

W. H. GENUNG.

Improvement in Pumps for Deep Wells.

No. 129,220.

Patented July 16, 1872.

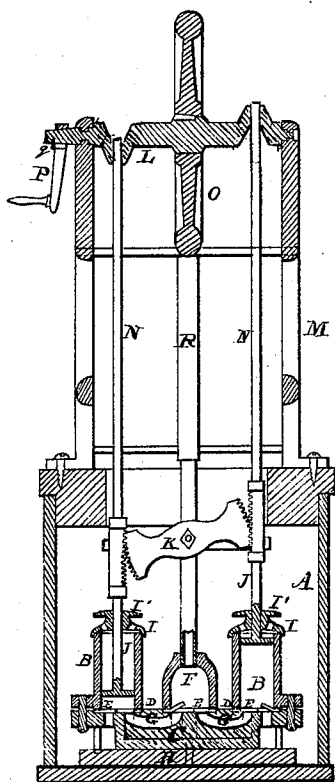


Fig 1.

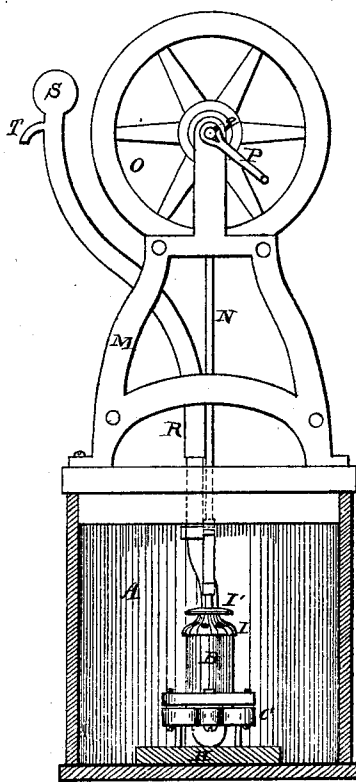


Fig 2.

WITNESS.

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IMPROVEMENT IN PUMPS FOR DEEP WELLS.

Specification forming part of Letters Patent No. 129,220, dated July 16, 1872.

SPECIFICATION.

I, WILLIAM H. GENUNG, of Madison, Lake county, State of Ohio, have invented certain new and useful Improvements in Pumps for Deep Wells, of which the following is a specification:

This invention relates to an improved manner of anchoring or securing the pumps in the bottom of the well; in the manner of securing the packing between the lower end of the pump-barrel and the base-plate; in the construction and arrangement of an oscillating guide-bar between the piston-rods above the pump-barrels, to give a direct motion to the said rods; also in the manner of securing the crank on the crank-shaft.

Referring to the drawing, Figure 1 is a vertical section of the pumps and accompanying parts above mentioned. Fig. 2 is a transverse side elevation of the same.

A represents a well. B B are pump-barrels setting on a base-plate, C, and are secured to it by bolts. In the lower end or edge of said barrels is made an annular groove, D, for the purpose of aiding in holding the packing E in place; there also being a recess in the plate C to receive the packing and the barrel. The packing cannot, therefore, be pressed outward. Between the pump-barrels stands a dome, F, the chamber of which is connected with the barrels by passages G G in the base-plate C. To the said base-plate C is secured by bolts a stone base, H, which forms a firm foundation for the pumps to rest upon. The barrels B B are provided with caps or covers I I, firmly fitted to them, through which the piston-rods J J pass; these are to give steadiness to the piston-rods. The covers have holes through them for the admission of air or water in case the pumps are submerged, and have a disk, I', over the holes to keep out stones or coarse dirt. Between the piston-rods above the bar-

rels B B is arranged an oscillating lever, K, pivoted at the center to a support attached to the pipe standing above the dome F, or to any other suitable support. On the ends of said lever K are segments of gear which play in straight gears attached to the piston-rods J J. The said straight gears play in slides on the support, and are connected to the crank-shaft L, arranged in the frame M, at the top of the well, by connecting-rods N N. By this arrangement the pull of one connecting-rod relieves the push of the other, so that the pumps are operated by the drawing of the connecting-rods. The cranks in the crank-shaft are opposite each other, so that the pumps work alternately. There is also a balance-wheel on the crank-shaft. The crank-handle P is attached in an improved manner. The shaft where the handle goes on is made tapering, and has a lug or pin, q, in one side, the crank-eye having a slot which slips over the lug, the outside face of the said crank having an incline surface, so that when the crank-handle is turned a little it will bind and hold the handle firmly in place, and also permits the handle to be taken off with ease, if desired. There are no nuts or loose pins or parts to get lost. A pipe, R, leads from the chamber F upward, through which the water is forced from the well, and is provided with an air-chamber, S, at the top, and an outlet, T.

Having thus described my invention, I claim—

The toothed segment K, centrally pivoted, in combination with the straight rack-gears, fitted in slides, the piston-rods J, connecting-rods N N, and means for operating them, all substantially as herein set forth.

WM. H. GENUNG.

Witnesses:

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D. HERBERT ROE.