A.D. 1870, 10th September. N° 2454.

SPECIFICATION

OF

THEOPHILUS WESTHORP.

LINT.

LONDON:
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A.D. 1870, 10th September. N° 2454.

Lint.

LETTERS PATENT to Theophilus Westhorp, of the West India Dock Road, in the County of Middlesex, for the Invention of "**Improvements in the Preparation of Fibrous Materials to Render them suitable for Use as Lint for Surgical Purposes.**"

Sealed the 1st November 1871, and dated the 10th September 1870.

PROVISIONAL SPECIFICATION left by the said Theophilus Westhorp at the Office of the Commissioners of Patents, with his Petition, on the 10th September 1870.

I, Theophilus Westhorp, of the West India Dock Road, in the County of Middlesex, do hereby declare the nature of the said Invention for "**Improvements in the Preparation of Fibrous Materials to Render them suitable for Use as Lint for Surgical Purposes,**" to be as follows:—

The object in this Invention is to prepare raw fibrous material as it comes from a carding or scribbling machine to render it suitable for use as lint. For this purpose I impregnate the fibrous material, after it

has been carded or scribbled, with vegetable tar, and thus render it antiseptic and disinfectant. The fibres so prepared with vegetable tar may be used in the loose state or they may be made into sheets, and such sheets may be secured by an adhesive medium to a backing of paper or waterproof material. 5

In order to impregnate the fibrous material with vegetable tar I immerse it in the tar in a boiling state and afterwards remove from it the excess of tar by subjecting it to hydraulic or other pressure, or fleeces of fibrous material from a carding or lapping machine may be passed into boiling tar and be withdrawn from the tar between rollers to remove 10 the excess. Sheets of fibrous material thus prepared may be used as lint either with or without a paper or other backing. I prefer to use a mixture of wool, cotton, and flax, either mixed together by carding or scribbling, or bats or fleeces of these fibres may be lapped one over the other. 15

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Theophilus Westhorp in the Great Seal Patent Office on the 10th March 1871.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, THEOPHILUS WESTHORP, of the West India Dock Road, in the County of Middlesex, 20 send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Tenth day of September, in the year of our Lord One thousand eight hundred and seventy, in the thirty-fourth year of Her reign, did, for Herself, Her heirs and successors, give and 25 grant unto me, the said Theophilus Westhorp, Her special licence that I, the said Theophilus Westhorp, my executors, administrators, and assigns, or such others as I, the said Theophilus Westhorp, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term 30 therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "IMPROVEMENTS IN THE PREPARATION OF FIBROUS MATERIALS TO RENDER THEM SUITABLE FOR USE AS

LINT FOR SURGICAL PURPOSES," upon the condition (amongst others) that I, the said Theophilus Westhorp, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Theophilus Westhorp, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say :—

The object of this Invention is to prepare raw fibrous material as it comes from a carding or scribbling machine to render it suitable for use as lint. For this purpose I impregnate the fibrous material, after it has been carded or scribbled, with vegetable tar, and thus render it antiseptic and disinfectant. The fibres so prepared with vegetable tar may be used in the loose state or they may be made into sheets, and such sheets may be secured to a backing of paper or waterproof material.

In order to impregnate the fibrous material with vegetable tar I immerse it in the tar in a boiling state, and afterwards remove from it the excess of tar by subjecting it to hydraulic or other pressure, or fleeces of fibrous material from a carding or lapping machine may be passed into boiling tar and be withdrawn from the tar between rollers to remove the excess. Sheets of fibrous material thus prepared may be used as lint either with or without paper or other backing. I prefer to use a mixture of wool, cotton, and flax, either mixed together by carding or scribbling, or bats or fleeces of fibres may be lapped one over the other.

In order that my said Invention may be most fully understood and readily carried into effect I will proceed to describe the methods by which I prefer to conduct the manufacture.

I take flax, tow, cotton, and short staple wool, all in a clean and carded state, and I mix them (by preference by equal weights) by feeding them simultaneously into a carding or scribbling machine. From this machine the fibre is delivered as a compound sliver.

If a lint without backing be required this sliver is placed in a cylindrical vessel perforated at the bottom and sides, containing Stockholm tar in a boiling state, such perforated vessel being contained in an outer pot or vessel heated by steam contained in a steam jacket in a coil immersed in the tar. The steam should be at a pressure such as to maintain the tar at a temperature of about 240° Fahrenheit. The fibre is kept in the boiling tar for about ten minutes and then the cylinder with its contents is drawn out of the tar pot and placed in an hydraulic press the head of which enters the cylinder like a piston, and in this press the fibre is submitted to a pressure which should not be less than two tons on the square inch. The vessel with its contents is then taken out of the press, the prepared fibre is removed and loosened by hand, and is then ready for use.

It is not essential that the fibres should be mixed as above described, either fibre may be taken and used by itself, but not with the same advantage. In place of employing an hydraulic press, rollers may be used; they should be clothed with vulcanized india-rubber to give elasticity to the surface, but the use of rollers is not economical and the india-rubber before very long will be injuriously acted upon by the tar and the heat.

When a lint with backing is required, the fabric as it comes from the machine is spread evenly by hand on the surface of sheets of stiff paper; strong cartridge paper is suitable. These sheets with the fibre spread upon them are accumulated one over the other in the cylindrical perforated vessel already described, and (the vessel being cylindrical and the sheets rectangular) the spaces left around the sheets are filled in with the loose sliver or fibre. In other respects the process is conducted in the manner already described, and after the pressure the sheets are removed from the vessel and separated by hand the one from the other. In filling the vessel in which the sheets are tarred the sheets are laid back to back, so that when they are separated there is a fibre upon one side of each sheet of paper, but the other side is bare.

Having thus described the nature of my said Invention, and the manner of performing the same, I would have it understood that I claim, the preparation of fibrous materials to render them suitable for use as lint for surgical purposes by saturating such materials when in a loose sliver or fleecy state as they come from the carding or scribbling

machine with vegetable tar and then expressing the excess of tar by hydraulic or other heavy pressure substantially as described.

I also claim the combination of such prepared fibrous material with a backing substantially as described.

5 In witness whereof, I, the said Theophilus Westhorp, have hereunto set my hand and seal, this Tenth day of March, in the year of our Lord One thousand eight hundred and seventy-one.

T. WESTHORP. (L.S.)

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1871.