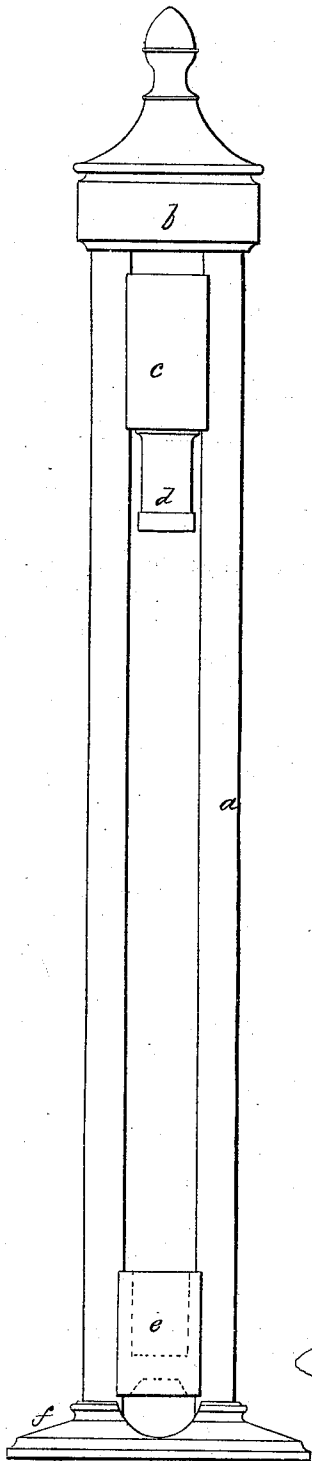


T. Shaw.

Pile Driver.

N^o 104,215.

Patented Juzz. 14, 1870.



Witnesses;

E. Cobb

Elias J. Shaw

Inventor;

Thomas Shaw

United States Patent Office.

THOMAS SHAW, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 104,215, dated June 14, 1870.

IMPROVEMENT IN PILE-DRIVERS.

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

To all whom it may concern :

Be it known that I, THOMAS SHAW, of the city and county of Philadelphia, Pennsylvania, have invented a new and improved Method of Driving Piles; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention consists in providing an air-cushion between the pile and hammer for driving the same, in the manner and for the purpose as hereafter described.

In order to enable others to use and practice my invention, I will proceed to describe its construction and operation.

On reference to the accompanying drawings, which form part of this specification—

The sketch represents a front view of the apparatus, of which *a* is a tube, slotted in the front to form guides for the reception of hammer *c* and cylinder *e*.

The cylinder *e* is bored in its upper end, for the reception of plunger *d*, formed on the lower end of hammer *c*, and is bored in its lower end for the reception of the pile or stick to be driven, as represented by dotted lines.

f is the base for supporting tube *a*, and *b* is an ornamental cap.

The hammer is operated in this wise:

A pile is placed in position beneath the cylinder *e*, and the cylinder is allowed to rest upon the same. The hammer is lifted by any of the ordinary methods of hoisting weights, and is allowed to fall, the plunger entering the cylinder, compressing the air contained therein, and forcing the pile into the ground, by virtue of said pressure, when the hammer is again lifted, and the operation can be repeated.

It is obvious that, by the interposition of the air-cushion, the violence of the shock is mitigated, thereby lessening the liability to crush the head of the pile, while, the force being partially taken up by the compressed air, the blow is given as a push, rather than a stroke.

What I claim, and desire to secure by Letters Patent, is—

In a pile-driver, the employment of an air-chamber, in the manner and for the purpose described.

Witnesses: THOMAS SHAW. [L. s.]

E. COBB,
ELIAS J. SHAW.