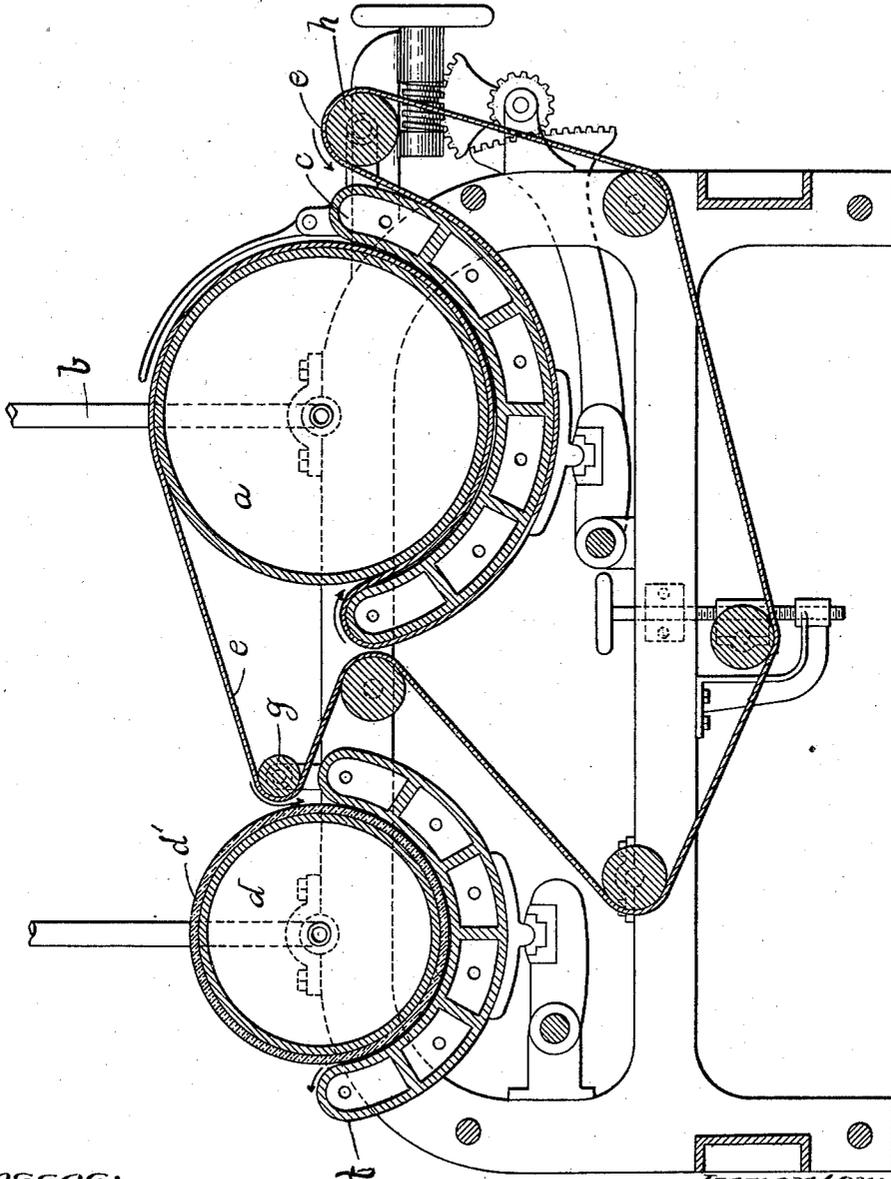
No. 683,402.

Patented Sept. 24, 1901.

C. R. HOYT.
MANGLE.

(Application filed Aug. 24, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES R. HOYT, OF ARLINGTON, MASSACHUSETTS, ASSIGNOR TO EMPIRE LAUNDRY MACHINERY COMPANY, OF PORTLAND, MAINE.

MANGLE.

SPECIFICATION forming part of Letters Patent No. 683,402, dated September 24, 1901.

Application filed August 24, 1900. Serial No. 27,921. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. HOYT, a citizen of the United States, and a resident of Arlington, county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Mangles, of which the following is a specification.

The invention herein set forth relates to mangles, and is particularly intended to overcome certain difficulties at present encountered in this class of machines.

Heretofore it has been proposed to employ a concavo-convex heated bed in combination with a slatted or ventilated cylinder provided with a jacket of felt or similar material and a traveling apron adapted to carry the piece to be ironed over the convex surface of the heated bed, from which point the piece is then carried between the jacketed cylinder and the concave surface of the bed, after which it may be delivered to another similar bed and cylinder. While this construction is entirely practical, it has been found that the action of the heated bed upon the felt forming the covering of the cylinder results in drawing through to the outer surface of the felt covering particles of iron rust, which are formed on the cylinder by reason of the fact that the jacket rarely becomes thoroughly dried out. This makes it necessary to frequently renew the coverings, besides leading to the frequent spotting or staining of the goods with iron rust. This invention is intended to completely overcome said difficulty, besides securing other practical advantages; and it consists, generally speaking, in the combination of a heated concavo-convex bed, a heated cylinder cooperating therewith, and an apron of felt or the like arranged to pass around both surfaces of the concavo-convex bed and over the surface of the heated cylinder. This and other features of my invention will be more particularly described and pointed out in the following specification and will be clearly defined in the claims.

In the accompanying drawing I have shown one of the forms of embodying the principles of my invention.

The figure shown is a vertical sectional view of such a machine, such parts being

shown as are necessary to a complete understanding of my invention.

In any suitable form of framework is mounted a rotatable unjacketed cylinder *a*, constructed to retain steam under pressure, which may be admitted through a suitable steam-pipe *b*. Beneath this cylinder is mounted a concavo-convex bed *c*, which is also supplied with steam through suitable apertures. In the frame there is also mounted a second cylinder *d*, preferably steam-heated. Beneath this cylinder *d* is a concave steam-heated bed *f*. If, as in the present case, the apron *e* is not passed between the cylinder *d* and the bed *f*, I provide said cylinder *d* with a covering or jacket of felt, (indicated at *d'*.) An endless apron of felt or the like is arranged to travel along the under or convex surface of the bed *c*, whence it passes back between the concave surface and the heated cylinder *a* and around said cylinder to the roll *g*, at which point the piece leaves the apron and passes between the jacketed roll *d* and its cooperating bed *f*. The rotation of the roll *d* in the direction of the arrow serves to carry the piece being ironed between the roll *d* and the bed *f* in such a manner that the reverse face of the piece comes in contact with the metal surface of the bed, so that both faces are given a finish on a metal surface. It will be understood that the goods are fed in at the right-hand end of the machine upon the apron *e* at the point where it passes over the roll *h*. The apron itself may be provided with suitable guide, driving, and adjusting rolls. It will be noticed that the same face of the goods is kept in contact with both surfaces of the first bed *c* and that the reverse face is kept in contact with the surface of the bed *f*. Besides preventing the rotting out of the covering or jacket and the spotting of the goods with iron-rust, this construction and arrangement tends to give better results in the way of finish by reason of the fact that the moisture is more rapidly expelled from the apron under the conditions to which it is subjected than it was from the felt covering on the perforated roll.

It will be understood that considerable changes in form, construction, and arrange-

ment may be made without departing from the principles of my invention.

Without attempting to set forth the manifold changes in details of construction that
5 may be made in my invention, what I claim is—

1. In a mangle the combination of a steam-cylinder, a concavo-convex bed, means for heating the same and an apron arranged to
10 travel against the convex surface of the bed and to pass thence between the bed and the cylinder and around the cylinder whereby the piece to be ironed may be carried by the apron in contact with both faces of the bed
15 while the moisture is being simultaneously expelled from the apron by contact with the heated surface of the cylinder substantially as described.

2. In a mangle the combination of the un-
20 jacketed cylinder, the concavo-convex bed, means for heating said cylinder and said bed, a secondary cylinder, a concave bed coöper-

ating therewith, and an apron arranged to travel over both surfaces of the first bed and
around its coöperating cylinder and to de- 25 liver the piece being ironed to the second cylinder and bed substantially as described.

3. In a mangle the combination of the ironing-bed adapted to be heated and its coöperating unjacketed cylinder and means for heat- 30 ing said cylinder, a roll *g*, a secondary cylinder provided with a felt jacket, a heated bed arranged beneath said secondary cylinder to coöperate therewith, and an apron of felt ar- 35 ranged to pass between the first cylinder and its coöperating bed and around said cylinder and around the roll *g* substantially as described.

In witness whereof I have hereunto set my hand this 14th day of August, 1900.

CHARLES R. HOYT.

In presence of—

GEO. N. GODDARD,

KATHARINE A. DUGAN.