

(Model.)

F. W. STARR.  
CORRUGATED FASTENER.

No. 528,569.

Patented Nov. 6, 1894.

Fig 1.

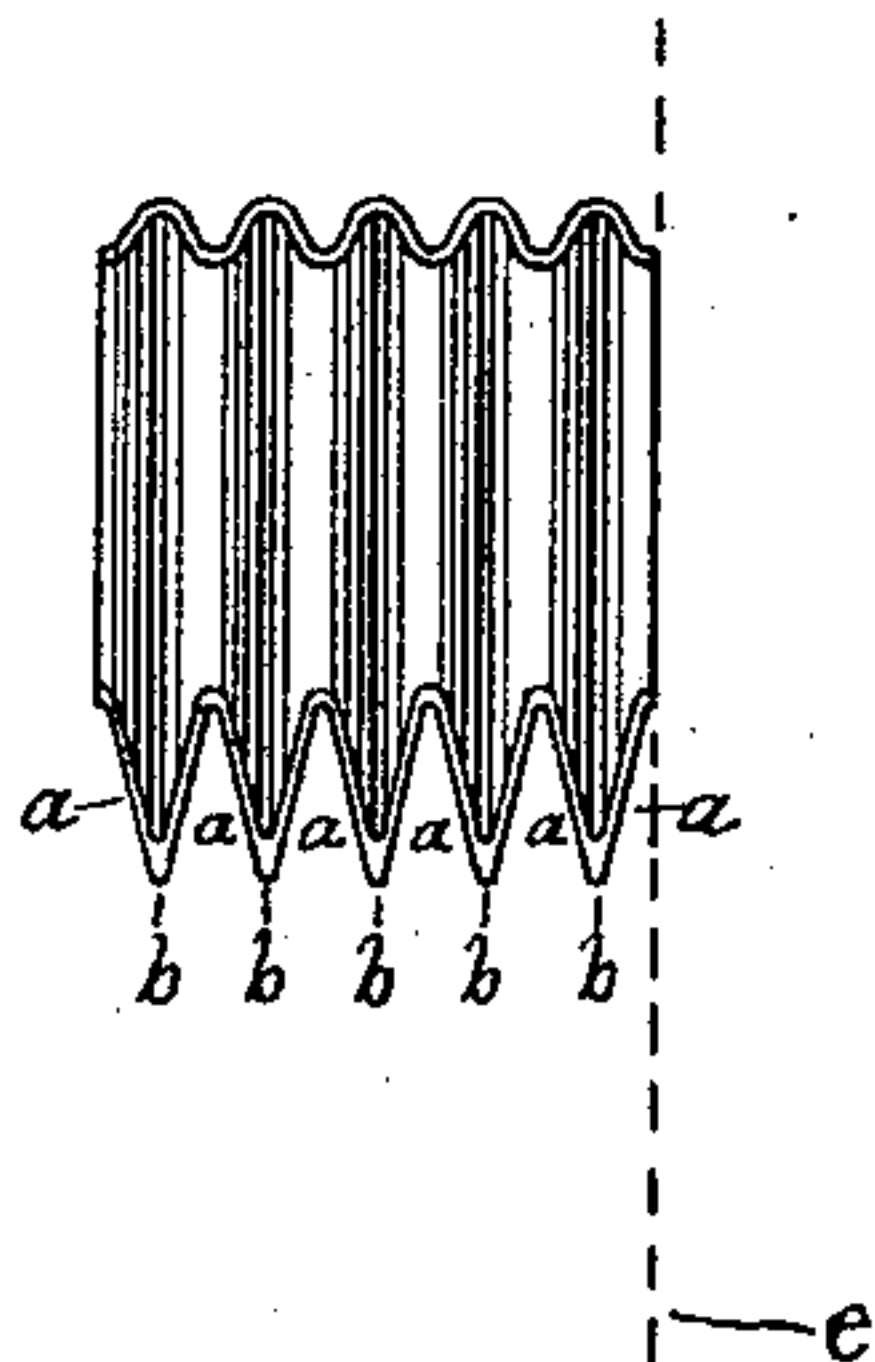


Fig 2.



Fig 3.

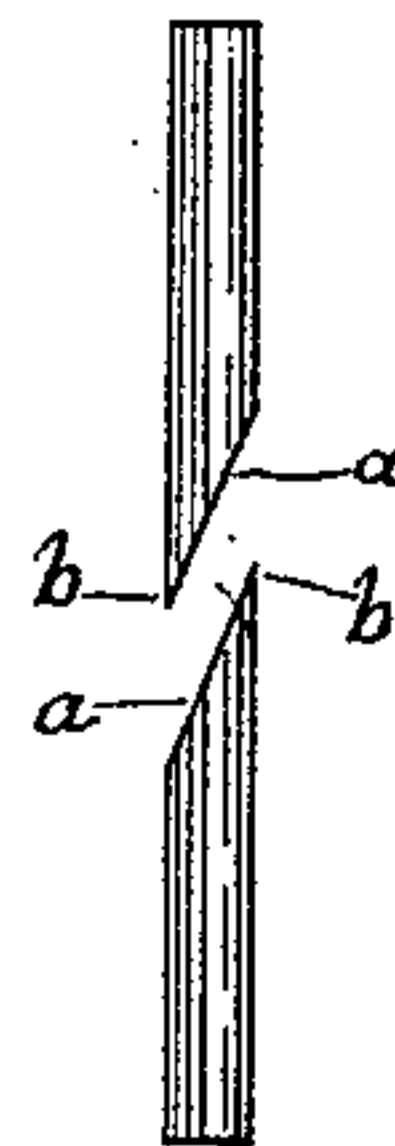
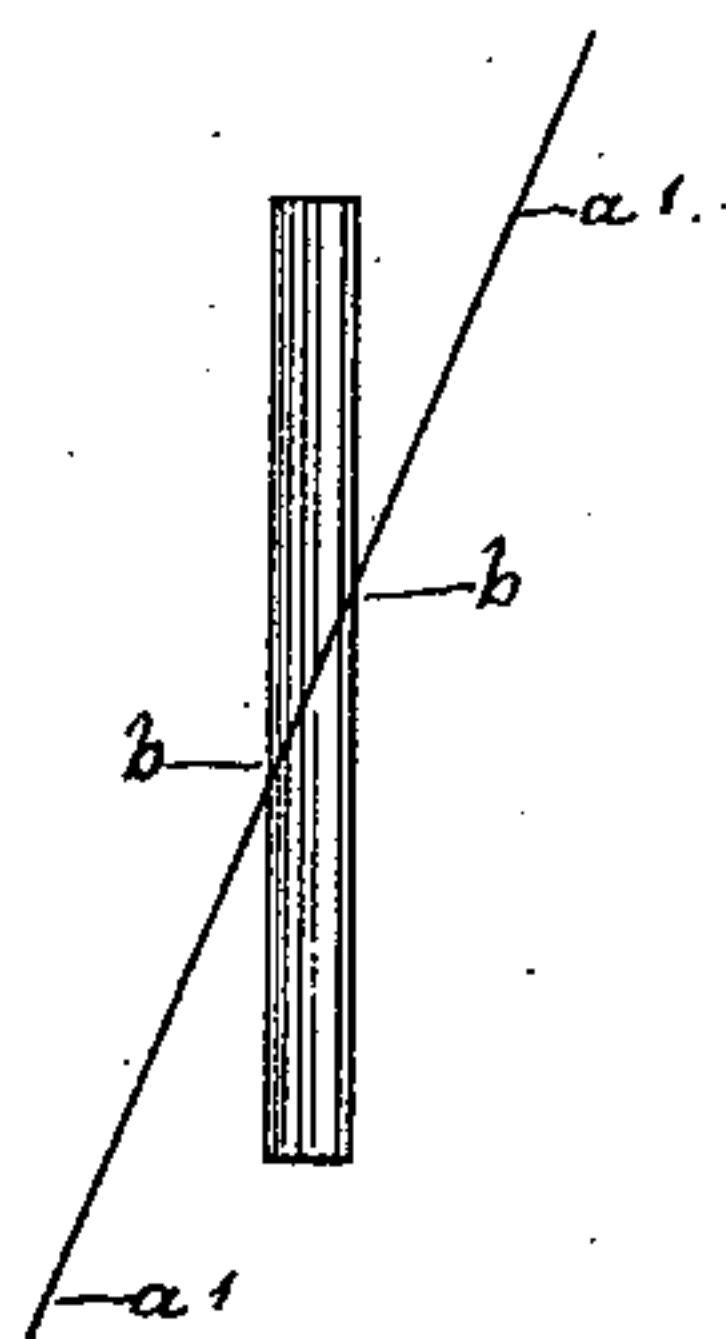
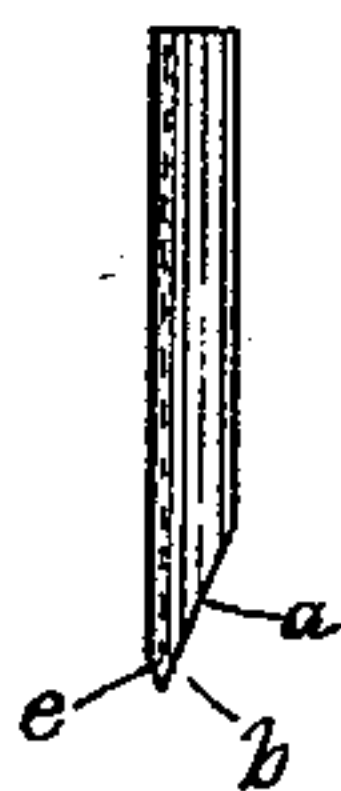


Fig 4.

Fig 5.

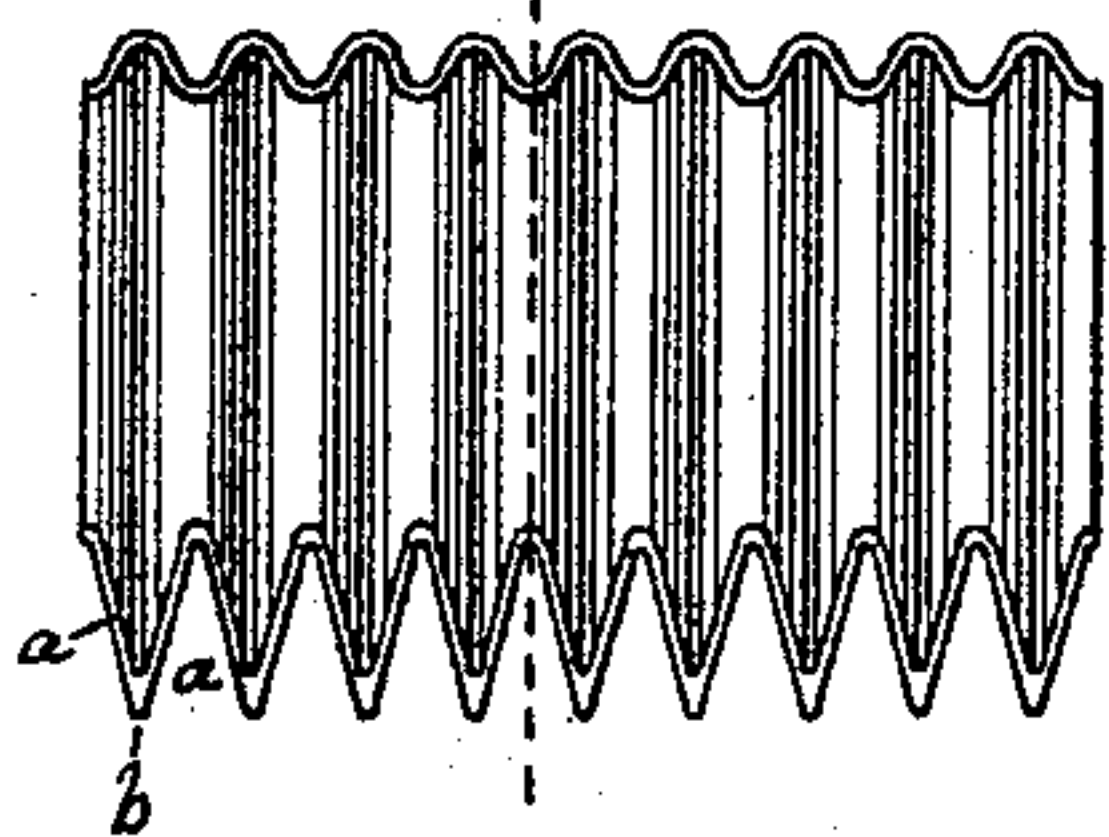


Fig 6.



Fig 7.



Fig 8.

Witnesses

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## CORRUGATED FASTENER.

SPECIFICATION forming part of Letters Patent No. 528,569, dated November 6, 1894.

Application filed January 4, 1892. Serial No. 416,939. (Model.)

*To all whom it may concern:*

Be it known that I, FERDINAND WM. STARR, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Sheet-Metal Corrugated Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of sheet-metal fasteners which have a series of body corrugations substantially parallel to each other, and adapted to be driven in the direction of their length into one, or more pieces of wood so as to interlock therewith and hold the same together. The special object is to make such fasteners with a series of uniformly stronger penetrating points than any heretofore made and used.

My improved construction consists in providing the penetrating edge of such a device, with a sharpened diagonal bevel, which begins on the apex of the series of body-corrugations, or holding ridges contained along one side of the fastener, and which terminates uniformly in a series of penetrating points or cutting edges in the corrugations, or holding ridges contained along the opposite side of the fastener.

In the drawings Figure 1, indicates a perspective of my improved fastener. Fig. 2, a vertical end view of same, and Fig. 3 a modified vertical end-view of same, showing a short counteracting bevel *e*, which controls its direct penetration. Fig. 4, indicates a step, which consists in severing a previously corrugated sheet, or strip of metal, by means of a circular, reciprocating, or metal band saw, the operating, or working location of which, is indicated by the diagonal line *a'*, and the result of the operation, is the compound diagonal bevel *a*, and the series of penetrating points *b*, which points terminate along one side only of the strip, or of the finished fastener as before said. Figs. 4 and 5, merely indicate an end view of a supposed corrugated strip, or sheet of metal, and the longitudinal oblique cut or severance for the purpose described.

Fig. 6, represents a strip prepared in accordance with my improved method, which strip may, or may not have the counteracting bevel *E* (shown at Fig. 3) and which is ready for the step by which I complete my improved fastener, which consists in longitudinally swaging or cutting through the apex of the ridges which are not provided with the points *b*, as indicated by the vertical dotted line *e*.

The importance of this particular mode of severance may be inferred from the incorrectly severed fasteners shown at Figs. 7 and 8, the outer points and wings of which lack the important longitudinal groove and ridge which uniformly terminate in the series of penetrating points in my improved fastener, and which enable it to be readily driven without collapsing or bending the points thereof. The effect of the counteracting bevel *e*, may also be produced by merely bending the points *b* toward the main bevel *a*, and the former may be imparted to the metal either before or after corrugating the same. The penetrating points *b*, may be oval, obtuse, or acute-angular in outline without departing from the spirit of my improvement, so long as the diagonal bevel *a* continues to intersect the plurality of points *b*, or counteracting bevel *e*, in the ridges of the corrugations contained along one side only of the strip, or of the completed fastener.

I am aware that the idea of sheet-metal corrugated fasteners having plain or pointed penetrating ends is not new, and that nails and spikes have been made with a diagonal penetrating end. I therefore desire to limit my invention to the peculiar construction herein set forth and specifically pointed out in the following claims.

I claim—

1. As an article of manufacture, a nail or fastener consisting of sheet metal bodily corrugated and having approximately parallel edges, one end beveled from the edges to the ridge of the corrugation whereby the extreme point is formed substantially in the plane of the ridge and a counteracting bevel formed on the extreme ridge at the point of the nail adapted to control its penetrating direction, substantially as set forth.



2. As an article of manufacture a fastener  
consisting of a strip of sheet metal having  
approximately parallel corrugations formed  
bodily therein, said corrugated strip beveled  
5 on one side from the body ridges to the ex-  
treme edge whereby a single point is formed  
on each alternate ridge, and a counteracting

bevel formed at the extreme points at the op-  
posite side from the main bevel, substantially  
as set forth.

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Witnesses:

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