

E. PECK.

Plow.

Patented Sept. 15, 1868.

No. 82,157.

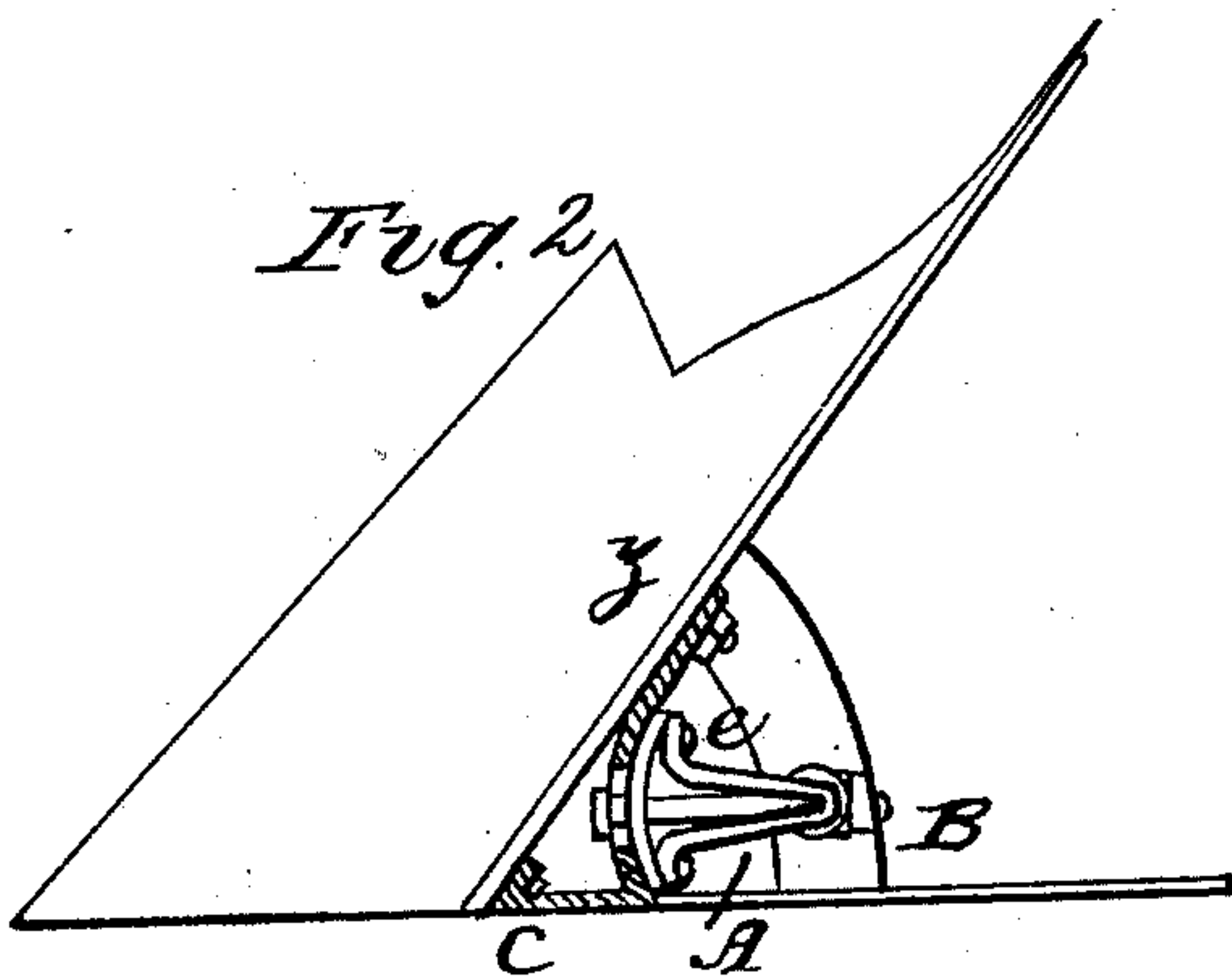
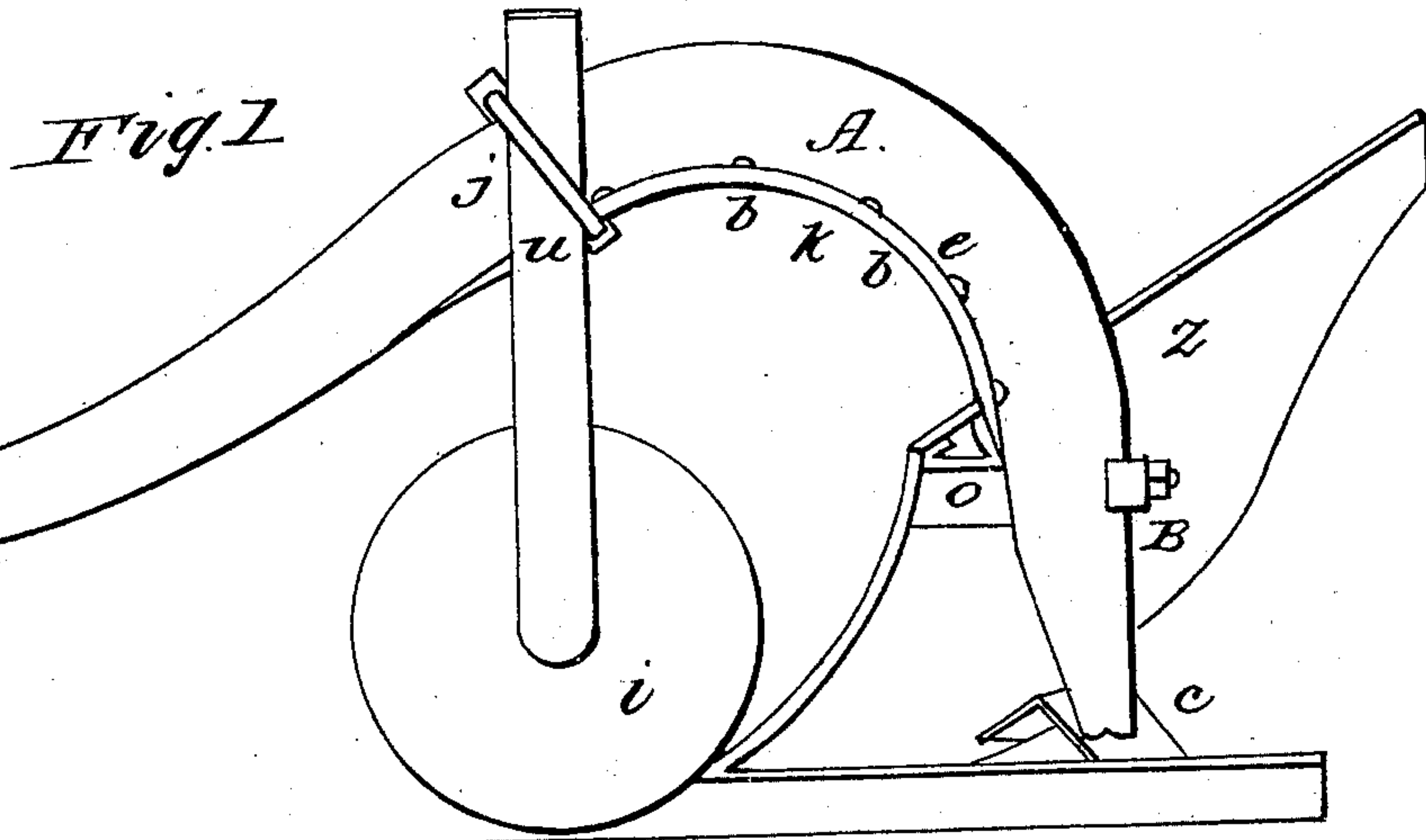
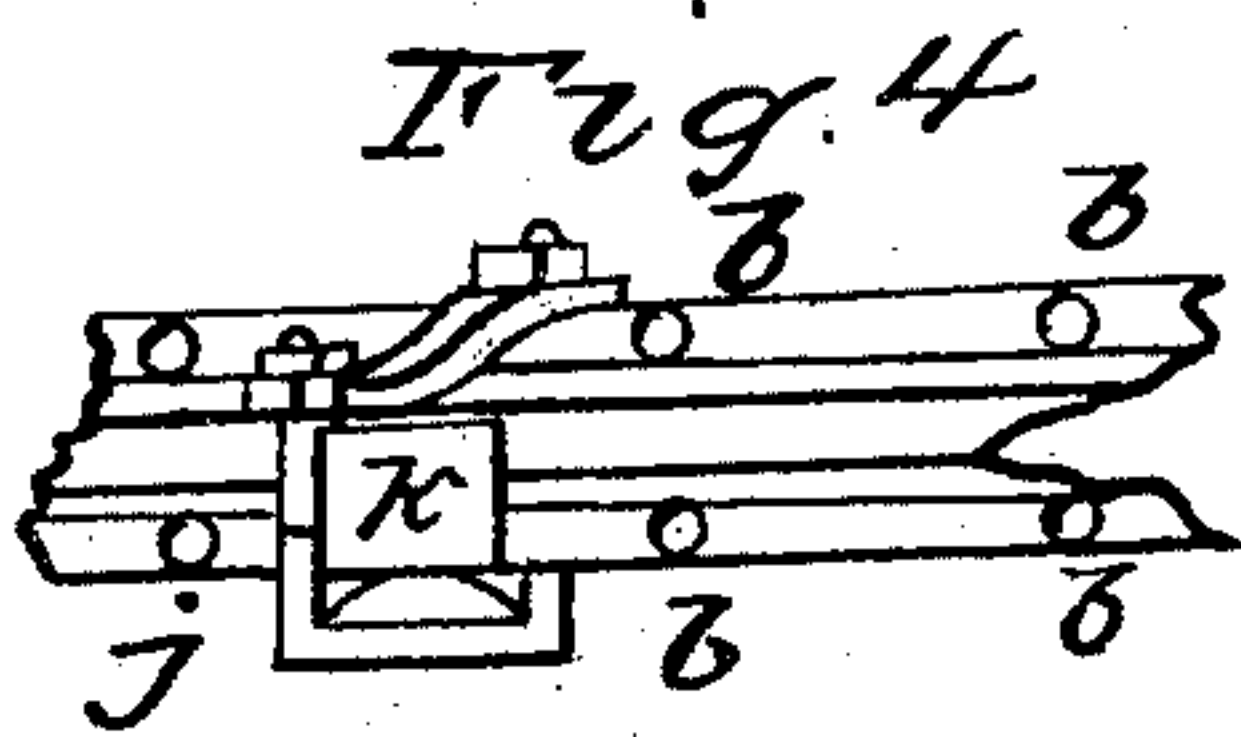
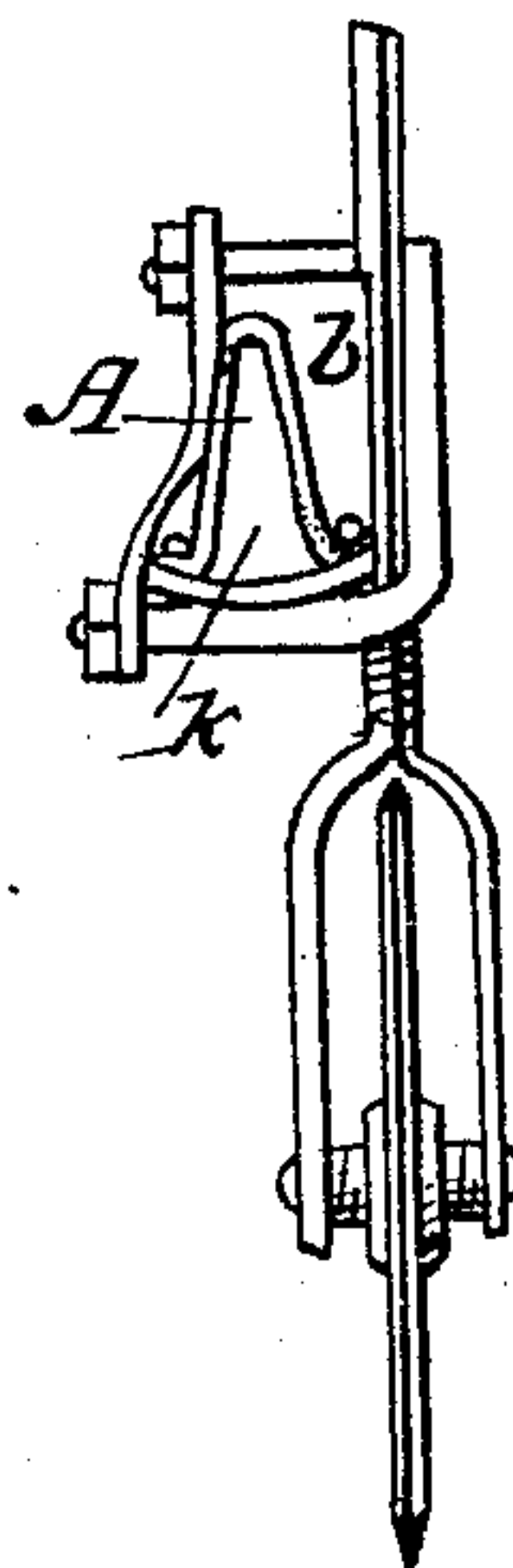


Fig. 5.



W. W. Wessels
John Lacey
C. Hoffman

Inventor
Ezra Peck.

United States Patent Office.

EZRA PECK, OF CHICAGO, ILLINOIS.

Letters Patent No. 82,157, dated September 15, 1868.

IMPROVEMENT IN PLOWS.

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, EZRA PECK, of the city of Chicago, county of Cook, State of Illinois, have invented a new and useful Improvement in Plows; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and the letters marked thereon, making a part of this specification.

Figure 1 is a side view of my invention, in which A is the beam; *o* is the slotted concave support of the beam; C is the pivot or point on which the beam may be turned when desired to cut more or less land; B is the bolt, which fastens the beam to the slotted concave support *o*; *b b b* are the rivets which fasten the two parts of the beam, A and K, together; *i* is the wheel-coulter, and *u* is the standard or support of the same.

Figure 2 is a top view of the same, showing a plan or cross-section of the beam at the point of its attachment to the plow; also a plan of the slotted concave support *o*, and bolt B.

Figure 3 is a cross-section of the beam, showing the method of fastening the two parts of the beam A and K together.

Figure 4 is a top view of a portion of the beam A, showing the method of operating the coulter. *u* is the standard or support of the coulter *i*; *j* is the clip or clasp of the same.

Figure 5 is a plan or vertical cross-section of the beam and coulter.

Like letters refer to the same parts in all views.

The nature of my invention consists in constructing a plow-beam from sheet metal, in such a manner that whilst the beam is arched or curved, so as to form the standard of the plow, its cross-section will be the same as shown in fig. 3, or some equivalent form, with the flanges E E to keep it from buckling, and, to give it additional strength; and to serve as a means for fastening on the strip K, the additional strip or part K is firmly riveted to the flanges E E, which give great strength, enabling the beam to stand a greater cross-strain; it also acts as a brace, making the beam very stiff and rigid, and preventing that elasticity which is so detrimental to the good working of the plow; it also prevents the beam from twisting in the upright portions of the same.

Also, in the method of attaching the beam to the plow by means of the slotted concave support *o*, as shown in fig. 2.

Also, in the peculiar method of adjusting the wheel-coulter *i*, by means of rounding or angling the inner face of the coulter-attachments or standard *u*, the clasp *j* controlling its cutting-angle, by drawing up one nut, and loosening the other when desired to cut more or less land.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The beam A is made from sheet metal by bending first in the form shown in fig. 3, after which it is again heated to a white heat, and pressed between two dies of the required form, or in any other of the known methods for working iron. After thus forming the main portion of the beam, the strip K may be constructed in a similar manner, and can also be stamped in the U-form, if desired. Then, the two parts may be firmly joined together by means of rivets, or otherwise. The form of the cross-section of this beam can be varied to suit the taste of the maker.

The slotted concave support is constructed as shown at *o*, fig. 2, the bolt B passing through the slot in the support; thence through the beam, as seen in figs. 1 and 2, the nut being on the back of the beam A. The beam K is made convex, and the support concave at their point of attachment, and the support is firmly fastened to the mould-board *z* of the plow, and the beam is adjusted at the proper angle to cut more or less land by turning it on the pivot or centre C, fig. 1, the slot in the support permitting the bolt B to move with the beam, the convex form giving it at all times a good bearing when the beam is properly adjusted. The nut on the bolt B is screwed up tight, thus holding the beam firmly to its place.

To fasten a coulter to this beam, a cast block is used to fill up the beam to a perpendicular face. The standard *u*, or whatever support may be used for the wheel *i* is rounded, or convexed, or concaved, or angled,

as shown at *u*, fig. 4. The cast block can be dispensed with in all beams having a perpendicular face or bearing, or the block can be made convex or concave, to correspond with the wheel-attachment *u*; but I consider the form shown at *u*, fig. 4, the preferable way. The clasp or clip *j* is fitted on the same, or any clip, by passing over the broad flat back of the standard *u*, fig. 1, and should be well fitted at the angles; then, when it is desired to change the cut of the coulter *z*, we have only to loosen one nut of the clasp *j* and tighten up the other, which will rock the standard *u* on its centre, thus changing the cutting-angle, to cut more or less land.

What I claim as my invention, and desire to secure by Letters Patent, therefore, is—

1. A hollow sheet-metal beam, when constructed with the flanges *E E*, as set forth, and for the purpose specified.
2. Constructing a hollow plow-beam by riveting or otherwise properly fastening together the two parts, *A* and *K*, or their equivalent, for the purpose specified.
3. Constructing a hollow plow-standard and beam, curved and bent in one continuous piece, directly from sheet metal, in the manner and for the purpose specified, as a new article of manufacture.
4. The slotted concave support, in combination with the beam *A* and mould-board *z*, all arranged as set forth.
5. Rounding or angling the inner bearing or face of the coulter-standard *u*, when used in connection with the clasp *j*, in the manner and for the purpose specified.
6. The beam *A*, strip *K*, flanges *E E*, slotted support *o*, and mould-board *z*, all constructed and arranged as set forth.

EZRA PECK.

Witnesses:

JOHN LACEY,

JOHN HANRAHAN.