E. B. AYRES.

MACHINE FOR DAMPENING LEATHER.

APPLICATION FILED JAN. 11, 1917.

1,259,199.

Patented Mar. 12, 1918.

2 SHEETS—SHEET 1.

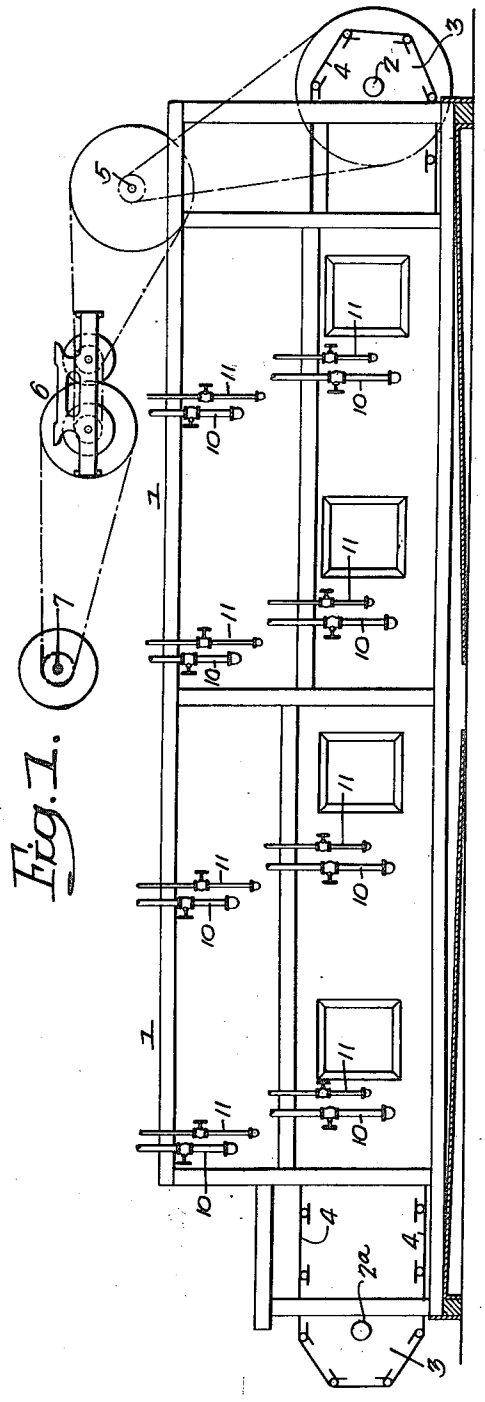


Fig. 1.

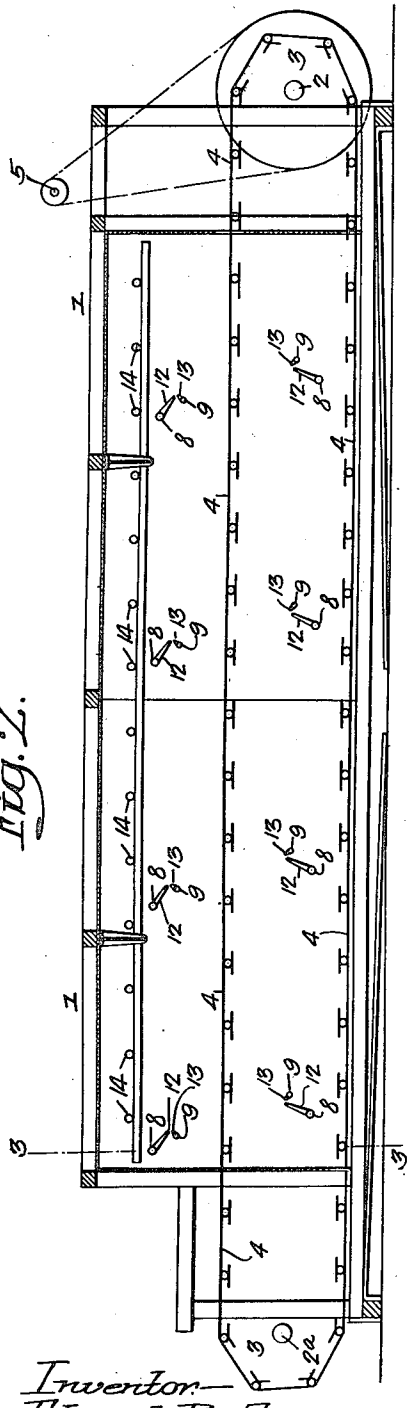


Fig. 2.

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Fig. 3.

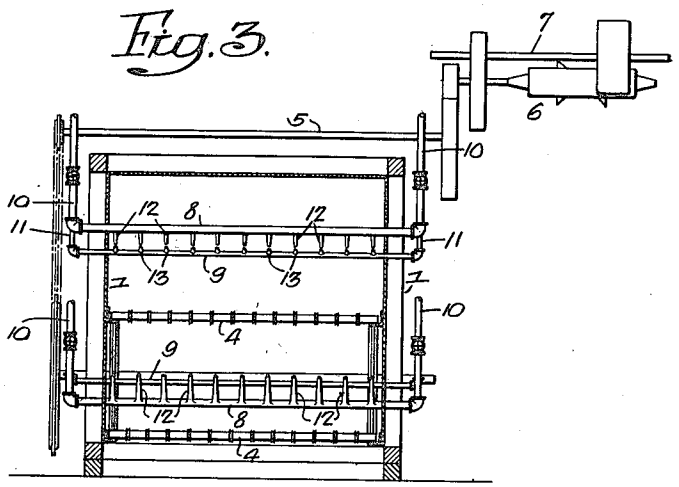



Fig. 6.

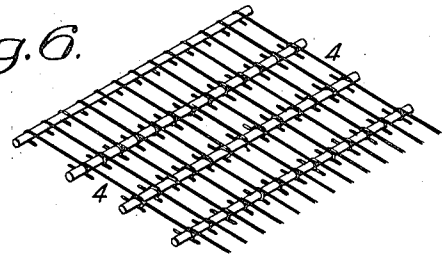



Fig. 4.

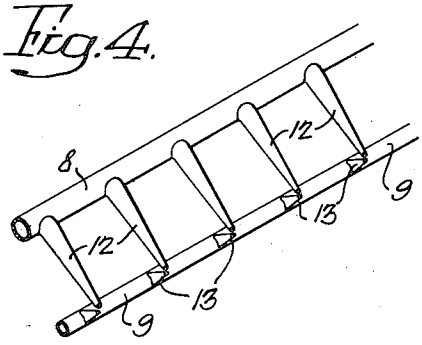
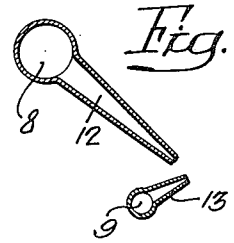



Fig. 5.




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by his Attorneys.—
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# UNITED STATES PATENT OFFICE.

ELWOOD B. AYRES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE PHILADELPHIA TEXTILE MACHINERY COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

## MACHINE FOR DAMPENING LEATHER.

1,259,199. Specification of Letters Patent. Patented Mar. 12, 1918.

Application filed January 11, 1917. Serial No. 141,857.

*To all whom it may concern:*

Be it known that I, ELWOOD B. AYRES, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Machines for Dampening Leather, of which the following is a specification.

My invention relates to certain improvements in machines for carrying out the process of dampening leather set forth in an application for patent filed by Frederick J. Blatz on the 14th day of February, 1917, under Serial No. 148,677.

The object of my invention is to construct a machine so that the leather can be placed on an endless conveyer and passed through a casing in which are located the spraying devices for moistening or dampening the material.

In the accompanying drawings:

Figure 1 is a side view of my improved dampening machine;

Fig. 2 is a longitudinal sectional view;

Fig. 3 is a transverse sectional view on the line 3—3, Fig. 2;

Fig. 4 is a detached perspective view of one of the spraying devices.

Fig. 5 is an enlarged sectional view of the same; and

Fig. 6 is a detached perspective view of a portion of the conveyer which I prefer to use.

Referring to the drawings, 1 is the casing of any length desired. At each end of the casing is a shaft 2, and at the opposite end is a shaft $2^a$ on which are mounted sprocket wheels 3. Passing around these sprocket wheels is an endless conveyer 4 consisting of a series of sections pivotally connected together by hinged joints so that they will readily pass around the sprocket wheels. The shaft 2 is the driven shaft, in the present instance, and is driven from an overhead shaft 5 which, in turn, is driven from a change speed gear 6 of any ordinary type located between the shaft 5 and the power shaft 7 so that by this construction the speed of the conveyer can be regulated at will. The openings in each end of the casing are sufficient to allow for the free passage of the conveyer and the leather carried thereby.

8, 8 are a series of transverse air pipes and 9, 9 are a series of transverse water pipes. The air pipes extend to one side of the casing and are connected to air supply pipes 10 which, in turn, are connected to a suitable air pressure apparatus. The pipes 9 extend to one side of the casing and are connected to water supply pipes 11. In each of the pipes 10 and 11 are valves for regulating the flow of water to the pipes 8 and 9. Projecting at intervals from each pipe 8 is a series of nozzles 12 and projecting at intervals from each pipe 9 is a series of short nozzles 13. The nozzles are so adjusted that when water is projected from the nozzles 13 the air escaping from the nozzles 12 will produce the desired spray. In the present instance, there are four sets of these devices above the conveyer on which the skins are mounted and there are four sets of spraying devices below the conveyer on which the sections of leather are mounted so that as the leather is traversed through the casing by the conveyer it will be dampened by the spray which is projected against both sides of the leather.

In order to prevent the condensed moisture from dropping onto the leather when passing through the machine, I provide a series of steam pipes 14 in the upper portion of the casing which keeps the moisture in a heated condition. By this apparatus, as the leather passes between the two sets of spraying devices the entire surface is subjected to the spray and the entire surface of each skin is evenly dampened. The leather dampened in this machine is quickly prepared for the further processes necessary in the manufacture of leather.

While I have shown the conveyer made of a series of sections, each section being in the form of an open wire mesh so as to allow the spray on the under side of the conveyer to gain access to the leather, it will be understood that other types may be used having open sections for this purpose and, in some instances, the spraying devices may be on the upper side of the conveyer only and the leather may be inverted in passing through the casing a second time or through an adjoining casing.

I claim:

The combination in a machine for dam-

pening leather, of a casing; a conveyer mounted in the casing; means for driving the conveyer; a series of spraying devices located in the casing in close proximity to the carrying run of the conveyer; water and air pipes communicating with the spraying devices so that water will be sprayed onto the leather as it passes through the casing; and a series of steam pipes located in the upper portion of the casing for preventing the water of condensation from dripping onto the leather as it passes through the machine.

In witness whereof I affix my signature.

ELWOOD B. AYRES.