

(No Model.)

2 Sheets—Sheet 1.

W. O'BRIEN.

ATTACHMENT FOR THE FILLING MOTIONS OF LOOMS.

No. 470,253.

Patented Mar. 8, 1892.

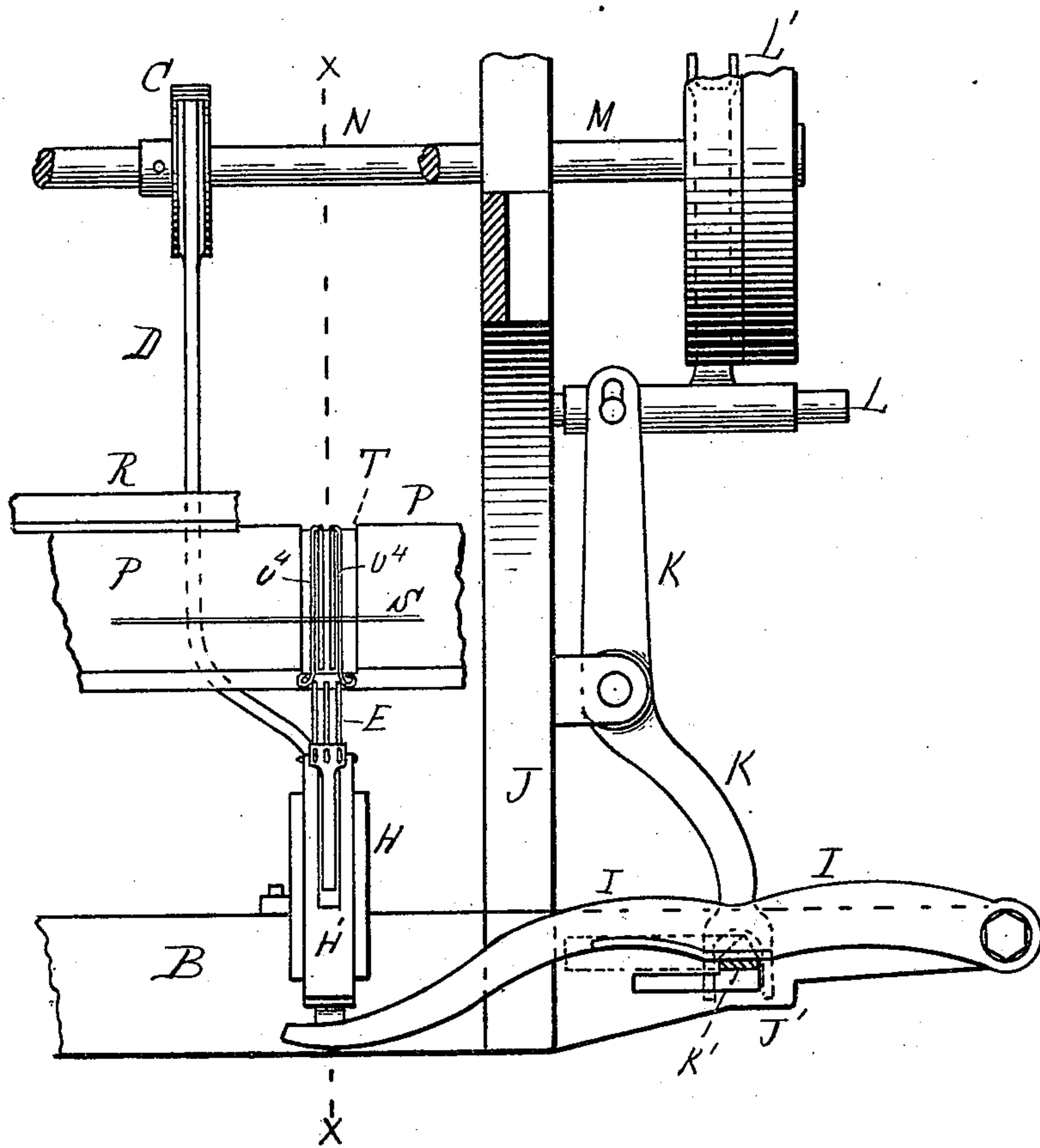


FIG. 1.

WITNESSES.

*J. M. Hartnett,*  
*B. M. Williams*

INVENTOR

*William O'Brien*  
By his Atty  
*Henry W. Williams*

(No Model.)

2 Sheets—Sheet 2.

W. O'BRIEN.

ATTACHMENT FOR THE FILLING MOTIONS OF LOOMS.

No. 470,253.

Patented Mar. 8, 1892.

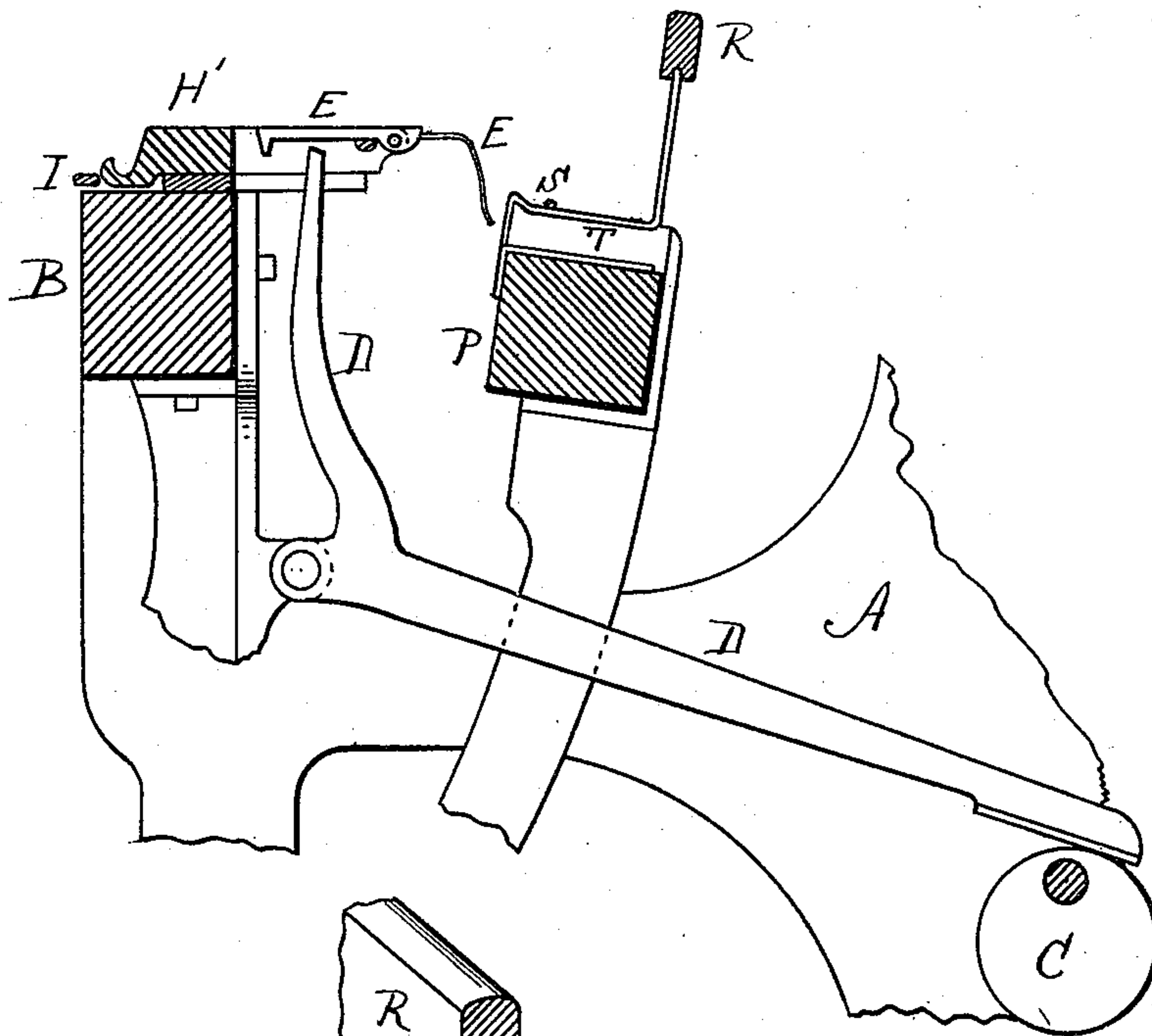


Fig. 2.

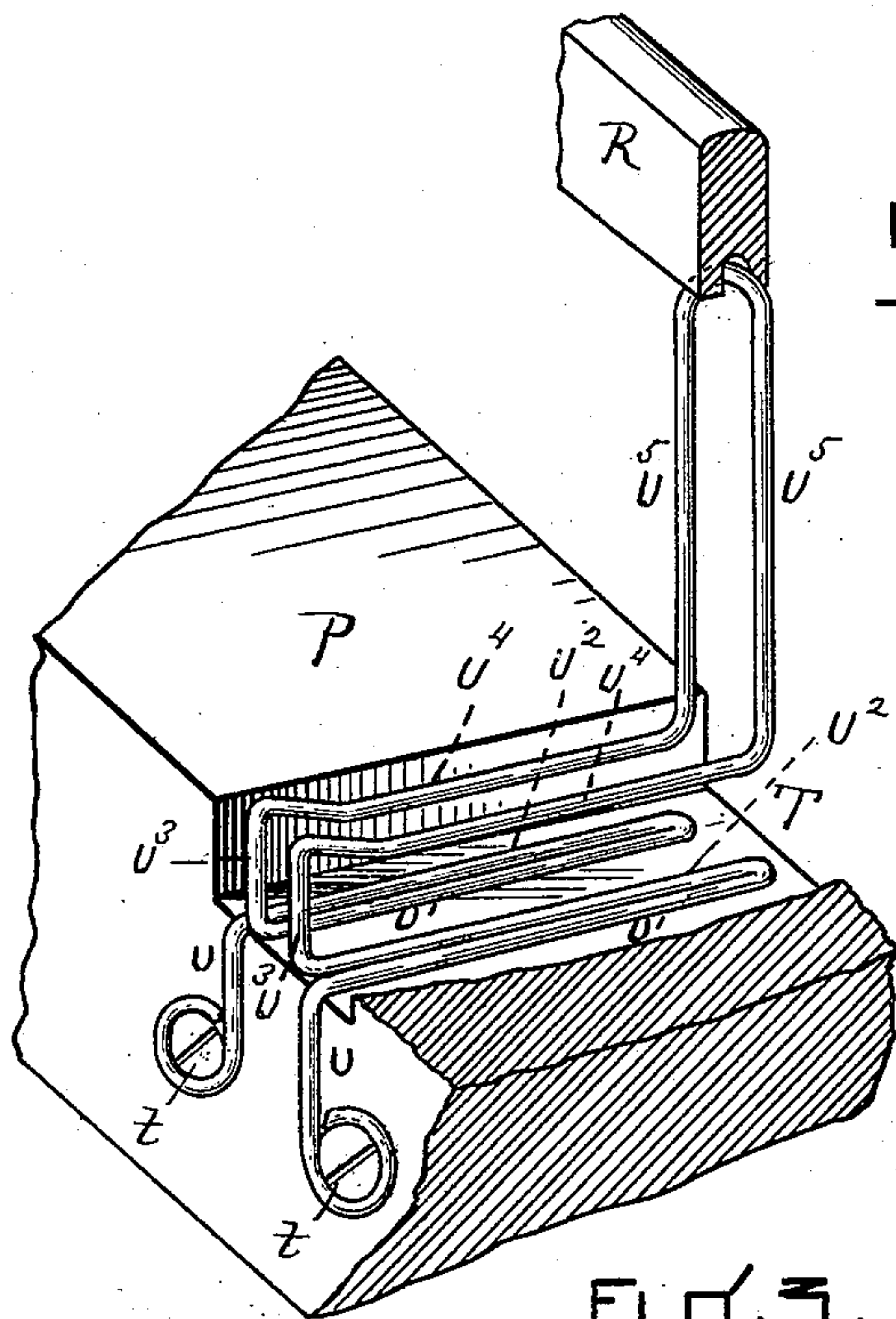


Fig. 3.

WITNESSES

J. M. Hartnett  
B. M. Williams

INVENTOR

William O'Brien  
By his Atty.  
Sherry Williams



# UNITED STATES PATENT OFFICE.

WILLIAM O'BRIEN, OF TAUNTON, MASSACHUSETTS.

## ATTACHMENT FOR THE FILLING MOTIONS OF LOOMS.

SPECIFICATION forming part of Letters Patent No. 470,253, dated March 8, 1892.

Application filed September 19, 1891. Serial No. 406,180. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM O'BRIEN, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Attachment for the Filling Motions of Looms, of which the following is a specification.

This is an attachment or device made integral with and comprising the weft-grate and applied to the lathe so that it lies within the crease, practically filling it, the object being to effectually prevent the thread or filling from falling into said crease or getting under the end of the fork. The device prevents the filling from catching under the fork, thus doing away with dirty selvages and giving the fork a better and more uniform lift; hence allowing the loom to run when it would otherwise stop. The fork need not be filed to cause it to lift, but will lift as well or better if it is perfectly smooth.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a plan view of a portion of a loom with my attachment applied. Fig. 2 is a section on line  $x$ , Fig. 1. Fig. 3 is an enlarged perspective showing the attachment in position.

In the drawings, A represents a portion of the frame.

B is the beam.

C is a cam operating the fork-lever D, which operates the weft-fork E in the box H, of which H' is the sliding portion pushing the lever I, pivoted to the extension J' on the frame J.

K is the shipping-lever, bifurcated at one end and straddling and operating the belt-shipper K', the lever K being pivotally secured at its other end to the shipper L, which ships the belt L' from the fast to the loose pulley, and vice versa.

M is the main shaft, actuating the cam-shaft N.

P is the lathe.

R is the reed-rail, and S is the thread.

All of the above-described parts are constructed and operate as usual, are well known, and need no further detailed description.

T is the crease. My attachment, which is intended to practically fill this crease so that no thread can fall into it, has its ends screwed at  $t$  to the front of the lathe P. From these points it extends up in two vertical parts U, constructed of wire, bends into two horizontal parts U', next the floor of the crease, thence doubles back into the horizontal parts U<sup>2</sup>, thence up at U<sup>3</sup> into the parts U<sup>4</sup>, and thence up into the vertical parts U<sup>5</sup>, which join at their upper ends, as shown. The portion U<sup>5</sup>, which is integral with the rest of the device, takes the place of the filling-grate.

It is estimated that the weaver can, when my device is employed, take off from five to ten per cent. more cloth in a given time, as so many stops are saved. After the device is properly placed the loom will run more steadily, and pick-outs be prevented from occurring, the selvage will be free from ends, and the fork will have a better and more uniform lift.

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

In combination with the lathe provided with the groove, the double-bent wire described and consisting of the end portions U, secured to the front of the lathe, the portions U', extending rearward within the crease, the portions U<sup>2</sup>, extending forward next the portions U', the portions U<sup>3</sup>, extending up vertically from the portions U<sup>2</sup>, the portions U<sup>4</sup>, extending rearward substantially horizontally from the portions U<sup>3</sup> and above the portions U' and U'', and the vertical portions U<sup>5</sup>, extending from the portions U<sup>4</sup> and acting as a substitute for the grate, substantially as described.

WILLIAM O'BRIEN.

Witnesses:

JAMES F. MORRIS,  
MARTIN B. HAYES.