J. L. WELLER.

DEVICE FOR SPOUTING CONCRETE, GRAIN, AND THE LIKE.

APPLICATION FILED NOV. 21, 1911.

1,047,866. Patented Dec. 17, 1912.

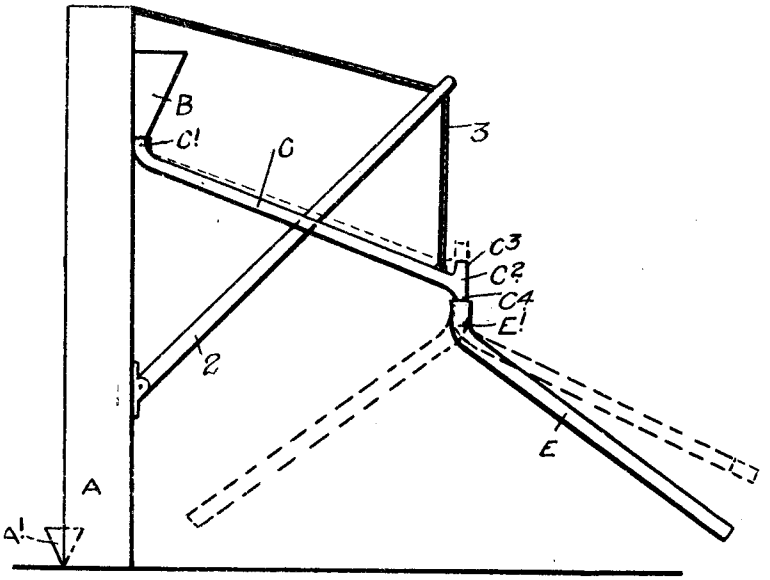

FIG. 1.

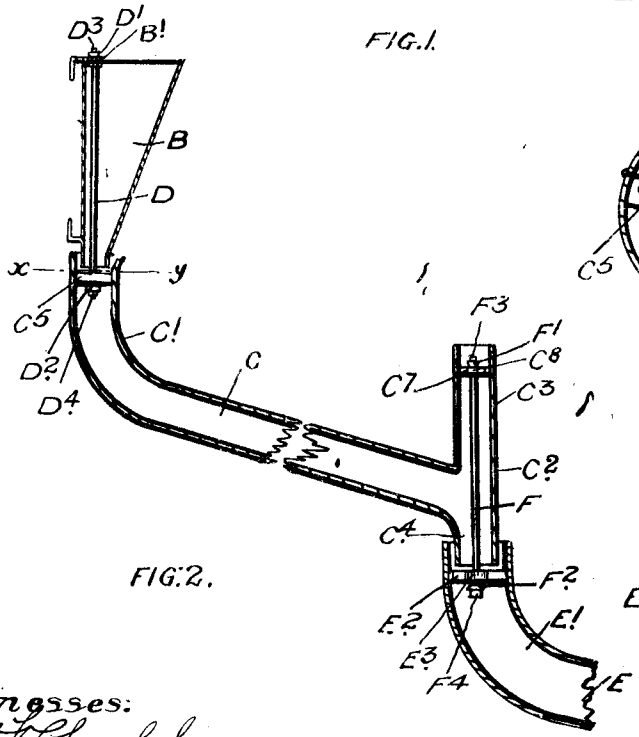

FIG. 2.

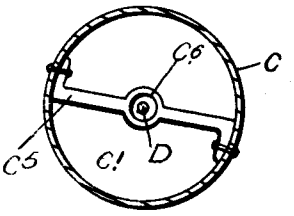

FIG. 4.

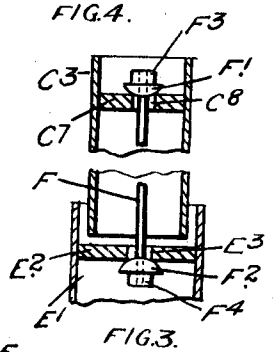

FIG. 3.

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UNITED STATES PATENT OFFICE.

JOHN LAING WELLER, OF ST. CATHARINES, ONTARIO, CANADA.

DEVICE FOR SPOUTING CONCRETE, GRAIN, AND THE LIKE.

1,047,866. Specification of Letters Patent. Patented Dec. 17, 1912.

Application filed November 21, 1911. Serial No. 661,514.

To all whom it may concern:

Be it known that I, JOHN LAING WELLER, of the city of St. Catharines, in the county of Lincoln, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Devices for Spouting Concrete, Grain, and the Like, of which the following is the specification.

My invention relates to improvements in devices for spouting concrete, grain and the like, and the object of the invention is to devise a spout, the delivery end of which may be raised or lowered or swung around in horizontal plane to any point desired, and it consists essentially of an inclined main spout or pipe having an up-turned upper end, a bridge bar extending across the mouth of the same, and a hanging bolt depending from the delivery hopper of the elevating apparatus through the bridge bar so as to loosely support the inner end of the main spout, raising and lowering means for supporting the outer end of the main spout, a vertical tubular portion forming the outer portion of the main spout having a bridge bar extending diametrically across the same at its upper end, an extension spout around the lower end of the vertical portion of the main spout, a bridge bar extending across the same and a bolt extending loosely through the bridge bar of the vertical portion and the bridge bar of the supplemental portion of the spout and connected thereto as hereinafter more particularly explained by the following specification.

Figure 1, is a side elevation of the spouting apparatus constructed in accordance with my invention. Fig. 2, is an enlarged sectional elevation of the main portion of the spout intermediately broken away. Fig. 3, is a sectional detail of the connection between the main spout and the supplemental spout. Fig. 4, is a further enlarged sectional plan view on line x—y Fig. 2.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is an elevating tower of any suitable construction provided with a self-dumping bucket A′ designed to be moved to the top of the tower by suitable mechanism so as to deliver the concrete, grain or other material into the hopper B secured to the tower in proximity to the top thereof.

B′ is a bridging bar extending across the top of the hopper B to the inner side thereof.

C is the main delivery spout provided with an up-turned upper end C′ and a vertical portion C^2 located at its lower end and comprising the upper tubular extension C^3 and the lower extension C^4.

C^5 is a bridging bar extending diametrically across the portion C′ and having an orifice C^6.

D is a bolt or rod extending at its upper end loosely through the bridging bar B′ and at its lower end loosely through the bridging bar C^5. The bolt or rod D is provided at its ends with convex washers D′ and D^2 held in place by the nuts D^3 and D^4. By this means it will be seen that the main spout portion C may be swung vertically into any desired angle and thus raised or lowered for the delivery of the concrete by means of any suitable mechanism such as a swinging beam 2 and tackle 3.

E is a supplemental spout having an up-turned end E′ designed to loosely surround the lower end of the portion C^4 of the main spout C.

C^7 is a bridge bar extending diametrically across the portion C^3 and similar to the bridge bar C^5.

E^2 is a bridge bar extending across the portion E′. The bridge bar E^2 is also similar to the bridge bar C^5.

F is a bolt or rod extending loosely through the central orifice C^8 and E^3 of the bars C^7 and E^2. The bolt or rod F is provided with convex washers F′ and F^2 secured to the rod by nuts F^3 and F^4. By this means it will be seen that the supplemental portion E may be swung horizontally into any desired position for delivering the grain or concrete.

From this description it will be seen that I have devised a very simple connecting means between the portions of the delivery spout whereby the same may be swung either vertically or horizontally to carry the delivery end of the spout to any desired point for delivering the grain, concrete or the like.

What I claim as my invention is:

1. In a device for spouting concrete, grain and the like, the combination with the hopper, and a vertical rod depending from the hopper, of a delivery spout, a bar extending diametrically across the mouth of the delivery spout and having a central orifice therein through which the vertical rod extends, and a convex washer and nut thread-

ed on the end of the rod whereby the bridge bar is supported, as and for the purpose specified.

2. In a device for spouting concrete, grain, and the like, the combination with the hopper, of a vertical rod depending from the hopper, of a delivery spout, a bar extending diametrically across the mouth of the delivery spout and having a central orifice therein through which the vertical rod extends, a convex washer and nut threaded on the end of the rod whereby the bridge bar is supported and a supplemental feed spout connected to the main portion of the spout so as the delivery end may be swung horizontally, as and for the purpose specified.

3. In a device for spouting concrete, grain, and the like, the combination with the hopper, of a main feed spout connected to the hopper so as to swing vertically at its delivery end, an angular tubular portion formed at the end of the main delivery spout, a bridging bar extending diametrically across the angular tubular portion of the spout in proximity to its upper end and having a central opening, a supplemental spout surrounding the lower end of the main portion and provided with a similar bridging bar, and a rod extending vertically through the opening of the aforesaid bridging bar and having convex washers and securing nuts threaded on the rod against the bridging bar as and for the purpose specified.

4. In a device of the class described, the combination with the main feed spout having a tubular T-end, and a bridge bar extending diametrically across the tubular end, of a supplemental spout into the mouth of which the lower portion of the T-end of the main spout extends, a bridge bar extending diametrically across the mouth of the supplemental spout, a rod extending loosely through the bridge bar of the main feed spout and the bridge bar of the supplemental spout and suitable washers and nuts therefor, as and for the purpose specified.

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