June 14, 1960 J. J. INGALLS ET AL 2,940,790

GATE LOCKING DEVICE

Filed June 3, 1957

FIG. 1

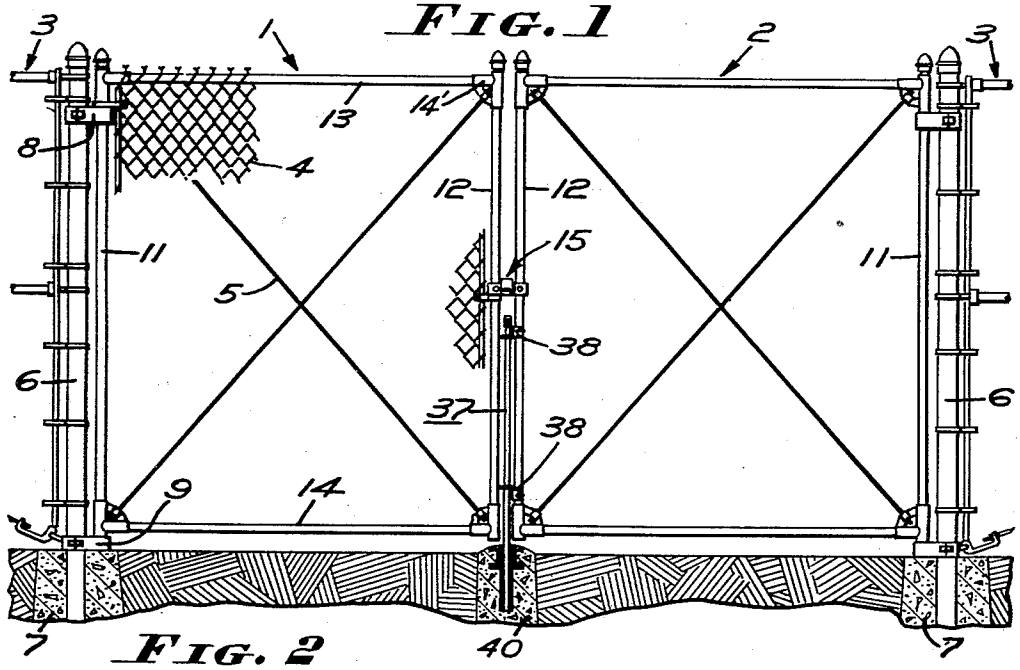


FIG. 2

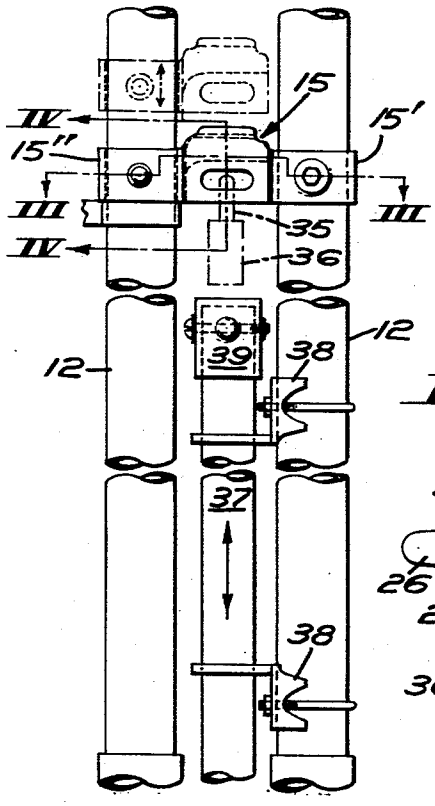


FIG. 3

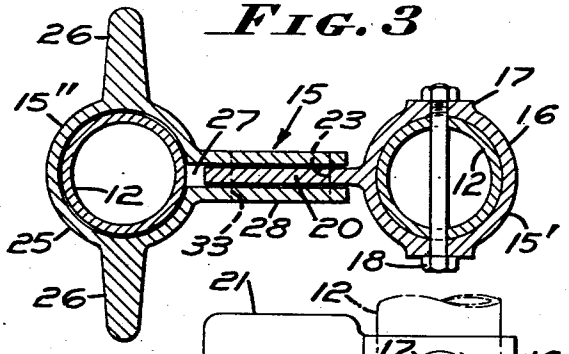


FIG. 4

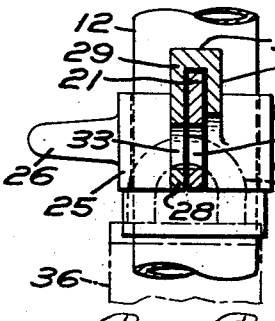


FIG. 5

INVENTORS:
JOHN J. INGALLS and
ADOLF W. HEWSON
BY:
Beau, Brooke, Buckley & Beau,
ATTORNEYS.

United States Patent Office 2,940,790 Patented June 14, 1960

2,940,790

GATE LOCKING DEVICE

John J. Ingalls, Buffalo, and Adolph W. Hewson, Williamsville, N.Y., assignors to Smith Fence Company, Inc., Buffalo, N.Y.

Filed June 3, 1957, Ser. No. 663,067

1 Claim. (Cl. 292—148)

This invention relates to a new and useful gate locking device particularly adapted for locking double fence gates, although as will become clearly apparent its utility is by no means limited thereto.

The locking of double gates is particularly difficult because each gate section is movable relative to the other, and it has been our experience that conventional double gate locking devices heretofore commonly used are subject to being pried apart.

Accordingly, a primary object of our invention is to provide a locking device adapted for use with double gates and which cannot be pried apart.

Another object of our invention is to provide a gate locking device wherein each part thereof comprises an integral part of the gate.

Still another object of our invention is to provide a double gate locking device which does not require a separate locking bolt.

In addition, it is an object of our invention to provide a double gate lock permitting movement of only one gate at a time.

It is also an object of our invention to provide the foregoing in a locking device which is relatively inexpensive, and which is extremely durable and dependable in use.

In accord with one aspect thereof, a gate locking device constructed in accord with our invention is characterized by the provision of a first lock part having a sleeve-like portion adapted to be secured to one gate upright, a second lock part having a sleeve-like portion slidable on another upright disposed closely adjacent the first upright when the gate is in a position to be locked, the first and second lock parts each having a normally generally vertically disposed plate portion projecting toward the other part when the gate is in locking position, with the upper edge portion of the second gate part being formed to provide an inverted channel section slip-fitting over the upper edge portion of the first lock part.

The foregoing and other objects, advantages and characterizing features of a gate locking device constructed in accord with our invention will become clearly apparent from a perusal of the ensuing detailed description of a presently preferred embodiment thereof, in conjunction with the accompanying drawing forming a part hereof and illustrating such embodiment wherein like reference numerals denote like parts throughout the various views and wherein:

Fig. 1 is a side elevational view of a double fence gate with a locking device of our invention installed thereon;

Fig. 2 is a fragmentary elevational view thereof illustrating the operation of the locking device of this invention;

Fig. 3 is a sectional view of our gate locking device taken about on line III—III of Fig. 2;

Fig. 4 is a sectional view thereof taken about on line IV—IV of Fig. 2; and

Fig. 5 is a side elevational view of one of the locking device parts.

The presently preferred embodiment of gate locking device constructed in accord with our invention is illustrated in the accompanying drawing in conjunction with a double gate comprising gate sections 1 and 2 hinged to fence end sections fragmentarily illustrated at 3.

It will be understood that the fence end sections 3 and gate sections 1 and 2 each carry fabric 4 secured thereto as by rail tie staples, together with brace rods 5, turnbuckles, tension bars and bands and other conventional fence hardware, all as is well known in the art.

The fence end sections 3 terminate in gate posts 6 adapted to be anchored in the ground in the usual manner, as indicated at 7, and gate sections 1 and 2 are oppositely hinged thereto as by upper gate hinges 8 and lower gate hinges 9. Hinges 8 and 9 pivotally support gate section uprights 11, with the gate sections having at their opposite ends uprights 12 adapted to be disposed closely adjacent one another when the gate is in locking position. The end uprights 11 and 12 are joined to top and bottom rails 13 and 14, respectively, as by gate corners 14' of known construction. Also, one gate section can be provided with a drop rod 37 slip-fitting through brackets 38 secured to one of uprights 12, the drop rod having a hand grip part 39 for movement in the direction of the arrow (Fig. 2) into and out of a center stop 40.

The foregoing is given by way of illustration only, and is not per se a part of our invention.

The locking device of this invention is indicated generally at 15, and comprises a first or keeper lock part 15' formed with a cylindrical sleeve portion 16 adapted to slip-fit over one of the gate section uprights 12. Embossments 17 are formed on diametrically opposed sides of sleeve portion 16, which embossments are apertured in line with apertures in the associated upright 12 to receive a bolt 18 therethrough for fixing lock part 15' in position on its upright 12 against movement relative thereto.

Lock part 15' has formed integrally with sleeve portion 16 thereof a generally vertically aligned flat plate or flange portion 20 projecting generally radially of the associated upright 12 to lie substantially in a plane containing the longitudinal centerline thereof and of sleeve portion 16, the flange 20 being extended above the upper edge of sleeve portion 16 as indicated at 21. Flange 20 has an aperture 23 therein which is elongated generally radially of the upright 12 and sleeve portion 16.

The other locking device part 15'' also is formed with a generally cylindrical sleeve portion 25 adapted to slip-fit on the upright 12 of the other gate section. However, sleeve portion 25 is not fixed against movement relative to its upright 12, but is freely slidable and rotatable thereon, and is provided with laterally projecting, generally diametrically opposed hand grip portions 26 to facilitate lifting of lock part 15'' lengthwise of its upright 12.

It will be noted that sleeve portion 25 of lock part 15'' is not completely closed, but has its opposite ends spaced apart by a generally longitudinal slot 27. One end of sleeve 25 terminates in a normally generally vertically aligned flat plate or flange portion 28 lying in a plane substantially parallel to a plane containing the longitudinal centerline of upright 12 and of sleeve 25. The upper edge of flange 28 is extended above sleeve 25, as indicated at 29, and leads to a generally horizontal flange 31 in turn leading to a flange 32 substantially parallel to the upper end portion 29 of flange 28 and extending from the opposite end of sleeve 25.

The flange portion 28 of lock part 15'' also is apertured, as indicated at 33 (Fig. 4), the aperture 33 corresponding to aperture 23 of flange portion 20 and both apertures being adapted to receive therethrough the bow 35 of a padlock 36.

Lock parts 15' and 15'' are slipped over the gate up-

rights **12** prior to assembly of the gate sections. Lock part **16** is bolted or otherwise rigidly secured to its upright **12**, being held against movement lengthwise thereabout and circumferentially therearound, while lock part **15''** is freely slidable lengthwise of its upright **12** and therearound, being slidable along its upright **12** from a position free and clear of lock part **15'**, as shown in broken lines in Fig. 2, to a position in locking engagement therewith as illustrated in solid lines in Fig. 2, and as illustrated in Figs. 3 and 4.

When the lock parts **15'** and **15''** are in locking engagement, the upper edge portion **21** of flange **20** is received within the inverted channel formed by the flange portions **29**, **31** and **32** of locking part **15''**, with only enough clearance therebetween to permit free movement of lock part **15''** into and out of locking engagement with part **15'**. Also, the bottom edge of flange portion **32** on lock part **15''**, is somewhat above the upper edge of apertures **23** and **33** which are in substantial alignment when the parts are in locking engagement, thereby to receive the padlock bow **35** therethrough for holding the lock parts **15'** and **15''** against relative movement lengthwise of uprights **12**. The elongation of apertures **23**, **33** accommodates any variation in the spacing between the gate section uprights **12** as a result of expansion and contraction, misspacing of the gate posts, or other factors, and flange portion **31** bears against the upper edge of flange portion **20** to limit downward movement of part **15''** to a position with apertures **23** and **33** in vertical alignment.

Thus, no separate locking bolt is necessary, and a simple padlock effectively holds the lock part **15''** against movement lengthwise of its upright **12** out of locking engagement with the lock part **15'**. So long as the locking parts **15'** and **15''** are in locking position, the flange portions **29** and **32** of locking part **15''** confine flange portion **21** of lock part **15'** therebetween and preclude swinging of either gate section **1**, **2** by effectively precluding relative lateral movement between the locking device parts **15'** and **15''**. The close confinement of flange portion **21** of one locking device part within the inverted channel **29**, **31**, **32** of the other locking device part thus positively holds the gate sections locked together, and the flat flange portions **20**, **21**, **29** and **32**, in cooperation with the sleeve portions **16** and **25**, effectively hold the gate sections against being twisted out of alignment, thereby effectively resisting prying apart of either the gate sections or the locking device.

Accordingly, it is seen that the locking device of our invention fully accomplishes the aforesaid objects, and

provides an extremely simple, durable and dependable gate locking device well adapted to secure double gate sections in locked position while obviously being adapted for use with single gate sections and with different types of gates from that illustrated in the drawing.

While only a presently preferred embodiment of our invention has been disclosed and described in detail herein, the same has been done by way of illustration only and without thought of limitation. Also, the term sleeve as used herein is meant to include other than cylindrical members.

Having fully disclosed and completely described our invention, together with its mode of operation, what we claim as new is as follows:

A gate locking device comprising, a sliding lock part of one piece construction having a sleeve portion and a flange portion projecting laterally thereof, said flange portion being alined generally lengthwise of said sleeve portion and terminating in an inverted channel along its upper edge, said sleeve portion having lateral protuberances on substantially diametrically opposite sides thereof for being manually grasped to facilitate lifting said sliding lock part, a keeper lock part of one piece construction having a sleeve portion and a laterally projecting flange portion alined generally lengthwise thereof, the upper edge of said keeper lock part flange portion being received within said channel when said lock parts are in locking engagement, and means providing an aperture in each of said flange portions, said apertures being alined when said lock parts are in locking position to receive a lock member therethrough and one of said apertures being elongated laterally of the associated sleeve portion, the depth of said channel being no more than the distance between said upper edge of said keeper lock part flange portion and the upper edge of the aperture therein.

References Cited in the file of this patent

UNITED STATES PATENTS

727,494	Thompson	May 5, 1903
1,090,969	Browning	Mar. 24, 1914
1,312,931	Tenny et al.	Aug. 12, 1919
1,640,394	Crowley	Aug. 30, 1927
1,939,954	Campbell	Dec. 19, 1933
2,358,914	Dray	Sept. 26, 1944
2,577,930	Thomas	Dec. 11, 1951
2,641,494	Burris	June 9, 1953

FOREIGN PATENTS

853,639	France	Dec. 7, 1939