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Patented Jan. 17, 1899.

W. E. TERRY & E. CHRISTEN.
DAMPENING MACHINE FOR LAUNDRIES.

(Application filed Apr. 20, 1898.)

(No Model.)

Fig. 1.

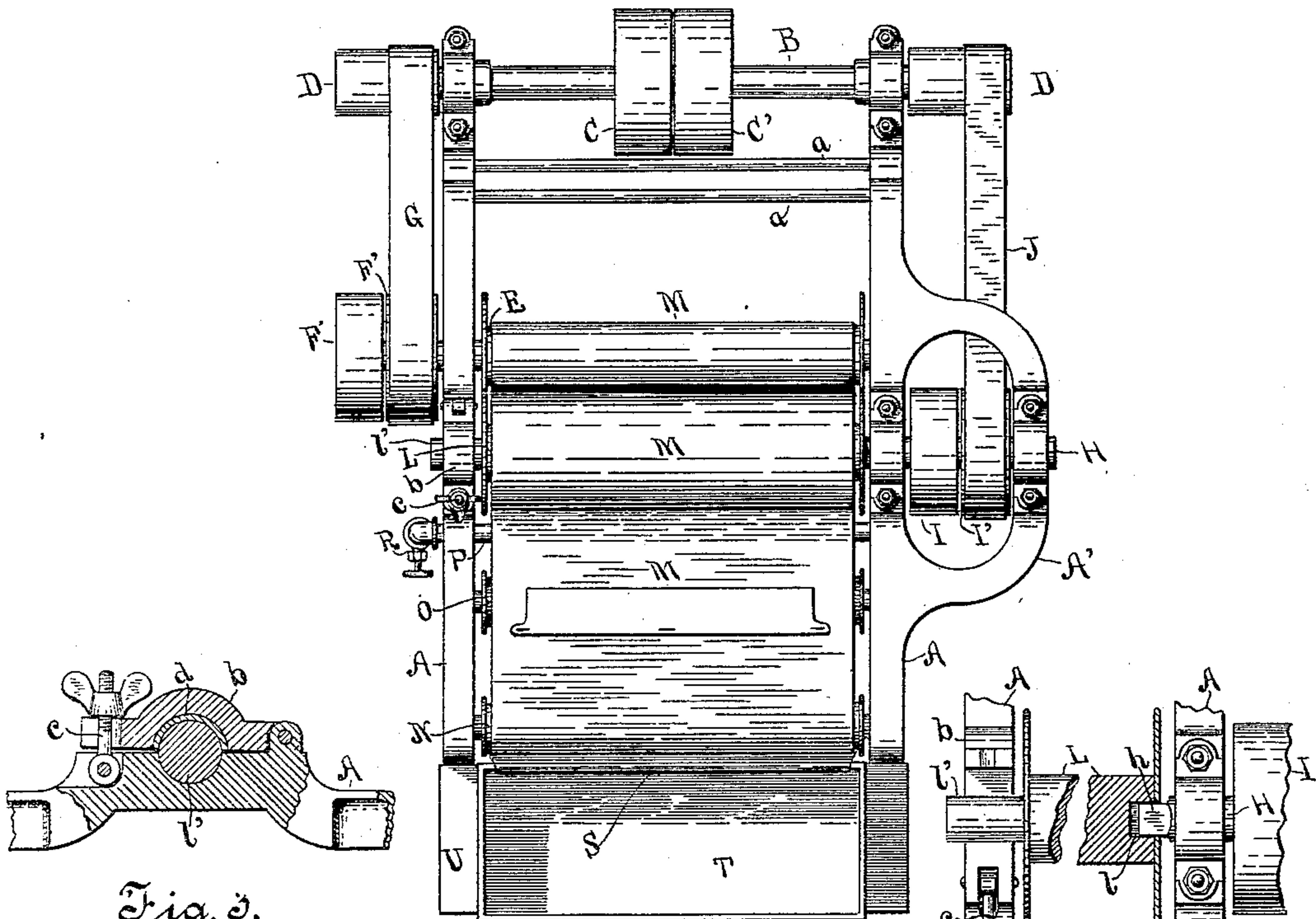


Fig. 3.

Fig. 4.

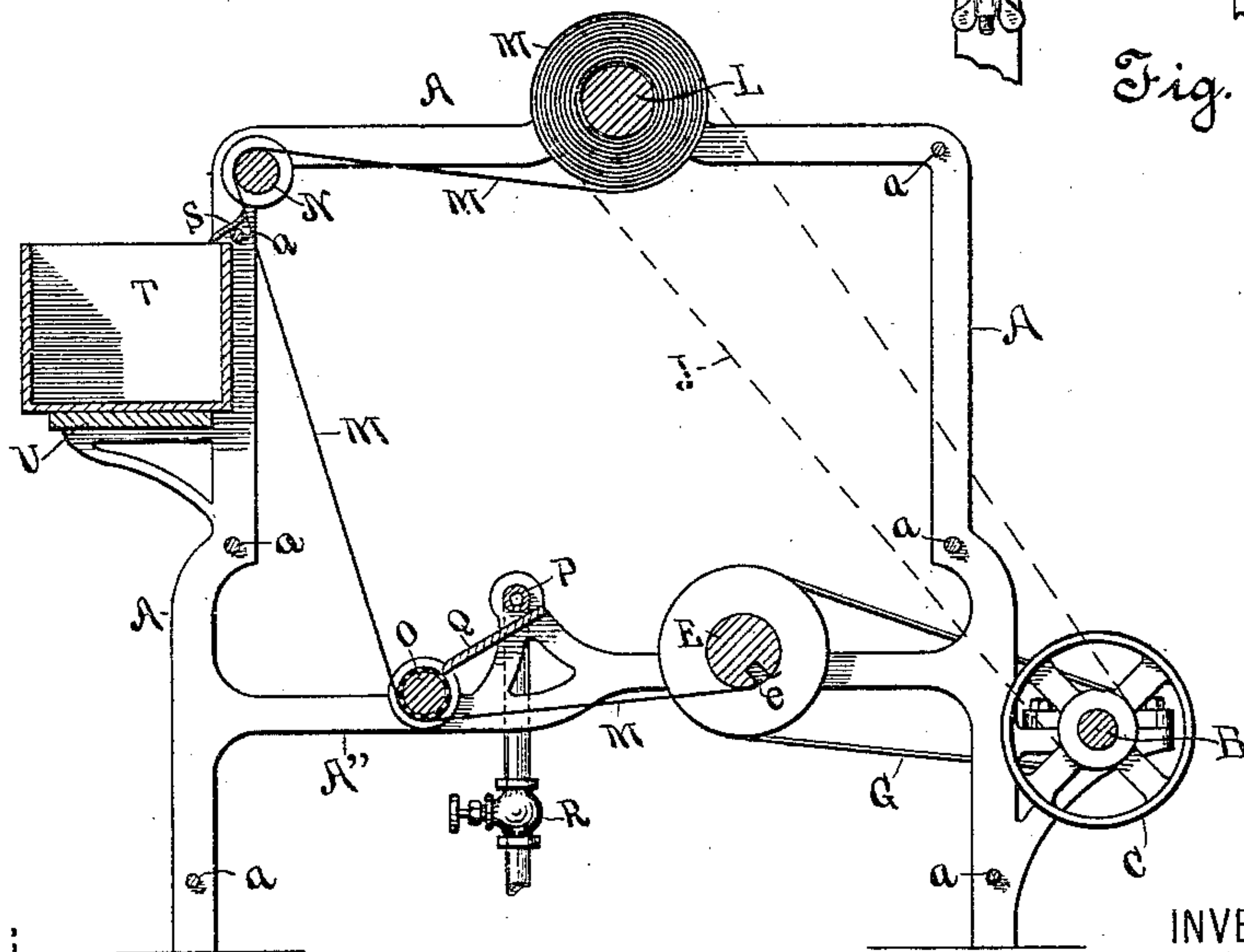


Fig. 2.

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WILLIAM E. TERRY AND EDWARD CHRISTEN, OF ELMIRA, NEW YORK; SAID
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DAMPENING-MACHINE FOR LAUNDRIES.

SPECIFICATION forming part of Letters Patent No. 618,018, dated January 17, 1899.

Application filed April 20, 1898. Serial No. 678,239. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. TERRY and EDWARD CHRISTEN, citizens of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented a new and useful Improvement in Dampening-Machines for Laundries, of which the following is a specification.

Our invention relates to improvements in machines for dampening collars and cuffs after they have been starched and before they are taken to the ironing-rolls.

At present it is the customary practice to pass the collars and cuffs between dampened rolls, by which the moisture is imparted to them and from which rolls they are dropped into a box or basket, in which they are covered by a damp cloth, weighted, and set aside for a matter of two hours or so until the moisture has become evenly distributed to the proper degree throughout the collars and cuffs in the basket.

The object of our improvements is to provide a machine by which this operation may be greatly expedited, the necessary degree of moisture being imparted to the collars and cuffs evenly and to the proper degree within twenty minutes after they are fed into our machine. We accomplish this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of the machine; Fig. 2, a side elevation in medial section, and Figs. 3 and 4 details of construction. Similar letters refer to similar parts throughout the several views.

A A represent the side frames of the machine, preferably of cast-iron, of L-shaped cross-section, which are held the proper distance apart by the rods *a* and screwed to the floor when in proper location. At the rear of the machine in suitable brackets is a counter-shaft B, provided with the fast and loose pulleys C C', which are driven from a line-shaft. At each end of the counter-shaft, outside the frame-pieces, are the small pulleys D D'. A drum or spool E is journaled on the cross-bars A'' of the side frames, and its shaft is provided with the fast and loose pulleys F F', driven from the counter-shaft by the belt G. The right-hand frame A is provided

with an arm or projection A' at the top, which forms a support for a short shaft H, carrying the fast and loose pulleys I I' and driven by the belt J. A second drum or spool L is positioned on the top of the frame in line with the shaft H and is detachably connected thereto, as shown in Fig. 4. For this purpose the shaft H is provided with a squared end *h*, and the drum L at one end is provided with a socket *l* to fit this squared portion of the shaft H, the other end of the drum L being provided with a shaft or axle *l'*, which is journaled in the left-hand frame A, being held in position by means of the hinged cap *b*, which is fastened down upon the axle *l'* by means of the swinging bolt and thumb-nut *c*. A dampening belt or band M, of sheeting or other suitable cloth, is fastened to the drum L, carried over the guide-roll N at the front of the machine, then down around the guide-roll O, and removably attached to the drum E. This attachment to the drum E is accomplished by means of a groove running longitudinally across the drum, into which the end of the dampening-band is pressed and secured by a strip *e*. The roll O is padded, and to it water or steam is fed from the perforated pipe P, which runs across the machine above and to the rear of the roll, an inclined shelf of brass or other suitable material being positioned, as shown at Q, to carry the water or steam to the roll and distribute it evenly across the roll, the supply of water or steam being regulated by means of the valve R. The shaft of the drum E is provided with a hinged cap for one of its journal-boxes similar to that shown in Fig. 3, and these caps for both the drums L and E are provided with leather or other suitable bushings *d*. By clamping these caps down upon the shafts the drums L and E are made to turn with the necessary friction, and the belt M is thereby kept taut. Suitable belt-shifters (not shown) are provided for the belts G and J, preferably adapted to be operated by the feet of the operator.

In operation the drum L, with its band of sheeting rolled upon it, is placed in the machine and connected with the shaft H. The end of the band is carried around the guide-rollers N and O and fastened to the drum E.

The belt G is shifted to the tight pulley F', and the band M is wound upon the drum E. At the same time water or steam is turned on through pipe P. The pad or roll O is saturated and imparts the necessary moisture to the band. As soon as the band M has been wound off from the drum L the belt G is shifted to the loose pulley F and the valve R is closed. The belt J is then shifted to pulley I. This imparts motion to the drum L and winds band M back upon it. The collars and cuffs are during the reversal of this machine fed upon the band and rolled up on the drum L, the speed of the machine being so regulated that the operator will have time to take collars and cuffs from a box T, set upon a shelf U at the front of the machine, and place them in position upon the band. Just before the band is entirely wound off from the drum E the belt J is shifted to the loose pulley I'. The band is then disconnected from the drum E, the loose end wrapped around the drum L, and this drum is removed from the machine and placed at one side. A second drum L, with its roll of dampening-cloth, is then inserted and the operation repeated, as many rolls being used as can be filled in the twenty minutes or so that the first roll is required to stand. When this time is up, the first roll is reinserted in the machine, the end of the band attached to the drum E and wound thereon, the collars and cuffs being carried out from the roll on drum L and deposited in an empty box or basket T, set upon the shelf U to receive them, a scraper S being provided to remove the collars and cuffs from the band M in case they adhere so strongly thereto as not to drop when the band is carried around the roll N. While the band is being run onto the drum E it may be again dampened to the necessary degree from the water or steam in the pipe P, and when the motion is reversed a fresh lot of collars and cuffs may be wound upon the drum L, these drums L being inserted and removed as fast as they are to be emptied and filled.

It will be seen that the collars and cuffs are thus wound in between two thicknesses of a dampened cloth. The moisture is therefore on both sides of them, and the cloth being evenly moistened across its entire breadth the same degree of moisture will be imparted to the collars and cuffs on both sides at the same time and for their entire length. Thus the required degree of moisture is imparted to them evenly and quickly and much time is saved thereby, also considerable labor, and improved results are obtained.

Instead of a power-machine the drums L and E and the dampening-roll O may be assembled in a machine adapted to be operated by hand, the drums L and E in that case being driven by cranks and positioned so as to

be brought within easy reach of the operator. Also, instead of making the drum L detachable it may be journaled permanently in the machine and the machine allowed to stand idle after the collars and cuffs have been wound up in the dampening-band until they have been properly dampened.

Having thus described our invention and without confining ourselves to the precise details of construction as shown and described herein, what we claim as our invention, and desire to secure by Letters Patent, is—

1. A dampening-machine comprising a drum, a band of fabric attached thereto, means for dampening said band, means for winding the band upon the drum whereby collars, cuffs and other starched articles may be wound in between the convolutions of the band upon the drum and allowed to remain therein until they have attained the requisite degree of moisture, and means for unwinding the band from the drum to discharge the collars, cuffs, and other starched articles.

2. A dampening-machine comprising a pair of drums, a band of fabric attached thereto, means for dampening said band, and means for turning the drums to wind the band from one drum to the other and back again, substantially as described.

3. A dampening-machine comprising a pair of drums, one of said drums being detachable from the machine, a band of fabric secured to the detachable drum, means for removably attaching the end of said band to the other drum, means for dampening said band, and means for turning the drums to wind the band from one drum to the other and back again, substantially as described.

4. A dampening-machine comprising a pair of drums, a band of fabric attached thereto, a padded roll in contact with the band, a perforate pipe through which water or steam is delivered to said roll, and means for turning the drums to wind the band from one drum to the other and back again, substantially as described.

5. In a dampening-machine, the combination of a counter-shaft, a shaft connected therewith by a belt and fast and loose pulleys, a drum attached to the latter shaft, a second drum below the first on a shaft connected with the counter-shaft by a belt and fast and loose pulleys, a band of fabric attached to the drums, guide-rolls therefor, and means for dampening said band, substantially as described.

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

WILLIAM E. TERRY.
EDWARD CHRISTEN.

Witnesses:

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F. B. JONES.