May 28, 1968 C. B. DWYER 3,385,566

FENCE ASSEMBLY

Filed Dec. 22, 1965

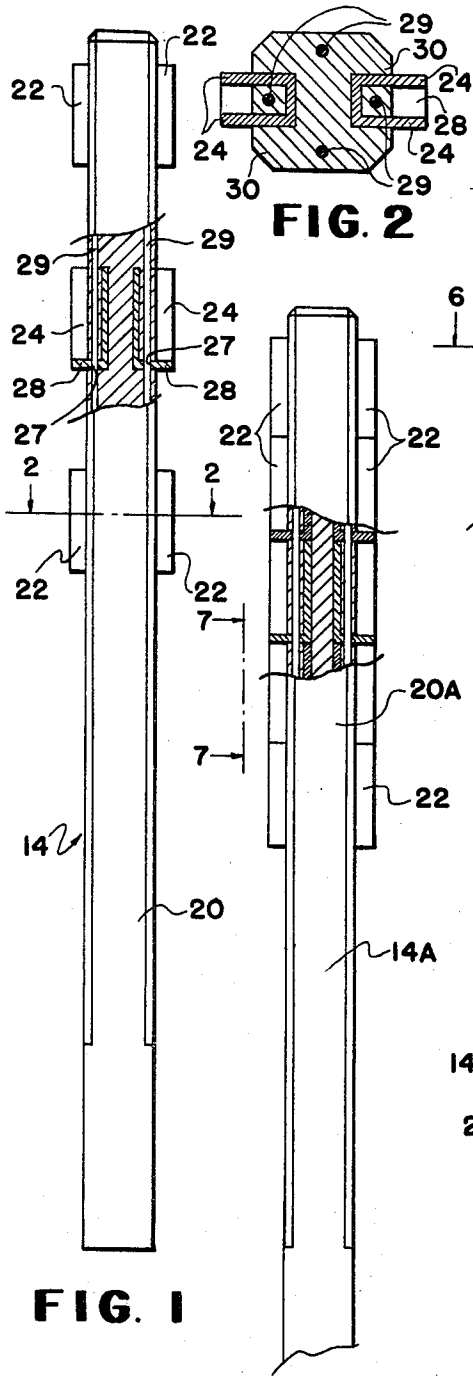


FIG. 1

FIG. 2

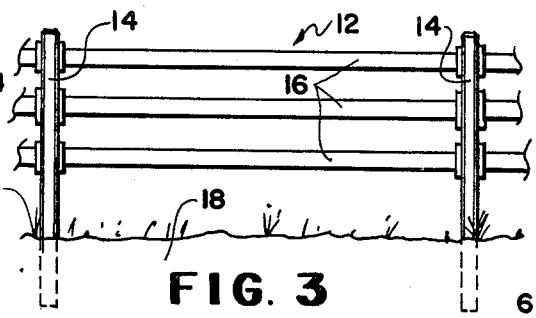


FIG. 3

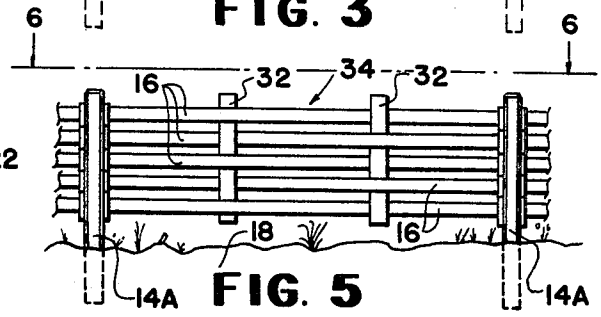


FIG. 5

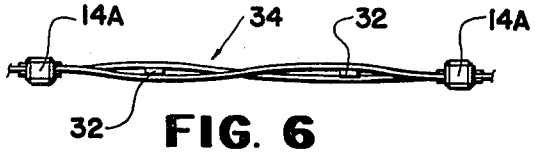


FIG. 6

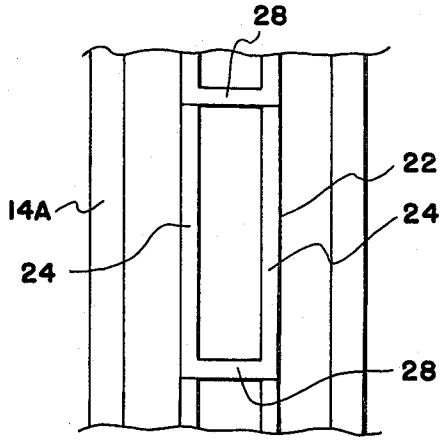


FIG. 7

FIG. 4

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FENCE ASSEMBLY

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ABSTRACT OF THE DISCLOSURE

This invention relates to a fence construction and, more particularly, to a concrete fence post adapted to be anchored in a ground surface for supporting laterally extended fence rails therebetween. Still more specifically, the invention relates to a fence post of extremly rigid and substantially on piece construction designed to be self-supporting. In a more specific aspect, the present invention relates to a concrete fence post having laterally extended connector members embedded and supported within the concrete of the post. Additionally, this invention relates to a concrete fence post having a plurality of connector members thereon embedded within the concrete material and secured by upright reinforcing bars for lateral stability and increased strength.

Numerous types of fence assemblies are known to the prior art which require the use of a substantial number of elements and tools for construction and erection. The fence posts of the prior art devices normally require the use of special attachment structures or means for securing fence rails or wire between adjacent fenec posts. Additionally, the prior art fence assembles require the use of a plurality of tools, such as shovels, hammers, wire stretchers, etc. for erection which is normally a time consuming process.

In one preferred specific embodiment of the invention, a new fence post is provided for a fence assembly having a plurality of vertically spaced connector members secured to opposite sidewalls of the fence post. The fence post has an elongated main body of concrete material with the connector members embedded therein. The connector members have U-shaped portions extended laterally of the sidewalls which are adapted to vertically and laterally support a purality of rail members extended between adjacent fence posts. The main body of each fence post is of a substantial length so that the lower portion thereof can be anchored in a ground surface in a conventional manner with the vertically aligned rail members equally above the ground surface to present a rail fence assembly.

In a second preferred specific embodiment of the invention, the connector members secured to the fence posts are anchored in adjacent relationship whereupon a plurality of the rail members are extended between horizontally aligned ones of the connector members on adjacent fence posts. At last two vertical spacer members are extended between vertically adjacent ones of the rail members to form a woven fence assembly.

One object of this invention is to provide an improved fence assembly having new and novel fence posts.

Another object of this invention is to provide a fence post of elongated rigid concrete construction.

A further object of this invention is to provide a fence assembly having concrete fence posts that are readily

assembled with elongated fence rails which can be readily disassembled for repair and for replacement.

Still another object of this invention is to provide an attachment means for connecting fence rails to concrete fence posts whereby the rails are rigidly connected against downward and lateral movement.

A still further object of this invention is to provide an improved woven fence assembly that is readily assembled and disassembled.

One other object of this invention is to provide a concrete fence post that is selectively adaptable for construction of either a rail fence or a woven fence assembly.

Further objects, features and advantages of this invention will become apparent from the following description when taken in conjunction with the accompanying drawings in which:

FIG. 1 is a side elevational view of a concrete post of the rail fence assembly of this invention having a central portion broken away to better illustrate the rail connector members;

FIG. 2 is an enlarged sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is a fragmentary elevational view of the rail fence assembly of this invention anchored in a ground surface;

FIG. 4 is a fragmentary side elevational view of a second embodiment of a concrete fence post of a woven fence assembly of this invention showing a plurality of adjacent rail connector members with a portion broken away to better illustrate the connector members;

FIG. 5 is a fragmentary elevational view showing the woven fence assembly of this invention;

FIG. 6 is a top plan view taken along line 6—6 of FIG. 5; and

FIG. 7 is an enlarged fragmentary side elevational view taken along line 7—7 in FIG. 4.

The following is a discussion and description of preferred specific embodiments of the new fence posts and fence assemblies of the invention, such being made with reference to the drawings, whereupon the same reference numerals are used to indicate the same or similar parts and/or structure. It is to be understood that such discussion and description is not to unduly limit the scope of the invention.

Referring now to the drawings and particularly to FIG. 3, a rail fence assembly of this invention is indicated generally at **12**, and comprises a plurality of spaced concrete fence posts **14** supporting horizontally extended boards or rail members **16** between adjacent ones of the fence posts **14**. The lower ends of the fence posts **14** are anchored in a supporting or ground surface **18** in a conventional manner. It is obvious that numerous fence posts **14** and rail members **16** would be used in order to enclose a desired area.

As shown in FIG. 1, the concrete fence post **14** comprises an elongated body member **20** of a concrete material supporting a plurality of spaced attachment members or connector means **22**. The body member **20** is of a substantially square shape in transverse cross section as shown in FIG. 2, having the outer corners chamfered substantially the entire length so as to remove the sharp corners therefrom to prevent injury to cattle and the like that might contact the fence posts **14**.

The connector means **22** are of a substantially rectangular box-shape having an open top and side portions. As shown in FIG. 2, the connector means **22** is of a U-shape in a transverse horizontal cross section having upright parallel leg members **24** interconnected by a base section **26**. The lower ends of the parallel leg members **24** are joined by a bottom wall or section **28** which is also integral with the base section **26**. Each bottom section **28** has a hole **27** located adjacent the base section **26** which is adapted to receive a reinforcing rod **29** of, for example, three-eighths inch diameter. The base sections **26** are completely embedded within the main body member **20** to provide lateral stability to the connector member **22** and approximately half of the bottom wall **28** is also embedded within the main body **20** to provide vertical stability to the connector member **22**. The four parallel rods **29** (FIG. 2) are of a length substantially equal to that of the posts **14** and are equally spaced and embedded in the main body member **20**. A pair of opposed rods **29** are extended through the vertically aligned holes **27** in the connector means **22** to substantially add to the lateral stability thereof. It is seen that substantially half of the parallel leg member **24** and the bottom wall **28** extend laterally outward of a corresponding sidewall **30** of the main body **20**. The connector means **22** are embedded in opposite sidewalls **30** of the concrete posts **14** in vertical alignment and having corresponding spaced pairs thereof on opposite sidewalls **30** in substantially horizontal alignment for reasons to become obvious.

In construction of the rail fence assembly **12**, the concrete fence posts **14** are axially spaced and vertically extended with the lower ends anchored within the ground surfaces **18** as shown in FIG. 3. The fence posts **14** are anchored so that the facing sidewalls **30** of adjacent fence posts **14** extend in parallel vertical planes. It is obvious that the overall length of the fence posts **14** may be varied to provide longer lower end portions for anchoring in the ground surface **18** and the upper end portions would be extended upwardly therefrom to form a fence of a desired height. The elongated rail members **16**, which are of a rectangular shape in transverse cross section such as a standard one by four or six piece of lumber, are extended between facing horizontally aligned pairs of connector means **22** with the opposite ends of the rail member **16** vertically supported on the bottom walls **28** of the connector means **22**. Lateral movement of the rail members **16** therefrom is restricted by the parallel upright leg members **24**. It is seen that the connector means **22** are sufficiently vertically spaced from adjacent ones to permit vertical movement of the rail members **16** to a position above their corresponding connector means **22** whereby the rail members **16** can be moved laterally for removal and replacement.

It is obvious that the number and location of the connector means **22** on the fence posts **14** can be varied to present modified forms of the standard three rail fence assembly **12** illustrated in FIG. 3. Additionally, it would be obvious to secure the connector means **22** on adjacent sidewalls of the main body **20** (positioned 90 degrees to each other) whereby this modification would be used as a corner post.

In another embodiment of this invention, the rail members **16** are used with vertical spacer members **32** and modified fence posts **14*a*** to form a woven fence assembly **34**, as shown in FIG. 5. Each fence post **14*a*** consists of a concrete body member **20*a*** having a plurality of the connector means **22** secured to the opposite sidewalls **30** as previously described except they are positioned in adjacent relationship. It is seen, therefore, that the leg members **24** and the bottom wall **28** of one connector means **22** cooperate with a bottom wall **28** of an upper adjacent connector means **22** to form a box-like opening adapted to receive one end of a rail member **16** (FIG. 7).

In the use and construction of the woven fence assembly **34**, the fence posts **14*a*** are anchored in the ground surface **18** with a rail member **16** extended between horizontally aligned facing connector means **22** on adjacent fence posts **14*a***. Opposite ends of the rail members **16** are supported within the connector means **22** with lateral and vertical movement therefrom restricted by the leg members **24** and the bottom walls **28** as previously described. The spacer members **32** are inserted between vertically adjacent ones of the rail member **16** with the upper and lower ends of the spacer member **32** extended above and below, respectively, of the rail members **16**. It is seen that the spacer members **32** maintain the rail members **16** in a curved shape to present a woven appearance as shown in FIGS. 5 and 6. The adjacent relationship of the connector means **22** allows the rail members **16** to be next to each other so as to present a substantially continuous board fence for the purpose of privacy and retaining children and animals in a closed area. It is obvious that the rail members **16** used in the construction of the woven fence assembly **34** must be of a flexible nature and of a length somewhat greater than the distance between adjacent fence posts **14*a*** whereby the opposite ends of the rail members **16** are inserted into the box-like opening formed by the connector means **22** to achieve the woven rail structure.

Additionally, it is obvious that the fence posts **14*a*** can be used with a plurality of rail members **16** without the spacer members **32** to form a continuous shield-type rail fence assembly.

As will be apparent from the foregoing description of the preferred embodiments of the applicant's fence assemblies, relative simple and inexpensive connector means have been provided which provide for easy assembly of the different types of fence assemblies. Applicant's novel fence post eliminates a great deal of time consuming and tedious work involved in the construction and erection of the conventional fence assemblies.

While the invention has been described in connection with preferred specific embodiments thereof, it will be understood that this description is intended to illustrate and not to limit the scope of the invention, which is defined by the following claims.

I claim:

1. A fence assembly comprising:

(a) a plurality of spaced vertically extended fence posts of concrete material each having vertically spaced rail connectors secured to opposite sidewalls thereof,

(b) said rail connectors having parallel upright legs interconnected at lower ends thereof by a bottom wall,

(c) a rail member extended between each pair of horizontally aligned facing rail connectors secured to adjacent fence posts,

(d) opposite ends of said rail members mounted within said pairs of rail connectors whereby said rail connectors are secured against downward and lateral movement by said rail connectors and can be readily removed upwardly for repair and replacement,

(e) portions of said legs and said bottom wall embedded within said sidewalls to readily anchor said rail connectors,

(f) said rail connectors having an upright base section secured to said upright legs in said bottom wall and embedded within said concrete posts for increased lateral stability, and

(g) a plurality of spaced vertically extending reinforcing rods embedded within said concrete posts, and said bottom walls of said rail connectors having aligned openings adjacent each respective ones of said sidewalls receiving said rods therein providing increased rigidity.

2. A concrete fence post, comprising:

(a) an elongated body member of concrete material having a pair of parallel sidewalls,

(b) connector members having parallel leg sections interconnected by a bottom section, said leg sections and bottom sections having a portion thereof extending laterally outward of corresponding ones of said sidewalls and another portion of said leg sections and said bottom sections embedded within said concreted body member, and

(c) a plurality of spaced longitudinally extending reinforcing rods embedded within said concrete post, and said bottom sections of said connector member portion embedded within said concrete body member having apertures adjacent each respective one of said sidewalls receiving said rods therein providing increased rigidity.

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