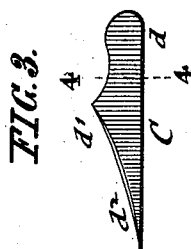
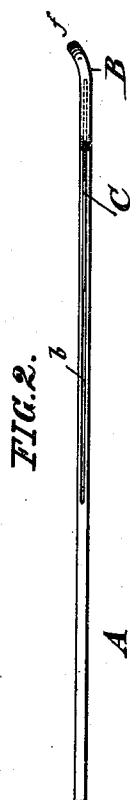
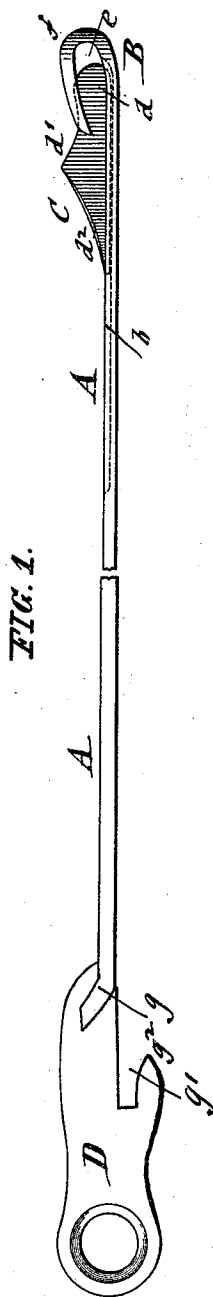


(No Model.)

G. SEGSCHNEIDER.
PILE WIRE FOR LOOMS.

No. 478,368.

Patented July 5, 1892.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GUSTAV SEGSCHEIDER, OF YONKERS, NEW YORK, ASSIGNOR TO THE
WARING HAT MANUFACTURING COMPANY, OF SAME PLACE.

PILE-WIRE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 478,368, dated July 5, 1892.

Application filed January 15, 1892. Serial No. 418,196. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV SEGSCHEIDER, 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 for looms of that class in which pile fabrics—such as velvets, velveteens, plush, Wilton carpets, &c.—are woven, said pile-wire being of that class which is provided at one end with a detachable blade or cutting-knife and at the other end with a head or eye for the engaging-hook, by which the wire is pulled through the pile-loops for cutting the same by the blade, the object of the improvement being to facilitate the cutting of the loops and to simplify the construction of the pile-wire at the point of connection with its head or eye.

The invention consists of a pile-wire that is provided at one end with a bent and grooved spring-hook and of a blade that is inserted into the spring-hook and provided with a blunt rear part, an upwardly-projecting middle portion, and a slanting and sharpened front edge. The invention consists, further, in the novel construction of the pile-cutting blade, and, lastly, of the connection of the opposite end of the pile-wire with the head or eye, 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, said figure showing the head at one end of the wire and the detachable blade at the other end of the same. Fig. 2 is a top view of the end provided with the detachable blade. Fig. 3 is a side elevation of the blade, shown as detached from the pile-wire; and Fig. 4 is a vertical transverse section of the blade on line 4 4, Fig. 3.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a pile-wire for pile-cutting looms, which wire is bent at one end in the shape of a hook B, said

hook being provided at its inner edge with a groove *b* of uniform depth that extends up to the end of the hook and also to some distance along the shank of the pile-wire A, as shown clearly in Figs. 1 and 2. A detachable blade C is inserted into the hook-shaped end B and firmly retained in position in the groove *b* of the same by the spring action which is exerted by the end of the hook B on the rear part of the blade C. The blade C is provided with a blunt rear portion *d*, a middle upwardly-projecting portion or heel *d'*, that extends in front of the spring-hook B up to a level with or slightly above the upper edge of the same, and a slanting or tapering front portion *d''*, the edge of which is sharpened, while the upper edge of the middle portion *d'*, back of its highest point or apex, is made blunt, like the edge of the rear portion. The rear part of the blade C, when inserted in the spring-hook B, forms, with the same, a small opening or eye *e*, which serves for the purpose of being applied to a pin or other suitable device supported in a vise whenever the blade C is to be removed by the pliers from the spring-hook of the pile-wire for replacing a sharpened blade, the eye thus formed facilitating the convenient removal of the blade. The middle projecting portion of the blade C has the advantage that the blade can readily pass through the shed formed by the warp-threads in its going-in motion, preparatory to the next cutting action, without injuring the warp-threads and without getting entangled with the same. The end of the spring-hook B has a slight backward inclination away from a plane passing through the longitudinal axis of the wire, as shown clearly at *f* in Figs. 1 and 2, so that the pile-wire does not interfere with the reeds during its going-in motion. The slight inclination imparted to the outer end or heel of the spring-hook B produces the ready glancing-off of the latter from the reeds in case it should catch or abut against the same and secures the more reliable working of the pile-wire in its motion from one side of the loom to the other.

The opposite end of the pile-wire A is provided with a slight upward bend *g* and is in-

serted into a corresponding recess of the head or eye D, by means of which the wire is pulled through the pile for cutting the same. A recess g' in the head D, below the end of the pile-wire, and a slanting heel g^2 fit into the gage of the loom when the head arrives on the same. By this connection of the end of the pile-wire with the head D the latter abuts against the gage below the pile-wire without being exposed to the hammering action which was exerted heretofore on the end of the pile-wire and by which the same was liable to be injured at its point of connection with the head, so as to cause the breaking off of the wire. By connecting the pile-wire with the head in the manner described the pile-wire is made stronger and more durable than by the constructions heretofore used.

I do not claim in this specification anything which is shown and described in my prior patent for pile-wire for looms, No. 383,545, dated May 29, 1888, the present invention being an improvement on said patent and intended to facilitate the working of my pile-wire and render the same more efficient when in use.

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

1. The combination, with a pile-wire provided with a spring-hook at the end, of a detachable blade retained by said spring-hook, the outer end or heel of the spring-hook being bent at an angle of inclination to the lon-

gitudinal plane of the pile-wire, substantially as set forth.

2. The combination, with a pile-wire having a spring-hook at the end of the same, the end of the spring-hook and the shank of the pile-wire being provided with a groove at their inner edges, of a detachable pile-cutting blade provided with a blunt rear portion inserted into the spring-hook so as to form an opening or eye between the same and the rear end of the blade, substantially as set forth.

3. The combination of a pile-wire having an inclined outer end with a head the shank of which is provided with an inclined recess for the end of the pile-wire, said recess extending upwardly from the lower edge of the shank, so that the shank of the pile-wire is on a level with the lower edge of the shank of the head, substantially as set forth.

4. The combination, with a pile-wire having an upwardly-inclined end with a head the shank of which is provided with a corresponding recess for the pile-wire at its outer end, a gage below the shank, and a recess between the shank of the head and the gage, so that the pile-wire is on a level with the lower edge of the shank, 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 SEGSCHEIDER.

Witnesses:

PAUL GOEPEL,
CHARLES SCHROEDER.