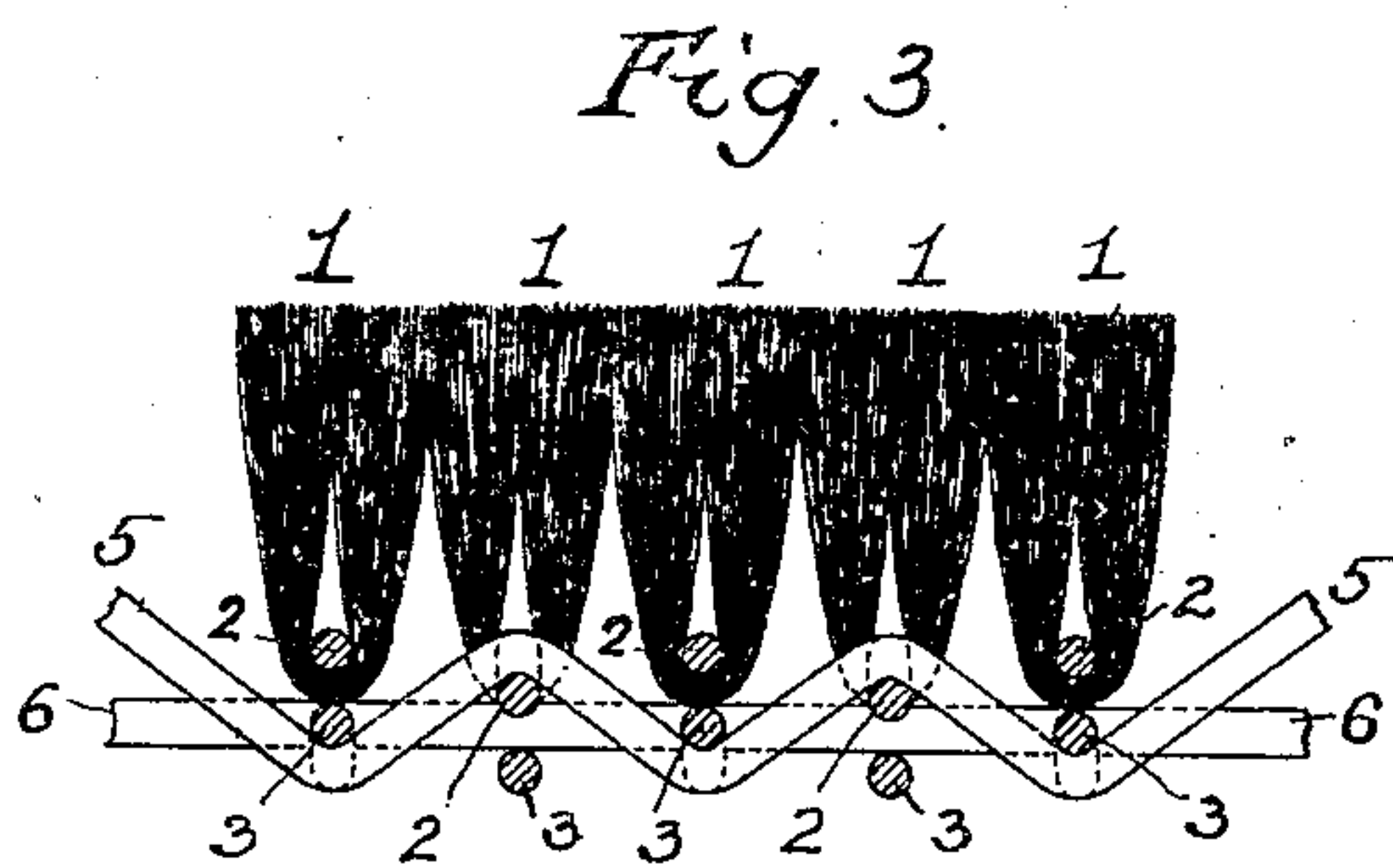
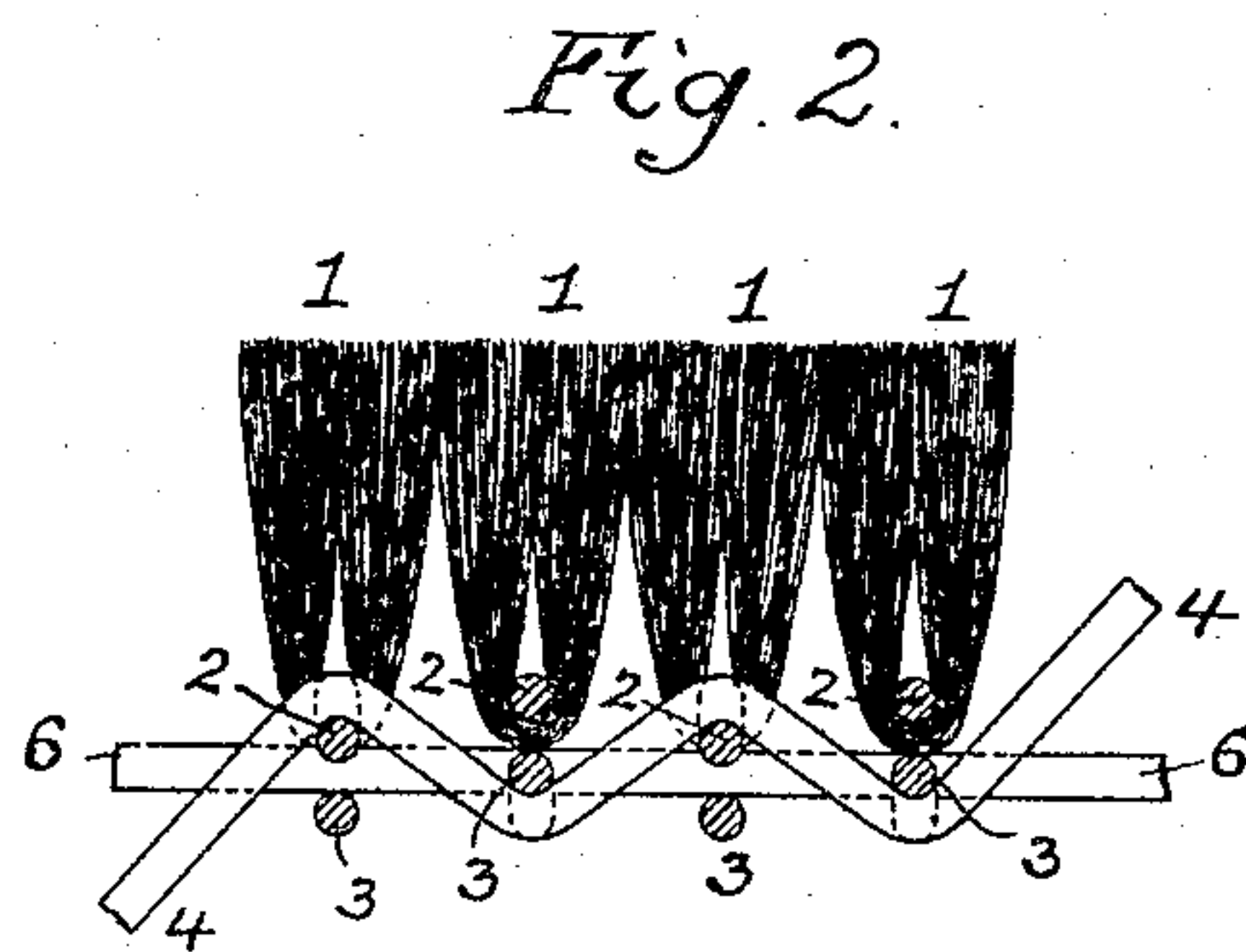
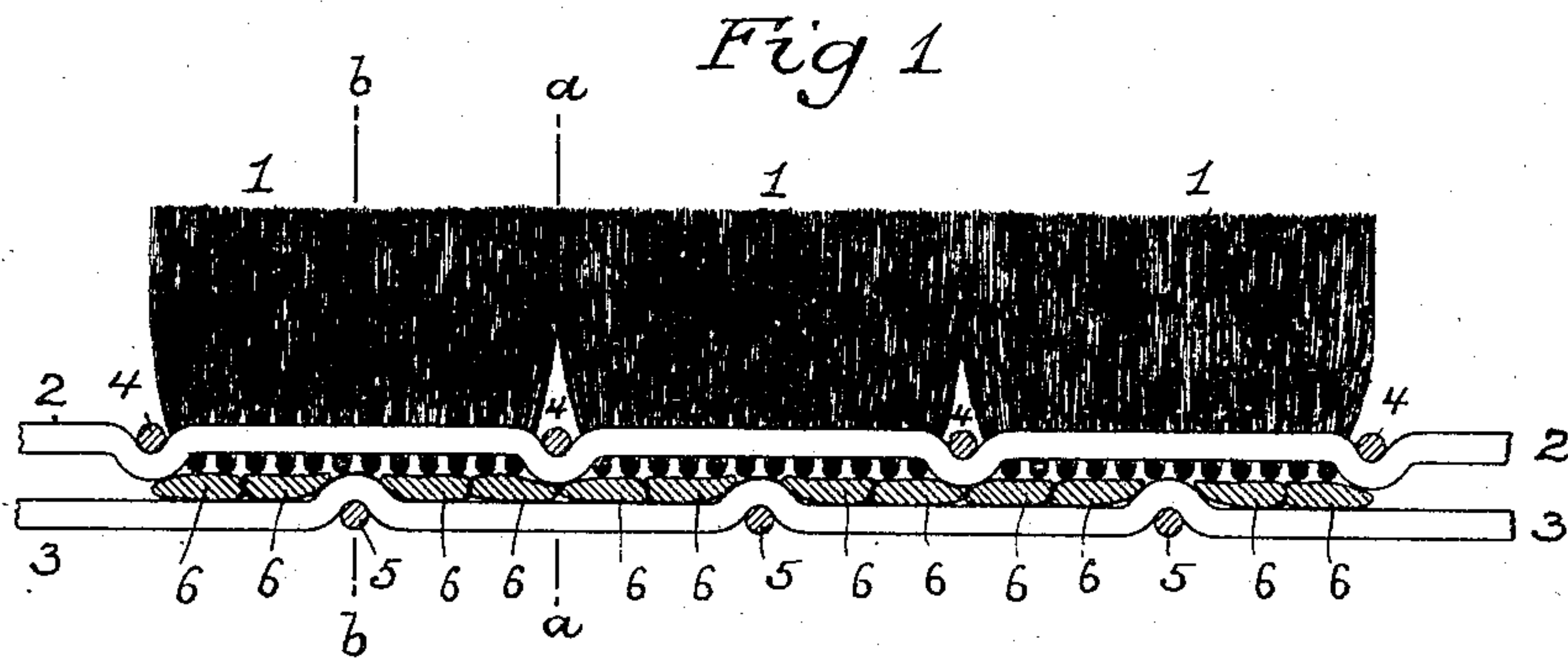


No. 791,952.

PATENTED JUNE 6, 1905.

W. M. STEVENSON.
WOVEN PILE FABRIC.
APPLICATION FILED DEC. 16, 1904.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM M. STEVENSON, OF INDIAN ORCHARD, MASSACHUSETTS, AS-
SIGNOR OF ONE-HALF TO FRANK F. HODGES, OF NEW YORK, N. Y.

WOVEN PILE FABRIC.

SPECIFICATION forming part of Letters Patent No. 791,952, dated June 6, 1905.

Application filed December 16, 1904. Serial No. 237,133.

To all whom it may concern:

Be it known that I, WILLIAM M. STEVENSON, a citizen of the United States, and a resident of Indian Orchard, Massachusetts, have invented certain Improvements in Woven Pile Fabrics, of which the following is a specification.

My invention relates to that class of woven cut pile fabrics in which the warp-threads forming the tufts of pile are confined by weft-threads, which are in turn confined by binding warp-threads, the rows of pile-tufts being also in most cases backed by stuffer warp-threads, which not only aid in securing the pile-tufts in position, but also serve to stiffen and strengthen the fabric. A common instance of such a cut pile fabric is the carpet known as "tapestry velvet."

The object of my invention is to so dispose the binding warp-threads in respect to the pile-forming warp-threads and to the stuffer warp-threads when the latter are employed that a more secure confinement of the tufts of pile will be effected than in the ordinary method of weaving. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is an exaggerated section of a piece of cut pile fabric made in accordance with my invention, the section being taken in the direction of the weft-threads. Fig. 2 is a section of the fabric taken on the line *a a*, Fig. 1—that is to say, in the direction of the warp-threads; and Fig. 3 is a similar section taken on the line *b b*, Fig. 1.

1 1 represent the tufts of pile; 2, the upper binding weft-threads; 3, the lower binding weft-threads; 4 and 5, the binding warp-threads, and 6 the stuffer warp-threads, one or more of these latter being disposed behind each longitudinal row of pile-tufts.

Ordinarily pairs of binding warp-threads 4 and 5 alternate with sets of pile warp-threads 1 and their backing stuffer warp-threads 6, so as to tie together the binding weft-threads at points between each longitudinal row of pile-tufts. Consequently the upper binding weft-thread is drawn down at the same point that the lower binding weft-thread is drawn up,

these threads contacting with each other and forming cells of binding weft-thread between the tying-points. Hence no matter how heavy the tension imparted to the binding warp-threads these cells cannot be drawn tighter than is permitted by the contact of the upper and lower weft-threads. As a consequence of this the tufts of pile warp-threads are insecurely fastened and are liable to be dislodged or pulled out by the beating, brushing, or sweeping to which the carpet is subjected. In order to overcome this objection, I adopt the novel disposition of the binding warp-threads 4 and 5—that is to say, I dispose one set of binding warp-threads 4 between the rows of pile-tufts and the other set of binding warp-threads 5 behind or longitudinally in line with said rows of pile-tufts—said binding warp-threads 5 being, by preference, intermediate of the set of stuffer warp-threads 6, with which each row of pile-tufts is backed, as shown in Fig. 1. As a consequence of this novel disposition of the binding warp-threads the upper weft-thread 2 can be drawn down tighter than usual, and the lower weft-thread 3 can also be drawn up more firmly. Hence the pile-tufts are more securely confined than in the ordinary fabric, and their dislodgment is rendered correspondingly more difficult, this result being attained without any increase in the cost of production, since it involves no increase of material employed or no greater difficulty of weaving; but simply a rearrangement of the ordinary threads in such a manner that they perform their intended function in a more effective manner than in the methods of weaving now in vogue.

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

1. A cut pile fabric comprising rows of pile-tufts, upper and lower binding weft-threads, and binding warp-threads, some of said binding warp-threads being disposed between the rows of pile-tufts and the others being disposed behind said rows of pile-tufts, substantially as specified.

2. A cut pile fabric comprising rows of pile-tufts, stuffer warp-threads lying behind said rows of pile-tufts, upper and lower binding

weft-threads, and binding warp-threads some of which are disposed between the rows of pile-tufts and others behind said rows of pile-tufts, substantially as specified.

5 3. A cut pile fabric comprising rows of pile-tufts, stuffer warp-threads lying behind said rows of pile-tufts, upper and lower binding weft-threads, and binding warp-threads some of which are disposed between the rows of
10 pile-tufts and others behind said rows of pile-

tufts and intermediate of the set of stuffer-warps backing the same, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two sub- 15 scribing witnesses.

WILLIAM M. STEVENSON.

Witnesses:

MAY B. McDERMOTT,
JOS. H. KLEIN.