

UNITED STATES PATENT OFFICE.

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ARTIFICIAL LEATHER.

SPECIFICATION forming part of Letters Patent No. 656,869, dated August 28, 1900.

Application filed March 5, 1900. Serial No. 7,349. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM WALDEN, a citizen of the United States, residing at New York, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Artificial Leather, of which the following is a specification.

My present invention relates to an improved artificial leather or leather substitute especially adapted as an inner-soling material for boots and shoes; and it has for its object to provide a material for the purpose stated that will strongly resemble "split" sole-leather, but which will be less expensive to manufacture and much superior to the ordinary split leather now generally employed in the manufacture of inner soles in that it is waterproofed to prevent moisture from passing therethrough and is provided with an absorbent coating to take up or absorb the moisture from the feet. Furthermore, my improved material is much stronger and tougher than ordinary split leather, and inner soles made therefrom will not curl and break, which is a serious objection to split leather, such as is now generally used in the manufacture of inner soles for boots and shoes.

It is the purpose of my said invention to employ in the manufacture of my improved leather substitute or inner-soling material the fine sole-leather dust formed, for instance, by the buffing-rolls of leather-working machinery when acting upon sole-leather in the manufacture of boots or shoes, which fine dust is now universally conducted away and not used, since heretofore it has had no commercial value. By utilizing this heretofore-valueless product I am able to produce my improved inner-sole material or leather substitute at a very low cost.

In order to enable others to understand and practice my said invention, I will now proceed to describe the same in detail, together with the several steps of the process by which it is made.

In practicing the invention I first take a suitable flexible base or body, such as heavy duck or some similar fabric or other flexible material, and coat upon one side or surface thereof an adhesive substance, preferably a

transparent waterproof adhesive material, so as to render the same waterproof, and upon this adhesively-coated side of the fabric I sprinkle or otherwise apply a layer of dry sole-leather dust, which will adhere thereto and form a surface or coating strongly resembling in all respects genuine split leather. The coated base or fabric may then be passed between rollers or otherwise subjected to pressure to cause the coating thus applied to be firmly embedded in and enter the interstices or meshes of the fabric or other base employed and form therewith a practically-homogeneous mass, but which will be flexible or pliable, like ordinary sole-leather. While I have described the coated base or fabric as being passed between pressure-rollers, I wish it understood that I may, if desired, omit this step of the process entirely. After the coating, as above described, has been applied the strip or finished web may be dried in any suitable manner. The reverse side of the duck or fabric may be coated in a similar manner, if desired; but it has been found preferable in some cases to simply treat the said reverse side with a coating of starch or some suitable waterproofing substance or material in order to give a certain degree of "body" or stiffness to the finished strip or web.

While I have set forth that the reverse side of the base or body may be coated, I do not desire to be limited thereto, for it will be obvious that I may leave this side of the base or body in its natural state and without any special coating.

By employing a "transparent" adhesive material, as above set forth, the color of the leather-dust is not changed or impaired, and the coated side of the fabric or web thus strongly resembles genuine split leather. The adhesive material also having waterproofing properties, as described, the fabric will be water-repellent, which is a very desirable feature.

Instead of applying the leather-dust coating in the manner just described, and if it is desired to give the fabric a thicker coating, I may, and in some cases I prefer, to first make a compound by combining the transparent waterproof adhesive material with the sole-

leather dust and spread or otherwise apply this mixture to the fabric or other base or web in such manner as to cause the same to become firmly embedded in the interstices or meshes of the fabric or other base, and before the same becomes thoroughly dry or hardens I apply or sprinkle thereover a layer of dry sole-leather dust, which will readily adhere to the first coating and form a surface strongly resembling split sole-leather. The completed strip may or may not, as desired, then be subjected to pressure, as before described, according to the particular finish required.

While my improved inner-soling material is primarily treated with a waterproofing size which renders the same moisture and water proof, still it will be understood that the surface coating of dry sole-leather dust is somewhat porous or absorbent, and will thus absorb the moisture or perspiration from the feet, which is a very desirable and important feature of the invention and one rendering the material especially suited for inner soles for footwear.

What I claim is--

1. An improved artificial leather having a surface representing split sole-leather, comprising a flexible base or body impregnated with a waterproof adhesive substance to render the same water-repellent, and a layer or coating of sole-leather dust affixed to one surface of the base or body over the said waterproof adhesive substance, said sole-leather dust being partially embedded in the interstices of the base or body to cause the same to adhere firmly thereto and providing an outer finishing layer in imitation of split sole-

leather, said layer being absorbent, for the purpose specified.

2. An improved artificial leather having a surface in imitation of split sole-leather, comprising a flexible base or body impregnated and coated on one side with a composition mixture of sole-leather dust and waterproof adhesive substance to render the base or body water-repellent, said mixture or coating being partially embedded in the interstices of the base or body to cause the same to firmly adhere thereto, and an outer finishing layer or coating of dry sole-leather dust affixed to said first-named coating to produce a surface in imitation of split sole-leather.

3. An improved artificial leather having a surface finished to imitate split sole-leather, comprising a flexible base or body impregnated with a waterproof adhesive substance to render the same water-repellent, and a layer or coating of sole-leather dust affixed to the base or body, over the said waterproof adhesive substance, said layer of sole-leather dust being partially embedded in the interstices of the base or body to cause the same to firmly adhere thereto and to produce a finished surface in imitation of split sole-leather, said layer or coating of sole-leather dust being absorbent, and a suitable waterproofing and stiffening agent upon the reverse side of the base or body, substantially as described.

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

WILLIAM WALDEN.

Witnesses:

CHAS. E. DUROSS,
FRANK L. HOLT.