(No Model.)

J. A. JOHNSON.

PLOW BEAM.

No. 263,528. Patented Aug. 29, 1882.

Fig. 1.

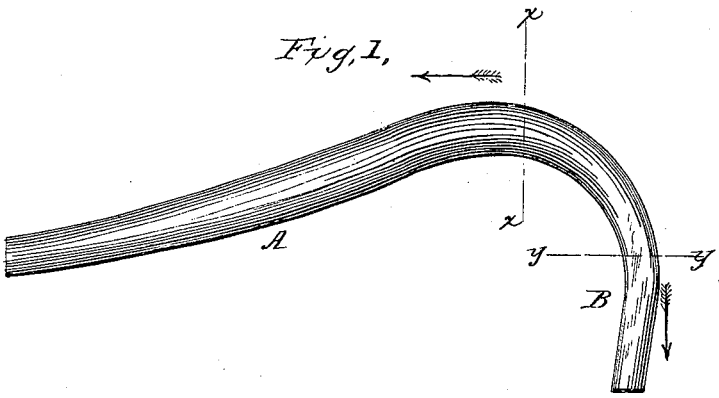

Fig. 2. Fig. 3.

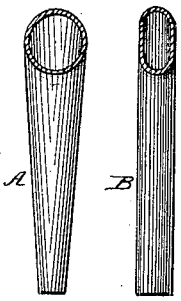

Fig. 4.

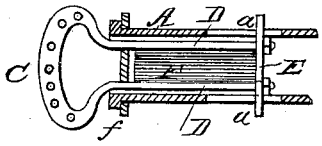

Fig. 5.

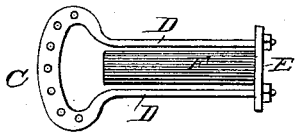

Fig. 6.

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PLOW-BEAM.

SPECIFICATION forming part of Letters Patent No. 263,528, dated August 29, 1882.

Application filed April 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. JOHNSON, of Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Plow-Beams; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has relation to tubular or hollow metallic plow-beams; and it consists in the detailed construction and arrangement of the beam.

In the accompanying drawings, Figure 1 represents a side elevation of my improved metallic tubular plow-beam and standard. Fig. 2 is a sectional view of the plow-beam through line *x x* in Fig. 1. Fig. 3 is a sectional view of the plow-standard through line *y y* in the same figure. Fig. 4 is a longitudinal sectional view of the front end of the tubular beam with its yielding clevis. Fig. 5 represents the clevis with its spring detached from the tubular beam, and Fig. 6 is a detail view of the clevis-spring detached.

Similar letters of reference indicate corresponding parts in all the figures.

My improved plow-beam is made of malleable or wrought iron, which is edge-welded to form a tube or pipe, A, the rear end of which is curved or bent, as shown at B, to form the plow-standard. The part from the forward end of the beam to its bend B is made circular in cross-section, as shown in Fig. 2; but from the point where the head commences (indicated in Fig. 1 by the broken line marked *x x*) the beam is gradually flattened sidewise, so that the part or standard B will form an oval or ellipse in cross-section, as shown in Fig. 3, the arrows in Fig. 1 indicating the direction of view of the parts shown in Figs. 2 and 3. By this construction the standard B is greatly strengthened without adding to the metal of that part of the beam, besides giving a better and more workmanlike finish to the beam than where this is left round for its entire length.

In Figs. 4, 5, and 6 I have shown the component parts of the spring-clevis, which is used in combination with the tubular beam. C represents the clevis proper, which is of the usual shape and construction, and provided with two parallel arms, D D, which are nutted at their rear ends to a cross-head, E. The front end of the tubular beam A has two longitudinal registering slots, *a a*, (see Fig. 4,) through which the ends of the cross-head project. A spring, F, which may be either a coiled wire spring or cylindrical rubber block, or a combined metal and rubber spring, is placed between arms D D, so as to impinge at one end upon the cross-head E and at the other (forward) end upon a stop plate or bolt, *f*, inserted transversely through or in front of the mouth of the tubular beam. By this construction and arrangement of parts the draft will pull upon the clevis, so as to contract the spring, thus easing the team when the plow is started or when it strikes an obstruction, as well as lessening the strain upon the plow. The play of the cross-head E in the tubular plow-beam is limited or controlled by the length of the registering slots *a a*, and the resistance to be overcome before the forward limit of the play is reached will depend upon the stiffness of the spring.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

A tubular plow beam and standard composed of a single metallic tube suitably bent and shaped to form the beam and standard in one piece, the part forming the beam being circular and the part forming the standard oval in cross-section by flattening it sidewise, as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN A. JOHNSON.

Witnesses:
A. B. MORRIS,
F. A. JOHNSON.