

UNITED STATES PATENT OFFICE.

WILLIAM ABBOTT, OF LONDON, ENGLAND.

VULCANIZATION OF WATER-PROOF FABRICS.

SPECIFICATION forming part of Letters Patent No. 226,259, dated April 6, 1880.

Application filed February 16, 1880. Patented in England January 14, 1878.

To all whom it may concern:

Be it known that I, WILLIAM ABBOTT, subject of the Queen of Great Britain and Ireland, and a resident of London, county of Middlesex, England, have invented certain Improvements in the Vulcanization of Water-Proof Fabrics, for which I have obtained a patent in Great Britain, No. 166, January 14, 1878, and of which the following is a specification.

10 The said invention relates to improvements in effecting the vulcanization of the india-rubber contained upon or constituting an intermediate layer between the fabrics of which the water-proof materials are to be composed; 15 and it consists in subjecting such coating or layer of india-rubber to the action of the vapor of chloride of sulphur, in order that the india-rubber may thereby become vulcanized.

20 In carrying out the said invention the compound fabric, either in the piece or in the form of garments or other articles, is submitted to the action of the vapor of chloride of sulphur until the desired vulcanization has been effected.

25 One method by which this is effected is by inclosing the fabrics, garments, or articles in a closed vessel or chamber and admitting

therein the vapor of chloride of sulphur. This process is particularly valuable for the vulcanization of made-up garments or made-up goods, as the joints or seams which have been attached together by means of india-rubber solutions are vulcanized at the same operation.

In case the fabrics retain any of the acid from the vapors this may be neutralized by immersing the fabrics in a weak alkali or 35 subjecting the same to the vapors of an alkali, by preference ammonia.

I claim as my invention—

The mode described of effecting the vulcanization of fabrics containing an external or an intermediate layer of india-rubber by submitting the same, either in the piece or in the form of garments or articles, to the action of chloride of sulphur, substantially in the manner hereinbefore mentioned. 40 45

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

WM. ABBOTT.

Witnesses:

N. P. WEEKS,

GEORGE PAYNE,

Both of 31 Lombard Street, London.