

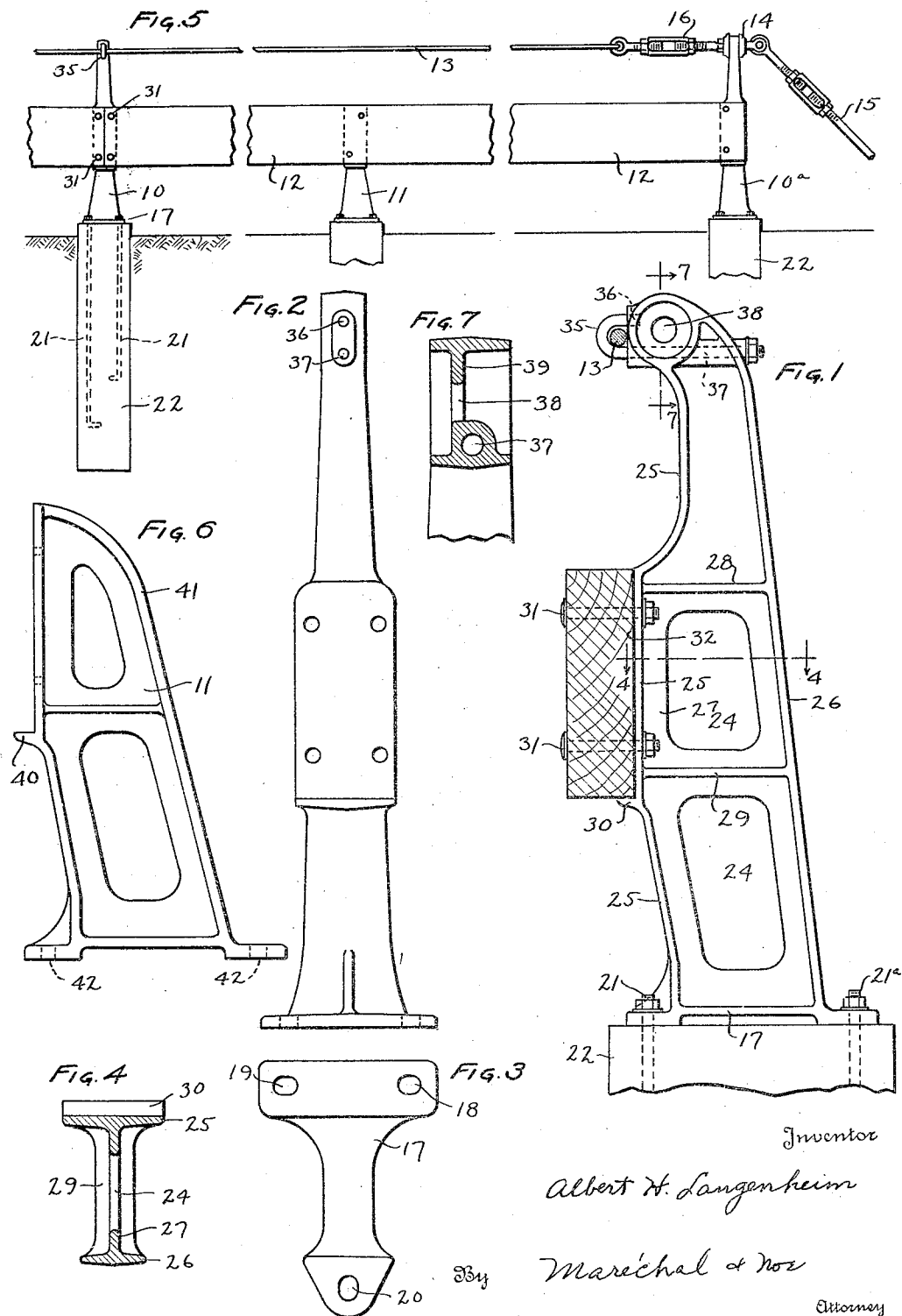
Jan. 31, 1933.

A. H. LANGENHEIM

1,895,670

FENCE POST

Filed July 11, 1932



UNITED STATES PATENT OFFICE

ALBERT H. LANGENHEIM, OF DAYTON, OHIO, ASSIGNOR TO THE DAYTON MALLEABLE IRON COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO

FENCE POST

Application filed July 11, 1932. Serial No. 621,819.

This invention relates to fences such as are used as guard fences on highways and the like.

The principal object of the invention is the provision of a metal fence post of very strong construction but light in weight and of cheap manufacture, adapted to be securely mounted in place and having provision for readily connecting the guard cables or planks.

Another object of the invention is the provision of a fence post of the character mentioned having provision at its upper end for readily connecting and supporting the guard cable in a plurality of different positions.

Another object of the invention is the provision of a fence post of the character mentioned constructed as an iron casting adapted to be readily secured to a concrete foundation or the like at three different points, and having provision for assuming the weight of the guard planks which are connected to it.

A further object of the invention resides in the provision of a highway fence embodying a series of posts of the character herein above set forth and comprising planks attached to and stretching between the posts at a suitable height, and guard cables connected at the upper ends of the posts.

Other objects and advantages of the invention will be apparent from the following description, the appended claims, and the accompanying drawing in which

Fig. 1 is a side elevation of a fence post embodying the present invention, shown in its relationship with associated parts of the fence;

Fig. 2 is a front view of the fence post;

Fig. 3 is a bottom plan view of the post;

Fig. 4 is a horizontal section on the line 4—4 of Fig. 1;

Fig. 5 is a view showing a portion of a fence embodying the present invention;

Fig. 6 is a side elevation of one of the short posts; and

Fig. 7 is a vertical section on the line 7—7 of Fig. 1.

Referring more particularly to the drawing by reference numerals, like numerals designating similar parts in the various

views, 10 designates generally a fence post adapted for fence constructions such as used on highways at curves or other dangerous places to prevent an automobile or the like from getting off of the highway.

In Fig. 5 is shown a portion of a highway fence embodying a series of posts 10 between which are alternately arranged shorter posts 11, the posts 10 and 11 supporting and holding planks 12 arranged at about hub cap height of an automobile. Above the planks 12 is stretched a wire or cable 13, which is rather loosely held at the upper ends of the fence posts 10. At the end of the fence the cable is attached to the end post 10a by means of a suitable fitting 14 which is connected by a guy or brace 15 anchored at its lower end in any desired manner. A turnbuckle 16 or the like is preferably provided between the cable and fitting 14.

The fence post 10 is preferably made in the form of a strong and rigid metal casting of malleable iron or other metal adapted to withstand the shocks and strains to which it is subjected. The casting has a base or foundation foot 17 which is preferably of generally triangular shape and in which there are three holes 18, 19 and 20 adapted to receive the upper ends of anchoring bolts 21, 21a which are cast in a foundation or block of concrete or the like, designated generally 22. The concrete foundation blocks are preferably preformed and are sunk or planted in the ground at desired locations a suitable distance apart along the edge of the highway. They are adapted to detachably receive and support the various fence posts. Two of the anchoring bolts 21 are arranged adjacent the roadside corners of the foundation block, while the third bolt 21a is arranged centrally on the opposite side so that the post will be firmly supported at the front at points a considerable distance away from the plane of symmetry in order that strains or shocks tending to move them sidewise will be adequately assumed. The rear bolt, being a considerable distance away from the two front bolts provides a firm support for the rear of the post, it being observed that two roadside bolts both come into effect in case the guard planks are

struck by an automobile, while the single rear bolt is not subjected to great strains.

Rising from the base of the post 10, as shown, is a generally H-shaped body portion, having lightening holes 24. The body portion preferably comprises a front web 25 and a rear web 26 between which extends a central web 27, and at suitable points adjacent the plank's position are horizontally extending strengthening webs 28 and 29. Projecting from the front side of the post at a suitable distance above its base is a shelf or bracket 30 adapted to support the inner lower edge of the plank 12 so that weight of the plank 12 is assumed by the post itself rather than by the bolts 31 which hold the plank against the flat face 32. This not only relieves the bolts 31 from strain, but also greatly facilitates the assembly of the planks at the exact height desired.

Just above the top of the plank position the post 10 is cut away to provide a recess or indentation, the forwardly located web 25 curving back and up and then curving outwardly again adjacent the top of the post so that the post itself will not be liable to be struck by the fender of a car.

The upper end of the post is so constructed that posts of the same design may be used at the end of the fence as well as the intermediate portions. In the main body of the fence, the post supports the cable 13 preferably by means of a J-shaped bolt 35 having a short leg receivable in a socket 36 and having a long leg passing through a hole 37 arranged at right angles and just below another hole 38 which passes through a web 39 as shown in Figs. 1 and 7. The diameter of the cable 13 is preferably somewhat smaller than the opening in the J-bolt so that the cable can move endwise in order that strains on one part of the cable may be distributed over a number of posts. In the main body of the fence the posts support the cable outwardly of the post top, and preferably above the plank position. When such a post is used at the end of the fence, the cable can be extended through the hole 38, or the cable may be attached to a fixed fitting 14 which extends through the hole 38 as shown in Fig. 5. If it is desired to have the cable extend through the holes 38 of all of the posts of the fence instead of having it supported by J-bolts, such an arrangement is provided for. While the intermediate portion of the post 10 is herein shown as adapted for the support of a plank, it will be obvious that the post may be so constructed as to mount a cable in place of a plank so that the fence would comprise a series of posts and two cables arranged one above the other instead of the cable and plank arrangement as herein shown.

Between the posts 10, the planks are preferably supported by short posts 11, the lower ends of which are constructed similarly to

the post 10. Such a post 11 is shown in Fig. 6, providing a shelf or bracket 40 for the support of the plank. The post 11 is of such height that it reaches up to the top of the plank, the rear upper side being preferably curved as shown at 41. Three attaching holes 42 are provided, the foot or base portion of the posts 11 corresponding in construction and hole spacing to that of the post 10 so that the various posts may be interchangeably mounted on the concrete foundations.

Posts of the character herein described may be readily made as malleable iron castings which need not be machined, as they may be readily finished merely by a tumbling operation followed by the application of a suitable coating of paint or the like for visibility. They may be readily handled and mounted in place on the concrete foundations, the planks and cables being very conveniently supported in their proper positions. Due to the constructional features of the posts, they are of light weight but admirably adapted to withstand the various strains and shocks to which they are subjected. In case of collision of a car with the plank, where the shock is not too severe, the plank deflects the car along the fence. When the shock is severe the plank might be broken, and the strain assumed by the cable. In case of tremendous shock on the fence, or in case the shock is applied directly adjacent one of the posts, the post might break, although the anchoring concrete foundations are preferably made of rather small width so that they might move somewhat in the ground, but in case of breakage of a post the broken parts are very readily separable from the foundation and from the cable and planks, and a new post can be very readily mounted in its place.

While the form of construction herein described, constitutes a preferred embodiment of the invention, it is to be understood that the invention is not limited precisely thereto, and that changes may be made therein without departing from the scope of the invention which is defined in the appended claims.

What is claimed is:

1. For use in a highway guard fence, a fence post comprising a cast metal member having cable supporting means at its upper end, a central portion of the front of the post having a flat plank positioning surface, the portion of the post just above the plank position being recessed back away from the plank position while the top of the post projects out to support the cable substantially above the plank position.

2. For use in a highway guard fence, a fence post comprising a base portion having attaching holes positioned at the apices of a triangle, a body portion integral with the base and generally of H-shaped section, said post having a plank positioning surface and a projecting shelf adjacent the bottom of said

surface for supporting the plank, a cable holding bolt at the top of the post adapted to support a cable outwardly from the post top, the top of the post having a passage through which the cable can be threaded.

3. For use in a highway guard fence, a fence post comprising a base portion having attaching holes positioned at the apices of a triangle, a body portion integral with the base and generally of H-shaped section, said post having a plank positioning surface and a projecting shelf adjacent the bottom of said surface for supporting the plank, a cable holding bolt at the top of the post adapted to support a cable outwardly from the post top, the top of the post having a passage through which the cable can be threaded, the body portion of the post being recessed away from the upper end of the plank position and below the post top to provide clearance above the plank position.

4. A guard fence for highways comprising a series of long and short posts detachably supported on a series of buried foundations, a cable extending between and supported on the long posts, and planks provided below the cable and supported by the long and short posts, the lower ends of the long and the short posts being of similar construction so that they may be interchangeably held on the foundations.

In testimony whereof I hereto affix my signature.

ALBERT H. LANGENHEIM.