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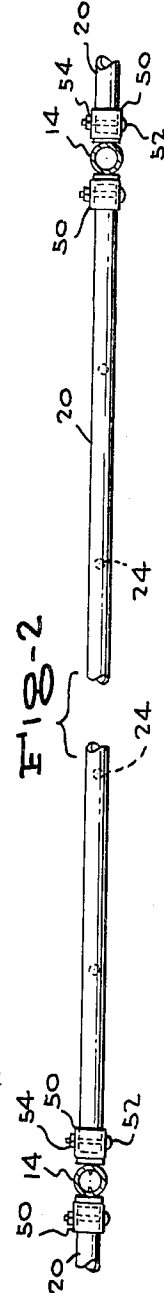
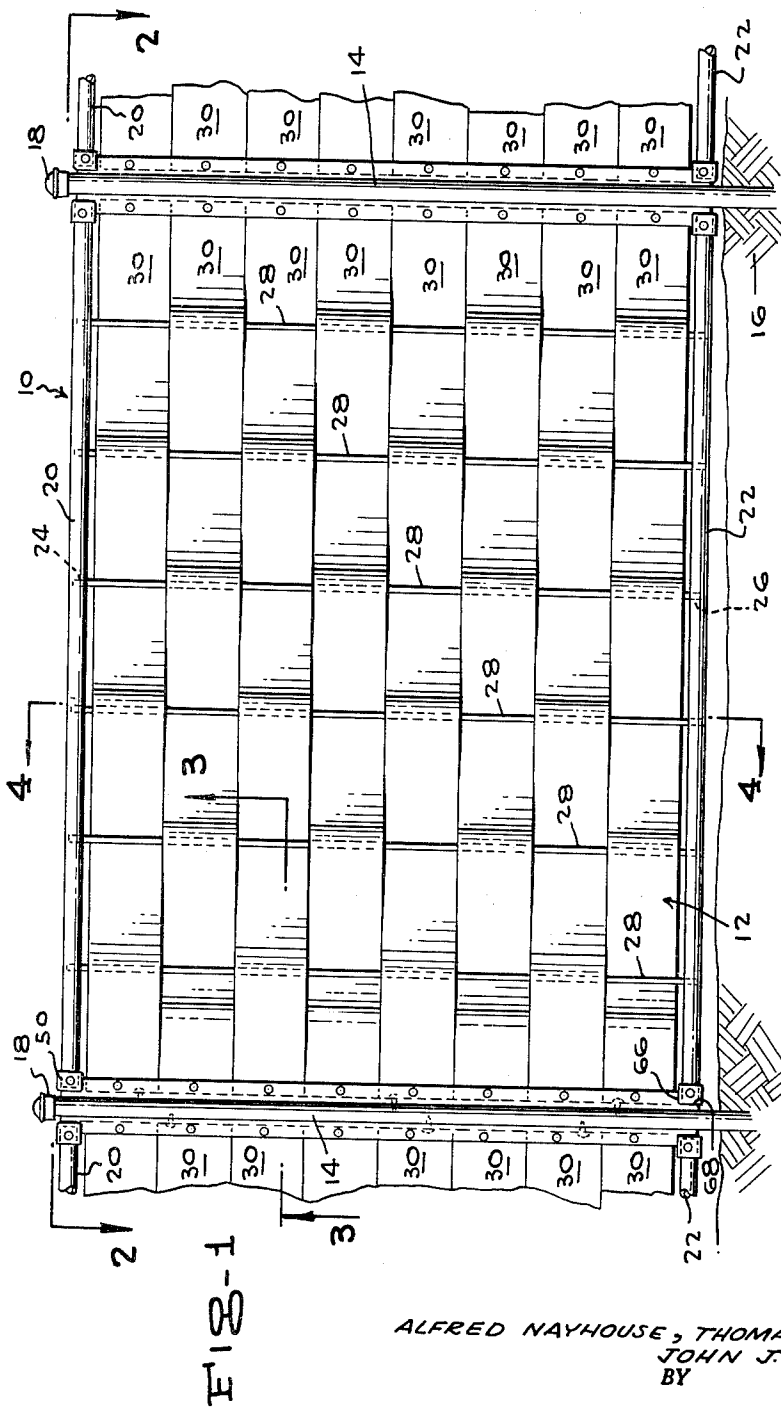
A. NAYHOUSE ETAL

3,045,976

METAL PANEL FENCE

Filed March 17, 1961

2 Sheets-Sheet 1



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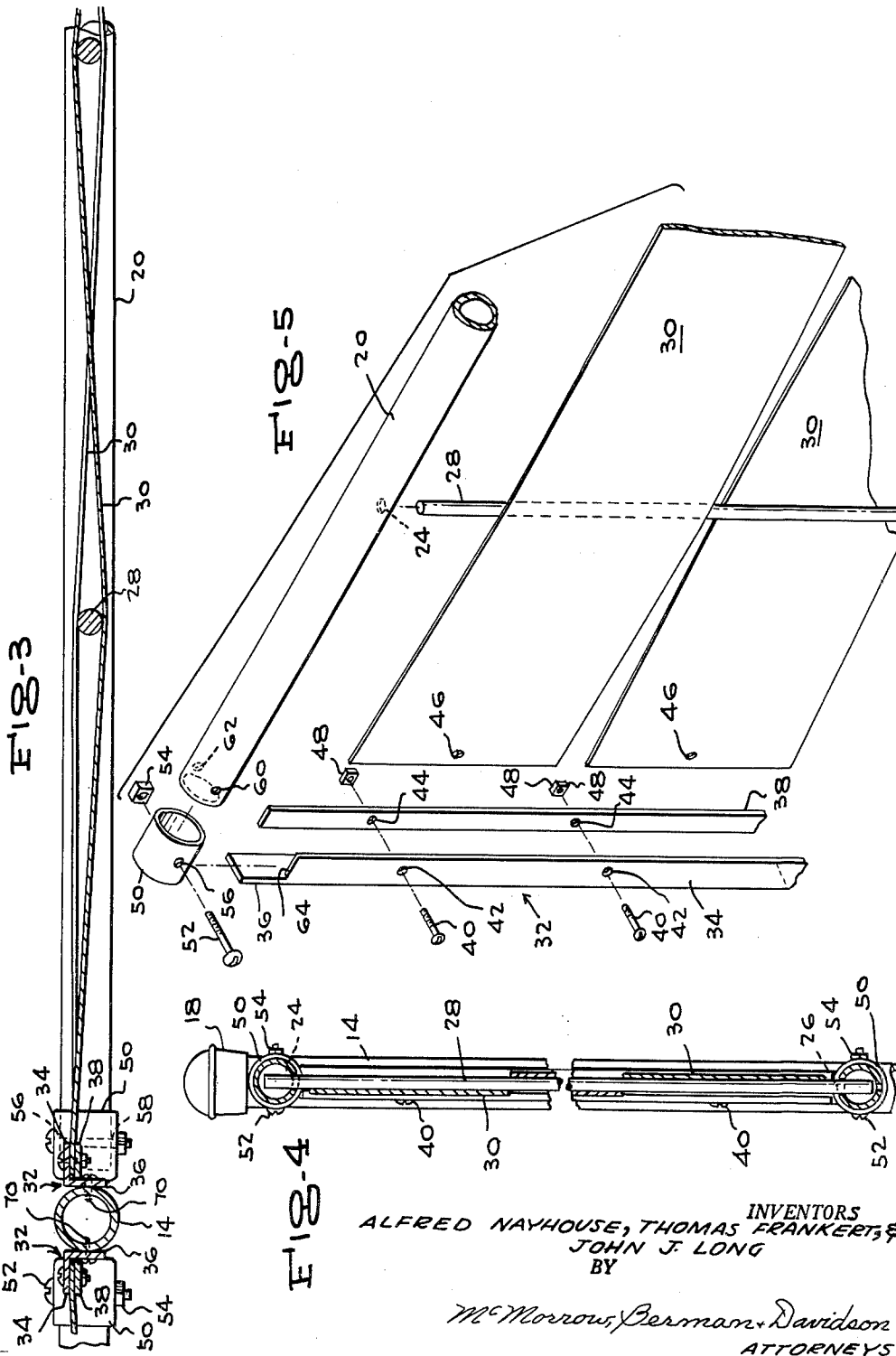
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METAL PANEL FENCE

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5 Claims. (Cl. 256—24)

This invention relates to the general field of enclosures, barriers, and similar structures and, more specifically, the instant invention pertains to fence construction.

One of the primary objects of this invention is to provide a metal fence having the basket-weave configuration, the fence comprising a plurality of separable units which may be connected together in any desired arrangement, and wherein each of the units is made of a relatively light durable material.

Another object of this invention is to provide a woven metal fence of such type as to provide the user of privacy if so desired.

Still another object of this invention is to provide a woven metallic fence which may be effectively employed in the checking of drifting sand or snow.

A further object of this invention is to provide a fence which may be fabricated in a shop and easily erected in the field by unskilled labor, thereby providing a fence which is economical to manufacture and install.

This invention contemplates, as still another object thereof, the provision of a woven sheet metal fence which lends itself well to mass production.

As still another object of this invention, it is proposed to provide a woven sheet metal fence of such construction as to reduce to a minimum the possibilities of injuries to livestock and persons.

Still another object of this invention is to provide a woven metallic fence which has an esthetic appearance and one which may be constructed of a selected one or a plurality of colors, if desired.

A still further object of this invention is to provide a fence which, to the casual observer, appears to be substantially solid while actually permitting circulation of air therethrough.

Still another object of this invention is to provide a woven metallic fence which is non-complex in construction and assembly, inexpensive to manufacture and maintain, and durable in use.

Other and further objects and advantages of the instant invention will become more evident from a consideration of the following specification when read in conjunction with the annexed drawings, in which:

FIGURE 1 is a side elevational view of a woven stiff metal fence constructed according to this invention;

FIGURE 2 is a top plan view, partly in cross-section, of the fence shown in FIGURE 1, FIGURE 2 being taken substantially on the horizontal plane of line 2—2 of FIGURE 1, looking in the direction of the arrows;

FIGURE 3 is an enlarged, fragmentary detail cross-sectional view, FIGURE 3 being taken substantially on the horizontal plane of line 3—3 of FIGURE 1, looking in the direction of the arrows;

FIGURE 4 is an enlarged detail cross-sectional view, FIGURE 4 being taken substantially on the vertical plane of line 4—4 of FIGURE 1, looking in the direction of the arrows; and

FIGURE 5 is a fragmentary exploded perspective view illustrating details of the fence construction.

Referring now more specifically to the drawings, reference numeral 10 designates, in general, a basket-weave strip metal fence constructed in accordance with the teachings of this invention. The fence 10 is seen to comprise a plurality of preferably, factory or shop, prefabricated units 12, and wherein each unit 12, at its opposed

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ends, is adapted to be connected and supported on and to extend between a pair of substantially hollow tubular normally upright fence posts 14 formed of aluminum or other suitable galvanized metal. As is seen in FIGURE 1, a pair of adjacent ends of the fence posts 14 are inserted in the ground 16, while their respective other ends are capped at 18 to prevent accumulation of water, dirt, dust and other debris from accumulating therein.

Each of the units 12 comprises a pair of vertically spaced and parallel, longitudinally extending, hollow tubular top and bottom rails 20, 22 which also may be formed of aluminum or of a galvanized material. The confronting sides of each of the rails 20, 22 are formed with a plurality of axially spaced and confronting pairs of openings 24, 26 which serve a purpose to be described.

Each pair of aligned openings 24, 26, respectively, receive therein the opposed ends of a plurality of spacer rods 28 which extend transversely between the rails 20, 22 in longitudinally spaced relation relative thereto and in parallel relation with respect to one another.

As is seen in FIGURES 1, 3, 4 and 5, a plurality of vertically spaced strips or panels preferably formed of aluminum are designated at 30, each panel being passed over and under each adjacent pair of spacer rods 28 in the conventional basket-weave style, and with each immediately adjacent ones of the panels 30 engaging the rods 28 tangentially on diametrically opposed sides thereof.

The ends of the panels 30 adjacent each of the ends of the rails 20, 22 are substantially flush one with the other, these ends are adapted to be connected with one another and with the rails 20, 22 to form the substantially rigid unit 12. To this end, a pair of brackets or clamps 32 are provided, the clamps 32 each comprising an elongated angle member having right angularly disposed sides 34, 36.

The adjacent ends of the plurality of panels 30 are engaged against the sides 34 of a pair of clamps 32, each pair of the latter being of opposite hand, after which elongated substantially rectangular clamping jaw 38 is superimposed against the exposed sides of the opposed ends, respectively, of the panels 30, and thereafter, bolts 40 are passed through openings 42 formed in the sides 34 of the clamps 32, and through the openings 44 and 46 formed in the ends of the panels 30 and clamping jaw 38. The sides 34, the ends of the panels 30, and the clamping jaw 38 are drawn together by threading the screws 40 into the nuts 48.

It will be observed that the opposed ends of the rails 20, 22 are capped as at 50, and the caps 50 are secured thereto by means of the diametrically extending bolts 52 together with their respective cooperating nuts 54. The caps 50 and the adjacent ends of the rails 20, 22 are, of course, bored at diametrically opposed points 56, 58 and 60, 62 to receive the bolts 52 therethrough.

As is clearly shown in FIGURES 1 and 5, the remotely disposed ends of the side walls 34 are cut away as at 64 whereby the ends of the cap 50 may be made to abut against the side walls 36 adjacent the upper and lower ends thereof. The caps 50 are welded at 66, 68 to both of the side walls 34 and 36, or are otherwise fixedly secured thereto.

From the foregoing description, it will now be appreciated that a rigid basket-weave type fence panel unit 12 is obtained through the practice of this invention. The panels 30, being formed of aluminum, may be colored through the process of enamel baking, and the coloring may range through a large variety.

Each panel 12 may have any desired length and height depending entirely upon the size of the area to be enclosed and, of course, the utilitarian purpose for which the area is to serve.

As is seen in FIGURE 1, each panel 12 is supported between a pair of adjacent fence posts 14 by means of

bolts 70 which are threaded therein and which extend transversely through the side walls 36 at longitudinally spaced intervals thereon.

Having described and illustrated this invention in detail, it is to be understood that the same is offered merely by way of example, and that this invention is to be limited only by the scope of the appended claims.

What is claimed is:

1. A metal fence panel unit comprising a pair of laterally spaced and parallel, longitudinally extending rails, a plurality of spacer members extending between said rails and connected thereto, said spacer members being parallel to each other and being longitudinally spaced relative to said rails, a plurality of elongated strips of substantially rectangular metallic panels, said panels extending over and under each adjacent pair of said spacer members with each adjacent pair of said panels engaging said spacer members on opposed sides thereof, and means connecting together the adjacent ends of said panels and said rails to form said fence panel unit, said means comprising an elongated element extending across said adjacent ends of said panel on one side thereof, a second elongated element extending across the opposite side of said adjacent ends of said panels, and means extending through said panels and elements to draw said elements together and clamp said adjacent ends of said panels therebetween.

2. A metal fence panel unit comprising a pair of laterally spaced and parallel, longitudinally extending rails, a plurality of spacer members extending between said rails and connected thereto, said spacer members being parallel to each other and being longitudinally spaced relative to said rails, a plurality of elongated strips of substantially rectangular metallic panels, said panels extending over and under each adjacent pair of said spacer members with each adjacent pair of said panels engaging said spacer members on opposed sides thereof, means for securing together the adjacent ends of said panels, said means comprising an angle member having a side wall thereof engaged by one side of the ends of said panels, an elongated substantially rectangular clamping jaw, and means for drawing said clamping jaw against the other sides of said panels whereby said panels are rigidly connected, one to the other between said side wall and said jaw.

3. A metal fence panel unit comprising a pair of elongated hollow tubular rails, said rails being parallel and laterally spaced relative to each other, a plurality of substantially cylindrical spacer rods extending between and connected to said rails, said rods being disposed in parallel relationship relative to each other, a plurality of elongated substantially rectangular metallic panels woven between said rods in a conventional basket-type weave, means clamping and securing together the adjacent ends

of said panels, and means for securing said clamping means with the opposed ends of said rails.

4. A metal fence comprising a pair of spaced, normally upright fence posts, said posts having a pair of adjacent ground-engaging ends, said posts being formed of a pair of elongated substantially hollow tubular members, said posts each being provided with a cap at the upper end thereof, a metal frame panel unit extending between and secured to said posts, said unit comprising a pair of vertically spaced, elongated, substantially parallel top and bottom rails, a plurality of elongated substantially cylindrical rods extending between said rails and disposed in longitudinally spaced relation relative thereto, a plurality of elongated substantially rectangular metal strips woven between said rods in a conventional basket-weave, said strips having colors supplied thereto, an angle member for each of the respective adjacent ends of said strips, said angle member having one of its sides disposed in juxtaposition relative to the ends of said strips, an elongated substantially rectangular clamping jaw, said clamping jaw engaging against the other sides of the ends of said strips, means for drawing said clamping jaw towards said angle member, and means for securing said angle members to said posts.

5. A metal fence comprising a pair of spaced normally upright fence posts, said posts having a pair of adjacent ground-engaging ends, said posts being formed of a pair of elongated members, a metal frame panel unit extending between and secured to said posts, said unit comprising a pair of vertically-spaced, elongated, substantially parallel top and bottom rails, a plurality of rods extending between said rails and disposed in longitudinally-spaced relation relative thereto, a plurality of elongated substantially rectangular metal strips woven between said rods in a conventional basket-weave, said strips having colors applied thereto, an angle member for each of the respective adjacent ends of said strips, said angle member having one of its sides disposed in juxtaposition relative to the ends of said strips, an elongated substantially rectangular clamping jaw, said clamping jaw engaging against the other sides of the ends of said strips, means for drawing said clamping jaw toward said angle member, and means for securing said angle members to said posts.

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