F. M. CAMPBELL.

Grain-Spout for Elevators.

No. 206,001 Patented July 16, 1878.

Fig. 1.

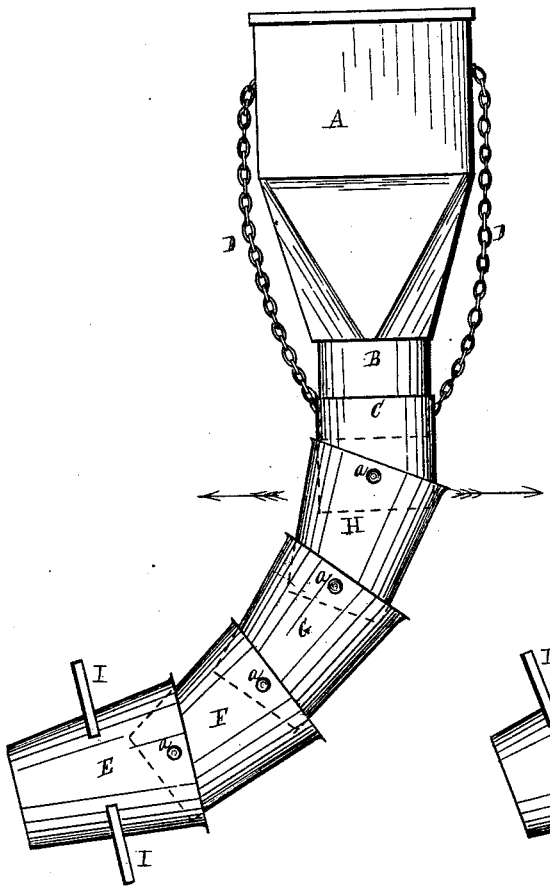
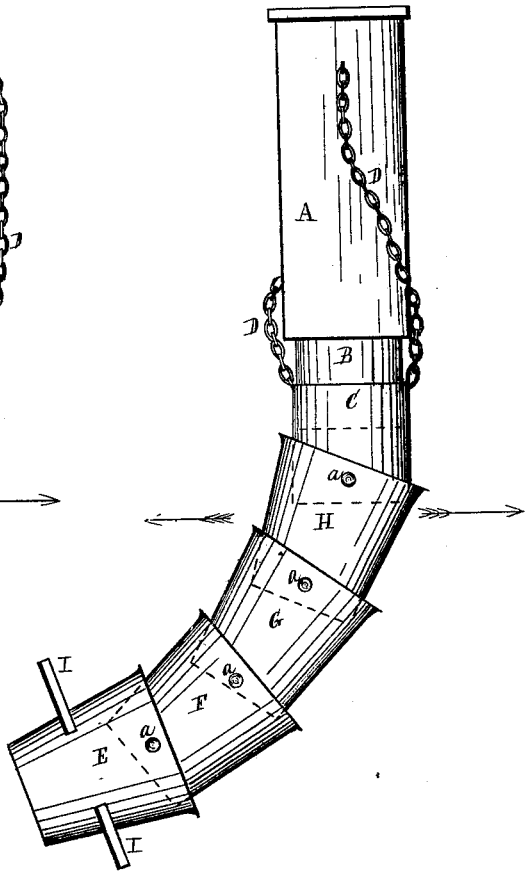


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK M. CAMPBELL, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ROBERT S. McCORMICK, OF SAME PLACE.

IMPROVEMENT IN GRAIN-SPOUTS FOR ELEVATORS.

Specification forming part of Letters Patent No. **206,001**, dated July 16, 1878; application filed April 8, 1878.

To all whom it may concern:

Be it known that I, FRANK M. CAMPBELL, of St. Louis, in the county of St. Louis and State of Missouri, have invented a certain new and Improved Apparatus for Loading Cars with Grain; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawings, making a part of the same.

The two figures of the drawings represent side views of the apparatus in different positions.

Like letters of reference refer to like parts in the several views.

The object of the invention above alluded to is to provide the conductor of a grain-elevator with a flexible spout, whereby the grain issuing therefrom can be distributed in the car or in the hold of a vessel by turning said spout in the direction the grain is required to be thrown in order to fill the car or other place of deposit.

The flexible spout referred to consists of a series of tapering tubes so arranged that the smaller end of the one is inserted in the larger end of the other, and which are pivoted together, forming a flexible metallic spout, as follows, which is a more full description of the invention.

A represents a sleeve, which may be of any shape or size to fit on over the end of the wooden conductor of an elevator, and to which it may be secured by any suitable means. The lower end of said sleeve terminates in a short tube or neck, B, over the end of which is loosely fitted, so that it may turn freely thereon, a collar, C, which is retained in connection therewith by the chains D, as shown in the drawings.

E, F, G, and H are tapering tubular sections, arranged with the smaller end of the one inserted in the larger end of the other, respectively, and which are connected to each other by pivotal joints *a*, so that they have thereby a flexible movement in either direction, as indicated by the arrows. Said tubular sections may be more or less in number as the length of the spout may be required. Said series of sections are pivoted to the end of the collar C, which, together with the sleeve and collar C, forms the spout of the conductor.

In attaching the collar C loosely to the neck B, said collar, together with the sections E, F, &c., can be turned from the position shown in Fig. 1 to that shown in Fig. 2 relatively in respect to the position of the sleeve A attached to a conductor, and of which, in fact, it forms a part or a continuation; hence, as the grain is discharging from the conductor, it can be directed to any part of the car by turning the spout around to the place to be filled up, and by curving the spout more or less, and in either direction indicated by the arrows, as circumstances may require.

I are handles, whereby the spout is manipulated for the purpose specified.

I claim—

In spouts or nozzles for discharging grain from elevators, the tapering sections E, F, G, and H, the end of one section fitting loosely in that of the other and pivoted together at two opposite sides of their diameters, so that said spout can be bent in two opposite directions, and provided with a collar and sleeve for rotating the spout, and suspending-chains D, as and for the purpose set forth.

FRANK M. CAMPBELL.

Witnesses:
P. J. McMORROW,
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