

(No Model.)

T. R. CRANE.
GRAIN DRILL TUBE.

No. 363,286.

Patented May 17, 1887.

Fig. 1.

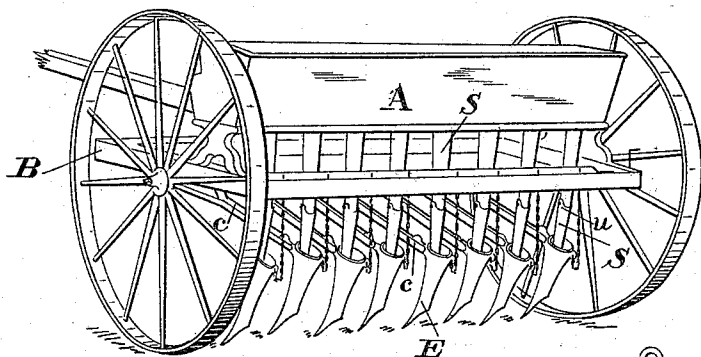


Fig. 3.

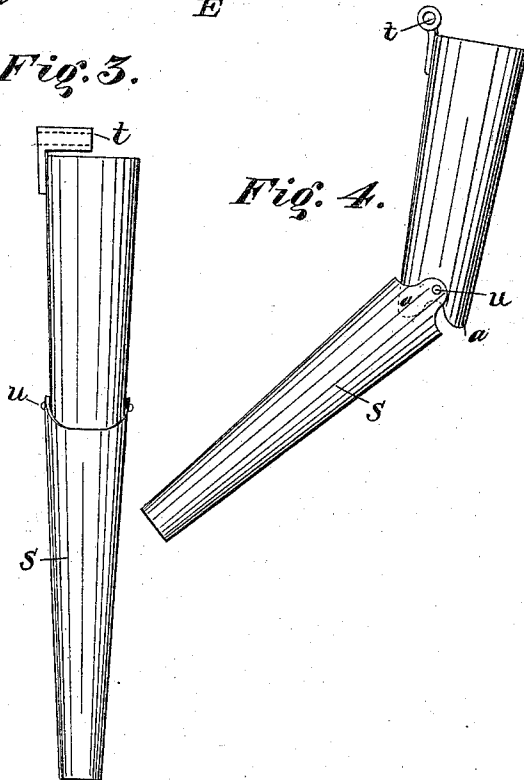


Fig. 4.

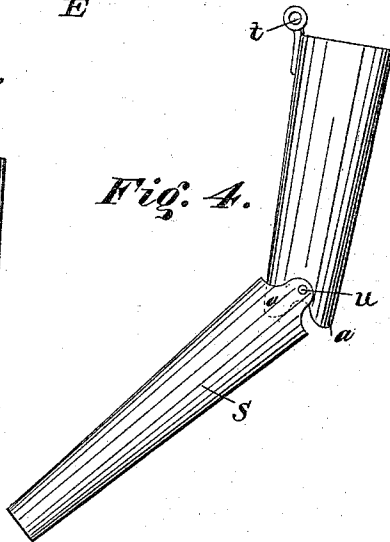
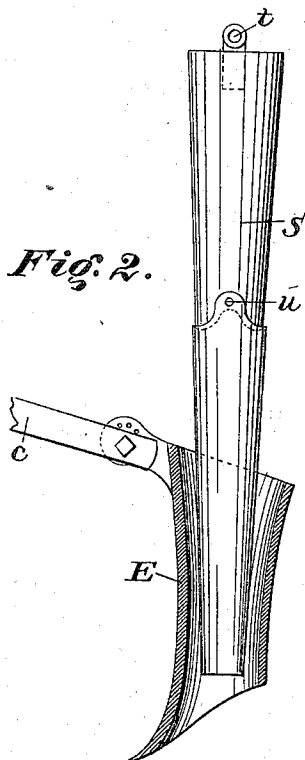


Fig. 2.



WITNESSES:

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GRAIN-DRILL TUBE.

SPECIFICATION forming part of Letters Patent No. 363,286, dated May 17, 1887.

Application filed March 3, 1887. Serial No. 229,542. (No model.)

To all whom it may concern:

Be it known that I, THOMAS R. CRANE, a citizen of the United States, residing at Heathsville, in the county of Northumberland and State of Virginia, have invented certain new and useful Improvements in Grain-Drill Tubes, of which the following is a specification.

This invention relates to a conveyer-tube for grain-drills, and is illustrated in the accompanying drawings, in which—

Figure 1 is a view of a grain-drill. Fig. 2 is a view of a drill-tube in section and one of the jointed metal conveyer-tubes. Figs. 3 and 4 are views of the jointed conveyer-tube.

The letter A designates the grain-hopper, and E the ordinary drill-tube, attached to the usual drag-bar, c, which is pivoted to the forward part of the frame B.

My improvement comprises the jointed metal tube S, made in sections, which conveys the grain or fertilizer, or both, from the hoppers A to the drill-tube E. These jointed tubes are a substitute for the ordinary rubber tubes heretofore used, and a much superior device. The rubber tubes from usage kink or bend short, and therefore become worthless, as the kinks hinder the downflow of the grain or fertilizer, and also induce decay in the rubber and cotton of which the tubes are composed. The jointed metal tubes S obviate all of this difficulty. The upper section of the jointed tube is suitably hinged at t below the hopper-bottom. The lower section of the jointed tube extends down into the drill-tube

E. The hinged joint u connects the two sections of the tube. The upper section of the tube is provided with lips a a on opposite sides thereof, which project into the lower section, the latter being adapted to swing on said upper section, so as to have a vertically-vibrating motion, and the former pivoted to the frame of the hopper. By this jointed metal tube a passage-way will always be open for conveying grain or fertilizer from the hoppers to the drill-tube, and at the same time the drill-tube E is as free to move forward or back as though the flexible rubber tube were employed.

The raising and lowering of the drill-tube E by the drag-bar c, working on the pivot at its front end, will not injure the jointed tube S.

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

In a grain-drill, the metallic tube made in sections and hinged together, the lower end of the upper section being constructed with lips on opposite sides projecting into the said lower section, which latter is adapted to swing upon said upper section, the said upper section being hinged to the hopper, as shown and described.

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

THOMAS R. CRANE.

Witnesses:

JOHN E. MORRIS,
JNO. T. MADDOX.