J. T. ANDREW & A. W. LANDERS.

SUBSOIL PLOW OR CULTIVATOR.

APPLICATION FILED JUNE 13, 1914.

1,130,655. Patented Mar. 2, 1915.

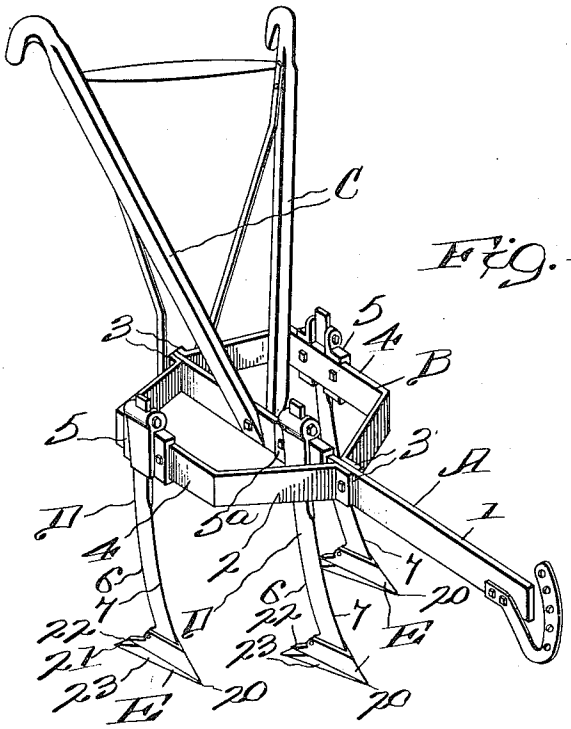


Fig. 1.

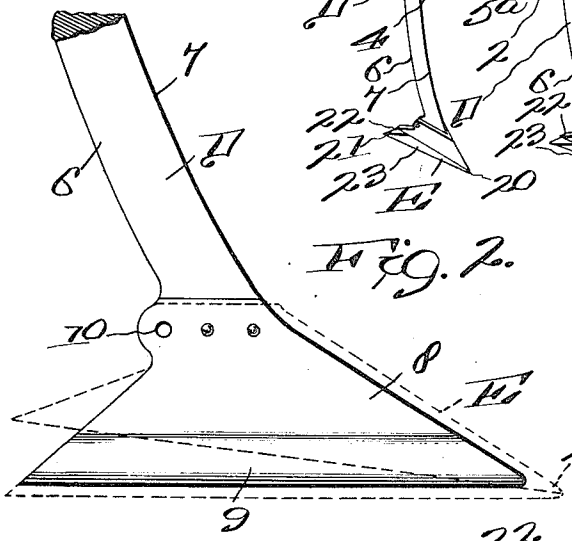


Fig. 2.

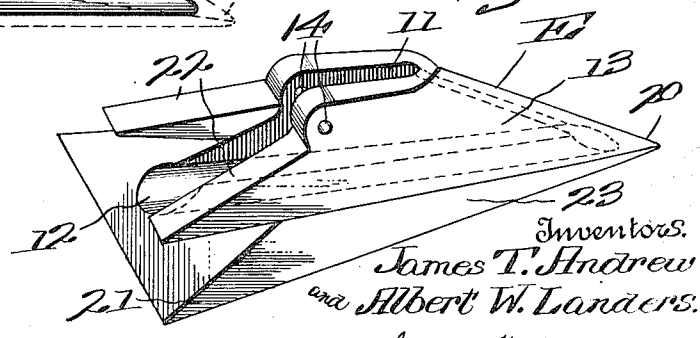


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES T. ANDREW AND ALBERT W. LANDERS, OF MONTGOMERY, ALABAMA.

SUBSOIL PLOW OR CULTIVATOR.

1,130,655. Specification of Letters Patent. Patented Mar. 2, 1915.

Application filed June 13, 1914. Serial No. 844,942.

To all whom it may concern:

Be it known that we, JAMES T. ANDREW and ALBERT W. LANDERS, citizens of the United States, residing at Montgomery, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Subsoil Plows or Cultivators; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in subsoil plows or cultivators, and it is intended to provide an implement that will effectually stir up and loosen the soil at considerable depth below the surface without actually turning the furrow over.

Our invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same reference symbols throughout the several views.

Figure 1 is a perspective view showing the complete instrument; Fig. 2 is a detail showing the lower portion of one of the standards with the foot thereof made detachable from the blade, the shoe being indicated in dotted lines; and Fig. 3 is a detail showing the shoe detached from the foot of the standard.

The plow consists of the beam A, the frame B, the handles C, the standards D, and the shoes E, all of these parts being preferably of metal, except the handles C which may be of wood.

The beam A consists of a metal plate 1, to which the frame B and handles C are connected, as shown; the frame being formed of metal side plates 2, flanged at each end, as at 3, and secured to the beam 1, and having the parallel side braces 4 to which are attached the brackets 5 for holding the standards D, to which the shoes E are attached. The central standard is attached to the bracket 5^a carried by the beam 1, as shown in Fig. 1. These standards D have metal shanks 6, sharpened, as at 7, and terminating at the bottom in a foot 8 riveted thereto, which foot is provided with the cylindrical base 9 and with the bolt hole 10. The cutting edges of the standards are curved, as shown in Fig. 2, to direct the feet of the standards downward, and at the same time will provide a curved cutting edge to cut through the earth, or other material, such as corn stalks, cotton stalks, or the like.

The shoes are preferably metal castings, such as chilled iron, or steel, and are provided with a slot 11 to receive the portion 8 of the foot of the standard, with a groove 12 to receive the cylindrical bottom of the standard, with a hollow forward portion 13 to receive the toe of the standard, and with a bolt hole 14 to receive a bolt passing through the same and through the bolt hole 10 of the shoe of the standard. These shoes are preferably pointed, as at 20, to cut into the ground, and preferably have the double tapered heels 21 and 22, between which we provide a V-shaped channel 23. It will be obvious that the shoes may be readily detached therefrom and others substituted therefor when desired. This double heel arrangement facilitates the breaking up of the ground.

It will be obvious that we provide a strong, durable and efficient implement for the purpose stated. It will also be obvious that various modifications might be made in the construction, and combination of parts which could be used without departing from the spirit of our invention.

Having thus described our invention, what we claim and desire to secure by Letters Patent of the United States is:—

1. A subsoil cultivator comprising a metal beam and framework connected thereto, standards connected to said framework and to said beam, and provided with elongated feet, and shoes fitting said feet and detachably connected to said standards, the said shoes being provided with double inclined heels with longitudinal tapering V-shaped channels in the sides thereof, substantially as described.

2. A subsoil cultivator comprising a metal beam and framework connected thereto, standards connected to said framework and to said beam, and provided with elongated feet with cylindrical bosses at the bottom of said feet, and shoes fitting said feet and detachably connected to said standards, substantially as described.

3. A subsoil cultivator comprising a metal beam and framework connected thereto, standards connected to said framework and

to said beam, and provided with elongated feet with cylindrical bosses at the bottom of said feet, and shoes fitting said feet and detachably connected to said standards, the said shoes being provided with double inclined heels with longitudinal tapering V-shaped channels in the sides thereof, substantially as described.

In testimony whereof, we affix our signatures, in presence of two witnesses.

JAMES T. ANDREW.
ALBERT W. LANDERS.

Witnesses:
E. C. ANDREW,
SAM WOLFF.