T. V. ALLIS.
Fencing-Strip.

No. 209,790. Patented Nov. 12, 1878.

Fig. 1.

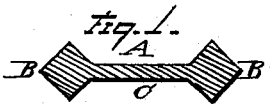


Fig. 2.

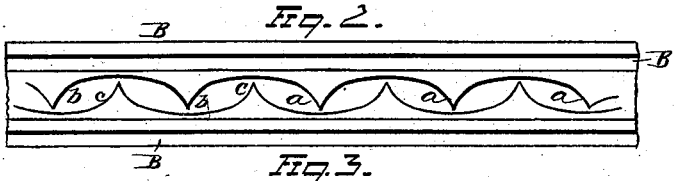


Fig. 3.

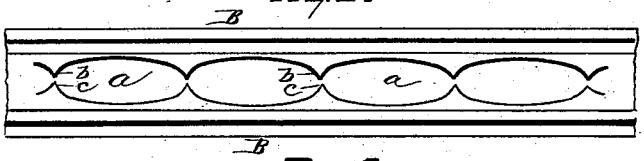


Fig. 4.

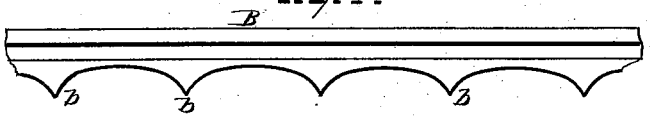


Fig. 5.

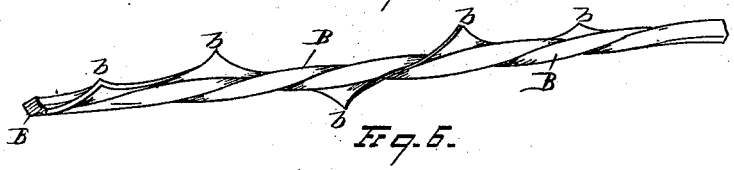
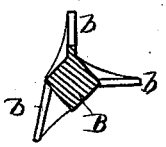


Fig. 6.



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THOMAS V. ALLIS, OF NEW YORK, N. Y.

IMPROVEMENT IN FENCING-STRIPS.

Specification forming part of Letters Patent No. **209,790**, dated November 12, 1878; application filed August 26, 1878.

To all whom it may concern:

Be it known that I, THOMAS V. ALLIS, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Barb-Wire for Fences and Process for Making Same; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in barbed fences, the object being to provide a barbed bar for fences of simple and durable construction and of small initial cost; and to that end my invention consists in a barbed bar for fences composed of a rib having thin flat parallel-sided barbs formed on one edge of the rib, the base portions of the several barbs being connected together by a continuous narrow fin which projects from the rib.

In the accompanying drawings, Figure 1 is a transverse section of the blank from which the barbed bars are formed. Fig. 2 is a plan view of the blank, illustrating one method of forming the barbs. Fig. 3 is a plan view of a blank, showing another method of forming the barbs. Fig. 4 is a plan view of the barbed bar before it is twisted. Fig. 5 is a view, in perspective, of the completed bar. Fig. 6 is a transverse section of the finished article as shown in Fig. 5.

A represents a blank in cross-section, consisting of the ribs B and connecting-web C. This form of blank is formed by rolling, as an equal pressure is exerted on opposite sides of the same. The ribs B are preferably of diamond shape or form, for the reason that such form enables the rolls to hold the blank firmly and prevent any lateral displacement of the same in the rolls. Also, the diamond-shaped rib imparts maximum stiffness to the completed bar as its transverse section is increased in width without adding to the weight or cost of the bar. The blanks are severed by a longitudinal cut, *a*, produced by stamping or by revolving shears or cutters, the barbs *b c* being formed at a single operation on the inner and adjacent edges of the ribs B.

It will be observed that the connecting-web C is of a width but slightly in excess of the desired length of barbs, and by severing the web C in the manner illustrated in Fig. 2 but little stock is wasted in the manufacture of the barbed bars.

It has been found impracticable to produce barbed bars from blanks having a web on one side only of the blank, owing to the difference in the work to which the rolls are subjected and the additional difficulty of holding the blanks in the guides—that is to say, by rolling a thin bar or blank with one edge thicker than the other the bar will curl and twist as it leaves the rolls. Were it possible to roll such bars thin enough and long enough to be commercially practicable for fences, they would warp when cooled, owing to the surplus metal on one edge thereof, thereby rendering it impossible to punch or shear the barbs from the fin or web upon the edge of the rib unless the barb is previously straightened, which latter operation necessarily disturbs and weakens the fibers of the metal.

In my improved barbed bar the base portions of the several barbs are joined together by a narrow continuous fin that projects from the rib B. This narrow fin subserves several important functions: First, it enables the several barbs to be formed without severing the skin of the rib B, and hence the main strengthening-rib is kept intact, and the metal is not oxidized and weakened, as would be the case if the skin of the rib were severed to form the barbs; second, the narrow fin imparts additional sectional area to the rib B, and thus assists quite materially in stiffening the same; third, the narrow fin adds to the width of the bar, and thereby enables it to be more readily seen by the stock.

After the barbs have been formed in the manner stated the bar is twisted and the single row of barbs disposed spirally about the rib.

Instead of cutting the barbs from the blank in the manner shown in Fig. 2, they may be formed as shown in Fig. 3; but the former plan is preferable, as involving a less waste of stock.

The process of manufacturing my improved barbed bar is herein described to enable oth-

ers skilled in the art to make and use the same; but I make no claim in this patent to such process, and I reserve such right for another pending application. Again, I make no broad claim to a barbed bar provided with a single row of barbs, as such forms of bars, broadly considered, are not novel with me.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A barbed bar for fences, consisting of a rib of triangular or equivalent form, having a single row of triangular barbs with parallel sides formed on one edge of the rib, the base portions of the several barbs connected together by a continuous fin which projects from the rib, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

THOMAS V. ALLIS.

Witnesses:
A. W. BRIGHT,
F. O. MCCLEARY.