

UNITED STATES PATENT OFFICE.

EUGEN JETTER, OF ERFURT, GERMANY.

PROCESS OF PREPARING HORN-LIKE MATERIAL FROM RAW SKINS.

SPECIFICATION forming part of Letters Patent No. 749,297, dated January 12, 1904.

Application filed March 14, 1903. Serial No. 147,858. (Specimens.)

To all whom it may concern:

Be it known that I, EUGEN JETTER, a subject of the King of Prussia, German Emperor, and a resident of 20 Bismarckstrasse, Erfurt, in the Kingdom of Saxony, German Empire, have invented a new and Improved Process of Preparing a Horn-Like Material from Raw Skins, of which the following is a specification.

My invention relates to a process of preparing a horn-like material from raw skins, and has for its purpose to provide a process by means of which a water-tight hard material which is especially adapted to form a cheap and excellent surrogate for whalebone is obtained.

The process consists in filling the raw skins with gluey substances—as, for instance, gelatin, glue, isinglass, and the like—and with nitrocellulose, whereafter the skins, as well as the substances with which the same are filled, are made insoluble.

The process is carried into effect in the following manner: The cleaned and depilated skins are treated with lime for opening the pores of the same and are then brought in a solution of gelatin, glue, isinglass, and the like. This solution, which may contain, for instance, five per cent. of the gluey substances, must be very thin, which may be attained by heating the same or adding a few drops of acetic acid. After the skins have remained one or two days in this solution they are brought into a solution of collodion prepared with glacial acetic acid in order to bring nitrocellulose into the skins. In consequence of the collodion being dissolved in glacial acetic acid the nitrocellulose can penetrate into the fibers. By the

skins being brought into these solutions they swell and take up a relatively great quantity of these solutions. Thereafter the skins are dried and afterward brought in a solution by means of which the skins, as well as the substances contained in the same, are made insoluble—as, for instance, a diluted solution of chlorid of aluminium. This solution may contain from one-half to two per cent. of chlorid of aluminium. It will be understood that any other convenient tanning material may be used for this purpose. In this solution the skins remain six hours. Thereafter they are taken out and dried or pressed. The skins then form a more or less transparent horn or whalebone like material of great elasticity and tenacity.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is—

The process of preparing a horn-like material from raw skins, consisting in bringing the skins into a liquid solution of gluey substances and into a solution of collodion in glacial acetic acid, drying the skins and bringing the same into a solution by means of which the skins as well as the substances taken up by the same are made insoluble, substantially as described and for the purpose set forth.

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

EUGEN JETTER.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.