UNITED STATES PATENT OFFICE.

JOHN HENDRICHS, OF NEW YORK, N. Y.

IMPROVEMENT IN SAFETY-PAPER FOR BANK-CHECKS OR OTHER DOCUMENTS OF VALUE.

Specification forming part of Letters Patent No. **223,136**, dated December 30, 1879; application filed November 8, 1879.

To all whom it may concern:

Be it known that I, JOHN HENDRICHS, of the city, county, and State of New York, have invented a new and useful Improvement in Safety-Paper for Bank-Checks or other Documents of Value, which invention is fully set forth in the following specification.

This invention relates to a safety-paper for bank-checks or other documents of value produced by subjecting ordinary paper first to the action of an aqueous solution of sulphate of copper and carbonate of ammonia, and then to the action of an alkaline solution of cochineal or other equivalent coloring-matter mixed with alum and glycerine.

In carrying out my invention, I take one pound of sulphate of copper or blue-stone and one pound of carbonate of ammonia, dissolve both in about eight gallons of water, then dip any kind of paper into it, and the paper will turn light blue. Hang it up until it is dry. When the paper is dry, I dip the same into a solution of eight gallons of water, one pound of cochineal, carmine, or carmine-lake, or any other color which is made out of cochineal, two ounces of carbonate of potash or any other alkali, half an ounce of alum, and two pounds of glycerine. By the last-named process the tint or color of the paper will be changed to a light gray, and, after being dried, will be ready for use. In writing on it any ink may be used. When any acid is applied to it for the purpose of removing the ink, the paper will change its color during the process, and should any attempt be made to restore the original color it will again change, and cannot be restored in any way to its original color without showing.

The advantages of my safety-paper are as follows: First, it can be printed on in a wet or dry state; second, any ink can be used for writing on it; third, water will not affect the ink; fourth, it will not fade in any atmosphere or climate; fifth, the color changes first when acid is used, and changes to another color if one tries to restore this color; sixth, it can be tinted or colored with any color or design, and can be written on in any way, wet or dry; seventh, it can be used with great advantage for bank-checks, bonds, or other documents of value, also for revenue-stamps, or all other articles of a similar nature.

What I claim as new, and desire to secure by Letters Patent, is—

1. The within-described process of producing safety-paper by dipping ordinary paper in any aqueous solution of sulphate of copper and carbonate of ammonia and then drying the same, and finally dipping it in an alkaline solution of cochineal or other equivalent coloring-matter mixed with alum and glycerine, substantially as described.

2. As a new article of manufacture, a safety-paper produced by subjecting ordinary paper first to the action of an aqueous solution of sulphate of copper and carbonate of ammonia, and then to the action of an alkaline solution of cochineal or other equivalent coloring-matter mixed with alum and glycerine.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 6th day of November, 1879.

JOHN HENDRICHS. [L. S.]

Witnesses:

HENRY M. WALKER,

W. T. WOOD.