W. L. PAYNE.

Well Augers.

No. 143,181. Patented September 23, 1873.

Fig. 1.

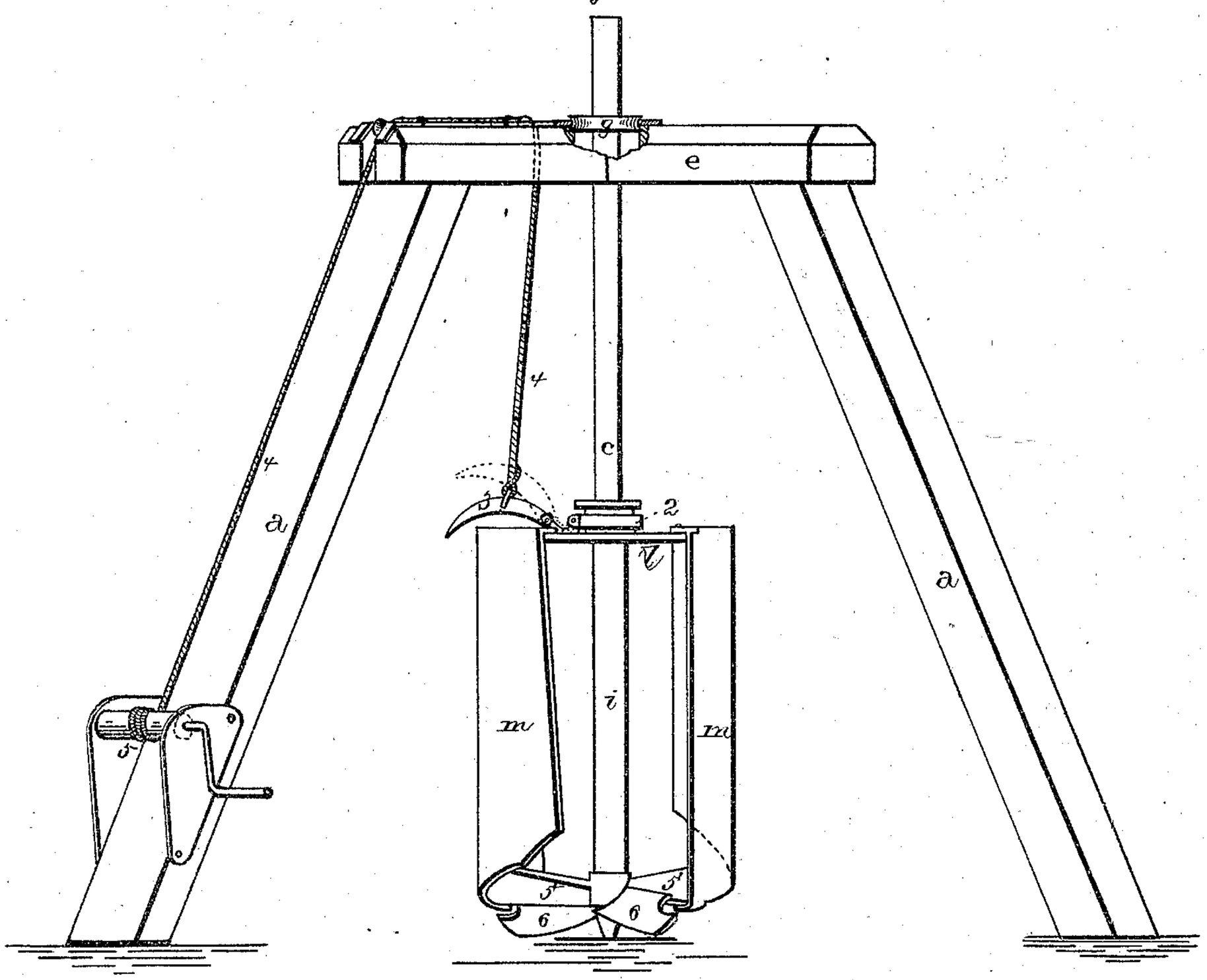
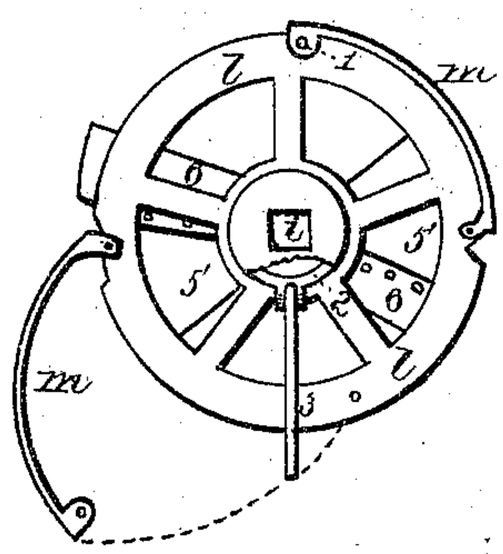


Fig. 2.



WITNESSES.

Wm Johnson.
H. F. Keasbey.

INVENTOR.

Wm. L. Payne
per
J. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

WILLIAM L. PAYNE, OF TOPEKA, KANSAS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN G. SEARLE, OF SAME PLACE.

IMPROVEMENT IN WELL-AUGERS.

Specification forming part of Letters Patent No. **143,181**, dated September 23, 1873; application filed August 7, 1873.

To all whom it may concern:

Be it known that I, WM. L. PAYNE, of Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Well-Augers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in well-augers; and it consists in the arrangement and combination of parts which will be more fully described hereafter.

The accompanying drawings represent my invention. *a* represents a derrick of any suitable construction, which is placed above the spot where the well is to be dug. Passing down into the well is a solid shaft, *c*, having its upper end held and steadied in position by the cross-braces *e* at the top of the derrick, in which is placed a grooved wheel, *g*, which allows the shaft to be freely revolved. Passing over this shaft by means of the square tube *i*, which extends up through its center, is the auger, which is provided with pods or doors *m*, hinged at top and bottom, and held closed by the pins 1, or any other suitable devices, and which can be swung freely back, so as to discharge the earth after it has been drawn to the top. The frame of the auger, to which the doors are secured, consists of a circular plate, *l*, secured to the top of the square tube *i* and the transverse arms 5, to which the cutters 6 are secured. The shaft remains in the well until it is completed, and serves as a guide, upon which the auger is raised and lowered, and to force the auger into the earth. Around the top of the tube, which extends above the top of the auger, is placed the loose collar 2, which revolves freely around it, and to which is pivoted the arm 3, to which the elevating-rope 4 is secured. This arm consists of a metal bar, which drags down the side of the well, and prevents the collar from turning with the auger, and thereby prevents the rope from wrapping around the shaft as it is revolved. The elevating-rope has one end secured to the arm, by which the auger is raised and lowered, and then passes up over the pulleys in the cross-braces, and has its other end secured to the windlass 5. Power being applied to the shaft through any suitable devices, so as to cause it to revolve, turns the auger with it and forces it into the earth.

Having described my invention, I claim—

The auger *l* having the hinged doors *m*, square tube *i*, through which the shaft *c* passes, collar 2, and arm 3, the parts being combined for operation substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of July, 1873.

WM. L. PAYNE.

Witnesses:

WILLIAM T. BARR,

W. G. KENDIG.