No. 870,807. PATENTED NOV. 12, 1907.

H. A. TWIGG.

SEAM DAMPENER.

APPLICATION FILED SEPT. 16, 1904.

2 SHEETS—SHEET 1.

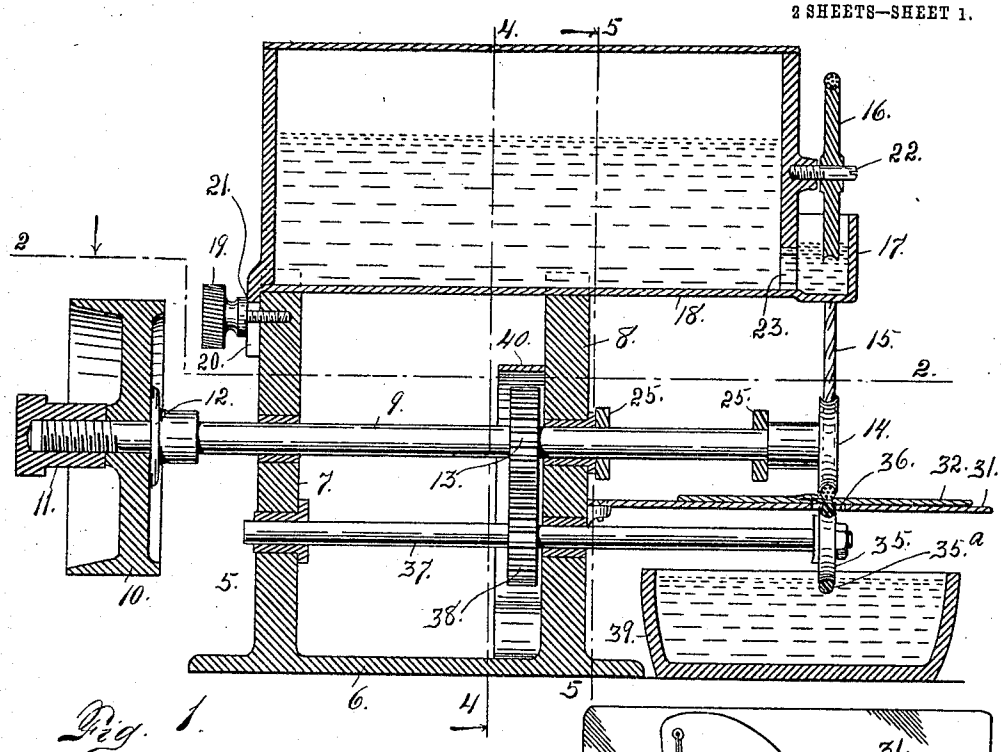


Fig. 1.

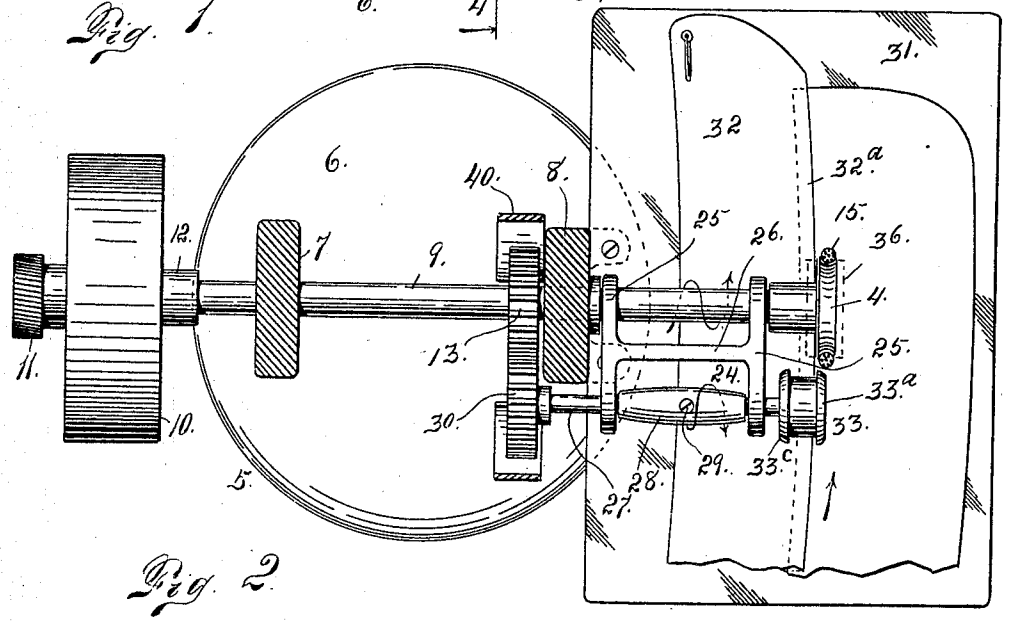


Fig. 2.

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2 SHEETS—SHEET 2.

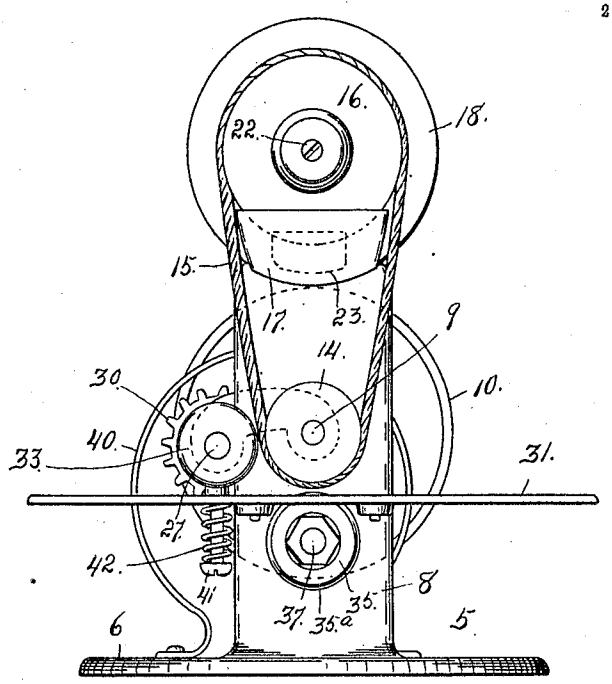


Fig. 3.

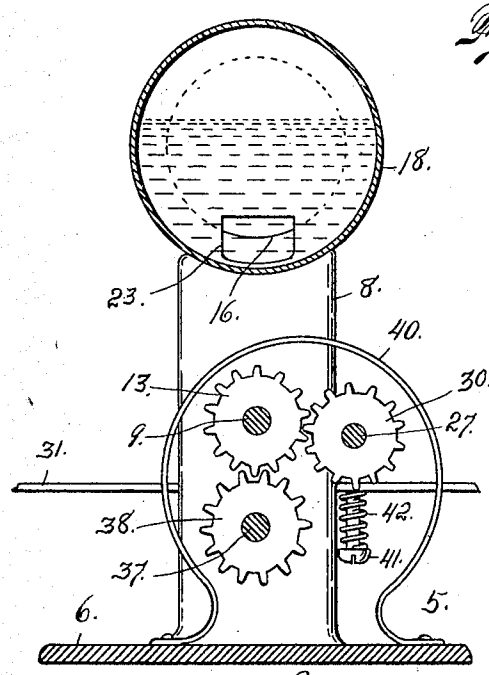


Fig. 4.

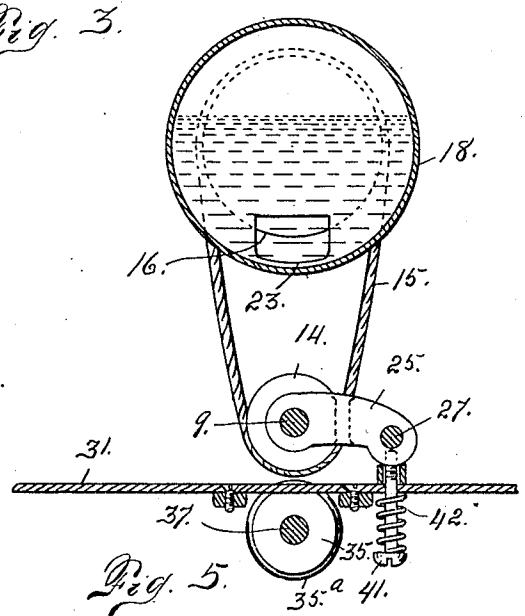


Fig. 5.

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UNITED STATES PATENT OFFICE.

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SEAM-DAMPENER.

No. 870,807. Specification of Letters Patent. Patented Nov. 12, 1907.

Application filed September 16, 1904. Serial No. 224,731.

To all whom it may concern:

Be it known that I, HENRY A. TWIGG, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Seam-Dampeners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in seam dampeners, my object being to provide a device of this class adapted to dampen the seam of turn down collars preparatory to folding and shaping the collar.

My object is to provide a device of this class which shall be comparatively simple in construction, economical in cost, reliable, durable and efficient in use and to these ends the invention consists of the features, arrangements and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a central vertical section taken through my improved device. Fig. 2 is a horizontal section taken on the broken line 2—2 Fig. 1. Fig. 3 is an end view of the device from a point at the right of Fig. 1 the lower water receptacle, however, being omitted. Fig. 4 is a section taken on the line 4—4 Fig. 1 viewed in the direction of the arrow. Fig. 5 is a section taken on the line 5—5 Fig. 1 looking in the direction of the arrow.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate a suitable frame having a base 6 adapted to be secured to any suitable support, and upright parts 7 and 8 in which is journaled the main shaft 9 provided with a pulley 10 at one extremity, the pulley being held in place by a nut 11 screwed on the outer extremity of the shaft, the pulley being forced by the nut against a fast collar 12 making the pulley virtually fast on the shaft. Upon this shaft is also made fast a gear 13 centrally located, while at the extremity of the shaft remote from the pulley 10, is located a wheel 14 having a grooved periphery engaged by a moistening belt 15 which passes over a pulley 16 whose lower portion runs in a water receptacle 17 communicating with a tank 18. The bottom of this tank rests on the upper extremities of the frame parts 7 and 8 and is held in place by a set screw 19 which passes through a slot 20 formed in a depending part 21 connected with one end of the tank. The pulley 16 over which the moistening belt passes, is journaled on a spindle 22 connected with the end of the tank 18. There is an opening 23 in the lower part of one end of the tank communicating with the receptacle 17 which extends above the opening. As soon as the water rises in the receptacle 17 above the top of the opening 23, it ceases to flow from the main tank into the receptacle, until the water is exhausted sufficiently to bring it below the top of the opening thus allowing air to enter the tank and pass upwardly into the space therein above the water, when the water will again enter the receptacle 17. By virtue of this arrangement there is an automatic intermittent feed from the main tank 8 to the receptacle 17. A frame 24 is pivotally connected with the shaft 9 between the frame part 8 and the wheel 14. This frame is provided with two arms 25 connected by a cross piece 26. The shaft 9 passes through one end of each arm 25 whereby the frame is mounted to oscillate on the shaft. In the extremity of the arms 25 remote from the shaft 9, is journaled a shaft 27 upon which is mounted a spacing tube 28 located between the arms 25 and made fast to the spindle by a set screw 29. The function of the spacing tube 28 is to maintain the shaft 27 in proper position in the arms 25 and prevent it from moving laterally in either. On one end of this spindle is a gear 30 meshing with the gear 13 on the shaft 9.

Mounted on the frame is a plate 31 above which the shafts 9 and 27 extend. This plate forms a support for the collar 32 when the machine is in use. Upon the extremity of the spindle or shaft 27 remote from the gear 30, is made fast a guide wheel 33 which rotates in a direction opposite from the rotation of the wheel 14 when the machine is in use. This wheel 33 is provided with flanges 33^a and 33^c which straddle the seam or overlapped portion 32^a of the collar, the flanges engaging the collar on opposite sides of the said seam or overlapped portion and forming a guide whereby the collar is automatically held in place as it is carried through the machine by the feed wheels 14 and 35. The lower part of the wheel 14 is located immediately above a slot 36 formed in the table plate 31 while the upper part of the wheel 35 enters the said slot and engages the moistening belt 15 which passes around the wheel 14. The wheel 35 is preferably provided with a rubber tire 35^a. This wheel 35 coöperates with the moistening belt 15 to cause the collar 32 to travel over the table plate 31 in the direction indicated by the arrow in Fig. 2; while the guide wheel 33 rotating in the opposite direction from the wheel 14, acts as a guide as heretofore stated.

The feed wheel 35 is mounted on a shaft 37 journaled in the frame parts 7 and 8 directly below the shaft 9. Fast on the shaft 37 is a gear 38 which meshes with the gear 13 whereby the shaft 37 is operated to cause the wheels 14 and 35 to coöperate for the purpose above stated.

Whenever it is found necessary an additional water receptacle 39 may be located below the wheel 35

whereby the rubber tire of the said wheel enters the water and coöperates with the belt 15 to moisten the collar along the folding line just to the right of the seam 32^a referring to Fig. 2 of the drawing.

Secured to the base 6 of the frame, is a housing 40 extending over the gears 13, 30 and 38 thus protecting them from dust or dirt.

Connected with one arm 25 of the oscillating frame 24, is a screw pin 41 which passes through the table plate 31 and is surrounded by a coil spring 42 below the plate. This spring 42 determines the tension with which the guide wheel 33 is held down upon the collar. One end of the coil spring engages the head of the screw pin 41 while its other extremity engages the under surface of the table plate.

When the device is in use the pulley 10 is connected with any suitable motor or source of power whereby the shaft 9 is rotated in the direction indicated by the arrow shown adjacent said shaft in Fig. 2; and whereby the shaft 27 is rotated in the opposite direction or in the direction indicated by the arrow adajcent the last named shaft in Fig. 2. Then the collar is fed into the machine between the feed wheels 14 and 35 and caused to travel in the direction indicated by the arrow shown on the collar in Fig. 2. The guide wheel 33 travels in the opposite direction from the feed wheel 14 but does not interfere with the forward travel of the collar but does act as a guide for the collar. As the collar travels over the table plate 31, a narrow strip is moistened along the seam or overlapped portion 32^a being the folding line of the collar when doubled to complete the laundry act.

Having thus described my invention, what I claim is:

1. In a seam damper, the combination with a suitable frame, a table plate mounted thereon, an operating shaft journaled in the frame, a feed wheel mounted on said shaft, a moistening belt surrounding the feed wheel and located above the table plate, another feed wheel located below the table plate and coöperating with the first named feed wheel, the table plate being slotted to permit the cooperation of the two wheels, means for moistening the belt, and means for guiding the collars that pass between the two feed wheels, said means consisting of a yieldingly retained rotary device acting on the collar and having a tendency to move it in a direction opposite the movement given by the feed wheels, substantially as described.

2. In a machine of the class described, the combination with a table plate and means for simultaneously feeding and moistening the collar along a line of its seam, the collar being supported on the table plate, of a yieldingly-retained rotary guide having flanges which straddle the seam of the collar, the said guide acting on the collar in opposition to the feeding means.

3. The combination with a table plate for supporting the collar, and rotary means for feeding the latter, of a yieldingly retained rotary guide engaging the collar on opposite sides of the seam and rotating in opposition to the rotary feed means, substantially as described.

4. The combination with a suitable frame, and a table plate mounted thereon and having a slot, a feed wheel mounted on the shaft above the slot, another feed wheel mounted on the shaft below the table plate and projecting into the slot, the two wheels coöperating to cause the collar to travel in a given direction, a moistening belt passing around the upper feed wheel, means for applying moisture to the said belt, and a yieldingly retained guide wheel having flanges straddling the seam of the collar and having a tendency to move the latter in a direction opposite the movement given by the feed wheels.

5. The combination with a suitable frame of a table plate, a main shaft journaled in said frame, a wheel made fast to one end of the shaft, another wheel mounted in the same plane above the shaft, a moistening belt passing around the two wheels, a spring-held frame pivotally mounted on the said shaft, another shaft journaled in the said frame, a gearing connection between the two shafts, and a rotary guide mounted on the shaft carried by the pivoted frame and adapted to engage the collar while resting on the table plate for the purpose set forth.

6. The combination with a suitable frame and a table mounted thereon and provided with a slot, two feed wheels located respectively above and below the table plate and adapted to engage the collar on opposite sides, a moistening belt engaging one of the said wheels, means for moistening the said belt, and means for guiding the collar as it is carried over the table by the feed wheels, said means consisting of a yieldingly-retained rotary device acting on the collar and having a tendency to move it in a direction opposite the movement given by the feed wheels.

7. The combination with a suitable frame and a table plate mounted thereon, of a main shaft journaled therein and having a feed wheel at one extremity, a water tank mounted on the frame and having a receptacle at one end communicating with the body of the tank, a wheel journaled on the tank and dipping into the water receptacle thereof, a moistening belt passing around the two wheels, a second shaft journaled below the first named shaft and geared thereto, a feed wheel mounted on the second shaft and coöperating with the first named feed wheel, a water receptacle into which the lower feed wheel dips, a spring-held oscillating frame mounted on the first named shaft, a third shaft journaled in the said frame, a gearing connection between the third and first shafts, and a rotary guide mounted on the third shaft and engaging the article to be ironed, the latter being supported by the table plate,

8. In a seam dampener, the combination with a table plate and rotary means for feeding and dampening the collar while resting on the table plate, of a yieldingly-retained oscillating frame, a rotary guide mounted on the frame and engaging the collar, and means for rotating the guide in a direction having a tendency to retard the travel of the collar under the influence of the rotary feed.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY A. TWIGG.

Witnesses:
DENA NELSON,
A. J. O'BRIEN.