UNITED STATES PATENT OFFICE.

RUDOLF WEEBER, OF BÄRN, AUSTRIA-HUNGARY.

PROCESS FOR THE DYEING OF ARTIFICIAL LEATHER.

1,186,052. Specification of Letters Patent. Patented June 6, 1916.

No Drawing. Application filed June 24, 1914. Serial No. 846.915.

To all whom it may concern:

Be it known that I, RUDOLF WEEBER, a subject of the Emperor of Austria-Hungary, residing at Bärn, Moravia, in the Empire of Austria-Hungary, and whose post-office address is Bärn, Moravia, Empire of Austria-Hungary, have invented a certain new and useful Process for the Dyeing of Artificial Leather, of which the following is a specification.

Artificial leather is generally prepared from fabric by impregnating the latter with solutions of nitrocellulose, celluloid or acetylcellulose mixed with dyes and additions to keep it soft. The fabric is preferably dyed to the same, or approximately the same color as that of the impregnating layer which is placed on the fabric after dyeing.

It has been found that for insuring the dyeing of the artificial layer, it is not necessary to dye the layer of nitrocellulose by mixing it with pigments before it is placed on the fabric, but that the dyeing of the layer can also be carried out after the impregnation of the fabric with colorless nitrocellulose or celluloid. In this case, it is necessary however to embody with the layer of cellulose esters, substances in the nature of mordants before immersing the layer in a bath containing a basic anilin dye so that the layer put on is not transparent, and does not show the thread of the fabric, but hides it completely. Such suitable substances are for instance hydrate of alumina, silicate or acetate of alumina or any substances which easily form a lake with anilin dyes. For dyeing the layer baths are used which at the same time dye the fabric.

The process is carried out by first impregnating non-dyed fabrics with layers consisting of nitrocellulose, celluloid solution and the above mentioned anilin mordants, whereupon after drying the layer, the artificial leather is dyed in the anilin bath.

An example of the process is as follows: First, a solution is prepared of say 10 kg. nitrocellulose in known solvents such as alcohol, acetone, etc., and mixed with softening oils according to the flexibility required. This solution is then mixed for instance with about 5 kg. of hydrate of alumina, and this is uniformly incorporated with the mixture. This mixture is applied once or repeatedly on one side of a non-dyed cotton fabric and the solvent is evaporated, whereupon the fabric thus impregnated, is dyed with basic anilin dyes in acid baths, by employing known dyeing devices. The quantity of the anilin dye in the bath must be fixed in accordance with the desired intensity of the nitrocellulose layer, while the fabric takes up automatically the necessary quantity of dye, without it being necessary to attend to it.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. The process of making dyed artificial leather, which consists in mixing a solution of cellulose esters with an anilin mordant which will readily form lakes with anilin dyes, applying the mixture to an undyed fabric, drying the material and subjecting the thus formed artificial leather to a bath containing a basic anilin dye.

2. A process of dyeing artificial leather formed of a fabric impregnated with cellulose esters which consists in mixing cellulose esters with anilin mordants which readily form lakes with anilin dyes, applying the mixture to an undyed fabric and dyeing the artificial leather in baths containing a basic anilin dye after the impregnating layer has dried on the fabric, whereby the impregnating layer and the fabric are dyed at the same time.

In testimony whereof I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

RUDOLF WEEBER.

Witnesses:
GUSTAV WOLFF,
AUGUST FUGGER.