

UNITED STATES PATENT OFFICE.

ALBERT S. DENNISON, OF CARTHAGE, ASSIGNOR OF ONE-HALF HIS RIGHT
TO JOHN D. HUNTINGTON, OF WATERTOWN, NEW YORK.

IMPROVEMENT IN WATER-PROOF PAPER BAGS.

Specification forming part of Letters Patent No. **175,435**, dated March 23, 1876; application filed
March 25, 1875.

To all whom it may concern:

Be it known that I, ALBERT S. DENNISON, of Carthage, Jefferson county, New York, have invented certain new and useful Improvements in Water Proof Paper Bags, of which the following is a specification:

My invention consists of a water-proof paper bag or sack for the tradesmen's use, made substantially as hereinafter described.

In making my improved water-proof bag or sack I proceed as follows: Following the method usually employed for making ordinary paper bags, I fold, by suitable mechanism, a strip of paper in such manner that its longer edges shall overlap, and then paste or cement together these edges, thus forming a long flattened paper tube, which is subsequently cut up into proper lengths. The bag or flattened tube is passed through felted rollers, one of which runs in a vat containing a solution of waterproofing material, which I prefer should consist of one to two parts of tallow to one hundred parts of rosin dissolved in naphtha. From between these waterproofing-rollers the formed bag passes to other felted rollers, between which it is pressed so as to remove surplus moisture. The bag or that side of the bag requiring to be sealed is subsequently closed in a suitable way—as, for instance, by folding this side or end onto itself and binding it by a clamping strip of metal pressed thereon, as shown in my Letters Patent, No. 166,461, of October 5, 1875.

The cutting up of the flattened tube into short lengths suitable for bags may take place either before or after the waterproofing operation. I prefer that it should take place before.

I thus produce economically, and in a practical way, an article, which, although it may

have been hitherto suggested, yet never has, so far as I am informed, been produced. I find it impracticable in a manufacturing way, to make a bag of water-proof paper, or to first water-proof and then fold and paste or cement ordinary paper in such a manner as to produce a bag or sack adapted for ordinary use. The paste or cement does not take hold so well when used with paper previously water-proofed, but beyond that it is impracticable to fold waterproofed paper into bag form without breaking the water-proof surface and the fiber of the paper itself at the joints or folded edges. But by first making the bag of ordinary paper, and then waterproofing, a perfect bag is produced, as strong, or even stronger, than ordinary paper bags, for the external application of the waterproofing solution seems to re-enforce the pasted joint, and immeasurably superior thereto in many other and most important respects.

I have here described what I deem to be the best way of giving effect to my invention. The invention, however, is not dependent upon the special apparatus employed, nor upon the particular order of succession of the several steps in the process of manufacturing, provided, always, the waterproofing is subsequent to the folding of the paper in bag form and pasting.

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

A paper bag or sack for tradesmen's use, waterproofed substantially as described.

A. S. DENNISON.

Witnesses:

L. P. WAITE,
W. H. STEVENS.