(No Model.)

C. M. LAMB.

WIRE FENCE IMPLEMENT.

No. 601,473. Patented Mar. 29, 1898.

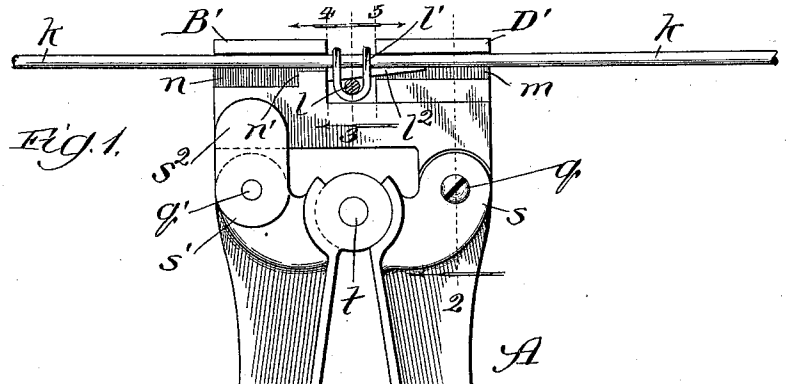


Fig. 1.

Fig. 2.

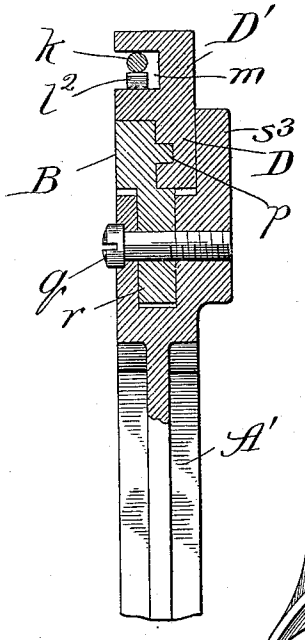


Fig. 3.

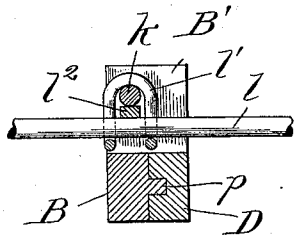
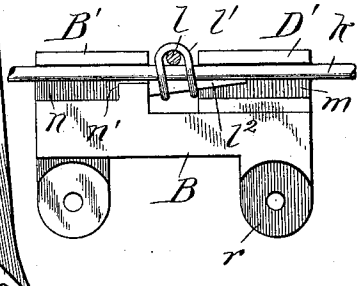


Fig. 6.



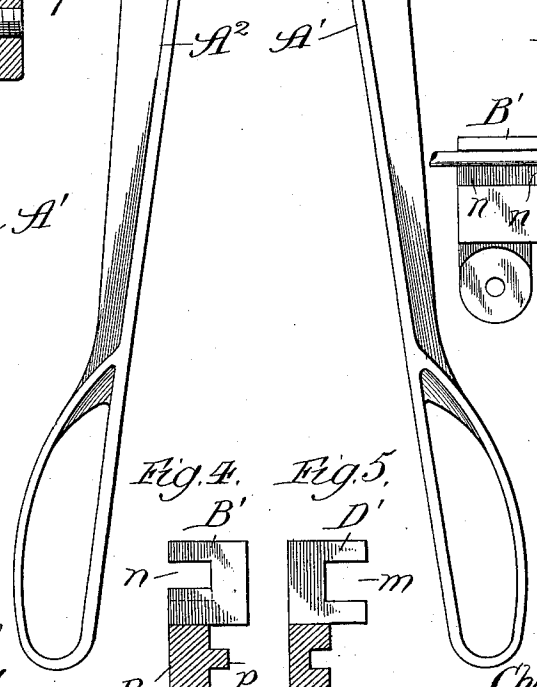


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES M. LAMB, OF ADRIAN, MICHIGAN, ASSIGNOR TO THE PAGE WOVEN WIRE FENCE COMPANY, OF SAME PLACE.

WIRE-FENCE IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 601,473, dated March 29, 1898.

Application filed December 13, 1897. Serial No. 661,692. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. LAMB, a citizen of the United States, residing at Adrian, in the county of Lenawee and State of Michigan, have invented a new and useful Improvement in Wire-Fence Implements, of which the following is a specification.

My invention relates to an implement for use more especially in the field construction of those wire fences which are made up of strand and stay wires. The implement is adapted particularly for use in connection with my improved union or fastening for effecting the joints of such fences, which is set forth in an application filed simultaneously herewith, Serial No. 661,689, and which involves the use of a wedge, which it is the function of this implement to force into place.

While my primary object has been to provide an implement for use in the construction of fences, yet it will be obvious from the description which follows that the principle involved in the implement may be applied readily to other implements of a similar nature, such as pincers and the like, where it is desired to obtain a leverage which is greatly increased during the closing of the handles.

Referring to the accompanying drawings, Figure 1 represents a plan view of my improved fence implement applied to a fence-joint and closed with the wedge forced home; Fig. 2, a broken section on line 2 of Fig. 1; Fig. 3, a broken section on line 3 of Fig. 1; Figs. 4 and 5, sections on the corresponding lines of Fig. 1, all the sections being viewed as indicated by the arrows; and Fig. 6, a plan view of a slightly-modified form of jaw adapted to drive a wedge located as there shown.

A is the implement, of general pincers-like form and having lever arms or handles A' A^2, pivoted together at t. The handle A' is provided with a grooved or recessed offset or lug s, Fig. 1, forming, in effect, the short arm of a bell-crank lever, and into the grooves of which fits the lug r, Fig. 2, of a slide B, pivoted upon a bolt q. The slide B, passing through the slotted lever-arm itself, constitutes one of the jaw members and is provided on its inner side with a longitudinal spline or feather p and at its end opposite the pivoted end with an upwardly-projecting head or jaw section B', Fig. 1, of general rectangular shape and provided with a groove n, which at the inner end of the jaw-section should be provided with a wedge-engaging section n'. The spline p fits into a corresponding groove on the inner face of a companion jaw member D, similarly pivoted in a recessed lug s', with which the handle A^2 is provided. The free end of the pivotally-mounted sliding jaw member B is held firmly against its companion member by means of an upward extension s^2 of one portion of the grooved lug s' of the handle A^2. Similarly the free end of the jaw member D is held close against the member B by means of an upward extension s^3 of that portion of the grooved lug s which lies on the side of the handles which is opposite to that on which the extension s^2 lies. In Fig. 1 the extension s^3 lies hidden from view on the back side of the right-hand jaw. The jaw-section D' is provided with a longitudinal groove m, wide enough to receive a wire and a portion of the wedge.

The form of the wedge-engaging section n' on the jaw-section B' is immaterial, it being essential only that the slot n shall be of less width at its inner end than the slot m, so that one jaw shall engage and force inward the wedge while the other receives it.

As clearly shown in Fig. 2, the jaw member D moves between the member B and the lug s^3 as guides, being forced longitudinally in one direction or the other through the medium of the bolt q' when the latter is moved by the lever-arm A^2. Similarly the jaw member B is moved longitudinally between the jaw member D and the lug s^2 as guides under force exerted through the medium of the bolt q when the lever-arm A' is moved. As a matter of course these movements are simultaneous, each jaw member usually moving absolutely as well as with relation to its companion member.

Where the wedge is inserted between the wires of the joint and longitudinally of the strand-wire k, the implement is applied as shown in Fig. 1, the jaw-section D' serving to hold the stay-wire l and union or staple l' against slipping, while the wedge l^2 is forced

in by the section n', this action being permitted by the wide groove m, which the wedge enters.

Fig. 6 shows that to permit the wedge to be inserted on the outer side of the strand-wire it is necessary only to widen the slot m slightly, and, indeed, there is no practical reason why this slot may not be made wide enough in the first instance to permit the use of the implement with either form of joint. As the jaws close, the pivotal points q and q' approach closer and closer a line passing through the pivotal point t, and the power which may be exerted theoretically (supposing no friction) approaches infinity, on the principle of the toggle-joint, which, indeed, practically this is.

It is evident that the device may be modified at the jaws to suit it to various kinds of work, and therefore I do not limit myself to any particular form here mentioned or described.

What I claim as new, and desire to secure by Letters Patent, is—

1. An implement of pincers-like form comprising pivotally-connected bell-crank levers, and jaw members slidably engaging each other and pivotally joined to the short lever-arms of the bell-cranks, substantially as set forth.

2. An implement of pincers-like form, comprising pivotally-connected bell-crank levers, jaw members slidably engaging each other and pivotally joined to the short lever-arms of the bell-cranks, and lugs on the short lever-arms forming portions of the guides in which said jaw members move, substantially as set forth.

3. A wire-fence implement, comprising pivotally-connected bell-crank levers, and recessed jaw members slidably engaging each other and pivotally joined to the short arms of the bell-cranks, said jaws being adapted to receive a fence-wire, substantially as and for the purpose set forth.

4. A wire-fence implement, comprising pivotally-connected bell-crank levers, recessed jaw members slidably engaging each other and pivotally joined to the short arms of the bell-cranks, said jaws being adapted to receive a fence-wire, and lugs upon the short lever-arms forming portions of the guides for the sliding jaw members, substantially as and for the purpose set forth.

5. A wire-fence implement, comprising lever-arms A' and A^2 hinged at t and provided with slotted lugs $s\ s'$ forming with the arms A' and A^2 bell-crank levers, upward extensions $s^3\ s^2$ upon said lugs, and sliding jaw members B and D provided with tongue-and-groove connection and pivotally mounted in said slotted lugs on bolts $q\ q'$, said jaw members being provided with grooves to receive a fence-wire, substantially as and for the purpose set forth.

6. A wire-fence implement, comprising bell-crank levers hinged at t, jaw members B and D slidably engaging each other and pivotally joined to the short arms of the bell-cranks, and jaw-sections B' and D' carried by the jaw members and provided with slots n and m, respectively, said slot n being narrower at its inner end than the slot m, whereby one of the slots is adapted to receive a fence-wire and the other to receive a fence-wire and a portion of the wedge of the union, substantially as and for the purpose set forth.

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