

T. A. E. Evans,

Horse Power.

No. 113,410.

Patented Apr. 4, 1877.

Fig. 1.

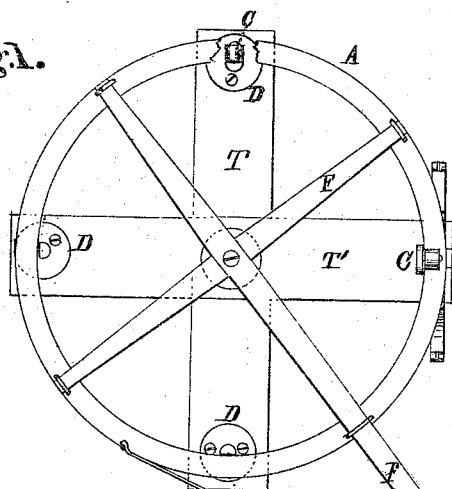
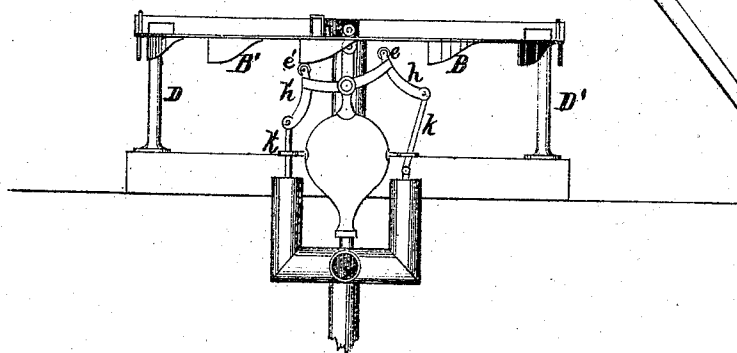


Fig. 2.



Witnesses.

Chas. Henry on,
Village Anderson

Inventor.

T. A. E. Evans,
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Attys

United States Patent Office.

THOMAS ADDIS EMMET EVANS, OF ALBANY, GEORGIA.

Letters Patent No. 113,410, dated April, 4, 1871.

IMPROVEMENT IN HORSE-POWERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THOMAS ADDIS EMMET EVANS, of Albany, in the county of Dougherty and State of Georgia, have invented a new and valuable Improvement in Horse-Power for Pumping Water; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a top view of my horse-pump.

Figure 2 is a view showing the application of the power.

This invention relates to improvements in horse-powers for the purpose of operating pumps, the object being to provide a machine for that purpose simple in construction and efficacious in operation.

Referring to the drawing—

The sills Y and Y' are crossed at right angles, and let into each other, so that their upper and under surfaces are in the same plane, and from their outer ends and center project the vertical supports represented by D and G.

The supports D on the sill Y', and the two supports on the other sill, have pivoted to the sides of their upper ends rollers C, upon which rests and moves the rim of the driving-wheel A.

The support G on the center of the sills has on its upper end a vertical pivot, on which turns the lever F and cross-bar F'.

The lever and cross-bar aforesaid are attached to the rim of the driving-wheel by suitable means, and the lever may have a draft-rod connecting its projecting end with the rim of the driving-wheel, as shown.

One of the supports, D, extends around and above the inner edge of the driving-wheel, and is provided, on a pivot, with a roller, C', that acts as a guide on the upper side of the driving-wheel; it also supports by a suitable bearing a pivot, upon which turns the beam or double lever h k'.

The beam h k' is elbowed and provided with rollers at E and E', and is pivoted, at its extremities, to the connecting-rods k and k', which are pivoted to the pistons of the pump.

On the under side of the rim of the driving-wheel, near its outer edge, are attached the cast-iron cams B, at proper intervals. These cams are of the triangular shape shown, being so placed and having their lower edges so shaped that when the driving-wheel is in motion they successively strike and pass over the rollers E and E' on the angles of the beam h k', and thereby impart to the beam an alternate, reverse, vertical motion, which, by means of the connecting-rods k and k', is transmitted to the piston-rods of the pump.

A wheel may be attached to the outer end of the lever F, which is connected with the power, to serve as a support to the lever and as a kind of a balance-wheel.

The size of the driving-wheel and the number of cams may be increased or diminished, as circumstances require.

Thus constructed, arranged, and combined, the devices described form a novel machine for operating a pump by animal power, and a machine that presents superior advantages for that purpose.

I claim as my invention—

The combination of the lever F, driving-wheel A having cams B, supports D having rollers C and C', beam h k' having angles and rollers E, all constructed and arranged, substantially as and for the purposes set forth, upon a suitable base, Y Y'.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS ADDIS EMMET EVANS.

Witnesses:

JAMES W. KEMP,
WM. E. SMITH.