

Oct. 20, 1953

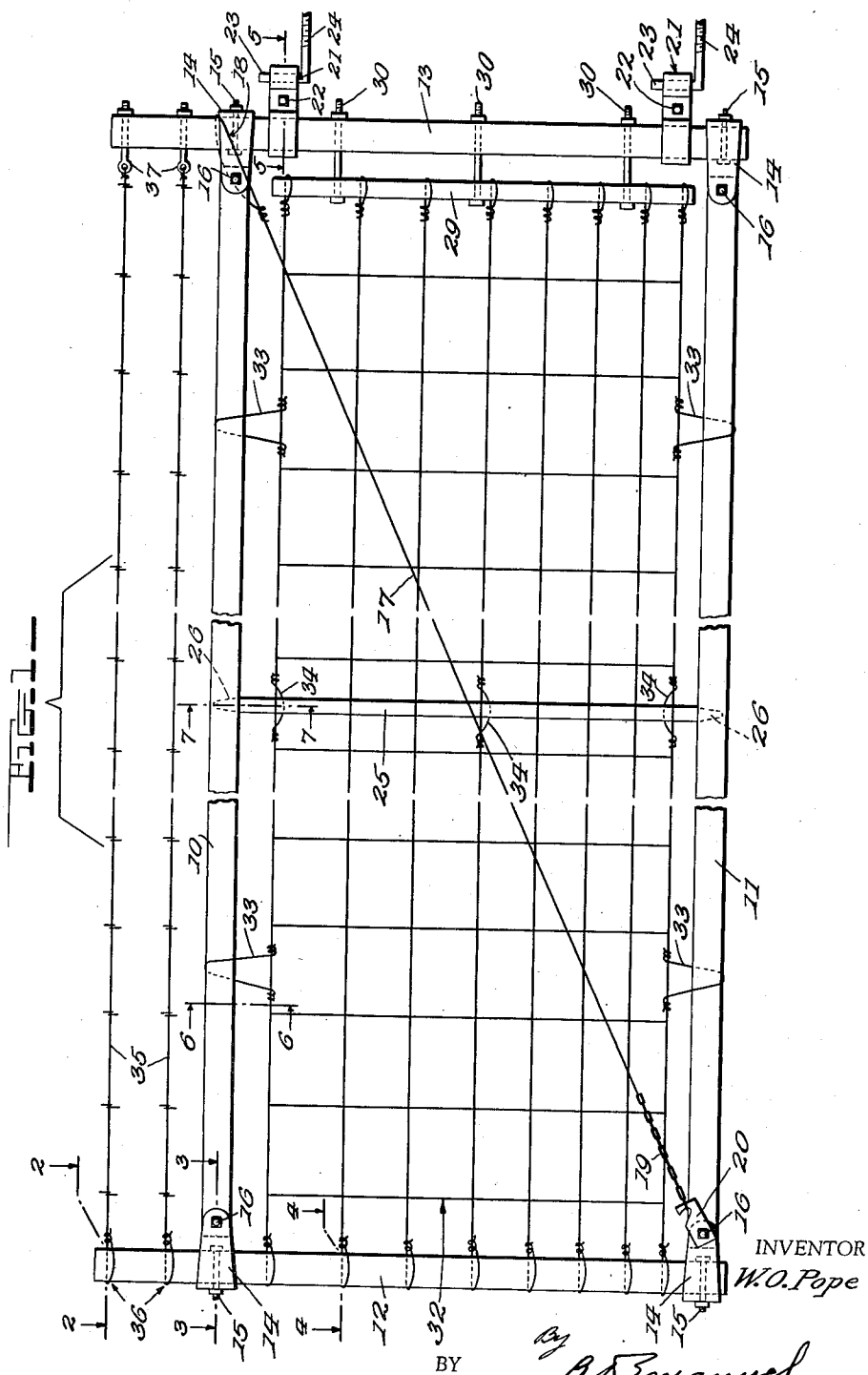
W. O. POPE

2,656,040

DISASSEMBLED GATE PACKAGE

Filed Jan. 2, 1951

2 Sheets-Sheet 1



INVENTOR

W.O. Pope

BY

Ed Emanuel

ATTORNEY.

Oct. 20, 1953

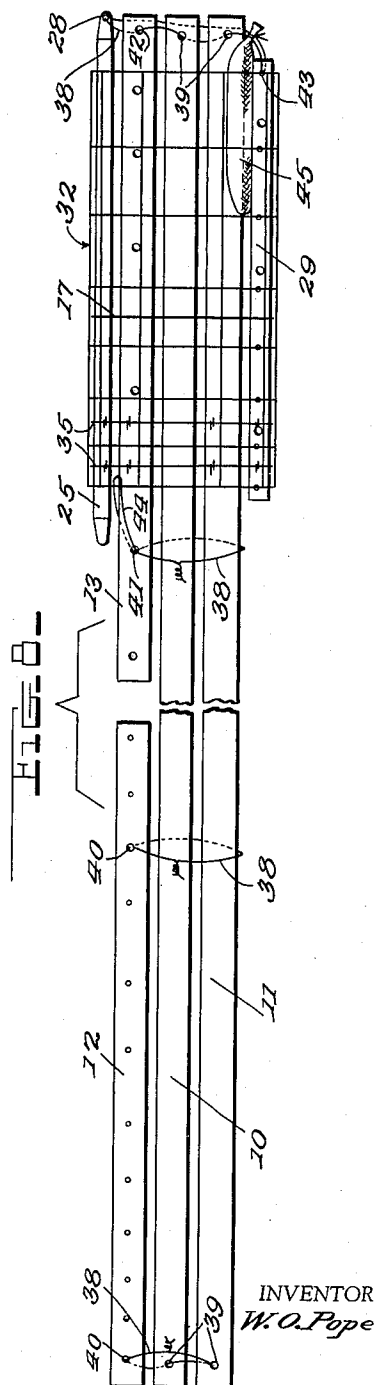
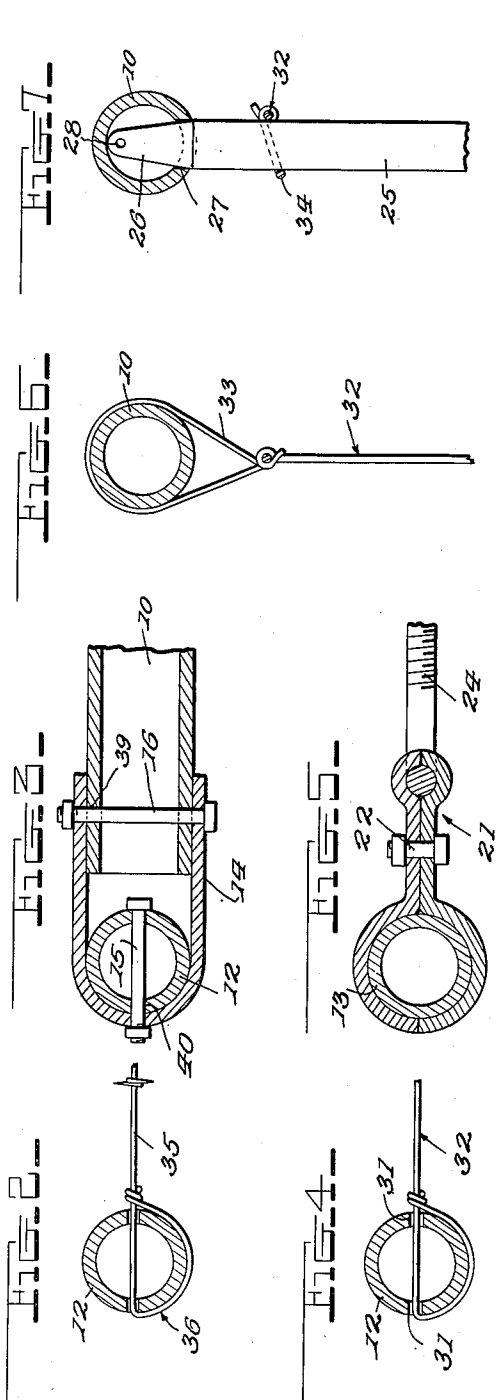
W. O. POPE

2,656,040

DISASSEMBLED GATE PACKAGE

Filed Jan. 2, 1951

2 Sheets-Sheet 2



INVENTOR
W. O. Pope

BY

By B. E. Emmert

ATTORNEY.

UNITED STATES PATENT OFFICE

2,656,040

DISASSEMBLED GATE PACKAGE

William O. Pope, Greenfield, Ind.

Application January 2, 1951, Serial No. 203,841

1 Claim. (Cl. 206—46)

1

This invention relates to a new and improved gate and to a novel package containing elements to form the same, the gate being of relatively large size such as the metal-frame-and-wire gates used in farm and factory or similar fences.

Gates of this type are of such sizes that large shipping space is required for them and, moreover, when the gates are stocked by retail dealers with limited storage facilities, their sizes often require that they be kept out of doors until sold, resulting in delivery of ill-appearing and prematurely weather-aged gates to purchasers. This invention, however, aims to overcome these problems in a simple and effective way.

In carrying out the above end, a further object is to provide a novel gate structure which may be compactly packaged and shipped in a disassembled condition and readily assembled by the ultimate purchaser. Thus, not only is less shipping and storage space required and storage under cover permitted, but the factory is saved the cost of assembling and this may result in a saving for the purchaser.

Another object is to provide a gate structure which may be conveniently shipped and stored in a single package or in two packages.

A still further object is to provide a compact package or packages containing all necessary elements for assemblage into a complete gate.

Fig. 1 of the accompanying drawings is a side elevation of a gate constructed in accordance with the invention, portions being broken out to indicate a length relatively longer than actually shown.

Figs. 2, 3, 4, 5, 6 and 7 are enlarged detail sectional views on the correspondingly numbered lines of Fig. 1.

Fig. 8 is a side elevation of a shipping and storage package containing the various elements required for assemblage into a complete gate.

In the drawings above briefly described, preferred construction has been shown and while that construction will be rather specifically described, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

The gate frame shown is of metal construction and includes a top rail 10, a bottom rail 11, and two vertical end rails 12 and 13, the four rails being connected by corner clips 14 and bolts 15 and 16 to provide a rectangular frame of required dimensions. Each clip 14 is of U-shape with its bight receiving the associated end rail 12 or 13 and with its arms straddling the asso-

2

ciated top rail 10 or bottom rail 11. The bolts 15 secure the bights of the clips 14 to the end rails 12 and 13 and the bolts 16 secure the clip arms to the top and bottom rails 10 and 11. A diagonal brace wire 17 is looped around the end rail 13 and the upper clip 14 thereof and is thus secured, as indicated at 18. The lower end of this brace wire 17 may be similarly secured to the lower end of the end rail 12 but it is preferable to provide said lower end with a length of chain 19 and to provide a hook plate 20 for coaction with said chain, for the purpose of adjustment. The hook plate 20 is attached by means of the bolt 16 at the lower end of the rail 12.

Sectional hinge elements 21 are clamped to the end rail 13 by means of bolts 22; and hinge pins 23 are provided for coaction with said elements 21, said hinge pins being carried by threaded bolt or screw members 24 for mounting on one of the gate posts.

A vertical strut 25 is provided, said strut extending between the central portions of the top and bottom rails. As shown, this strut has tapered ends 26 received snugly in socket-forming openings in the top and bottom rails 10 and 11, the opening of rail 10 being shown at 27 in Fig. 7. In one of the strut ends, an opening 28 has been provided for a purpose to appear.

Near the inner side of the end rail 13, there is a vertical stretcher bar 29 connected to said end rail 13 by bolts 30. This stretcher bar 29 and the end rail 12 are apertured, as seen at 31 in Fig. 4, to facilitate attachment thereto of the ends of a sheet of fencing 32, and this sheet may be stretched by tightening the bolts 30. The top and bottom wires of the sheet 32 are preferably connected with the rails 10 and 11 respectively, by means of wire loops 33 passed around said rails and twisted around said wires. Then, too, a number of the horizontal wires of the sheet 32 may be connected by wire loops 34 with the strut 25.

It is preferable to provide two lengths of barbed wire 35 extending between the end posts 12 and 13 above the top rail 10, the wires being anchored at 36 to the rail 12 and connected with rail 13 by means of eye bolts 37, said bolts serving also as tighteners for said wires.

The gate reaches the final complete stage, shown in Fig. 1, only through the efforts of the purchaser, and it reaches him in unassembled, compactly packaged form, preferably in the single package shown semi-diagrammatically in Fig. 8. In this package, the top and bottom rails

3

10 and 11, the end rails 12 and 13, the strut 25, and the stretcher bar 29 are uni-directionally disposed in close relation with each other and are connected by wire ties 38 passed through openings in said elements 10, 11, 12, 13, 25 and 29. The tie-receiving openings 39 of the rails 10 and 11 are those which are to receive the bolts 16; the tie-receiving openings 40 of the end rail 12 are those which are to receive the bolts 15; the tie-receiving opening 41 of the end rail 13 is one of those provided for the bolts 30, and the tie-receiving opening 42 of said end rail 13 is one of those provided for the eye bolts 37. The tie-receiving opening of the strut 25 has been previously assigned the reference number 28; and the tie-receiving opening 43 of the stretcher bar 29 is one of those which facilitate attachment of the fencing sheet 32 to said bar 29. This fencing sheet 32 is rolled around one end of the rails 10 and 11 and the adjacent elements 25 and 29 and is suitably tied in place, for example by a wire loop 44. Other ties, not shown, may surround the rolled wire if desired. Within this roll, the barbed wires 35, the brace wire 17, and a fabric bag 45 are located, said bag containing all of the smaller elements of the gate. This bag is suitably tied in place, for example, by a portion of one of the ties 38.

If desired, the elements 10, 11, 12 and 13 may be bundled into one package and the elements 25, 29, 32, 35 and 45 into a second package.

From the foregoing it will be seen that novel and advantageous provision has been made for attaining the desired ends.

What is claimed is:

A gate package assemblage of knock-down type in packaged disassembled form and adapted for subsequent assembly, said assembly includ-

4

ing a top rail, a bottom rail, a pair of end rails, a sheet unit of wire fencing, a strut bar, a brace element, and a group of fitting elements including bolt means for securing the rails in assembly form and for hinging service, said group being located within a flexible container, said assemblage presenting the top and bottom rails and the end rails in parallel relation as the core of the package with the fencing sheet unit wound and secured about an end zone of the core, said strut, brace element and the contained fitting group being located with the core within said zone and in underlying relation to the wound fencing unit, said rails being tubular in cross-section with the brace element, rails and strut having transverse openings therein substantially aligned in the packaged assemblage and receiving tying means to maintain the packaged form of the assemblage.

WILLIAM O. POPE.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
25 616,311	Gracey	Dec. 20, 1898
862,246	Gutelius	Aug. 6, 1907
873,046	Howard	Dec. 10, 1907
882,692	Kidder	Mar. 24, 1908
1,083,697	Neptune	Jan. 6, 1914
30 1,153,560	Miller	Sept. 14, 1915
1,283,359	Thomson	Oct. 29, 1918
1,344,135	Johnson	June 22, 1920
1,443,446	Watermann	Jan. 30, 1923
35 1,811,810	Spaugh	June 23, 1931
1,966,028	Dorris	July 10, 1934
2,109,300	Mortensen	Feb. 22, 1938
2,236,383	Russell	Mar. 25, 1941