

B. C. ROUSE.

Plow.

No. 68,313.

Patented Aug. 27, 1867.

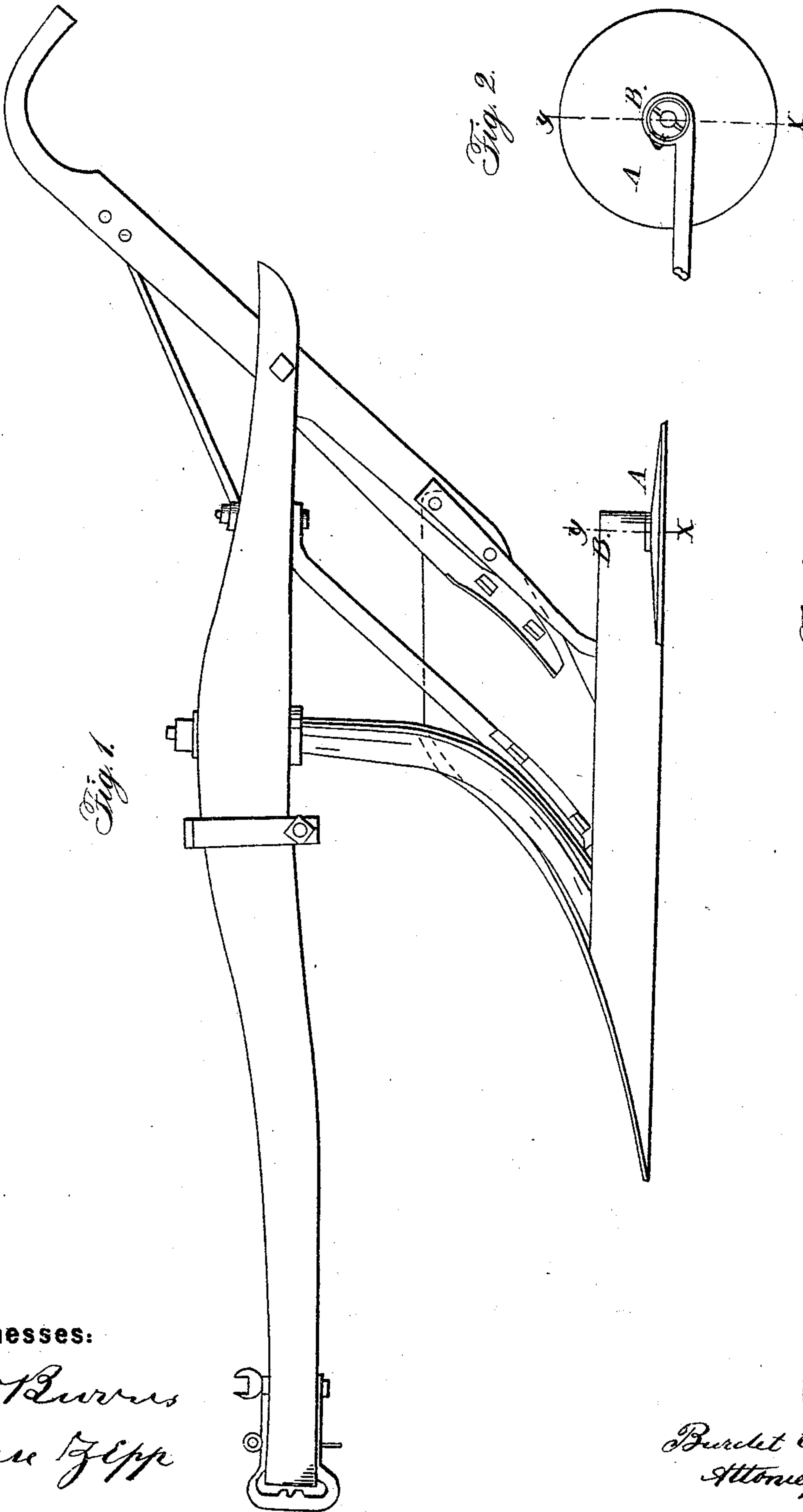


Fig. 2.

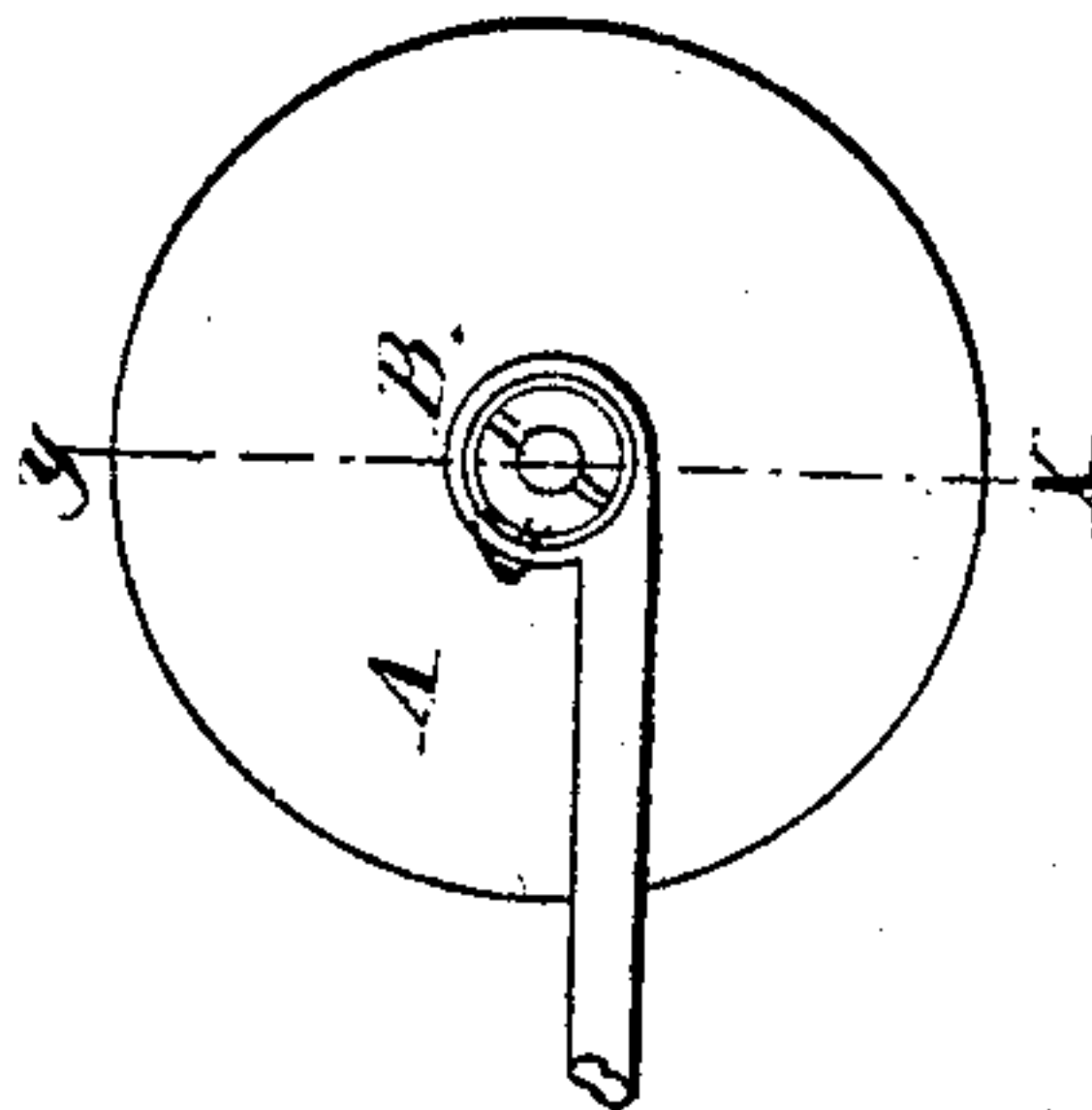
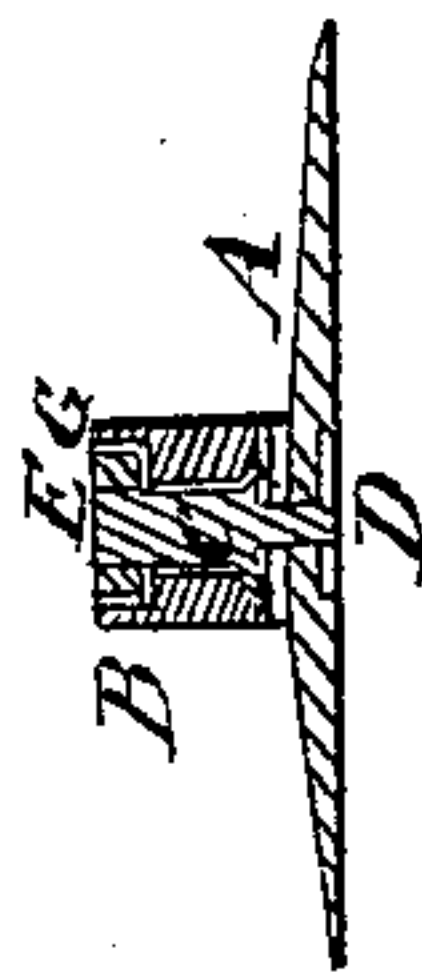


Fig. 3.



Witnesses:

W. R. Rouse
Jesse Zepp

Inventor:

Burdet C. Rouse by his
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United States Patent Office.

BURDET C. ROUSE, OF MORRIS, ILLINOIS

Letters Patent No. 68,313, dated August 27, 1867.

IMPROVEMENT IN 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, BURDET C. ROUSE, of Morris, in the county of Grundy, in the State of Illinois, have invented a new and useful Improvement in Ploughs; and I do hereby declare that the following is a full, clear, and direct description of the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side view.

Figure 2, a top view of a round rotary steel cutter.

Figure 3, a transverse section, as indicated by lines *x y* in figs. 1 and 2.

Like letters in the different figures of the drawings indicate like parts.

The nature of my invention consists in attaching to the heel of the shear-bar a round rotary steel cutter of any desired size by means of a socket cast or wrought into the heel of the shear-bar perpendicularly, so that its centre shall be inside of the inner surface of the shear-bar, in which socket a perpendicular spindle or axle, to the lower end of which is firmly attached the revolving cutter, is made to revolve by the forward motion of the plough, it being held in its place by means of a nut countersunk in the top of the socket. The cutter revolves horizontally, and the lower surface is even with the lower edge of the shear-bar, the shear-bar being gained up the thickness of the cutter for that purpose. Thus, when in motion the cutter revolves and separates a portion of the unturned sod from the soil, and in so doing lessens very materially the friction on the land-side of the plough, thus enabling a mould-board of any given width to turn, especially in sod land, a much wider furrow and with less propelling power than any of the ploughs now in use.

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

A represents the revolving cutter, which I make of $\frac{7}{8}$ plough-steel, forging and grinding it to an edge on the outer edge. It is swaged up from the bottom in the centre about the thickness of the plate, and the size of and to correspond with the outside circumference of the socket standard, leaving a cavity the same thickness beneath. B represents the socket standard, which is made by turning the heel of the shear-bar inwardly and around, so that the centre of the socket and of motion shall come inside of the inner surface of the shear-bar, thus rendering it impossible but that the cutter shall revolve when the plough is in motion. It is countersunk at top and bottom to admit the nut G on top, and correspond with the bevelled shoulder beneath. C represents the spindle or axle attached to cutter, the lower end D having a screw cut on it up to the shoulder. It is then screwed firmly into the cutter standing perpendicular to its upper surface, the cavity on the under side of which is filled by a thin washer of iron, over which the end of the screw tenon is riveted so as to attach the spindle firmly to the cutter and leave a smooth, even surface on the lower side of the wheel. The spindle is bevelled up from the shoulder, the socket being bevelled to fit when it is inserted in the socket. The upper end of the spindle E has also a screw cut, and reaches to the upper surface of the shear-bar or socket. Over this is screwed the nut G, which is screwed down into the countersunk part of the socket so as to come even with or below the surface of the shear-bar, thus holding the cutter to its place. The lower edge of the shear-bar is notched or gained up so as to let the lower surface of the cutter come even with the lower edge of the shear-bar. When the plough is in motion the cutter revolves, and thereby avoids friction in cutting under the unturned rod. It is made to perform its function by the lateral force necessary to turn the furrow, instead of the direct force used in drawing the plough. The lateral force of turning the furrow being relieved or in a measure counteracted by the cutter, relieves in so far the friction on the land-side of the shear-bar, thus enabling any given propelling force to turn a third wider furrow than the ploughs now in use. The size of the cutter will of course vary according to the size of the plough. It should cut under the sod one-third the width of the furrow.

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

The rotary land-side cutter, in combination with the shear-bar at its point B, and arranged in the manner and for the purpose above set forth.

B. C. ROUSE.

Witnesses:

CHAS. TURNER,

S. W. HARRIS.