April 14, 1925. 1,533,272

R. B. RESPESS

ADHESIVE MEDICAL TAPE AND PROCESS FOR MAKING THE SAME

Filed Feb. 15. 1921

Fig. 1

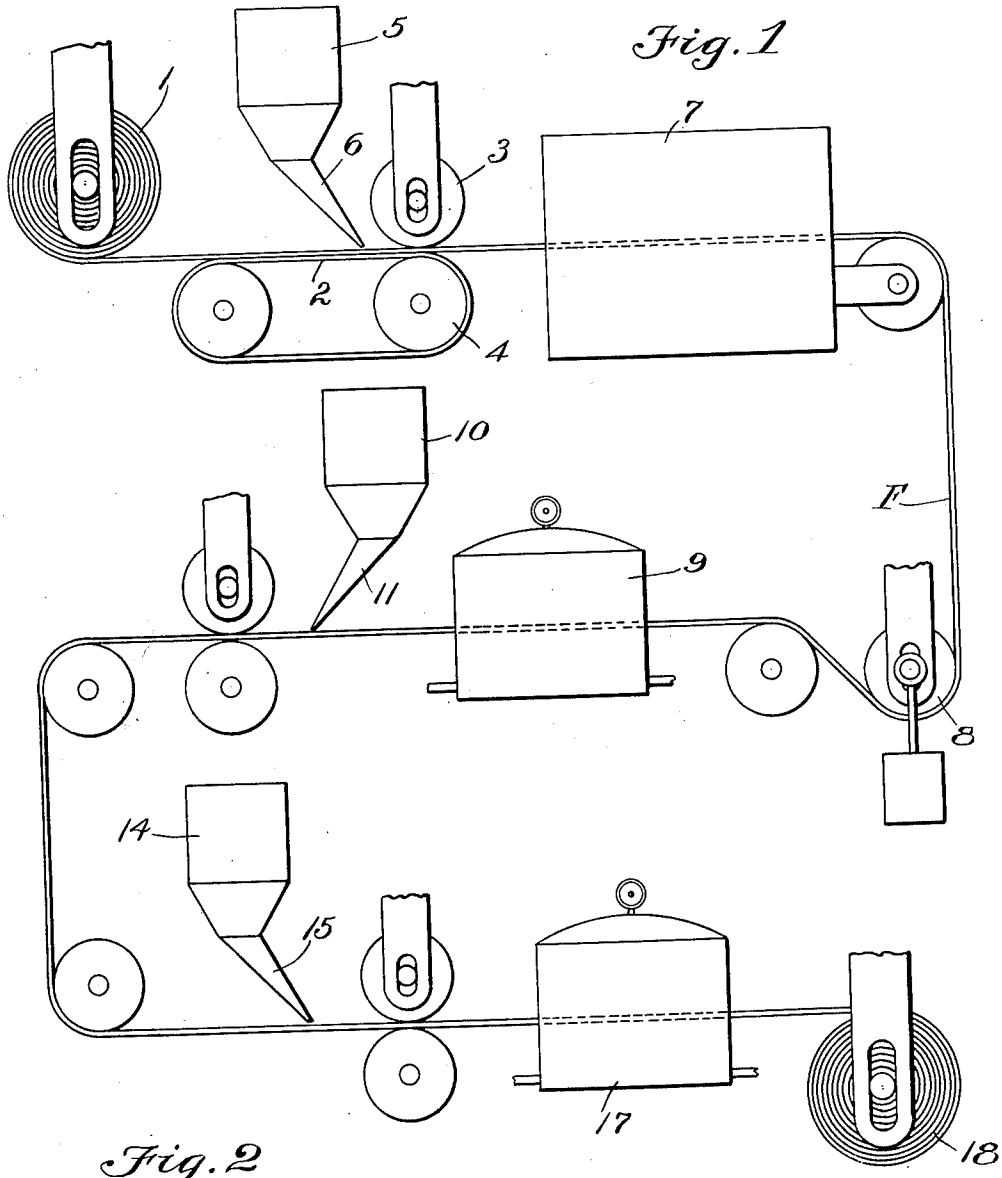
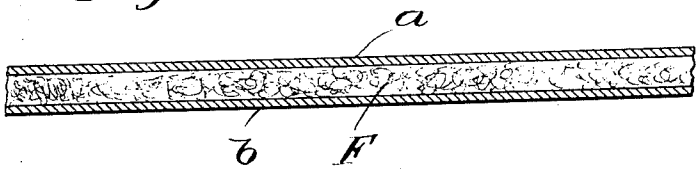


Fig. 2



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Att'ys

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UNITED STATES PATENT OFFICE.

ROLAND B. RESPESS, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO RESPRO INC., OF CRANSTON, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

ADHESIVE MEDICAL TAPE AND PROCESS FOR MAKING THE SAME.

Application filed February 15, 1921. Serial No. 445,111.

To all whom it may concern:

Be it known that I, ROLAND B. RESPESS, citizen of the United States, and resident of the borough of Manhattan, city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in an Adhesive Medical Tape and Process for Making the Same, of which the following is a specification.

This invention relates to adhesive medical tape and to the process of making the same. The object of the invention is the production of an adhesive medical tape with a base of unwoven fabric having a suitable coating or coatings.

The process consists first in the production of a liquid adhesive substance to be spread on one side of a sheet of fabric, and hereinafter called the adhesive coating, and an unwoven sheet of fabric hereinafter called the base sheet material.

The adhesive coating may be composed of a compound of rubber or sticky gums with medical elements added thereto. The adhesive coating holds the tape in place and the medical elements serve as healing agents.

The fabric base material as hereinafter described when surfaced with a suitable medicated surface coating and sometimes with a waterproof coating constitutes the invention whether the product is used in sheet form or in rolls of desired width.

In the accompanying drawings Fig. 1 is a side elevation illustrating diagrammatically one arrangement of apparatus suitable for use in practicing the process herein described, and Fig. 2 is a vertical section to a large scale showing the resulting product.

In the production of the fabric base F a roll 1, of cotton or other suitable fibre batting or felt is made in the usual manner on a carding or garnetting machine in lengths of 50 yards or upwards and the sheet or bat is preferably drawn off onto a conveyer belt 2, and passed between pressure rolls 3 and 4. Just prior to the passage of the sheet or base fabric F between the pressure rolls a binding adhesive agent such as a liquid rubber compound contained in a tank 5, is deposited upon the fabric sheet by means of a suitable spreader 6, and when the sheet passes between the pressure rolls the adhesive agent is pressed into the sheet. The sheet then passes through a dryer 7, where the solvent of the adhesive is evaporated. Preferably the sheet is subjected to pressure and tension as by means of a heavy vertically movable roll 8, and if a rubber compound is used as the adhesive binding agent, the sheet may be subjected to a vulcanizing process in passing through a vulcanizing chamber 9. If desired the sheet may be used unvulcanized.

The preparation of such a base fabric is described in general in lines 28 to 47 inclusive of my Patent No. 1,416,064, dated May 16, 1922, reissued May 15, 1923, No. 15,602 as well as lines 51 to 72 inclusive of page 1, of my Patent No. 1,276,113 dated August 20, 1918.

This dried and pressed unwoven base fabric may be used without any further treatment as a base material to one side of which a medicated adhesive coating *a*, is applied. This surface coating may be supplied in liquid form from a tank 10, and is preferably applied to one side of the base material, being spread evenly by means of a knife 11. Other usual devices employed in the coating of sheet material may be substituted for those described. The coated sheet may now be cut into strips or rolls of any width desired. The product thus becomes a medicated adhesive tape which contains the improved feature of having a fabric base which is unwoven and which is substantially waterproof.

As one example of a suitable medicated coating a compound consisting of zinc oxide, petrolatum, and gum benzoin may be employed, the proportions of the parts being substantially 16 of zinc oxide, 83.5 petrolatum, and 0.5 of gum benzoin. Obviously other similar substances may be employed and in particular rubber or a rubber solution may be substituted for the gum benzoin as the adhesive feature.

While the sheet material may be used in a manner described in the preceding paragraphs without further treatment, I prefer to provide the opposite side of the sheet material from that having the medicated coating with a non-adhesive surface coating *b*. This surface coating or dressing may be composed of insoluble gum compounds or of rubber and such surface dressing may be delivered from a tank 14 and spread by means of knife 15, or may be applied by means of any other suitable spreading ma-

chine. The dressing may, if desired, be vulcanized by passing through a vulcanizer 17, although this step is not essential, and the finished strip may be wound into a roll 18 for convenient handling.

This product is superior to the adhesive tapes now in use for the reason that the fibres in the base fabric are coated with a waterproof substance which prevents the absorption of moisture by the individual fibres.

I claim:

1. The process of making adhesive surgical tape which comprises saturating an unwoven fibrous sheet with an adhesive binding agent, drying the sheet, coating one side of the dried sheet with a medicated liquid adhesive, and coating the opposite side of the sheet with a water-proofing substance.

2. The process of making adhesive surgical tape which comprises forming an unwoven bat of fibrous material saturated with a binding agent, tensioning the bat, applying a medicated adhesive solution to one side of the bat, and coating the opposite side of the bat with a water-proofing material.

3. An adhesive mediated tape comprising unwoven fibrous sheet material saturated with a binding adhesive agent and coated on one side with a medicated adhesive and upon the other side with a waterproofing substance.

4. An adhesive tape comprising an unwoven fibrous bat saturated with a binding adhesive agent and coated on one side with a medicated adhesive, and a waterproofing coating comprising rubber upon the opposite side of the bat.

Signed at the borough of Manhattan, city of New York in the county of New York and State of New York this 1st day of February A. D. 1921.

ROLAND B. RESPESS.