To all whom it may concern:

Be it known that I, ROLLIN WHITE, of Williamstown, in the county of Orange and State of Vermont, have invented a new and improved manner of mounting and using the harness in looms for weaving bolting-cloths and other fabrics which require to have the warp-threads twisted between each thread of filling; and I do hereby declare that the following is a full and exact description thereof.

In the weaving of bolting-cloths it is necessary to put one, two, or more twists into the threads which constitute the warp between each thread of filling for the purpose of preserving the meshes of such cloth of equal size by preventing their being forced nearer together or farther apart, either in the process of manufacturing them or in their subsequent use, than would be compatible with the purpose to which the cloth is to be applied, and I have, as I verily believe, devised a mode of effecting this which is more simple than and equally perfect with any that has been heretofore adopted. In the loom in which this is effected there is not anything peculiar, the object being attained by the particular manner in which the harness is made to operate on the warp.

In the accompanying drawings, A A, Figure 1, represents the warp as drawn into the harness for giving a single twist between each thread of filling.

B B is the harness, through a loop in which one thread of the warp is passed, as at a, while one of the ends or strands of the same heddle passes over a contiguous thread of warp, as at b, to the shaft C' of the harness which works below, and then passes down instead of running up, as in the usual way, the effect of which, it will be seen, will be to twist these threads once upon each other at every motion of the treadle.

C C' are the shafts of the harness to which the heddles are attached. To cause the harness to work freely, I sometimes pass a roller or beam D across the loom between the two heddle-shafts, as shown at D.

If it is desired to put two or more twists into the threads of warp between each thread of filling, this is effected by passing the portion of the harness designed to effect this two or more times around the threads of warp, as shown at Fig. 2. In Fig. 3 the application of the same principle is shown by means of two harnesses, one of which is to be sprung upward and the other downward.

Having thus fully described the nature of my invention and shown various modes in which the same may be carried into operation, what I claim as new therein, and desire to secure by Letters Patent, is—

The within-described manner of giving one or more twists to the threads of warp between each thread of filling in the weaving of bolting-cloths or of other fabrics, in the manufacturing of which such twist may be required, the same being effected by passing a portion of the heddles around the threads of warp, substantially in the manner set forth.

ROLLIN WHITE.

Witnesses:

THOS. P. JONES,

JOS. O. ANDREWS.