

E. QUINLAN.
Teeth for Hand-Rakes.

No. 210,356.

Patented Nov. 26, 1878.

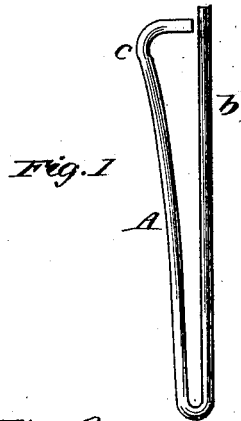
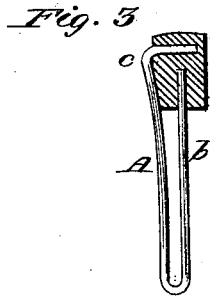
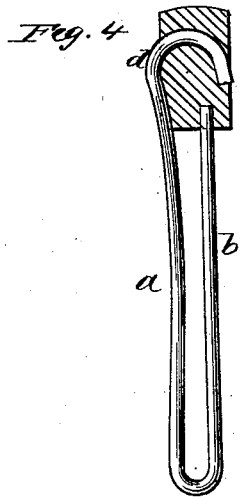
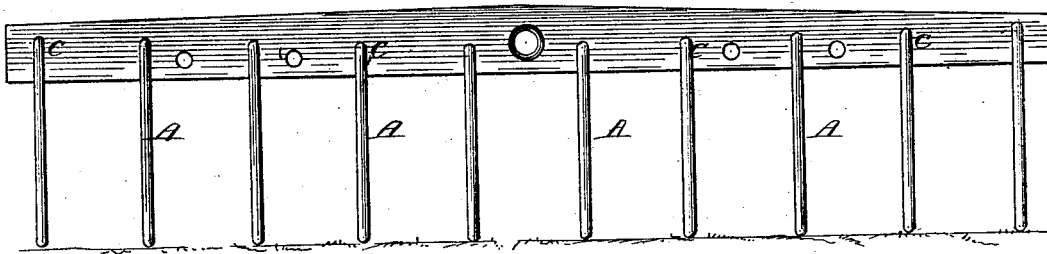


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND QUINLAN, OF SHEBOYGAN FALLS, WISCONSIN.

IMPROVEMENT IN TEETH FOR HAND-RAKES.

Specification forming part of Letters Patent No. **210,356**, dated November 26, 1878; application filed August 6, 1878.

To all whom it may concern:

Be it known that I, EDMUND QUINLAN, of Sheboygan Falls, in the county of Sheboygan and State of Wisconsin, have invented certain new and useful Improvements in Hand-Rakes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 shows one of my improved rake-teeth detached. Fig. 2 is a front view of a hand-rake having my improved teeth. Fig. 3 is a vertical cross-section of the same. Fig. 4 is a sectional and side view of a modified form of my tooth.

Similar letters of reference denote corresponding parts in all the figures.

This invention relates to certain improvements in teeth for hand-rakes, which said improvement consists in manufacturing them of steel, brass, or other wire in the manner which I shall now proceed more fully to describe with reference to the drawings hereto annexed, in which—

A b represent one of my improved rake-teeth, which consists of a wire blank doubled near its center, and having the end *c* of its longest arm bent in toward the shorter arm *b*, as shown.

In applying my improved rake-teeth, I drive the end *c* into the front side of the rake-head near the top thereof. The end of the arm *b*, I drive into the under side of the rake-head.

In this manner I attain great strength and

durability, as the arms of the double tooth brace each other, and the end *c* of arm *A* holds the tooth very securely in position.

I am aware that hand-rakes have been made having flexible or elastic wire teeth, or in which the teeth are formed of a series of wire bails, the ends of which are inserted into the under side of the rake-head longitudinally and in a line with each other; but neither of these will answer the purposes of my improved rake, the teeth of which are rigid, while at the same time they present the narrow edge or point to the direction of raking.

The modification of my tooth illustrated in Fig. 4 shows the longer bent arm *a* thereof with a second bent or recurved portion, *d*, which clamps the tooth in position to the rake-head. In its function this tooth does not, of course, differ from that represented in Figs. 1 and 3.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The improved hand-rake herein shown and described, the teeth of which consist of wire sections *A b*, bent or doubled near the middle and inserted into the rake-head in planes parallel to each other, substantially in the manner and for the purpose specified and set forth.

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

EDMUND QUINLAN.

Witnesses:

JOHN E. THOMAS,
WILLIAM C. THOMAS.