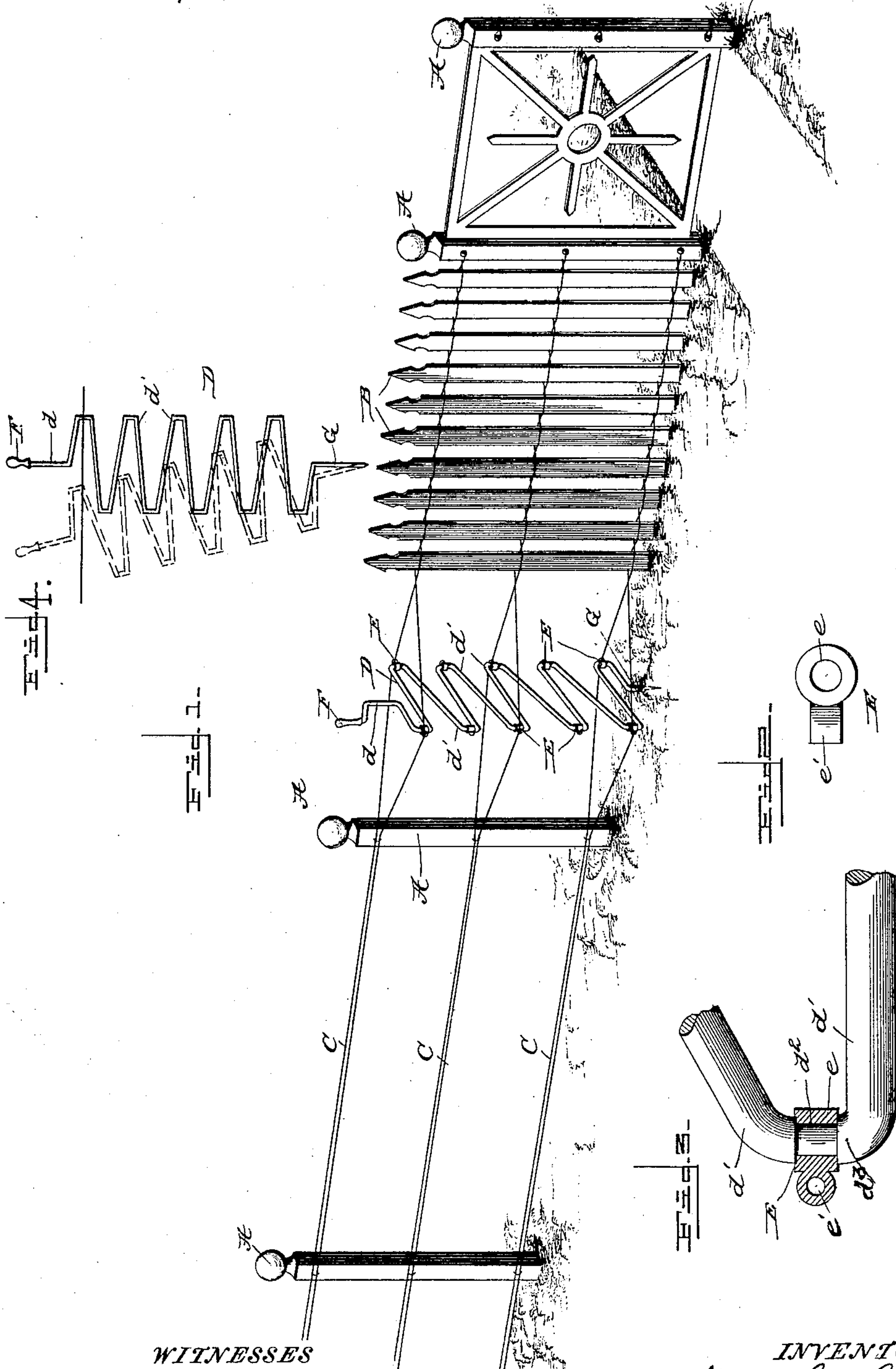


(No Model.)

H. G. CADY.
FENCE MACHINE.

No. 482,335.

Patented Sept. 13, 1892.



WITNESSES

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HENRY G. CADY, OF PINE BLUFF, ARKANSAS.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 482,335, dated September 13, 1892.

Application filed January 14, 1890. Serial No. 336,918. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. CADY, a citizen of the United States of America, residing at Pine Bluff, in the county of Jefferson and State of Arkansas, have invented certain new and useful Improvements in Fence-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that type of apparatus used in the construction of wire fences in which two or more pairs of wires are brought into a species of woven engagement at suitable tension with upright pickets placed at suitable intervals.

It is my purpose to simplify and improve this type of wire-fence machines by so improving the construction that I am enabled to dispense with the base-plate frequently used in this class of apparatus to give pivotal support to the crosser-frame and by making provision for the frequent removal of said crosser-frame without requiring excessive strain upon the wires or great effort by the operator in withdrawing the pivoted point from the earth.

It is my purpose, also, to provide for the occurrence of uneven ground beneath the line of fence and to provide a simple construction whereby I avoid the necessity for digging away the soil or breaking away a ledge of rock, should such a formation occur, in order to enable the apparatus to be used and placed at substantially uniform intervals, in order to equalize the tension and firmly secure the pickets at substantially the same distance one from another.

It is my purpose, finally, to simplify, improve, and cheapen the construction of machines of this type; and my invention consists, to these ends, in the novel features of construction and new combinations of parts, hereinafter fully explained, and then particularly pointed out in the claim following such description.

To enable others skilled in the art to make, construct, and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing my invention in use. Fig. 2 is a detail view show-

ing one of the swiveled eyes for carrying a wire removed from the machine. Fig. 3 is a detail view, upon an enlarged scale, of that part of the mechanism upon which the eye shown in Fig. 2 is swiveled. Fig. 4 is a diagram showing a possible position of the machine when in use.

In the said drawings, the reference-letter A indicates one of the posts of an ordinary fence placed in the ground at suitable intervals to support the strands with which the pickets are interwoven.

The letter B indicates a series of pickets in process of being interwoven with the wire strands stretched between the posts A in the usual manner.

One of the simplest methods of interconnecting the vertical pickets is to cause the wires of each pair to cross each other and place a picket in the angle or opening between the intersecting wires. The picket being held closely against the crossed wires, the latter are then crossed again, a suitable tension being used to draw the wires closely against the picket.

To afford cheap, simple, and efficient means for producing the successive intersections of the pairs of wires, I construct the crosser-frame D, which is composed of a single integral bar or wire bent at intervals into zig-zag form, thus producing a frame composed of arms d' d' , which diverge from each other at a small angle, the points of divergence being upon opposite sides alternately of the frame. At the points of divergence the arms d' d' are bent to form angles of comparatively small divergence, said angles opening upon opposite sides of the crosser-frame alternately. The bent portions or angles d^3 are reduced to form bearings d^2 , having a vertical axis, or nearly so. Upon each axis is mounted a loop e , which swivels freely upon said bearing, upon which is formed an eye e' . A like construction is provided at each of the angles connecting the arms d' d' . The bar or wire, after forming the lower arm d' , is bent back upon itself and its extremity turned downward to form a pivotal bearing G, which lies in the central axial line of the frame, or practically so. In like manner a crank-arm F is provided at the upper end of the frame, being formed of an integral portion of the bar or

wire, which is bent upward to form a central or nearly central axis or crank-shaft d , which is substantially coincident with the axial line of the pivotal point G. The crosser-frame is
 5 formed of a single piece of wire bent into the form described and shown, whereby it has an elastic yield in the direction of the central longitudinal line or vertical axis of said frame, thereby enabling the pivotal point d and G to
 10 approach each other in a limited degree. The wires C C, being supported in keepers on the posts in a suitable manner, are led through the eyes e' upon the swiveled carrier E, the wires of each pair being brought
 15 as nearly opposite each other as possible and any number of such pairs being employed. The crosser-frame D is now moved until it is brought into suitable proximity to the post, its movement upon the wires being facilitated
 20 by turning until the arms d' d' are in or nearly in parallelism with the wires. At a suitable point the axial extremity G is driven into the soil. The crank-arm F is now operated to turn the crosser-frame D until the
 25 arms d' d' are substantially at right angles with the wires of the strands, thereby crossing the same and putting the wires under considerably greater tension, and a picket or pal-
 30 ing B is placed in the opening or angle formed by the intersection of the wires, and the crosser-frame D is again turned to cross the wires a second time and inclose the picket.

It is evident that in machines of this type the wires will be drawn more closely up against
 35 the pickets, and a more secure interconnection will be obtained the closer the crosser-frame D is brought to the last picket set. In order to preserve a sufficiently-uniform tension of the wire and interval or space be-
 40 tween the pickets, the crosser-frame D should be moved at such times as to accomplish these results. To make each removal, the point G is withdrawn from the ground and the frame is moved to the point required, where the piv-
 45 otal bearing is inserted and the operation repeated.

It is evident that where the ground is more or less uneven the pivotal point G, if inserted
 50 in a raised part, may raise the crosser-frame D too high, and thus produce such tension in the wires that the machine cannot operate, or

can only operate by removing it to a considerable distance from the picket. It is not always possible to avoid this difficulty; but by
 55 providing for a limited yield of the crosser-frame D in the line of its axis the obstacles caused by average variations constantly re-
 60 curring will be practically avoided and the machine will be enabled to operate under such circumstances at substantially uniform inter-
 65 vals from the last picket inserted. Moreover, the provision of such a yield will very often avoid the necessity for violent exertion on the part of the operator in displacing the point G and moving the machine, especially where
 70 projecting ridges of ground must be passed over in making such removals. To effect the result specified, I construct the crosser-frame D of a single continuous bar or wire of suit-
 75 able size, whereby I impart a sufficient degree of elasticity to provide for all ordinary requirements. This is partly due to the fact that when made in one continuous piece the number of bends or angles will usually be in-
 80 creased, and I thus obtain a number sufficient to accommodate any number of strands of wire. Moreover, in addition to these advantages I materially simplify and cheapen the construction, as I am able to dispense with
 85 any base-plate to carry the point G, and no connecting-joints are required to attach either
 90 the said point, the crank F, or the bearings e' .

What I claim is—

A wire-fence machine consisting of a crosser-frame formed of a single continuous piece
 85 of wire bent to form small diverging angles opening upon opposite sides of said frame alternately and turned at the ends of said frame into substantial coincidence with the
 90 vertical axis of the crosser-frame, the diverging arms and alternate angles having an elastic yield in the direction of said axis and the angles being provided with loops for the wires, while the lower arm of the frame has a
 95 pivotal point to enter the soil, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY G. CADY.

Witnesses:

S. A. TERRY,

PAUL W. STEVENS.