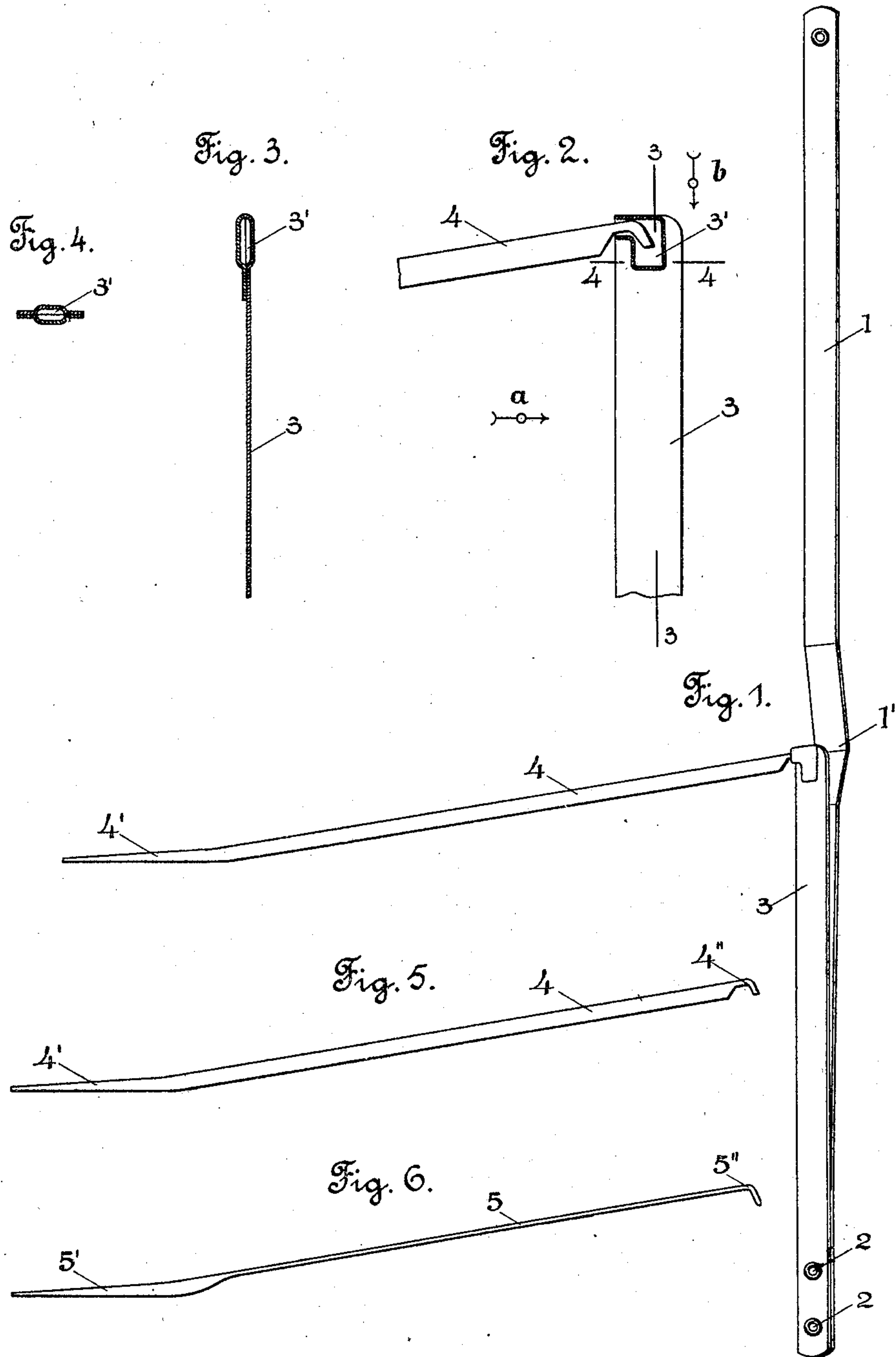


No. 788,229.

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W. WATTIE.
PILE WIRE.

APPLICATION FILED DEC. 11, 1903.



Witnesses
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UNITED STATES PATENT OFFICE.

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PILE-WIRE.

SPECIFICATION forming part of Letters Patent No. 788,229, dated April 25, 1905.

Application filed December 11, 1903. Serial No. 184,735.

To all whom it may concern:

Be it known that I, WILLIAM WATTIE, 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 Pile-Wires, of which the following is a specification.

My invention relates to that class of looms for weaving pile fabrics in which the pile-wires over which the loops are formed extend in the direction of the length of the warps, and my invention particularly relates to the pile-wire and its supporting-blade.

Heretofore in the class of looms referred to the pile-wires have been permanently attached to their supporting-blades, and in ordinary cases the pile-wires have been rigidly attached so that there is no independent movement of the pile-wires or of their supporting-blades. In the United States Letters Patent No. 747,587, dated December 22, 1903, is shown and described a pivotal attachment of a pile-wire to its supporting-blade, so that the pile-wire may have a movement independent of its supporting-blade; but in this case the pivoted pile-wire is permanently attached to its supporting-blade and cannot be detached therefrom without removing the blade and its supporting-heddle from the loom.

I have found in practice that in operating the class of looms above referred to it is often desirable to detach and remove the pile-wires and substitute others having a higher or lower end, over which the loops are formed, according to the height of the pile-loop desired or the thickness of the pile. It is also desirable to do this as expeditiously as possible and without interfering with or removing any other parts of the loom, particularly the heddles and the blades supporting the pile-wires attached to said heddles.

The object of my invention is to improve upon the construction of the pile-wires and their supporting-blades as ordinarily made and which are permanently attached together, as above described, and to make a pile-wire which can be readily detached from its sup-

porting-blade, as will be hereinafter fully described.

I have shown in the drawings my improvements applied to a heddle and a supporting-blade for the pile-wire of a similar construction to what is shown and described in the Letters Patent No. 747,587, above referred to.

Referring to the drawings, Figure 1 is a side view of a heddle, a supporting-blade, and a pile-wire embodying my improvements. Fig. 2 shows, on an enlarged scale, the upper end of the supporting-blade detached and partially broken away and the detachable end of the pile-wire. Fig. 3 is a section on line 3 3, Fig. 2, looking in the direction of arrow *a*, same figure. Fig. 4 is a section on line 4 4, Fig. 2, looking in the direction of arrow *b*, same figure. Fig. 5 shows the pile-wire shown in Fig. 1 detached, and Fig. 6 shows a modified construction of the pile-wire shown in Fig. 5.

In the accompanying drawings, 1 is a strip or bar of flat metal, which may be termed a "guide-strip," and is made, preferably, with an offset or bend 1' therein near its central portion. The strip 1 may be stationary in the loom or may have a slight vertical motion. To the lower end of the strip 1 is permanently attached, preferably by rivets 2, the lower end of the pile-wire-supporting blade 3. The upper free end of the blade 3 is preferably substantially in line with the offset 1' in the strip 1, as is customary.

The pile-wire 4 is preferably made of flat metal and of substantially the shape shown, with the straight end 4', over which the pile-loops are formed in the usual way. The other end of the pile-wire 4 is preferably made hook-shaped, as shown at 4". The hook 4" is in this instance adapted to loosely fit into an eye or socket 3' at the upper end of the blade 3. The hook end 4" of the pile-wire 4, fitting into the eye or socket 3' in the blade 3, makes the pile-wire 4 readily detachable from the blade 3.

In Fig. 6 is shown a pile-wire 5, made of flexible wire to allow of the yielding or bending of the pile-wire between its straight end

5' and its detachable end 5" in case of any vertical movement of the blade to which it is attached.

I have shown in the drawings one way of detachably connecting the pile-wire with its supporting-blade; but it will be understood that I do not limit myself to this particular way, as any other way of detachably connecting the pile-wire to its supporting-blade may be employed.

The advantages of my improvements will be readily appreciated by those skilled in the art.

By the term "detachable" as used in the claims I mean such a connection as will permit the ready removal of the pile-wire from its support without interfering with or removing any of the parts of the loom or heddles, whereby another pile-wire may be substituted therefor.

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

1. In a loom of the class described, the combination with an individual upright support-

ing-blade, of a pile-wire detachably connected therewith, to be readily removable therefrom.

2. In a loom of the class described, the combination with an upright supporting-blade, of a flexible pile-wire detachably connected therewith to be readily removable therefrom.

3. In a loom of the class described, the combination with an upright supporting-blade, of a pile-wire having a pivotal and detachable connection therewith.

4. In a loom of the class described, the combination with a strip or bar and a pile-wire-supporting blade attached thereto, of a pile-wire detachably connected with said blade to be readily removable therefrom.

5. In a device of the character described, the combination with a strip or bar having an offset or bend therein, a pile-wire-supporting blade carried by said heddle, of a pile-wire detachably connected to said blade to be readily removable therefrom.

WILLIAM WATTIE.

Witnesses:

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