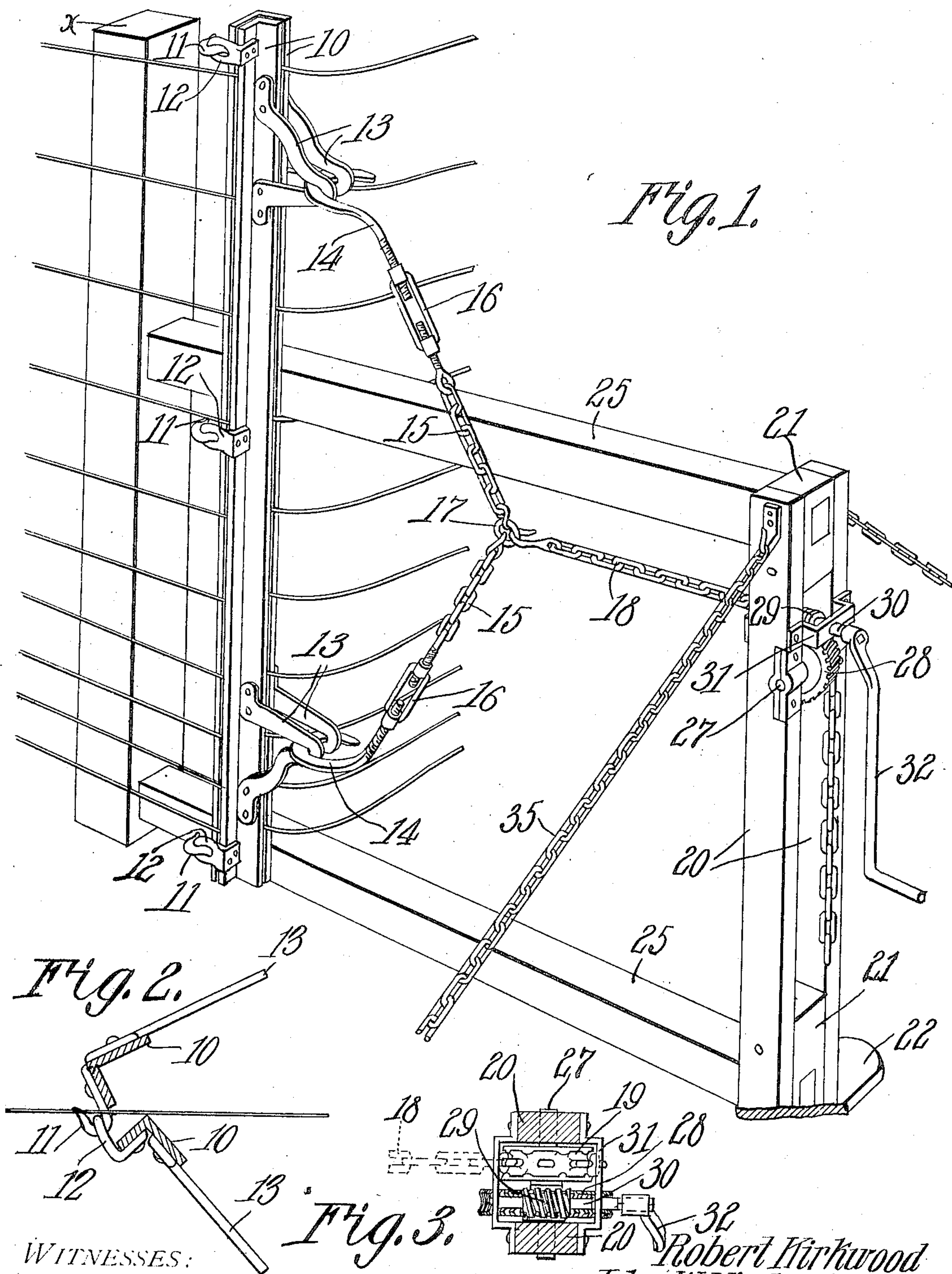


No. 875,185.

PATENTED DEC. 31, 1907.

R. KIRKWOOD & J. W. KIMBERLING.
FENCE MACHINE.

APPLICATION FILED JULY 24, 1907.



WITNESSES:

E. D. Stewart
John E. Parker

By *Robert Kirkwood*
John W. Kimberling
INVENTORS.
C. A. Snow & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

ROBERT KIRKWOOD AND JOHN W. KIMBERLING, OF MORAN, INDIANA, ASSIGNORS, BY
DIRECT AND MESNE ASSIGNMENTS, OF ONE-FOURTH TO LEWIS A. SHEETS, OF MICHIGANTOWN, INDIANA, AND ONE-FOURTH TO WILLIAM J. NEES, OF MORAN, INDIANA.

FENCE-MACHINE.

No. 875,185.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed July 24, 1907. Serial No. 385,363.

To all whom it may concern:

Be it known that we, ROBERT KIRKWOOD and JOHN W. KIMBERLING, citizens of the United States, residing at Moran, in the county of Clinton, State of Indiana, have invented a new and useful Fence-Machine, of which the following is a specification.

This invention relates to fence stretching machines, and has for its principal object to provide a fence stretcher of very simple and economical construction by which a wire fence may be drawn as taut as desired, and which may be readily shifted from place to place during or after the erection of the fence.

A further object of the invention is to provide a device of this type in which the fence may be adjusted for the purpose of exerting equal force on all portions of the fence.

A still further object of the invention is to provide a very simple and effective form of fence clamp in which the clamping force exerted is in proportion to the tensional strain exerted during the stretching operation.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a perspective view of a fence stretching machine constructed in accordance with the invention. Fig. 2 is a sectional plan view through the fence clamps, the latter being shown in open position. Fig. 3 is a sectional plan view showing the gearing and chain winding mechanism.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The clamp includes a pair of angle bars 10, one of which carries a series of hooks 11 and the other a series of eye 12, these forming a hinged joint of such nature as to permit ready coupling and uncoupling.

Projecting from the angle bars are two sets of brackets 13 that are arranged for the reception of hooks 14, these being arranged

at the ends of chain sections 15 and connected thereto by suitable turn buckles 16. It will be noted that the brackets 13 are rigidly secured to the angle bars and project a considerable distance beyond the rear edges of said bars so that they may be conveniently used as handles in the closing of the clamp members on the fence. The adjacent ends of the chains 15 are connected by a ring 17 to which is, also, connected a stretching chain 18 the latter passing over a chain drum 19 which may be turned for the purpose of winding up the chain 18.

At a short distance from the clamps is arranged a frame comprising a pair of parallel posts 20 connected together by upper and lower blocks 21 and arranged to rest on a suitable sill plate 22. These posts, which constitute the draft frame, are held from movement in the direction of the clamp by spacing bars 25 that rest at one end against the fence post *x*, and at the opposite end against the posts or the spacer blocks 21.

The draft frame is provided with bearings for the reception of a short transverse shaft 27 to which the winding drum 19 is secured. This shaft, also, carries a worm wheel 28 that is engaged by a worm 29, the latter being carried by a worm shaft 30 that is journaled in suitable brackets 31 that extend between and serve as additional connections for the posts 20. At the rear end of the worm shaft is an operating crank 32 which may be turned for the purpose of winding up the chain 18 and drawing the clamps 10 in the direction of the draft frame.

In operation, the clamping bars, separated from each other, are placed on opposite sides of the fence to be stretched and their hooks and eyes are then connected together through the fence. The brackets 13 are then grasped and used as handles in the preliminary folding of the angle bars on the fence. The hooks 14 are then passed loosely through the brackets 13, and on turning the crank 32, the chain 18 will be wound up. The first effect of the movement will be to draw the clamping bars toward each other and firmly grip the fence between such bars, and this clamping action increases in force as the tensional strain exerted on the fence increases.

Should the upper portion of the fence be stretched more tightly than the lower por-

tion, or vice versa, owing to slight slipping of the clamps or failure to correctly position them, either one or both of the turn buckles may be adjusted in order that the stress may be equal throughout the whole height of the fence.

When the fence is under severe strain, there is some danger of lateral displacement of the draft frame, and to prevent this, stay chains or ropes may be employed, these chains being connected to the opposite sides of the upper end of the draft frame and connected to any suitable anchor, such for instance as stakes embedded in the ground.

It will be seen that the fence is firmly clamped between the angle bars, the fence being bent at two points so that it will be firmly locked.

We claim—

1. In a fence stretching machine, a pair of loosely hinged separable angle bars forming clamps, brackets having their inner ends rigidly secured to said bars, the brackets being extended to form operating handles in the preliminary clamping of the fence, a hook arranged to engage each pair of brackets and

exercising a cam-like action thereon to draw the clamping bars together, a central draft member to which the hooks are connected, and means for adjusting the distance between the hooks and draft member to maintain uniform stress on both sets of brackets.

2. A clamp for use in connection with fence stretching machines, said clamp comprising a pair of angle bars, one angle bar having hooks and the other being provided with eyes to form a readily detachable hinged connection, and a pair of sets of brackets having their inner ends rigidly secured to the angle bars and extending rearwardly therefrom to form operating handles in the preliminary closing of the clamp upon the fence.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

ROBERT KIRKWOOD.
JOHN W. KIMBERLING.

Witnesses:

E. D. BURNELL,
LEVI L. THOMAS.