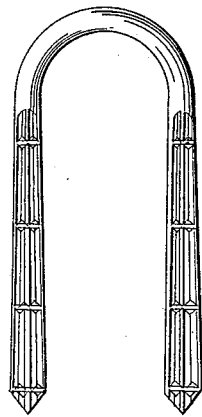


*B. Boardman,  
Staple.*

*N<sup>o</sup> 54,283.*

*Patented May 1, 1866.*

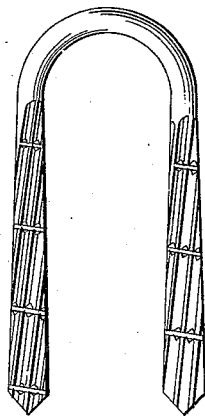
*Fig. 1.*



*Fig. 2.*



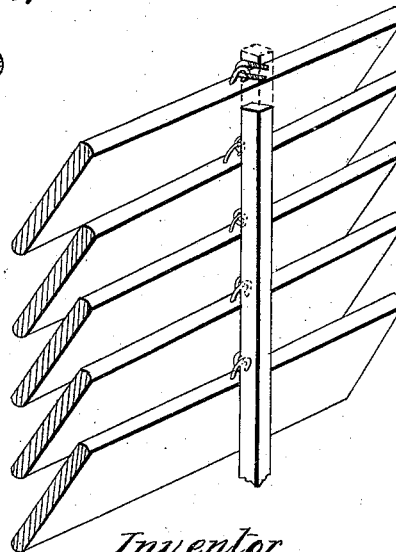
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Witnesses  
R. T. Campbell  
Edw. Schaefer*

*Inventor*

*Byron Boardman  
by Atty.  
Marion J. Jewell*

# UNITED STATES PATENT OFFICE.

BYRON BOARDMAN, OF NORWICH, CONNECTICUT.

## IMPROVEMENT IN STAPLES.

Specification forming part of Letters Patent No. 54,283, dated May 1, 1866.

*To all whom it may concern:*

Be it known that I, BYRON BOARDMAN, of Norwich, in the county of New London and State of Connecticut, have invented a new and Improved Staple, for which I desire to obtain a patent, as for a new manufacture; and the following is a clear and exact description of my said invention, which will be more fully understood by reference to the accompanying drawings, in which—

Figures 1 and 2 represent views of said staple. Fig. 3 is a modification thereof. Fig. 4 is a cross-section, and Fig. 5 shows the mode of its application.

My invention consists in a staple having that part which is designed to enter the wood swaged into longitudinal grooves or corrugations, as shown in Figs. 1, 3, and 4, for the purpose of giving increased strength to the staple and at the same time furnishing an extended ribbed surface, which will form corresponding indentations in the wood when the staple is driven and prevent its becoming loose in the wood when subjected to lateral strain, as in working the slats of window-blinds; also, in forming transverse ribs across the grooves by intercepting the furrows at intervals, and allowing the metal at the point of interruption to assume the form of a rib or ridge across the longitudinal grooves for the purpose of taking a better hold upon the wood in order to resist being withdrawn.

The mode of constructing the staple is as follows: Having been bent into the proper shape the branches thereof are subjected to an impression from dies of the proper construction and swaged into the form desired. Previous to the operation of swaging I usually scarf or bevel the ends of the branches upon opposite sides in such a manner that the action of the dies will produce acute edges or points, which should be so shaped as readily to penetrate the wood without previously boring the same. There should be ribs left at proper intervals across the longitudinal furrows of the staples, which should be much more tapering at the lower side of the ridge than at the upper, so as to offer comparatively little resistance in driving, but retaining a firm hold of the wood when once driven in, to prevent its being withdrawn. These ribs are formed by cutting away a portion of the ridges in the swaging-dies at proper intervals, which causes the surface of the staple at such points to take the form of transverse ribs as the longi-

tudinal grooves are stamped upon the branches of the staple.

These staples are principally intended for window-blinds or screens, but may be made of a larger or smaller size to adapt them to a great variety of uses. The corrugations may be of various shapes and made upon one or both branches of the staple, and may be interrupted at any point to form transverse ribs whenever desired; or the longitudinal corrugations may be made upon one side of each branch of the staple and the transverse corrugations upon the other side, or other permutations may be introduced at the pleasure of the manufacturer.

I am aware that spikes, bolts, and staples have been bearded by being cut or jagged by means of a chisel or otherwise, a portion of the metal being elevated thereby and forming transverse barbs, and especially by being cut or nicked at the corners or angles for the purpose of holding with greater tenacity when driven into wood. These, therefore, I do not claim. Neither do I now claim a staple formed with transverse furrows upon the branches by swaging, as they have been so constructed under my patent of March 30, 1858. I am also aware that nails or spikes have been made with longitudinal grooves extending uninterruptedly throughout the greater portion of their entire length and without transverse ridges. I am also acquainted with Harvey's patent of 1833, for a spike with longitudinal ribs having transverse ridges in the intervals between these ribs, which are so far depressed below the ribs that they cannot take effectual hold upon the fibers of the wood into which they are driven. None of these, therefore, do I now claim, nor do I claim the like contrivances when applied to a staple; but

What I do claim as new and desire to secure by Letters Patent, as a new manufacture or vendible commodity, is—

A staple provided with longitudinal grooves or corrugations, in combination with transverse ribs elevated to about the same height above the body of the staple as are the corrugations, the whole being so shaped as to be capable of being formed by swaging machinery, for the purposes and substantially in the form above described.

BYRON BOARDMAN.

Witnesses:

JAMES BOARDMAN,  
ELISHA P. SLOCUM.