

(No Model.)

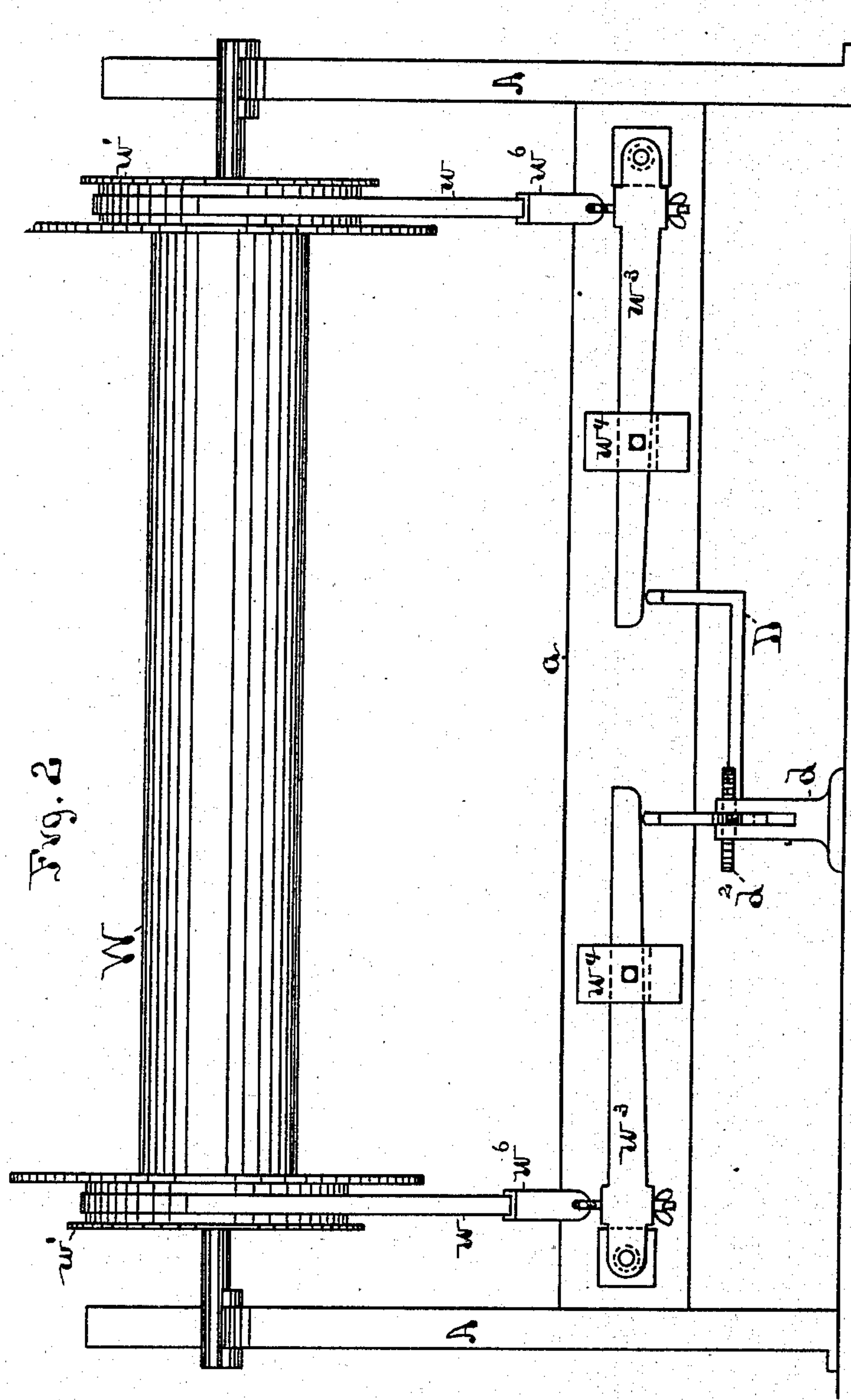
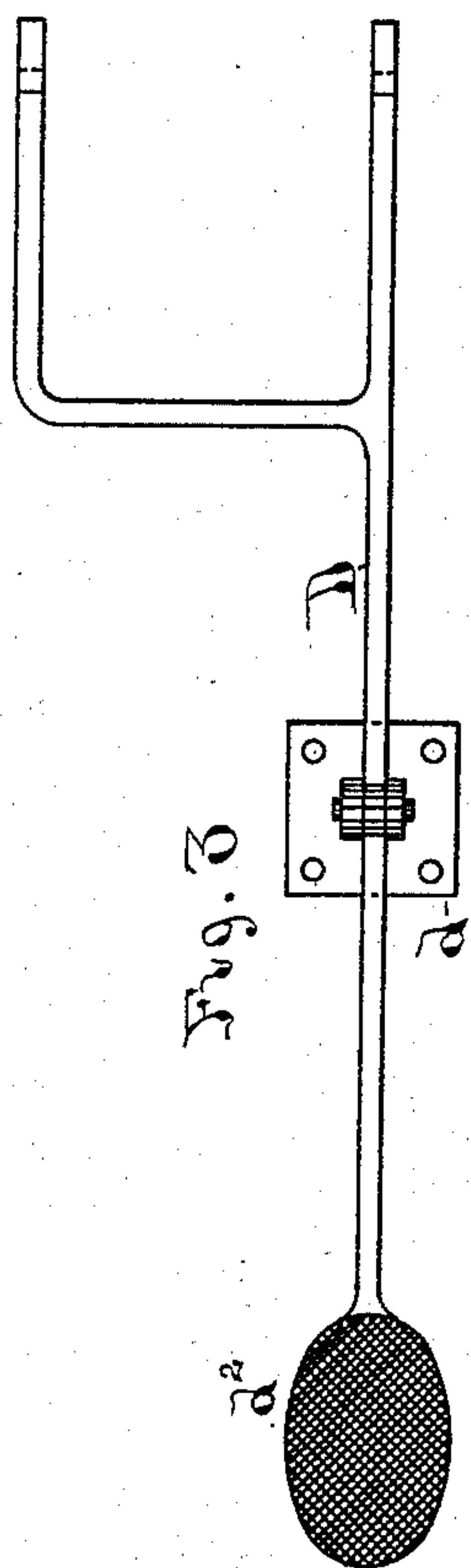
2 Sheets—Sheet 2.

O. A. SAWYER & M. M. LAHUE.

LOOM.

No. 413,563.

Patented Oct. 22, 1889.



Witnesses

Wm. B. Brown
A. P. Ockington

Inventor

Messrs M. Lahue
Oren A. Sawyer
By David H. Rice
Atty

UNITED STATES PATENT OFFICE.

ORREN A. SAWYER AND MOSES M. LAHUE, OF LOWELL, MASSACHUSETTS.

LOOM.

SPECIFICATION forming part of Letters Patent No. 413,563, dated October 22, 1889.

Application filed March 25, 1889. Serial No. 304,698. (No model.)

To all whom it may concern:

Be it known that we, ORREN A. SAWYER and MOSES M. LAHUE, of Lowell, in the county of Middlesex and State of Massachusetts, have
5 invented a certain new and useful Improvement in Looms, of which the following is a specification.

Our invention relates to looms; and it consists in certain improved constructions and
10 combinations of parts thereof, substantially as hereinafter described and claimed.

In the drawings, Figure 1 is an end view of a loom with the end removed and some of the parts in section on a line with the removed end. Fig. 2 is a rear elevation of the
15 parts at that side of the loom. Fig. 3 is a detached view of a lever used in connection with the invention.

A is the frame of the loom. *a a* are the
20 cross-girts. W is the warp-beam. C C' are the take-up rollers, and C² is the beam or roller upon which the cloth is wound. *c* is a line representing the warp and cloth passing from the warp-beam through the reed R and over
25 the breast beam or girt *a* and around the rollers C C', to be finally wound upon the roller C². L is the lay, which carries the reed R, and is pivoted to the cross-rod *l*. The crank K drives this by means of the link *k*
30 from the crank-shaft *k*². These parts of the loom are well known, and we have omitted the heddles and various other parts, the construction of which will be readily understood.

35 The warp-beam W is prevented from turning too fast by the friction of two straps *w w*, passing around drums *w'* on the ends of the warp-beam. One end of each strap is made fast to an eye, which is hooked into the hook
40 *w*², fixed to the girt of the loom. The other end of each strap is made fast to a similar eye *w*⁶, hooked into a hook which is made fast to the lever *w*³, pivoted to the outer face of the same girt *a*. The free end of each
45 lever *w*³ has a weight *w*⁴ upon it, which may be slid out or in, to increase or diminish the tension upon the straps *w w*. These parts of the machine are all old and well known.

Heretofore, for the purpose of providing

for the adjusting of the reed R on the lay- 50
beam or for slacking away on the warp-beam W, to repair broken threads of warp, &c., it has been necessary for the operator to pass around to the warp-beam end of the loom and lift the levers *w*³ *w*³ and turn the warp-beam 55
by hand when the tension was thus taken off the straps *w w*.

Our improvement consists in providing a lever D, which is pivoted to the stand *d* underneath the loom, and has a bifurcated end 60
reaching under and engaging with the two levers *w*³ *w*³ simultaneously at their outer ends, and the other end of this lever D has a foot-pedal *d*², which reaches under the breast-
65 beam of the loom, in position where the operator can apply his foot to it and press down that end of the lever. This action raises the opposite bifurcated end of the lever up underneath the ends of the levers *w*³ *w*³ and releases the warp-beam from the tension of the 70
straps *w w*, when the operator can then unwind the warp-beam by pulling upon the warp sufficiently to adjust the reed R and repair breaks in the warp, &c. This adjustment and repair of the warp must usually be made 75
on the side of the loom opposite to the warp-beam, and the operator can therefore release the latter without going around the loom. By employing the lever D, with its bifurcated
80 end engaging with the levers *w*³ *w*³, the lever D can be applied to any loom of ordinary construction heretofore made, and a powerful and simultaneous action is obtained upon both ends of the warp-beam.

What we claim as new and of our inven- 85
tion is—

The combination of the warp-beam W, straps *w w*, levers *w*³ *w*³, pivoted lever D, having its bifurcated end engaging with the two
90 latter levers and having the foot-pedal or end *d*², extending through underneath the loom to the other side of the breast-beam, substantially as described.

ORREN A. SAWYER.
MOSES M. LAHUE.

Witnesses:

DAVID HALL RICE,
N. P. OCKINGTON.