

S. HORNER, Jr.
Carpet-Fabric.

No. 162,385.

Patented April 20, 1875.

Fig 1

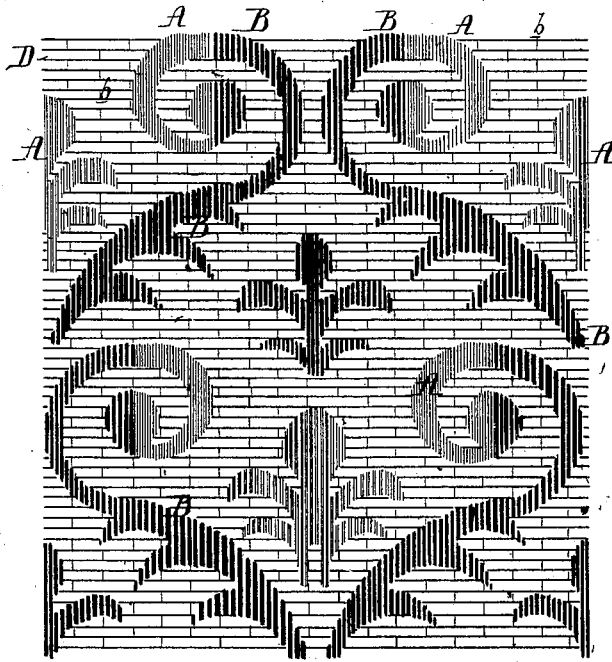


Fig 2.

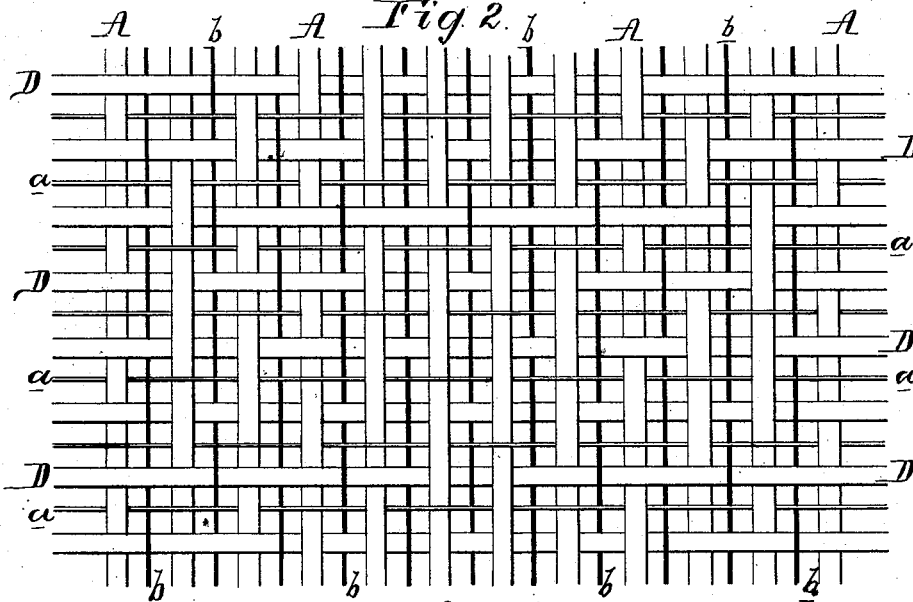


Fig 3.

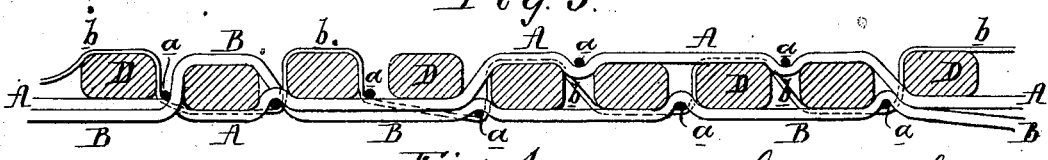
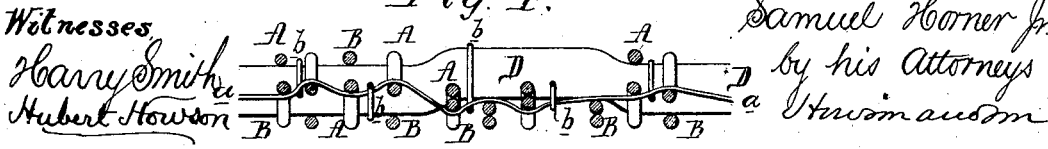


Fig 4.



Witnesses

Harry Smith
Hubert Howson

Samuel Horner Jr.
by his Attorneys
Sturman & Co.

UNITED STATES PATENT OFFICE.

SAMUEL HORNER, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND ROBERT HORNER, OF SAME PLACE.

IMPROVEMENT IN CARPET-FABRICS.

Specification forming part of Letters Patent No. **162,385**, dated April 20, 1875; application filed March 13, 1875.

To all whom it may concern :

Be it known that I, SAMUEL HORNER, Jr., of Philadelphia, Pennsylvania, have invented an Improved Carpet-Fabric, of which the following is a specification :

The object of my invention is to manufacture a damask carpet-fabric, in which the effect of an additional ply is produced without the employment of an additional set of figuring warp-threads, and this object I attain in the manner in which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a face view of a strip of my improved carpet-fabric; and Figs. 2, 3, and 4, diagrams, illustrating the construction of the same.

The drawing illustrates my invention as applied to a two-ply fabric, A and B representing the two sets of warp-threads, D the thick weft or filling threads, *a* the fine wefts, and *b* fine warp-threads introduced for a purpose explained hereafter.

In ordinary damask carpet-fabrics, the thick weft or filling threads are entirely concealed from sight, being embedded between the warp-threads which form the front and back of the fabric, so that the production of a two, three, or four ply pattern requires the employment of a like number of sets of warp-threads. I attain the effect of an additional ply without the use of an extra set of figuring warp-threads by sinking all the said warps to the back of the fabric, at the proper points, by means of the jacquard, thus bringing the thick weft-threads to the face to aid in forming the pattern.

The warp-threads A and B are controlled both by a jacquard apparatus for lifting the proper threads to form the pattern, prior to the introduction of the thick weft-thread D,

and by a set of ordinary harness by which the threads are lifted in alternate sets, after each insertion of the thick wefts, for the insertion of the fine weft-threads *a*.

To prevent the "floating" of the thick weft-threads D, where they are brought to the surface, and to bind the whole fabric firmly together, I employ in the present instance two sets of fine warp-threads, *b*, which are lifted alternately prior to the insertion of the said weft-threads D.

The fine warps *b* are not lifted with the warps A and B, prior to the introduction of the fine wefts; hence each thread *b*, after passing over one of the thick wefts D, passes under two fine wefts and a thick weft before again passing over a thick weft, as shown in Fig. 2, the effect of this operation being to firmly bind the said threads D to the backing-threads, and to form a compact fabric.

It will be evident that, although I have illustrated and described my invention as applied to a two ply fabric, it may be applied with good results to fabrics having three or more sets of warp-threads, and that it may also be applied to shawls or other fabrics.

I claim as my invention—

A damask carpet-fabric in which the entire number of figuring warp-threads are carried to the back of the fabric, at intervals in order to allow the thick weft or filling threads to be brought to the surface, all substantially as and for the purpose set forth.

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

SAMUEL HORNER, JR.

Witnesses :

HUBERT HOWSON,
HARRY SMITH.