(No Model.)

G. SEGSCHNEIDER.

PILE WIRE FOR LOOMS.

No. 478,369. Patented July 5, 1892.

Fig: 1.

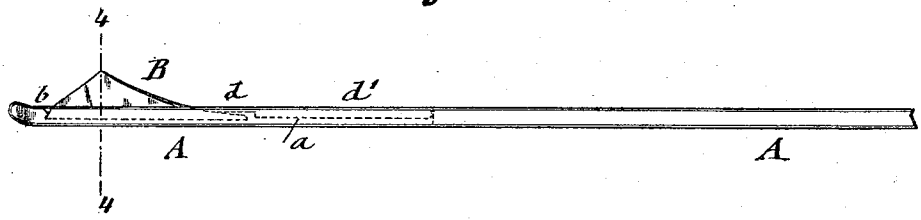


Fig: 2.

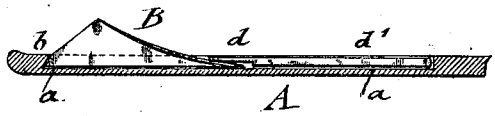


Fig: 3.

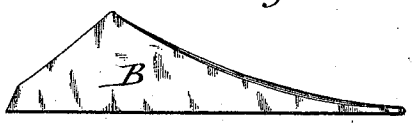
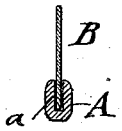


Fig: 4.



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UNITED STATES PATENT OFFICE.

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PILE-WIRE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 478,369, dated July 5, 1892.

Application filed March 2, 1892. Serial No. 423,531. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV SEGSCHNEIDER, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Pile-Wires for Looms, of which the following is a specification.

This invention relates to an improved pile-wire which is intended for use in looms for making cut pile fabrics, such as velvet, velveteen, plush, Wilton carpets, &c., in which the cutting-blade can readily be removed for sharpening the same and conveniently reinserted into the end of the pile-wire either by hand or pliers, and by which the pile loops can be cut with great facility and uniformity.

The invention consists of a pile-wire which is provided with a longitudinal groove at its outer end and with a detachable blade that is inserted into said recess and retained at its outer end by a fixed heel of the wire and at its inner end by a spring that is inserted into the longitudinal groove of the pile-wire, as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of my improved pile-wire for looms. Fig. 2 is a vertical longitudinal section of the same drawn on a larger scale. Fig. 3 is a side view of the blade, shown as detached from the pile-wire and drawn on a larger scale. Fig. 4 is a vertical transverse section on line 4 4, Fig. 1, also on a larger scale.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents my improved pile-wire, which is provided with a longitudinal groove *a* in its outer end. A blade B is inserted into the groove *a* and preferably made of triangular shape, the inner slanting edge of the same being sharpened, so as to form the cutting-edge of the blade. The outer inclined side of the blade is blunt, so as not to exert any cutting action when the pile-wire is returned, with the blade, into its initial position ready for the next cutting action. The base of the blade B is straight and blunt, so as to bear evenly on the bottom of the groove *a*. The longitudinal groove *a* is cut into the wire by means of a circular saw or other suitable tool, the blade B being retained in said groove by means of an inclined heel *b*, that abuts against the blunt edge of the blade, and that is soldered, brazed, or otherwise attached into the outer end of the pile-wire A. The inner end of the cutting-blade B is retained in the groove by means of a spring *d*, the flat shank *d'* of which is soldered, brazed, or otherwise attached to the inner end of the longitudinal groove *a* of the pile-wire. The shank *d'* may also be secured to the pile-wire by means of rivets; but I prefer to solder the same into the groove *a*, as thereby a smoother and more effective fastening for the spring *d* is obtained, inasmuch as slightly-projecting and rough parts are thereby avoided. The cutting-blade B may be readily inserted into the groove of the pile-wire by being taken hold of by the thumb and forefinger, the sharpened end of the blade being first inserted below the spring *d* and pushed in sufficiently far, so that the opposite blunt end of the same may pass in without abutting against the fixed heel *b*. The base of the blade B being thus inserted into the groove *a*, the pile-wire can be readily pushed forward in the longitudinal groove *a* until it abuts against the slanting heel *b*, it being then held firmly in position by the same and the retaining-spring *d*. The removal of the blade is accomplished in inverse order.

Instead of using the fingers, a pair of pliers may be used. By this arrangement of the fastening devices the cutting-blade may be quickly and conveniently removed from the pile-wire for sharpening the inner slanting cutting-edge of the same, and may be quickly reinserted after sharpening, whereby the use of the pile-wire is considerably facilitated, as the weaver can readily remove a dull blade and reinsert a sharpened blade without the necessity of using any special tools for this purpose. By the construction described the steel of which the cutting-blade is made can be subjected to a higher temper, and consequently subjected to a longer use without requiring resharpening, which is a great advantage in pile-wires of this class.

Actual tests made with these pile-wires have demonstrated the fact that up to five

hundred yards of pile fabric can be cut by the blade without requiring the resharpening of the same.

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

1. A combined pile wire and cutter composed of a pile-wire having a longitudinal groove in its outer end, a heel at the outer end of said groove, a spring secured in the inner end of the groove, and a detachable blade retained in position by the heel and spring, substantially as set forth.

2. A combined pile wire and cutter composed of a longitudinal groove in its outer end, an inclined heel attached to the outer end of the groove, a spring the shank of which is attached in the inner end of the groove, and a detachable blade having a sharpened inner edge and an inclined blunt outer edge, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GUSTAV SEGSCHNEIDER.

Witnesses:

PAUL GOEPEL,

CHARLES KACHLMEIER.