

UNITED STATES PATENT OFFICE.

JOHN E. DARBY, OF CLEVELAND, OHIO.

PROCESS OF IMPREGNATING CLOTH WITH ROUGE.

SPECIFICATION forming part of Letters Patent No. 760,616, dated May 24, 1904.

Application filed June 16, 1903. Serial No. 161,750. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN E. DARBY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Processes of Impregnating Cloth with Rouge; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a process of impregnating cloth or other woven fabric with a polishing material and so incorporating the polishing material with the fabric by means of a cement that they become inseparable in use; and I hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

Heretofore when cloth and rouge or other polishing material have been jointly used for polishing or burnishing metals, glass, gems, &c., the cloth and polishing material were separate and distinct from each other and the material was applied to the cloth at the time of using, or if the cloth were more or less saturated with the material by rubbing it into the cloth or using some liquid to permeate the cloth the material was simply held mechanically in the meshes of the cloth, and in the rubbing and handling incident to use the material would work out of the cloth and be wasted, besides soiling the hands of the user and the surfaces polished.

In no instance, so far as I am aware, has the cloth been impregnated with the polishing material and the material cemented to the fiber of the cloth so as to become really and, in fact, inseparable from it and constituting therewith a new article of manufacture and sale prepared as such and offered for sale and use as one article. By my process of impregnating the cloth with rouge or other material or rouge mixed with other material the cloth is saturated with the material and at the same time so completely cemented to the fiber of the cloth by a cementing agent that it cannot

be separated from the cloth only as the fiber is worn away by use.

To carry my invention into effect, the following requisites are necessary: first, any suitable cloth—such, for example, as cotton-flannel; second, a polishing material, and, third, a permeating liquid cement to fix the material in the cloth.

For polishing the baser metals, as nickel, brass, steel, &c., any cloth of sufficient body to take up the material may be used; but for polishing gold, silver, glass, gems, &c., only cotton and preferably linton plush or velveteen should be used.

The polishing material for gold, silver, &c., is preferably the finest gold-rouge sprinkled or sifted evenly over the surface of the cloth, or the rouge may be made into a stiff mass by the addition of a little water, and this mass when formed into rolls or balls and thoroughly dried in a warm oven is ready for use. Another formula is as follows: rouge, sixty-four parts; soda crystals, two parts; flour, one part. For consistency boil the flour in a little water and dissolve the soda in warm water. Add these solutions to the rouge in a suitable pan or dish and mix, adding sufficient water to make a stiff mass. Form the mass into balls or rolls and dry thoroughly in a warm oven. It is then ready for use.

The polishing material for nickel, brass, steel, &c., should be more erosive, and equal parts of rouge, emery, and pumice produce excellent results, although other materials may be used prepared as before.

The permeating liquid cement may consist of solutions of guncotton, india-rubber, or caoutchouc or chicle, but preferably india-rubber dissolved in gasoline or other solvent.

In the manufacture rub the ball of polishing material lightly and evenly over the cloth until the cloth is covered with the material. Then rub the cloth with a brush or a pad made of a block covered with flannel or felt to work the polishing material into the meshes of the cloth. Then saturate a suitable pad or sponge with the permeating liquid cement and rub the cloth lightly and rapidly until the cloth is thoroughly saturated.

The liquid penetrates the cloth quickly and carries the material with it, so that the cloth is saturated with the mixture. Then as the volatile properties of the liquid evaporate the adhesive material which was held in solution in the liquid cements the polishing material firmly to the fiber of the cloth and it becomes, essentially, a part of the cloth; but still the quantity of the adhesive material required for the work is relatively so small that it does not interfere with the polishing properties of the material or the softness and flexibility of the cloth nor work any injury to the surface that is being brightened.

15 What I claim is—

1. The process of permanently saturating a woven fabric with a polishing material, consisting in spreading the polishing material

evenly over the fabric and then driving the said material into the cloth by means of a volatile liquid and a solvent cement which will adhere the material to the fabric when the volatile element has evaporated, substantially as described.

2. As a new article of manufacture, a woven fabric permeated with a polishing material and having the said material adhered to the fiber of the fabric by a cement, substantially as set forth.

Witness my hand to the foregoing specification this 10th day of June, 1903.

JOHN E. DARBY.

Witnesses:

R. B. MOSER,

R. ZBORNIK.