

G. F. SLIPP.
 WARP GUIDE.
 APPLICATION FILED AUG. 12, 1911.

1,011,507.

Patented Dec. 12, 1911.



Fig. 1.



Fig. 2.



Fig. 4.

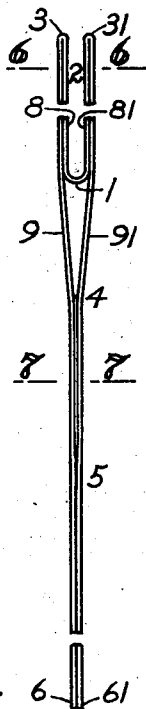


Fig. 3.



Fig. 5.



Fig. 6.



Fig. 7.

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WARP-GUIDE.

1,011,507.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed August 12, 1911. Serial No. 643,705.

To all whom it may concern:

Be it known that I, GEORGE F. SLIPP, of Lowell, in the county of Middlesex and the Commonwealth of Massachusetts, have invented certain new and useful Improvements in Warp-Guides, of which the following description, with the accompanying drawings, is a specification.

Like characters on the drawings denote like parts.

This invention relates to warp-guides of the class wherein each of them comprises a shank to sustain and position the guide, and two dents which are laterally separated the one from the other by a space for the warp to run in, and which have the front edges of the shank and of both dents in the same laterally extended plane and the rear edges of the shank and of both dents in a different laterally extended plane.

The invention consists essentially in the combination, in a guide of the class above described, of four strips of flat wire: two of which are as long as the entire guide; the other two are as long as the dent-portions thereof; each strip is fastened to two of the other strips; the two long strips are united below the dents to form the shank; either long strip and one short strip are united above the shank to form a dent; both dents are of similar construction; both short strips are united near their lower ends to close the lower end of the space for the warp to run in; and, each strip of any two that are in contact reinforces the stiffness of the other one of the two.

In the drawings: Figures 1 and 2 are elevations viewed in a longitudinal and in a lateral direction, respectively, of the preferred form of my invention; Fig. 3 is the same view as Fig. 1, but upon an enlarged scale with certain parts broken away; Fig. 4 is a section thereof taken at the central, vertical, longitudinal plane of the entire guide; Fig. 5 is a section thereof taken at the upper part of the central vertical longitudinal plane of either dent; Figs. 6 and 7 are sections taken at lines 6—6 and 7—7 of Fig. 3, respectively. Figs. 4 to 7, inclusive, are enlarged to make the construction more easy of observation.

The invention in its preferred form is made from a single piece of thin, flat, wire bent at its center 1 to form two straight,

parallel strips with a space 2 between them of such width as is desired for the warp-threads to run in.

At 3 and 31 the strips are doubled back upon themselves sharply, the distance from 1 to 3 being the desired length of a dent. At 4, a short distance below 1, the two strips are again brought into contact the one with the other and united by solder throughout the distance 4 to 5. From 5 to 6 or 61 the strips remain substantially in contact but disunited. The short strip extending from 1 to 3 is numbered 8, while the short strip extending from 1 to 31 is numbered 81. The two short strips, 8 and 81, are integrally united at 1 but do not elsewhere touch one another. The long strip that extends from 3 to 6 is numbered 9, while the long strip that extends from 31 to 61 is numbered 91. The two strips 8 and 9 are integrally united at 3 and a flat side of each touches a flat side of the other substantially throughout the length of the short strip 8. The strip 8 and the upper portion of the strip 9, which is in substantial contact with and of the same length as the strip 8, are combined in one of the dents. The two strips 81 and 91 are integrally united at 31 and a flat side of each touches a flat side of the other substantially throughout the length of the short strip 81. The strip 81 and the upper portion of the strip 91, which is in substantial contact with and of the same length as the strip 81, are combined in the other dent. The two strips 9 and 91 are united by solder from 4 to 5 and a flat side of each touches a flat side of the other substantially throughout the distance from 5 to 6 and from 5 to 61.

The preferred form of my invention is very stiff in a longitudinal direction, that is, in the general direction that parallel warp-threads would take in passing through such guides and the direction in which a guide for parallel warp-threads is liable to be most severely strained. It is stiff in a lateral direction. Everywhere, the walls of the space 2 for the warp-threads to run in are of the hard metal of the wire strips, and they are without crevices or corners in which the threads would tend to run and cut the metal. With proper tools, the guides can be cheaply constructed.

It would be within my invention, if the

four strips were united everywhere by solder to form a guide instead of their being integrally united in some places.

I claim:

5 1. In a warp guide comprising a shank to sustain and position the guide and two dents which are laterally separated the one from the other by a space for the warp to run in, and which have the front and rear
10 edges of the shank and of both dents in parallel planes extended laterally, the combination therein of four strips of flat wire: two of which are substantially of the
15 length of the guide; the other two are as long as the dent portions thereof; each strip is fastened to two of the other strips; the two long strips are united below the dents to form the shank; and, either long strip and one short strip are united above the
20 shank to form a dent.

2. In a warp-guide comprising a shank to

sustain and position the guide and two dents which are laterally separated the one from the other by a space for the warp to run in, and which have the front and rear edges of the shank and of both dents in parallel planes extended laterally, the combination therein of four strips of flat wire; two of which are substantially of the length of the guide; the other two are as long as the dent portions thereof; each short strip is integrally united to the other short and to one long strip; and each long strip is integrally united to one of the short strips to form a dent and soldered to the other long strip to form the shank. 25 30 35

In testimony whereof, I affix my signature in the presence of two witnesses.

GEORGE F. SLIPP.

Witnesses:

CHANNING WHITAKER,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."