

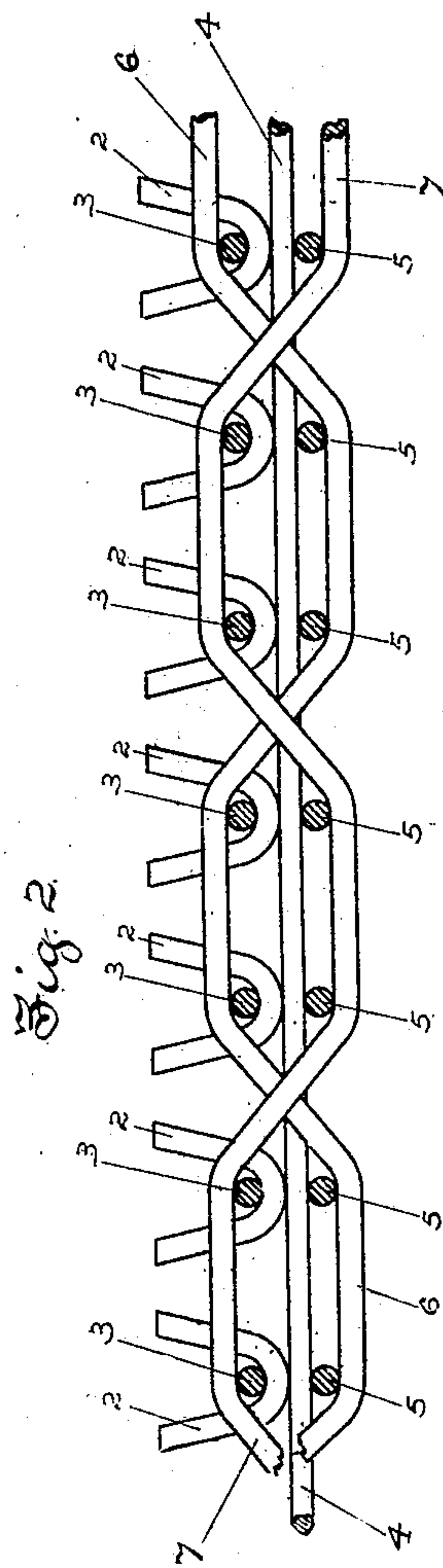
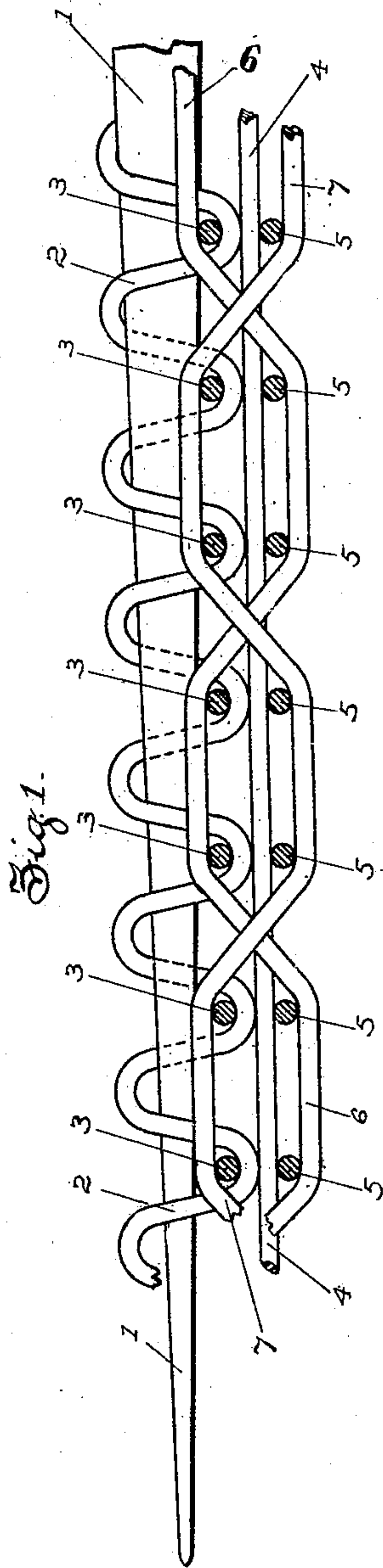
No. 747,588.

PATENTED DEC. 22, 1903.

J. BUCKLER.  
WOVEN PILE FABRIC.

APPLICATION FILED JUNE 22, 1903.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES BUCKLER, OF WORCESTER, MASSACHUSETTS.

## WOVEN PILE FABRIC.

SPECIFICATION forming part of Letters Patent No. 747,588, dated December 22, 1903.

Application filed June 22, 1903, Serial No. 162,539. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES BUCKLER, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Woven Pile Fabrics, of which the following is a specification.

My invention relates to woven pile fabric and to that class of pile fabrics woven on looms of the description shown and described in my application for United States Letters Patent filed April 27, 1903, Serial No. 154,445, in which the pile-warp loops are formed over pile-wires extending in the direction of the length of the fabric, the pile-warps being carried transversely over the pile-wires first in one direction and then in the other and bound into the fabric by the filling-threads in the well-known way.

In my improved pile fabric the pile-warps do not extend through the fabric to appear on the under side of the fabric, but only extend in the upper plane of the fabric. In each shed there are two filling-threads, one for each loop, extending in the same horizontal plane above the stuffer-warp, or the pile-warps carried straight in the body of the fabric when two or more frames are used, and two filling-threads below the stuffer or pile warps, making four filling-threads in each shed and two loops of cut pile-warps.

I have shown in the drawings, on a much enlarged and exaggerated scale, a longitudinal section of my pile fabric in its simplest form, comprising filling or weft threads arranged in two planes, two binder-warps, a stuffer-warp, and a pile-warp—that is, a one-frame carpet.

Referring to the drawings, Figure 1 is a detached longitudinal section of a pile fabric embodying my improvements and showing a longitudinal pile-wire over which the pile-warp loops are formed; and Fig. 2 corresponds to Fig. 1, but shows the pile-warp loops cut and the pile-wire removed.

In the accompanying drawings, 1 is a pile-wire or needle of any ordinary construction, which extends in the direction of the length of the fabric, as is customary.

2 is the pile-warp, which is carried over the pile-wire 1 first in one direction and then in

the other, as is customary, to form the loops of pile upon the upper plane of the fabric. The loops may be uncut, as shown in Fig. 1, for Brussels carpet fabrics, or cut, as shown in Fig. 2, for Wilton, Axminster, or moquette carpet fabrics.

The pile-warp 2 is bound into the upper plane of the fabric by a filling-thread 3, which extends transversely through the fabric over the pile-warp 2, as shown.

The stuffer-warp 4 extends longitudinally through the fabric in the central portion thereof below the pile-warp 2 and the upper filling-threads 3.

The filling-threads 5 extend below the stuffer-warp 4.

The binder-warps 6 and 7 are raised and lowered alternately to form the sheds for the upper filling-threads 3 and the lower filling-threads 5 and act to bind said filling-threads.

In each shed there are two upper filling-threads 3 for two loops of pile-warp and two lower filling-threads 5 below the stuffer-warp 4, as shown.

The pile-warp 2 does not extend down into the lower plane of the fabric, and the two lower filling-threads 5 in each shed prevent the pile-warp from appearing on the under side or back of the fabric, as is customary, so that in my fabric the back is perfectly uniform.

It will be understood that the details of the weave of my improved fabric may be varied, if desired, and any preferred number of frames may be used in weaving my fabric without changing the construction of the fabric above described, the additional pile-warps being disposed of in any usual or preferred manner.

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

1. A pile fabric, having an upper and lower filling or weft plane, and comprising binder warp-threads, a stuffer, two filling-threads in the upper plane, and two filling-threads in the lower plane of the fabric, in each shed, pile-warps in the upper plane of the fabric, passing about each of the filling-threads of the upper plane and projecting from one face of the fabric between each of the adjacent



filling-threads, and bound only by the filling-threads in the upper plane of the fabric, substantially as shown and described.

2. A pile fabric, having an upper and lower  
5 filling or weft plane, and comprising binder  
warp-threads, a stuffer, filling-threads in the  
upper plane, and filling-threads in the lower  
plane of the fabric, pile-warps in the upper  
plane of the fabric passing about and bound  
10 by each of the filling-threads and projecting  
from one face of the fabric between each of

the adjacent filling-threads, and bound only  
by the filling-threads in the upper plane of  
the fabric, with two filling-threads in the up-  
per plane of the fabric, and two filling-threads 15  
in the lower plane of the fabric below the pile-  
warps, in each shed formation, substantially  
as shown and described.

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