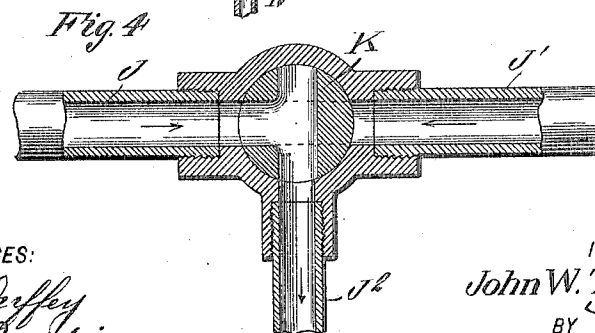
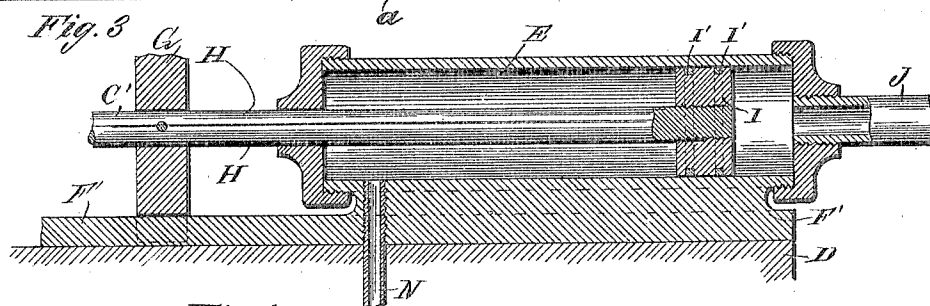
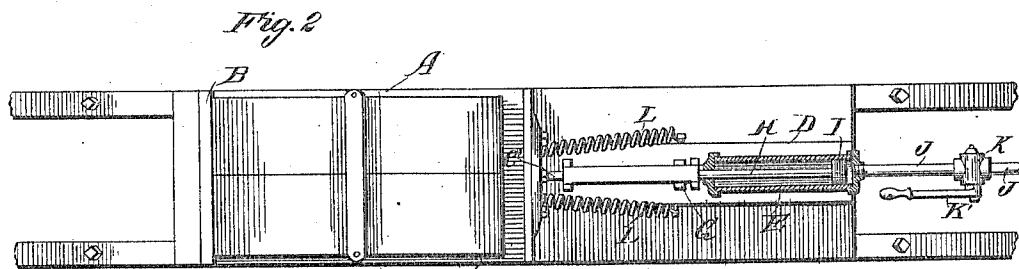
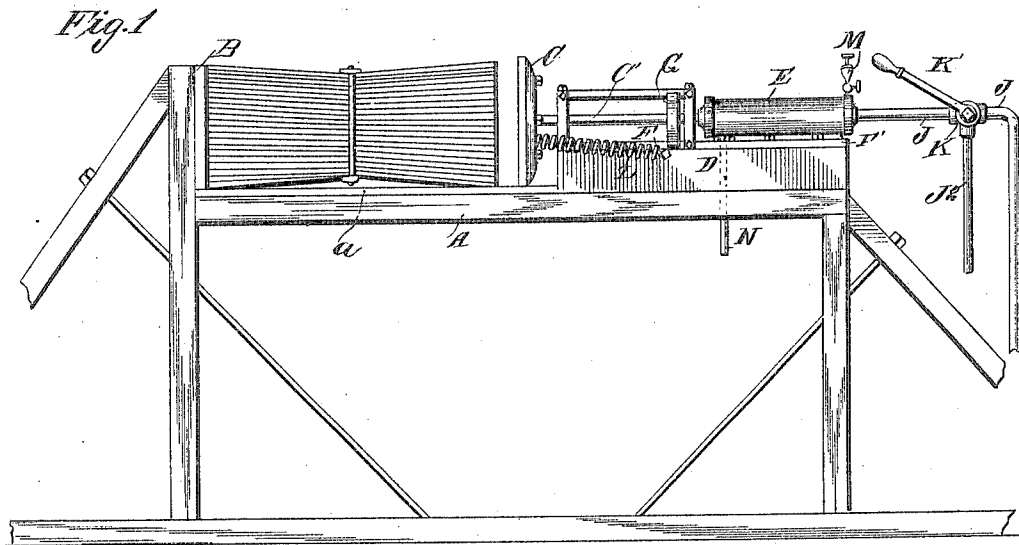


No. 811,456.

PATENTED JAN. 30, 1906.

J. W. THURSTON.  
SHINGLE PRESS.

APPLICATION FILED APR. 23, 1904.



WITNESSES:

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INVENTOR  
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# UNITED STATES PATENT OFFICE.

JOHN WHITTIER THURSTON, OF MAPLE FALLS, WASHINGTON.

## SHINGLE-PRESS.

No. 811,456.

Specification of Letters Patent.

Patented Jan. 30, 1906.

Application filed April 23, 1904. Serial No. 204,537.

*To all whom it may concern:*

Be it known that I, JOHN WHITTIER THURSTON, a citizen of the United States, and a resident of Maple Falls, in the county of Whatcom and State of Washington, have invented certain new and useful Improvements in Shingle-Presses, of which the following is a specification.

My invention is an improvement in shingle-presses, having for an object to provide a novel construction by which to re-press or tighten-up bundles of shingles for shipping after they come from the dry-kiln; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the press as in use. Fig. 2 is a sectional top plan view thereof. Fig. 3 is a detail view illustrating the integral construction of the cylinder and bottom slide for the cross-head, and Fig. 4 is a sectional view illustrating the three-way valve.

By my invention I provide a re-press for operation by steam or other fluid pressure for pressing or tightening up shingles.

In carrying out my invention I provide a frame A, having a cast-iron or other suitable bumper B, against which one end of the bundle of shingles is forced by the follower or plunger C, arranged opposite the bumper B and movable toward and from the said bumper, as will be understood from Figs. 1 and 2 of the drawings.

The frame A is provided with a bed D, on which is mounted a cylinder E and a frame F, in which slides a cross-head G, having a rod C' connecting it with the follower C and a rod H extending into the cylinder E and connected with and arranged for operation by the piston I, operating in said cylinder and preferably made of cold rolled steel packed with two quarter-inch rings I', as shown in the drawings.

The cylinder E and the base-plate F', carrying the lower guides for the cross-head G, are preferably made integral to prevent the cylinder and slides for the cross-head from getting out of alinement under extraordinary pressure.

The rod H extends into one end of the cylinder E and the power-pipe J opens into the other end of said cylinder and has a feed branch J' and an exhaust branch J<sup>2</sup> and is controlled by the three-way cock K, which may be adjusted to conduct steam or other

fluid pressure to the rear end of the cylinder E to secure the power-stroke of the piston or to permit the exhaust of steam from the cylinder on the return movement of the piston after the power-stroke has been effected and the bundle has been properly pressed. The valve K has a handle K', which may be swung a quarter of a revolution to adjust the valve from one position to another, as may be desired, in the operation of the invention.

The power operating on the piston moves the follower C in giving the pressing stroke, and the said follower is returned or retracted by means of springs L, connecting the follower with the framing and operating to draw the follower back away from the pressed bundle when the valve is adjusted to open communication with the exhaust branch J<sup>2</sup>, the follower being thus moved out of the way to permit the removal of the pressed bundle and the insertion of another bundle in its place.

It will be noticed especially from Fig. 1 that the frame A has a seat a for a bundle of shingles, the bumper or back plate B being at one end of said seat, the elevated bed D being at the other end of the seat and supporting the cylinder, cross-head, and guides for same, while the follower C operates above the seat a and against the opposite end of the bundle of shingles from the bumper or back plate B, pressing the bundle of shingles firmly against the back plate in the operation of the machine.

A lubricator-cup M is mounted on the cylinder, and a drip-pipe N connects with the cylinder and operates to permit the escape of any waste steam and water that may pass the packing-rings of the piston.

In practice the frame A may be bolted or otherwise securely held to the floor, and it will be understood that this framing and the other parts of this machine may be made of such material and in such proportions and dimensions as to secure the necessary strength and durability.

In the handling of shingles when loading same upon the cars after coming from the dry-kiln they are so loose that most of the bundles have to be pounded or pressed, a maul being frequently used for the purpose and being objectionable, as many of the shingles are split and broken. The press described enables the bundles to be pressed tightly together without injury to the shingles and also enables me to bundle the shingles

with but a short lap before they are placed in the kiln, and when taken out of the kiln press them up solid, the short lap of the shingles at the middle of the bundles enabling them to  
5 dry out much more rapidly than when a greater lap is made at the middle of the bundles.

The construction is simple, can be easily erected and operated, and will effectively  
10 serve the purpose for which it is designed.

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

15 A machine for re-pressing shingles, consisting of framing having a bumper and having in advance thereof an open seat for the bundle of shingles and, on the opposite side of said seat from the bumper, a cylinder, a follower and a piston operating in the cylinder

and connected with the follower, spring devices for retracting the follower, a pipe leading to the cylinder for conducting steam to and from the cylinder, said pipe having an exhaust branch, and a three-way valve controlling the power-pipe and exhaust branch  
25 all substantially as described, whereby steam may be readily admitted to and exhausted from the cylinder to effect a rapid advance of the follower and a quick return thereof by the retracting-springs whereby the bundle of  
30 shingles may be struck repeatedly by the follower to effect a re-pressing thereof, substantially as set forth.

JOHN WHITTIER THURSTON.

Witnesses:

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