Oct. 4, 1960 T. E. O'HAFFEY 2,954,964

WIRE FENCES HAVING MEANS TO RENDER THEM IMPERVIOUS TO LIGHT AND AIR

Filed Nov. 24, 1958

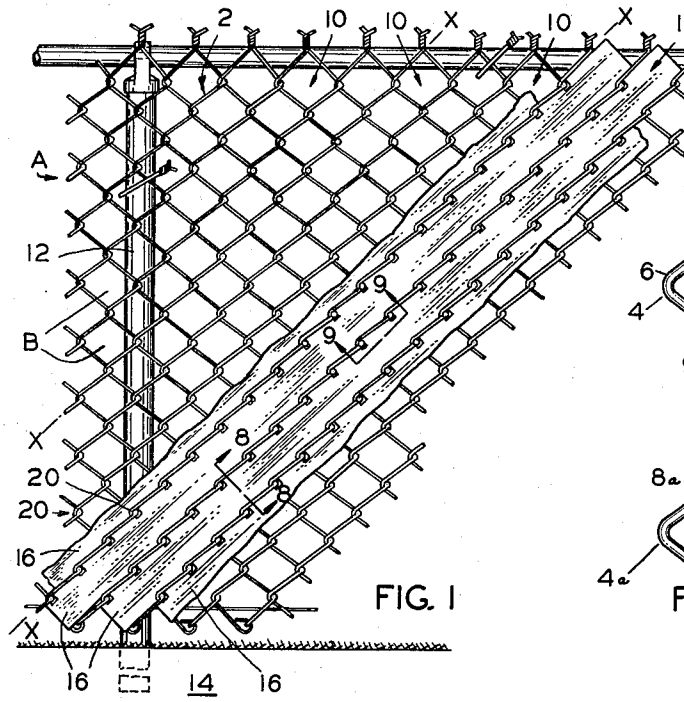


FIG. 1

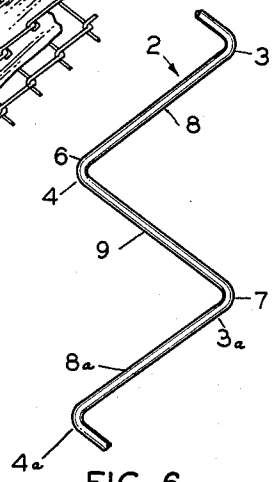


FIG. 6

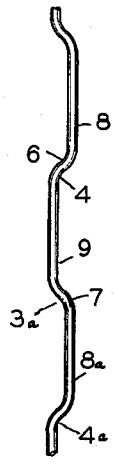


FIG. 7

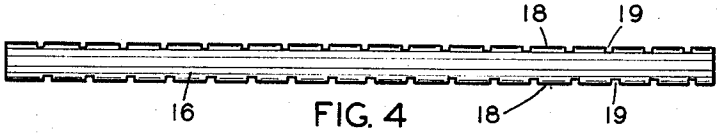


FIG. 4

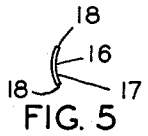


FIG. 5

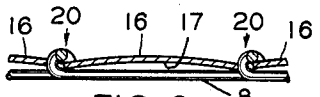


FIG. 8

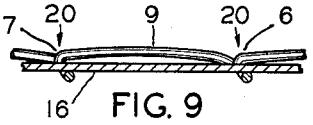


FIG. 9

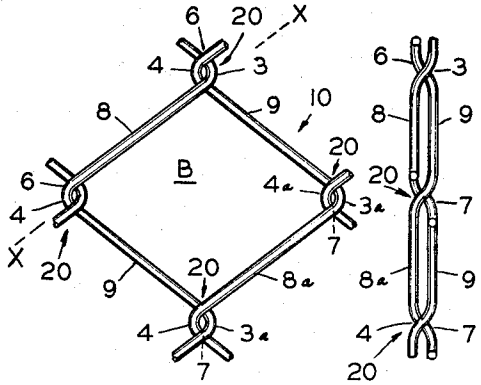


FIG. 2

FIG. 3

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WIRE FENCES HAVING MEANS TO RENDER THEM IMPERVIOUS TO LIGHT AND AIR

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1 Claim. (Cl. 256—34)

This invention pertains to wire fences having means to render them impervious to light and air.

More particularly this invention pertains to the combination of a "Cyclone" or chain link wire fence with strips of opaque material which are resiliently retained diagonally in channels between the raised bends of the several wire link elements which compose the fence, whereby the fence is imperforate to light and air, and will provide privacy for an inclosed area.

The construction of link wire fences by means of metal wire elements which are bent in zig zag fashion with the bends raised somewhat relative to the plane of the bends, so that joints are formed with protruding bend portions is well known to the art. These elements are linked together so that diamond shaped openings are formed, and diagonal rows of bends extend across the face of the mesh. Heretofore attempts have been made to provide fences of this kind which would be impervious to observation and afford privacy, so that the fence would turn the wind, when desired. However, such attempts as have been made are not fully satisfactory, and, although slats were inserted between wires of the fabric of this type of fence, there were necessarily open spaces between the slats and these not only admitted air and permitted wind to penetrate the fence but were not impervious to vision and did not provide the degree of privacy desirable.

The present invention concerns structure and means for forming the structure whereby ordinary wire fence of the type above mentioned and commonly known as "Cyclone" fence may be rendered impervious to light and air by the addition of specially formed resilient strips of material which are secured diagonally on the face of the fence by retention on the joints between the several vertical wire elements of the fence.

Another object is to provide metal strips having a slight transverse curvature and have notches along their edges at intervals so that they will receive and engage over the raised bends of the wire elements of said fence which are disposed in diagonal rows extending over the face of the fence.

The objects also include the method of slightly springing the strips, above mentioned, across their width, placing them in the diagonal channels between the diagonal rows of bends of the elements of the fence, which are between the interlocking joints, then releasing the strips so that the notches in their edges engage the wires at the bends which form the joints and are thereby retained on the face of the fence.

Other objects will appear hereinafter.

I attain the foregoing objects by means of the structure, parts, and combinations of parts shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of a Cyclone fence onto which my opaque strips have been applied in part;

Figure 2 is a front elevational view of a fragment of the fence structure drawn on an enlarged scale which shows the relation of the vertical elements which compose the fence;

Figure 3 is a side sectional elevation of the fence as shown in Figure 2;

Figure 4 is a plan view of one of my impervious strips drawn on a reduced scale;

Figure 5 is an end view thereof;

Figure 6 is a front elevational view of one of the wire elements which form the fence drawn on an enlarged scale;

Figure 7 is a side view thereof;

Figure 8 is a section drawn on an enlarged scale taken transversely on line 8—8, Figure 1, through one of the impervious strips in place on the fence wires, showing portions of the wires in place and fragments of adjacent strips; and

Figure 9 is a longitudinal section drawn on an enlarged scale of a fragment of one of the strips when applied to the fence and taken on line 9—9, Figure 1.

Similar numerals refer to similar parts in the several views.

It is to be understood that a "Cyclone fence" A, as herein concerned, consists of vertical elements 2 made of metal wire which is bent at intervals 3 and 4 from side to side in a zig zag manner. The bends 3 and 4 not only alter the direction of the wire in the plane of the fence to be formed but are given secondary bends 6 and 7 so that each of the bends has depth, relative to the plane of the face of the fence. This depth is provided so that each vertical element will interlock with an adjacent similar element and so that the bends 3 and 4 will have sufficient radius to prevent breakage, and so that there will be a slight resilience at each joint whereby the whole mesh of the composite fence will have both longitudinal and vertical resilience.

Vertical elements 2 are joined first at 3 then continue diagonally and are again joined at 4 and continue diagonally in the opposite direction and are again bent at 3*a*. Each of the bends not only changes the direction of the straight runs indicated at 8 and 9, for example, but are curved at right angles to the plane of the bends above mentioned by bends 6 and 7. This gives depth to each bend. The bends forming the depth, are indicated by numerals 6 and 7, and are termed secondary bends.

Each of the vertical elements 2 are made of uniform bends having similar angle openings. These elements are then interlocked with similar elements so that the bends of one element partially encircle and interlock with the bends of the adjacent element. Diamond shaped openings "B" are thus formed. A series of these elements interlocked, as above stated, and as illustrated in the drawing constitute a fence indicated by the letter "A." This fence is supported by posts, such as 12, set in the earth 14 at desired intervals.

A fence so constructed provides diagonal channels 10 between the humps or bends 6 and 7 which give depth to the bends which form the diagonal straight runs. These channels 10 extend diagonally throughout the length of the fence and are adequately suited to receive the resilient metal strips 16, shown particularly in Figures 4 and 5. It is to be noted that these strips have a slight transverse curvature 17 throughout their length. The material from which the strips are made is somewhat resilient or springy so that the transverse curve 17 can be increased when the edges 18 are forced toward each other. The edges are provided with notches 19 at intervals which will mate with the humps 20 in the fence structure which define the edges of channels 10, and are produced by the depth bends 6 and 7.

The method of applying the strips 12 to the face "A" is as follows: Strips 12 are compressed along their edges so that they are somewhat narrower than their normal

width, and narrower than channels **10**. They are then placed in channels **10** on the face of fence "A" and released in a position longitudinally so that the notches **19** on both edges of the strips engage over the bends **6** and **7**, respectively, which form the humps **20**.

When this is done the strip is resiliently held in place in the channels **10** of the fence. The edges **18** of each strip extend slightly beyond the lines X—X which indicate the diagonal mid-line of the humps **20**. Therefore, the edges of the strips overlap slightly, depending on the depth of notches **1***a*, and in this way close all spaces between them. This structure makes the fence impervious to light and to observation and makes it impervious to air flow and therefore, wind proof.

The ends of the strips **16** may be square, as shown, or may be trimmed to make them parallel with the top edge of the fence, as shown.

Since the strips are slipped into the channels and then permitted to expand, there is no sliding motion through the fence and no interference with fastenings which hold the fence wires onto the poles or frame members. It is to be noted that channels **10** are determined by the rows of humps formed by the bends **6** and **7** and that, as shown, the channels trend downward and angularly to the left. Should the twists of the bends **6** and **7** be reversed with reference to bends **3** and **4**, and the links put together accordingly, then the downward slant of the channels will be from left to right. The positioning and holding of the strips is dependent on the positioning of

the channels **10** and by the humps **20**. The structure of the type of fence here concerned is well known and the diamond shaped mesh produces a linked fabric or netting that is well known to the art. The invention resides in the efficient means for rendering the fence structure impervious so that the equivalent of a substantially solid wall is produced.

I claim:

In a Cyclone type fence structure having a plurality of wire elements with zig zag bends linked together to form diamond shaped mesh structure, said bends including flat portions and vertical hump bend portions providing depth to the bends so that there are parallel rows of humps extending angularly on said mesh structure which define angularly extending channels, means for rendering said fence structure substantially impervious to light and wind consisting of a plurality of metal strips having a transverse curvature and notches along their edges positioned in said channels so that their edges spring outward toward said humps and the notches in said strip edges engage the vertical hump bend portion of the bends in said wire elements of said fence and secure retention of said strips in said channels.

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