(No Model.)

## E. B. GUENZEL.

MODE OF CONSTRUCTING BARB WIRE FENCES, &c.

No. 452,002.

Patented May 12, 1891.

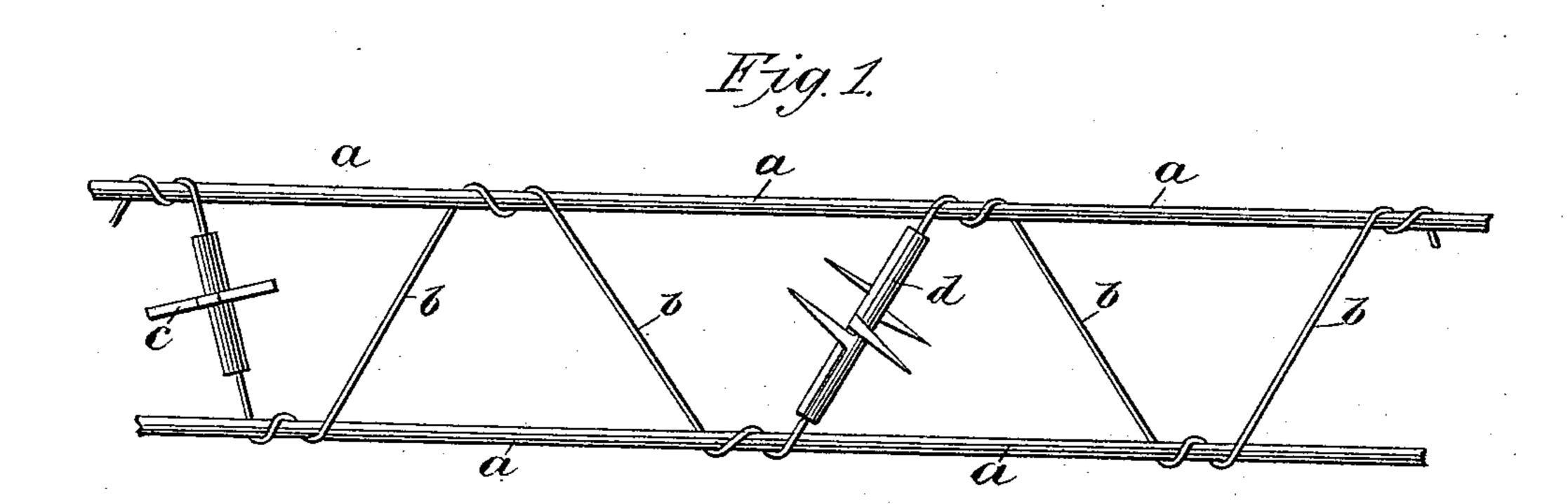


Fig. 2.

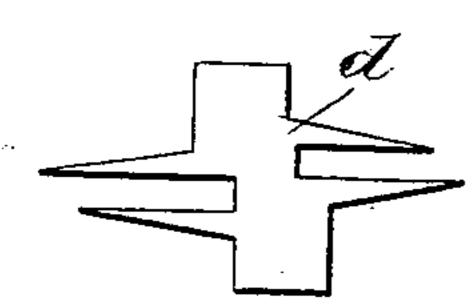


Fig. 3.

Mitriesses: Charles F Israel.

Edward B. Guennel.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

## United States Patent Office.

EDWARD B. GUENZEL, OF TRACY, IOWA.

## MODE OF CONSTRUCTING BARB-WIRE FENCES, &c.

SPECIFICATION forming part of Letters Patent No. 452,002, dated May 12, 1891.

Application filed May 1, 1890. Serial No. 350, 252. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. GUENZEL, of Tracy, in the county of Marion, in the State of Iowa, have invented a new and Improved 5 Mode of Constructing Barb-Wire Fences; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to letters of reference marked thereon.

My invention relates to an improvement in the construction of barb-wire fences, of which the object is to prevent the damaging and crippling of live stock, especially horses. To obtain this I form a fence-wire supplied with resolving hub-barbs, as those represented in Figure 1. In Fig. 2 is the view of hub-barb

d, represented just after being cut out of sheetiron. Fig. 3 represents a flat barb supplied with a hub

with a hub.

The fence-wire, as represented in Fig. 1, is formed out of two parallel running strands of wire, which are held together by an additional wire. Said additional wire forms at the same time the perpendicular or oblique standing

25 axis for revolving hub-barbs.

Letter  $\alpha$  designates the parallel running strands of wire; letter b, the additional wire; letters c and d, hub-barbs. One or both of the two parallel running strands of fence-wire 3° can also be used as a horizontal axis for barbs. The barb d, which is cutout of sheet-iron, and represented in its first flat stage in Fig. 2, has to be formed in a tub, or rather hub, which will then have the points radiating from the 35 center of the hub. The barb c is also cut out of sheet-iron and then provided with a hub. One of the advantages of these hub-barbs is the position the points of the barbs are placed in. Any pressure on the same will not bear di-40 rectly on the center of the axis, but sideways, and on that account the revolving of the barbs is greatly facilitated.

By the use of this fence, with its hub-barbs, it is almost impossible for a horse to injure itself, either by running against the wire or 45 by having its limbs sawing over the barbs at the opposite side of the fence. At the same time the fence will prove itself an effectual barrier against stock. By forming these tub-barbs with only two points a horse 50 can be wrapped up in the wire and still the barb-points would not rip open skin and muscles, like other barbs. Of course with barbs which only have two points the points have to be in opposite directions and the barb- 55 points have to be moderately heavy at their base, so that by means of their gravity and the oblique position of the barb axis the two barb-points would be always at the lower side of the hub, and consequently the barb-points 60 of said barbs will standat a right angle with the fence. The barb c can also be used without the hub (on perpendicular and horizontal axes) by having the same convex instead of entirely flat. This barb also would be then, 65 to a certain extent, a modified hub-barb.

Of course all mentioned barbs can be made with more or less points than shown in draw-

ings.
What I claim as my invention, and desire 70

In a barbed fence, a fence-wire composed of two parallel strands intersected by a third passing diagonally back and forth between the parallel strands and twisted at the point 75 of contact, in combination with a barb rotating on said third strand, all substantially as described.

EDWARD B. GUENZEL.

Witnesses:
Louis T. Marsh,
Lucius N. Reed.