

UNITED STATES PATENT OFFICE.

GOTTFRIED MEYER, OF PHILADELPHIA, PENNSYLVANIA.

PROCESS OF MANUFACTURING FLEXIBLE TUBES FOR FOUNTAIN PAINT-BRUSHES AND THE LIKE.

976,899.

Specification of Letters Patent.

Patented Nov. 29, 1910.

No Drawing.

Application filed December 3, 1909. Serial No. 531,270.

To all whom it may concern:

Be it known that I, GOTTFRIED MEYER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Process of Manufacturing Flexible Tubes for Fountain Paint-Brushes and the Like, of which the following is a specification.

This invention relates to a new and improved process of preparing flexible tubes of that type used in connection with fountain paint brushes and the like. Tubes of this character have heretofore been affected to such an extent by the paints directed through them, as to rot or become eaten and thus rendered useless.

The object of the present invention is to produce a tube which will withstand the action of the paints and will remain flexible as long as used.

The invention consists in treating the intestines of goats, sheep, swine, etc., by cleaning them and then impregnating them with a suitable preservative whereby a soft flexible tube is obtained which may be utilized in connection with tubes of other material for the purpose of obtaining a complete hose for the purpose stated.

The invention also consists of certain novel features hereinafter more fully described and pointed out in the claims.

In carrying out the invention, the intestines, after being removed from the animal, are turned inside out and, after being thoroughly cleaned, are placed in a mixture of water and sodium sulfid, there being preferably about one per cent. of the sodium sulfid in the mixture, although a stronger mixture will produce quicker and equal results. This mixture combines with those substances contained within the intestines and which tend to render them hard and brittle unless removed. As a result of utilizing this mixture, the intestines are rendered soft and flexible. The intestines are subjected to this treatment for from two to three days, according to their toughness. They are then thoroughly washed to remove the composition and are subsequently drawn over a coiled wire or the like which keeps them stretched open. While on this coiled wire, they are placed within cold glycerin and retained therein for from three to six hours so as to become thoroughly saturated.

This completes the preparation of the intestines and after they have been wiped dry subsequent to the glycerin treatment referred to, they may be placed within a tube of fabric, rubber or any other material and the coil then removed.

In order that the sections of intestines may be connected to form a tube of desired length, it is necessary to insert one edge of each section into an end of the adjacent section and to cement the sections together. For this purpose a special form of cement may be employed, this being made up according to the following formula:

Glue	2 parts.	70
Gelatin	1 part.	
Glycerin	1/10 part.	
White wine vinegar	1/100 part.	

This cement is prepared by soaking the glue and gelatin in water and by adding the vinegar, after which the mixture is boiled. The glycerin is added while the mixture is boiling, it being necessary to keep the mixture stirring constantly. Acetate of alumina may be added to the mixture after it has been removed from the fire, in order to keep it in a flexible condition.

It has been found that a hose made of a tube lined with intestines treated in the manner herein-described, is capable of resisting to the utmost the corroding action of paints and the like, and the principal objection to the use of tubing in fountain paint brushes is thus eliminated.

What is claimed is:—

1. The herein described method of producing tubes for use in connection with fountain paint brushes and the like consisting in subjecting the intestines of an animal to the action of a mixture of sodium sulfid and water and then treating the intestines with glycerin.

2. The herein described method of producing tubes for use in connection with fountain paint brushes and the like consisting in subjecting the intestines of an animal to the action of a mixture of sodium sulfid and water, then washing the intestines, then stretching the same upon an expanding coil, and then treating the intestines with glycerin.

3. The herein described method of producing soft flexible tubing consisting in subjecting the intestines of an animal to the ac-

tion of a mixture of sodium sulfid and water,
then treating the intestines with glycerin,
then drying the product and subsequently
uniting the intestines with a cement consist-
5 ing of glue, gelatin, glycerin, white vinegar
and acetate of alumina.

In testimony that I claim the foregoing

as my own, I have hereto affixed my signature in the presence of two witnesses.

GOTTFRIED MEYER.

Witnesses:

WILLIAM R. MAGUIRE,
THEO. H. M'CALLA.