

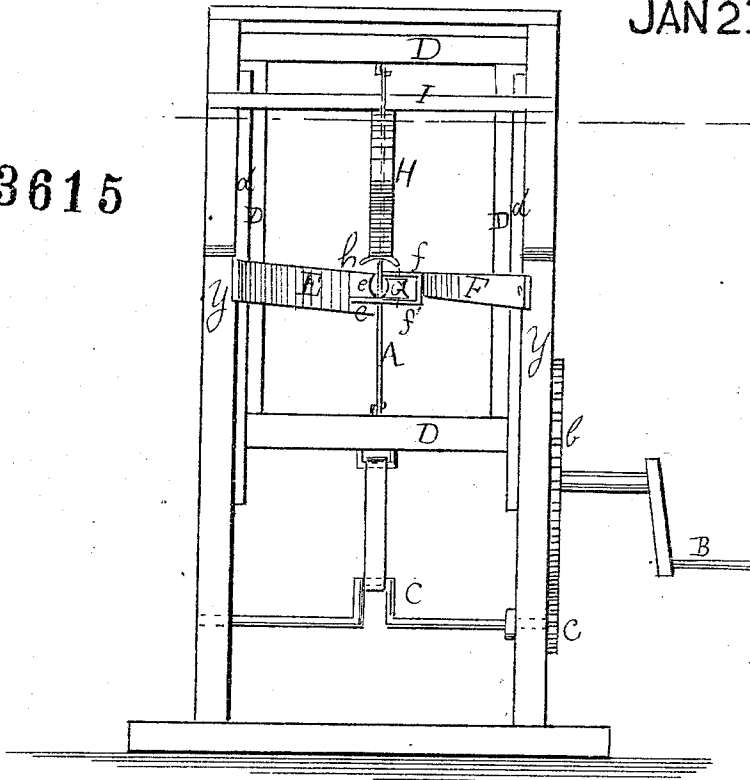
A. Lutz. *Imp<sup>ts</sup>* in Machines for Sawing Hoops.

*Fig I*

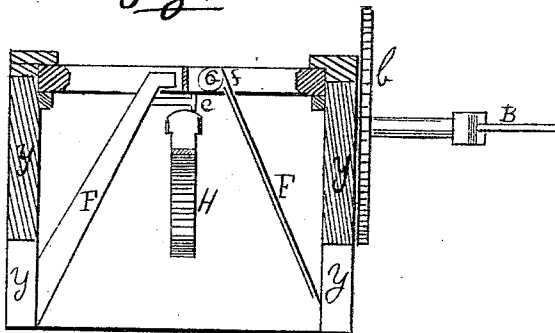
PATENTED

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*Fig 2*



Witnesses.  
*Theo. Truock*  
*Wm. Truock*

Inventor:  
*A. Lutz*  
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# United States Patent Office.

ABRAHAM LUTZ, OF ORANGEVILLE, ILLINOIS.

Letters Patent No. 73,615, dated January 21, 1868; antedated January 17, 1863.

## IMPROVEMENT IN MACHINES FOR SAWING HOOPS.

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, ABRAHAM LUTZ, of Orangeville, in the county of Stephenson, and State of Illinois, have invented a new and useful Improvement in Machines for Sawing Hoops; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improved arrangement of springs and bearings in machines for sawing hoops from poles, whereby the pole is more easily and securely held in its proper position, while being fed to the saw, and is also applicable to ordinary sawing. In the accompanying drawings—

Figure 1 is an end view of my improvement, showing the springs and bearings from the direction of the feed.

Figure 2 is a horizontal section at the line *x x*.

Similar letters of reference indicate like parts.

A is the saw, to which a vertical motion is given by the handle of the crank B, which carries the spur-wheel *b*, fitting into the pinion *c*, at the end of the crank C, or by any other of the well-known mechanical arrangements for that purpose. D is the framework of the saw A, working in the vertical grooves or guides *d d*, in the outer framework or casing Y Y, in which all the parts of my improved sawing-machine are disposed. E is a stationary bearing, firmly secured to the outer framework or casing Y Y. *e* is a pin, set in the bearing E, and on which the pole or beam rests when being fed to the saw A. F is a strong spring, attached at one end to the framework Y, having, at its free extremity, bearings *f f'*, in which a solid grooved wheel, G, is journalled. The head, *e'*, of the fixed bearing E, is concave, and the pole resting on the pin *e*, is received between the concave head *e'* of the bearing E and the groove of the solid wheel G. Another strong bent spring H is attached to the cross-piece I, and presses the pole down upon the pin *e* by the concave arm *b*, at its free extremity.

My improved sawing-machine may also be used for sawing square timber, and when so employed, the parts *e'*, *b*, and *g*, instead of presenting a concave surface to the timber, will be straight, and furnished with projecting lips on each side to clamp the timber.

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

The construction and arrangement of the inclined fixed bearing E, having the pin *e* and concave head *e'*, spring F, provided with the horizontal roller G, and bent spring H, with concave arm *b*, as herein shown and described for the purpose specified.

ABRAHAM LUTZ.

Witnesses:

B. F. WAX,

S. E. ZIEBACH.