H. A. STEARNS.
Carpet-Lining.

No. 219,182. Patented Sept. 2, 1879.

Fig. 1.

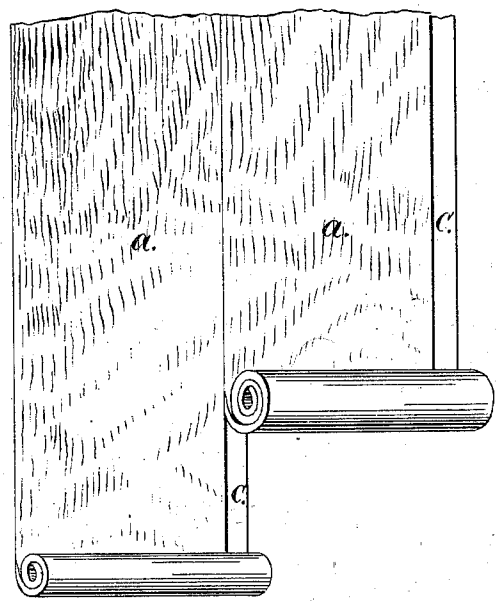

Fig. 2.

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HENRY A. STEARNS, OF LINCOLN, RHODE ISLAND.

IMPROVEMENT IN CARPET-LININGS.

Specification forming part of Letters Patent No. **219,182**, dated September 2, 1879; application filed December 27, 1878.

To all whom it may concern:

Be it known that I, HENRY A. STEARNS, of Lincoln, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Carpet-Linings; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a view showing two sheets of my improved carpet-lining laid side by side, so that the paper on one overlaps the other along one edge. Fig. 2 is a sectional view of two sheets of carpet-lining laid together.

This invention has reference to improvements both in the process of manufacturing carpet-lining and in the peculiar and novel construction of the lining with reference to the paper back.

The invention consists in the various steps in the process for manufacturing the improved carpet-lining, and in the novel arrangement of the fibrous material on a preferably continuous sheet of paper, so as to leave a margin on one edge of the paper not covered by the fibrous web or lap, forming a rabbet, as will be more fully set forth hereinafter.

In the drawings, *a* represents a fibrous elastic cushion, made by overlaying any desired number of layers of carded cotton fiber or similar material. *b* is a sheet of paper wider than the cushion *a*, so that when the fibrous material is secured to the paper with one edge on a line with the edge of the paper a margin or rabbet, C, is left, on which there is no cushion, and when the carpet-lining is laid in single thickness, the fibrous cushion being placed near or on the floor, the joint between any two sheets is overlapped by the margin C, and the whole becomes firmly bound together, so that in use the sheets cannot be separated by wear, and thus form uneven places in the carpet.

The process for manufacturing my improved carpet-lining consists in uniting the lap from any desired number of carding-engines by laying one lap on the other. These united laps I pass into a coloring-vat and through the coloring-liquid. The liquid consists of any of the usual coloring-dyes, such as extract of logwood; and I mix with this coloring-liquid a small percentage of glue, glucose, molasses, or other binding material, for the purpose of giving a firmer cohesion to the fibrous lap and increasing the elasticity of the cushion; and to do this and prevent the fiber from settling together, I pass the laps automatically and rapidly through a heated oven, arranged to dry the lap as quickly as possible, so that the disengaged vapors will raise the fiber, and the lap is discharged in a dry, spongy, and elastic condition. This prepared lap or fibrous cushion is to be secured to a sheet of paper, as above described, as only one side of the same is secured and protected by the paper. I now size one side with any suitable size, preferably water-proof, and the other side, or the paper, both or either, with a size or glue, by which the fibrous cushion is firmly secured to the paper, so as to leave a margin along one edge of the same. It is again passed through a drying-oven, and either cut into sheets or rolled up into rolls, as may be desired.

The paper ordinarily used with fibrous material to form a carpet-lining is so crisp that on walking over a newly-laid carpet there is a disagreeable noise and sensation, to avoid which, without reducing the strength or thickness of the paper, I pass the same through a bath of glycerine, or otherwise impregnate the paper with glycerine, before the fibrous cushion is secured to the same.

My improved carpet-lining may be laid in a single thickness, with the sized surface of the fibrous cushion on the floor; or the paper may be laid on the floor and another thickness laid with the paper upward, so that two cushions will be between two sheets of paper, and as the surface of each is sized or glazed, the two will not intermix, and can be readily separated when the lining is to be relaid.

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

1. A carpet-lining formed of a carded

web, cemented to a sheet of paper which is wider than the web, forming on one edge a rabbet, and having its outer face properly sized, substantially as and for the purpose described.

2. The method of treating bats in the manufacture of carpet-lining, consisting in passing the carded fiber through a liquid containing adhesive material, then drying the same, then sizing and glazing the surface, and cementing the fibrous material to a sheet of paper, substantially as and for the purpose described.

HENRY A. STEARNS.

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