# Ramsey & Smith,

## Pile Driver.

No. 90,786. Patented June 1. 1869.

Fig. 3.

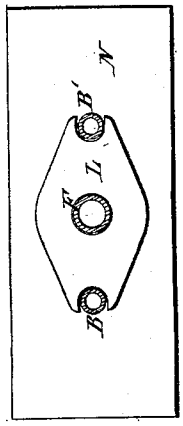



Fig. 1.

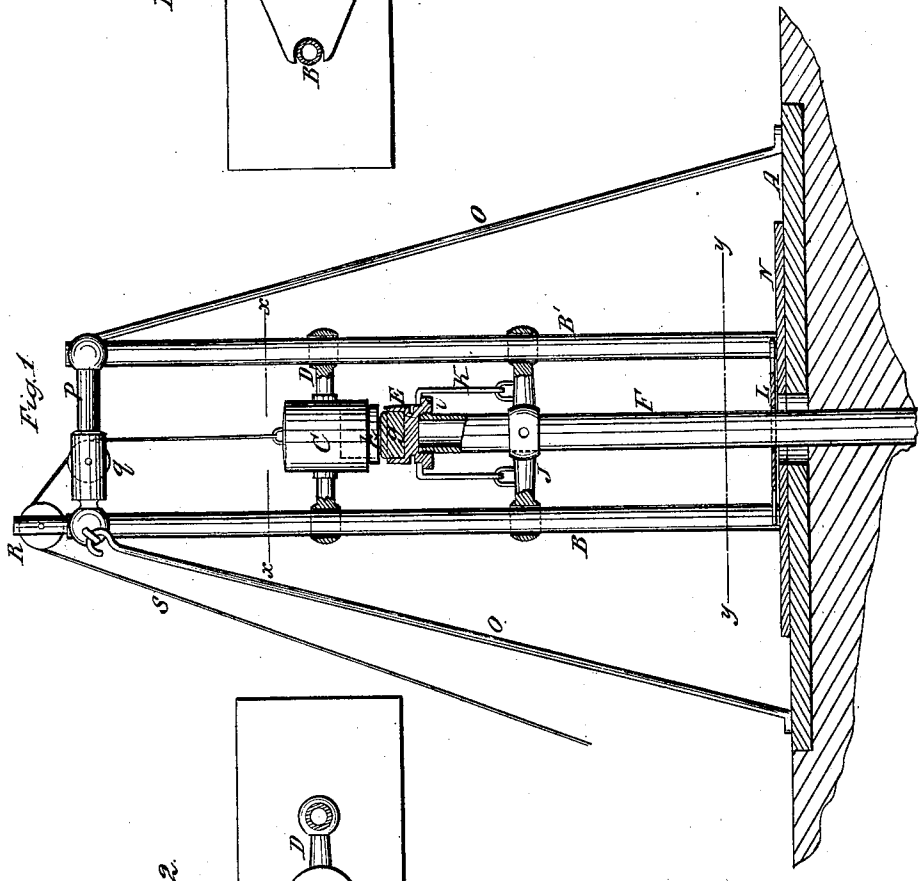
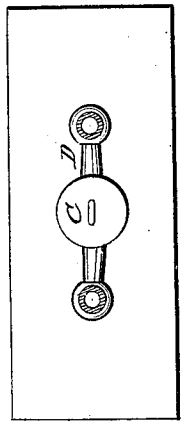



Fig. 2.




Witnesses.
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# United States Patent Office.

L. M. RUMSEY AND W. P. SMITH, OF ST. LOUIS, MISSOURI.

*Letters Patent No.* 90,786, *dated June* 1, 1869.

## IMPROVEMENT IN PIPE-DRIVER.

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

*To all whom it may concern:*

Be it known that we, L. M. RUMSEY and W. P. SMITH, of St. Louis, in the county of St. Louis, and State of Missouri, have invented a new and useful Improvement in Well-Pipe Driver; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to important improvements in machines for driving pipe, in the process of constructing "drive-wells," for obtaining water, and for other purposes of a similar nature; and

It consists in the construction and arrangement of the parts of the machine, as hereinafter described.

In the accompanying plate of drawings—

Figure 1 represents an elevation of the driver, partly in section.

Figure 2 is a detached view of the drop, or hammer, looking from the line *x x* of fig. 1.

Figure 3 is a view of the base-guide, detached, looking from the line *y y* of fig. 1.

Similar letters of reference indicate corresponding parts.

A is the foundation, or platform by which the machine is supported.

B B′ represent two uprights, supported on the platform, which form ways, or guides for the cross-head of the hammer, and also for the follower.

C is the drop-hammer, which is guided on the ways B B′ by the cross-head D.

E represents the drive-head, which is connected with the pipe-guide F.

This head is provided with a chamber, which is filled with wood, as seen at *g*, to receive the blow of the hammer, the face of which hammer is also of wood, as seen at *h*.

*i* is a collar on the drive-head.

J is the follower, through which the pipe-guide F passes.

The follower is a cross-head, guided by the uprights, the same as D.

K is a stirrup, which is attached to the follower by staples, or shank-eyes, as seen in the drawing.

This stirrup, at its top end, is a plate, with an orifice sufficiently large to admit the top of the drive-head, so that the plate of the stirrup rests on the collar *i*, as seen.

L is the base-plate, (seen in fig. 3,) through which the pipe passes, and by which the pipe is guided.

This guide-plate L is held in position by the uprights, and rests loosely on the bed-plate N, which is secured to the foundation A.

O O represent braces, or stay-rods, (two or more in number,) which are attached to the transverse cap-piece P and to the foundation of the machine.

This cap-piece has a mortise, in which there is a pulley, as seen at *q*, in dotted lines, and the upper end of the upright guide B is also provided with a pulley, as seen at R.

S is the rope which is attached to the hammer, and passes over these pulleys, as seen in the drawing.

Instead of wood in the top of the drive-head, and for the face of the drop, or hammer, any other suitable yielding substance may be used.

The plate L keeps the pipe in an upright position when being driven, while the upper end of the guide-pipe F is held in position by the follower and stirrup.

We claim as new, and desire to secure by Letters Patent—

The stirrup K, in combination with the follower J and adjustable drive-head E, provided with an internal screw-thread, to receive the end of the pipe F, as herein described, for the purpose specified.

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W. P. SMITH.

Witnesses:
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M. RUMSEY.