

UNITED STATES PATENT OFFICE.

JOSHUA MELVIN, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN ADHESIVE PLASTERS.

Specification forming part of Letters Patent No. 37,604, dated February 3, 1863.

To all whom it may concern:

Be it known that I, JOSHUA MELVIN, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Adhesive Plasters; and I do hereby declare the following to be a full and exact description of the same.

The subject of my invention is a surgical roller-bandage formed of adhesive plaster in manner hereinafter described; and the invention further consists in the use of a foundation of gum-caoutchouc or other elastic and impervious material in the manufacture of plasters adapted to be rendered adhesive by moisture.

To enable others skilled in the art to which my invention appertains to fully understand and use the same, I will proceed to describe the manner of carrying it into effect.

For the construction or preparation of surgical roller-bandages I take any suitable fabric of cotton or other material, in pieces of large size, and prepare it by the application of a coating of gum-caoutchouc or other elastic material impervious to moisture, to which gum while in a dissolved state, preparatory to spreading, may be added a small quantity of chrome or French yellow to improve the appearance and facilitate the drying of the gum coating. Upon the surface thus formed I spread a uniform coating of gelatine, producing a large extended sheet of adhesive plaster. This sheet of plaster, when sufficiently dry, is rolled tightly upon a cylinder, from which it may be drawn in bands of any desired width, separated from the main sheet by means of adjustable knives secured in positions perpendicular to the axis of the cylinder; or, if preferred, the cylinder, with the sheet of plaster rolled upon it, may be cut or sawed up transversely at any suitable intervals, whereby will be obtained individual rolls of plaster or adhesive roller-bandages admirably adapted for surgeons' use.

The gelatine, which is the adhesive agent in this plaster, becomes softened by slight moist-

ure, and consequently the plaster may be applied and removed in a more quick, convenient, and cleanly manner than plasters which are applied by heat. Moreover, this plaster, being readily made adhesive by moisture, and by moisture only, is peculiarly well adapted to fulfill the requirements of a roll-bandage for surgeons' use. The gum-elastic foundation prevents the gelatine from striking into the fabric upon which it is spread, and thus prevents the plaster from becoming hard and kinky.

I do not restrict myself to the material specified for the foundation of the adhesive material, but propose to use any analogous material possessing the indispensable qualities of elasticity and imperviousness to water. I also propose to use for the adhesive surface of the plaster any gelatinous material readily soluble in water and otherwise adapted for the purposes specified.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In combination with a gelatine preparation and a backing of cotton or other fabric, the use of a film of caoutchouc or analogous elastic and impervious material interposed between the gelatine and the backing to prevent the former from penetrating the latter and adapt the plaster to be rolled without injury.

2. Spreading a gelatinous preparation upon a foundation of caoutchouc or analogous elastic and impervious material in the manufacture of adhesive plasters, substantially set forth.

3. The manufacture of the above-prepared fabric into bandages of any desirable length and width in roll or cylindrical form for surgical use, as substantially as set forth.

JOSHUA MELVIN.

Witnesses:

L. E. LINCOLN,
TAPPAN WENTWORTH.