

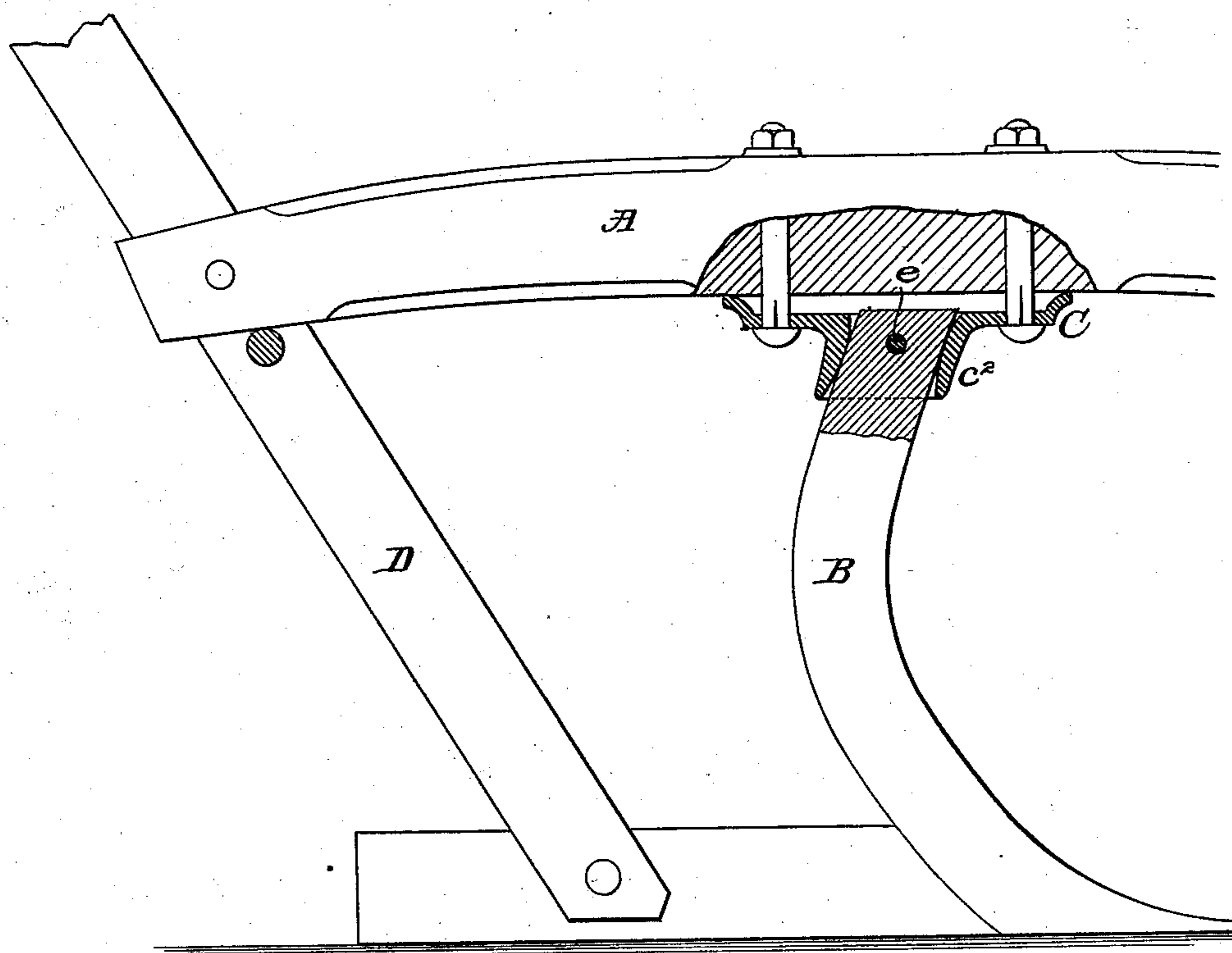
(No Model.)

G. C. AVERY.

PLOW.

No. 290,959.

Patented Dec. 25, 1883.



Attest:

Geo. M. Graham
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Inventor:

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Atty.

UNITED STATES PATENT OFFICE.

GEORGE C. AVERY, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO B. F. AVERY
& SONS, OF SAME PLACE.

PLOW.

SPECIFICATION forming part of Letters Patent No. 290,959, dated December 25, 1883.

Application filed October 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. AVERY, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this application.

My invention relates more particularly to an improvement in that kind of plow-standard contrivances in which the upper end of the standard is confined to and held in place by a sort of cap-plate formed with a socket-like extension, within which said upper end of the standard fits, the said cap-plate being bolted to the under side of the plow-beam. An instance of this sort of plow-standard contrivance may be seen in United States Letters Patent No. 218,417, granted to me on the 12th day of August, 1879. In contrivances of this kind, (which are preferable to that kind made previous to said patented invention, for reasons set forth in said patent,) I have found by experience that there is a liability of breakage of the cap-plate, (which is preferably made of cast malleable iron,) on account of the great strain frequently brought suddenly on the socket-like portion or depending tubular part into which the upper end of the standard fits. The upper part of the standard fitting snugly into said socket-like portion of said cap-plate, (or standard-holder,) it follows, as a necessary consequence, that whenever any sudden shock occurs to the plow, or at the lower part of the standard, the tendency of the latter to move rearwardly at its lower end will cause its upper part to exert a severe strain on the socket-like portion of the cap-plate before the tendency of the lower end of the standard to a rearward movement can be checked by the usual obliquely-arranged brace rod or device, (that extends from the lower part of the standard up to the plow-beam,) since there is always, necessarily, more or less play in the connections of said brace device and spring to the device itself. To overcome this defect—i. e., this liability of breakage in the cast-metal cap-plate or holder for the upper end of the standard—is the object of my present invention, which to this end consists in hav-

ing the upper end of the standard misfitted to the socket, or, in other words, fitted and secured within said socket so as to be capable of more or less of a rocking movement therein round about the retaining-pivot or other securing device, whereby the standard is supplied with a capacity to always come to a dead-lock with both the socket-like device, which holds its upper end, and the device which braces its lower end from the plow-beam, and thus insure the distribution of any sudden strain on said standard about equally on the socket and the bracing device, instead of permitting all the strain to be sometimes thrown wholly on the cast-metal socket with the liability of breaking it.

To enable those skilled in the art to which my invention relates to make and use plows containing it, I will now proceed to more fully explain my improvement, referring by letters to the accompanying drawing, forming part of this specification, and in which I have shown my invention carried out in that form in which I have so far successfully practiced it. It may, of course, be practiced in other forms and under various modifications as to the details of construction.

In the drawing is shown a longitudinal sectional elevation of so much of a plow made according to my invention as it is necessary to show in order to illustrate my improvement.

A is part of the beam. B is the standard, and C the cast-iron cap-plate, while D represents an ordinary form of device for bracing the lower end of the standard from the beam.

I have, by preference, shown that form of the kind of contrivance to which my improvement relates, in which a simple pin is employed to secure or hold the upper end of the standard B in the socket-like portion C² of the cap-plate C; but some other form of securing device might be employed.

It will be observed that the housing or aperture of the socket C² does not conform (in size and shape) to the front and rear surfaces of that portion of the standard B which is located within the portion C². The side surfaces of that part of the standard B which is located within C² fit to the interior of said portion C², so as to hold the standard laterally in place; but, as seen, the front and rear

interior surfaces of the portion C² touch the front and rear surfaces of the standard only at certain points, or at least for only small distances. This sort of misfit or loose fit at the
 5 front and rear permits the upper end of the standard B to rock to a slight extent on or about the axis of the securing-pin e, and hence when the lower end of the standard may be subjected to a sudden strain or shock, which
 10 would tend to wrench open the socket C² were the standard fitted tightly and perfectly therein, said standard can turn sufficiently in the pin e to permit its lower end to get a complete brace from the device D, and will, at the
 15 same time, shift and increase its bearing-strain on the front and rear surfaces of the interior of socket C², distributing the aggregate twisting strain on said two surfaces. In this manner the standard B, so to speak, adjusts itself
 20 under strain to the necessary conditions relatively to the cap-plate socket and the beam-brace D, so as to throw the shock or strain sufficiently on the latter to avoid any undue and injurious strain on the cast-iron device
 25 C C².

Having now so fully explained my improvement that those familiar with the art can make and use plows containing my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the beam of the plow, the usual plow-standard, and means for bracing the lower end of the latter from the former, as described, a cap-plate or device for holding
 30 in place the upper end of the standard, the socket-like portion C² of which is shaped interiorly so as to misfit the front and rear bearing-surfaces of that portion of the standard
 35 which is therein secured, and thus permit all the connected parts to come to a dead-lock without undue strain on the cap-plate, as set
 40 forth.

In witness whereof I have hereunto set my hand this 13th day of October, 1883.

GEORGE C. AVERY.

In presence of—

R. W. HERR,
 A. T. BORDWARE,
 N. R. WILSON.