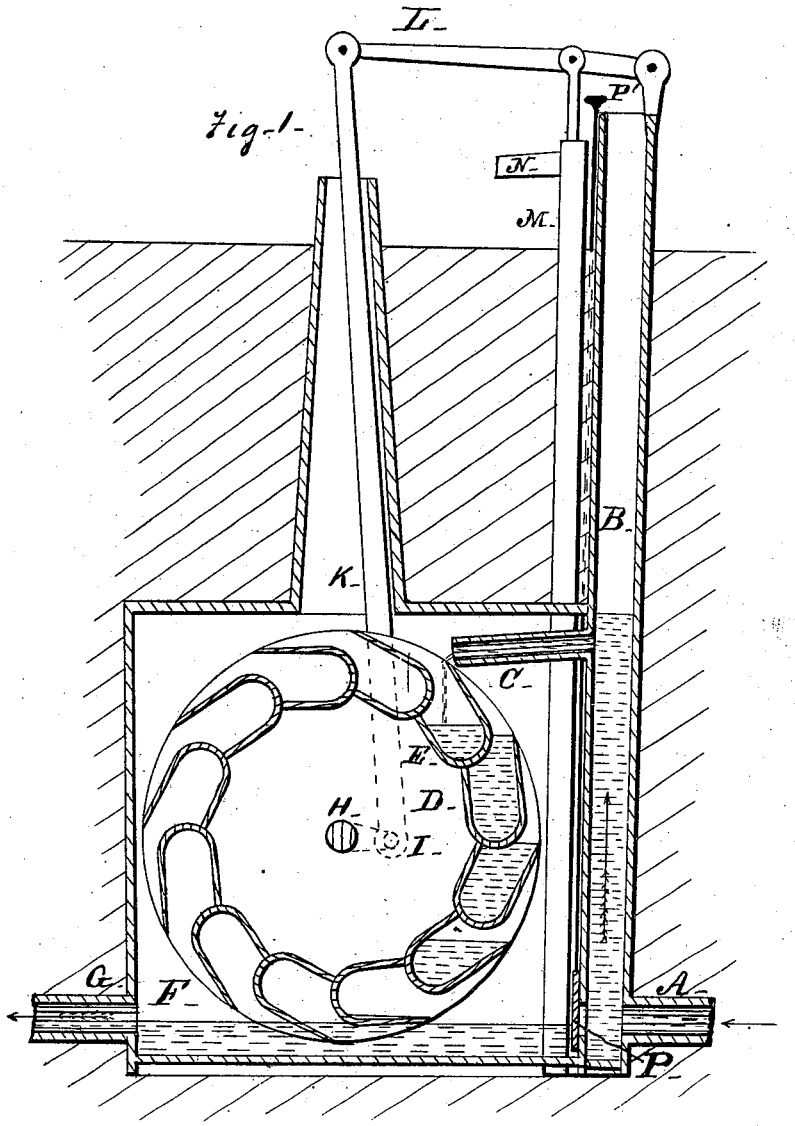
S. LINDSEY.

Apparatus for Raising Water from Running Streams.

No. 197,737. Patented Dec. 4, 1877

Fig-1-



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UNITED STATES PATENT OFFICE.

STEPHEN LINDSEY, OF BUSHNELL, ILLINOIS.

IMPROVEMENT IN APPARATUS FOR RAISING WATER FROM RUNNING STREAMS.

Specification forming part of Letters Patent No. **197,737**, dated December 4, 1877; application filed October 2, 1877.

To all whom it may concern:

Be it known that I, STEPHEN LINDSEY, of Bushnell, McDonough county, Illinois, have invented a new and useful Improvement in Means of Elevating Water from Under-Drains, of which the following is a specification:

Referring to the accompanying drawings, Figure 1 is an elevated section of apparatus.

This invention is an improved means of elevating water from an underground tile drain, for watering stock, by the action of the water flowing in the drain; and it consists in the improved features hereinafter set forth and claimed.

The water enters by the lower end of the under-drain tile A into the stand-pipe B, in which it rises to the spout C, from which it flows onto wheel D, having buckets E, so as to turn it. From this wheel the water discharges into chamber F, from which it passes out by drain-tile G below.

The apparatus is put in the line of tile under-drain by removing the tile the length of the apparatus, and connecting the inlet and outlet A G with the line of tiles above and below, and packing the upper connection with clay, so the water will not escape, and so it will rise by the ascent of the drain to the height of spout C.

The wheel D has its shaft H mounted with bearings in box F, so as to turn freely. This shaft has a crank, I, from which a rod, K, reaches up to pump-handle L, to operate it by the turning of the wheel. The pump M is operated by this handle, and discharges water by spout N, from which it is led away for use.

The pump is made of size for the wheel to operate, and the wheel and stand-pipe are made of size proper to the available head of water and the needs; usually one to two feet high will do.

The whole apparatus is simple, and is inclosed under ground secure from frost. The top of pump is inclosed in winter in a packing of straw or other protection to prevent freezing. When sediment collects in the stand-pipe, or when the pump is not wished to operate, the gate P is drawn up, so as to let the water pass freely. This quickly cleans out all sediment.

I claim—

1. The line of under-drain, combined with a chamber set into it so the water will pass through, and with an inclosed wheel and pump to be operated by the water, substantially as set forth.

2. The combination of a line of under-drain, A G, a chamber, F, wheel D, stand-pipe B, gate P, and pump M, arranged substantially as set forth.

3. The line of under-drain, provided with stand-pipe B, and an underground wheel and pump, to be operated by the water, substantially as set forth.

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