(No Model.)

W. CHISHOLM.

STAPLE.

No. 315,124. Patented Apr. 7, 1885.

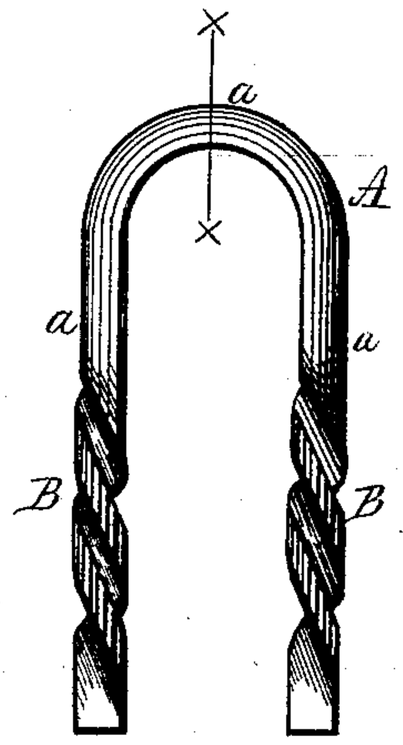

FIG. 1.

FIG. 2.

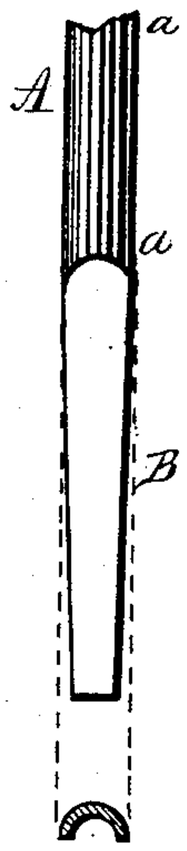

FIG. 3.

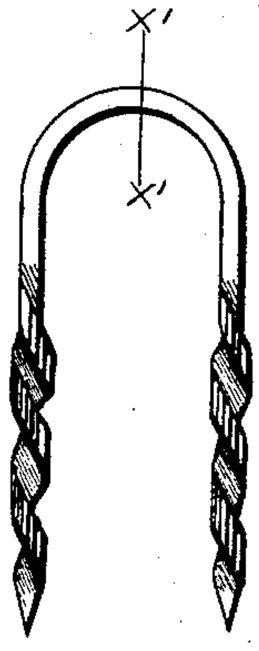

FIG. 4.

FIG. 5.

FIG. 6.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM CHISHOLM, OF CLEVELAND, OHIO.

STAPLE.

SPECIFICATION forming part of Letters Patent No. 315,124, dated April 7, 1885.

Application filed August 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CHISHOLM, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain Improvement in Staples; and I do hereby declare the following to be a full and complete description thereof.

The improvement in staples above referred to consists in making this new article of manufacture of strips of sheet metal, and giving to the prongs of it a twist of a screw-like form, that it may hold firmly in the wood or other material into which the staple is driven, and that the prongs may easily penetrate the wood the ends are pointed or chisel-shape for cutting their way in. Furthermore, the central portion of the strip for the bow of the staple is or may be transversely flat or semicircular, whereas the two ends thereof then are flat and slightly tapering, substantially as hereinafter described, and shown in the annexed drawings, making part of this specification, in which—

Figure 1 represents a side view of the improved staple. Fig. 2 is a sectional view of one of the prongs, taken through the line *x x*, showing a staple the bow part of which is transversely curved. Fig. 3 is a view of a portion of a strip of metal for a staple before the prongs are twisted. Fig. 4 is a view of a staple having twisted and chisel-pointed prongs, but without a transverse curvature of the part forming the bow. Fig. 5 is a sectional view through the line *x' x'*, and Fig. 6 is a view of a portion of a flat strip of metal before being bent into a staple.

Like letters refer to like parts in the several drawings.

Ordinary staples are usually made of either round or square iron rod, and having prongs drawn down to a point. Staples thus made, unless driven entirely through the wood and clinched, are liable to become loose and draw out; and, furthermore, such staples contain more metal than is needed for their practical use, and therefore they are unnecessarily expensive, in view of the matter of material, as compared with the improved article referred to.

In order to produce a staple that shall not pull out from the wood or material into which it may be driven without being necessarily clinched, and at the same time contain less metal and be equally as strong or stronger and as durable as an ordinary one of the same size, is the object-matter of this invention, which consists in making a staple of a thin narrow strip or ribbon of iron or steel. A half of such a strip is seen in Fig. 3, in which it will be seen that the strip is transversely curved between the points *a a* for the bow part of the staple, and that each way from the points *a a* the strip is flat and slightly tapering to the ends, whereas the material between the two points is of an even width to form the bow of the staple, as seen at A, Fig. 2. The strip is bent to form the staple, the tapering prongs B B are then twisted, and their terminal ends pointed, preferably chisel-shaped, as shown in Fig. 1, of which Fig. 2 is a section through the line *x x*.

It is not essential, in making the above-described article, that the prongs thereof be twisted and pointed after the strip of metal is bent into the form of a staple, as the ends of the strip may be twisted and pointed before being bent.

For large strong staples the curved strip shown in Fig. 3 is preferred; but for smaller and lighter ones the flat strip shown in Fig. 4 is amply sufficient for strength and durability. A staple made of such a piece of metal is seen in Fig. 4, of which Fig. 5 is a section through line *x' x'*.

It will be obvious that the above-described staples must, in view of their twisted prongs, hold more securely in the material in which they may be driven than the ordinary kind, and the prongs will easily penetrate the wood in consequence of these chisel-shaped ends.

What I claim as my invention, and desire to secure by Letters Patent, is—

A staple made of a strip of suitable metal, having that portion of the strip for the bow thereof transversely semicircular or flat, and the prongs extending therefrom flat and slightly tapering, twisted into a screw-like form, and having the terminal ends chisel-shaped or pointed, substantially as herein described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM CHISHOLM.

Witnesses:
J. H. BURRIDGE,
W. H. BURRIDGE.