

# UNITED STATES PATENT OFFICE.

JAMES H. SPENCER, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN THE MANUFACTURE OF FLOOR-COVERINGS.

-Specification forming part of Letters Patent No. 58,497, dated October 2, 1866.

*To all whom it may concern:*

Be it known that I, JAMES H. SPENCER, of Philadelphia, Pennsylvania, have invented a new Floor-Covering as a Substitute for Carpets; and I do hereby declare the following to be a full, clear, and exact description of the said invention and of the manner of producing the same.

My invention consists of burlap treated and printed, or otherwise colored, substantially as described hereinafter, so as to form an efficient and economical substitute for and imitation of ordinary woolen carpets.

After many elaborate experiments I have ascertained that the ordinary cheap burlap of which sacks are commonly made may, owing to its property of quickly absorbing and permanently retaining coloring-matter, be converted, by the treatment which I will proceed to describe, into a very cheap, durable, and neat imitation of and substitute for the more costly woolen carpets. I take the common cheap burlap and brush one surface of it only, so as to lay the prominent-fibers in one direction. This first process may be accomplished by hand-brushes; but it will be readily understood that it may be completed more rapidly and uniformly by a suitable system of revolving brushes. After this the brushed surface has to be sheared by an ordinary shearing-machine, which removes the prominent fibers, thereby leaving the burlap with a surface of the desired uniformity. Before this surface, however, is ready to receive the colors, it must be pressed and flattened and rendered smooth, this process being accomplished by first dampening the fabric, and then passing it between calendering-rolls, which perform the important additional duty of making the fabric of the uniform width necessary before it can properly receive the patterns.

The colored pattern or patterns may be applied to the prepared surface of the burlap in a variety of ways—such, for instance, as by stenciling, or by printing-blocks, or even by painting it with ordinary brushes; but I have

found that a machine constructed in a manner somewhat similar to those employed in printing continuous sheets of wall-paper may be used to the best advantage for printing the prepared burlap.

If desired, a body color may be imparted to the fabric by dyeing the same as a preparatory step, the brushing, shearing, pressing, and printing being subsequent operations.

After the colors and patterns have been imparted to the fabric, and the latter has been thoroughly dried, it will be ready for use as a substitute for carpets.

In some cases I propose to submit the fabric, after it has been printed, to the action of steam, so as to more securely fix the coloring-matter.

The fibers of burlap are of such a character as to quickly and thoroughly absorb and retain the coloring-matter, which may be made to penetrate entirely through the fabric; hence the importance of my invention, which is a floor-covering, not with a mere surface-printing, but having patterns the colors of which have penetrated into or entirely through the fabric, so that on the latter being worn the pattern will remain as prominent as when first printed.

As to durability, I have found by careful experiments that my improved floor-covering will last quite as long as ordinary carpets, while the cost of the latter is more than twice as much as that of the former.

I claim as my invention and desire to secure by Letters Patent as a new manufacture—

Burlap treated and printed, or otherwise colored, substantially in the manner and for the purpose herein described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAS. H. SPENCER.

Witnesses:

HENRY HOWSON,  
JOHN WHITE.