

A. F. PRESTON.
BINDING STRIP.
APPLICATION FILED JUNE 4, 1915.

1,186,128.

Patented June 6, 1916.

Fig. 1.

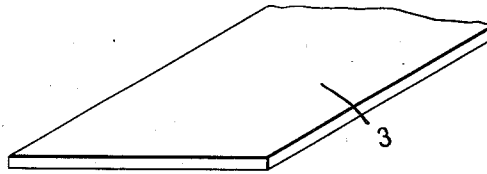


Fig. 2.

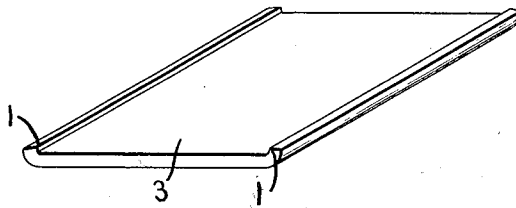


Fig. 3.

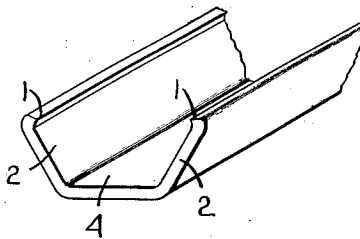
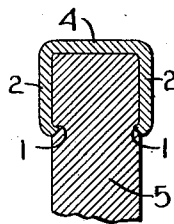


Fig. 4.



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BINDING-STRIP.

1,186,128.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT F. PRESTON, a citizen of the United States, and resident of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Binding-Strips, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to an improvement in binding for reinforcing the edges of plane surfaced or sheet patterns.

Bindings of the type to which this improvement relates are used particularly in the boot and shoe industry. In the manufacture of boots and shoes, patterns of the configuration and sizes desired for the various parts of boots and shoes are provided. These are made of cardboard, fiberboard and similar materials and are adapted to be superposed upon the material to be cut—usually leather. A knife is then passed around the edges of the pattern by an operative and the material thus is cut by hand. It is obvious that the pattern edge must be reinforced against the knife edge in order to protect and preserve the contour of the pattern. For this reason, and also to present an accurate edge guide for the cutting knives, it is customary to affix a U-shaped metallic binding to the edges of such patterns. This binding is affixed to the pattern edge by holding it thereagainst and passing both between pressure rollers revolvably adapted to bear on opposed sides of the binding. Were flat rollers employed for this purpose, the pressure would be equally applied to the whole longitudinal area of the binding sides with a resultant lack of adhesiveness. To obviate such difficulty, the rollers have beveled faces, presenting annular ridges somewhat back of their front faces. The clenching pressure is thus applied adjacent the inner edges of the sides of the binding and slightly forces them into the pattern material. The result is that a fairly adhesive attachment of the binding is effected yet an imperfection appears in the bound pattern in that the sides of the applied binding are convexed from the edge of the pattern to the inner edge of the binding, due to the fact that pressure is not applied by the rollers to such intermediary surface. Such binding convexity prevents the bound pattern from resting perfectly

flat and evenly upon the surface of the material to be cut. Further, as is of frequent occurrence, such ridged rollers in running past a corner in a pattern make a relatively deep, transverse indentation in either an unprotected or a bound adjacent edge of a pattern corner. Such disadvantage and defect could be obviated by the employment of flat rollers but such means are not practicable with the present binding as practically all retentivity of binding is eliminated by their use.

The object therefore of this invention is to provide a novel binding for pattern edges adaptable to be used with flat or substantially flat pressure rollers.

Another object is to provide a binding strip having a relatively minute flange or rib thereon which is adapted to be pressed into the adjacent surface of a pattern.

A further object is to provide a binding strip of the character described having a hardened base and rib and relatively flexible sides.

Other objects of the invention will more fully appear from the following description and the accompanying drawings and will be pointed out in the annexed claims.

As illustrated, the metallic binding strip and pattern are both, for the sake of clearness, very greatly enlarged.

Figure 1 is a perspective view of a flat strip of metal; Fig. 2 is a perspective view of the binding after having the ribs formed thereon; Fig. 3 is a perspective view of the completed binding; Fig. 4 is a sectional view of the binding as attached to a pattern edge.

In the drawings, a selected embodiment is shown in its formative stages and as finally applied to a pattern edge. The metals commonly employed for this purpose are brass and steel. Steel is often employed where greater durability and retentivity of the binding on the pattern edge are desired. This improved binding is preferably formed from flat strip steel, a portion of which is illustrated in Fig. 1. Retentivity of this novel binding may be secured by means of a flange or rib formed on one side of the binding; however, in this preferred form, a longitudinal hair-like rib 1 is formed on each of the sides 2 of the binding 3—making it doubly affixed. And, while it may be variously located on the binding, it is very easily made by flanging or inwardly turning a rel-

atively small portion of the binding side at the edge. For example, the flat metal strip shown in Fig. 1 is drawn through a roller die which functions to roll out and turn upwardly the edge portions, forming the longitudinal rib 1. Hardening of this rib is thus coincident with its formation. The double ribbed binding is then passed through another set of dies which cooperatively bend the binding, forming the sides; and at the same time, under pressure, roll and thus harden the base 4 of the binding. While not essential, it is preferable to form the sides so that they will be substantially diverging in order the more easily to position the completed ribbed binding on a pattern edge preparatory to pressing thereon.

The binding, thus provided with the hardened base and ribs and relatively flexible sides, is adapted to be positioned and pressed upon the edge of the pattern 5 as shown in Fig. 4. The ribs clench the faces of the pattern adjacent the edge while the hardened base 4 presents a smooth, durable, guiding surface to a cutting instrument passed along the pattern edge thus reinforced or armored.

It is obvious that this improved binding may be affixed to the pattern by feed and pressure rollers which have flat or plane faces as, when equal pressure is applied to the longitudinal areas of the binding sides positioned on the opposed pattern faces adjacent the edge, the ribs or rib will be forcibly pressed into the pattern material and the adhesion of the binding will be assured. Should it be necessary to embed more deeply or forcibly the ribs in the pattern, the faces of the rollers may be provided with an annular ridge, formed by beveling away the roller faces therefrom only a few degrees from the straight angle. In such form, the present convexity of the applied binding will be substantially eliminated, binding re-

tentivity assured, and the disadvantages of the present ridged rollers reduced to a negligible minimum.

This invention thus provides a binding which may be applied to patterns by rollers having plane or flat-surfaced opposed faces. When applied, its hardened rib or ribs afford a high degree of tenacity, its flexible, diverging sides make it easy of positioning and attachment, and its hardened base presents a highly durable, wear-resisting surface.

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

1. A pattern binding comprising a metallic strip substantially U-shaped in cross-section bearing a continuous, longitudinal rib projecting from one of the upwardly bent faces thereof.

2. A pattern binding comprising a metallic strip substantially U-shaped in cross-section having a continuous, longitudinal, inwardly projecting, marginal rib thereon.

3. A pattern binding comprising a metallic strip substantially U-shaped in cross-section having a hardened base and relatively softer flexible sides and means on said binding adapted to retain the binding on a pattern.

4. A pattern binding comprising a metallic strip substantially U-shaped in cross-section having a hardened base and relatively flexible sides and a continuous, inwardly projecting marginal rib on each of said sides.

5. A pattern binding comprising a metallic strip substantially U-shaped in cross-section bearing continuous, longitudinal, parallel ribs projecting from oppositely disposed faces of the upwardly bent portions of the binding strip.

In testimony whereof, I have signed my name to this specification.

ALBERT F. PRESTON.