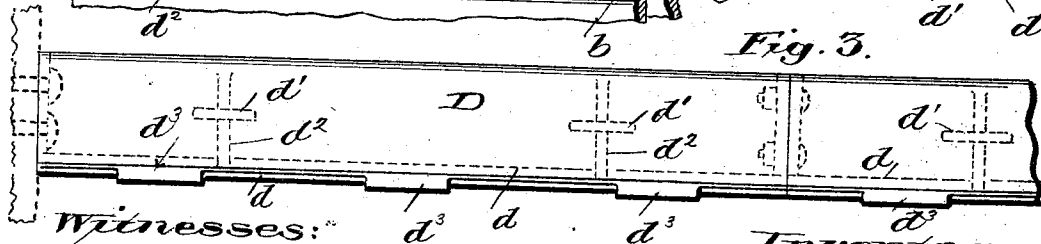
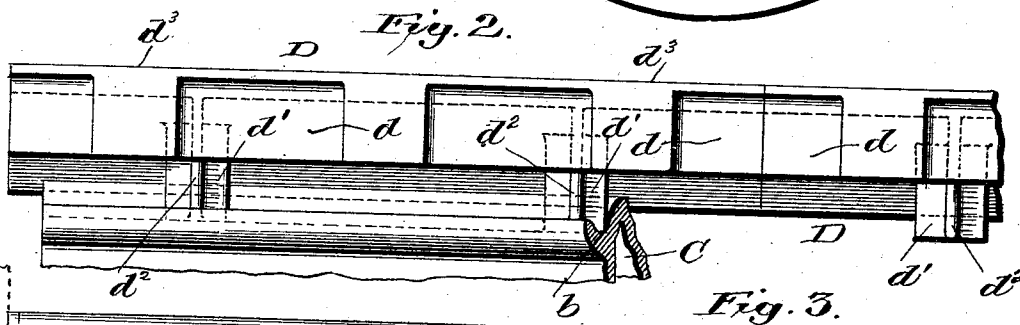
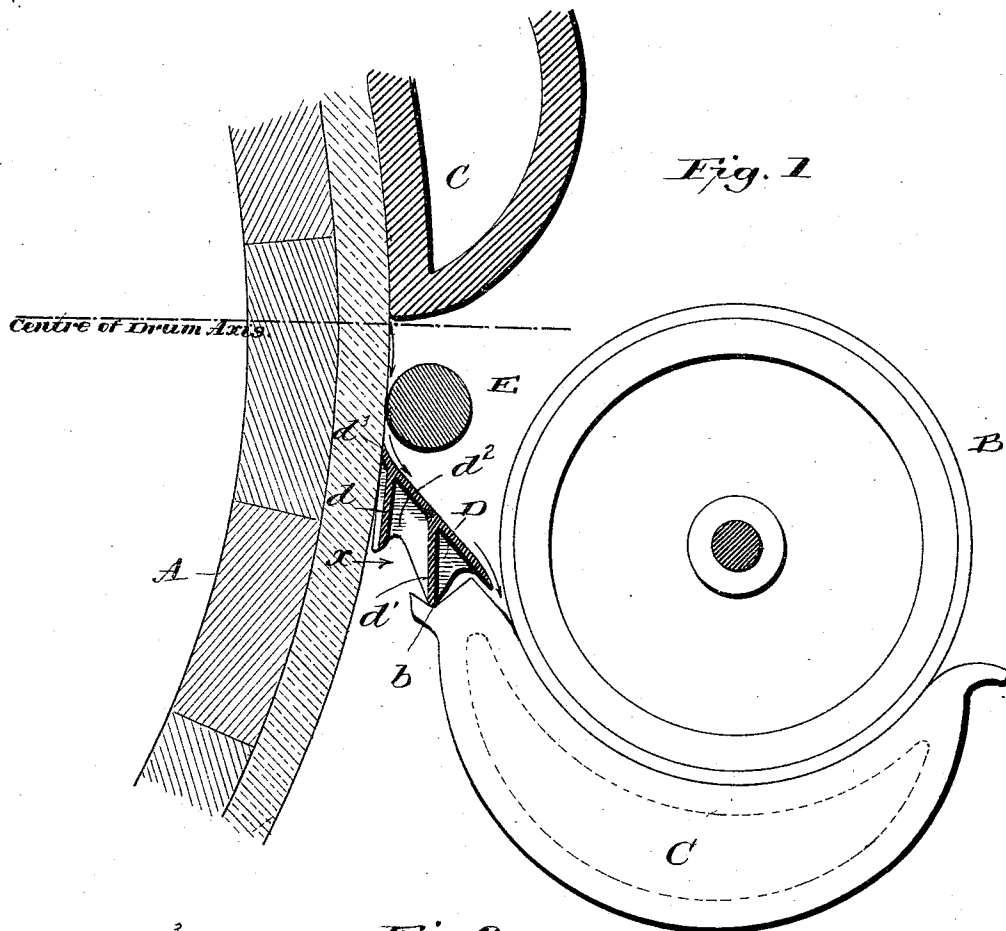


(No Model.)

E. W. BUELL & S. MOE.
DOFFER MECHANISM.

No. 543,126.

Patented July 23, 1895.



Witnesses:

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by E. B. Stocking
Atty.

UNITED STATES PATENT OFFICE

EDWARD W. BUELL AND SIVERT MOE, OF CHICAGO, ILLINOIS, ASSIGNORS
TO THE TROY LAUNDRY MACHINERY COMPANY, LIMITED, OF TROY,
NEW YORK.

DOFFER MECHANISM.

SPECIFICATION forming part of Letters Patent No. 543,126, dated July 23, 1895.

Application filed November 3, 1894. Serial No. 527,799. (No model.)

To all whom it may concern:

Be it known that we, EDWARD W. BUELL and SIVERT MOE, citizens of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Doffer Mechanism, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in ironing-machines, and more particularly to doffer mechanism therefor, having for its objects, among others, to provide a blade and mechanism whereby
15 the goods are more positively removed from the clothed roll.

The doffer-blade is arranged with its acting edge located at a point more or less below the center of the drum-axis, it being well
20 known that the goods begin to fall away from or leave the clothed roll just at a point below its axial center. To facilitate the goods in their movement away from the clothed roll we employ means, as an idler-roll, which is
25 arranged with its periphery adapted to bear against the clothed roll at a point between the acting edge of the doffer-blade and the center of the drum-axis. This will tend to concave the goods, and the lower edge thereof will
30 thus be thrown farther way from the clothed roll and turned outward to better fall upon the doffer-blade and in position to be conducted thereby between the other roll and its heated ironing device. In one of its forms
35 the doffer-blade is made in sections and supported upon the heated ironing device of the lower roll. The idler-roll may be dispensed with under some circumstances. The doffer-blade will serve with other devices for concaving the goods between the blade and the
40 center of the drum-axis.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined
45 by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

50 Figure 1 is an enlarged view, partly in sec-

tion and partly in elevation, illustrating the application of our invention. Fig. 2 is an elevation with a portion broken away, looking in the direction of the arrow *x* in Fig. 1, of the doffer-blade. Fig. 3 is a top plan view of
55 the doffer-blade.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates a portion of the
60 ironing cylinder or drum, which may be clothed in any suitable manner, and B is the lower roll, also of any well-known or approved form and adapted to be actuated in the usual way. C are the steam-pans or ironing de-
65 vices, also of known construction and mode of operation.

The doffer-blade D is located at a point below the center of the drum-axis, as shown in Fig. 1, so that its acting edge or portion or
70 portions will contact with the roll or cylinder A at a point somewhat below said center line, the exact distance below such line being determined by experience and dependent somewhat upon the diameter of the roll or cylinder.
75 It is well known that the goods being ironed begin to fall away from the drum vertically after they pass the center line, and the acting face of the doffer-blade is arranged so as to remove or disengage such articles as do
80 not of themselves leave the drum or cylinder as soon as the drum passes the central line, the doffer-blade being inclined toward the roll B, as shown in Fig. 1, to automatically guide the goods to the roll B, as illustrated in Fig. 1.
85

It is desirable that some means be employed for aiding the goods in their separation from the cylinder. For this purpose we have herein shown an idler-roller E, suitably journaled and arranged, so that its periphery will be in
90 contact with that of the cylinder A at a point between the acting face of the doffer-blade and the point where the goods naturally would leave the face of the cylinder—that is, at the center of the drum-axis. This idler is
95 designed to press upon the goods and the covering of the roll or cylinder A sufficiently to concave the same at this point, so that when the goods emerge therefrom their lower edge will be curved or turned outward from the
100

periphery of the cylinder A and in their further movement will be deposited upon the doffer-blade, as will be readily understood.

The doffer-blade is designed to be mounted
 5 in the machine in any suitable manner—as, for instance, by means of bolts to the frame, as indicated by dotted lines in Fig. 3—and its upper and lower edges are slightly tapered and may be somewhat curved in opposite di-
 10 rections, as shown in Fig. 1, for the purpose of better conducting the goods away from the cylinder A and to the roll B. The blade is formed in sections in any suitable manner—as, for instance, as indicated by dotted lines
 15 in Fig. 3—and this blade is what may be termed a “skeleton blade,” inasmuch as it comprises the upper face, from which depend the vertical ribs *d* toward the rear or that portion designed to be nearest the cylinder A
 20 and the vertical ribs *d'* upon a different plane, as seen in Figs. 1, 2, and 3, and the transverse ribs *d*², the ribs *d'* being designed to rest within a channel or groove *b* in the heated ironing device C, as shown in Figs. 1
 25 and 2, although the said ironing device may be otherwise formed. The upper edge of the blade is formed at intervals with the lips *d*³, as seen best in Fig. 3, which are designed to bear against the clothing of the roll or cylinder
 30 to insure the positive removal of any goods that might perchance adhere to the said cylinder.

Owing to the length and enormous weight of the cylinders or drums employed in this
 35 class of machinery it is most desirable to have the doffer-blade of such rigidity that it will

not buckle or bend, but will maintain its parallelism with relation to the periphery of the drum at all times. The ribs herein described are provided to insure this end.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

The idler-roll E may be supported in position in any suitable manner. It may be suspended so as to bear against the drum from its own weight, or any suitable device can be arranged to press it against the drum with any desired pressure.

What is claimed as new is—

1. The combination of a revoluble cylinder, a doffer blade and means interposed between the blade and the horizontal axial line of the cylinder to turn the goods from the cylinder between the doffer and the last ironing device, substantially as described.

2. The combination of a revoluble cylinder, a doffer blade, and an idler roll mounted to act against the cylinder above the doffer blade, as set forth.

3. The combination with a revoluble cylinder, of a doffer blade, and an idler roll arranged to act against the cylinder between the said blade and the horizontal axial line of the cylinder, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD W. BUELL.
 SIVERT MOE.

Witnesses:

ALLEN CONKLING,
 H. H. HERR.