

Oct. 22, 1940.

G. A. GUSTAFSON

2,218,953

ADJUSTABLE GRADE IRON FENCE

Filed Aug. 7, 1939

2 Sheets-Sheet 1

FIG. 1.

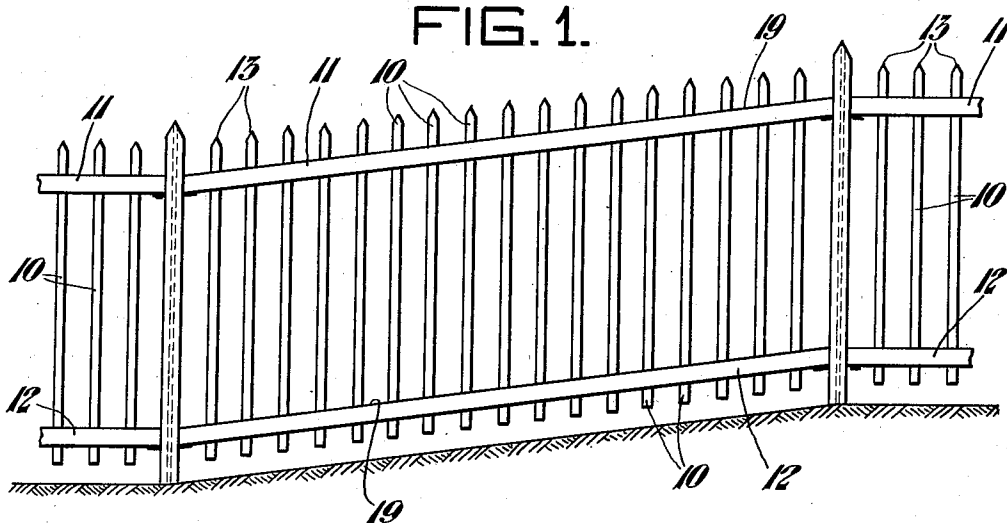


FIG. 4.

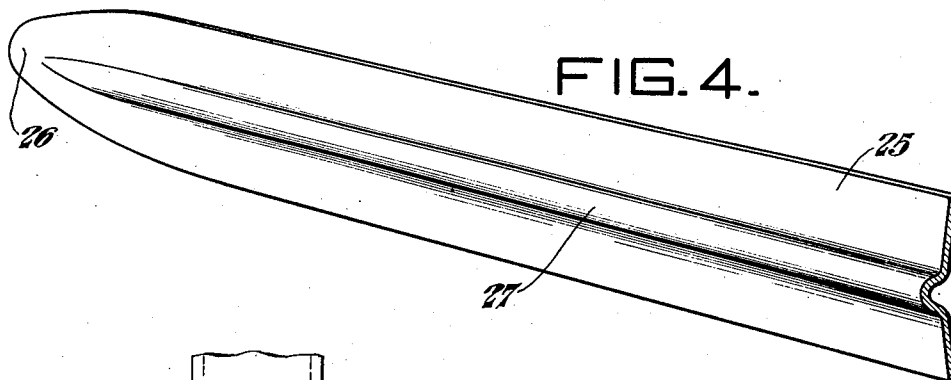


FIG. 6.

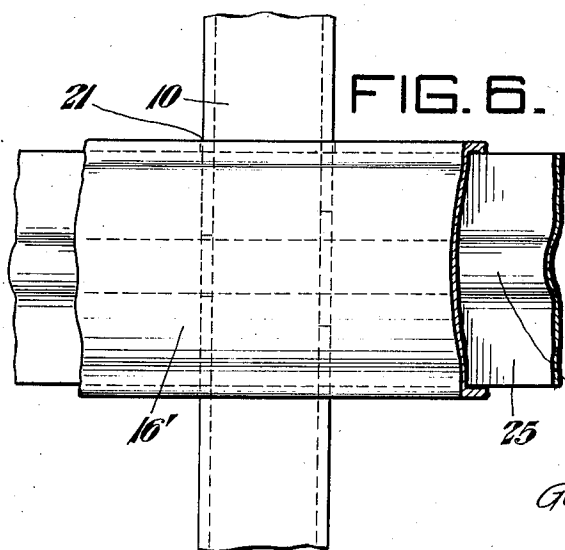
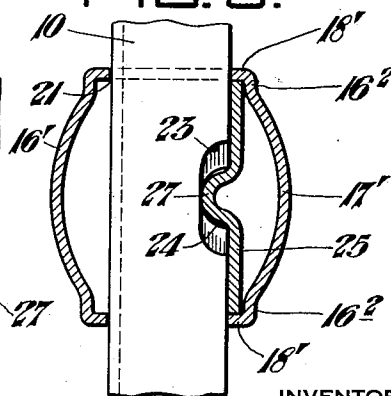


FIG. 5.



INVENTOR: ~
GUSTAF A. GUSTAFSON,
BY: *John E. Jackson*
HIS ATTORNEY.

Oct. 22, 1940.

G. A. GUSTAFSON

2,218,953

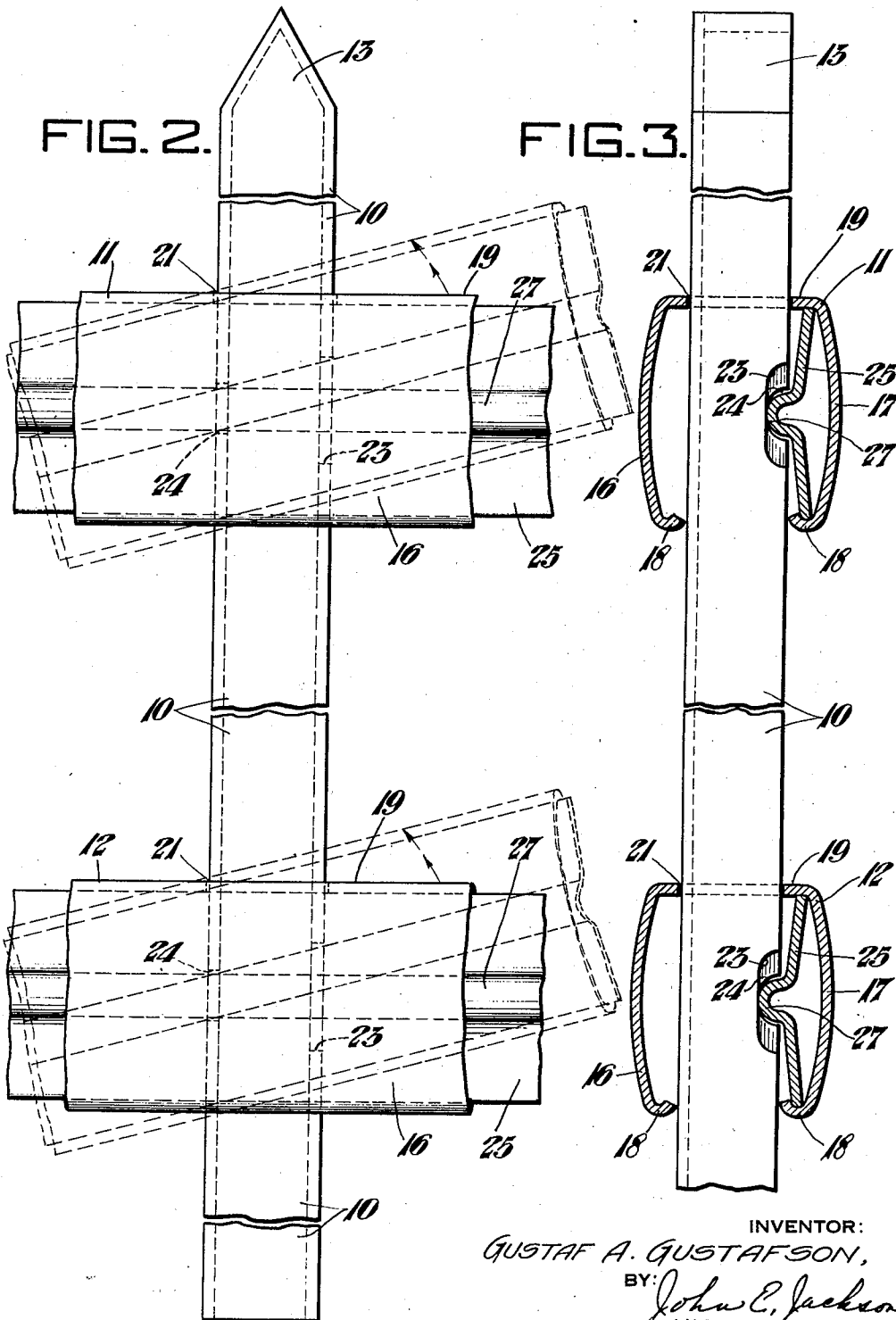
ADJUSTABLE GRADE IRON FENCE

Filed Aug. 7, 1939

2 Sheets-Sheet 2

FIG. 2.

FIG. 3.



INVENTOR:

GUSTAF A. GUSTAFSON,

BY:

John E. Jackson
HIS ATTORNEY.

UNITED STATES PATENT OFFICE

2,218,953

ADJUSTABLE GRADE IRON FENCE

Gustaf A. Gustafson, Waukegan, Ill., assignor to
Cyclone Fence Company, a corporation of Illinois

Application August 7, 1939, Serial No. 288,855

3 Claims. (Cl. 256—22)

The invention relates to improvements in fence structure and has more particular reference to an improved iron fence of the ornamental picket type, and particularly one which is adjustable to the grade of the place of erection.

An object of the invention is to provide an ornamental iron fence which will be adjustable as to grade so that the fence will not have to be built to particular specifications but can be manufactured in large quantities at a relatively low cost.

Another object of the invention is to provide an iron picket fence that can be fabricated either partly or entirely from sheet metals and which will fulfill all requirements of service ordinarily demanded of ornamental iron fencing.

Still another object is to provide an iron picket fence wherein the horizontal rails are fabricated from a plurality of parts stamped from sheet metal which are capable of holding the fence in assembled relation although permitting limited articulated movement so that the fence can be adjusted to conform to the slope and contour of the ground at the place of erection.

A further object is to provide an ornamental iron fence of the character described wherein the horizontal rails and pickets will be held in assembled relation without the use of welding or fastening means of any kind.

The invention, then, comprises the features hereinafter fully described and as particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative of several of the number of ways in which the principles of the invention may be employed.

In the drawings which illustrate an embodiment of the invention and wherein like reference characters are used to designate like parts:

Figure 1 is a front elevation of the assembled fence of the present invention;

Figure 2 is an enlarged fragmentary front elevation of the part of the fence of Figure 1;

Figure 3 is a fragmentary sectional end elevation;

Figure 4 is a perspective of one of the locking members;

Figure 5 is a fragmentary sectional end view of a modification; and

Figure 6 is a fragmentary front elevation of the modification of Figure 5.

The present fence is similar in appearance to the ornamental iron fence of the type having vertical pickets, although the horizontal rails of

the present fence are fabricated from sections stamped from sheet metal. The pickets thereof may also be stamped from sheet metal, although solid iron pickets may be used if desired and are, therefore, to be considered as coming within the invention.

Referring to Figure 1, the fence of the invention may be described as comprising vertical pickets indicated by the numeral 10 held in vertical position and in proper spaced relation by horizontal upper and lower rails indicated generally by the numerals 11 and 12, respectively. As previously described, the pickets may be stamped from sheet metal, in which case they will be channel-shaped in cross sections, or said pickets may be of solid iron (not shown). The upper ends of the pickets are preferably pointed, as at 13, in any desired decorative manner.

The upper and lower rails 11 and 12, respectively, are identical in construction, each including a substantially U-shaped member 16 which is shown in inverted position in Figure 3. The side walls of the substantially U-shaped member 16 are identical and outwardly bowed, as shown at 17, the outer extremities being inwardly curved to provide clamping surfaces 18, the function of which will be later described.

At spaced points along the length of the inverted substantially U-shaped members 16, the web or base portions 19 thereof are provided with apertures 21 which, although larger, are shaped to conform to accommodate the vertical pickets 10.

Referring again to Figure 3, it will be noted that each of the vertical pickets 10 is provided with two horizontal slots, as at 23 and 24, across the rearward faces thereof and adjacent the positions of the upper and lower rails 11 and 12, respectively. One of the horizontal slots 23 is considerably wider than the other slot 24 which is for a purpose to be later described.

The inverted substantially U-shaped members 16 receive, through their apertures 21, the vertical pickets 10, and to some measure clamp the same in position by means of the clamping surfaces 18 on the lower extremities of the side walls 17. However, it is desired to more positively lock each of the vertical pickets 10 with the upper and lower rails 11 and 12, respectively, and for this purpose there is provided a locking member 25. Each locking member 25 comprises a web having a pointed extremity 26; and is provided with a tapering rib 27 which is deformed from the plane thereof. These locking members are adapted to be driven between the side walls

17 and the rearward faces of the vertical pickets 10 with their tapering ribs 27 occupying the narrower (24) of the adjacent horizontal slots of the pickets.

- 5 The upper and lower rails 11 and 12, respectively, are first put in position after which the vertical pickets are inserted. The locking members 25 are driven into position tapered end first, thereby providing a positive lock. Thus, the vertical pickets 10 are prevented endwise movement, but the upper and lower rails 11 and 12, respectively, can be put on a grade because of the hinge effects obtained by the mounting of the vertical pickets 10.
- 15 The smaller of the horizontal slots 24 provides a definite lock with the rib 27 of the locking member 25, but the larger of the horizontal slots 23 provides sufficient clearance to enable the swinging in either direction of the upper and lower rails 11 and 12, respectively.

20 Referring to Figure 6 of the drawings, a modified form of inverted substantially U-shaped member is disclosed. This member, designated 16', embodies flat angular portions 16² at the inner and outer ends of the side walls 17'. The outer extremities of the side walls 17' are bent at right angles to the adjacent flat angular portions 16² to provide clamping surfaces 18'. This form of inverted substantially U-shaped member provides more positive confinement of the locking member 25 because of the right angular seats formed at the ends of the side walls 17'.

It is not necessary to weld any parts of the present fence nor are fastening means of any kind required. The parts are retained in associated relation simply by the cooperation of the inverted substantially U-shaped members 16 or 16', vertical pickets 10 and locking members 25.

40 While I have shown and described several specific embodiments of the invention, I do not wish to be limited exactly thereto, since various modifications may be made without departing from the scope of the invention as defined by the following claims.

I claim:

1. Fence structure of the ornamental iron type consisting of vertically disposed pickets supported by spaced upper and lower rails, each rail including a U-shaped member having apertures 5 in its web to receive the vertically disposed pickets while permitting limited pivotal movement of the pickets, the ends of the legs of said U-shaped members having clamping contact with said pickets, and wedge-like members disposed between 10 the pickets and one leg of each of the U-shaped members to hold the latter against displacement.

2. Fence structure of the ornamental iron type consisting of vertically disposed pickets supported by spaced upper and lower rails, each rail including a U-shaped member having apertures in its web to receive the vertically disposed pickets while permitting limited pivotal movement of the pickets, the ends of the legs of said U-shaped members having clamping contact with said 20 pickets, wedge-like members disposed between the pickets and one leg of each of the U-shaped members to hold the latter against displacement, and a rib on the face of each wedge-like member which is most adjacent the picket, said picket 25 having a groove to receive said rib.

3. Fence structure of the ornamental iron type consisting of vertically disposed pickets supported by spaced upper and lower rails, each rail including a U-shaped member having apertures in 30 its web to receive the vertically disposed pickets while permitting limited pivotal movement of the pickets, the ends of the legs of said U-shaped members having clamping contact with said pickets, wedge-like members disposed between 35 the pickets and one leg of each of the U-shaped members to hold the latter against displacement, and a rib on the face of each wedge-like member which is most adjacent the picket, said picket 40 having a groove to receive said rib and a larger groove to permit the limited pivotal movement of said rib.

GUSTAF A. GUSTAFSON.