

No. 866,310.

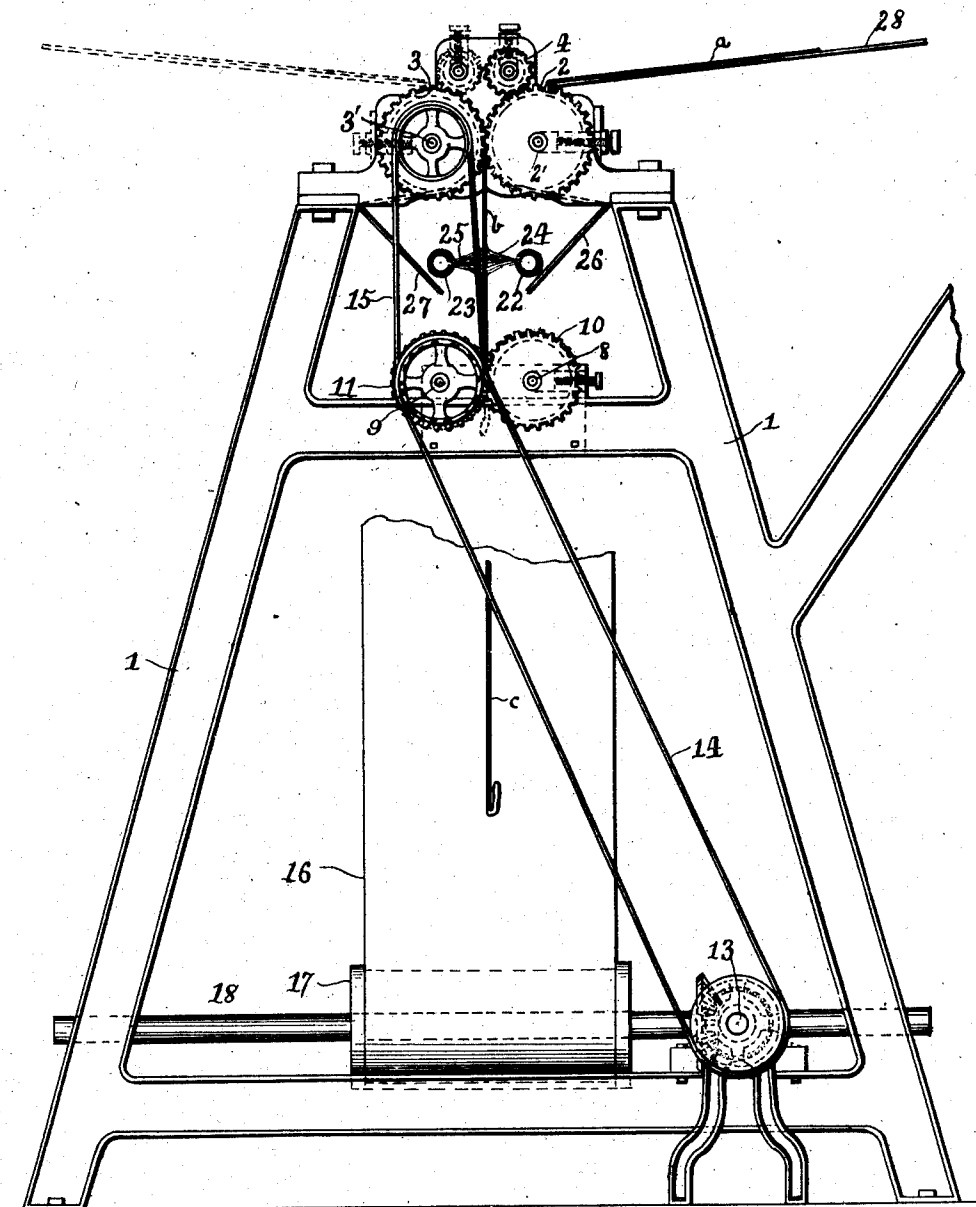
PATENTED SEPT. 17, 1907.

F. C. & A. SCHOLLER & J. C. DEMPSEY.
SINGEING MACHINE.

APPLICATION FILED MAR. 8, 1907.

2 SHEETS—SHEET 1.

Fig. 1.



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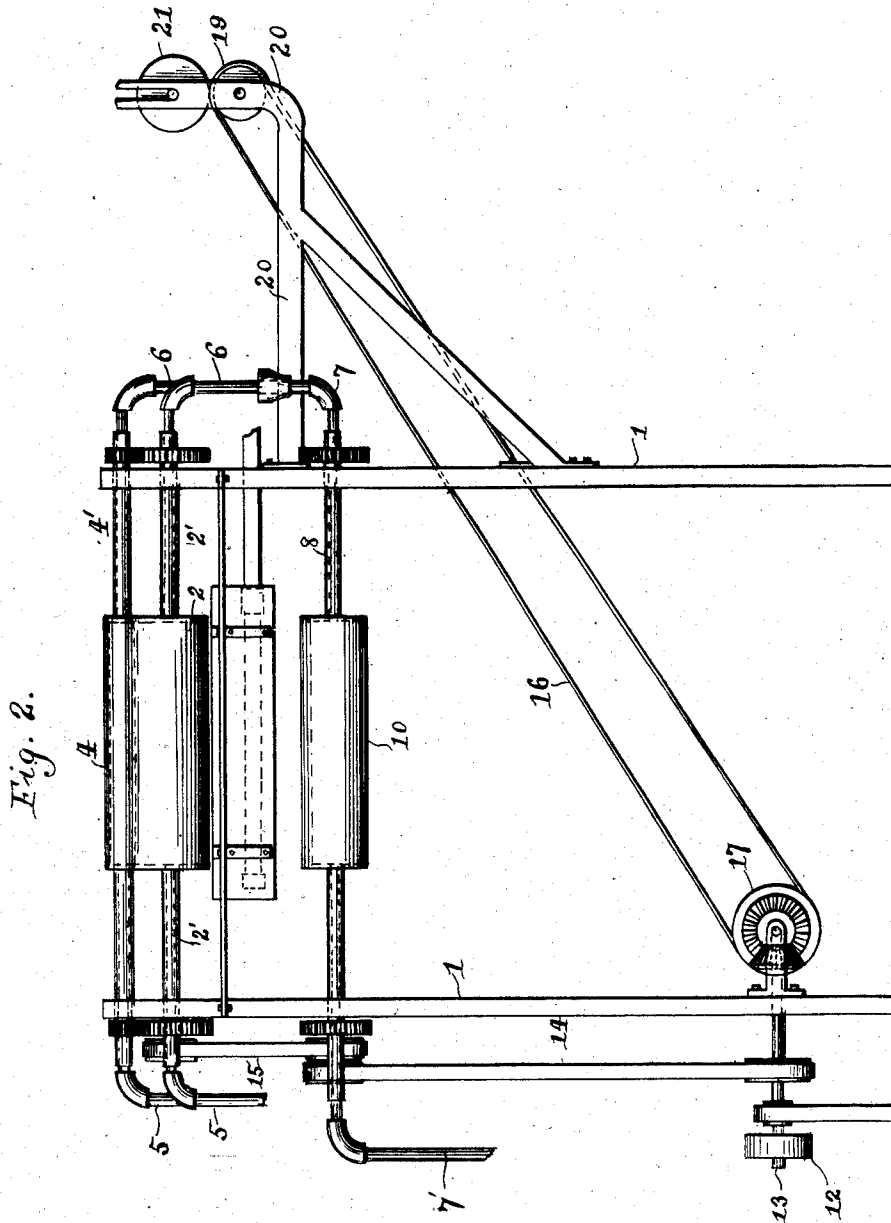
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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK C. SCHOLLER, ADOLPH SCHOLLER, AND JOHN C. DEMPSEY, OF PHILADELPHIA, PENNSYLVANIA.

SINGEING-MACHINE.

No. 866,310.

Specification of Letters Patent.

Patented Sept. 17, 1907.

Application filed March 6, 1907. Serial No. 360,992.

To all whom it may concern:

Be it known that we, FREDERICK C. SCHOLLER, ADOLPH SCHOLLER, and JOHN C. DEMPSEY, citizens of the United States, residing in Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Singeing-Machines, of which the following is a specification.

Our invention relates to singeing machines and particularly to that class of machines used to singe hosiery.

The object of our improvement is to so construct the machine that hosiery and similar knitted articles may be thoroughly and quickly singed without first placing them over a form to stretch or distend them.

Heretofore when singeing hosiery it has been necessary to stretch the hose over a form made of a thin board cut to the required size and shape. The operation of fitting the stocking over the board form and removing it therefrom together with the cost of the boards constitute the major part of the expense of singeing hosiery; with our improved machine this trouble and expense is avoided as the stocking is simply passed through the flame.

In the accompanying drawing, Figure 1, represents an end elevation of our improved singeing machines. Fig. 2, is a front elevation of the machine with the feeding table removed.

Referring to the drawing by numerals, the numeral 1, is the frame of the machine. This frame may be of any desired form that will conveniently support and carry the operating parts.

2, 3 and 4, are the feeding rollers journaled in the frame upon the hollow shafts 2', 3' and 4', in the positions shown. The lower feed rollers 2 and 3 are much larger than the third or surmounting roller 4, as it is desirable to keep them at a certain temperature and this can be more easily regulated when a large surface is exposed to the atmosphere. One end of each of the hollow shafts 2', 3' and 4', is connected with the water supply pipes 5, and at the opposite ends are attached the discharge pipes 6, which empty into the inlet pipes 7, attached to the ends of the hollow shafts 8, 9, that carry the rollers 10 and 11, located directly under the large feed rollers 3 and 4.

7', are the discharge pipes connected to the outlet end of the hollow shafts 8 and 9.

All of the shafts of the feed rollers, 2, 3 and 4, and also the shafts of the rollers 10 and 11 are fitted into adjustable boxes by means of which the said rollers are made to accommodate themselves to the various thickness of the material passing through. In order that a more regular and uniform movement may be given to each of the feed rollers, 2, 3, 4, and to the bottom rollers 10, 11, gear wheels are placed on both ends of the hollow shafts carrying said rollers.

12, is a driving pulley mounted on the shaft 13, and connected with a source of power.

14, is a belt conveying the power to the rollers 10 and 11.

15, is a belt conveying the power to the rollers 2, 3 and 4.

16, is an endless canvas belt or apron passing around the roller 17, on the counter shaft 18, and the roller 19, secured in the support 20, attached to one side of the frame 1.

21, is a roller located in a pronged support over the roller 20, and resting thereon.

22, 23, are two rows of gas burners located about midway between the feed rollers 2, 3, and the bottom rollers 10 and 11. 24, 25, are the jets of flame issuing from the burners. These burners extend across the machine the required distance to give the necessary length of flame and they are similar in construction to the ordinary gas burner, being made from pieces of perforated pipe suitably connected to the source of supply for the gas and air. To produce a strong intense flame and project it with some force against the article to be singed the air is forced through the burner under considerable pressure and the burners are placed opposite to each other, the openings for the jets of flame being so located that the tongues of flame will meet or cross each other midway between the said burners, thus producing an equal draft or pressure in opposite directions so that the article will, as it comes from between the feed rollers, fall practically in a perpendicular line between the two flames.

26, 27, are two heavy asbestos boards or shields secured to the frame 1, below the large feed rollers. The lower portions of these boards project obliquely downwards towards each other below the burners, while the upper portions extend horizontally underneath the feed rollers leaving only sufficient opening for the material to pass through as it leaves the said rollers. This board is for the purpose of confining the heat and forcing it upward between the rollers 2 and 3.

28, is a stationary feed table.

a, is a stocking on the feed table, before entering the feed rollers.

b, is a stocking held in position between the feed rollers 2, 3, and passing through the flames.

c, is a stocking falling on the endless apron 16, after passing between the bottom rollers 10 and 11.

The machine being constructed as described, the operation is as follows. The stockings are placed on the feed table, preferably the toe portion foremost, and pushed along by the operator until they are caught by the rollers 3 and 4, when they will be passed downward between the rollers 2 and 3, dropping from these rollers into and through the flames issuing from the burners 22 and 23, after which they are caught be-

tween the rollers 10 and 11 and passing therethrough drop upon the endless belt or apron 16, and are conveyed by said apron up through the rollers 20 and 21, to any receptacle placed to receive them. If desired, 5 the capacity of this machine may be doubled by feeding from both sides. In that event all that will be necessary is, to make the machine somewhat wider and the burners longer and place an additional small feed roller over the large roller 3 and add another feed 10 table. We have shown this additional feed table and roller in dotted lines in Fig. 2. All of the rollers 2, 3, 4 and 10, 11, rotate very rapidly at the same rate of speed and the movement of the endless apron 16, is made to correspond so that there will be no piling of 15 the stock. Should any sparks adhere to the material being singed, the bottom rollers 10 and 12, will quickly extinguish them. During the operation of the machine a continuous flow of water is maintained through the feed rollers 2, 3 and 4; after the water has passed 20 through these rollers it is discharged through the pipes 6, into the pipes 7, and through the rollers 10 and 11, keeping said rollers sufficiently cool to perform the work.

The jets of flame 24, 25, need not be exactly horizontal, but the best results are obtained when they are 25 about in that position.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

30 1. A singeing machine having in combination therewith means for feeding articles to be singed, and burners located on opposite sides of the machine in such position that the flames from said burners will meet in the line of the path of the article to be singed.

2. A singeing machine having in combination therewith means for feeding the article to be singed in a vertical 35 path, and burners located on opposite sides of the machine in such position that the flames therefrom will meet in the line of the vertical path of the article to be singed.

3. A singeing machine having a pair of feed rolls, and a row of burners located on opposite sides of said machine 40 in such position that the flames from one of said rows of burners will impinge against the flames from the opposite row of burners at the point where the article to be singed passes through the flames.

4. In a singeing machine the combination of the feed 45 rollers 2, 3, 4, with the burners 22, 23, located on opposite sides of the machine in such position that the flames from the burners will impinge against each other at the point where the article to be singed will pass through said flames, substantially as shown. 50

5. In a singeing machine the combination of the feed rollers 2, 3, 4, and the rollers 10, 11, with the burners 22, 23, located on opposite sides of the machine and having the flames therefrom projected toward each other and adapted 55 to impinge against the sides of any article passing between them, substantially as shown.

6. In a singeing machine the combination of the feed rollers 2, 3, 4, and the rollers 10, 11, all mounted upon the hollow shafts, one end of each of the shafts being connected with a water supply and the opposite ends with 60 pipes for discharging the water, with the burners 22, 23, located on opposite sides of said machine and having the flames therefrom projected towards each other so as to impinge against any article passing through said flames in a vertical direction, substantially as shown. 65

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

FREDERICK C. SCHOLLER.
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Witnesses:

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