

D. Cumming Jr,

Mangle,

N^o 21,044.

Patented July 27, 1858.

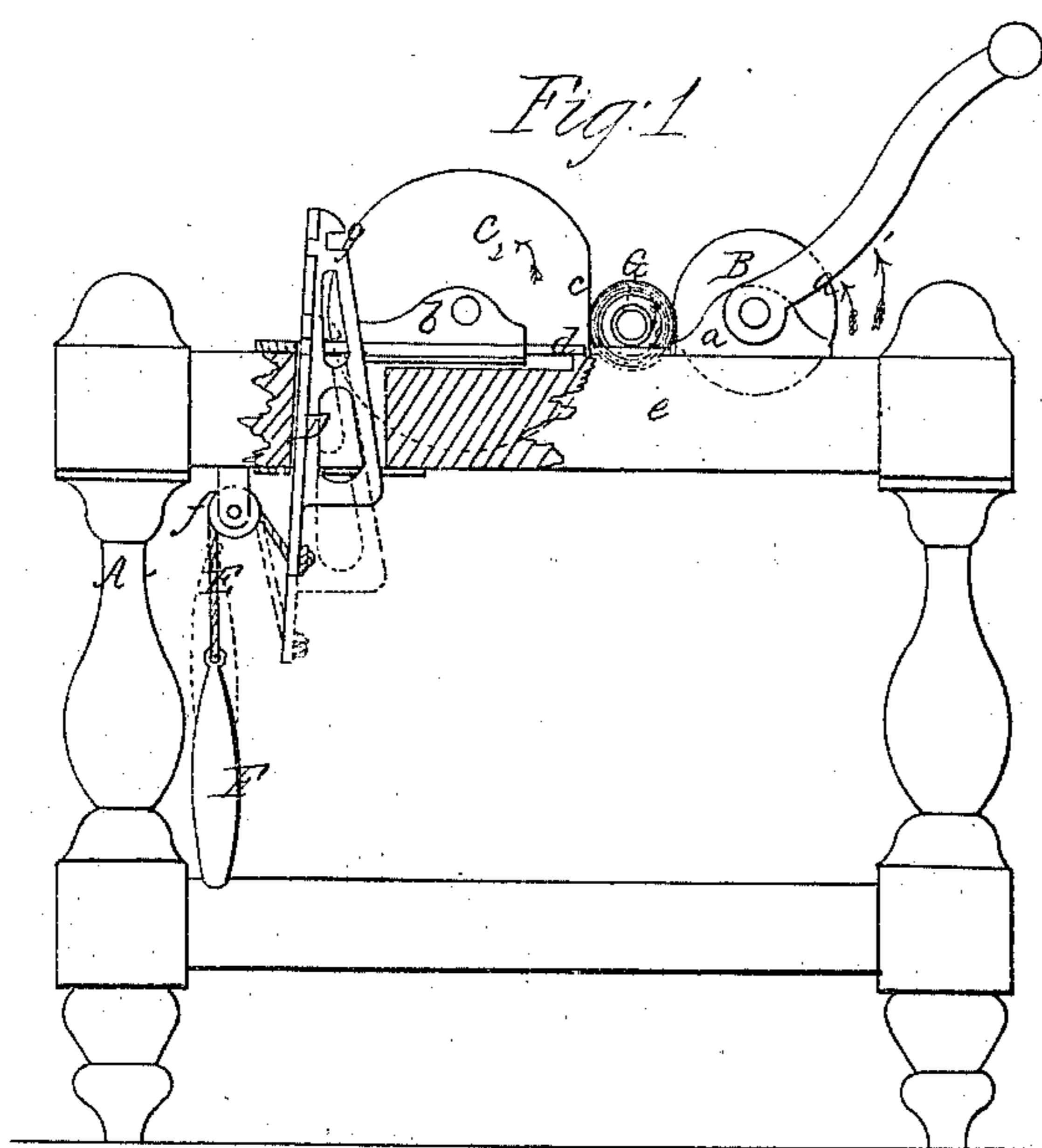
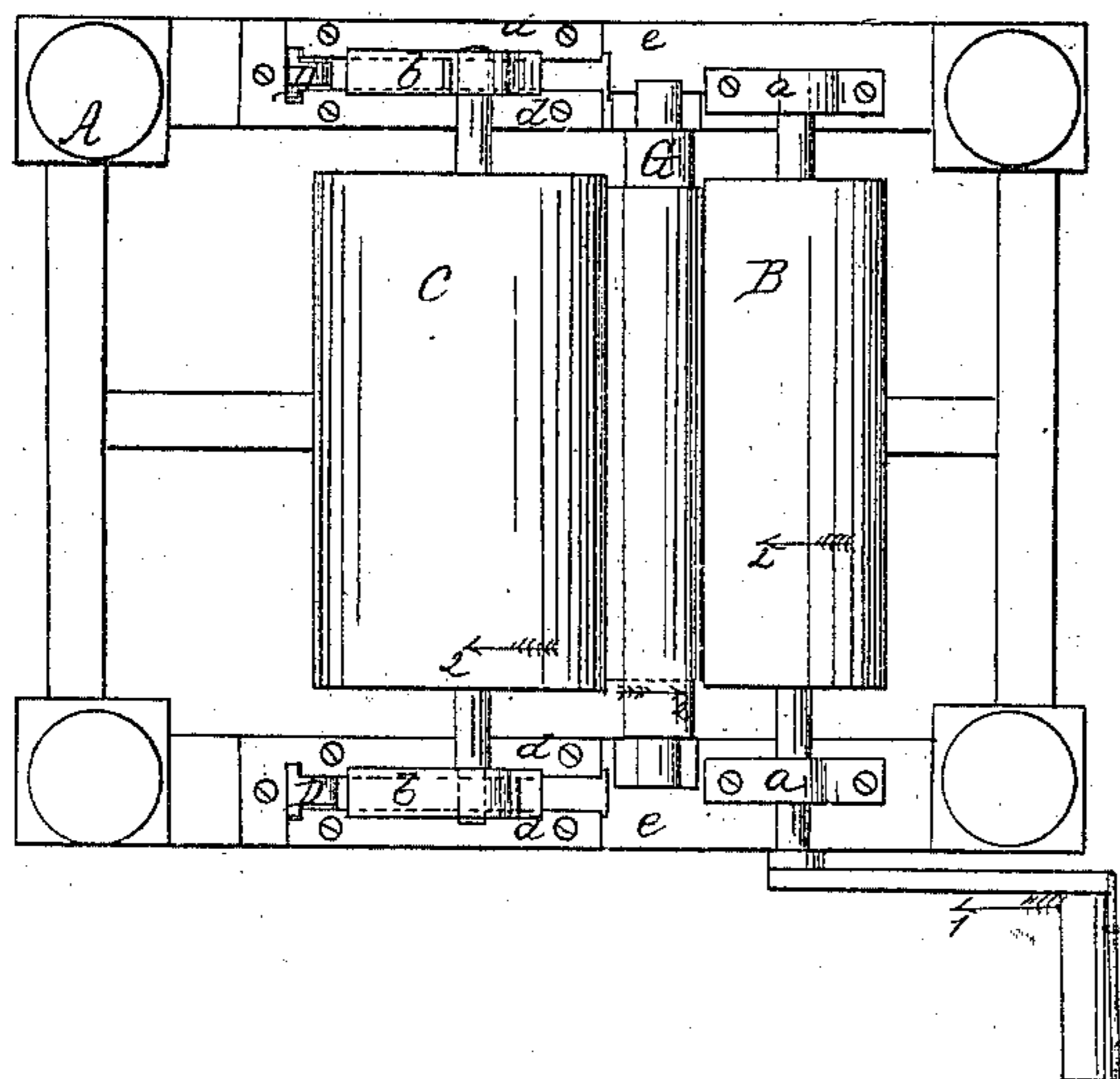


Fig. 2



UNITED STATES PATENT OFFICE.

D. CUMMING, JR., OF MOBILE, ALABAMA, ASSIGNOR TO D. CUMMING, SR., OF SAME PLACE.

MANGLE.

Specification of Letters Patent No. 21,044, dated July 27, 1858.

To all whom it may concern:

Be it known that I, D. CUMMING, Jr., of Mobile, in the county of Mobile and State of Alabama, have invented a new and Improved Machine for Mangling Clothes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my invention a portion of the framing being broken away in order to show my invention. Fig. 2, is a plan or top view of ditto.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of a rotating cylinder having fixed bearings, a rotating clothes cylinder and a cylinder with a segment removed so as to form an elliptical face; the latter cylinder having its axis placed in yielding or adjustable bearings which are acted upon by wedges and weights as hereinafter described, whereby the clothes may be operated upon or mangled in an expeditious and perfect manner.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a rectangular framing on the upper part of which a cylinder B, is placed transversely the axis of the cylinder being placed in fixed bearings *a, a*.

C is a cylinder which is also placed in the framing A, parallel with the cylinder B. The axis of this cylinder is placed in sliding bearings *b, b*, and the cylinder has a segment cut from its periphery so as to form an elliptical surface *c*, said surface being of equal width and extending the whole length of the cylinder parallel with its axis.

The bearings *b, b*, are fitted between metal guides *d, d*, attached to the side rails *e e* of the framing. D, D, are wedges which pass vertically through the rails *e, e*, one through each, directly back of the bearings *b, b*. To the lower end of each wedge D, a chain or cord E, is attached. These chains or cords pass over pulleys *f*, attached to the under side of the rails *e*, and have each a weight F, secured to them. The wedges D, bear against the ends of the bearings *b, b*, of the cylinder C, and the upper end of each wedge has a notch or recess *g*, made in it.

G, is a roller around which the clothes

to be operated upon are wound. This roller is placed on the framing A, between the two cylinders B, C,—the axis of the roller merely resting on the rails *e, e*.

The cylinder C, is considerably larger in diameter than the cylinder B, and the roller G, is much smaller than the cylinder B. All of the cylinders may be constructed of wood, and also the framing A, the axes of the rollers and also the wedges D, D, and bearings are of metal.

The operation is as follows:—The clothes to be operated upon, shown in red lines, are wound around the small roller G, and the wedges D, are kept depressed by the notches in their upper ends catching in the guides *d, d*, the cylinder C, is then shoved back. The roller G, therefore may be taken from between the cylinder B, C, the clothes to be operated upon wound around it and the roller placed between the cylinders. The cylinder C, is then pushed slightly toward the roller G, the elliptical portion being in contact with the clothes, the wedges are released from the guides, the weights F, then elevate the wedges which press against the bearings of the cylinder C, and act as stops to prevent the cylinder C, from being pressed away from the clothes. The cylinder B, is then rotated by any proper means in the direction indicated by the arrow 1, and the clothes will be subjected to pressure between the two cylinders B, C, the cylinder C, pressing against the clothes during the time the cylindrical portion is in contact with them, and when the elliptical surface is brought opposite to them the cylinder, by means of the wedges, is advanced nearer the clothes taking up the space gradually formed by the compressing of the clothes at each revolution of the cylinder. The cylinders B, C, and roller G, rotate in the direction indicated by the arrows 2, and the motion of the rollers have a tendency to wind the clothes on the roller G, and also to press its axis down on the framing.

This machine has been practically tested and it operates well. The clothes are not liable to be injured and they may be quickly adjusted so as to be operated upon. The device also may be constructed at a reasonable cost and it may be readily kept in repair and proper working order.

I do not claim broadly the employment or use of pressure rollers for mangling clothes, for they have been used and arranged in va-

rious ways for accomplishing the purpose, but so far as I am aware they have been used in connection with a horizontal bed or plane surface on which the clothes were placed, thus making a cumbrous machine.

What I claim therefore as new and desire to secure by Letters Patent, is,

The employment or use of the cylinder B, having its axis fitted in fixed bearings *a*, the cylinder C, having an elliptical surface

c, on a portion of its periphery, and having its axis fitted in sliding bearings *b*, *b*, and the wedges D, D, having weights F, attached, the whole being arranged to operate as and for the purpose set forth.

D. CUMMING, JR.

Witnesses:

W. G. CANDLISH,

W. P. MCGILLIVRAY.