No. 851,541. PATENTED APR. 23, 1907.

C. H. MATTICE.

SEAM DAMPENING MACHINE.

APPLICATION FILED OCT. 10, 1904.

3 SHEETS—SHEET 1.

Fig. 1.

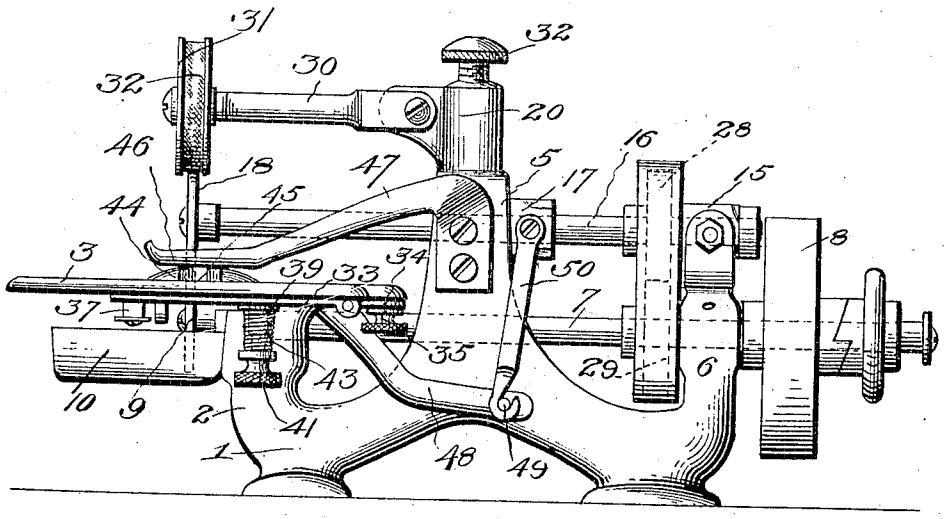
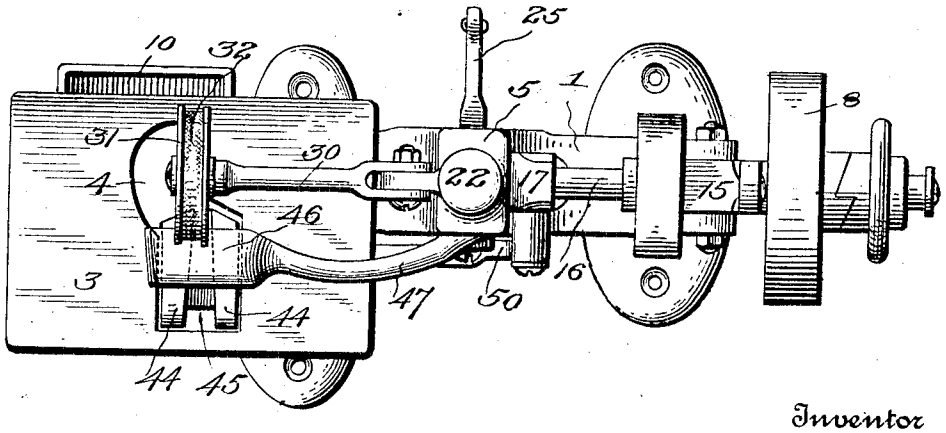


Fig. 2.



Witnesses
C. C. Hunt.
C. H. Griesbauer.

Inventor
C. H. Mattice.
by A. B. Wilson
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

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3 SHEETS—SHEET 2.

Fig. 3.

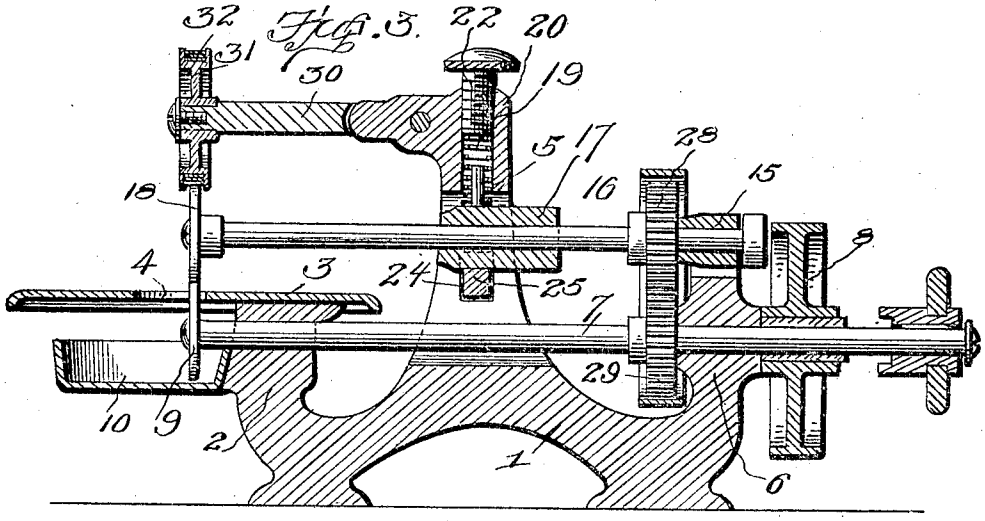


Fig. 4.

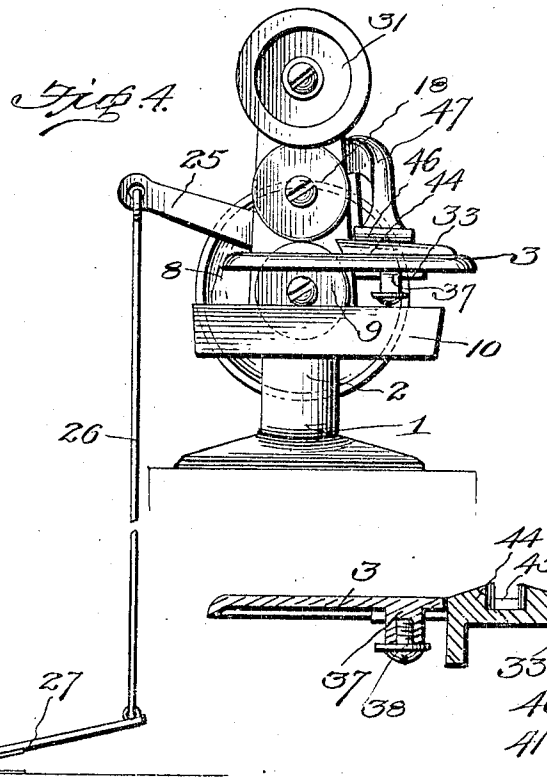


Fig. 5.

Witnesses

C. B. Hunt

C. H. Griesbauer.

Inventor

C. H. Mattice.

By A. R. Wilson

Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

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3 SHEETS—SHEET 3.

Fig. 6

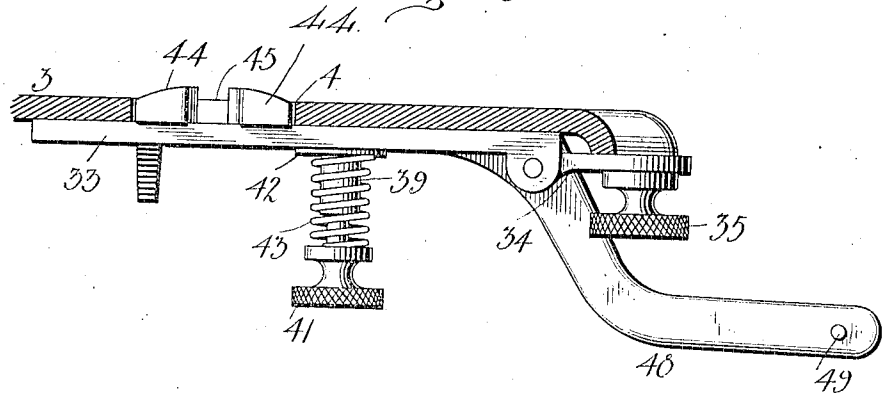
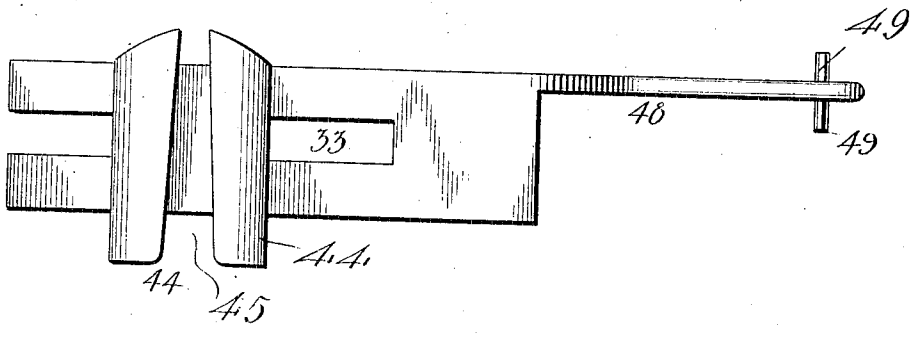


Fig. 7



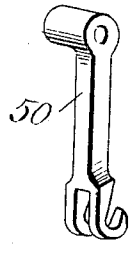


Fig. 8.

Witnesses
E. Briesen
C. H. Griesbauer.

Inventor
C. H. Mattice
By H. B. Wilson
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. MATTICE, OF GREEN ISLAND, NEW YORK, ASSIGNOR TO ADAMS LAUNDRY MACHINERY COMPANY, OF TROY, NEW YORK, A CORPORATION OF NEW YORK.

SEAM-DAMPENING MACHINE.

No. 851,541. Specification of Letters Patent. Patented April 23, 1907.

Application filed October 10, 1904. Serial No. 227,906.

To all whom it may concern:

Be it known that I, CHARLES H. MATTICE, a citizen of the United States, residing at Green Island, in the county of Albany and State of New York, have invented certain new and useful Improvements in Seam-Dampening Machines; 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.

This invention relates to improvements in machines for dampening the seams of turn-down collars or other starched goods on the line of their fold.

The object of the invention is to provide a machine of this character by which the folding line of starched and ironed collars or other goods may be dampened on both sides, thereby permitting the same to be readily folded without liability of cracking.

A further object is to provide means whereby moisture will be accumulated and afterward supplied to the upper dampening roll or wheel when needed by the same to moisten the upper side of the seam.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:—Figure 1 is a side elevation of a dampening machine constructed in accordance with my invention; Fig. 2 is a top plan view of the same; Fig. 3 is a vertical longitudinal sectional view; Fig. 4 is an end elevation; Fig. 5 is a detail vertical sectional view through the collar holding mechanism. Fig. 6 is a detail side elevation of the movable plate 33, showing the table in section; Fig. 7 is a detail top plan view of the said movable plate. Fig. 8 is a detail elevation of the bar 50.

Referring more particularly to the drawings, 1 denotes the base of the machine on which is formed an upwardly projecting standard 2, having secured to its upper end a plate or table 3, in which is formed a transversely disposed opening 4. On the base 1 is also formed standards 5 and 6. In the standards 2 and 6 is journaled a lower drive shaft 7, on the outer end of which is fixed a driving wheel 8. On the opposite end of the shaft 7 is removably fixed a lower dampening roll 9, the lower edge of which is adapted to turn in a water tank 10, which is secured to the standard 2 of the machine.

The standard 6 is bifurcated at its upper end, and in said bifurcated portion is pivotally mounted a bearing block 15, in which is journaled the outer end of a counter-shaft 16, which also passes through and is journaled in a bearing block 17, slidably mounted in an opening in the standard 5. On the outer end of the shaft 16 is removably mounted an upper dampening roll 18, which is adapted to rest upon the lower dampening roll 9 on the end of the drive shaft 7.

In order that the dampening roll 18 may have a yielding engagement with the dampening roll 9, a suitable pressing mechanism is provided, said pressing mechanism being here shown as consisting of a coil spring 19 which is disposed within a hollow cylindrical extension 20 formed on the upper end of the standard 5, the lower end of said spring resting against the bearing block 17. Screwed into the upper end of the cylindrical extension 20 and above the spring 19 is a headed plug 22, the lower end of which is adapted to bear upon the spring, whereby when said plug 22 is screwed inwardly or outwardly, the spring 19 will be compressed or relaxed, thereby increasing or diminishing the tension of the same and thus regulating the pressure of the upper dampening roll 18 upon the lower dampening roll 9.

In one side of the standard 5 is formed a transversely disposed vertical slot 24, in which is loosely mounted a disengaging lever 25, the inner end of which is adapted to bear against the underside of the bearing block 17, whereby upon depressing the outer end of said lever, said bearing block and the shaft 16 mounted therein will be raised, thus disengaging the upper dampening roll 18 from the lower roll 9 to permit a collar or other goods to be inserted or adjusted between said rolls. If desired, an operating rod 26 may be connected to the outer end of the lever 25 and to the lower end of said operating rod may be connected a treadle 27, thereby permitting said lever to be actuated by the foot of the operator.

On the shafts 7 and 16 are fixedly mounted

spur gear-wheels 28 and 29 which are adapted to mesh, whereby motion from the drive shaft 7 is imparted to the counter shaft 16.

Pivotally connected to a laterally projecting lug formed on the cylindrical extension 20 of the standard 5, is the bifurcated inner end of an arm or shaft 30, the outer end of which is reduced to form a spindle upon which is loosely mounted a reservoir and moisture supplying wheel 31 on the grooved or flanged periphery of which is arranged a suitable absorbent material 32. This absorbent material may be of any suitable character, but is here shown as consisting of a narrow tape which is wound upon the flanged periphery of the wheel to a sufficient extent to obtain the necessary absorbent qualities.

On the under side of the plate or table 3 is arranged a longitudinally slotted bar or plate 33 hingedly connected to a block 34, which is in turn removably secured to the underside of said plate or table by means of a set screw 35, said block 34 being provided with an elongated aperture or slot 36, through which said set screw 35 is adapted to pass, thereby forming a hinged adjustable connection for the plate or bar 33 with the plate or table 3. On the lower side of said plate or table 3 is formed a downwardly projecting guide lug 37, on the lower end of which is secured a washer 38. The guide lug 37 is adapted to be engaged by the bifurcated outer end of the plate or bar 33, whereby said end of the bar is guided and held in position, said lug 37 being arranged upon the lower side of said plate or table 3 adjacent to the outer edge of the opening 4 formed in said plate. On the plate 3 adjacent the opposite edge of said opening is formed a downwardly projecting lug 39, which is also adapted to project through an opening in the plate or bar 33, said lug having a reduced cylindrical lower end in which is formed a vertically disposed threaded aperture 40 in which is adapted to be screwed a set screw 41. On the reduced cylindrical end of the lug 39 is arranged a washer 42 which is adapted to engage the underside of the plate or bar 33 and between said washer and the head of the set screw 41, is arranged a coil spring 43, the tension of which is adapted to normally force the plate or bar 33 upwardly against the underside of the table 3. By screwing the set screw 41 into and out of the apertured lower end of the lug 39 the tension of said spring will be increased or diminished thereby regulating the upward pressure of the plate or bar 33 against the table 3.

On the upper side of the bar 23 are formed guide flanges 44 which converge toward the roller 9, and between which is formed an outwardly-flaring guide passage 45. The guide flanges project above the plate or table 3, and the outer sides of said flanges are beveled or rounded to meet the plane of the table and the adjacent edges of the opening 4.

Above the guide flanges 44 is arranged a retaining plate 46, which is formed upon the outer end of a curved arm 47, the opposite end of which is secured to the standard 5, as shown.

Formed on the under side of the plate or bar 33 is a downwardly and rearwardly projecting arm 48, the free end of which is provided with a transverse stud 49 extending outwardly from both sides of the arm 48, the projecting ends of which may be engaged by the hooked lower bifurcated end of a bar or link 50 the upper end of which is pivotally connected to the bearing block 17 of the counter shaft 16, whereby when said block and shaft are lifted to disengage the upper dampening roll from the lower dampening roll for the purpose of starting a collar between the same the bar or plate 33 will be simultaneously lowered or swung downwardly, thereby disengaging the guide flanges 44 from the retaining plate 46 to facilitate the insertion of the end of a collar between the same.

To operate the machine, water is placed in the tank and the machine started. As the lower dampening roll turns in the tank 10, water from the same will be taken up thereby, and from this roll the water will be taken by the upper dampening roll and carried to the reservoir wheel and absorbed by the tape or absorbent material thereon and held in reserve or stored for use. After the reservoir wheel has thus accumulated sufficient moisture, a collar or other goods which has been previously starched and ironed is inserted between the retaining plate 46 and the guide flanges 44 until the end of the same is in engagement with the dampening rolls, said collar being arranged so that the outer side of the same will be uppermost upon the plate or table, said side being engaged by the upper dampening roll 18, while the lower side thereof will be engaged by the lower dampening roll 9. The dampening rolls are adapted to engage the collar immediately beside the seam between the neck-band and turned down portion, or along the line where said collar is to be folded or turned over. The frictional engagement of the revolving dampening rolls with each side of the collar will draw said collar between the same, while the guide lugs 44 and retaining plate 46 will hold and guide the same during its passage between said rolls. The seam of the collar passes between the guide flanges 44, the latter, by engaging the shoulders or edges of the seam, serving to guide the collar. The plate 33 having the guide flanges 44 is pressed by the spring 43 upwardly against the underside of the presser or retaining plate 46, whereby the pressure of the said plate 46 causes the seam of the collar to be retained in place between the

guide flanges, thus causing the collar to be guided properly between the moistening roller. The said plate 33 is adjustable, by the adjustable plate 34 and adjusting screw 35, in order to enable the guide flanges 44 to be adjusted laterally with respect to the moistening roller, as may be required by the size or shape of the articles. The lower roll turning in the tank 10 will still be supplied with water from the same, said water being now carried by said roll and deposited onto the under side of the collar which is passing between the upper and lower rolls, thereby moistening this side of the collar along the seam of the same. The upper side of the collar is engaged by the upper dampening roll, which, being now cut off from the water supply of the lower roll by the collar passing between the same, obtains moisture from the reservoir wheel with which it is engaged and imparts this moisture to the upper side of the collar thereby dampening this side of the same. By this arrangement of the reservoir wheel the upper dampening roll is at all times uniformly supplied with moisture which it imparts to the upper side of the collar, the reservoir roll being replenished or supplied with water from the tank at each revolution of the dampening rolls when there is no collar between the same, this water being absorbed and stored for use as hereinbefore described.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new and desire to secure by Letters-Patent, is:—

1. In a dampening machine of the character described, the combination with a suitable supporting frame, of upper and lower dampening rolls, revolvably mounted in said frame, a water tank secured to said frame in which said lower roll is adapted to turn, a grooved reservoir wheel revolvably mounted on said frame to engage said upper dampening roll, absorbent material arranged on said grooved wheel whereby water is absorbed from said tank through the medium of said dampening rolls and by which said water is stored and applied to said upper dampening roll when the same is needed, substantially as described.

2. In a dampening machine of the character described, the combination with a suitable supporting frame, of upper and lower dampening rolls, revolvably mounted in said frame, a water tank secured to said frame in which said lower roll is adapted to turn, a reservoir moistening wheel having a grooved periphery, and an absorbent tape wound on said grooved periphery, said wheel being revolvably mounted on said frame to yieldingly engage said upper dampening roll, substantially as described.

3. In a dampening machine of the character described, the combination with a suitable supporting frame, of upper and lower shafts journaled in said frame, upper and lower dampening rolls mounted on the ends of said shafts, a water tank in which said lower roll is adapted to turn, a reservoir moistening wheel adapted to moisten said upper roll, means whereby said upper roll is held in yielding engagement with said lower roll, a manually operated lever pivoted in said frame whereby said upper roll shaft is raised to disengage and separate said upper roll from said lower roll, an upper fixedly mounted guiding and holding plate, a lower adjustable yieldingly mounted guiding and holding plate having formed thereon guide lugs which are adapted to engage said fixed holding and guiding plate, an arm arranged on said adjustably mounted guide plate and a link pivotally connecting said arm with the shaft of said upper dampening roll whereby when the former is raised to separate said rolls said adjustable guiding plate will be lowered, thereby simultaneously separating said guiding and holding plates, substantially as and for the purposes described.

4. In a dampening machine of the character described, the combination with a base, of a table supporting standard arranged thereon, an apertured table mounted on said standard, an outer bifurcated bearing standard and an intermediate bearing standard arranged on said base, a drive shaft mounted in the table supporting standard and the outer standard, a bearing block pivotally mounted in said outer bifurcated standard, a block slidably mounted in said intermediate standard, a counter-shaft journaled in said bearing blocks, upper and lower dampening rolls fixed on the ends of said shafts, means whereby said upper roll is held in yielding engagement with said lower roll, means whereby said lower dampening roll is wet, a pivotally mounted arm, a reservoir moistening wheel journaled on the end of said arm, and absorbent material arranged on said wheel whereby when said reservoir moistening wheel is engaged with the said upper dampening roll the same will be moistened, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES H. MATTICE.

Witnesses:
WILLIAM W. MORRILL,
ALONZO SHARP.