

(Specimens.)

J. HUMPHRIES.

CARPET FABRIC.

No. 388,682.

Patented Aug. 28, 1888.

FIG. 1.

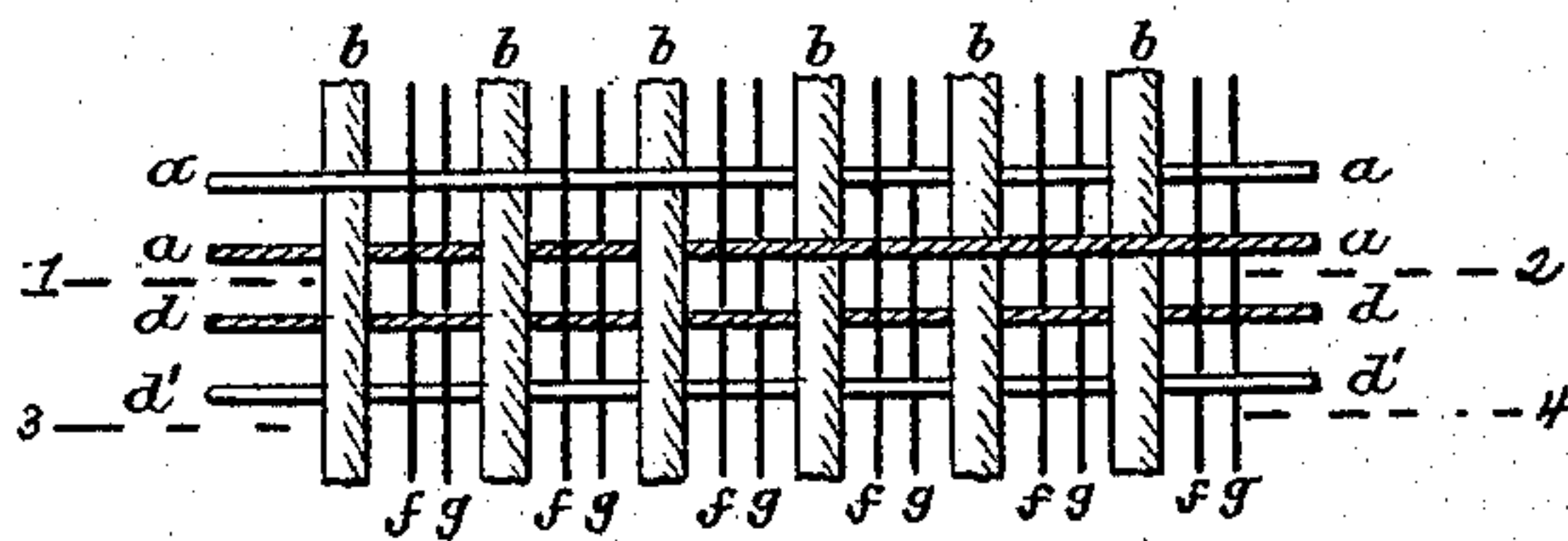


FIG. 2.

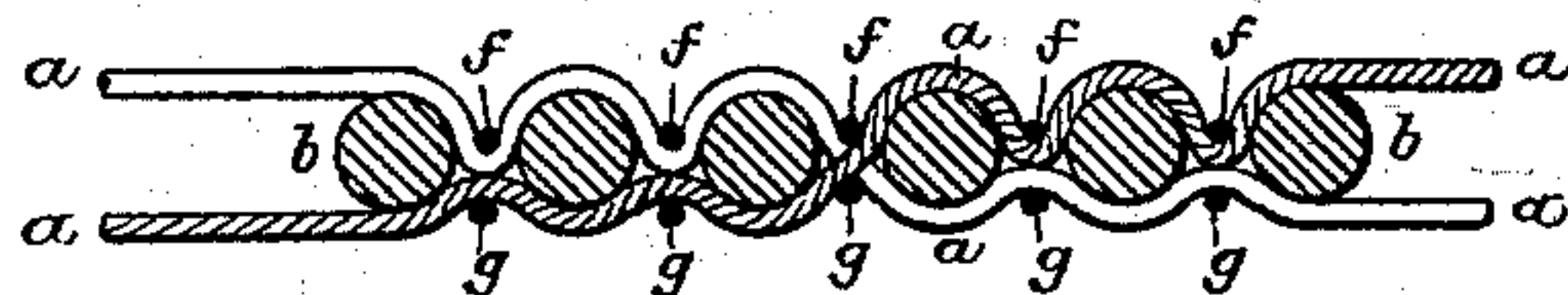


FIG. 3.

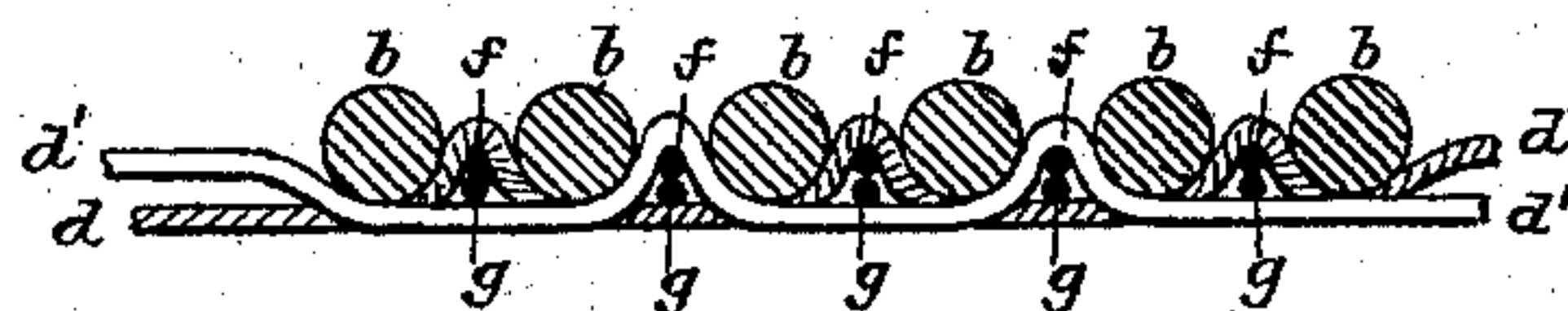


FIG. 4.

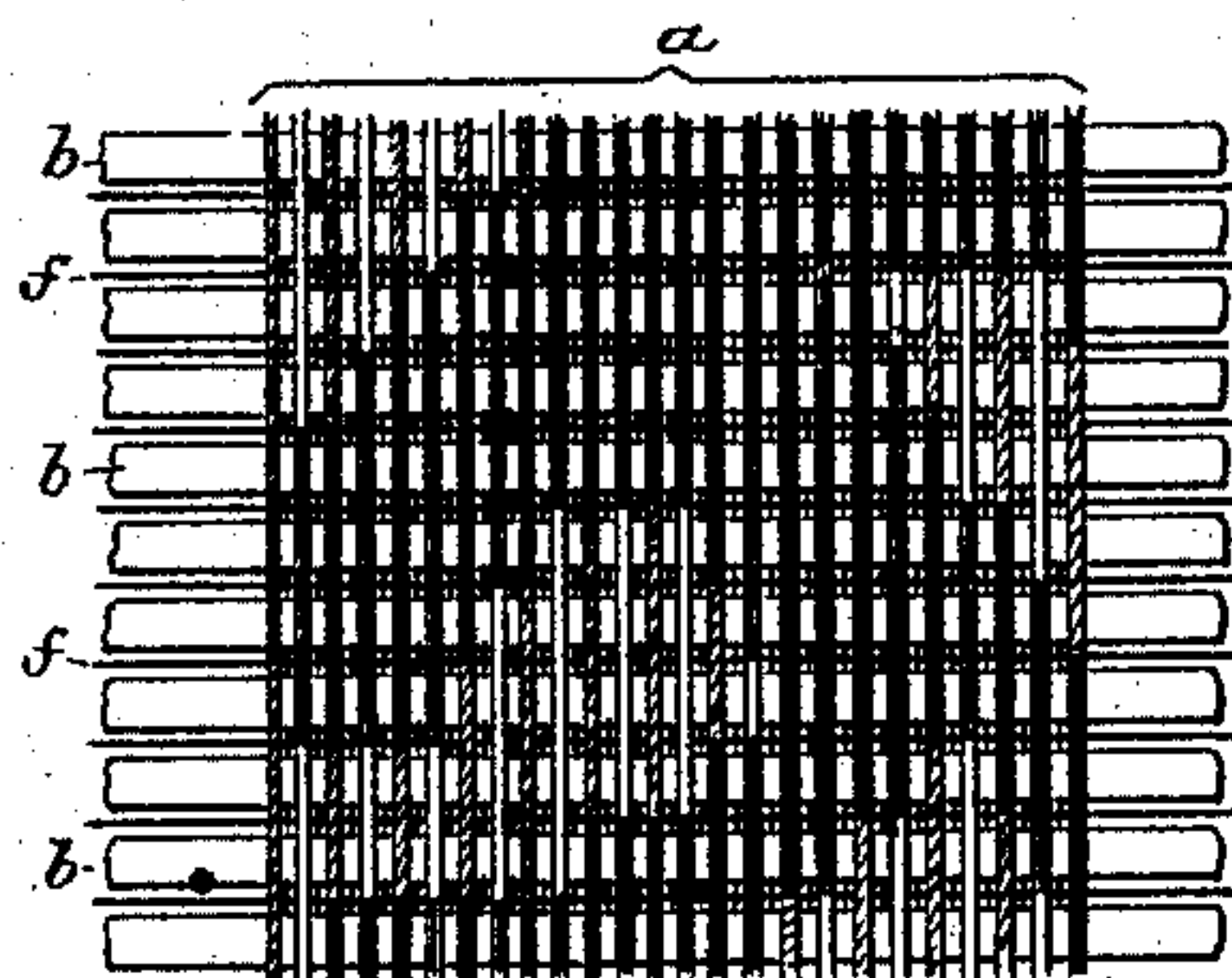
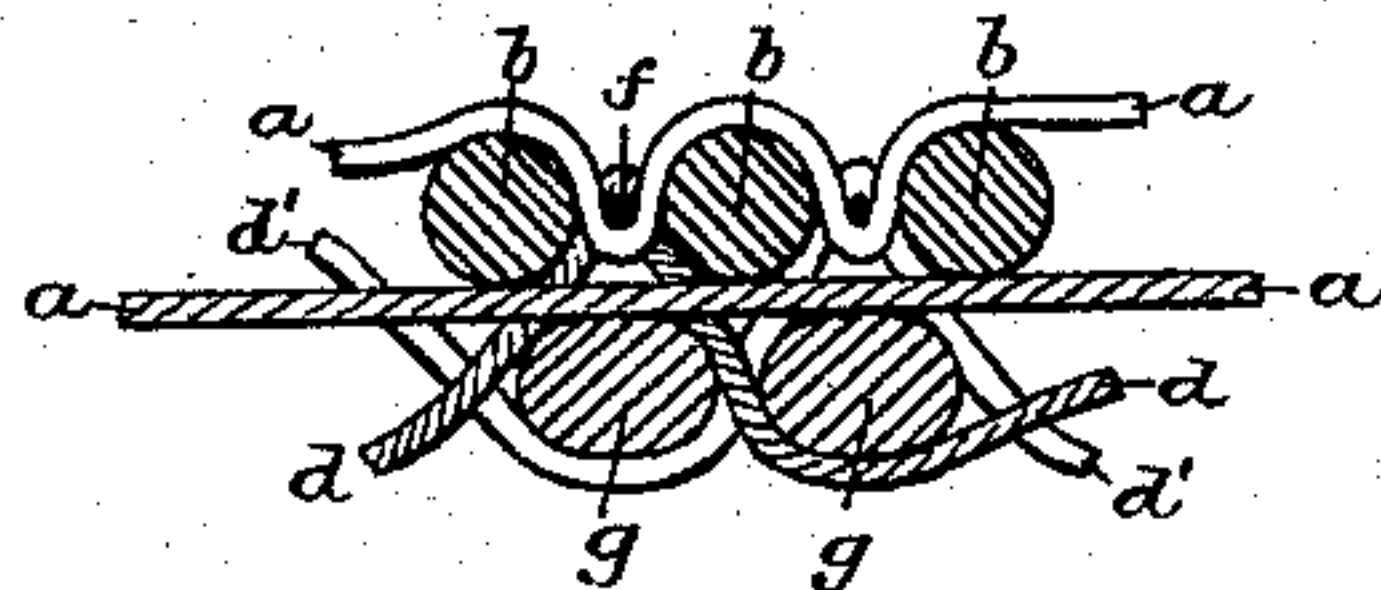


FIG. 5.



Witnesses:
Alex. Barkoff,
Jno. E. Parker,

Inventor:
John Humphries,
by his Attorneys,
Howson & Howson.

UNITED STATES PATENT OFFICE.

JOHN HUMPHRIES, OF PHILADELPHIA, PENNSYLVANIA.

CARPET FABRIC.

SPECIFICATION forming part of Letters Patent No. 388,682, dated August 28, 1888.

Application filed February 27, 1888. Serial No. 265,349. (Specimens.)

To all whom it may concern:

Be it known that I, JOHN HUMPHRIES, a subject of the Queen of Great Britain and Ireland, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Carpet Fabrics, of which the following is a specification.

My invention consists of a carpet fabric which in some respects resembles a damask carpet, while in others it resembles a Brussels carpet, the main aim which I have had in view in devising my improved carpet fabric being the production of a fabric which will be cheap, will be well and substantially bound together, both front and back, will possess very good wearing qualities, and can be readily kept clean. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is an exaggerated diagram representing the disposal of one set of warp-threads in respect to a number of sets of weft-threads in the weaving of my improved fabric. Fig. 2 is a section of the fabric on the line 1 2, Fig. 1. Fig. 3 is a section on the line 3 4, Fig. 1. Fig. 4 is a face view of a piece of the fabric, and Fig. 5 is a sectional view illustrating a special form of the fabric.

The threads comprising my improved fabric may, for convenience of description, be divided into sets, the warp set comprising four threads, two of which are figuring-threads and the other two binders, and the weft set comprising three threads, one of which is a filling or stuffing thread, while the other two are binding or binding and backing threads, the loom in which the fabric is woven having a Jacquard and three sets of heddles, the figuring-warps *a* being controlled by the Jacquard and by one set of heddles, and the two binding-warps *d d'* by the other two sets of heddles.

To start the weaving operation, as indicated in the diagram, Fig. 1, such of the figuring-warps *a* as have to appear upon the surface are raised by the Jacquard, and the thick filling or stuffing weft *b* is thrown in by the shuttle and beaten up, after which all of the figuring-warps are depressed by their heddle, and the binding-warps *d* are raised by their heddle, the warps *d'* remaining down. A fine binding-shot, *f*, is then thrown in and beaten

up, so as to tie down the figuring-warps on the face and be tied down by the binding-warps *d*, and all of the figuring-warps are then raised and a second binding-shot, *g*, thrown in, either by the same or by another shuttle, and beaten up, so as to tie up such of the figuring-warps *a* as went to the back in throwing in the thick filling-shots *b*, the weft itself being tied up by the binding-warps *d'*. The heddle which lifted the warps *d* is then depressed, and the Jacquard again operates so as to lift such of the figuring-warps *a* as are required to be on the surface, a second filling-shot, *b*, is thrown in and beaten up, and the heddle carrying the binding-warps *d'* is lifted prior to the throwing in and beating up of two binding-shots of fine weft, for the first of which all the figuring-warps are depressed, while for the second all of the figuring-warps are raised, thus insuring the binding of said warps both on the front and back, as before, and these operations are repeated indefinitely.

By using between successive thick filling or stuffing wefts two intermediate fine filling or binding wefts I am enabled to securely bind the figuring-warps both on the front and back of the fabric, these warps being bound after every shot of thick filling instead of only after every other shot, as in ordinary damask carpet, so that my improved fabric is much more substantial and firmly bound, and has much better wearing qualities than such damask carpet, my improved fabric presenting on the face a series of parallel ribs formed by rows of loops of face-warp, thus resembling somewhat an ordinary Brussels carpet, than which, however, it is much cheaper and much more readily kept clean, as the loops of face-warp are filled by the stuffing-thread and do not afford receptacles for dirt. In fact, there are no such dirt-receptacles in any part of my improved carpet.

Where a solid backing on the fabric is desired, the weft-thread *g*, which binds the figuring-warps on the back of the fabric, may be of such size as to completely cover and hide said figuring-warps, as shown in Fig. 5; hence, when the said weft-thread is of the same color as the binding-warps *d d'*, a back of uniform color throughout will be produced.

Having thus described my invention, what I

claim, and desire to secure by Letters Patent, is—

1. The within-described carpet fabric, in which each set of warp-threads comprises figuring-warps and binding-warps, and each set of weft-threads comprises a filling or stuffer thread and two binding-threads, one of said binding-threads confining the figuring-warp of the face only and the other confining the
10 figuring-warp of the back only, all substantially as specified.

2. The within-described carpet fabric, in which each set of warp-threads comprises figuring-threads and binders, and each set of

weft-threads comprises a filling or stuffer 15 thread, a fine thread confining the figuring-warps of the face, and a thick thread confining and covering the figuring-threads on the back of the fabric, all substantially as specified. 20

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

JOHN HUMPHRIES.

Witnesses:

HARRY R. HUMPHRIES,
HARRY SMITH.