T. V. ALLIS.

METALLIC BARBED FENCING.

No. 266,336. Patented Oct. 24, 1882.

Fig. 1.

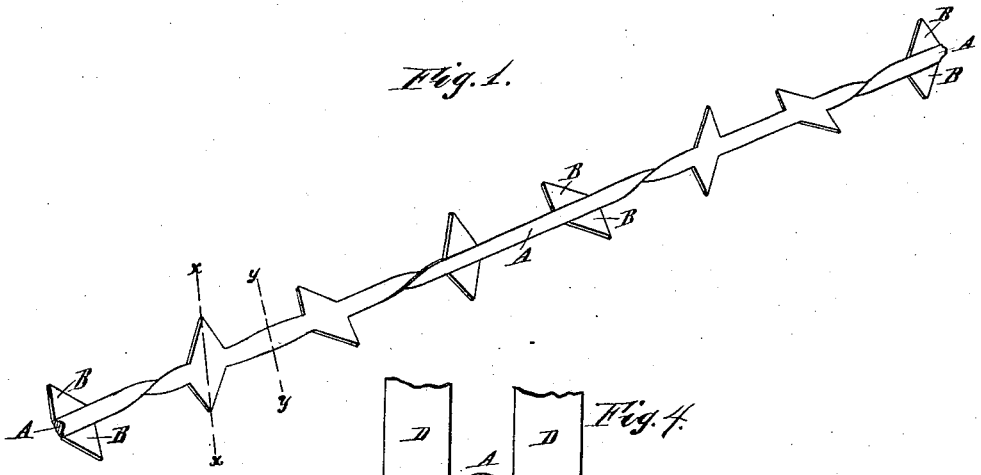



Fig. 4.

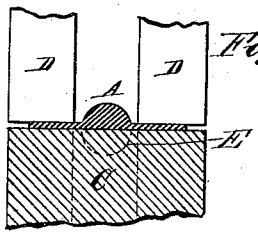
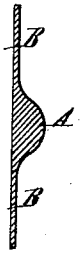



Fig. 5.

Fig. 2.



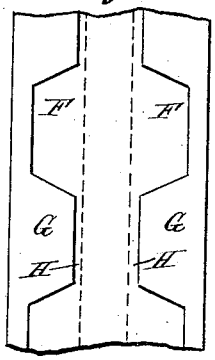




Fig. 3.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# UNITED STATES PATENT OFFICE.

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## METALLIC BARBED FENCING.

SPECIFICATION forming part of Letters Patent No. 266,336, dated October 24, 1882.

Application filed January 30, 1880.

*To all whom it may concern:*

Be it known that I, THOMAS V. ALLIS, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and Improved Metallic Barbed Fencing, which is fully described in the following specification.

The invention relates to barbed metallic fencing made by rolling long strips with a body or core portion and a flat web or fin, which is thinner than said body or core, and cutting away portions of the web or fin to make the points or barbs.

The barbed fencing hitherto made of a core or body with a thin fin or web on the side or sides, out of which barbs were formed by cutting away portions of the fin or web, has been made with the web or fin radial to the core—that is to say, the strips were so formed that the thin fin or web had its base joined centrally to the thicker core or body, so that the latter swelled out alike each side of the fin. The practical manufacture of this kind of fencing developed the fact that in consequence of this arrangement the fin or web had to be made considerably wider for barbs of a given length than the desired length of the barb, because the die on which the strips lay while the surplus metal was being cut from the fin or web had to be grooved for the under side of the core or body to rest in to allow the flat web to rest on the face of the die, and where the opening was made through the bed-die for the punch to enter, a thin edge of metal was left between said opening and the groove, incapable of withstanding the shocks of the punch, and quickly breaking away and destroying the die. To locate the groove in the bed-die sufficiently distant from the punch-openings, so that the metal between the punch and the groove shall be wide enough for strength, (which was the only remedy,) demanded wider fins or webs for barbs of a given length and involved a considerable waste of metal, which it is the object of this invention to avoid.

The invention consists of the said fencing made with the core or body so united to the fin or web that upon one side they form a uniform flat plane the whole breadth of the strip, while on the other side the core or body rises abruptly from the web as much as the said core or body is thicker than the fin or web, and the notches cut in the web to form the points extend to and terminate at the base of the core or body, said notches and points being equal in depth to the width of the web or fin, thus avoiding waste of metal by any unutilized breadth of fin between the notches and points and the core or body.

Figure 1 in the accompanying drawings is a perspective view of a barbed fence-rod made according to the improvement of this invention. Fig. 2 is a transverse section on a larger scale through the barbs, say in the line *x x* of Fig. 1. Fig. 3 is a transverse section (also larger scale) on the line *y y*, Fig. 1. Figs. 4 and 5 are representations of the die and punches employed in cutting the fins to shape the barbs, illustrative of the facility of the construction of this form of rod with points of a given length from fins or webs of less breadth than heretofore required.

A represents the core or body, and B the barbs, and in Fig. 2 B also illustrates a section of the fin or web. The core or body A is mainly or wholly formed on one side of the plane of the web or fin, as clearly shown, and the notches between the barbs are cut close to the side of the body or core.

By reference to Fig. 4 it will be noticed that when the fins project from the middle of the core as heretofore made, the die C, on which the rod lies for cutting away the surplus metal of the fins between the barbs by the punches D, has to be grooved in the face, as indicated by the dotted line E, to receive the under side of the core, so that the fins can lie flat on the wide portions F of the faces of said die to be cut by the punches D, working in the opening G, Fig. 5, between said faces; and, again, by reference to Fig. 5 it will be seen that narrow faces H have to be provided between the groove and the spaces G of sufficient breadth to afford requisite strength of metal to resist the blows and shocks of the punches and prevent the corners from breaking and chipping off, and this necessitates the leaving of narrow webs or portions of the fins along the core between

the barbs, which are saved by the construction of the core in the form herein shown and described, because the flat side avoids the necessity of the groove in the die, and this enables the punches D to cut close up to the body or core without damage to the die, so as to avoid the aforesaid webs between the barbs, and thereby barbs of a given length are obtained from fins of less breadth than as before, and thus metal is economized.

I desire it to be understood that my improved fencing differs from that made from a strip of wedge shape in cross-section, in that it is made of a distinctive core or body and a thin web or fin thereof.

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

Barbed metallic fencing, consisting of a core or body portion and points or barbs cut from a thin fin or web of the core or body, the core or body being so united to the fin or web that upon one side they form a uniform and flat or nearly flat plane the whole breadth of the strip, while on the other side the core or body rises abruptly from the fin or web as much as the said core or body is thicker than the fin or web, and the notches cut in the fin or web to form the points extend to and terminate at the side of the core or body, said notches being equal in depth and the points equal in length to the width of the fin or web, substantially as specified.

THOMAS V. ALLIS.

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