

J. E. SCOTT.
 LOOM HARNESS.
 APPLICATION FILED JULY 18, 1912.

1,047,311.

Patented Dec. 17, 1912.

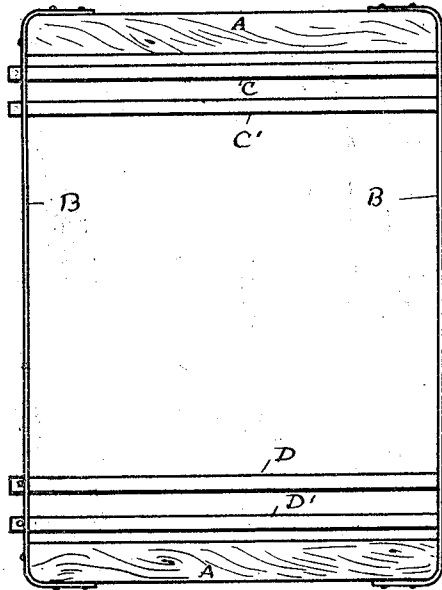


Fig. 1.

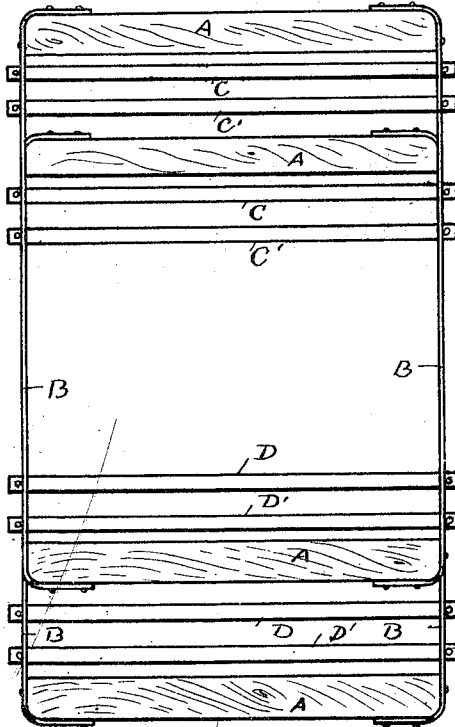


Fig. 2.

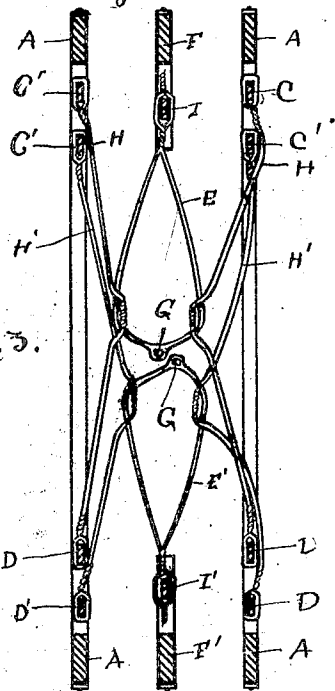


Fig. 3.

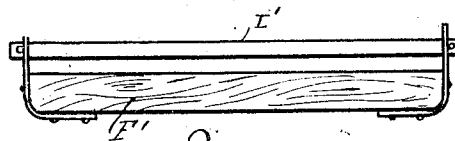
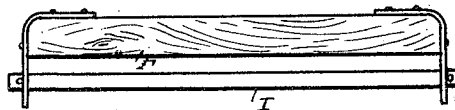


Fig. 4.

WITNESSES.
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LOOM-HARNESS.

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To all whom it may concern.

Be it known that I, JAMES E. SCOTT, a citizen of the United States, residing at Brunswick, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Loom-Harness, of which the following is a specification.

This invention relates to improvements in loom harnesses for use in connection with open or leno weaves as well as plain weaves. Its object is to simplify the construction of the harness, to reduce the number of harness and doup frames required and to obviate the necessity for a slackener. It may be used on plain looms as well as dobby looms.

It consists principally in providing a single frame with two heddle bars at each end of the frame, the old style of frame having one heddle bar at each end.

It also consists in constructing the doup frame with two douds, one at each end of the harness, the doup frame being positioned between two harness frames.

In the drawing herewith accompanying and forming a part of this invention, Figure 1 is an elevation of my improved harness frame; Fig. 2 is an elevation of two frames, one of the frames being in down position; Fig. 3 is a vertical sectional view of the harness showing one heddle unit; and Fig. 4 is an elevation of the top and bottom members of the doup frame.

Same reference characters indicate like parts in the several figures.

For the purpose of this specification I have designated two heddles on the front frame and two heddles on the second frame together with a doup frame and two douds, one at the top and one at the bottom, a heddle unit.

In said drawings A are heddle shafts and B are rigid straps connecting the top and bottom shaft together. Mounted in said straps and extending horizontally substantially in the same vertical plane are two heddle bars C and C' at the top and two heddle bars D and D' at the bottom. To the heddle bars are secured heddles H H' of the type now in common use. Fig. 3 shows in detail the method of mounting the

heddles and douds. It will be noted that the positions alternate. In the front harness one heddle is attached to heddle bar C at the top and heddle bar D at the bottom, and a second heddle is attached to heddle bar C' at the top and to heddle bar D' at the bottom. The same is true in the second harness. In this unit one doup E is attached to the top shaft F and a second doup E' is attached to the bottom shaft F', the douds E and E' extending toward each other and being provided with the usual eyes G. The douds are connected up with the heddles in the usual manner. These units are repeated as many times as is necessary to fill the harness.

The operation of the heddles and douds, so far as the operation of weaving is concerned, is substantially the same as in the leno looms now in common use. Applicant accomplishes the same result with two harnesses and one doup frame as is now accomplished by two pairs of harnesses and two doup frames.

Having thus described my invention and its use, I claim:

1. A loom harness provided with two pairs of heddle bars, one pair at the top and one pair at the bottom, two series of heddles, one series attached to the top bar of each pair and the other series attached to the bottom bar of each pair, and douds connecting said heddles.

2. A loom harness provided with two pairs of heddle bars, one pair at the top and one pair at the bottom, two series of heddles, one series attached to the top bar of each pair and the other series attached to the bottom bar of each pair, and a doup connecting said heddles comprising two frame members positioned between the adjacent harnesses, one at the top and one at the bottom, each frame member being provided with a series of douds, the douds of one series projecting downwardly and the douds of the other series projecting upwardly.

JAMES E. SCOTT.

Witnesses:

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W. D. CUPPS.