

(No Model.)

C. P. BUCKINGHAM.  
Plow Beam.

No. 231,147.

Patented Aug. 17, 1880.

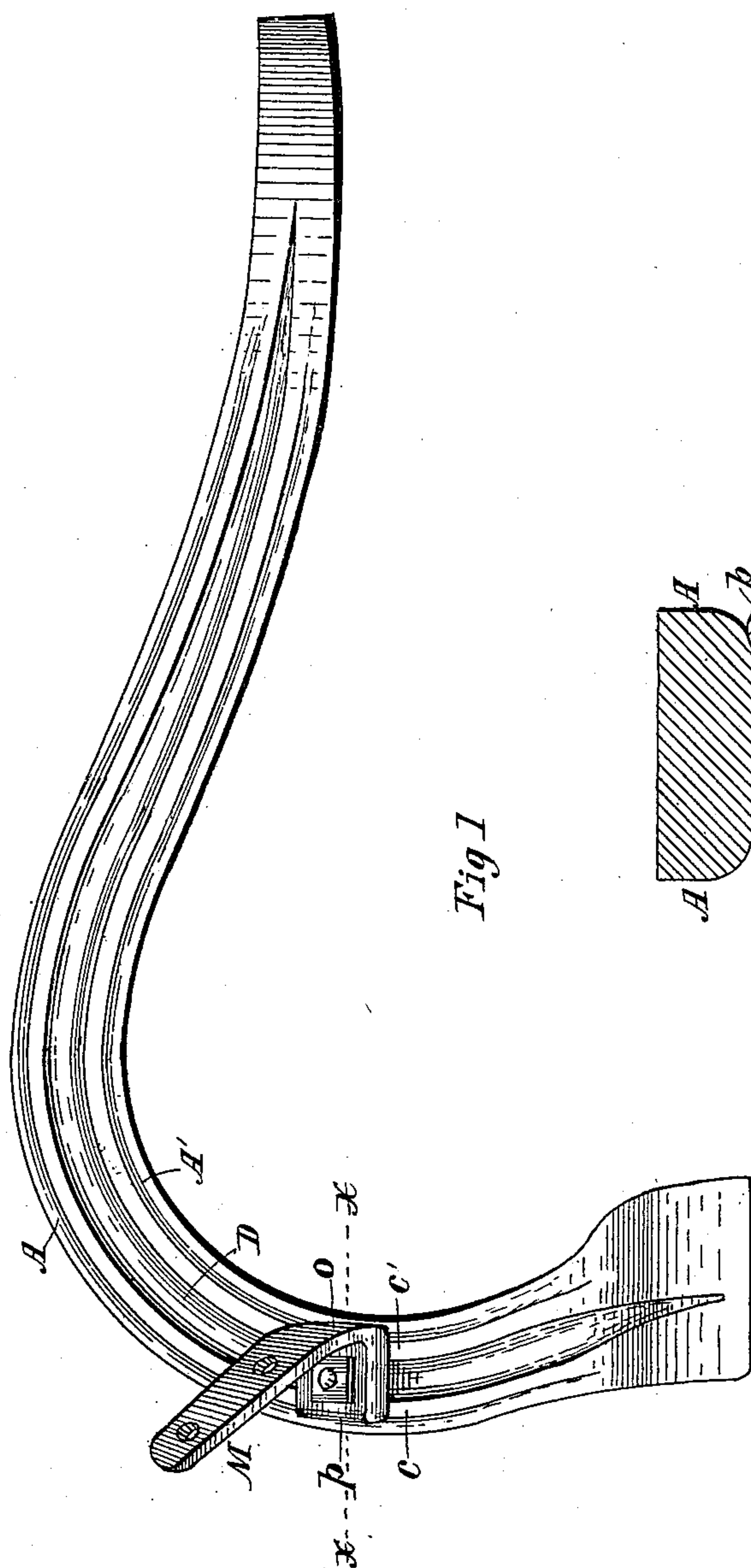


Fig 1

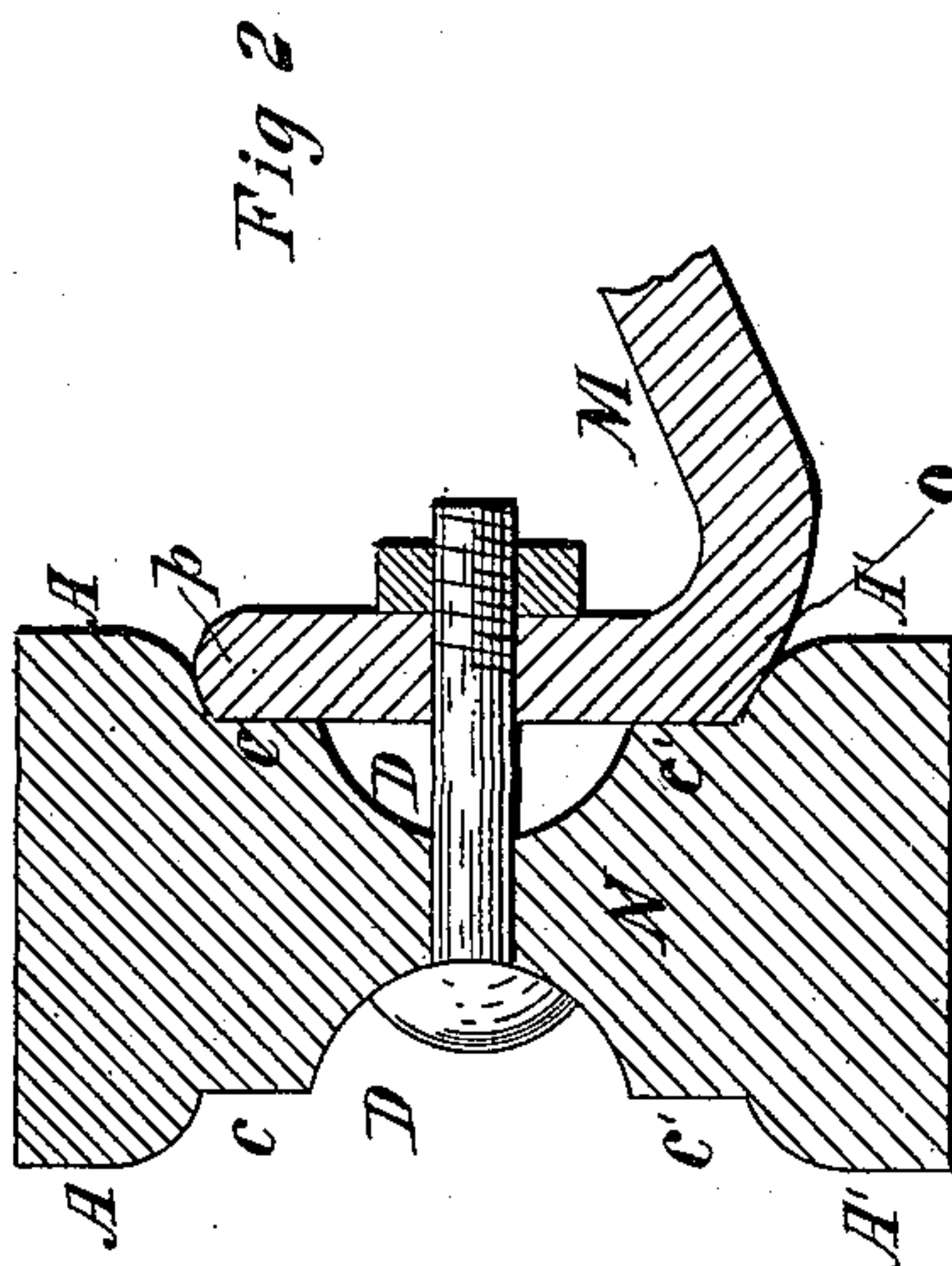


Fig 2

Witnesses

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# UNITED STATES PATENT OFFICE.

CATHARINUS P. BUCKINGHAM, OF CHICAGO, ILLINOIS.

## PLOW-BEAM.

SPECIFICATION forming part of Letters Patent No. 231,147, dated August 17, 1880.

Application filed June 23, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, CATHARINUS PUTNAM BUCKINGHAM, of the city of Chicago, county of Cook, and State of Illinois, have invented  
5 a new and useful Improvement in Plow-Beams, of which the following is a specification.

My invention relates to plow-beams made of metal, particularly to those made of Bessemer steel.

10 My invention consists in the combination of an upper and a lower flange, an upper and a lower fillet, and a concavity between the fillets on each side of the plow-beam.

In the accompanying drawings, in which  
15 similar letters indicate like parts in both figures, N indicates the plow-beam in general, and A C D, &c., indicate various parts thereof, which will presently be described. M represents the clip in general, *o* being the front  
20 edge and *p* the back edge thereof.

Figure 1 represents a perspective view of the plow-beam with the clip attached. Fig. 2 represents a section of the plow-beam through the dotted line *x x* of Fig. 1, showing the manner in which the clip is placed against the  
25 beam and the shape of the beam itself, the object of the clip being to attach the beam to the plow, the method of doing which is well understood.

30 In Fig. 2, A A and A' A' are the flanges on the upper and lower sides of the beam. C C and C' C' are the upper and lower fillets, respectively, the upper fillets being immediately below the upper flanges, and the lower fillets being immediately above the lower flanges.  
35 The vertical surfaces of the fillets are in the same plane, thus forming a flat surface against which the clip can be placed and supported.

40 The object of my invention is to furnish a plow-beam with a flat surface against which a flat-faced clip can be placed and firmly bolted,

and at the same time preserve the qualities of strength and lightness.

The objects of the flanges A A and A' A' are, first, to give strength to the plow-beam 45 where the strain is greatest, the tendency of the propelling and resisting forces being to straighten the beam out, producing the greatest strain at the top and bottom sides of the beam; and, second, by extending along and 50 against the front and back edges of the clip, to hold the same firmly in its place and prevent its turning on the bolt which secures it to the beam.

The object of the fillets C C C' C' is to furnish a flat surface against which the flat-faced clip can be placed, rendering the beam inter- 55 changeable with other beams which are secured to the plow by means of flat-faced clips.

The object of the concavities D D is to lighten 60 the beam by removing the metal of the beam from that part where the strain is least.

In describing my invention I have applied it to both the vertical sides of the plow-beam, because the plow-beams will generally be so 65 made. I do not confine myself to its application to both sides, but it may be applied to either side alone.

I do not claim the flanges A A A' A', nor the concavities D D, nor a combination of them 70 alone.

I claim—

In a plow-beam, the combination of an upper and a lower flange, A A', an upper and a lower fillet, C C', and a concavity, D, between 75 the fillets, substantially as shown, and for the purposes described.

C. P. BUCKINGHAM.

Witnesses:

J. H. TRUMAN,  
WM. BUCKINGHAM.