H. A. Harrels,
Wire Stanle.

Nº 63,385. Patented Apr. 2, 1867.

Mit nesses: Cha Morrill Edw Payrow

Træntor: MAKarvey

## Anited States Patent Pffice.

## HAYWARD A. HARVEY, OF NEW YORK, N. Y.

Letters Patent No. 63,385, dated April 2, 1867.

## IMPROVED WIRE STAPLE.

The Schedule referred to in these Petters Patent and making part of the same.

Be it known that I, HAYWARD A. HARVEY, of the city, county, and State of New York, have invented a new and improved Wire Staple, for which I desire to obtain Letters Patent of the United States. The following is a full and exact description of my invention, reference being had to the accompanying drawings, which illustrate and form a part of this specification.

The nature of my invention consists in forming one or more indentations in that portion of each leg of the staple which enters the wood, and at the same time spreading the metal at the points where these indentations are produced, thus increasing the diameter of the wire in one direction by reason of this flattening process, and decreasing it in the other. The drawings present a front and side view of the staple.

Figure 1 the side view, showing the outline of the indentations; and

Figure 2 the front view, showing the effect of the flattening or compressing process in altering the contour of the edges of the wire, and making projections at the point of indentation.

Similar letters of reference designate corresponding parts in both figures.

a indicates the outer or rounded end of the staple, and a' the points thereof. The indentations are shown at b b b b, and the projections at c c e e. This form of staple may be readily produced by ordinary and well-known mechanical means, which I do not deem it necessary to describe. In using it, it will be perceived that while the wood yields readily when the staple is driven, the elasticity of the wood causes it to spring back and conform itself more or less to the various irregularities in the legs of the staple, thus increasing the frictional hold upon them and the resistance against the withdrawing of the staple. I am aware that similar results have been sought to be obtained, especially in the article of "blind-staples," by corrugating or nicking the legs, but I have never heretofore seen a staple formed as mine is, by compressing or flattening the wire at intervals, so as to make protuberances on the edges as well as depressions on the sides, the effect of which, as is obvious, is to present inequalities of surface in two directions, so that whether the staple be driven parallel to the grain or across it its surface presents cavities in the directions of the greatest elasticity of the wood.

What I claim as my own invention, is-

A staple with the legs thereof formed with protuberances and depressions, substantially as described.

H. A. HARVEY.

Witnesses:

CHAS. MORRILL, EDWD. PAYSON.