No. 671,604. Patented Apr. 9, 1901.

J. P. NEALON.

ARTIFICIAL LEATHER.

(Application filed July 19, 1900.)

(No Model.)

Fig. 1.

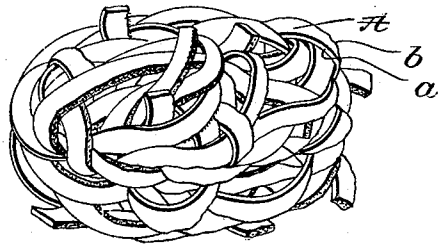


Fig. 2.

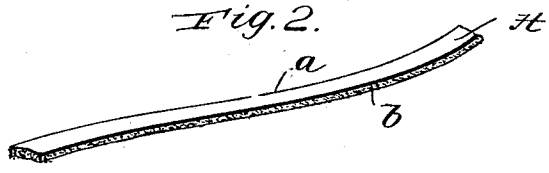
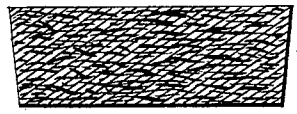


Fig. 3.



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ARTIFICIAL LEATHER.

SPECIFICATION forming part of Letters Patent No. 671,604, dated April 9, 1901.

Application filed July 19, 1900. Serial No. 24,244. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN P. NEALON, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Artificial Leather, of which the following is a specification.

My invention relates to improvements in artificial leather for the manufacture of the soles and heels of boots or shoes, and contemplates the provision of an artificial leather for such and analogous uses which is at once very hard, tenacious, practically waterproof, and capable of being highly polished.

The artificial leather consists of strips of leather, which are preferably cut so that each has a flesh and a grain side and are interwoven, intermixed, or plaited, and a suitable binder—such as a mild adhesive containing glue, paste, or similar matter—for connecting the interwoven or intermixed strips and producing a solid mass when the whole is subjected to pressure. Its novelty, utility, and advantages will be fully understood from the following description and claims when taken in conjunction with the annexed drawings, in which—

Figure 1 is a view of a mass of interwoven or intermixed leather strips as they appear precedent to being combined with the adhesive and subjected to pressure to form my improved artificial leather. Fig. 2 is a perspective view of one of the leather strips. Fig. 3 is an edge elevation of a piece of the improved artificial leather as it appears when ready for use.

Referring by letter to the said drawings, A A are leather strips, each of which is preferably cut so that it has a grain edge *a* and a flesh edge *b*, as best shown in Figs. 1 and 2. These strips are intermixed, interwoven, or plaited, after the manner shown in Fig. 1, and after a mass of suitable size is produced they are dipped in or otherwise commingled with a suitable binder, such as a mild adhesive containing glue, paste, or other similar matter. The whole is then subjected to pressure and when the adhesive is set and dry the artificial leather is ready for use.

In the ordinary shoe sole and heel the pieces of leather or lifts of which the same are formed are invariably arranged with their grain side out, with the result that when the grain is worn off nothing remains but the flesh side of the leather.

In my improvement, by virtue of each strip A of leather having both a grain and a flesh edge and being arranged as shown, it will be seen that both the grain and flesh side of each strip will be retained for wear until the strip is entirely worn away. It will also be observed that by reason of the strips being interwoven or intermixed, after the manner disclosed in Fig. 1, the artificial leather will not crumble or crack like ground or powdered leather mixed with a binder, and hence does not necessitate the employment of rubber cement, which is objectionable because it cannot be finished to a bright luster, such as is desirable in the soles and heels of boots or shoes.

The artificial leather may be made of any desired thickness, and when employed to form the heel of a boot or shoe it obviates the objectionable checking or opening of the heel, which is so often experienced when the heel is built up of layers or lifts of leather or other material.

It will be appreciated from the foregoing that my improved artificial leather is a solid, very hard, and practically waterproof substance, and that it is capable of resisting much more than the ordinary usage to which boot and shoe heels and soles are subjected, and by virtue of the binder being a mild adhesive which contains no rubber or similar ingredient is capable of receiving a very high polish.

While designed more particularly for the soles and heels of boots and shoes, it is obvious that my improved artificial leather may be used in any other connection for which it is adapted.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described artificial leather comprising strips of leather, each of which has a flesh and a grain side; the said strips being interwoven or intermixed, and adhesive substance mixed with and connecting the said strips so as to form a solid mass, substantially as specified.

2. The artificial leather described compris-

ing a body of interwoven or intermixed strips of leather; the said strips being each provided with a flesh and a grain side, and adhesive substance mixed with and connecting the several strips, whereby, when the whole is subjected to pressure, a solid mass is produced, substantially as specified.

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

JOHN P. NEALON.

Witnesses:
GEO. W. SPAULDING,
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