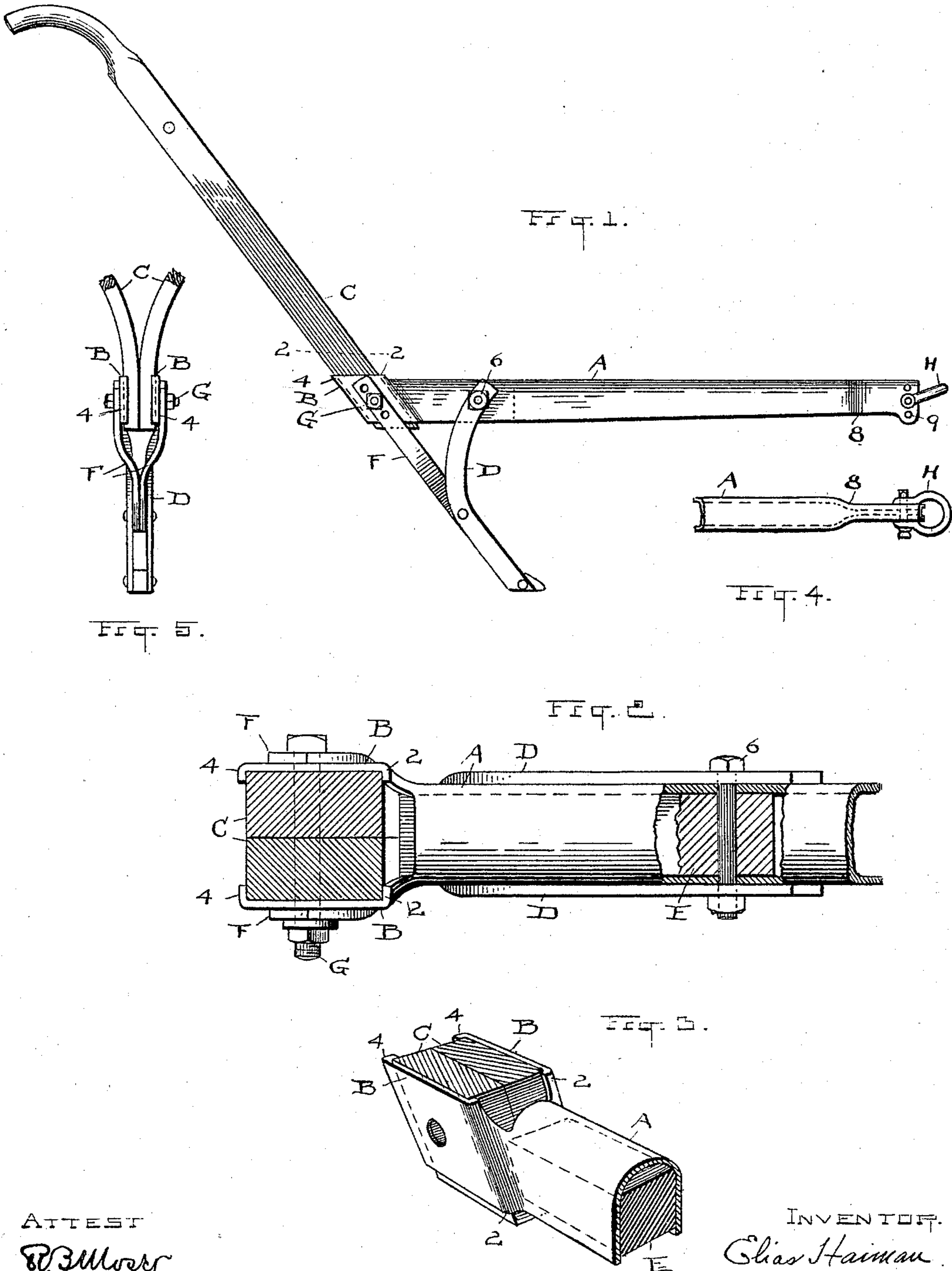


(No Model)

E. HAIMAN.  
PLOW OR CULTIVATOR.

No. 585,751.

Patented July 6, 1897.



ATTEST  
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ATTY.

# UNITED STATES PATENT OFFICE.

ELIAS HAIMAN, OF CLEVELAND, OHIO.

## PLOW OR CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 585,751, dated July 6, 1897.

Application filed April 7, 1897. Serial No. 631,063. (No model.)

*To all whom it may concern:*

Be it known that I, ELIAS HAIMAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Plows or Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in plows or cultivators; and the invention consists in a novel construction of beam adapted to be used in plows, shovel-plows, cultivators, cotton-scrapers, and other like implements in which carrying-beams and handles are used, all substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a "shovel-plow" stock, all complete except the shovel. Fig. 2 is an enlarged plan view of a section of the beam and showing the handles in cross-section on line 2 2, Fig. 1. Fig. 3 is a perspective view of the rear portion of the beam with the wooden parts in section. Fig. 4 is a plan view of the front end of the beam, and Fig. 5 is a rear elevation.

To understand this invention, it is necessary to also understand that the invention belongs to an art in which competition is exceedingly close and active, and in which cheapness of production is the prime factor of a truly successful business. In other words, the demands of the trade in these latter days are almost wholly in favor of implements of the least possible cost, which in years past have largely governed in the use and manufacture of implements of this kind. Whatever causes have combined to bring about this state of affairs, it nevertheless remains true that there is not now a market for high-priced implements of this kind, and hence invention has been compelled to originate and provide implements which, while they possess utility and durability, can be obtained at a very low cost.

To these ends the present invention was made, and it comprises a beam A, which is struck up from a piece of sheet-steel or its equivalent to substantially U shape in cross-section and practically finished from end to

end by machinery. This cross-section form, however, excepts the rear end of the beam, where the metal is split longitudinally at the center and turned up into two parallel flat flanged substantially box-shaped side wings or extensions B. These wings are formed with flanges or shoulders 2 and 4 along their front and rear edges, respectively, and are shown here as thrown outward somewhat from the rear end of the end proper of the beam, so as to afford ample room to receive the two wooden handles C. These handles are set side by side within the flanged wings B and socketed firmly therein at the outset, so that they are measurably secure without other means of fastening.

A split or bifurcated standard D for the shovel or other member is secured to the beam A upon opposite sides by means of a bolt 6, and a filler E, of wood or its equivalent, occupies and fills the inside of the beam at this point, thereby enabling the plow-standard to be firmly clamped and held without contracting the sides of the beam. A double brace F has its lower end fixed by a bolt to the standard D, and its arms project thence to the respective sides of the wings B, where a single bolt G is found sufficient to fix the ends of the said brace F and the handles C firmly to the beam. Thus only two bolts all told are used in the plow here shown for uniting the plow standard, beam, and handles in operative relation. Of course more bolts could be used, but they are not found necessary.

It will be noticed that the bend or back of beam A comes on top, so as to contribute to strength and safety in handling, and it may be made relatively heavier toward the rear end, if deemed necessary. At the extreme front of the beam the sides are somewhat contracted and flattened, as seen at 8, and holes 9 are formed therein for attachment of a clevis H. This construction of the front end of the beam dispenses with the usual beam clevis or clip and contributes materially to cheapness and simplicity of construction. The beam thus constructed is made and sold as an article of manufacture as well as being made up for sale with its furnishings, as here shown, and can be used for plows. This beam as thus constructed in U shape, although very simple in form and cheap in manufacture, is

superior to wood in point of strength and durability and will withstand more rough usage than any of the plow-beams as ordinarily constructed.

5 What I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a plow-beam straight from end to end and formed from sheet metal to substantially U shape in  
10 cross-section with the bend on top and the sides extending downward and constructed at its rear to attach the handles and at its front to attach a clevis, substantially as described.

15 2. As a new article of manufacture, a

straight plow-beam formed of sheet metal and substantially U shape in cross-section, the beam being closed across the top and having flanges extending downward on each side, and the rear end of the beam provided with 20 rearwardly-projecting side wings forming a continuation of the sides of the beam and constructed to socket the handles between them, substantially as described.

Witness my hand to the foregoing specification this 5th day of March, 1897. 25

ELIAS HAIMAN.

Witnesses:

H. T. FISHER,

H. E. MUDRA.