No. 653,213. Patented July 10, 1900.

G. E. CHAMPION.

GATE.

(Application filed Apr. 21, 1900.)

(No Model.)

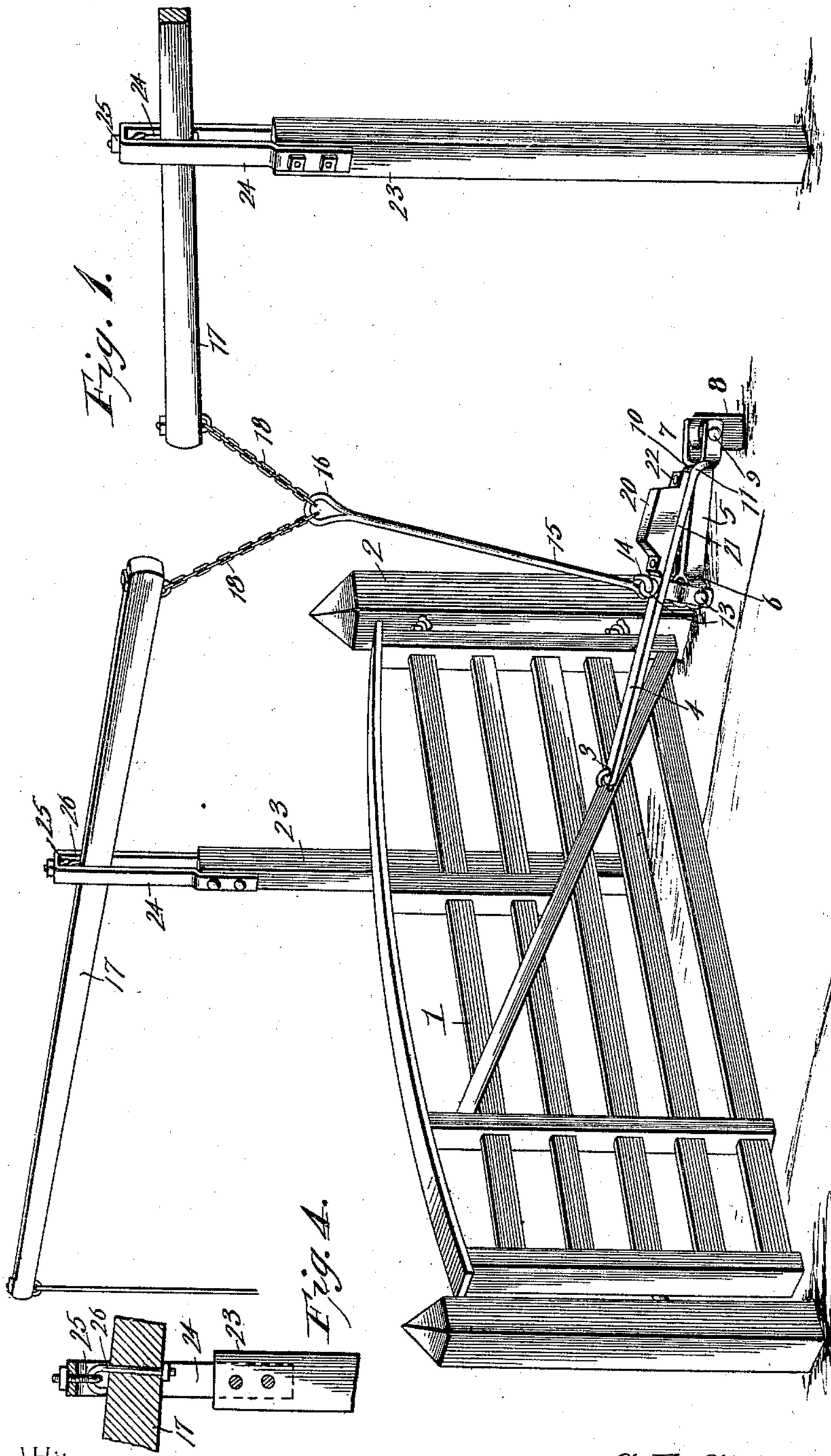

Fig. 1.

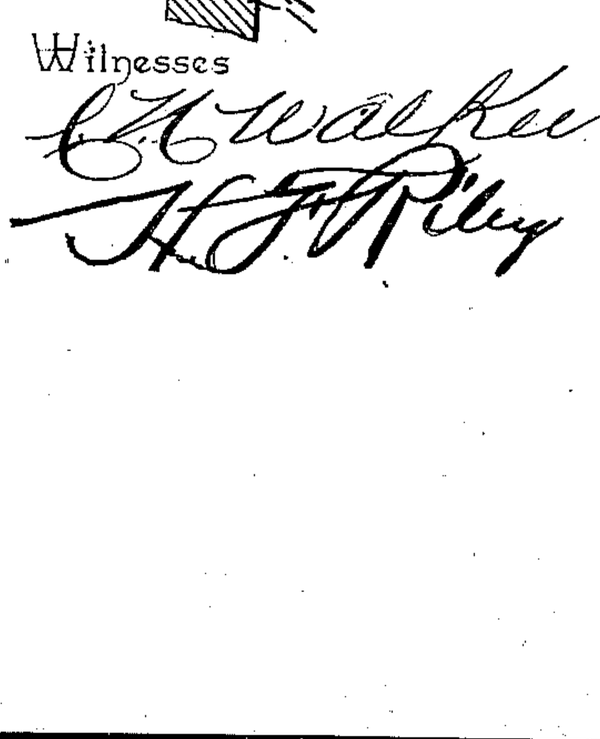

Fig. 4.

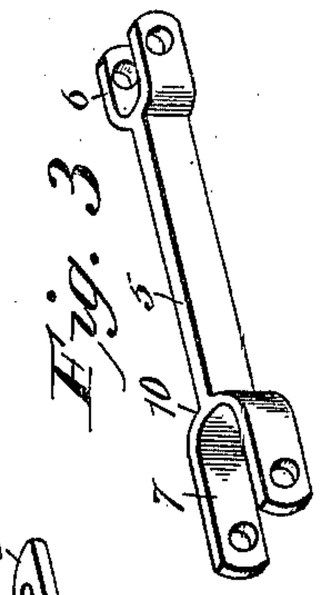

Fig. 3

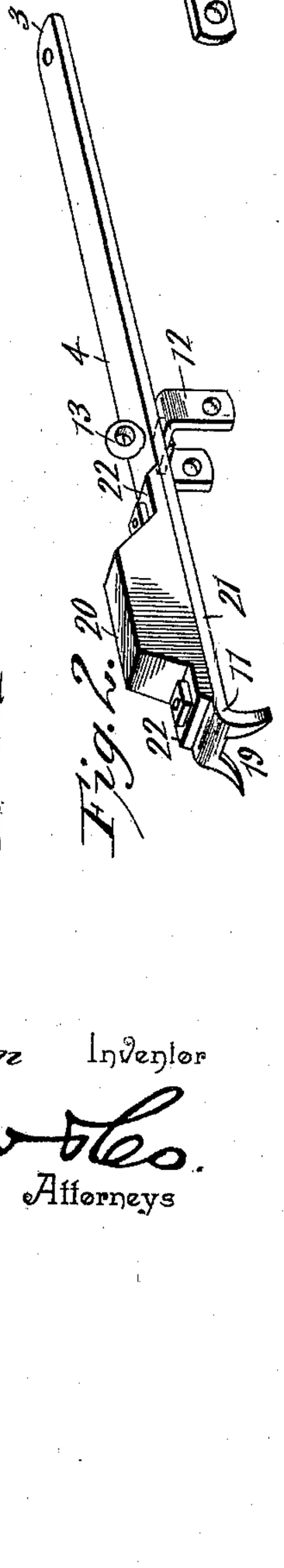

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. CHAMPION, OF PLEASANT HILL, KENTUCKY.

GATE.

SPECIFICATION forming part of Letters Patent No. 653,213, dated July 10, 1900.

Application filed April 21, 1900. Serial No. 13,796. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. CHAMPION, a citizen of the United States, residing at Pleasant Hill, in the county of Mercer and State of Kentucky, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

One object of the present invention is to improve the construction of swinging gates and to provide a simple and inexpensive one which will be strong and durable and which may be readily operated at either side of it to open and close it without dismounting from a horse or leaving a vehicle.

A further object of the invention is to provide a gate of this character in which the mechanism for swinging it will operate to lock the gate in its open and closed positions and which will be capable of withstanding lateral and longitudinal strain when the gate is closed, so that it will be impossible to open the gate by any pressure exerted on the same.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention. Fig. 2 is an enlarged detail perspective view of the weighted lever. Fig. 3 is a similar view of the forked link. Fig. 4 is a detail sectional view showing the manner of fulcruming the operating-levers.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a swinging gate, hinged to a post 2 in the usual manner and connected at a point between its ends with the end 3 of a weighted lever 4, which is connected at a point between its ends with an oscillating link 5. The link which is located at one side of the gate has its ends 6 and 7 forked, and the end 7 straddles a stake or short post 8 and is secured to the same by a transverse pivot 9, and it forms shoulders 10, which are adapted to be engaged by the end 11 of the weighted lever for a purpose hereinafter described. The end 6 of the oscillating link is arranged within a yoke or shackle 12 and is mounted on a transverse pivot 13, passing through perforations of the sides of the forked end 6 and through the sides of the yoke or shackle. The yoke or shackle which is located beneath the weighted lever is pivotally connected with the same by means of an eyebolt 13, which has its eye located at the upper face of the weighted lever, as clearly shown in Fig. 2 of the accompanying drawings. The nut of the eyebolt is arranged within the upper portion of the yoke or shackle 12, as clearly illustrated in dotted lines in Fig. 2, and the pivotal connection between the weighted lever and the yoke or shackle permits the necessary lateral play of the parts incident to the opening and closing of the gate.

The eye of the eyebolt 13 is linked into an eye 14 of the lower end of a rod 15, which is provided at its upper end with an enlarged eye or loop 16 and which is connected with a pair of operating-levers 17 by short upwardly-diverging chains 18. The end 3 of the weighted lever is provided with an eye or perforation to receive a hook-bolt or other suitable means for hinging it to the gate, and the other end 11 of the weighted lever is bent downward and is forked and spread to provide a pair of arms 19, having downwardly-diverging inner edges and adapted to straddle the link adjacent to the enlarged forked end 7, as clearly shown in Fig. 1. The arms 19, by straddling the oscillating link adjacent to the fork 7, are adapted to lock the lever on the link and hold the former against both lateral and longitudinal movement, whereby the eyebolt 13, the common connection between the shackle or yoke, the weighted lever, and the connecting-rod, is relieved of strain. By this construction the weighted lever and the link are adapted to hold the gate firmly in its closed position and to resist any pressure exerted on the same. The end 11 of the lever 4 is maintained in engagement with the oscillating link by a weight 20, detachably secured to the arm 21 of the said lever 4 and adapted to be removed therefrom and applied thereto without affecting the connection between the lever, the link, and the operating mechanism.

The weight may be in the form of a casting, as illustrated in the accompanying drawings, or it may be in the form of a receptacle for stones or other heavy material. When the weight is in the form of a casting, it is preferably provided with end flanges 22, which are bolted or otherwise secured to the arm 21 of the weighted lever. The weight also assists in the operation of the gate, and as soon as the link is swung beyond the stake or short post 8 it will operate to complete the movement of the gate.

The operating-levers are fulcrumed on uprights 23 and within supports or brackets 24, consisting of metal straps bent into oblong form and having their terminals spread and secured at opposite sides of the uprights, as clearly shown in Fig. 1. By this construction a space is provided for the operating-levers of substantially the same thickness or width as the uprights, and the latter are not weakened by bifurcating them for the reception of the operating-levers. The brackets or supports 24 are perforated at the top for the reception of eyebolts 25, which have their nuts at their upper ends, the eyes being located within and depending from the tops of the said brackets or supports and being engaged with hook-bolts 26, which pass through the operating-levers, as clearly shown in Fig. 4. By this construction the operating-levers are detachably suspended from the tops of the brackets or supports and may be readily mounted in position.

It will be seen that the gate is exceedingly simple and inexpensive in construction, that it is positive and reliable in operation, and that it may be readily opened and closed at a distance from it. Furthermore, it will be clear that the weight may be changed to adapt it to the size and weight of the gate to be operated and that the changing of the weight does not interfere with the connections between the link, the weighted lever, and the operating-levers. Also it will be seen that the forked downwardly-bent end of the weighted lever is adapted to engage the link at opposite sides thereof and is also capable of engaging the shoulder formed by the enlarged forked end 7, so as to resist any backward movement longitudinally of the link.

What is claimed is—

1. The combination of a swinging gate, a short stake or support located at one side of the gate, a link having forked ends 6 and 7, the forked ends 7 being enlarged and pivoted to the post or support, the weighted lever hinged at one end to the gate and having its other end bent downward and forked or bifurcated to straddle the link adjacent to the shoulders formed by the forked ends 7, whereby the lever is held against lateral and longitudinal displacement, a shackle or yoke arranged beneath the weighted lever and receiving the adjacent end of the link and pivoted to the same, a pivot connecting the shackle or yoke with the weighted lever and having an eye or opening above the same, and operating mechanism connected with the eye or opening of the pivot and located at a point between the ends of the weighted lever, the latter having its weight arranged at one side of such operating mechanism, whereby it may be changed without affecting the same substantially as described.

2. The combination of a swinging gate, the lever 4 hinged at one end to the gate and having its other end 11 bent downward and forked, a link located beneath the lever and pivotally connected with the same at a point between the ends thereof and having one end fulcrumed on a suitable support, said link being provided with a shoulder arranged to be engaged by the forked end 11 of the lever, operating mechanism connected with the lever at a point between the ends thereof adjacent to the point of connection of the link, and a weight detachably secured to the lever adjacent to the forked end 11 and adapted to be removed without affecting the operating mechanism, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE E. CHAMPION.

Witnesses:

H. F. RILEY,

J. M. WALKER.