

B. F. STURTEVANT.

Fastenings for Uniting Soles to Uppers.

No. 158,999.

Patented Jan. 19, 1875.

Fig. 1.

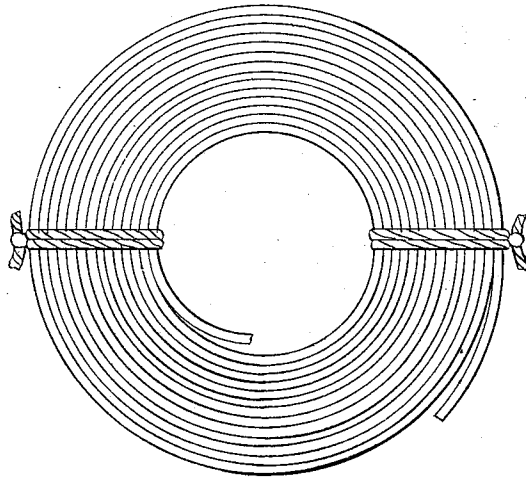


Fig. 2.

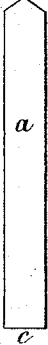


Fig. 3.



Fig. 4.

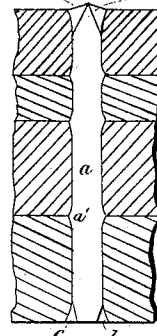
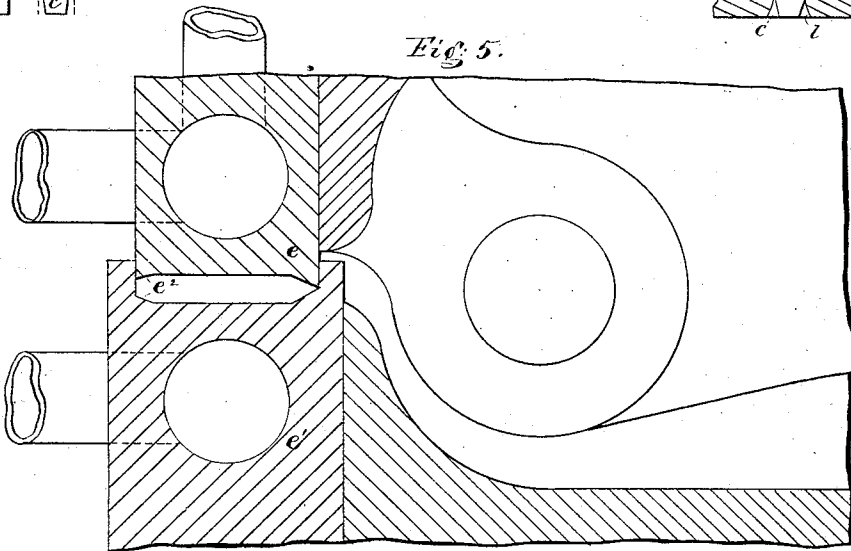


Fig. 5.



WITNESSES.

Leah Catimer.
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UNITED STATES PATENT OFFICE

BENJAMIN F. STURTEVANT, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN FASTENINGS FOR UNITING SOLES TO UPPERS.

Specification forming part of Letters Patent No. 158,999, dated January 19, 1875; application filed December 17, 1874.

To all whom it may concern:

Be it known that I, BENJAMIN F. STURTEVANT, of Boston, in the county of Suffolk and State of Massachusetts, have invented Improved Fastenings for Uniting Soles to Uppers, of which the following is a specification:

My invention relates to the class of shoe-fastenings for uniting soles to uppers known as ribbon peg-wood, the material being cut from around the log, or in any well-known way.

My invention consists in a peg, peg-ribbon, or peg-strip having that edge to form the heads of the pegs consolidated or compressed to a greater degree than is the body of the strip, thereby producing a peg which will not upset under the action of the driver, but will present a hard, firm, consolidated surface for the action of the driver; also, in a peg or peg-ribbon having heads and points, or head and point forming edges compressed more than the body of the strip; and, also, in jaws or compressors for forming such peg or peg-ribbons.

Figure 1 represents a coil of ribbon peg-wood; Fig. 2, a section of a peg-ribbon; Fig. 3, a section of the same peg-ribbon compressed laterally, and with its head and point consolidated; Fig. 4, a section of a double-soled shoe with one of my improved pegs therein; and Fig. 5 is a section of compressors for compressing and consolidating such peg-ribbon.

I take a ribbon of peg-wood or a peg-strip of ordinary or suitable construction—in this instance of my invention I take a peg-ribbon of the form represented at *a* in section, but I may make it of any of the forms described by me in another application filed concurrently with this—and by the action of compressors *e e'*, Fig. 5, preferably heated, I condense the peg-ribbon from the form represented in Fig. 1 to that in Fig. 2. The dotted lines in Fig. 2 correspond with the size of the ribbon in Fig. 1, and the full lines represent the ribbon in compressed condition.

It will be seen that the edge *b* for the points of the pegs, and the edge *c* for the heads of the pegs, are consolidated or compacted to a greater degree than the body of the ribbon.

In another application I have described the

advantages arising from the use of a peg or ribbon of peg-wood having the point formed by compression, and in this application I will only describe the change necessary to compress the head-forming edge of the strip. For this purpose I provide the compressors with inclines *e²*, opposite the inclines *e³*, those, *e²*, acting to consolidate the heads, and those, *e³*, to consolidate the points, while the body of the peg may be more or less compressed.

In Fig. 4 I represent my improved peg as applied to hold a double-soled shoe. *f* is the insole; *g*, the upper; *h*, a sole, and *i* a second sole. The fibers of the wood, at head and point forming edges, are shown as turned inward, or compacted within a smaller space.

This consolidation of the head-forming edge enables me for the first time to produce a peg, peg-ribbon, or peg-strip having a head, or a head-forming edge, harder and more compact than the body, and thereby it is possible to present to the action of the driver a hard compact surface, and so hard that there is no liability of the head upsetting under the blow of the driver.

A peg cut from a ribbon of peg-wood compressed as described is stiffer and harder than one cut from an uncompressed strip, and is capable of receiving a much more powerful thrust from the driver without crippling.

These compressed pegs are to be driven into holes substantially as small as it is possible to drive them, and with a blow in degree all that they will stand without crippling, and when so driven they will swell to substantially their original position, or as nearly so as the leather will permit.

It is of great importance that the head be very rigid and stiff, and specially so if the pegs are long, as for double-soled work the blow of the driver must be hard in order to drive close-fitting pegs into the leather.

In Fig. 4, the full line *c* represents the head of the peg when first driven, and when in the sole it swells to substantially the position shown at *l*. The point of the peg when first driven occupies the position shown at *b*, and when moistened it swells to substantially the position shown by lines *d*, throwing out an addi-

tional holding-surface, as described in another application made by me, and between the layers of leather the body of the peg swells or bellies out, as at *a'*.

A peg of this kind furnishes a firm holding-surface at each end.

My improved fastenings may be used for any purpose for which pegs are applicable.

I claim—

1. A peg, having its head condensed or compacted, substantially as described.

2. A peg-ribbon, having its head-forming edge condensed or consolidated, substantially as described.

3. A peg or peg-ribbon, having its head and

point, or head and point forming edges, compressed or consolidated, substantially as described.

4. Jaws for compressing peg-wood, having their opposite sides beveled, substantially as described, to compress head and point forming edges of the peg-wood, as set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

BENJ. F. STURTEVANT.

Witnesses:

G. W. GREGORY,

L. H. LATIMER.