

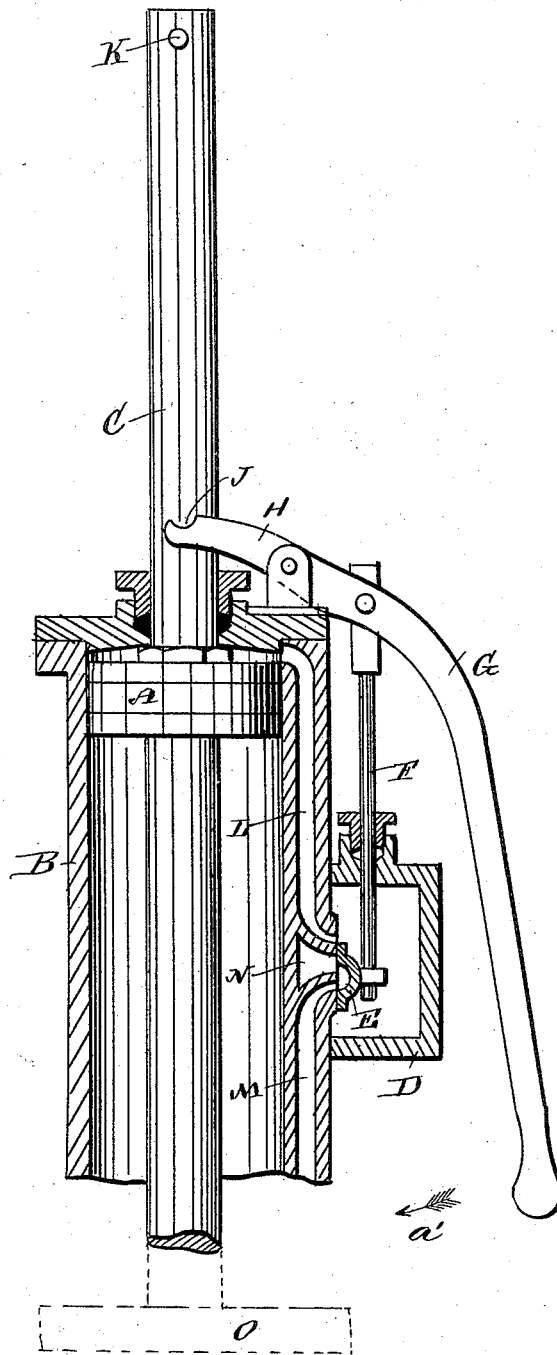
(No Model.)

W. CURTIS.

BLOCK PRESSER FOR PAPER PULP MILLS.

No. 342,072.

Patented May 18, 1886.



WITNESSES:

*Geo. G. Foster*  
*Jno. Mathew Ritter*

INVENTOR:

*W. Curtis*

BY

*Munn & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WARREN CURTIS, OF CORINTH, NEW YORK.

## BLOCK-PRESSER FOR PAPER-PULP MILLS.

SPECIFICATION forming part of Letters Patent No. 342,072, dated May 18, 1886.

Application filed July 25, 1885. Serial No. 172,655. (No model.)

*To all whom it may concern:*

Be it known that I, WARREN CURTIS, of Corinth, in the county of Saratoga and State of New York, have invented a new and Improved Block-Presser for Paper-Pulp Mills, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved block-presser for paper-pulp mills, which is so constructed as to show by means of the projecting piston-rod the position of the block, and to stop the feed automatically when the block is consumed, for the purpose of preventing injury to the plunger or piston and other parts of the machinery.

The invention consists in the construction and combination of parts and details, as will be fully set forth and described hereinafter.

Reference is to be had to the accompanying drawing, forming part of this specification, in which a longitudinal sectional elevation of the mechanism of my improved block-presser is shown.

The piston A works in the cylinder B, and is mounted on the piston-rod C, projecting from both ends of the piston and through the upper end of the cylinder, which end of the cylinder has a stuffing-box, through which the rod passes. On the cylinder a chest, D, is secured, in which an ordinary valve, E, is fitted to slide, the said valve being connected to a rod, F, passed through a stuffing-box in one end of the chest.

The rod F is pivoted to a handle-lever, G, pivoted on one end of the cylinder, and having a part, H, projecting beyond the pivot and at the side of the piston-rod, and the part H is provided at its end with a recess or notch, J, in its upper edge for receiving a pin, K, projecting laterally from the piston-rod at the upper end.

Channels L and M lead from the chest D to the opposite ends of the cylinder, and between the inner ends of said channels an exhaust-channel, N, is formed. The presser-head or plunger O (shown in dotted lines) is secured on the lower end of the piston-rod.

The operation is as follows: When the piston A is at the upper or outer end of the cylinder, the piston-rod C projects from the said end of the cylinder and shows the relative

positions of the piston-rod, presser-head, or plunger. The lower end of the lever G is pressed by the hand of the operator in the direction of the arrow *a'*, to bring the valve E into the position shown, so as to permit the water, steam, or compressed air to pass through the channel L into the upper or outer end of the cylinder and force the piston A downward, whereby the block of wood is pressed against the guiding-stone by the presser-head or plunger. As the block of wood is consumed, the piston or piston-rod and plunger move down, and by observing the projecting part of the rod the part of the block of wood consumed is made known. When the entire block has been consumed, the piston-rod has been moved down to such an extent that the pin K strikes the upper end, H, of the lever G, the pin K passing into the notch J, and thereby the lever G is moved in the inverse direction of the arrow *a'*, and the valve E is shifted to shut the water, steam, or compressed air off from either channel L or M, and the piston-rod and plunger are at a standstill. The plunger or presser-head is thus held close to the grindstone, which is prevented from grinding off the plunger, which it would do if the piston A had not been stopped by shutting off the steam, water, or compressed air. The lever G is then moved by hand farther in the inverse direction of the arrow *a'*, to shift the valve E in such a manner that the steam, water, or compressed air can pass through the channel M to the lower end of the cylinder and force the piston upward. When the piston is raised, the lever G is moved in the direction of the arrow *a'* to bring the valve E into the position shown, so as to permit the water, steam, or compressed air to pass through the channel L to the upper end of the cylinder and force down the piston, a fresh block of wood having been placed between the plunger and the stone.

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

1. The combination, with a cylinder, of a piston in the same, a piston-rod on which the piston is mounted, the upper end of the piston-rod projecting through the upper end of the cylinder, and of a plunger or presser-head on the lower end of the piston-rod, substantially as herein shown and described.

2. The combination, with a cylinder, of a piston in the same, a rod on which the piston is mounted, the said rod projecting through the upper end of the cylinder, a plunger or presser-head on the lower end of the piston-rod, a lateral projection on the upper end of the rod, and a lever connected with a valve for regulating the admission of steam, water, or compressed air into the cylinder, substantially as herein shown and described.

3. The combination, with the cylinder B, of

the piston-rod C, the piston A on the same within the cylinder, a plunger or presser-head on the lower end of the piston-rod, the projection K on the upper end of the rod C, the lever G, having a notch, J, and the valve E, connected with the lever G, substantially as herein shown and described.

WARREN CURTIS.

Witnesses:

A. L. PARMENTER,  
R. P. BLOSS.