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G. W. & C. D. BAIER.

PORTABLE GRAIN SPOUT FOR ELEVATORS.

APPLICATION FILED JAN. 20, 1906.

Fig. 1.

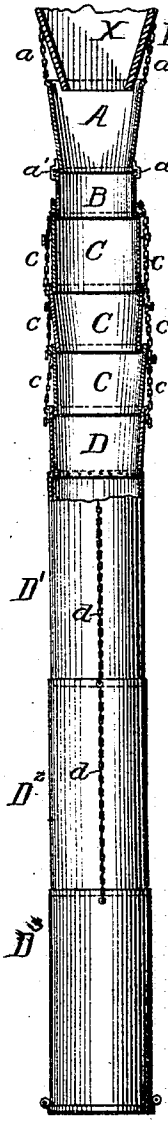


Fig. 2.

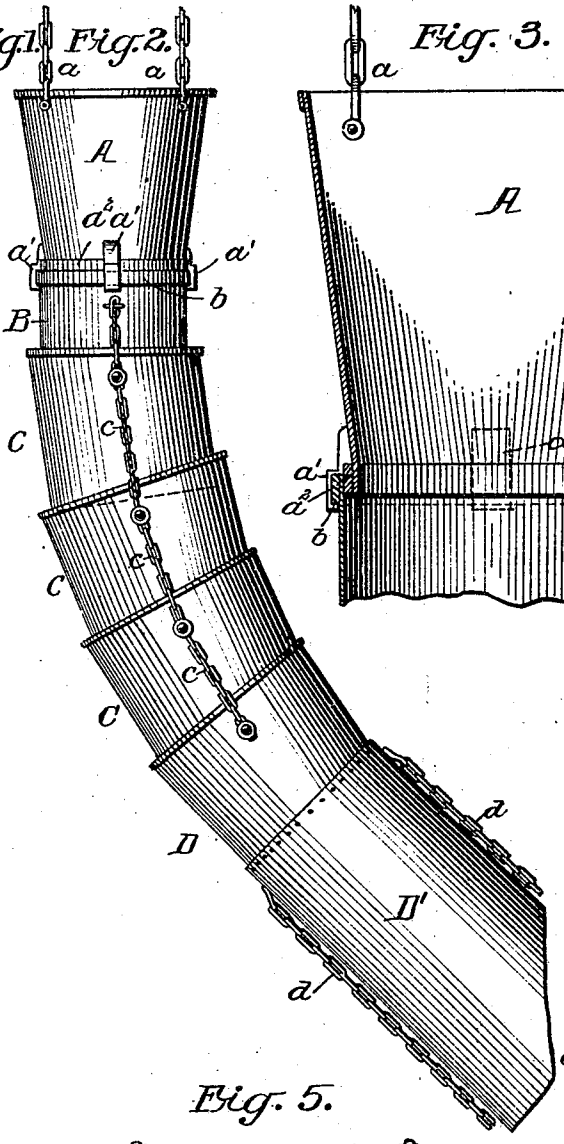


Fig. 3.

Fig. 4.

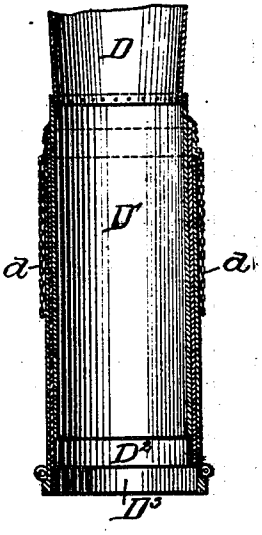
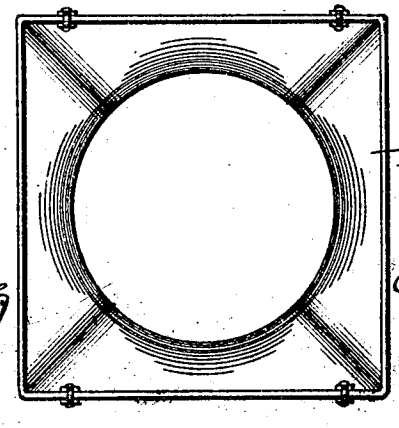


Fig. 5.



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PORTABLE GRAIN-SPOUT FOR ELEVATORS.

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Application filed January 20, 1906. Serial No. 296,972.

To all whom it may concern:

Be it known that we, GEORGE W. BAIER and CHRISTIAN D. BAIER, citizens of the United States, and residents of Cissna Park, in the county of Iroquois and State of Illinois, have invented an Improved Portable Grain-Spout for Elevators, of which the following is a specification.

Our invention is an improvement in the class of grain spouts or conductors which are adapted to telescope and to be adjusted or placed at different angles or inclinations, so as to deliver grain into different bins or receptacles as conditions may require.

The details of construction, arrangement, and combination of parts are as hereinafter described and illustrated in the accompanying drawings, in which—

Figure 1 is in part a longitudinal section and in part a side view of our improved grain-spout extended with the sections in alinement. Fig. 2 is a side view of the spout curved. Fig. 3 is an enlarged longitudinal section of the hopper and the rotatable collar attached thereto. Fig. 4 is a longitudinal section of the lower cylindrical sections of the spout shoved together or telescoped. Fig. 5 is a plan view of the hopper.

The hopper A is connected by chains *a* with the grain-spout X of an elevator. As shown in Fig. 5, the upper end of the hopper A is square, thus conforming to the shape of the spout X in common use. The lower end *a'* is circular and provided with hooks a^2, which embrace a flange *b*, forming a rigid attachment of a cylindrical collar or tubular section B. By this means the two parts A B are rotatably connected.

C indicates a series of tapered tubular sections which are connected with each other and with the cylindrical section B by means of chains *c*. (See Figs. 1 and 2.) As shown, when the several sections C are extended the length of the chains is such as to prevent the smaller end of each from escaping from the larger end of the one next below. On the other hand, the sections C may be telescoped or shoved together so as to shorten the spout when required or when the spout is to be stored or transported from one point to another. The lowest tapered section C is flexibly connected with a tapered section D, forming a rigid attachment of a cylindrical section D', and the same is set or arranged at an angle to the section D', as will be seen by reference to Fig. 2. The sections D' D^2 D^3 are flexibly connected by chains *d*, the same being applied on opposite sides and so arranged and attached as to allow the said sections to telescope. Thus the parts D D' form practically a rigid tube whose upper end is inclined at a slight angle to the body thereof. The cylindrical section D^2 is made of such size as to receive the upper section D', and the lower section D^3 is made of such size as to receive the section D^2 correspondingly. Thus the several cylindrical sections D' D^2 D^3 may be shoved together, as indicated in Fig. 4, and when extended as in use they form the outer portion of the spout, which is self-supporting, with all the sections in the same plane. In other words, the cylindrical sections D' D^2 D^3 while adapted to telescope, so that the length of the conductor which they form may be varied at will, like the tapered sections C they cannot be bent or curved in the same manner as the sections C.

It will be seen that the spout as a whole may be turned in any direction on the hopper A and may be set or placed at different inclinations or angles and may be collapsed or extended as conditions require. By the arrangement of the tapered sections C between the cylindrical sections D' D^2 D^3 and the rotatable attachment B of the hopper the spout is rendered flexible at the point where it is required, while its lower portion forms a practically rigid tube.

It is obvious that the number of tapered and cylindrical sections may be varied at will according to conditions.

By the construction, arrangement, and connection of parts as described we have produced a spout which answers practical requirements in a superior manner, possessing several advantages over other spouts in common use.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The improved grain-spout for elevators, comprising a hopper and cylindrical collar rotatably connected, a series of tapered tubular sections flexibly connected together and with the said collar, and a series of cylindrical tubular sections adapted to slide one within the other and fitted together so that they are self-supporting in the same plane when extended laterally for use, and means

for flexibly connecting them with each other and the lowest tapered section, as shown and described.

2. The improved elevator-spout comprising a hopper and a cylindrical collar which are rotatably connected, a series of tapered tubular sections and chains connecting them with each other and the said collar, so that they are adapted to telescope and to be placed at angles to each other so that the spout as a whole may describe a curve, and a series of cylindrical tubular sections, the upper one having a tapered section rigidly attached thereto and adapted to receive the lower tapered section, and chains which connect the cylindrical sections with each other, the same being so attached and arranged that the cylindrical sections may be telescoped or extended in the same plane, substantially as described.

3. The improved elevator-spout, comprising a hopper, a series of tapered tubular sections and chains connecting them, and a series of cylindrical tubular sections and chains connecting them with each other and with the tapered sections, substantially as described.

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