

M.D. Wilder,

Cattle Pump.

No 32,661.

Fig: 1.

Patented June 25 1861.

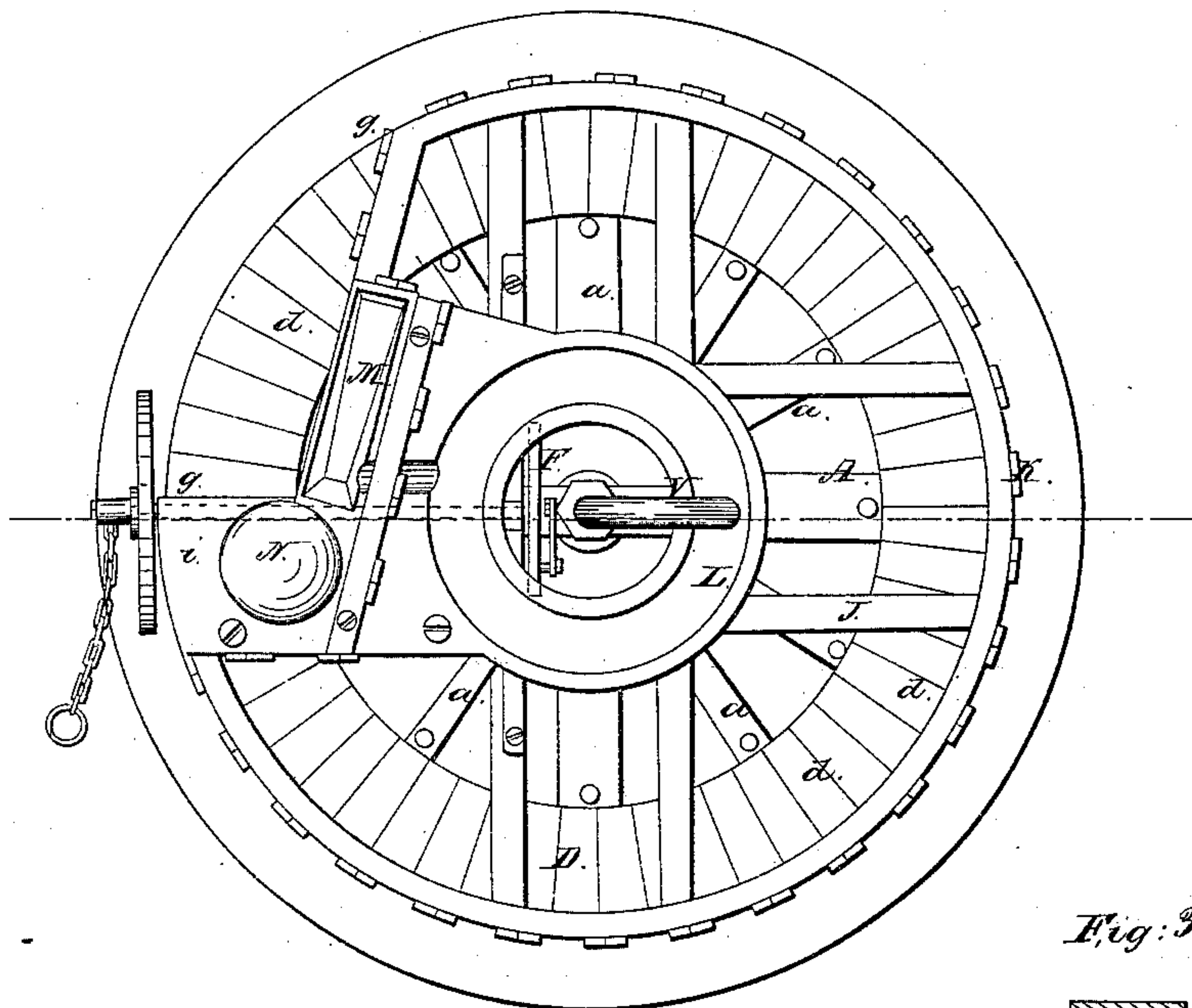


Fig: 3.

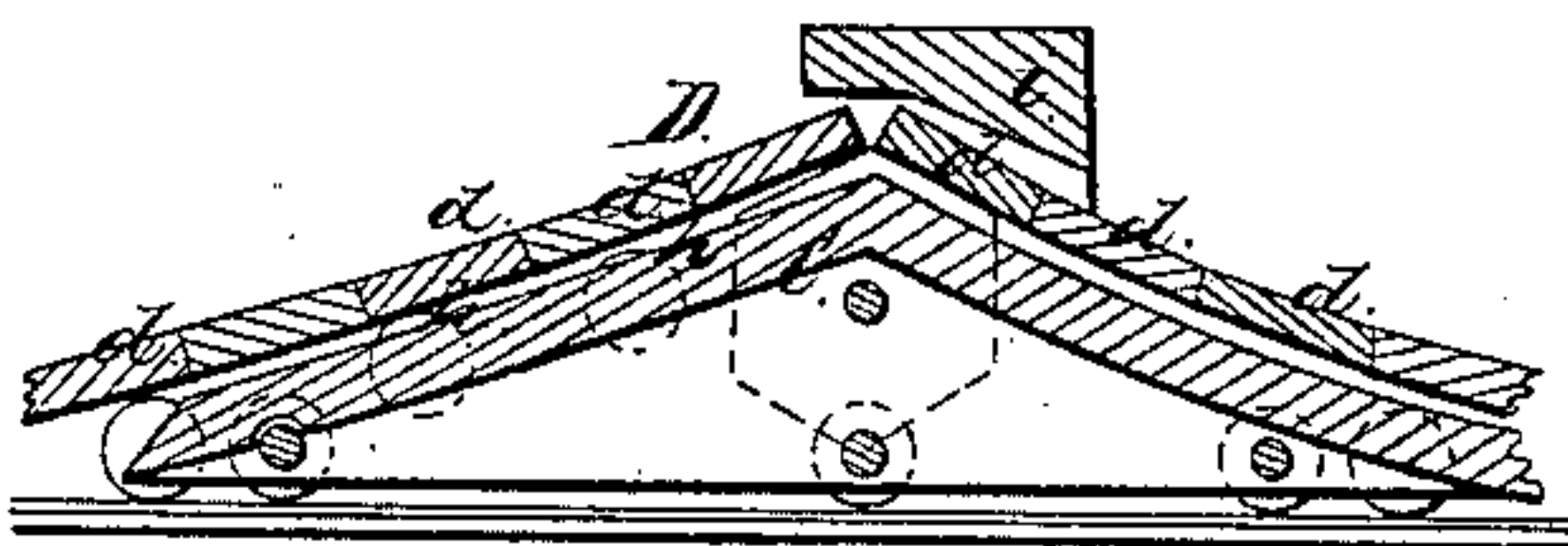
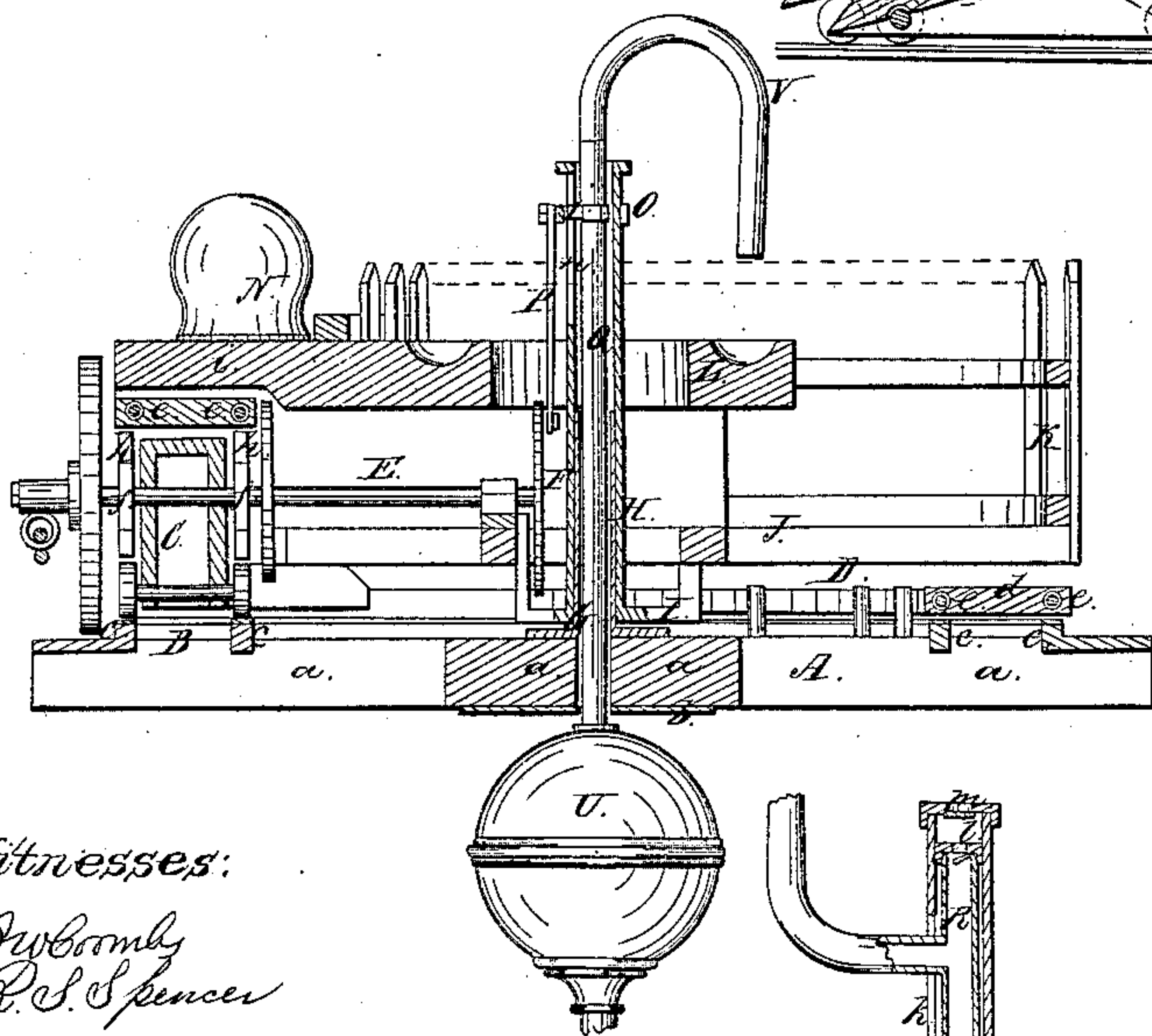


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

MILO D. WILDER, OF LAPORTE, INDIANA.

WATER-ELEVATOR FOR CATTLE.

Specification of Letters Patent No. 32,661, dated June 25, 1861.

To all whom it may concern:

Be it known that I, MILO D. WILDER, of Laporte, in the county of Laporte and State of Indiana, have invented a new and Improved Water-Elevating Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a plan or top view of my invention. Fig. 2, a vertical section of the same, taken in the line *x, x*, Fig. 1. Fig. 3, a detached longitudinal section of the carriage pertaining to the same.

Similar letters of reference indicate corresponding parts in the three figures.

This invention relates to a new and improved water elevating device by which stock may raise their own water and to which a horse may be applied when necessary for forcing water.

The invention consists in the employment or use of an annular apron placed on a carriage and circular track in connection with a fence and pump all arranged substantially as hereinafter described to effect the desired end.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a platform which is placed over the well from which the water is to be elevated. This platform may be formed of beams *a*, attached radially to a central plate *b*. On this platform there is placed a circular track B, formed of two rails *c, c*, said track having a carriage C, placed on it, as shown in Fig. 2. The carriage C, has its upper surface formed of two inclined planes as shown clearly in Fig. 3.

D, is an annular apron which is formed of radial blocks *d*, connected together by ropes or chains *e, e*, which pass through them near their ends, see Fig. 2. This apron D, is placed directly on the track B, and over the carriage C, the blocks *d*, working over polygonal wheels *f, f*, at the sides of the carriage, said wheels *f, f*, being on a shaft E, which is placed transversely in the carriage and has a crank wheel F, at its inner end.

To the center of the platform A, there is secured permanently a vertical tube G, and on this tube G, there is placed loosely a tube H, the lower end of which is secured to a

bar I, which bar has a horizontal frame J, attached to it. To the outer end of the frame J, there is attached a fence K, which forms the greater part of a circle and incloses the annular apron D, with the exception of a small portion included between the points *g, g*, and this portion is over one of the inclined planes of the carriage C. The apron D, bears on rollers *h*, on the carriage, as shown in Figs. 2, and 3, and the carriage is attached to the frame J. In the frame J, there is secured an annular trough L, which encompasses the tube H, and is concentric therewith. The trough L, is slightly inclined from a horizontal position and communicates at its lower end with a straight trough M, at the outer side of the fence K, and by the side of the exposed part of the annular apron D. The trough M, has an inclined bottom, the deepest part of the trough being toward the center of the carriage. On a bar *i*, which is connected to the annular trough L, there is secured a glass vessel N, containing water. The water is not accessible to the stock, and the vessel is placed directly over the center of the carriage C, in front of the exposed part of the apron D, and is intended as a decoy or deception glass to entice strange stock up the inclined and exposed part of the apron D.

On the tube H, there is placed a sliding collar O, said collar having a rod P, attached, the lower end of which is connected to the crank wheel F, previously referred to. The collar O, is connected by a bolt *j*, to a tube Q, which passes down through the tube G, and into the well, the lower part of tube Q, being curved and connected to a hollow piston R, which is fitted in a cylinder S, the latter being slotted as shown at *k*, to allow the tube Q, to work up and down. The piston R, has a valve *l*, at each end opening inward and the pump cylinder S, has similar valves *m*, also opening inward. The tube Q, is also provided with an air chamber U, and the tube H, is slotted vertically, as shown at *n*, to allow the bolt *j*, to work up and down, and the upper end of tube Q, has a curved pipe V, attached, the outer end of V, being directly over the annular trough L.

The operation is as follows: When the apparatus is used for a stock or cattle pump only, the cattle in passing up the exposed inclined part of the apron will propel the carriage C, around on the circular track B, and the frame J, fence K, and tube H, move

with the carriage. This movement of the carriage causes the rotation of the shaft E, in consequence of the apron D, bearing on the polygonal wheels *f, f*, of the shaft, and
 5 the crank wheel F, rod P, and collar O, drive the tube Q, and piston R, the water being forced up tube Q, and passing from the end of the curved pipe V, into the annular trough L, and from thence into the
 10 straight trough M, and in consequence of the latter having an inclined bottom, and the trough increasing in depth at its farthest end the water as it is drunk by the animal gradually recedes from the outer
 15 end of the trough and this induces the animal to move forward and thereby shove along the carriage and operate the pump.

In case it is required to apply horse power to operate the pump for forcing water, a
 20 horse may be applied to the exposed part of the apron D, and the carriage C, moved along as before.

I do not claim as new any part pertaining to the pump when separately considered; but,
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Having thus described my invention, what I do claim as new and desire to secure by Letters Patent; is,

1. The carriage C, placed on a circular track B, in connection with the annular
 30 apron D, frame J, fence K, and pump formed of the reciprocating tube Q, plunger R, and cylinder S, the pump being operated from the carriage C, and all arranged substantially as and for the purpose set forth. 35

2. The arrangement as shown, of the annular trough L, straight trough M, and stationary curved discharge pipe V, whereby the water is discharged into the straight
 40 trough M; the motion of the troughs not interfering with the proper delivery of the water.

3. The arrangement of the shaft E, crank pulley F, connecting rod P, collar O, and rotating tube H, substantially as shown to
 45 serve as a means for communicating power from the carriage C, to the pump.

4. The employment or use of the decoy vessel N, when used in connection with a pump and its operating mechanism substantially as and for the purpose specified. 50

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Witnesses:

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