

J. E. PREST.

Warper Drop-Wires.

No. 134,396.

Patented Dec. 31 1872.

Fig. 1.

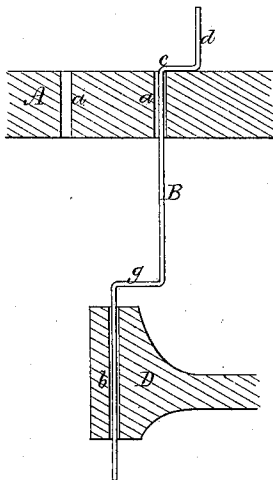


Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.

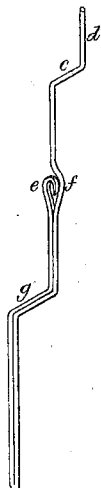
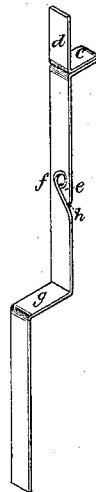


Fig. 6.



Witnesses.
S. W. Piper.
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by his attorney
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UNITED STATES PATENT OFFICE.

JOHN E. PREST, OF HOPEDALE, TOWN OF MILFORD, MASSACHUSETTS.

IMPROVEMENT IN WARPER DROP-WIRES.

Specification forming part of Letters Patent No. 134,396, dated December 31, 1872.

To all whom it may concern:

Be it known that I, JOHN E. PREST, of Hopedale, of the town of Milford, of the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in the Drop-Wires of Warpers; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 denotes a section of a drop-wire support plate and rest, with one of my improved drop-wires applied thereto; Fig. 2 is a front view of such drop-wire; Fig. 3 is a front view; and Fig. 4 an edge view of it, somewhat differently formed.

The first part of my invention consists in a drop-wire made or provided with a stop, or such and a handle, arranged to extend from it above the support-plate, the purpose thereof being not only to enable the wire to be conveniently raised by an operative, but the grooved support-plate to sustain the wire when in its lowest position, so as to prevent such wire from swaying over at top and becoming caught by or entangled with one or more adjacent wires. The second part of my invention consists in the drop-wire as provided with a hook, and a guard to prevent such hook, when in use, from being caught by or upon an adjacent yarn. The drop-wire in question is designed especially for use with a "detector" and "liberating mechanism," substantially as described in Letters Patent No. 131,372, dated September 17, 1872, and granted to me, though it is not to be confined to such.

In the drawing, A denotes the drop-wire slotted support-plate shown in transverse section, its slots being represented at *a a*, and the drop-wire thereof at B, it passing through the slotted rest D, and being formed or bent in manner as shown so as to extend down within and through the slot *b* of the said rest. Near its top the drop-wire is bent at a right angle or otherwise, as shown in Fig. 1, so as to form it with a shoulder or stop, *c*, and a

handle, *d*, arranged relatively to the rest of the wire, in manner as represented. The stop itself, however, may be used without the handle for raising the wire, but it is preferable to have the two.

The stop with the support-plate determines the lower position of the wire, and prevents such wire from swinging laterally over against the adjacent wire or wires, as it is liable to do when the stop is arranged to drop upon the rest D.

With my improvement I avoid all necessity of pivoting the drop-wire to the frame in manner as shown in my said patent, and thereby effect a material saving in the cost of construction and application of the wire. Furthermore, I form the wire with a hook *e* and a guard *f*, the wire having the usual back-stop or shoulder *g* to prevent it from being drawn upward too high or out of the slot of the rest D.

Figs. 5 and 6 denote perspective views of the two improved formations or constructions of wires, one being made of round wire and the other of flat or band wire. The latter has the hook *e*, the guard *f*, and the passage *h*, to the hook or between it and the guard formed in it, by boring a round hole through the wire and sawing a slit from the edge of the wire obliquely into the said hole. The guard arranged aside of the point of the hook prevents it from improperly catching a yarn.

I claim as my invention as follows:

1. A warper drop-wire, provided with the guard *f* and hook *e*, as and for the purpose set forth.

2. The drop-wire bent in two directions, as shown at *g*, and having the hook or yarn-guide *e* and the stop *c*, or such and the handle *d*, arranged together as specified.

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Witnesses:

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