

UNITED STATES PATENT OFFICE.

WILLIAM L. MARTIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
THE THORNDYKE MANUFACTURING COMPANY, OF SAME PLACE.

PROCESS OF MANUFACTURING CLEANING OR POLISHING CLOTHS.

SPECIFICATION forming part of Letters Patent No. 580,288, dated April 6, 1897.

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To all whom it may concern:

Be it known that I, WILLIAM L. MARTIN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Processes of Manufacturing Cleaning or Polishing Cloths; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to an improved method or process of manufacturing cleaning or polishing cloths used for the purpose of cleaning and brightening silverware and other metals, articles, or substances, the object being to produce a cloth which will be useful and effectual for the purpose mentioned; and the invention consists, essentially, in the process comprising the several steps hereinafter recited and in the composition of materials used in carrying out the process, all substantially as will be herein-
after more fully set forth and claimed.

My improved process is intended to be carried on with some suitable cloth or textile fabric as a foundation material, which is to be treated in a peculiar and distinctive manner so as to convert it into a cloth or fabric having the polishing function when rubbed upon an article of silverware or other metal. I may, for example, take cotton cloth which is napped or gigged on one side. Although this is only one kind of cloth, here mentioned simply by way of illustration, yet it is evident that I can employ any other kind of textile fabric with equal facility. I preferably dye or color the cloth in order that it may present the appearance of chamois-skin. This feature, however, is not indispensable to my process, and, if desired, may be omitted, or the cloth may be subjected to some other preliminary application to give it such characteristics as may be desired.

The first step in the practical carrying out of my improved process is to subject the cloth or other textile fabric to the operation of slop-

padding with a solution of silicate of soda or water-glass, there being one part of silicate of soda to eight parts of water, although these proportions may be varied as much as may be desired to produce different polishing qualities in the resulting polishing-cloth. The cloth is thoroughly saturated with this bath, and the temperature of the bath is preferably about 160° Fahrenheit. The goods as they come out of the bath are saturated with the silicate of soda, and they are then dried or not, as preferred. The cloth is next passed through a solution of alum or sulfate of alumina and sulfuric acid, the latter ingredient being employed because there is not enough sulfuric acid in the alum to properly precipitate the silicate. This results in making an insoluble precipitate of silicate of alumina in the cloth. The proportion in which these ingredients are united is as follows: one pound of alum or sulfate of alumina to one ounce of sulfuric acid in one gallon of water at about 120° Fahrenheit. The cloth thus treated is then dried and is ready for use. When dried, it will possess a certain stiffness or rigidity on account of its thorough impregnation with minute glass particles. The treatment causes a precipitate in the cloth of the finest film of glass in the fiber, and this can only be seen by the microscope. When the cloth is crushed and is rubbed or chafed, or when it is brought into practical use by applying it to the surface of an article which is to be cleaned or polished, these minute glass particles break or disintegrate into the finest powder known, and hence have a remarkably excellent polishing quality.

If desired, the process may be reversed as to its steps; that is to say, the cloth may first be passed through a bath of sulfate of alumina and sulfuric acid, then not dried, but immediately passed through the solution of silicate of soda.

It will be understood that equivalent steps in the process may be substituted for those recited and equivalent ingredients for those employed may be substituted, and that the proportions of the several ingredients as well

as other incidentals of the process may be varied without departing from my invention, the legitimate scope of which is to be determined by reference to the claims.

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

The herein-described improved process of making cleaning or polishing cloths, which

consists in treating a cloth with a bath of silicate of soda, and also with a solution of sulfate of alumina and sulfuric acid.

In testimony whereof I affix my signature in presence of two witnesses.

WM. L. MARTIN.

Witnesses:

JOHN H. WOODHEAD,

J. DOUGLASS TAYLOR.