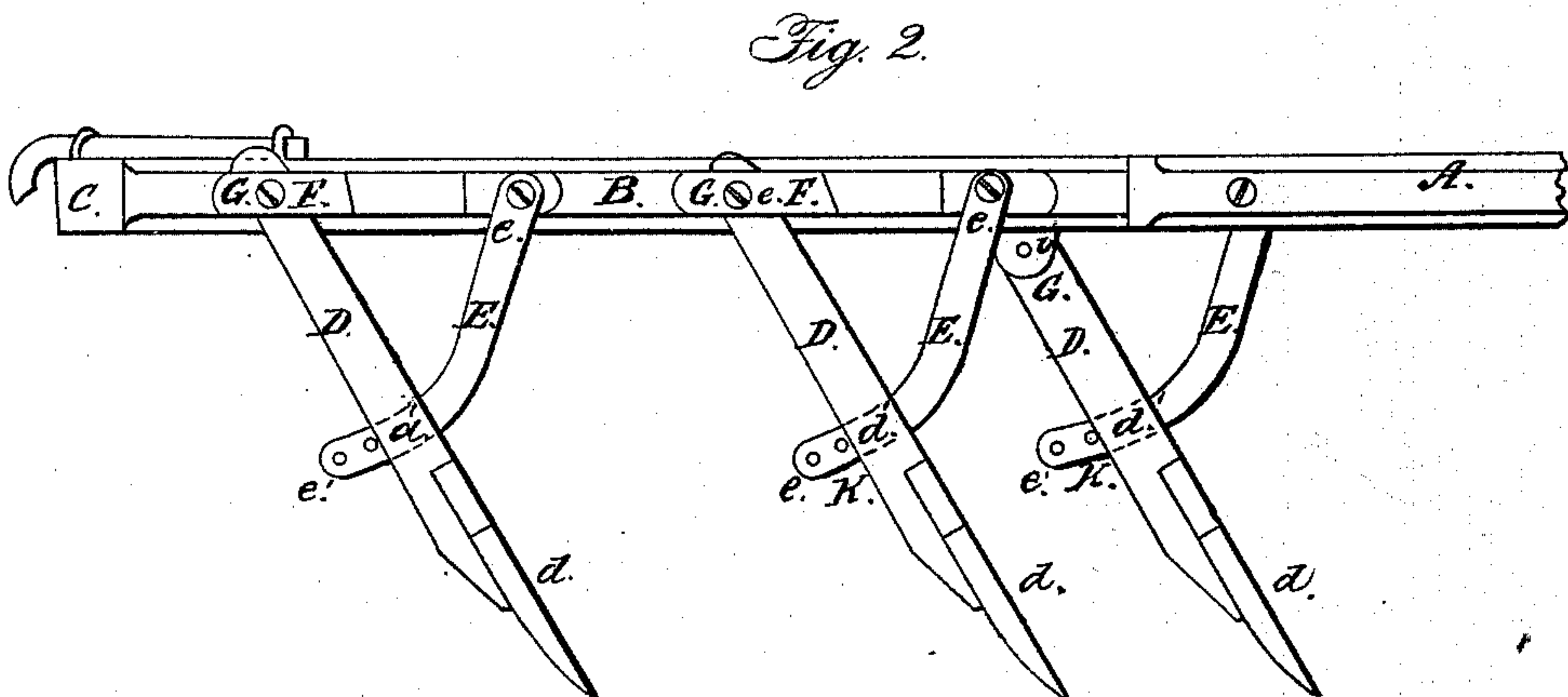
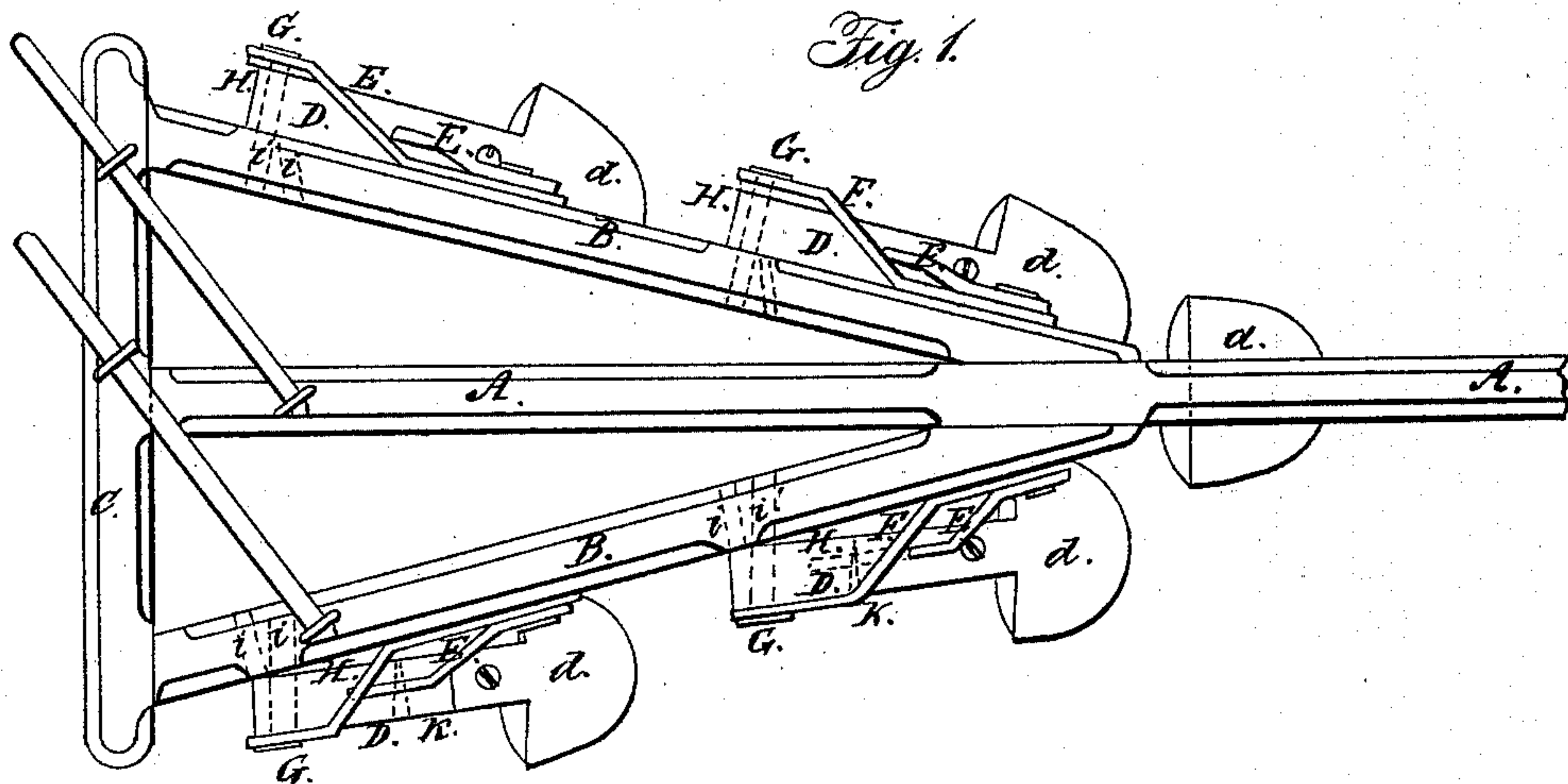


J. R. THOMAS.

Cultivator.

No. 68,670.

Patented Sept. 10, 1867.



Witnesses:

L. Hill  
C. A. Pettit

Inventor:

J. R. Thomas  
per Messrs. H. & C.  
Attorneys



# United States Patent Office.

JOHN R. THOMAS, OF MIFFLINTOWN, PENNSYLVANIA.

Letters Patent No. 68,670, dated September 10, 1867.

## IMPROVEMENT IN CORN-PLOUGHS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN R. THOMAS, of Mifflintown, in the county of Juniata, and State of Pennsylvania, have invented a new and useful Improvement in Corn-Ploughs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a top view of my invention.

Figure 2 is a side elevation of the same.

Similar letters of reference indicate corresponding parts in the two figures.

In this invention the plough can be adjusted so as to throw the dirt in rows or not, at pleasure. The shape of the plough-point and the means of attaching and regulating the pitch of the ploughs are also improved.

In order that others skilled in the art to which my invention appertains may be enabled to make and use the same, I will proceed to describe it in detail.

In the drawings, A represents the draw-beam and centre beam, B B the side beams, and C the rear or cross-beam of my plough, the whole forming an equilateral triangular frame, the draw-beam projecting from its vertical angle. D D are plough-standards, hinged to the outside of the side beams B, upon bolts. *d d* are the plough-points attached to the standards D D. In the standards D D is a slot, *d'*, through which passes a gauge-bar, E, hinged to the side beams at *e*, and provided with a series of small holes, *e' e' e'*, in which wooden pins may be inserted to hold the ploughs in position. F F are braces of metal, hinged or pivoted on the same bolt *e* that holds the upper end of the gauge-bars E, and having at their rear end holes to permit the passage of the bolts G G, which serve as pivots for the standards D D. Washers H H are provided to operate either between the standards and braces, or between the standards and side beams, as may be desired. The bolts G G on which rests the plough-standard pass somewhat loosely through the holes in the rear end of the braces F F, and have holes, *i i'*, provided for their reception, in the side beams B B, two or more holes at different angles for each bolt. These holes *i i'* are bored at such angles that one of them, *i*, is perpendicular to the side beam B, while the other, *i'*, is perpendicular to the centre beam A. If, therefore, the bolts G are passed through the holes *i'*, the ploughs will work at right angles to the centre beam A, and throw the dirt in the usual furrow; but if the bolts are passed through the other holes *i*, the ploughs will work at right angles to the side beams B B, and having their faces inclined inward towards each other, will throw the dirt inward and heap it up in rows. The form of plough-point which I use is delineated in the drawings, and is that of a spade, but has no concavity of the forward face, that being a simple plane surface. Its lower edge is rounded. The pin *k* which holds the ploughs in place is made of wood, so that when the plough comes in contact with any obstruction the pin breaks before any injury results to the ploughs or standards. When the pin *k* breaks, the ploughs, being hinged as described to the outside of the side beams B B, turn back at pleasure. They may be made so as to be turned back parallel with the side beams, if that is desired, an object which cannot be attained where the standards are pivoted in slots in the side beams. The standard of the forward plough is hinged to ears *v v*, attached to the centre beam A, so as to admit of the same backward motion in case of meeting an obstacle. The washers H H have one side plane and one convex, for the purpose of better adjusting the standards at their different angles with the side beams and braces. Where the plough works at right angles to the side beams, the washer is to be placed between the standard and brace. Where it works at right angles with the centre beam, and thus necessarily at oblique angles with the side beams, the washers are to be placed between the standards and side beams.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The plough-points *d d*, having the form above described, substantially as and for the purpose specified.
2. The method of adjusting the direction of the ploughs above described, by means of the bolts G G, the braces F F, and the holes *i i'*, passing in different directions through the side beams B B, substantially as and for the purpose described.
3. The washers H H, substantially as and for the purpose specified.

JOHN R. THOMAS.

Witnesses:

JNO. M. SAHUR,  
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