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J. Overall,

Boring Artesian Wells.

Patented Apr. 23, 1830.

NO PRINTED COPY OF SPECIFICATION IN OFFICE.

Fig. 1

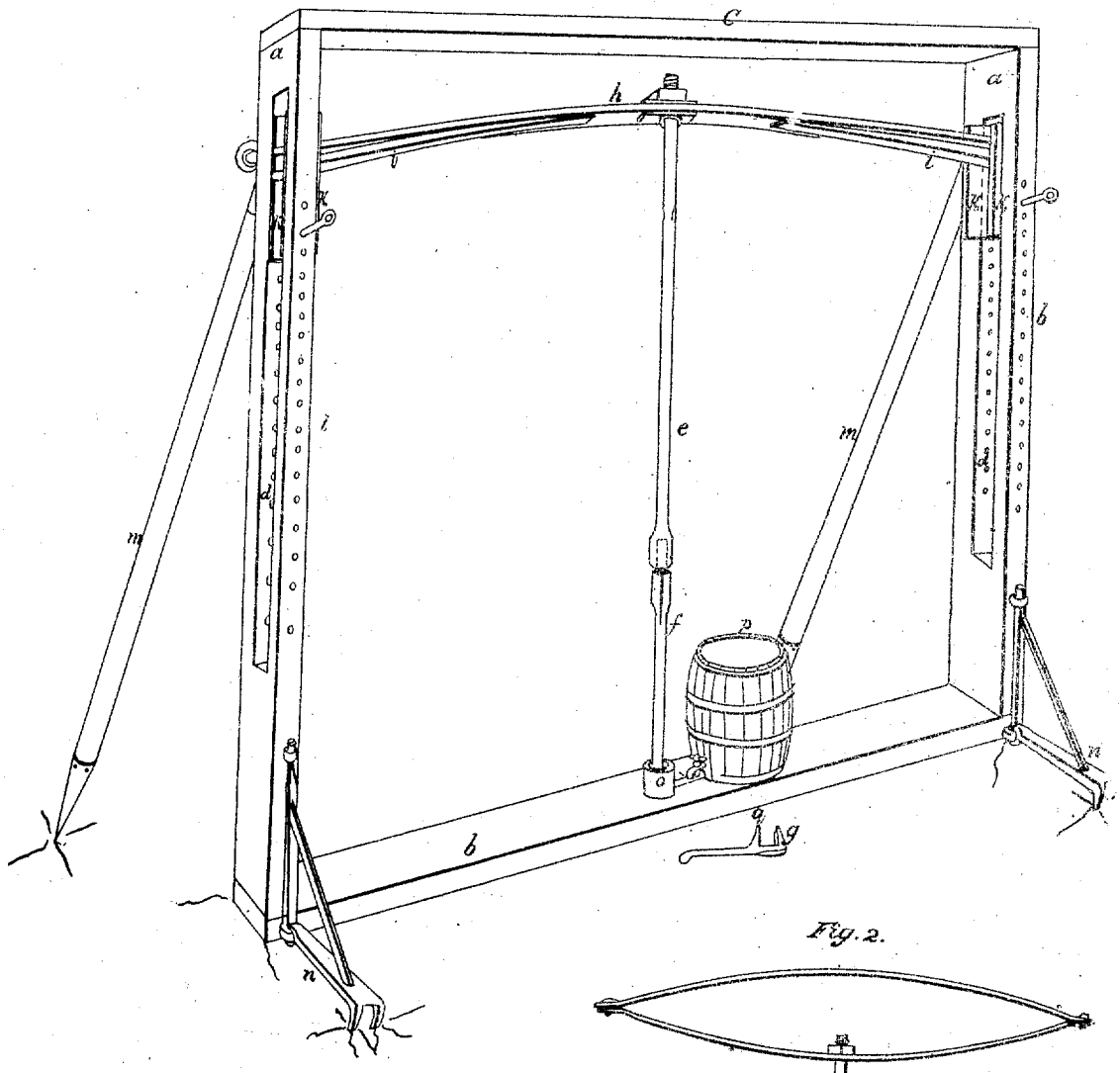


Fig. 2.

X5432 Dec 13 1850 467

Lionel Berrall et Brigham

Letters Patent.

The Schedule to these Letters Patent, and making part of the same containing a description in the words of the said Lionel Berrall, himself of his improvement in the Machine for boring holes in Rocks.

Be it known that I Lionel Berrall of Liberty, Smith County, West Tennessee, have made an improvement in the Machine for boring holes in rocks; which is described as follows.

This Machine consists of the following principal parts, 1 the frame 2 the auger & driver. — 3 the springs. & the side & bottom supports.

1 The Frame is constructed by framing together two posts about 7 feet high, & about 4 by 3 inches thick, more or less. the sill being about 7 feet wide, & of the same thickness as the posts, in the two posts & within about one foot of the top, are made two Mortises about one inch wide & 3½ feet long, to admit the side springs to be hereafter described.

2. The auger & driver. The driver is about 4 feet long, made of round wrought iron, having a screw & nut on the top, & a female screw to receive the auger. The auger or bit is about 3 feet long & made in the usual way, but the top of the auger is a screw by which it is united to the driver, by means of a square collar & the use of a wrench to screw it to the driver.

3. The springs. The top spring is made of wood about six feet long & of sufficient strength for the purpose intended; this spring is fastened to the top of the driver by the nut & screw before mentioned, in the centre of this spring are two iron plates, one above & the other below to prevent it from wearing. This spring may be of a spiral or any other form. The side springs are also made of wood, placed under the ends of the top springs, & are connected with four guides, two on each side of the frames, & work up & down in the side Mortises before mentioned, which are supported at proper heights by pins put into the holes in the

Dec 13 1850

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the side pieces, or traversing feathers, springs connected together with a curved, similar to Lever springs  with a screw and passing through two cap pieces, in the top of spring, sustained by nuts & screws, the auger is attached to the lower spring by screw & nut & regulated by a pin passing thro' the inner rod. The former two springs may be applied to any improvement already patented. 4th. Top & bottom supports. There are two top supports about 9 feet high of proper dimensions, the lower points fixed with iron to lay hold of the ground. They are suspended by hinges or joints from the side pieces near the top. The bottom support to be made of iron or wood, with points to lay hold of the ground. A guide, having an opening in it, is let into the sill, thro' which the auger passes, & which keeps it in a proper direction whilst boring. In the upper surface of the bore sill is a vessel containing water which is conducted to the opening thro' the sill. Operation. The machine is placed over the hole to be bored, & the auger & inner part in the direction in which the hole is intended to be bored. The top & bottom supports to be made to bear solidly. The auger is brought thro' the guide in the sill, & the boring commenced; the top & side springs, supporting much of the weight of the inner auger or bit.—

What I claim as my invention, & wish to secure by Patent, is the construction of the whole of the above described machine; except the auger or bit. For a further illustration of my invention, I refer to the Model & drawing of the same deposited in the Patent Office.

In Testimony that the foregoing is a true Specification of my invention, I have made oath to the same & subscribed my name before two Witnesses at the City of Washington this 8th day of April 1830.

Witnesses
Wm. B. Elliot
Thomas Sherlock

Jarvis Barnes

(Patent dated April 8, 1830)