Sept. 2, 1930. E. LUEDTKE 1,774,800

LOADING SPOUT

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Fig. 1.

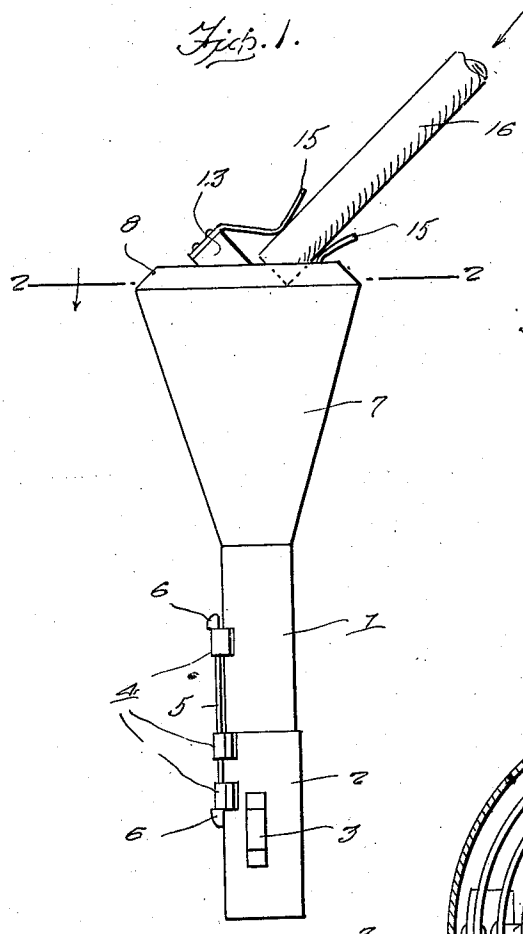



Fig. 5.

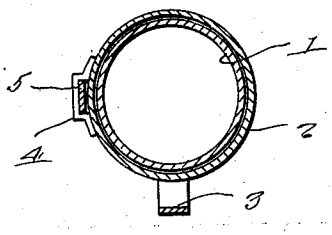
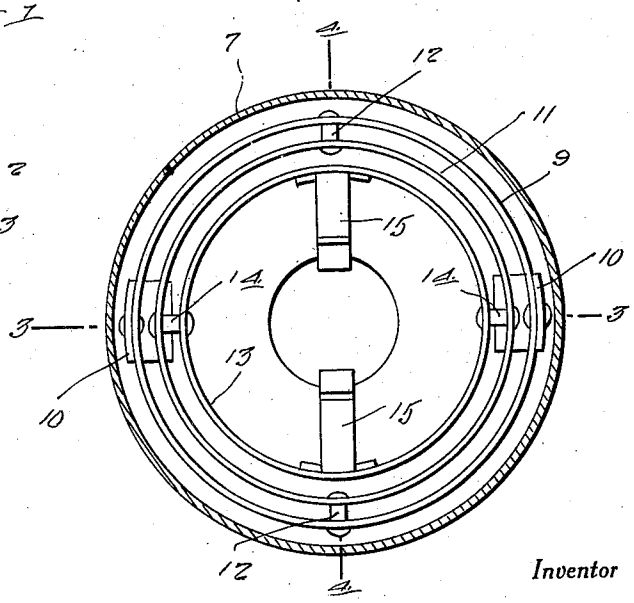



Fig. 2.




Inventor

Emil Luedtke

By Clarence A. O'Brien

Attorney

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Fig. 3.

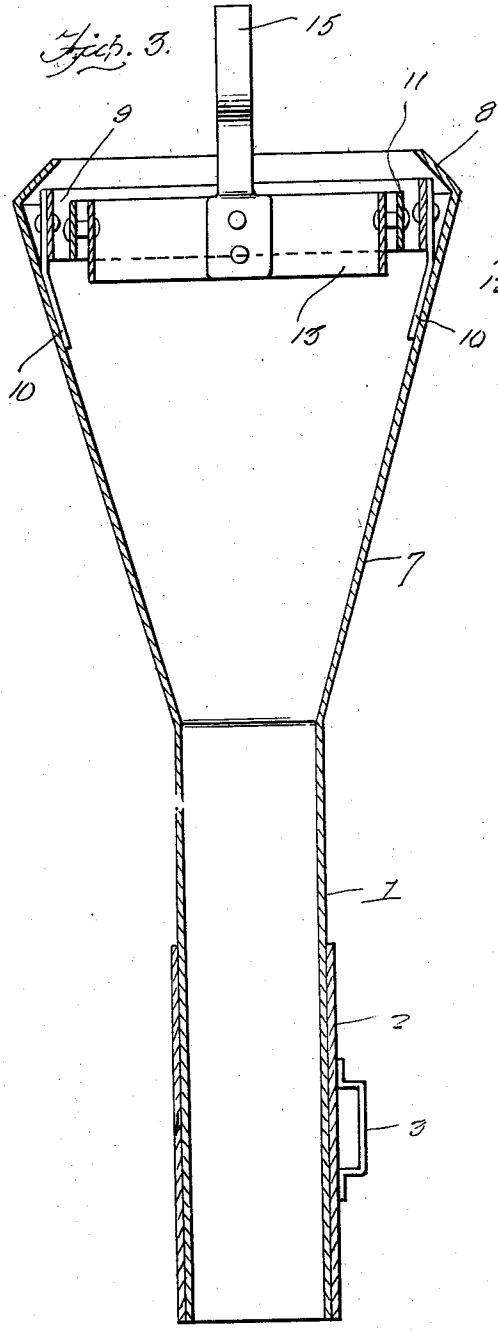
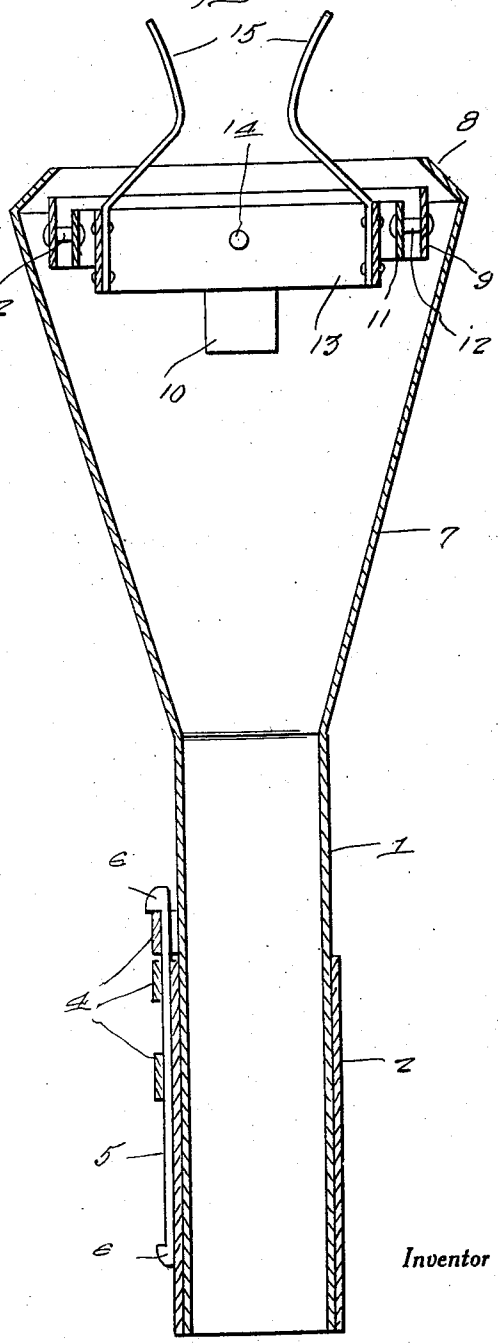



Fig. 4.




Inventor

Emil Luedtke

By Clarence A. O'Brien

Attorney

Patented Sept. 2, 1930 1,774,800

# UNITED STATES PATENT OFFICE

EMIL LUEDTKE, OF FAIRMONT, MINNESOTA

## LOADING SPOUT

Application filed December 2, 1929. Serial No. 411,113.

This invention relates to loading spouts and more particularly to means provided on said spout for adapting the discharge end of a conveyor pipe thereto.

An important object of the invention is to provide, in a manner as hereinafter set forth, a loading spout of the character described having means for connecting a conveyor pipe thereto in communication therewith which means is mounted for universal movement on the spout in order to adapt the same for connection with a conveyor regardless of what angle or inclination the conductor may extend upwardly therefrom.

Other objects of the invention are to provide, in a manner as hereinafter set forth, a loading spout of the aforementioned character which will be simple in construction, strong, durable, efficient in its use and which may be manufactured at low cost.

Other objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a view in side elevation of a loading spout constructed in accordance with this invention, the same being shown with the lower end portion of a conveyor pipe connected thereto.

Figure 2 is a horizontal sectional view taken substantially on the line 2—2 of Figure 1 and looking in the direction of the arrow.

Figure 3 is a vertical sectional view taken substantially on the line 3—3 of Figure 2.

Figure 4 is a vertical sectional view taken substantially on the line 4—4 of Figure 2.

Figure 5 is a horizontal sectional view taken through the lower portion of the loading spout.

Referring to the drawings in detail, the reference character 1 designates a tubular sleeve of uniform diameter throughout which has its lower end portion telescopically disposed in a longitudinally slidable cylindrical extension 2 provided with a handle 3 for shifting said cylinder on the sleeve 1. The extension 2 is adapted to be adjusted on the sleeve 1 and said sleeve and cylinder are provided with vertically aligned straps or loops 4 in which is mounted under tension a spring leaf 5 having heads 6—6 on its opposite end for limiting the movement of the cylinder and said leaf spring is adapted to frictionally hold the cylinder in adjusted position on the sleeve 1.

On its upper end, the sleeve 1 terminates in an inverted cone 7 which is provided with an inclined flange 8 extending inwardly at its upper end. An annulus 9 is rigidly mounted adjacent the upper end of the cone 7 through the medium of the supporting arms or brackets 10 which have their upper portions disposed at an obtuse angle with respect to the adjacent wall of the cone for mounting the annulus 9 therein in spaced relation thereto.

A ring 11 is disposed in spaced concentric relation within the annulus 9 and said ring is supported for pivotal movement in a vertical plane within said annulus through the medium of the horizontally disposed headed pivot pins 12 on diametrically opposite sides thereof. A second ring 13 is disposed within the ring 11 in spaced concentric relation with respect thereto and is pivotally supported in said ring 11 for swinging movement in a vertical plane with respect thereto through the medium of the horizontal pivot pins 14 in diametrically opposite sides thereof. On its inner periphery and at diametrically opposite sides thereof, the inner ring 13 has rigidly mounted thereon the inwardly and outwardly curved upwardly extending string arms or fingers 15 which are adapted to yieldingly grip the lower end portion of a conveyor pipe 16, as seen most clearly in Figure 1 of the drawings.

As seen most clearly in Figure 2 of the drawings, the pair of diametrically opposed pivot pins 12 and 14 are disposed at right angles with respect to each other and in this manner the resilient gripping arms 15 may be positioned at any angle for accommodating the conveyor pipe 16, as will be apparent.

It is believed that the many advantages of a loading spout constructed in accordance

with this invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction may be had which will fall within the scope of the invention as claimed.

What is claimed is:—

1. A loading spout of the character described comprising a cone, an annulus rigidly mounted in the cone in spaced relation with respect thereto and concentrically therewith, a ring disposed concentrically within the annulus in spaced relation thereto and pivotally mounted for swinging movement thereon, a second ring disposed concentrically within the first named ring in spaced relation to the latter and pivotally supported thereon for swinging movement with respect thereto and a pair of diametrically opposed upstanding resilient gripping arms rigidly mounted on the second named ring for engagement with a conveyor pipe for coupling the same to the cone in communication therewith.

2. A loading spout of the character described comprising a cone, an annulus mounted in the cone, a ring disposed within the annulus, horizontally disposed pivot pins extending transversely through the annulus and the ring on diametrically opposite sides thereof for pivotally supporting said ring in said annulus, a second ring disposed within the first named ring, horizontally disposed pivot pins extending transversely through the first and second named rings for pivotally supporting said second named ring in the first named ring, the second named pivot pins being disposed at right angles with respect to the first named pivot pins and a plurality of gripping arms mounted on the second named ring and extending upwardly therefrom for engagement with a conveyor pipe for coupling the same to the cone in communication therewith.

In testimony whereof I affix my signature.

EMIL LUEDTKE.