J. R. SANDERS.

Improvement in Cultivators.

No. 131,908. Patented Oct. 1, 1872.

Fig. 1.

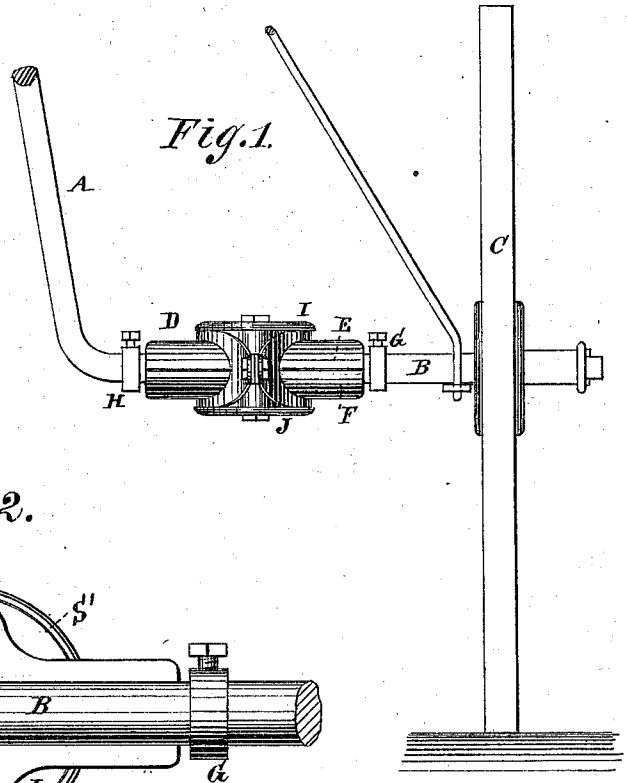


Fig. 2.

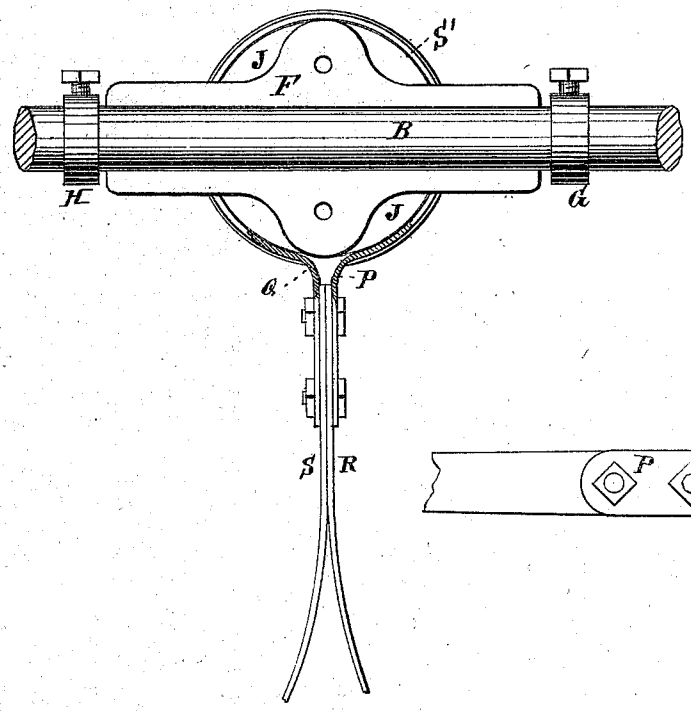
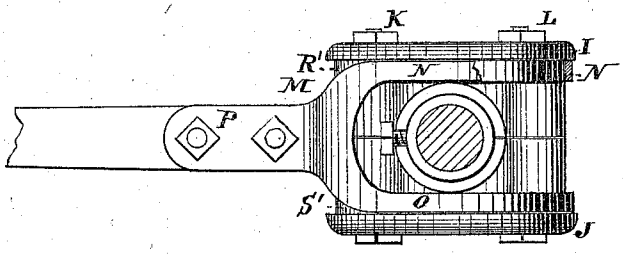


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN R. SANDERS, OF DAVENPORT, IOWA, ASSIGNOR TO HIMSELF AND IRA M. GIFFORD, OF SAME PLACE.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **131,908**, dated October 1, 1872.

To all whom it may concern:

Be it known that I, JOHN R. SANDERS, of Davenport, in the county of Scott and State of Iowa, have invented a new and useful Improvement in Cultivators, of which the following is a specification:

This invention relates to an improvement in couplings for connecting the plow-beams of a walking cultivator to the frame or axle; and consists in the construction and arrangement of parts, as hereinafter described.

In the drawing, Figure 1 represents a rear view of the coupling device applied to the frame; Fig. 2 is a transverse section of the same; and Fig. 3 is a side view of the same.

A represents a portion of the arched axle of the cultivator-frame, which is provided with horizontal spindle-arms B for the reception of the wheels C. D is a sleeve or hub composed of two divided sections or shells, E F, which are fitted loosely upon the spindle B of the axle between two movable collars, G H. Said collars may be secured to the spindle by set-screws, wedges, or other fastening devices, and are intended to prevent the lateral movement of the sleeve, while not interfering with the free rotation of the same. I and J are horizontal circular disks or plates, provided with vertical flanges R′ S′, and applied, respectively, to the central flat portions and lower and upper sides of the sleeve D. K L are screw-bolts provided with appropriate nuts, passed through the plates and sleeve sections for securing the same together. M is a collar applied to the sleeve D, and composed of the lower and upper circular flanges N O and the central ears or arms P Q, between which the ends of the plow-beams R S are secured by transverse bolts. Said collar M is formed from a single piece of metal, the body of which is removed to form the flanges N O, and the adjoining ends of which are cut away, so that when the collar is bent into shape the ears or arms P Q will be situated in the center of the collar. To attach said collar to the sleeve it is only necessary to remove the clamping-disks I J, when the same, by reason of its entirely open or skeleton shape, may be applied from the side of the sleeve, and then secured in position by the application of the disks I J, the downwardly-projecting flanges of which serve as bearing-surfaces for the collar.

The advantages derived by the use of a coupling device, constructed as above described, are as follows, viz: The sleeve being fitted loosely upon the axle will permit of a vertical movement of the plow-beams, and by reason of its peculiar construction it can be easily and cheaply constructed and applied to the frame. The movable collar being capable of a partial rotation on the sleeve will permit the lateral movement of the beams, and as it is provided with two bearing-surfaces and a central point of attachment for the plow-beams, the draft or strain will always be caused to bear upon the central portion of the coupling, which is a decided improvement over the ordinary coupling devices in use, where the draft or strain is generally brought to bear upon the top or bottom of the coupling or upon a single connecting-bolt.

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

In combination with the clamping-disks I J, sectional sleeve D, and axle B, the collar cut out to form the parts N O, and having the ears P Q, so as to admit of being arranged with and permit the movement of the disks and axle, as specified.

To the above specification of my invention I have signed my hand this 26th day of July, A. D. 1872.

J. R. SANDERS.

Witnesses:
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THOS. D. D. OURAND.