

E. ALLEN.
Jointer and Colter Block.

No. 223,831.

Patented Jan. 27, 1880.

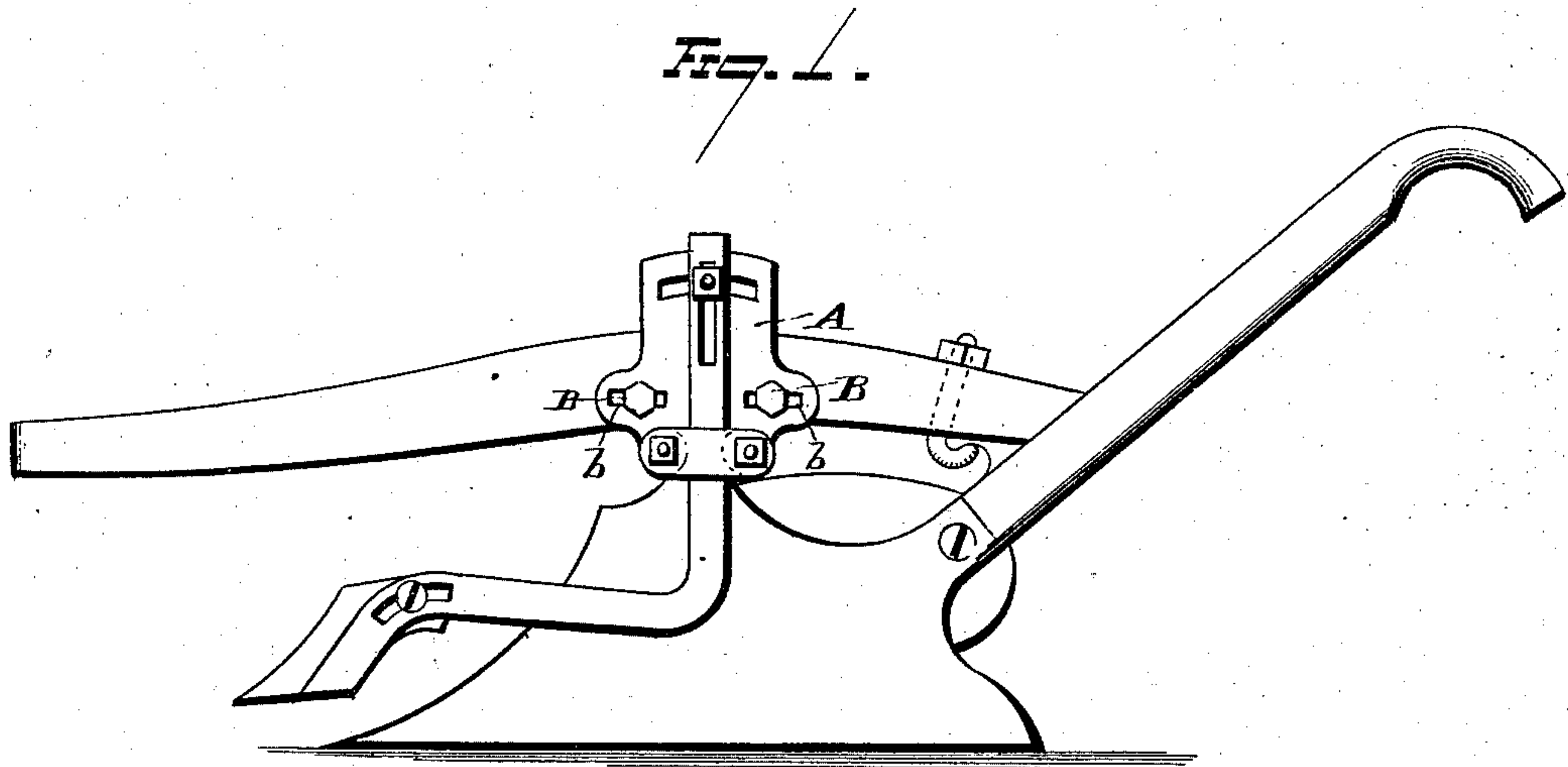


Fig. 2.

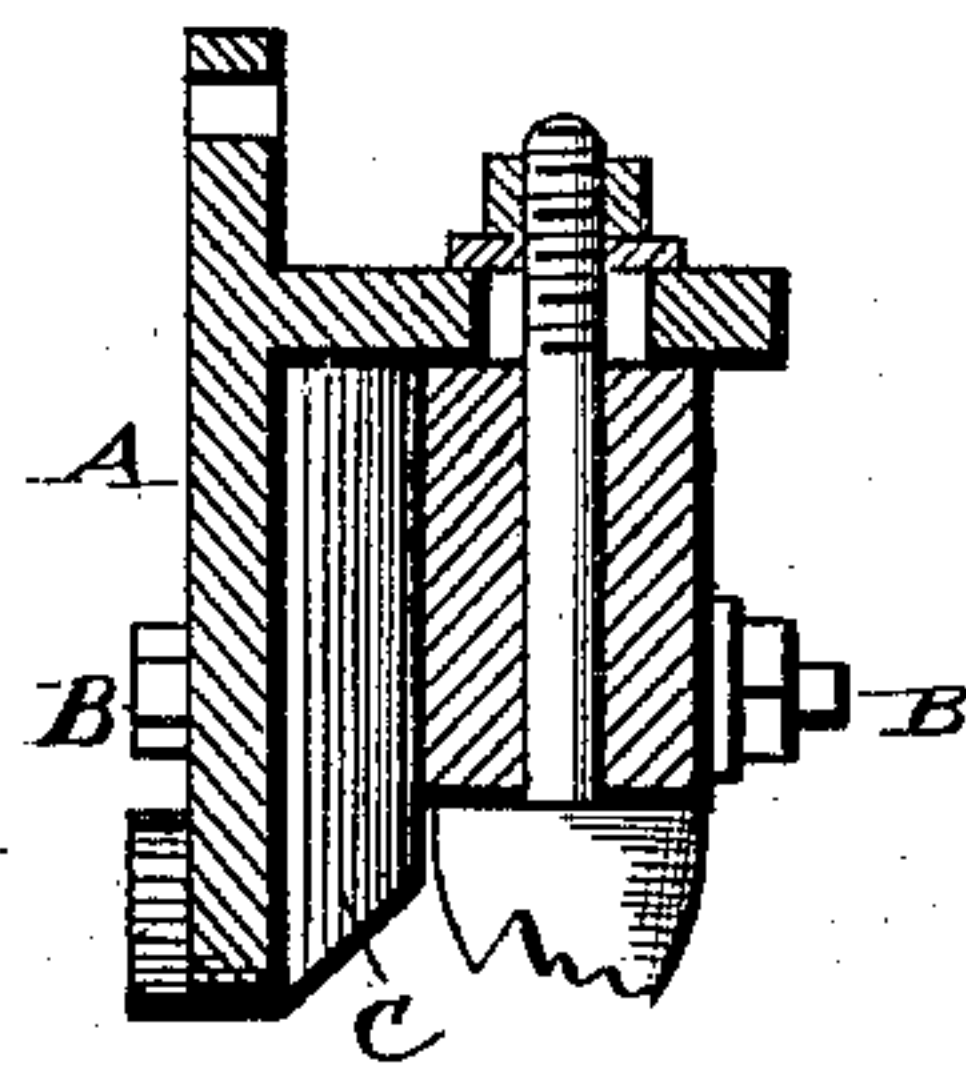


Fig. 3.

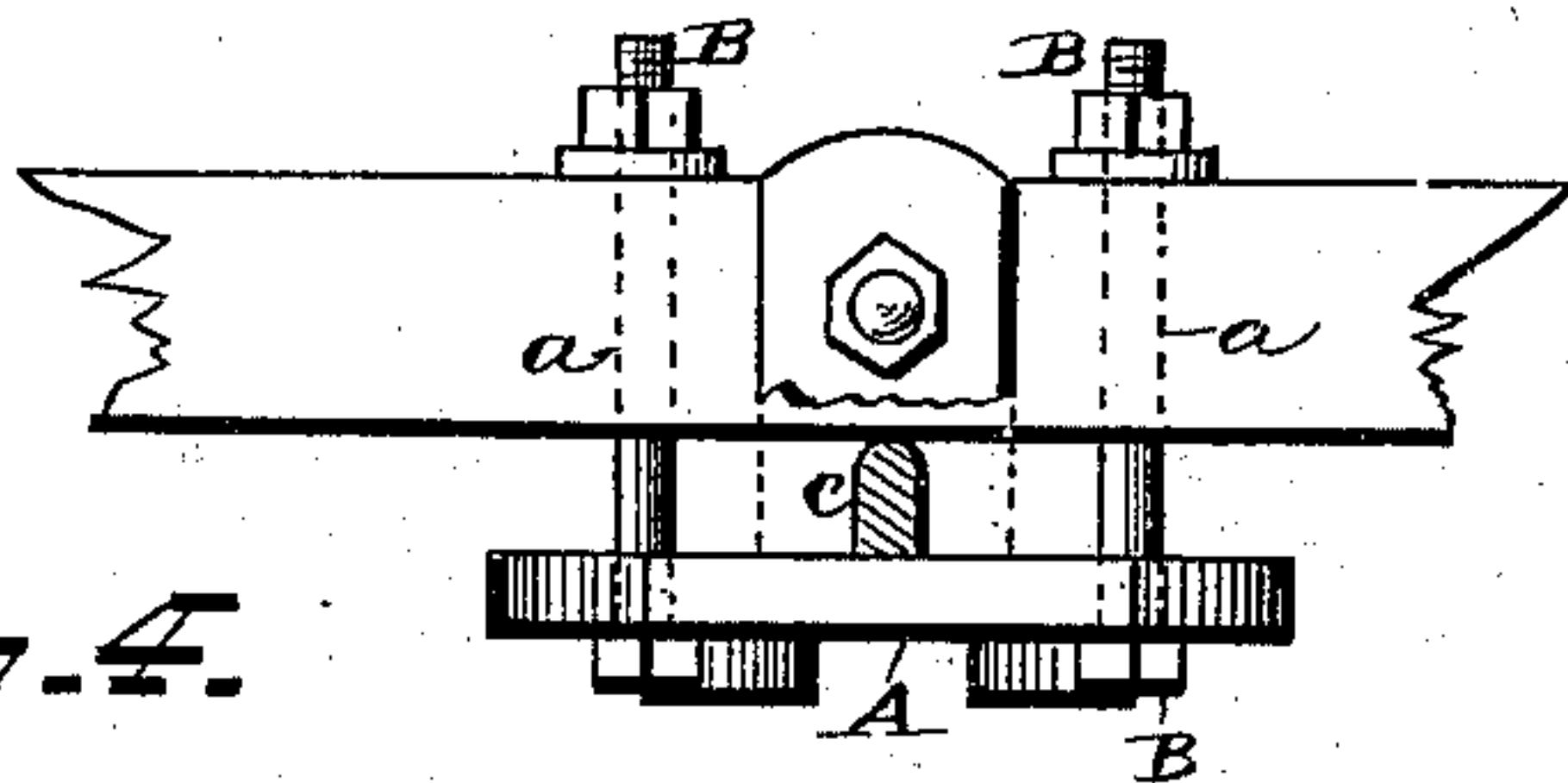
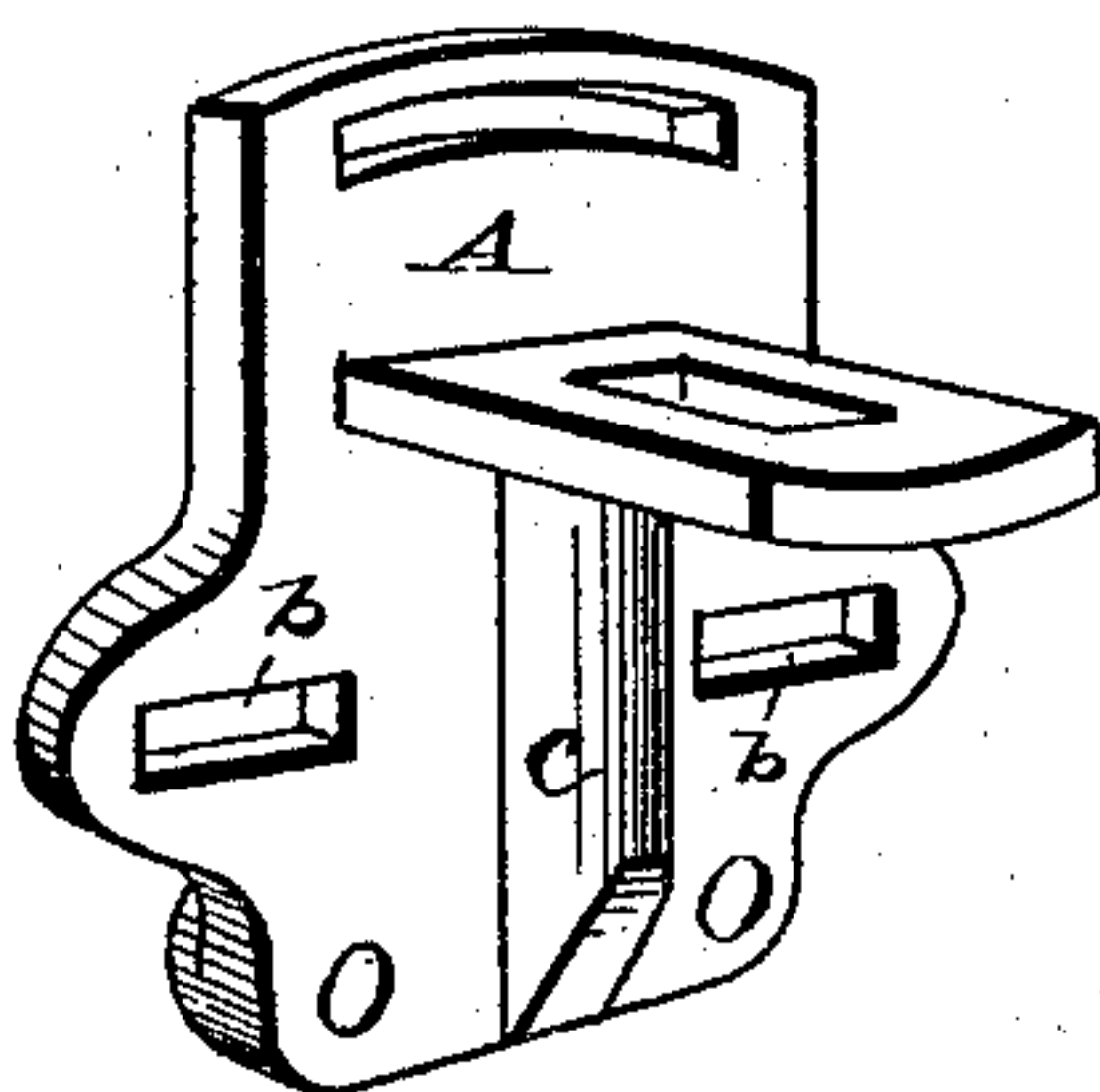


Fig. 4.



WITNESSES
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JOINTER AND COLTER BLOCK.

SPECIFICATION forming part of Letters Patent No. 223,831, dated January 27, 1880.

Application filed June 19, 1879.

To all whom it may concern :

Be it known that I, ETHAN ALLEN, of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Jointer and Colter Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to colter and jointer blocks, and is designed to provide improved means for adjusting the colter or jointer toward or from the land.

Referring to the drawings, Figure 1 is a view, in side elevation, of a plow provided with the improvement. Fig. 2 is a detail transverse sectional view of the block and plow-beam. Fig. 3 is a plan view of the same, with the upper horizontal flange of the block broken away. Fig. 4 is a perspective view of the block alone.

The plow herein shown is merely by way of illustration, and the colter and jointer block A is applicable to any plow. The plow-beam is preferably made with the two transverse bolt-holes *a*, through which pass the bolts B in securing the block thereto. This block is provided with the horizontal slots *b*, respectively, in its two longitudinal side portions, and in which said bolts work, as the block has angular adjustment in a horizontal plane relative to the plow-beam. The object and function of these bolts is twofold—to make the desired adjustment of the block and to secure the latter firmly to the plow-beam. Said bolts are therefore fastenings, which enable the block to resist strain imposed thereon in the direct line of draft, and they are, in addition, adjusters in moving and maintaining the block in desired position. To provide a pivotal rolling bearing for the block in this movement, a horizontally-projecting flange, *c*, is formed in vertical line between said block and the plow-beam side.

The flange may be formed on the plow-beam, or on an independent plate secured to the latter, so that its free edge may bear

against the block. It need not necessarily be vertical. It can be horizontal, semicircular, or of other desired form. So, also, there may be two or more of them, instead of one. Preferably, however, I make the bearing, as shown in the drawings, formed on the vertical central portion of the inner face of the block, this latter construction being better, in that it strengthens said block and especially enables it to resist the strain imposed thereon, as the bolts maintain it in different positions, and it is subjected to work. If desired, a groove corresponding to the bearing-edge of this flange may be formed either on the plow-beam or on the block, as the case may be, in order to make a more firm bearing between said block and plow-beam.

The remaining parts of the block may be made as desired. The upper horizontal arm, C, of the block, through which the main bolt D of the plow passes, may be omitted. A lower arm, similar to this upper one, may be employed to secure the lower portion of the block to the under side of the plow-beam, or other mechanical changes be made; but preferably I use the form of construction herein shown as regards all the parts.

Washers or plates may be used on the adjusting-bolts, which will permit the plow-beam to engage with the rolling bearing or projecting flange in adapting the block to plow-beams of different widths.

By loosening the main bolt of the plow, then loosening the forward adjusting-bolt of the block and tightening the rear adjusting-bolt, said block will be moved so as to throw the colter or jointer in toward the land, while, if the rear bolt is loosened and the forward bolt is tightened, the colter or jointer is thrown from the land.

When the proper adjustment is made, screw up the two adjusting-bolts firmly, and the block is securely fastened to the side of the plow-beam by the engagement of the latter with the bearing-flange. Then, by screwing up the main bolt of the plow, a firmness and solidity are given to the block sufficient to withstand any strain imposed thereon. Thus the jointer or colter may be given more or less land, as required, bringing them in line with the land-side of the plow when the beam is

changed from the working of two to three horses, or the reverse.

The slot in the upper horizontal arm of the block, which secures the same to the plow-beam, 5 should be of size which will permit the pivotal rolling movement of the block.

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

10 1. The combination, with a jointer and colter block having a horizontal slot in each side portion thereof and a plow-beam having corresponding transverse holes, of a pivotal rolling bearing formed between the block and 15 beam, together with bolts which work in said holes and slots, substantially as set forth.

2. The combination, with a jointer and colter block having a vertical flange on its rear central portion, and having transverse horizontal slots on opposite sides of said flange, 20 of a plow-beam having holes which register with the slots and bolts which work in said slots and holes, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of 25 May, 1879.

ETHAN ALLEN.

Witnesses:

ALFRED B. F. PALMER,
GEO. DODGE.