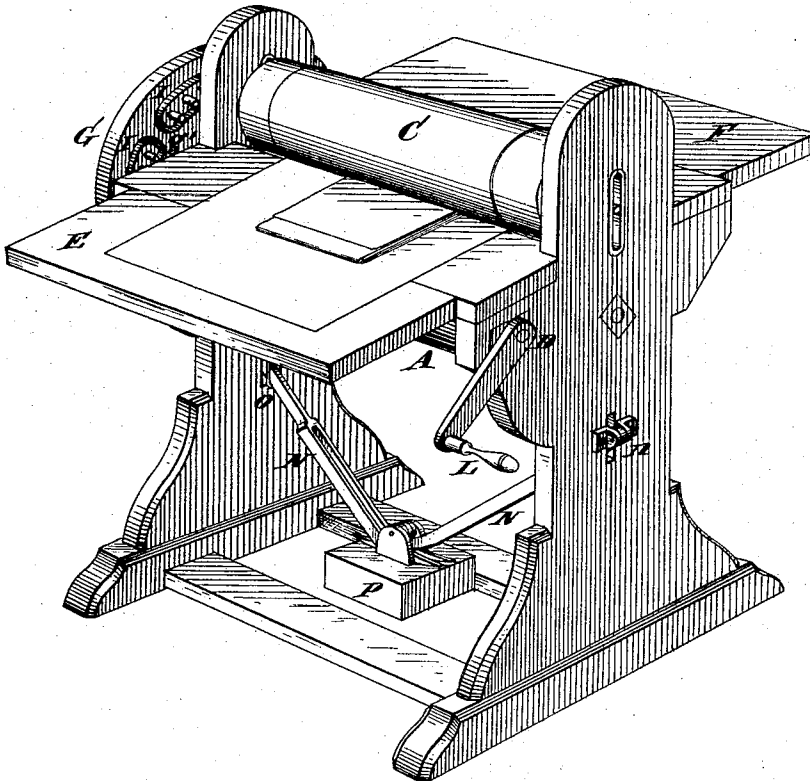


W. TINSLEY.
Clothes-Mangles.

No. 157,245.

Patented Nov. 24, 1874.

Fig. 1



Attest

Edgar Gross

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Inventor

William Tinsley
By F. Millward
Attorney

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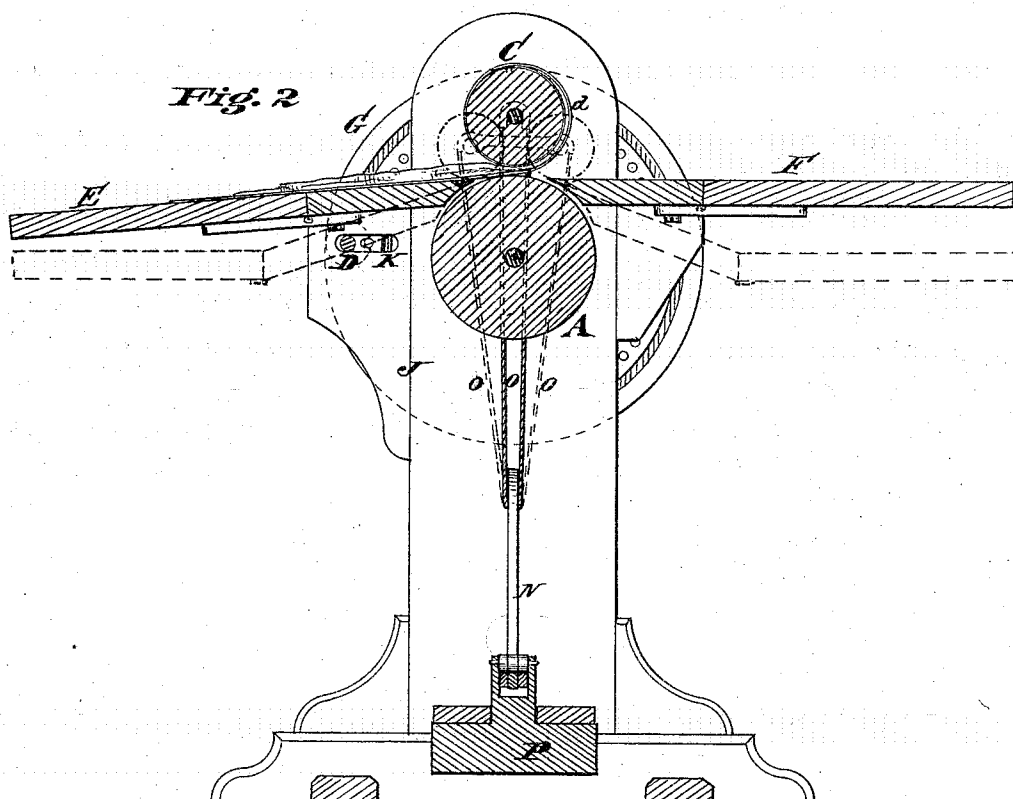
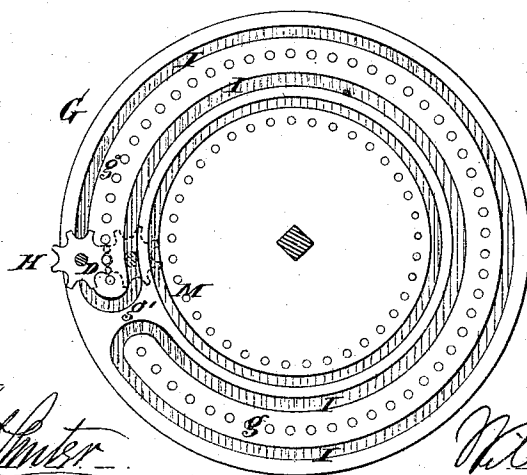


Fig. 3



Attest
Edgar Cross
Edgar Cross

Inventor
William Tinsley
By *J. Millward*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM TINSLEY, OF CINCINNATI, OHIO.

IMPROVEMENT IN CLOTHES-MANGLES.

Specification forming part of Letters Patent No. **157,245**, dated November 24, 1874; application filed February 28, 1874.

To all whom it may concern:

Be it known that I, WILLIAM TINSLEY, of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Reciprocating Clothes-Mangles, of which the following is a specification:

My invention relates to roller-machines for pressing and smoothing clothes; and consists, first, in a combination of a swiveling driving-shaft and pinion and rotating disk upon one of the roller-shafts, the disk being formed with double connected grooves and series of pins, by which the pinion is enabled to give an automatic reciprocating motion to the roller of the mangle. My invention further consists of an equalizing pressure device for the loose roller, by which a uniform pressure is exerted upon the goods as they pass through the space between the rollers.

Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a cross-section of the same, showing the operation of mangling. Fig. 3 is an end view of the driving-pinion and grooved disk.

A is the power-roller; C, the loose pressure-roller, and D the driving-shaft. The loose roller has a loose cloth, *d*, secured to it, between which and the face of this roller the clothes are pressed. E is the feed-table, which is inclined to provide for the smooth presentation of the clothes to the rollers, and the free discharge on the return. F is a horizontal table for the reception of the clothing; or it may be inclined as a feed-table, as shown in dotted lines, Fig. 2. The roller A has a disk-wheel, G, secured to its shaft, into which the pinion H of the shaft meshes, the face of the wheel being provided with a series, *g*, of pins, fitting the spaces between the teeth of the pinion. Grooves I are formed concentrically in the face of wheel G, one on each side of the pins, the grooves joining together by semicircular grooves *g'* at each end of the row of pins, a space occurring in the disk (in which there are no pins) for this purpose.

As a modification, movable plates carrying the pins may be attached to the wheel.

The end of the shaft D fits in the grooves I, and in order that it may play laterally to follow the grooves, a slotted bearing, K, is provided for it in the frame J of the machine, at this end. Its bearing at the other end is fixed, and made as usual, except that it per-

mits of slight oscillation of the shaft in moving laterally at its other end.

A crank, L, operates the machine, and while turning continuously in one direction a reciprocating rotary motion of the rollers A and C is (by the mechanism described) imparted to them, and the clothes are by this motion pressed or mangled.

If a continuous motion is desired, a separate circular row of pins, with one circular groove, as at M, or a completion of one of the grooves *g* to form a circle, and the addition of a few pins, will suffice to accomplish it.

As a modification of the single pressure-roller C, two may be used, yoked together, as shown in dotted lines, Fig. 2.

To press the roller or rollers down upon the clothes, I employ two levers, N, which are hinged to the frame J at *n*, one of which is forked to receive the other, as shown. Yoke-straps O connect them to the roller, as shown in Figs. 2 and 1, and a weight, P, rests upon them in the angular space formed between them. The end of the levers being free, and the weight adapted for self-adjustment between them, the pressure exerted by them is obviously balanced, no matter what angle reasonably the roller or rollers C may assume.

The loop or pin of the weight P carries an anti-friction roller, so that it may readily adjust itself.

It will be seen that, as the weight shifts, the effective length of the lever-arms changes, and the greater pressure is brought to bear upon the more elevated end of the roller or rollers C, as is naturally required, in order to do uniform work.

I claim—

1. The combination of rollers A C, grooved and pinned disk-wheel G *g* I, pinion H, and oscillating driving-shaft D, connected and operating substantially as and for the purpose specified.

2. The combination of pressure roller or rollers C, levers N *n*, yokes O, and self-adjusting weight P, operating substantially in the manner and for the purpose specified.

In testimony of which invention I hereunto set my hand.

WILLIAM TINSLEY.

Witnesses:

J. L. WARTMANN,
L. M. HUNTER.