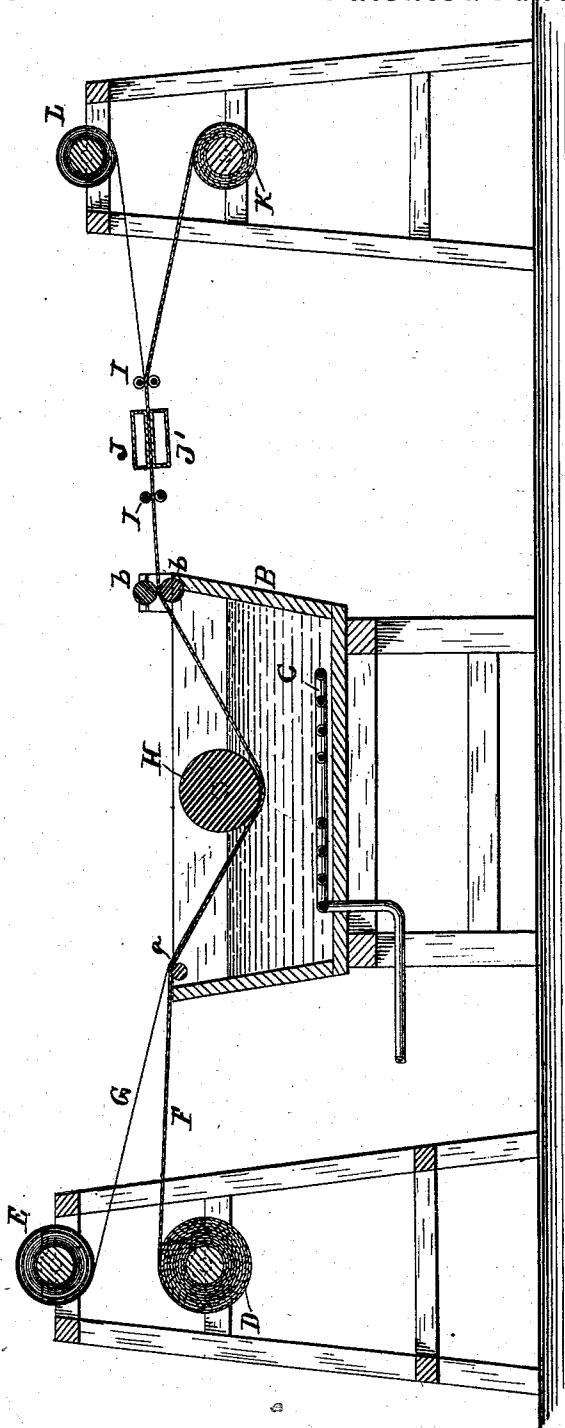


(No Model.)
G. S. PAGE.
Anti Tarnish Paper and the Process of Manufacturing
the Same.

No. 242,839.

Patented June 14, 1881.



WITNESSES:

Wm H Pearson
L. L. Clement

INVENTOR:

George Shepard Page

UNITED STATES PATENT OFFICE.

GEORGE S. PAGE, OF STANLEY, NEW JERSEY.

ANTI-TARNISH PAPER AND THE PROCESS OF MANUFACTURING THE SAME.

SPECIFICATION forming part of Letters Patent No. 242,839, dated June 14, 1881.

Application filed December 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SHEPARD PAGE, a citizen of the United States, residing at Stanley, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Anti-Tarnish Paper and in the Process of Manufacturing the Same, of which the following is a full, clear, and exact description, which will enable those skilled in the art to make and use the same.

The object of my invention is to produce a paper or other similar fabric which will effectually protect metals—such as gold, silver, nickel, brass, &c.—from tarnish or rust; and to this end my invention consists in the method of saturating the paper or other material with a saturating compound.

It also consists in the compound with which the paper is saturated, and in the product produced.

In the drawings a machine is shown which will serve my purpose, but to such machine I lay no claim, as it is obvious that my invention can be carried out on any machine of suitable construction; but for the purpose of a better explanation of my invention reference will be made to the drawing, which shows a vertical sectional view.

The paper which I use or manufacture as an anti-tarnish paper is thin tissue-paper or other thin material saturated with a compound and treated in a manner hereinafter more fully described. In the manufacture or saturation of this thin material I have experienced great difficulty, owing to its frail structure and its liability to break when brought in contact with fluids of any kind; but I have discovered that by passing it through the coating and saturating material in connection with, and supported by, a sheet of stronger material, such as Manila paper or felt, or what is known to the trade as "hardware-paper," I avoid the breaking, tearing, or rending of the thin material, and at one and the same time or operation produce two products—one of light thin material and the other a heavier, thicker, stronger material. The former of these products I use as a wrapper for the article to be protected, while the latter or heavier product answers well as a lining for the boxes or pack-

ing-cases in which the articles are to be packed or stored.

The saturating compound consists of about equal parts of crude carbolic acid, light oil of coal-tar, and coal-tar. It is obvious, however, that these proportions may be increased or diminished within certain limits without departing from the spirit of my invention.

The compound above described is placed in the tank B, in which is located a steam-coil, C, for the purpose of heating the compound to about 200° Fahrenheit.

D is a roll of hardware or Manila paper, or felt.

E is a roll of tissue-paper or other like material.

The two sheets of paper F and G are brought together and passed over the friction-roller *a* and under the immersion-roller H in the tank B, where they become thoroughly saturated. The sheets are then passed between two pressure-rollers, *b b*, by which means any excess of the saturating material is removed from the fabric and finds its way back into the tank B.

I indicate two sets of heated rollers, of any desired or convenient size, and by preference are heated by steam. Any desired number of sets or pairs of these heating-rolls may be used. J and J' are two hollow rectangular boxes or steam-chests, between which and in contact therewith and between the rollers the fabric is passed. The hollow rollers and other steam-heated surfaces described are kept at a heat of about 200° Fahrenheit, and the paper or other fabric emerges therefrom in a dry and clean state. After passing through the heating and drying surfaces the webs of paper are separated, the heavier paper being wound on the roll K, and the lighter or tissue fabric is wound on the roll or drum L.

The various rolls or drums, together with the heating-rolls and pressure-rolls, may be connected together by suitable gearing or by bands and pulleys for joint action; but such an arrangement is within the province of the skilled workman, and I have thought it unnecessary to show it in the drawing.

By using the heavier fabric as a carrying medium for the lighter or tissue fabric I am enabled to overcome the difficulty of frequent

breakage of the tissue fabric, and thus reduce the cost of production.

An endless belt of suitable material may be used as a carrying medium when such belt is caused to pass through the saturating material and through and between the pressure-rollers and heating-surfaces. (Not shown in drawing.)

The tissue or light, thin fabric produced by the above process is designed for use as a wrapper for gold, silver-plated ware, nickel, and brass goods, metal buttons, and in fact all bright metals or metals capable of injury from rust or tarnish. It is perfectly clean and pliable, and if properly applied will exclude air and moisture in a most perfect and reliable manner. The coarser or heavier material is well adapted for the lining of the boxes in which the articles are to be packed for shipment or for storage, and is also useful and applicable for various other purposes.

I am aware of the patents granted to S. C. Eaton, No. 213,100, and to J. C. Pennington, No. 223,814, for paper for protecting metals from tarnish, in which metallic chlorides and

oxides are used; but such is not of my invention.

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

1. The process herein described of saturating and drying tissue-paper and other thin fragile fabrics by passing the same through the saturating material and through a drying apparatus when supported and carried by a web of heavier and stronger material, as set forth.

2. The compound herein described for saturating paper or other like material for the protection of metals from tarnish, the same consisting of crude carbolic acid, light oil of coal-tar, and coal-tar, when combined substantially in the proportions specified.

3. As a new article of manufacture, paper or other fabric saturated with the compound above described, for the purposes set forth.

GEORGE SHEPARD PAGE.

Witnesses:

GEO. W. PEARSON,
CHAS. E. BOOTH.