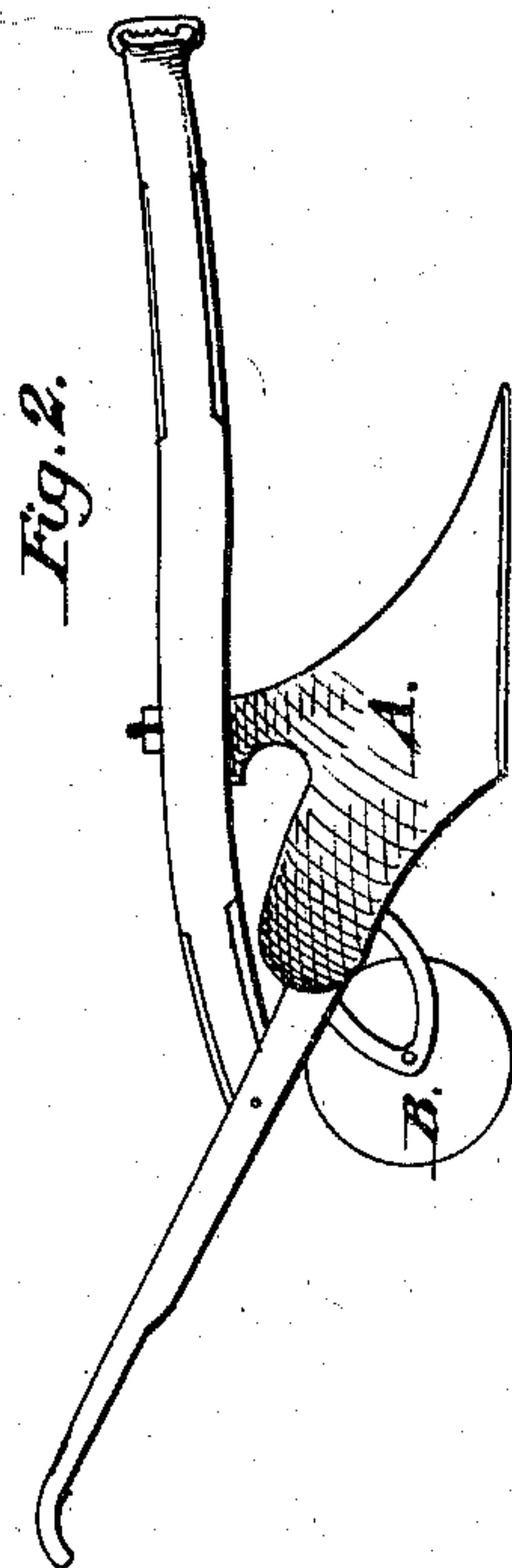
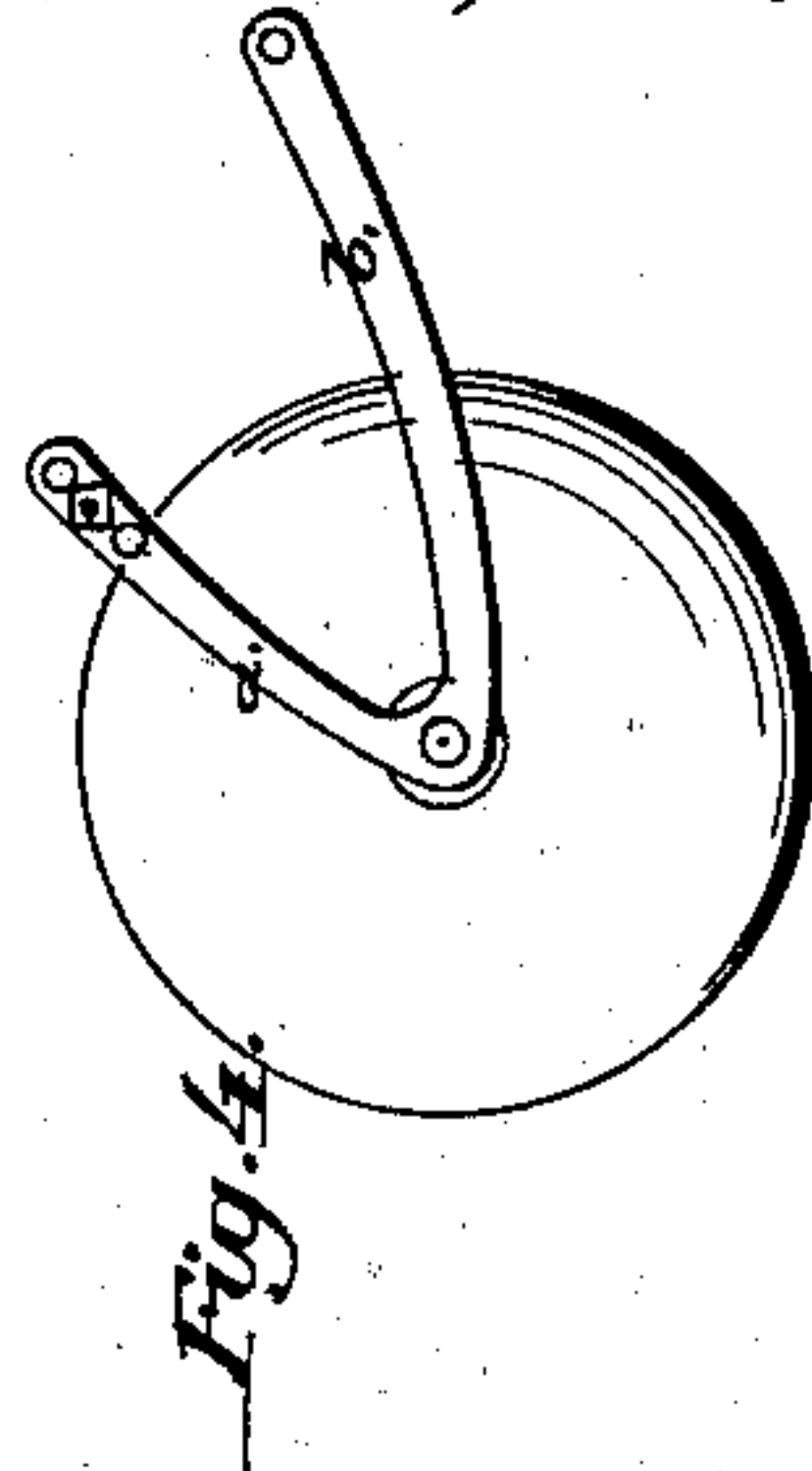
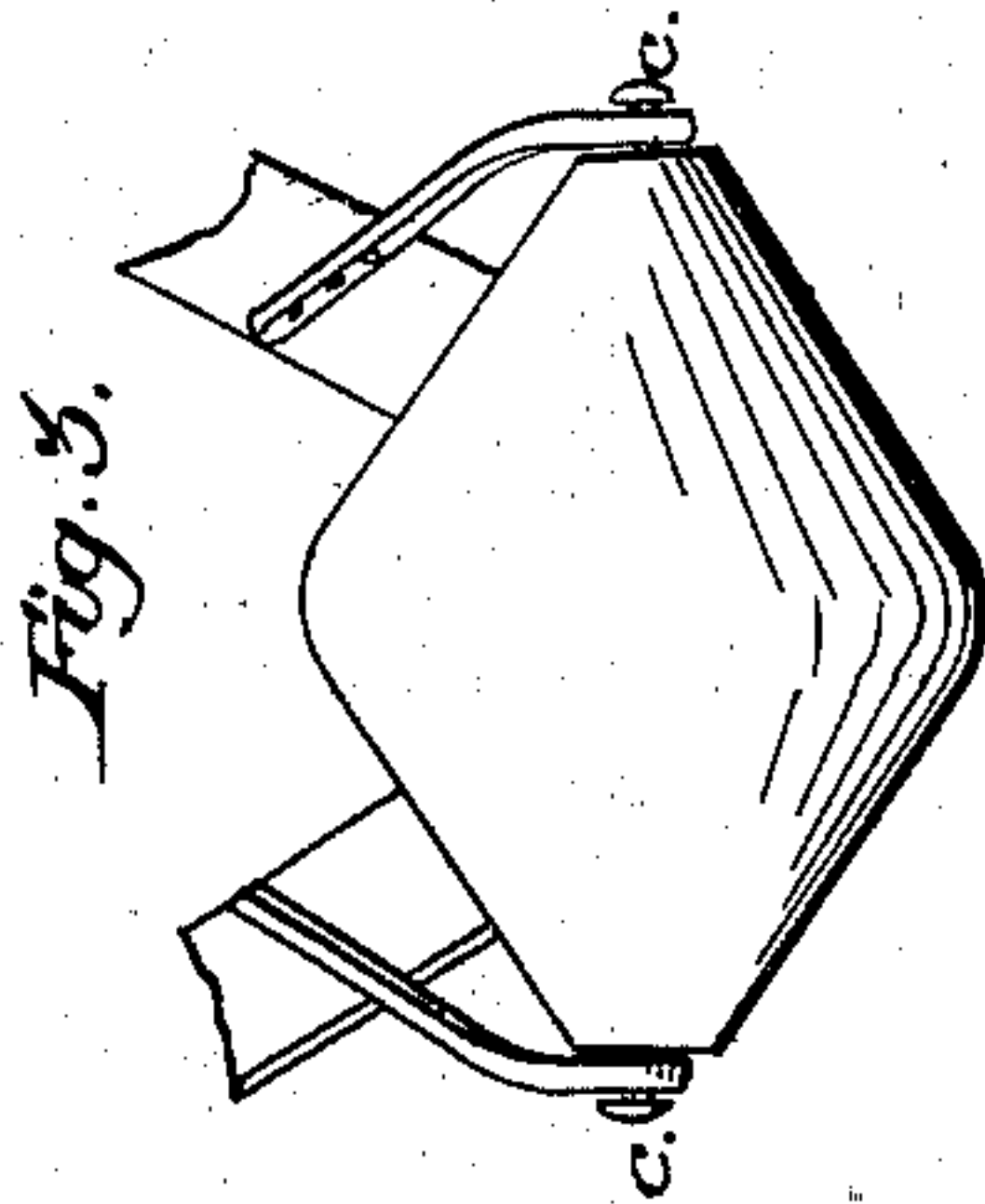
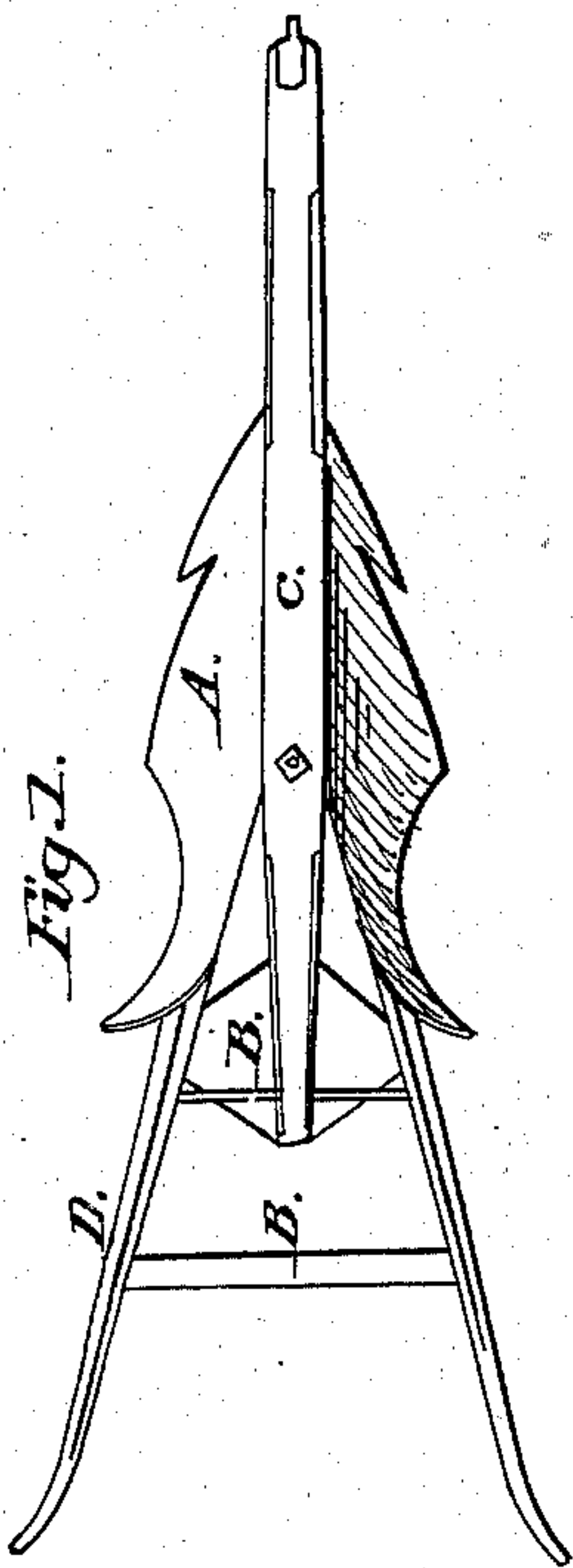


R. W. Downman.

Mole Plow.

N^o 66,133.

Patented Jun. 25, 1867.



Witnesses:
Geo. McFarland
Wm. H. Ingh

Inventor:
R. W. Downman

United States Patent Office.

RAWLEIGH W. DOWNMAN, OF GEORGETOWN, DISTRICT OF COLUMBIA.

Letters Patent No. 66,133, dated June 25, 1867.

IMPROVED DRAIN-PLOUGH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, RAWLEIGH W. DOWNMAN, of Georgetown, District of Columbia, have invented a new and useful Improvement in Ploughs for Surface Draining; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plane view.

Figure 2, side elevation.

Figures 3 and 4 showing the shape and construction and attachment of the roller.

In fig. 1, A is the ordinary double mould-board; B, the double-cone roller; C, the stock of the plough; D, the plough-handles, and E the brace to hold the same together.

Your petitioner does not claim the original invention of the plough, but confines his claim to the application of the double-cone roller attachment to the plough in ordinary use for surface draining or opening water furrows in fields where the land has already been ploughed and harrowed.

The nature of my invention consists in attaching to the ordinary drain-plough a double-cone roller, B, which will follow in the furrow made by the plough, and pack the sides of the drain so as to prevent loose earth from falling back in the drain and obstructing it. The roller is to be made of cast iron or wood, and may be cast hollow to avoid too great weight, the shape being that of two cones joined at their bases and forming an angle of about one hundred and twenty degrees. This roller is attached to the hinder part of the plough by the two arms *a b*, fig. 4, or by any similar means, and revolves on pivots *c c*, in the apexes of the cones at the angle of the arms. The end of the lower arm, *b*, is fixed permanently to the plough-handle, but the upper one, *a*, works with a slot so as to elevate or lower the roller to suit the depth at which the plough is running. The arms are attached so as to cause the roller to follow in the track of the plough between the wings of the double mould-board.

What I claim as my invention, and for which I desire to obtain Letters Patent, is—

The attachment of the double cone-roller B, as herein described, to the ordinary drain-plough, in the manner and for the purposes above stated.

R. W. DOWNMAN.

Witnesses:

GEO. MAGRUDER,
JNO. H. INGLE.