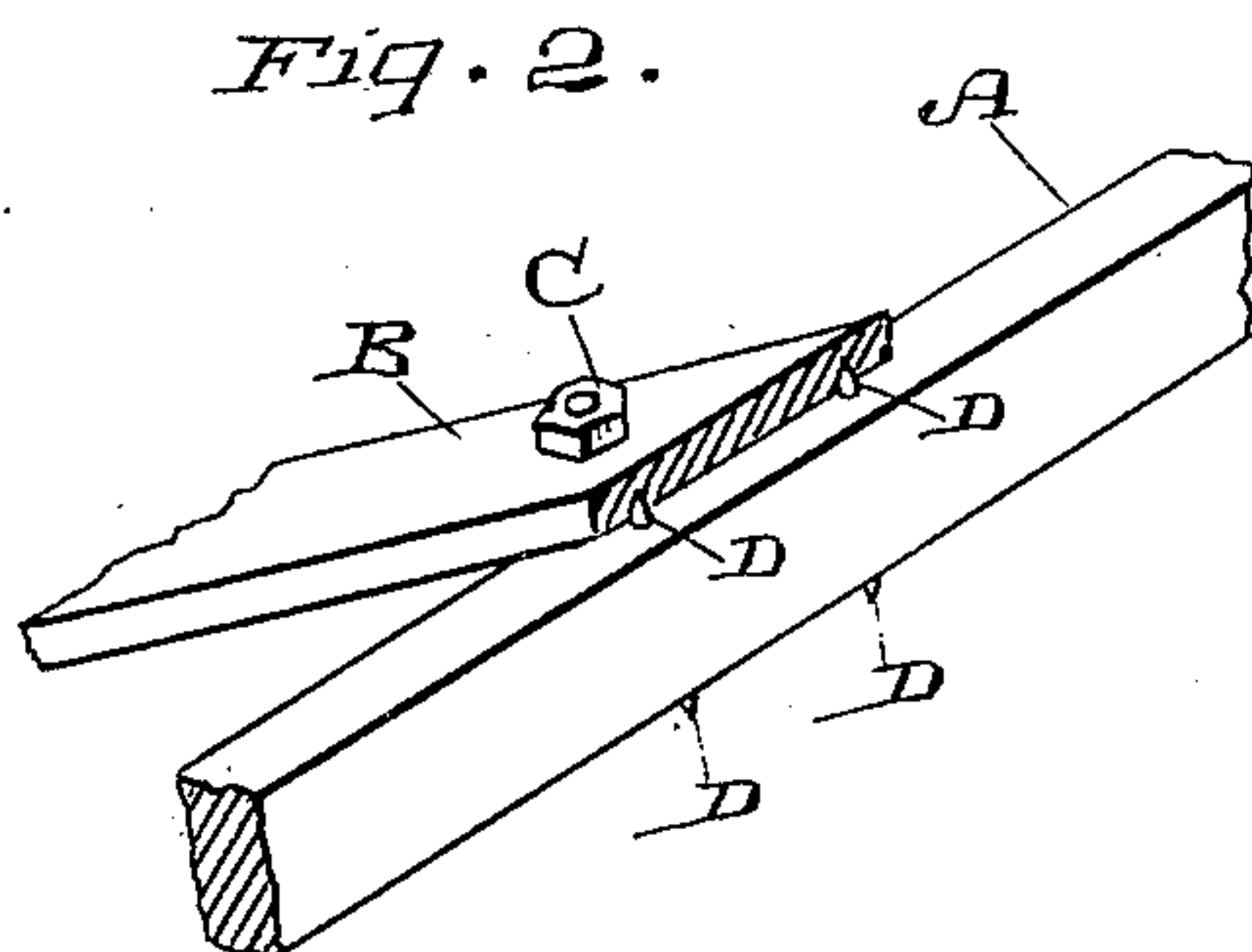
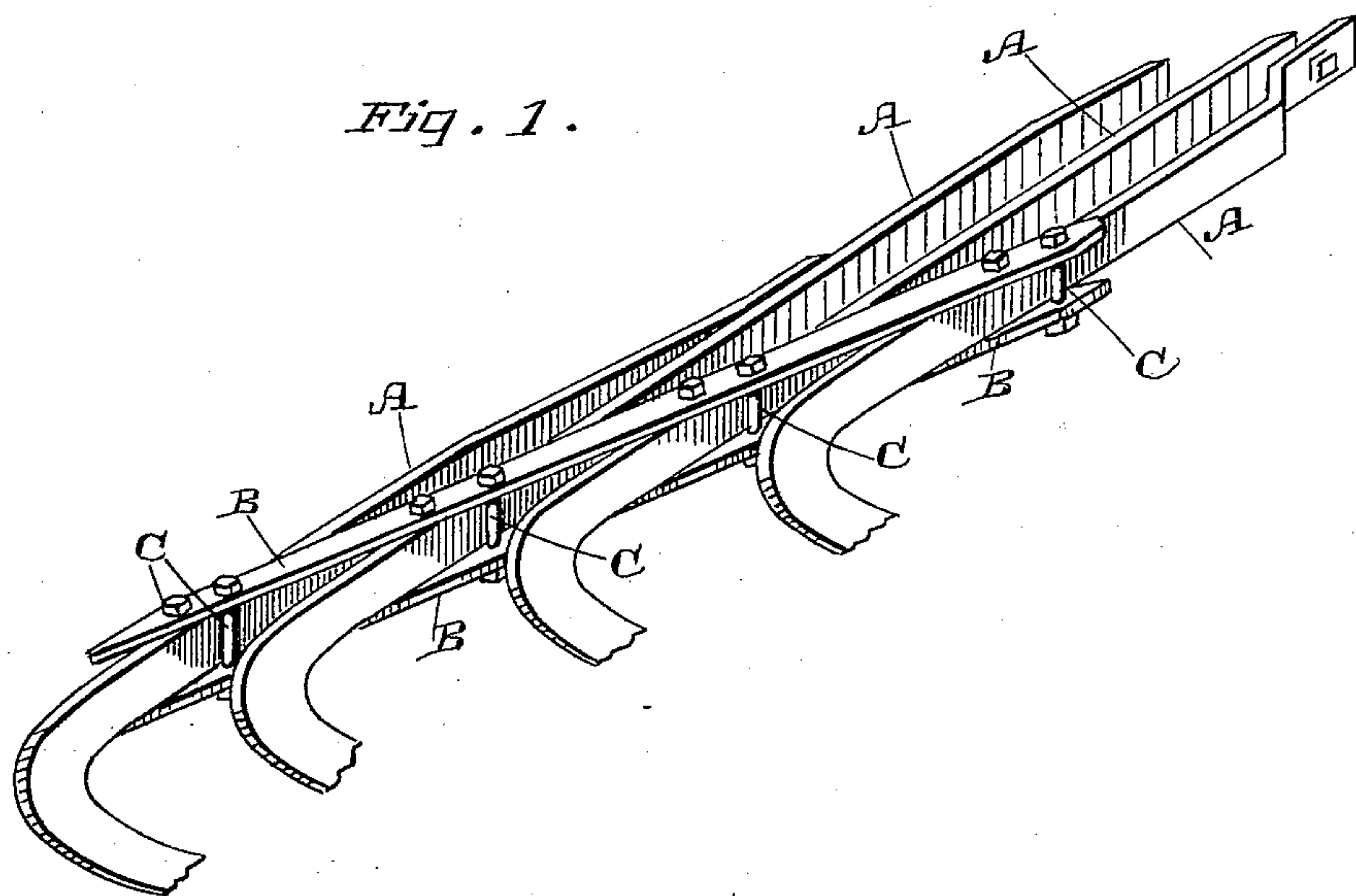


(No Model.)

A. F. McMILLAN.  
GANG PLOW FRAME.

No. 435,567.

Patented Sept. 2, 1890.



Witnesses,  
H. C. Lee.  
J. H. House

Inventor,  
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attys

# UNITED STATES PATENT OFFICE.

ALFRED FREDERICK McMILLAN, OF BENICIA, CALIFORNIA, ASSIGNOR TO  
THE BENICIA AGRICULTURAL WORKS, OF SAME PLACE.

## GANG-PLOW FRAME.

SPECIFICATION forming part of Letters Patent No. 435,567, dated September 2, 1890.

Application filed June 5, 1890. Serial No. 354,384. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED FREDERICK McMILLAN, a citizen of the United States, residing at Benicia, Solano county, State of California, have invented an Improvement in Gang-Plow Frames; and I hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to certain improvements in the frames of gang-plows, and is especially adaptable to that class of plows having two or more parallel iron beams, to each of which a plow is connected.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view showing the four plow-beams and the connecting device. Fig. 2 is a section showing part of one of the beams and a portion of one of the connecting or uniting bars.

In the construction of this class of plows it is customary to unite the beams together by means of intermediate strips, braces, or plates of iron, which are bolted through the sides of the adjacent beams by bolts and nuts; but with the strains which ordinarily are brought upon the plow-frame through the plows which are supported from each beam, these braces become loosened and the frame loses its rigidity.

In this invention, A A are the plow-beams, standing parallel with each other and having their rear ends bent, as shown, so as to connect with the plows, which are not here shown, as they form no part of this invention.

B B are iron plates, which extend diagonally across the top and bottom of the beams

A A and are secured by bolts C, which pass through holes made in these plates on each side of each of the beams A. These bolts are drawn tight by means of nuts, thus drawing the two plates B B firmly against the top and bottom of each of the beams A.

In the top or bottom, or both top and bottom, of each of these beams is fixed one or more small studs D, which project upwardly or downwardly from the beams, and the transverse bars B have corresponding holes or sockets made in the lower or upper, or both, surfaces, which fit over these studs, and when the bolts C have been strongly screwed up, so as to clamp the plates B upon the beams A it will be manifest that these studs D will serve as locking devices, which will prevent any twisting or movement of the beams between the plates B B, and the whole structure will thus be very rigidly secured together.

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

The combination, with the beams of a gang-plow, of the diagonal plates extending across said beams in pairs, one above and one below, the spurs or projections fixed in the beams and extending into corresponding cavities in the bars, and bolts and nuts whereby said bars are clamped to the beam, substantially as herein described.

In witness whereof I have hereunto set my hand.

ALFRED FREDERICK McMILLAN.

Witnesses:

JOHN LYNCH,

CHAS. W. COLBY.