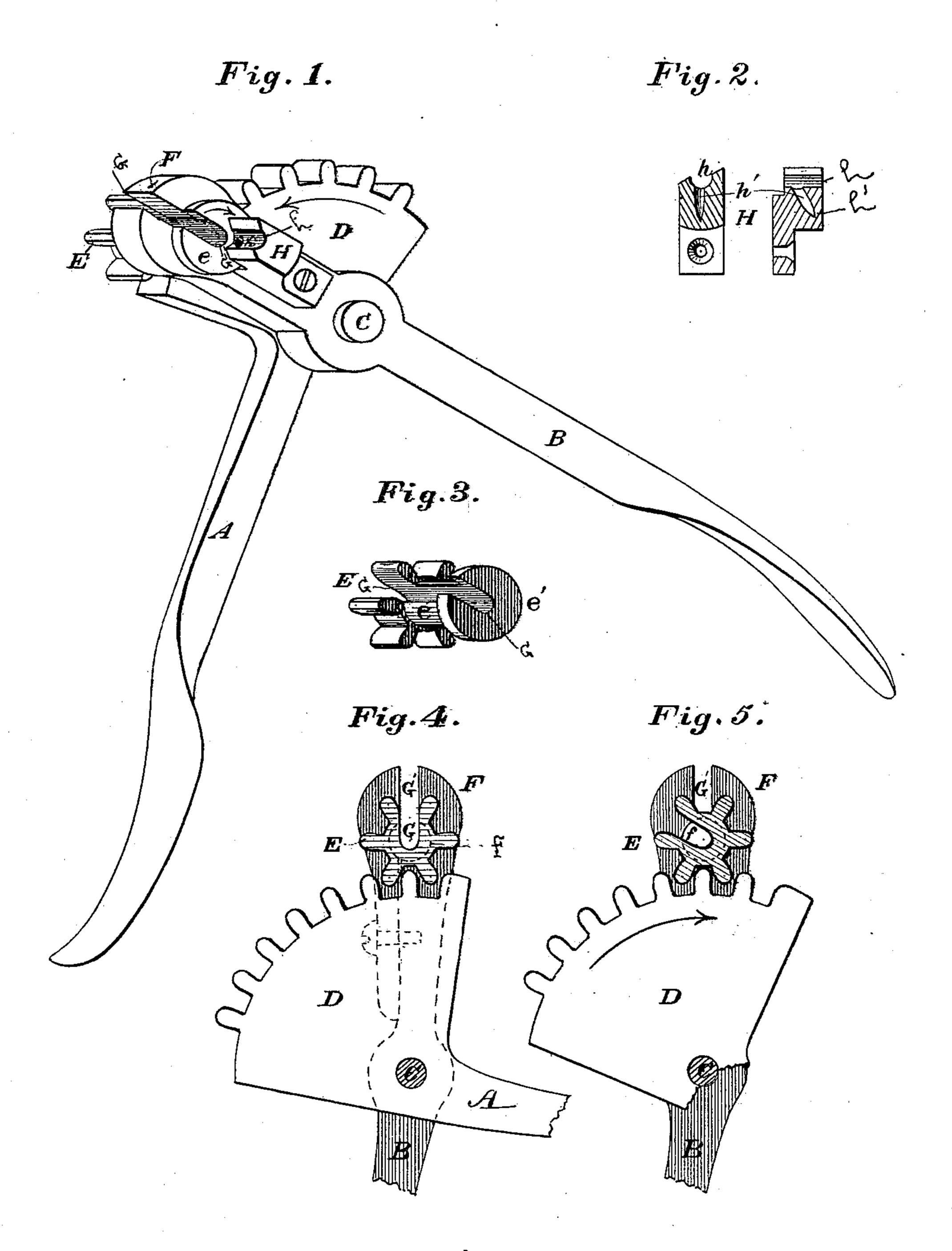
## J. A. SWAN.

## BARB-FORMER.

No. 179,625.

Patented July 4, 1876.



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## UNITED STATES PATENT OFFICE.

JAMES A. SWAN, OF JOLIET, ILLINOIS.

## IMPROVEMENT IN BARB-FORMERS.

Specification forming part of Letters Patent No. 179,625, dated July 4, 1876; application filed June 16, 1876.

To all whom it may concern:

Be it known that I, James A. Swan, of Joliet, Will county, Illinois, have invented a new and useful Implement for Attaching Barbs to Wire Fences, of which the following is a specification:

My invention relates to a device for twisting a double-pointed piece of wire on the wire fence, so as to constitute a barb.

In the accompanying drawings, Figure 1 is a perspective view of an implement embodying my invention, the same being in condition to operate upon a piece of wire to form a barb. Fig. 2 represents two longitudinal sections through the barb-socket. Fig. 3 shows my slotted pinion detached. Fig. 4 is a rear elevation of the operative portion of the implement in condition to be applied to the fence. Fig. 5 shows the same, with its slotted pinion partially rotated.

A B are handles hinged together at C, and of which one, A, terminates in a cogged segment, D, which gears into a pinion, E, that is journaled within a head, F, upon the other handle B. The pinion E has a suitable journal, e, which occupies the bearing f in said head and expands into a collar, e', on the other side of the head (said pinion and head are similar) by slots G G', said slots being deep enough to possess a half-round termination concentric with the common axis of the said pinion and collar. Attached to the head F is a socket-piece, H, having a half-round indentation, h, and an oblique orifice or socket, h'.

My implement is used as follows: When the handles are in the position as shown in Fig. 1, a straight wire, (of required length to form the barb,) shap at both ends, is inserted in the socket h', whose slanting direction causes the upper end of said wire to pass through the slot in the collar e'. The instrument is then in condition to apply to the fence-wire, which is passed through the slot G G', Fig. 4, thus bringing the barb wire and the fence-wire at right angles to one another and in close contact. By closing the handles A B, the slotted pinion is caused to revolve, carrying the collars e', and thus turning the barb-wire completely around the fence-wire once or more times, according to the number of teeth in pinion and segment.

I claim as new and of my invention—

1. The wire-barb implement, consisting essentially of the siotted pinion E e e', journaled within the similarly-slotted head F, carrying the socket-piece H h h', and having the handle B, and being pivoted at C to cogged segment D, which gears to said pinion and has a handle, A, the whole being combined and adapted to co-operate, as set forth.

2. In combination with the stationary oblique barb-socket H h h', the slotted rotary pinion E  $e \, e$ , for the purpose set forth.

In testimony of which invention I hereunto set my hand.

JAMES A. SWAN.

Attest:

FRANK SWAN, GEO. H. KNIGHT.