

G. F. DANIELSON.
SEEDING MACHINE BOOT.
APPLICATION FILED NOV. 30, 1909.

953,902.

Patented Apr. 5, 1910.

Fig. 1

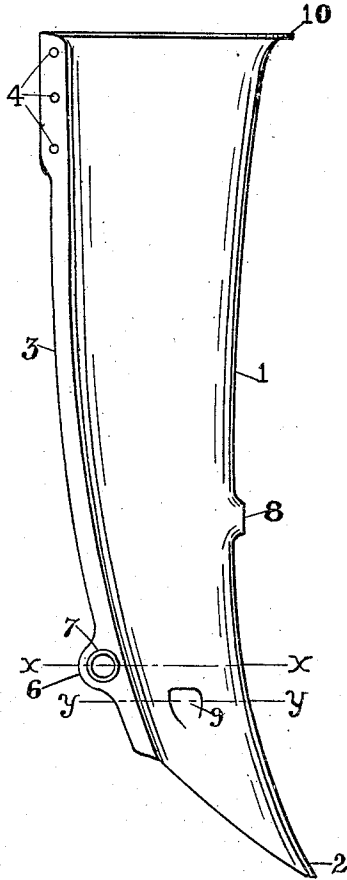


Fig. 2

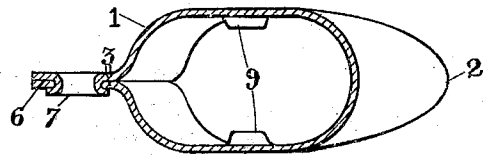
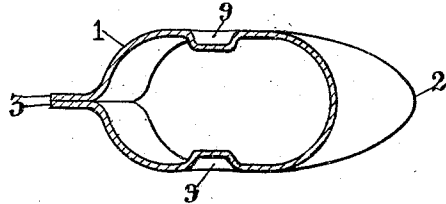


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

GUSTAVE F. DANIELSON, OF YOUNGSTOWN, OHIO.

SEEDING-MACHINE BOOT.

953,902.

Specification of Letters Patent.

Patented Apr. 5, 1910.

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To all whom it may concern:

Be it known that I, GUSTAVE F. DANIELSON, a citizen of the United States of America, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Seeding-Machine Boots, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a boot for seeding machines and consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the ordinary arrangement of a seeding machine of the type wherein a plurality of ribbon tubes that depend from a seed box extend into upright tubular members called boots whose lower ends penetrate the earth and to which members drags or seed covering means are attached, considerable strain and shock at times come upon these tubular members which in the usual construction, are of cast metal and are easily fractured.

The object of this invention is to provide a substitute for these cast metal tubular members or boots, lighter than the cast metal members and better able to withstand the shocks to which they are subjected.

In the drawings, Figure 1 is a view in side elevation of a boot embodying features of the invention; Fig. 2 is a view in cross section on line $x-x$ Fig. 1; Fig. 3 is a view in cross section on line $y-y$ of Fig. 1.

Referring to the drawings a piece of sheet metal is bent on itself to form a hollow leg 1 with tapered, slightly outturned lower end or beak 2 whose margins are oblique to the longitudinal axis of the leg, the beak being appropriately shaped to furrow through the earth. The margins 3 are out-turned and abutted and are slightly widened near the upper end of the leg to receive rivets 4 or like fastening means. Near the lower end or heel of the boot a lug 6 is formed as an extension of the abutted flanges which are held together by a tubular rivet formed by perforating one flange and forcing the metal of the corresponding flange through the aperture, folding it to form a retaining bead 7. The aperture formed by this tubular rivet that holds the parts of the lug together affords a place for attaching the drag chain. In the forward side of the leg, an aperture is formed with outwardly pressed

margins 8 for the reception of the head of an attaching bolt so that the latter is flush with the interior surface of the boot. Indentations 9 are formed on the sides of the leg at its lower end, preferably just below the flange lug 6, and the resultant shoulders act as stops to prevent a seeding ribbon tube on which the boot may be placed from dropping down below this point. The upper margin of the tube is out-turned to form a stiffening flange 10. A very rigid, light boot is thus obtained that is stronger than the cast metal boots now used, and does not break or fracture under the shocks of ordinary use.

Obviously, changes in details of construction may be made without departing from the spirit of the invention, and I do not care to limit myself to any particular form or arrangement of parts.

What I claim as my invention is:—

1. A boot for a seeding machine comprising a tube formed of a sheet metal plate with its margins out-turned and abutted, rivets securing the upper portions of the margins together, a tubular rivet struck out from the margins holding the lower portions thereof together, inwardly projecting shoulders near the lower end of the boot formed by lateral indentations in the tube, a bolt head socket formed in the tube, oppositely abutting flanges, and a stiffening flange around the upper margin of the tube.

2. A boot for a seeding machine comprising a tube formed of a sheet metal plate with its margins out-turned and abutted, rivets securing the upper portions of the margins together, a tubular rivet struck out from the margins holding the lower portions thereof together, inwardly projecting shoulders near the lower end of the boot formed by lateral indentations in the tube, a bolt head socket formed in the tube, oppositely abutting flanges, and a stiffening flange around the upper margin of the tube, the tube being regularly tapered throughout its length with the margins of the smaller lower end oblique to the longitudinal axis thereof.

3. A boot for a seeding machine comprising a tube formed of a sheet metal plate with its margins out-turned and abutted rivets securing the upper portions of the margins together, a tubular rivet struck out from the margins holding the lower end of the boot formed by lateral indentations in the tube, a bolt head socket formed in the

tube, oppositely abutting flanges, and a
stiffening flange around the upper margin
of the tube, the tube being regularly tapered
and curved throughout its length with the
5 abutting margins forming a flange on the
convex side thereof and the lower smaller
end being shaped into a furrowing beak.

In testimony whereof I affix my signature
in presence of two witnesses.

GUSTAVE F. DANIELSON.

Witnesses:

ANNA M. DORR,

ANNA M. SHANNON.