

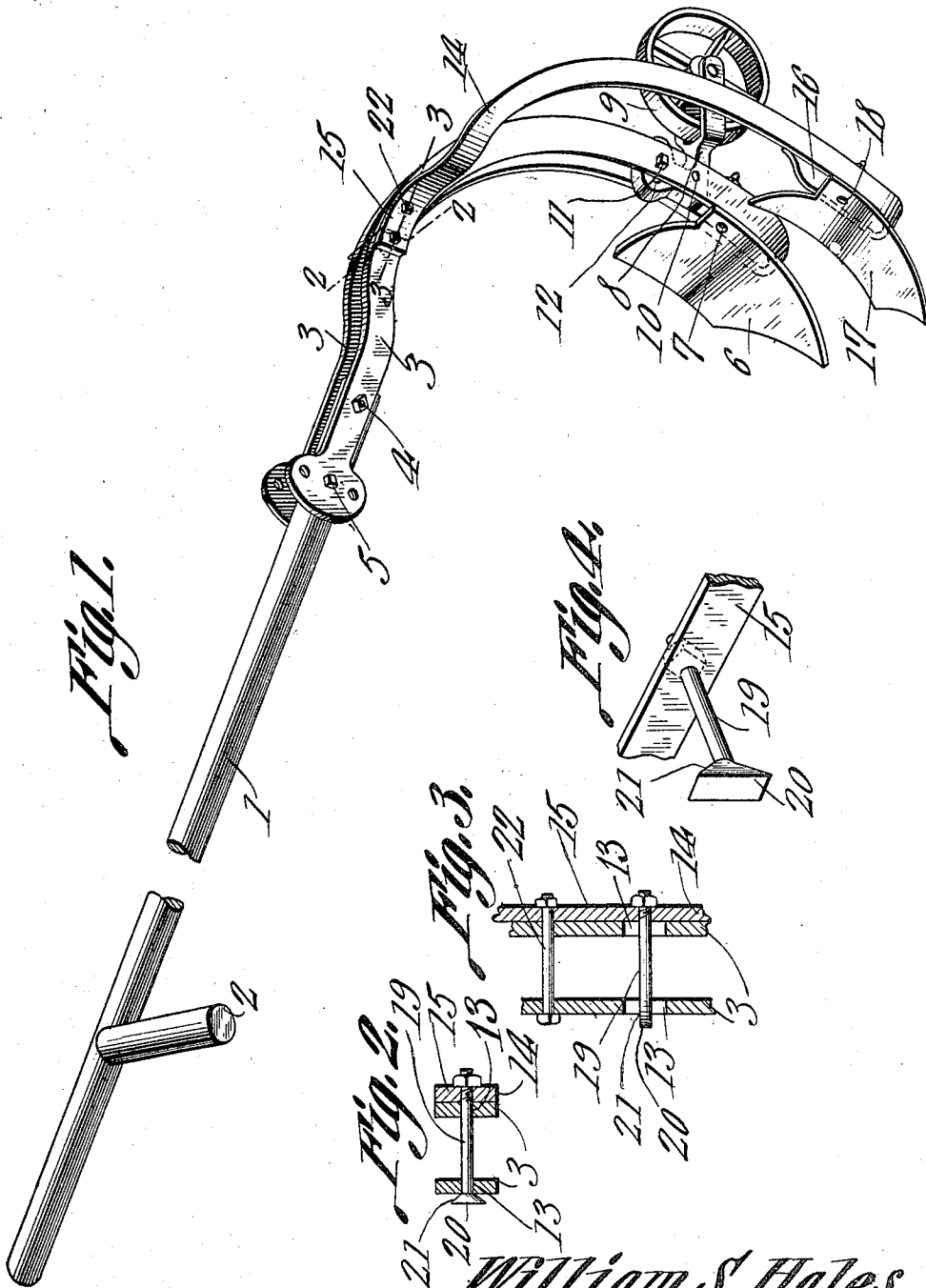
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HOE.

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1,011,194.

Patented Dec. 12, 1911.



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UNITED STATES PATENT OFFICE.

WILLIAM S. HALES, OF PINEVILLE, NORTH CAROLINA.

HOE.

1,011,194.

Specification of Letters Patent.

Patented Dec. 12, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM S. HALES, a citizen of the United States, residing at Pineville, in the county of Mecklenburg and State of North Carolina, have invented a new and useful Hoe, of which the following is a specification.

This invention has relation to hoes and consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a hoe or hand cultivator including a plurality of standards adapted to support a cultivator tongue or plate, means being provided whereby one of the said standards may be separated or disconnected from the other and at the same time means being provided whereby the said standards may be securely held in connected relation to each other.

With this object in view the hoe includes a handle to which is attached a main or primary standard and upon which is mounted a cultivator point or plate. A gage wheel may be attached to the primary standard. A secondary standard is also employed and is adapted to carry a cultivator point or plate and a readily detachable means is provided for securing the secondary standard to the primary standard, the last said means being of such a structure as to effectually and positively hold the standards together when this is desired.

In the accompanying drawings,—Figure 1 is a perspective view of the hand cultivator. Fig. 2 is a sectional view of the same cut on the line 2—2 of Fig. 1. Fig. 3 is a longitudinal sectional view of a portion of the same cut on the line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the elements employed to secure the primary and secondary standards together.

The hoe or cultivator consists of a handle 1 having in the vicinity of its upper or forward end a laterally disposed grip 2. A standard 3 is adjustably connected with the lower end portion of the handle 1 and consists of a strip of metal which is bent back upon itself having spaced sides which receive between them the end portion of the said handle 1. Securing bolts 4 and 5 are employed for adjustably connecting the standard 3 to the handle 1. A cultivator point 6 is attached to the lower end of the standard 3 by means of a heel bolt 7 in the usual manner. The upper forward end of a

bracket 8 is located between the sides of the standard 3 and a gage wheel 9 is journaled in the said bracket and is adapted to travel in a furrow opened by the point 6. The said bracket 8 is attached to the standard 3 by means of a pivot bolt 10 and a securing bolt 11. These bolts pass transversely through the said bracket and also through the opposite side portions of the standard 3 and the bolt 11 is adapted to be passed through any one of a series of perforations 12 whereby the said bracket 8 may be held in an adjusted position with relation to the standard 3. The opposite side bars of the standard 3 are provided at points intermediate the ends of the said standard with elongated slots 13, the long dimensions of which are disposed in longitudinal alignment with the long dimensions of those portions of the standard 3 in which they are located. A supplemental and detachable standard 14 is provided and said standard consists of a strip of metal which is formed in a shank 15 at its upper end and is outwardly disposed at its intermediate portion and is provided at its lower end with a loop 16. The cultivator point 17 is mounted upon the lower looped end of the standard 14 and is held in position by means of a heel bolt 18 in the usual manner. A stud 19 is fixed to the shank 15 of the supplemental standard 14 and is provided with an elongated head 20 having at its under side and at the opposite side of the axis of the said stud 19 beveled surfaces 21. The long dimension of the head 20 lies transversely across the long dimension of the shank 15 of the supplemental standard 14. A bolt 22 is adapted to be passed transversely through the shank 15 of the supplemental standard 14 and the intermediate side portions of the primary standard 3.

To connect the supplemental standard 14 to the primary standard 3, the said supplemental standard 14 is turned so that the long dimension of the head 20 of the stud 19 is parallel with the long dimensions of the slots 13 in the standard 3. The said stud 19 is then inserted through the said slots 13 and the supplemental standard 14 is swung in a downward direction upon the stud 19 as an axis. This movement on the part of the stud 19 will bring the beveled surfaces 21 transversely over the edges of the slot 13 in the side portion of the standard 3 the more remote from the standard 14 and

as the said beveled surfaces 21 engage the edges of the said slot 13 and ride over the same, the said stud 19 is moved longitudinally and the supplemental standard 14 is drawn in close contact with the side portion of the standard 3 which is nearest the said standard 14. When the standards are thus drawn in close contact with each other, the bolt 22 is passed through the shank 15 and the side portions of the standard 3 and secured when the parts are firmly attached together. In order to disconnect the supplemental standard 14 from the standard 3, it is necessary only to remove the bolt 22 and reverse the operation above described. By this arrangement it will be seen that a simple structure is effected and that at the same time merely removing one bolt the supplemental standard may be easily and quickly detached from the primary standard, and when the parts have been assembled in the manner as above stated, the supplemental standard will be firmly and securely held in position against one of the side portions of the primary standard and that the stud in a great measure will take up most of the strain thereby releasing the securing bolt which is only a part that must be entirely removed from the primary and secondary standards in order to effect their separation. It will be seen that by using a main and a supplemental standard and two similar hilling devices thereon, the user can walk between two adjoining rows and by pulling on the hoe can cause the soil to be thrown to

the same side by both of the elements 6 and 17, the two elements simultaneously hilling corresponding sides of two adjoining rows. The supplemental standard 14 can easily be removed should it be desired to use but a single furrow opener, and it will be noted that this single furrow opener is directly in the line of draft so that there is no danger of the handle 1 being forced laterally and the furrow opener 6 shifted out of proper position during the actuation of the implement.

Having described the invention what I claim as new and desire to secure by Letters Patent is:—

A hand hoe including a handle, a downwardly and rearwardly curved main standard including a strip folded to form spaced sides straddling one end of and adjustable angularly relative to the handle, a supplemental standard detachably secured back of the handle to one side of the main standard and receding laterally and downwardly therefrom, and similar furrow openers arranged side by side and secured to the lower ends of the respective standards for simultaneously hilling corresponding sides of two adjoining rows.

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

WILLIAM S. HALES.

Witnesses:

P. V. MOODY,
HUGH W. HARRIS.