

UNITED STATES PATENT OFFICE.

JAMES H. HOFFMAN, OF NEW YORK, N. Y.

MANUFACTURE OF SWEAT-PROOF PAPER COLLARS.

Specification forming part of Letters Patent No. 47,107, dated April 4, 1865.

To all whom it may concern:

Be it known that I, JAMES H. HOFFMAN, of the city, county, and State of New York, have invented a new and useful Manufacture of Sweat-Proof Paper Shirt-Collars; and I do hereby declare that the following is a full, clear, and exact description thereof.

The use of all known paper shirt-collars is much restricted by their extreme liability to become soiled and broken down by the perspiration of the wearer, when, but for this liability, they are desirable both in warm climates and in warm weather, being neat, cheap, and easily procured. Now, it is the object of my invention to remedy this objection to paper shirt-collars, and by making them sweat-proof to render them durable, neat, cheap, and pleasant to wear in warm weather; and my invention consists in manufacturing paper shirt-collars, cuffs, &c., impervious to perspiration, and with a surface not injuriously softened by the heat of the wearer, by coating the prepared paper with a material that perspiration will not unite with or permeate, or the heat of the human body injuriously soften, and finishing the paper so prepared between suitable condensing-rollers.

To enable others skilled in the art to make and use my invention, I will proceed to describe one mode of manufacturing my sweat-proof paper collar.

Selecting any suitable paper for making shirt-collars, of the style or size desired, either in the reel or in sheets, I apply a composition or coating consisting of the following materials in about the proportions named to the single ream of paper averaging about eighty pounds: Ten pounds of blanc fix; one pound of isinglass; one pound of bleached wax, which is dissolved in alcohol. The paper is passed through a brush-cylinder machine in which the above-named composition is applied to one or both of its sides in a warm and thin liquid state. The paper after being sufficiently dried in any proper manner is run through a sizing-

machine to harden and smooth the paper. I then put on a thin coating of bleached shellac dissolved in alcohol, and when this last coating is sufficiently dry the paper is again passed through the sizing-machine, and afterward through the flinting-machine, where the paper receives the character of finish desired, but more generally a polished enameled surface, so that collars and cuffs cut, punched, embossed, and finished from this paper shall present the appearance of the most perfectly starched and ironed linen articles of the same class.

It is obvious that my paper thus prepared is equally well adapted to straight, curved, standing, or turn-over collars or cuffs of any pattern, and that they may be embossed, printed, or ornamented, as desired. It is also obvious that my paper thus prepared and finished may be used for cuffs and bosoms as well as for collars, because each will remain long uninjured in contact with the skin of the wearer without even being marked by perspiration. Now, it is possible that the use of gum as a foundation and gelatine as a coating may produce equivalent conditions in paper if properly applied at the commencement of the process; but this I should regard as only the equivalent of my composition.

I am aware that it has been proposed to render a compound paper and muslin collar sweat-proof by a coating of varnish; but such I do not claim as my invention; but

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

The manufacture of sweat-proof paper shirt-collars with the composition, substantially as described, applied in the manner substantially set forth.

In testimony whereof I have hereunto subscribed my name.

JAS. H. HOFFMAN.

Witnesses:

WM. D. BALDWIN.

EDM. F. BROWN.