

W. M. WHITE.
Hand-Rake.

No. 200,592.

Patented Feb. 19, 1878.

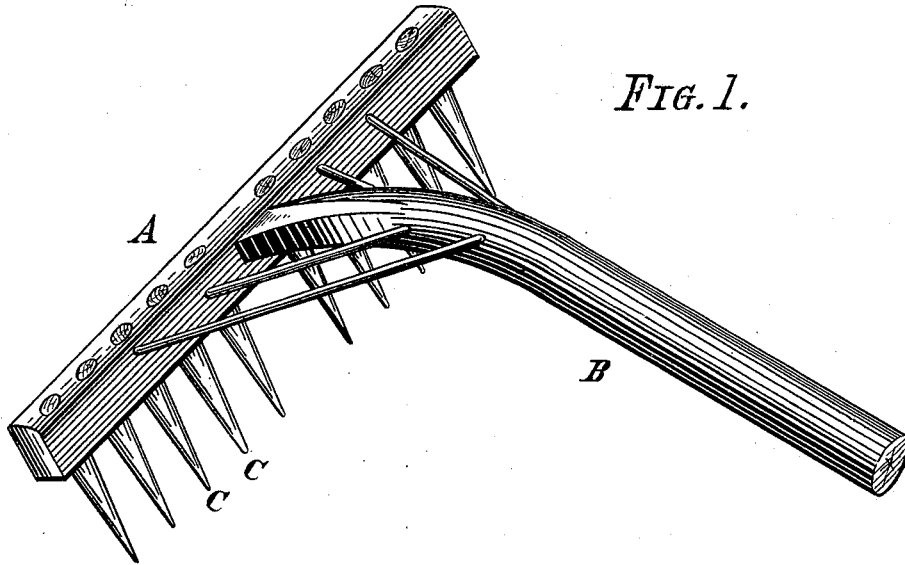


FIG. 1.

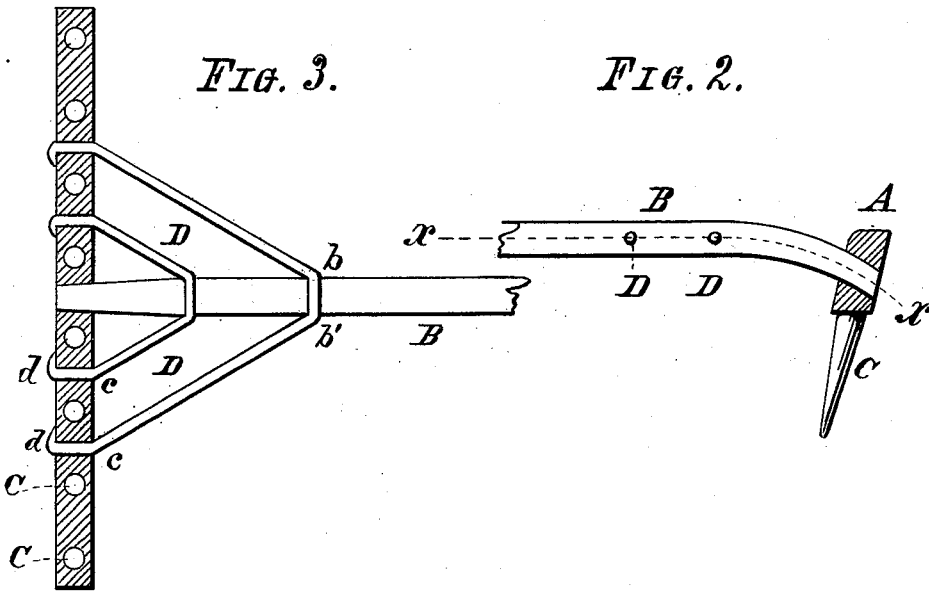


FIG. 3.

FIG. 2.

Witnesses:

Frank Hirsch
Chas. Covart.

Inventor:

William M. White,
by Michael J. Stark
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM M. WHITE, OF MILFORD, MICHIGAN.

IMPROVEMENT IN HAND-RAKES.

Specification forming part of Letters Patent No. **200,592**, dated February 19, 1878; application filed November 3, 1877.

To all whom it may concern:

Be it known that I, WILLIAM M. WHITE, of Milford, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements on a Rake; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to improvements on hand-rakes; and its object is to render these useful garden implements stronger and more durable, and at the same time cheaper and easier to manufacture.

To this end my invention consists in the peculiar construction and arrangement, with the head and handle of such rakes, of wire braces passed through said handle and head and clinched on the outside of the latter, said braces running in a rectilinear line from the handle to the head, as hereinafter fully set forth and described.

In the drawings heretofore mentioned, Figure 1 is a perspective view of my improved rake. Fig. 2 is a vertical, and Fig. 3 a horizontal sectional view, the latter being taken in line *xx* of Fig. 2.

Like parts are designated by corresponding letters of reference in all the figures.

A is the rake-head. It is provided centrally with an angular aperture, wherein is fitted the correspondingly-shaped end of the handle B. This head has a series of vertical perforations, within which the rake-teeth C are permanently fastened in the usual manner, and four (more or less) horizontal apertures placed a suitable distance from the handle B, for receiving the ends of the braces D. These braces D consist of pieces of preferably tinned or galvanized wire, passed through horizontal holes in the handle B a suitable distance from the head A, and they are bent near their extremity at *c*, where they pass through said head, and at their middle part at *b b'*, where they pass through the handle B.

The extreme end of the braces D is flattened and clinched to the head A after the brace-wires D are properly inserted into the handle and head.

It will be observed that the end of the rake-handle is tapered so as to fit tightly into

the head A, and thus to prevent any back movement of said head, and that the braces D run rectilinearly from the handle to the head. In this manner the head is very strongly braced and prevented from getting loose, and, contrary to other rakes where the wire braces are curves, the head will be held the more tightly should my braces become accidentally bent, which in rakes, as before described, would cause the head to become loose, and thereby render it useless.

A rake similar in construction to mine has the braces crutched or kinked near their passage through the head and handle. This construction is, practically considered, a failure, because these kinks cannot readily be made after insertion, and, when completed, is open to the objection that in case such kinks should become straightened out by accident or otherwise the braces will be too long, and the head therefore become loose. Furthermore, moisture is readily retained in these places, which will soon rot the wooden and destroy the iron parts of the rake. These objections are overcome in my rake, there being no kinks to retain such moisture and to lengthen out, as heretofore stated.

I do not claim a rake having curved clinched braces; nor a rake having a brace parallel to the handle; nor a rake having oblique braces extending from a collar on the handle to the head of the rake; nor anything in any of the following patents: R. P. Walker, 180,398; G. Hawley, 175,350; A. J. Blodgett, 18,079; S. Skinner, 87,718; and Hotchkiss and Hotchkiss, 18,339; but

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

The combination, with perforated handle B and head A, of a series of braces, D, each of said braces having its ends secured to said head by having its middle part made straight, and passing transversely through said handle, and its intermediate parts extending in oblique lines from said handle to said head, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereto set my hand and affixed my seal in the presence of two subscribing witnesses.

WM. M. WHITE. [L. s.]

Attest:

M. C. WILLIAMS,
C. D. MCEWEN.