A. F. McCOLLUM.

PILE WIRE.

APPLICATION FILED JULY 1, 1914.

1,130,618.

Patented Mar. 2, 1915.

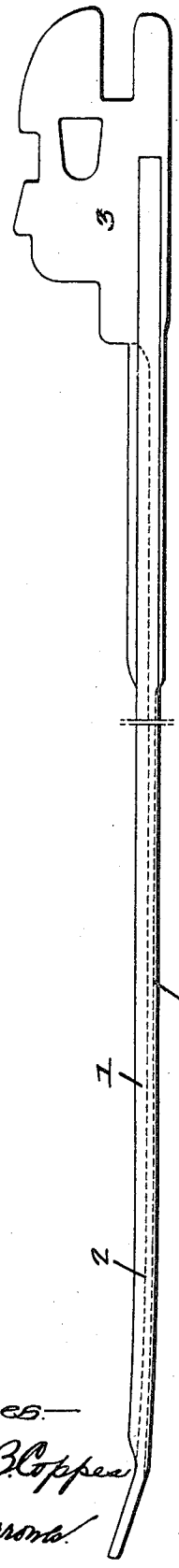


Fig. 1.

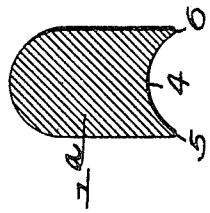


Fig. 3.

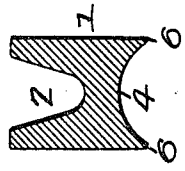


Fig. 2.

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UNITED STATES PATENT OFFICE.

ALFRED F. McCOLLUM, OF BLOOMSBURG, PENNSYLVANIA, ASSIGNOR OF THREE-FIFTHS TO JAMES MAGEE, 2D, OF BLOOMSBURG, PENNSYLVANIA.

PILE-WIRE.

1,130,618. Specification of Letters Patent. Patented Mar. 2, 1915.

Application filed July 1, 1914. Serial No. 848,458.

To all whom it may concern:

Be it known that I, ALFRED F. McCOLLUM, a citizen of the United States, residing in Bloomsburg, Columbia county, Pennsylvania, have invented certain Improvements in Pile-Wire, of which the following is a specification.

My invention consists of an improved form of pile wire for use in looms for the manufacture of pile fabrics and is particularly serviceable in the weaving of those fabrics in which the wires are inserted transversely to the warp and over which the latter is looped to form the pile of the fabric.

As herein illustrated my invention is especially constructed for use in looms provided with pile cutting mechanism including a pile cutting knife and a series of grooved wires in which said knife is movable. Heretofore the wires used had rounded convexed bottom portions which rested on the body warp of the fabric and were often tilted or up set, before they were bound in the warp, by the pull of the warp during the change of the sheds, with the result that irregular rows of pile were frequently caused.

One object of my invention therefore, is to so construct the pile wires that they cannot easily be upset or turned over after they have been inserted in the fabric, it being especially desired to so form the bases of the wires that regardless of whether they are used in the manufacture of cut or uncut pile fabrics, they will tend to retain their proper positions in the fabric. These objects and other advantageous ends I attain as hereinafter set forth, reference being had to the accompanying drawings in which,

Figure 1, is a side elevation of a pile wire made in accordance with my invention; Fig. 2, is an enlarged cross section of the wire taken on the line *a—a*, Fig. 1; and Fig. 3, is an enlarged section of another form of wire to which my invention may be applied.

In the above drawings, 1 represents the main portion of a pile wire having a longitudinally extending groove 2 and secured at one end to a jack-head 3 designed to facilitate its insertion and withdrawal during the weaving of the fabric. In this instance the base surface 4 of the wire is longitudinally concaved to any desired extent, and the sides of the wire may be either perpendicular to the plane of the base or as described and claimed in my application for U. S. patent, Serial Number 821,690, filed February 28, 1914, inclined thereto at any required angle.

In Fig. 3 I have shown my invention as applied to a form of wire 1^a, commonly employed in weaving uncut pile fabrics such as body or tapestry brussels, or in the weaving of cut pile fabrics where the pile cutting knives employed are secured to the ends of the pile wires. In any case, under operating conditions, the longitudinal edges 5 and 6 of the base both contact with the ground weave and tend to firmly seat and slightly embed the wire in the fabric with the result that said wire tends to retain its proper position and cannot be easily upset.

I claim:—

1. A pile wire having its fabric-engaging base surface longitudinally recessed.

2. A pile wire having its fabric-engaging base surface recessed to provide a plurality of relatively sharp fabric-engaging edges.

3. A pile wire having its fabric-engaging base surface longitudinally recessed to provide two longitudinally extending relatively sharp fabric-engaging edges.

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

ALFRED F. McCOLLUM.

Witnesses:
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JOS. H. KLEIN.