## UNITED STATES PATENT OFFICE.

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PROCESS OF PREPARING AND TREATING RUBBER-COATED MATERIALS.

SPECIFICATION forming part of Letters Patent No. 708,823, dated September 9, 1902.

Application filed November 27, 1901. Serial No. 83,915. (No specimens.)

To all whom it may concern:

Be it known that I, JOHANN MINDER, a citizen of the Kingdom of Prussia, residing at Piesteritz, near Wittenberg, in the Kingdom of Prussia and German Empire, have invented a certain new and useful Process of Preparing and Treating Rubber-Coated Materials, of which the following is a specification.

This invention relates to rubber-coated mato terials, and more especially to an improved process of preparing or treating rubber-coated waterproof fabrics, particularly such as are usually employed for waterproof bed-sheetings, and also to the improved product or products of such process.

Some of the rubber-coated fabrics of the trade as at present in use are found more or less hard and rough to the touch, and at the same time they are difficult to disinfect.

The object of this invention is to devise means for removing or avoiding these objectionable features in rubber-coated materials made either according to any of the processes heretofore generally known or according to the process particularly hereinafter referred to.

To this end the present invention consists in subjecting the one or the other of the said materials to a certain after-treatment, as will be more fully hereinafter described.

In preparing rubber-coated materials of the kind above referred to a mixture of indiarubber with the usual loading and coloring substances is first made, whereupon a quantity of from one-fifteenth to one-twentieth of its 35 weight of a suitable heavy hydrocarbon, such as mineral oil, tar-oil, ozocerite, paraffin, or the like, is added to the mixture. The mass thus obtained is then spread over the textile or other material in thin layers in the usual 40 and well-known manner, and after having prepared is vulcanized on the textile or other material in the manner likewise generally known. The coated material or fabric after 45 having been prepared in the manner above described or in any other suitable manner is then, according to present improvement, sub-

jected to an after-treatment, which is as fol-

lows: In a suitable vat or other receptacle provided with means for heating, preferably 50 with a serpentine or a water-jacket connected with a suitable source of heating liquid, I first heat a heavy hydrocarbon (mineral oil, tar-oil, ozocerite, paraffin, or the like) to a temperature of about 70° centigrade, more 55 or less. I then pass the material above referred to through the said heated bath of liquid heavy hydrocarbon. The action of the heated liquid upon the india-rubber coating causes the latter to swell to a certain ex- 60 tent and closes the infinitely-small pores which have remained therein. The material after having left the bath aforesaid is then allowed to dry. It will now be found pliable and soft to the touch, and since it no longer 65 contains any open pores it will be more easy to disinfect than the similar materials heretofore known.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The process herein described of preparing or treating rubber-coated materials in order to give the coating the properties described, which consists in passing the said material through a bath of heated heavy hy-75 drocarbon and subsequently allowing the material to dry.

2. The process of preparing or treating rubber-coated materials, which consists in first coating a textile or other material with a mix-80 ture of india-rubber, loading and coloring substances and heavy hydrocarbon, subsequently drying and vulcanizing such coating on the said material, passing the latter through a bath of heated heavy hydrocarbon, and 85 again allowing it to dry, substantially as and for the purpose described.

and well-known manner, and after having then been allowed to dry the coating thus prepared is vulcanized on the textile or other material in the manner likewise generally and for the purpose described.

JOHANN MINDER.

Witnesses:

PAUL KÖNAG, HENRY E. SCHMIDT.