

F. A. LEAS.  
 PLOW BEAM.  
 APPLICATION FILED SEPT. 28, 1920.

1,372,357.

Patented Mar. 22, 1921.

Fig. 1.

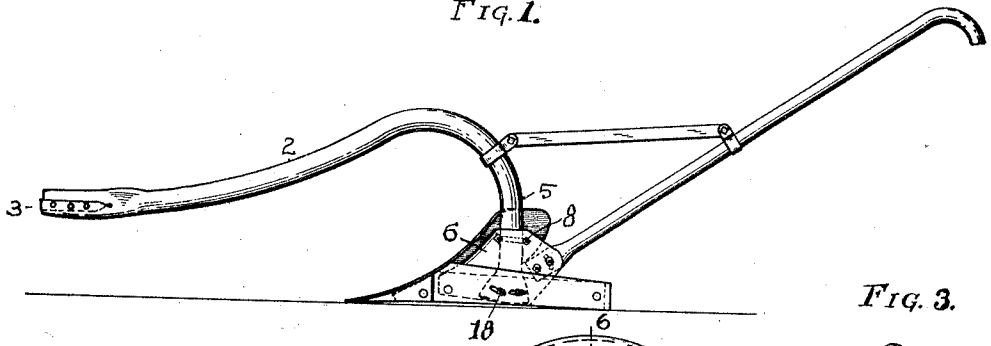


Fig. 2.

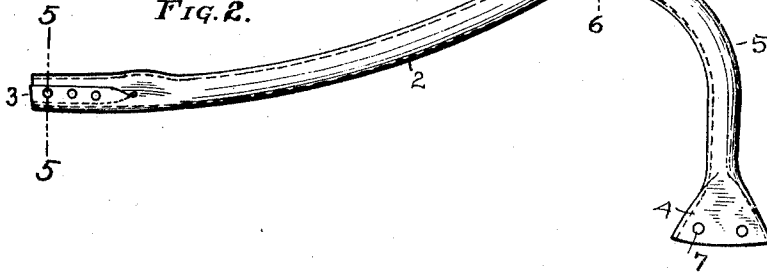


Fig. 3.

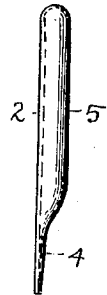


Fig. 4.

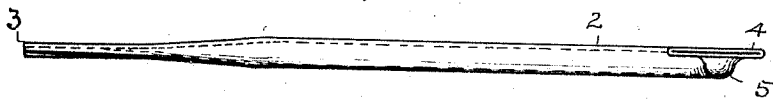


Fig. 5.



Fig. 6.



Inventor  
 FREDERICK A. LEAS.

By Fisher & Moser

Attorneys

# UNITED STATES PATENT OFFICE.

FREDERICK A. LEAS, OF MANILA, PHILIPPINE ISLANDS.

## PLOW-BEAM.

1,372,357.

Specification of Letters Patent. Patented Mar. 22, 1921.

Application filed September 28, 1920. Serial No. 413,279.

*To all whom it may concern:*

Be it known that I, FREDERICK A. LEAS, a citizen of the United States, residing at Manila, Philippine Islands, have invented certain new and useful Improvements in PLOW-BEAMS, of which the following is a specification.

This invention relates to an improvement in plows, and the object of the invention is to provide a tubular beam of relatively light weight in which the opposite extremities are particularly constructed to effect a strong and stable union with other plow parts, all substantially as herein shown and described and more particularly pointed out in the claims. The beam is also especially adapted for use in a light plow; it is easily carried in the hand or transported on the shoulder of the operator; and it is designed to facilitate adjustments and connections for plowing under different working conditions.

In the accompanying drawings, Figure 1 is a side view of the landside part of the plow, showing my improved tubular beam. Figs. 2, 3 and 4 are side, end and bottom views of the plow beam enlarged. Fig. 5 is a cross section of the interfolded clevis end of the beam on line 5-5, Fig. 2, and Fig. 6 is a cross section of the round tubular beam on line 6-6, Fig. 2.

Beam 2 is made of drawn steel tubing or a metal pipe, preferably round or circular in cross section to provide the necessary rigidity and strength for the draft or load. Furthermore, by making and using a round tubular metal beam the implement can be carried without inconvenience or fatigue when grasped in the hand or when placed at rest upon the shoulder.

The main body of the beam is of irregular curvature and the end portions or extremities are each flattened in a vertical plane. Thus, the front or clevis end 3 is flattened transversely and split longitudinally for a short distance to provide two opposed U-shaped portions adapted to be interfolded when pressed toward each other. Four flat folds or thicknesses of metal are provided from the single round wall of the tube itself, and one or more bolt holes are made through the four walls to permit a

clevis to be attached, and these interfolded walls provide an exceptionally strong and practical draft end for the beam.

The main body of the beam is preferably round, although the downwardly curved rear portion 5 might be made oval or elliptical in shape, and the heel end 4 of portion 5 is flat and expands or spreads to provide a wide bearing surface for the attachment of the beam to the inner face of one wall of a single piece frog 6. To obtain the wide bearing surface 5 the tube is tapered and expanded at one end and then pressed flat coincident with the opposite wall or outer side of the tube. Bolt openings or slots 7 are formed in this flat heel 5 to effect an adjustable connection with the frog 6 of the plow. A U-bolt or yoke 8 provides an additional connection for the round part of the beam to the frog, and is used in preference to drilling or forming a bolt opening through the beam. Furthermore, when the nuts on this U-bolt are loosened the rounded beam may be turned slightly in the yoke or U-bolt and the flattened heel of the beam may be fastened flush with or at a diverging angle to the straight vertical wall of the saddle, and any space or gap between the heel and the saddle may be taken up or filled in at one of the bolts 18 by metal washers.

What I claim is:

1. In a plow, a draft beam made of round tubing having its front end flattened and folded into a plurality of thicknesses and having its rear end curved and flattened and widened.

2. In a plow, a draft beam formed of tubing having a perforated clevis end split longitudinally and interfolded where split to provide a multiple number of thicknesses of metal.

3. In a plow, a draft beam made of round tubing having a divided draft end which is flattened transversely and pressed together to provide four thicknesses of metal and having a clevis bolt opening extending through all four thicknesses of metal.

Signed at Manila, Philippine Islands, this 15th day of July, 1920.

FREDERICK A. LEAS.