

W. E. Smith.

Earth Auger.

N^o 36,376.

Patented Sept. 2, 1862.

Fig. 1.

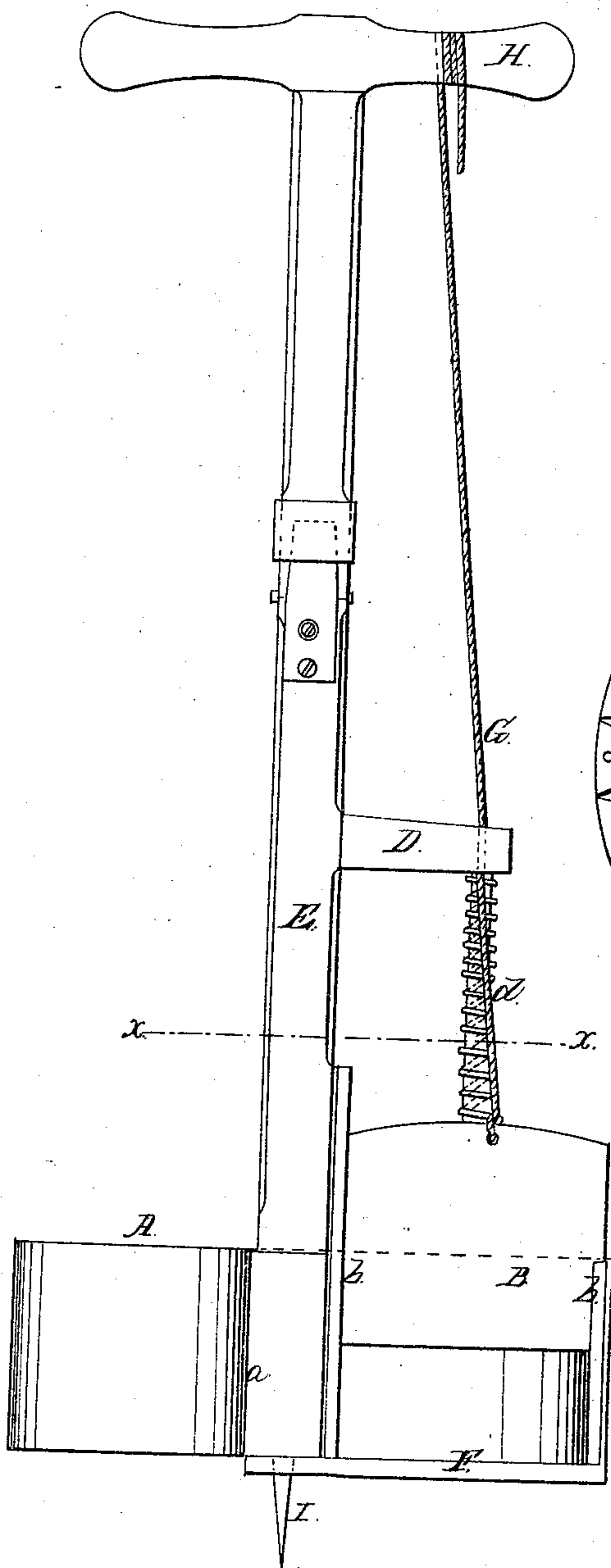
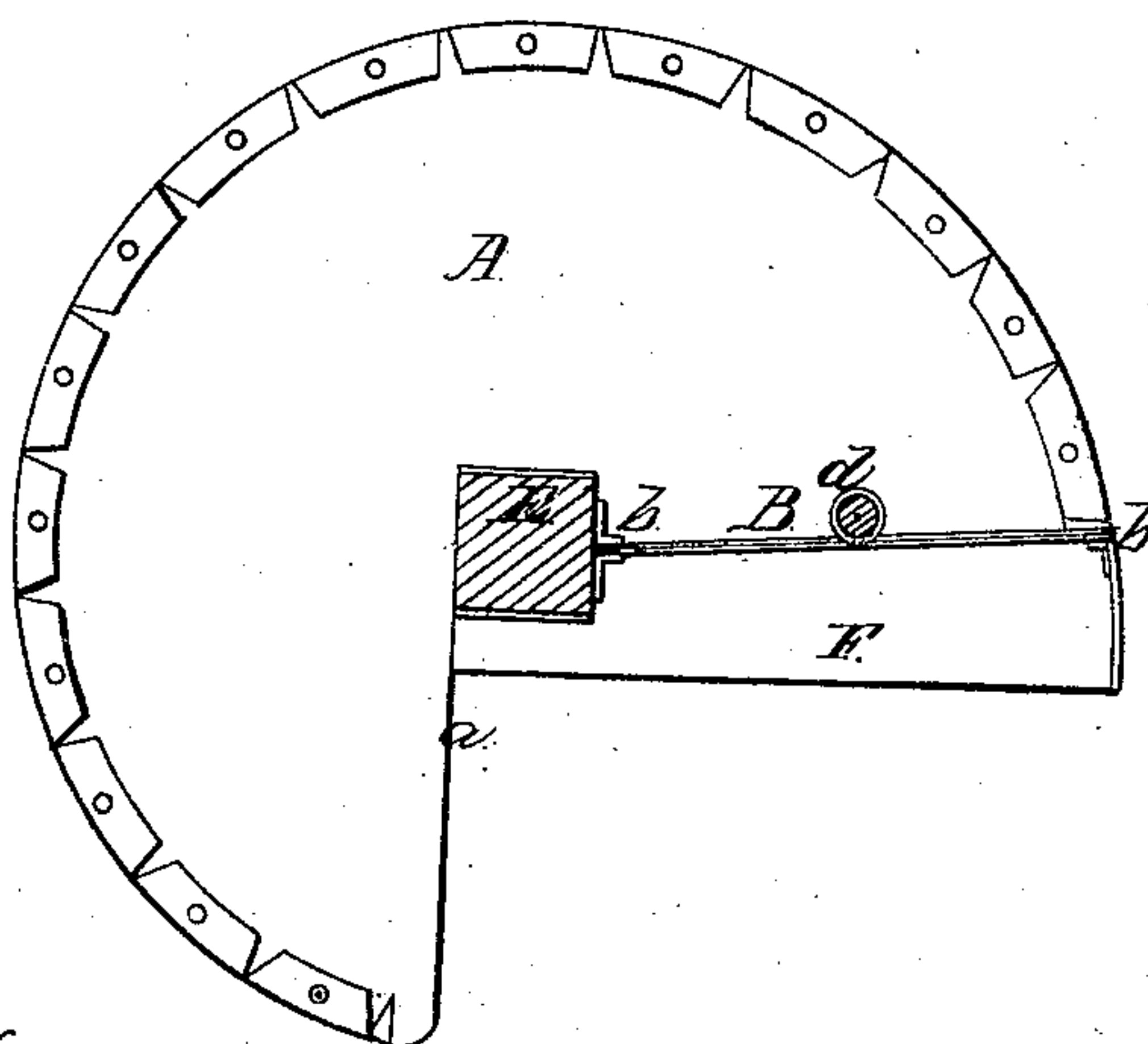


Fig. 2.



Witnesses,
J. C. Gould,
C. W. Reed

Inventor;
Wm. E. Smith
per Munroe & Co.
attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM E. SMITH, OF PORT WASHINGTON, WISCONSIN.

IMPROVEMENT IN APPARATUS FOR CLEANING WELLS.

Specification forming part of Letters Patent No. 36,375, dated September 2, 1862.

To all whom it may concern:

Be it known that I, WILLIAM E. SMITH, of Port Washington, in the county of Ozaukee and State of Wisconsin, have invented a new and useful Device for Cleaning Wells; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of my invention; Fig. 2, a horizontal section of the same taken in the line *x x*, Fig. 1.

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

The object of this invention is to obtain a simple and efficient device by which wells may be thoroughly cleaned without persons descending into them, and thereby avoid much hard and disagreeable labor, and accidents which frequently occur in consequence of inhaling the poisonous gases within them.

To this end the invention consists in the employment or use of a box provided with a shovel or scraper and a gate, said box being attached to the lower end of an extension-shaft, and all arranged substantially as hereinafter fully shown and described.

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

A represents a box, which may be constructed of sheet metal and of scroll form with a section removed, so as to form a recess the ends of which extend from the center of the scroll at right angles. One end or side of this recess is permanently closed, as shown at *a*, while the opposite end is open and has a gate, B, fitted in it which may be raised and lowered at the will of the operator, said gate being fitted in grooves or guides *b b*, and connected to a vertical rod, C, by a spiral spring, *d*, said spring having a tendency to keep the gate B closed. The rod C is connected at its lower end to the top of the box A, and at its upper end to an arm, D, which projects horizontally from a shaft, E, to the lower end of which the box A is secured.

The bottom of the box A, at its open end

below the gate B, has a shovel or scraper, F, attached, which is inclined a trifle downward and extends across the whole width of the opening, and the gate B has a cord, G, attached to it which extends upward to the top of the shaft E, and is connected to a cross-bar or handle, H, thereon, as shown in Fig. 1. The shaft E is at the inner end or angle of the recess formed by the two ends of the box A, and to the bottom of the box A and in line with the center of the shaft E there is attached a pendent spur, I. (Shown in Fig. 1.)

The operation is as follows: The box A is let down into the well, and the shaft E, which is formed in sections connected by joints, extended so that its upper end will be above the top of the well and the handle H at a convenient height for the operator to turn. The gate B is then raised and secured in that state by attaching the upper end of the cord G to the handle H. The shaft E and box A are then turned, the spur I forming a center for the box and keeping it in proper position. As the box A is turned the shovel or scraper F scrapes up the mud, which is forced into the box, and when the latter is filled the cord G is released from the handle H, and the gate B is closed under the action of the spring *d*. The box is then raised, emptied of its contents, and the operation repeated until the well is cleaned. Thus, by this simple contrivance, the use of the bucket and windlass is dispensed with—a comparatively slow mode of cleaning a well, and one which involves the necessity of a person descending into the well in order to fill the bucket.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The box, A attached to the extension-shaft E, and provided with the shovel or scraper F, spur I, and gate B, all combined and arranged to form a new and useful article or device, for the purpose specified.

WILLIAM E. SMITH.

Witnesses:

B. C. HOYT,
W. F. FISHER.