(No Model.)

J. M. HENDERSHOT.

GRAIN SPOUT.

No. 251,585. Patented Dec. 27, 1881.

Fig. 3

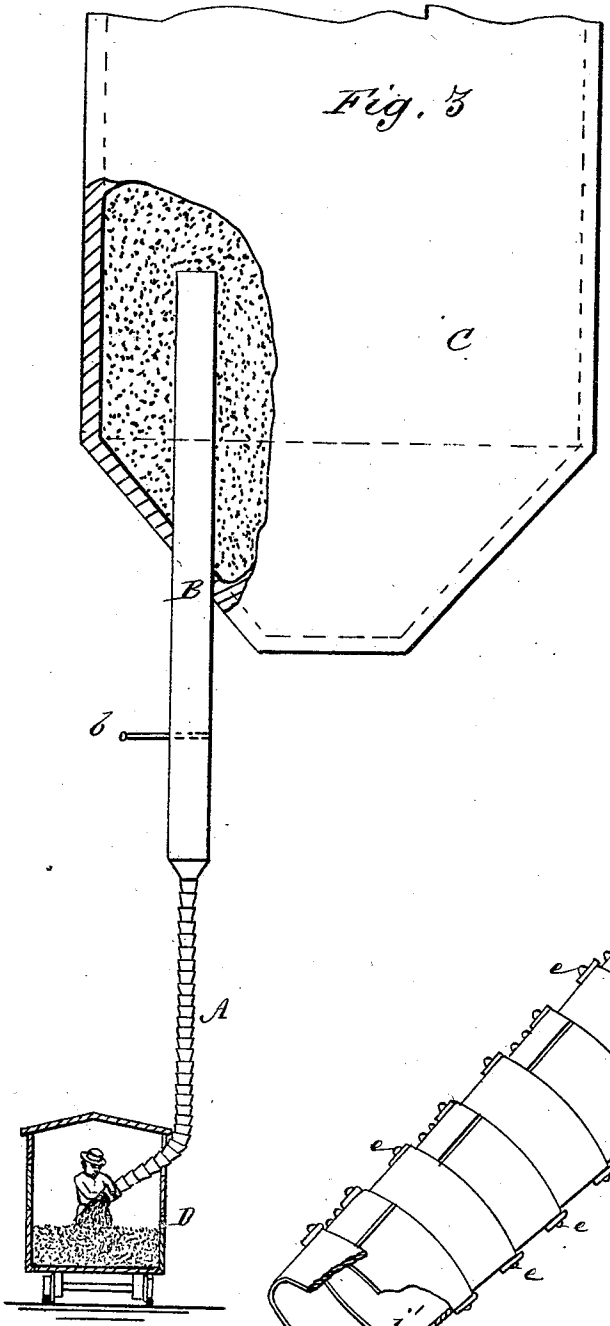


Fig. 1

Fig. 2

WITNESSES:

C. Neveux

C. Sedgwick

INVENTOR:

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ATTORNEYS.

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UNITED STATES PATENT OFFICE.

JAMES M. HENDERSHOT, OF ATCHISON, KANSAS, ASSIGNOR OF ONE-HALF TO A. G. OTIS AND R. A. PARK, OF SAME PLACE.

GRAIN-SPOUT.

SPECIFICATION forming part of Letters Patent No. 251,585, dated December 27, 1881.

Application filed October 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HENDERSHOT, of Atchison, in the county of Atchison and State of Kansas, have invented a new and Improved Grain-Spout, of which the following is a full, clear, and exact description.

My invention consists of a flexible spout for loading cars with grain from grain-elevators, and of the particular construction and arrangement thereof in connection with a wooden spout leading from the elevator, as hereinafter more fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of my improved flexible metal grain-spout. Fig. 2 is a cross-section thereof, taken on the line *x x* of Fig. 1; and Fig. 3 is a view showing the metal spout attached to the wooden tube of the elevator, the lower end of the spout being represented as leading into the car.

In the drawings, A represents the spout which is formed of the rings or sections *a*, which are made of any suitable material, preferably sheet metal.

B represents the wooden spout fixed in the bottom of the elevator-bin C, and D represents the car to be loaded.

The rings or sections of the spout A are slightly conical, so that the upper end of each section will fit in the lower end of the section above, and each section is formed with the holes *i i* and *i' i'* near its upper and lower edges, by means of which the sections are hinged together by the rivets or short pins or bolts *e e*, as shown. The sections or rings are hinged to each other in sets of two or more, the hinges of the sets being preferably at the ends of opposite diameters of the spout, and alternate upon opposite sides of the spout throughout its length—that is to say, the sections of the set E are hinged upon the same diametrical line, the sections of the set F above are hinged upon a diametrical line which runs preferably at or near right angles to the line upon which the set E are hinged, and the sections of the set G are hinged upon a line parallel with the line of the hinges of the set E, and so on alternately throughout the whole length of the spout. By this manner of hinging the sections the spout is made capable of being bent or turned in any direction to enter and reach any and all parts of the car. The upper end of the flexible spout is attached to the lower end of the wooden spout B, which latter enters and is fixed in the elevator-bin C, and this wooden spout is provided with the gate *b*, by which the flow of grain from the elevator is admitted to and cut off from the flexible spout. By this construction and arrangement of the spouts, the grain may be conveyed directly from the elevator to every part of the car, and the car may be thus completely filled without the necessity of shoveling or otherwise shifting any of the grain after it enters the car, as is now the case.

The sections of the different sets need not be hinged at exactly opposite diameters to each other, but may be hinged at any of the various intermediate points, the lines of the hinges in the different sets being then at angles less than right angles to each other, and not depart from the spirit of my invention.

I am aware that a grain-spout composed of a series of rings hinged together upon the same diametrical line is old, and I therefore do not claim such; but

What I claim, and desire to secure by Letters Patent, is—

A flexible spout or conduit made substantially as herein shown and described, consisting of the rings or sections hinged together in sets, the hinges of the sets being arranged on different diametrical lines of the spout, as and for the purposes set forth.

JAMES MADISON HENDERSHOT.

Witnesses:

J. C. CHALLISS,

C. W. CASE.