

V. H. Buschmann.

Saw Mill.

N^o 86,358.

Patented Feb. 2, 1869.

Fig. 1.

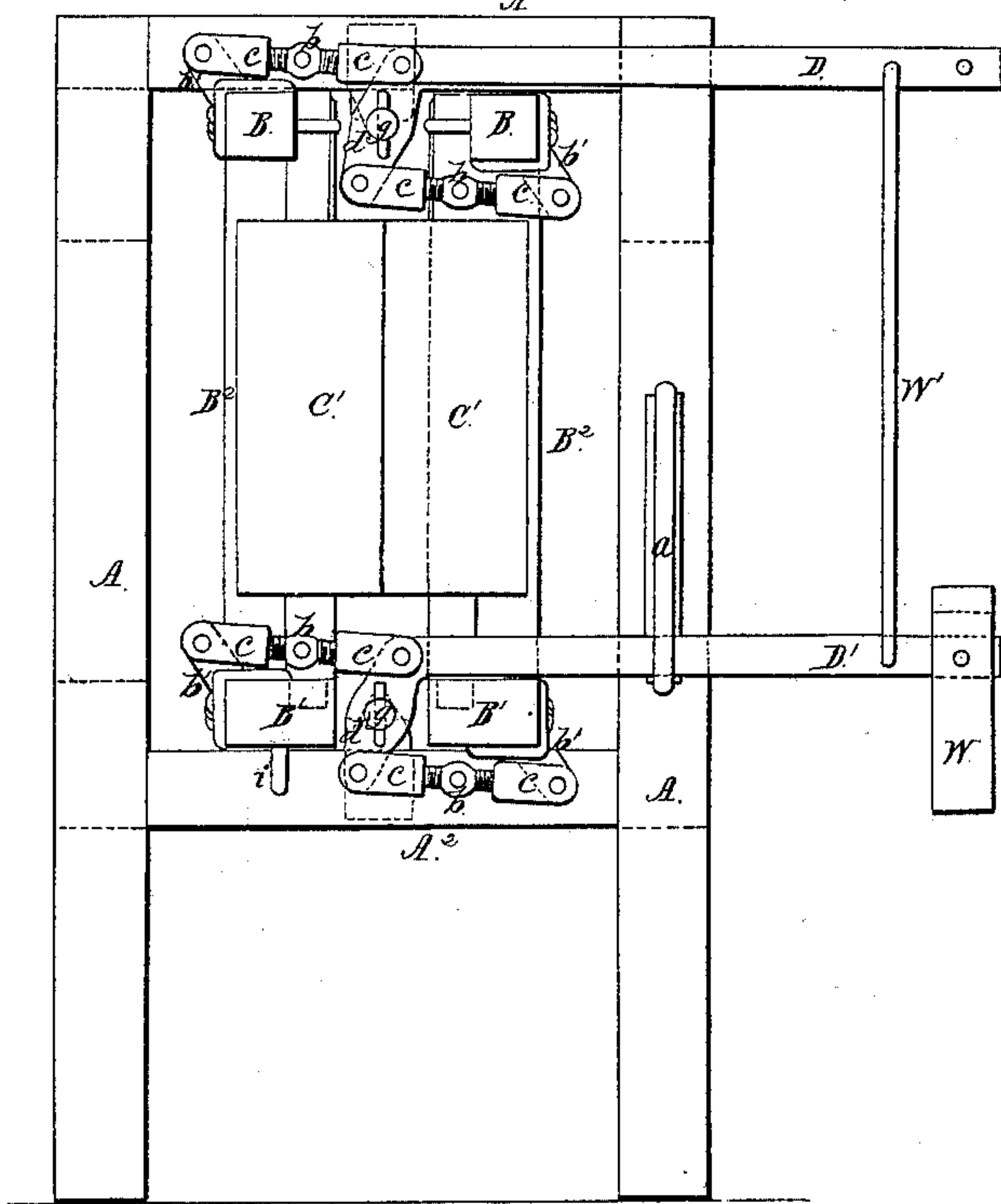


Fig. 2.

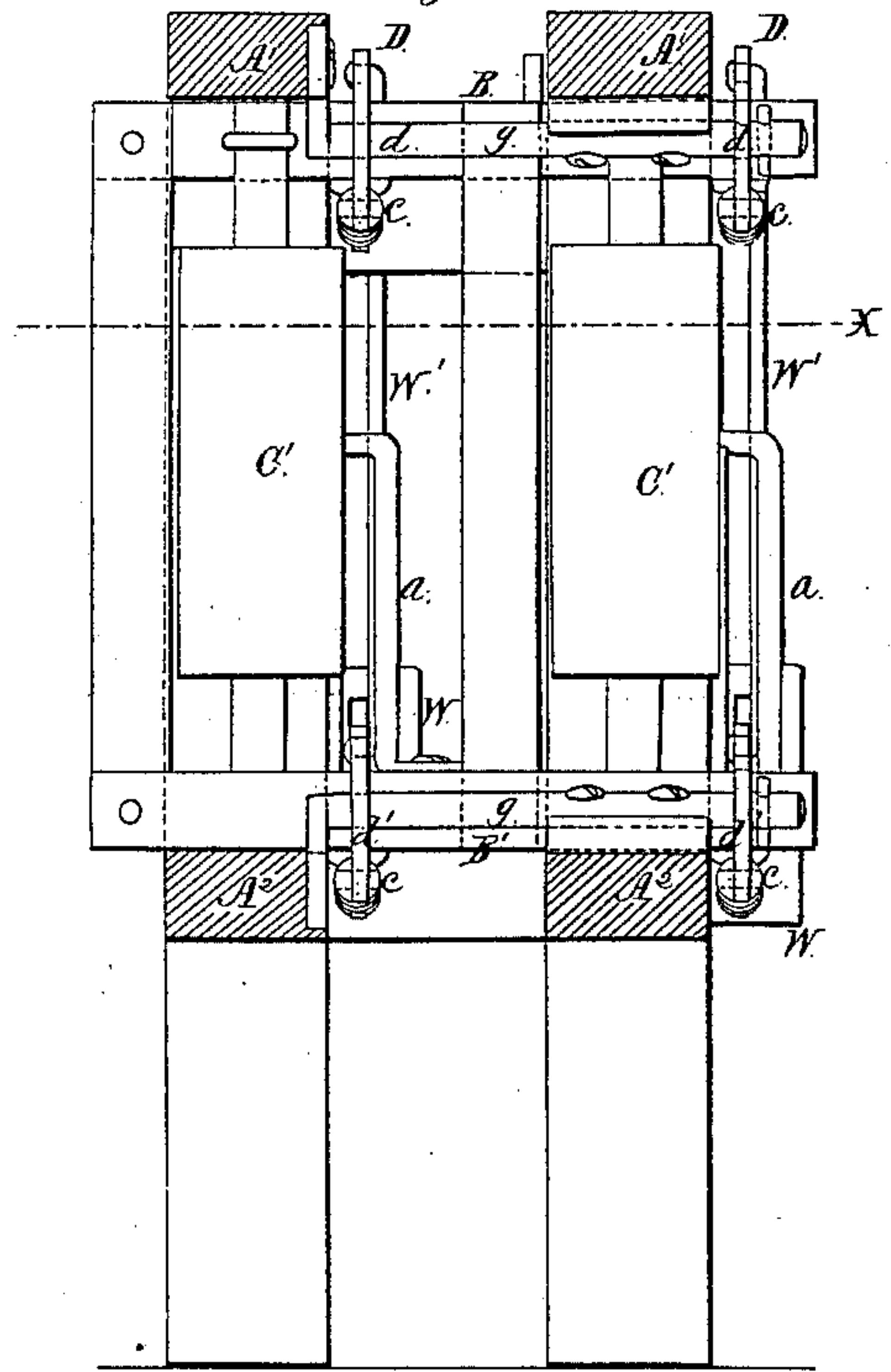
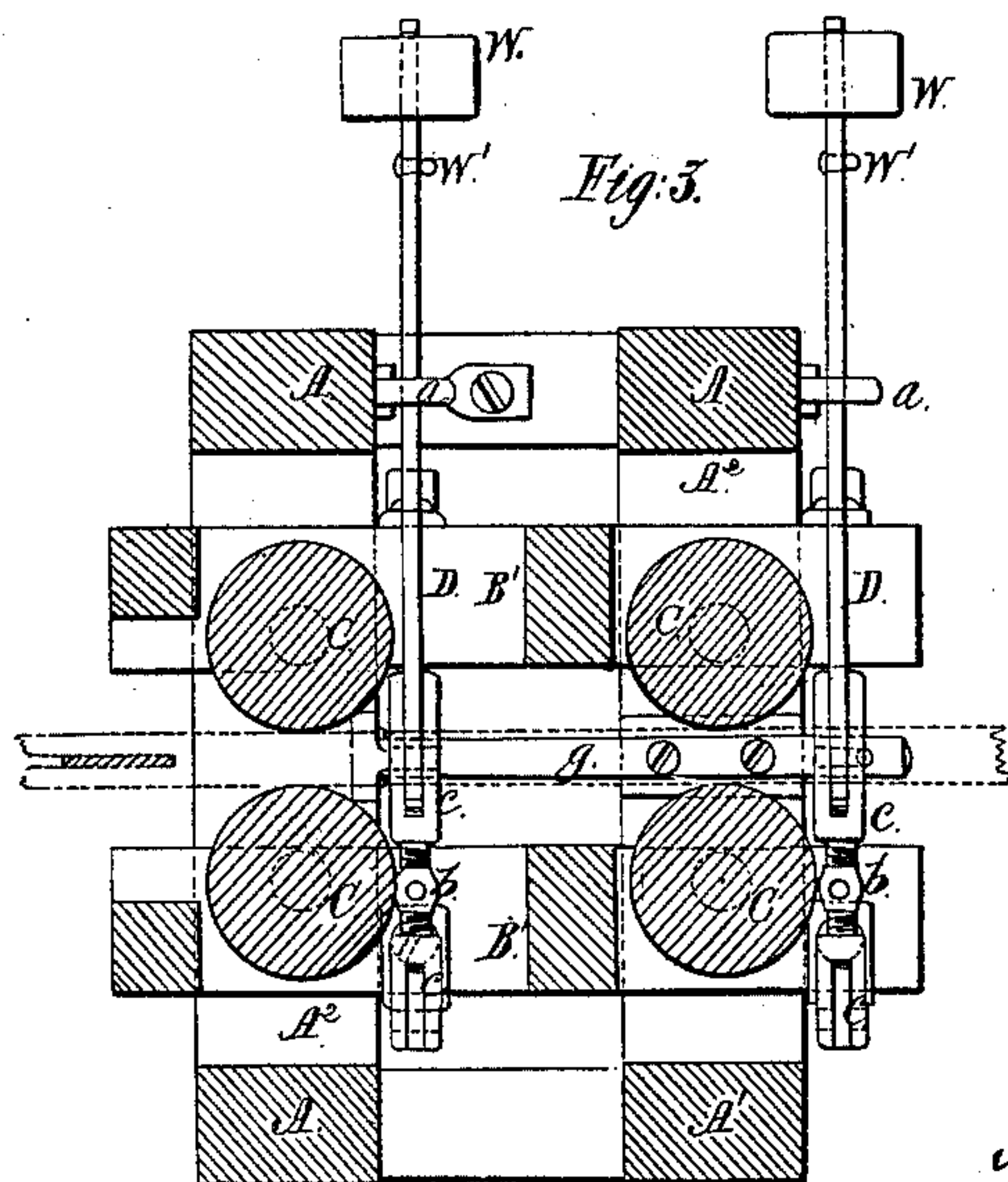


Fig. 3.



Witnesses:

R. J. Campbell
R. J. Campbell

Inventor:

V. H. Buschmann
Marr. Luther Lammie

United States Patent Office.

VICTOR H. BUSCHMANN, OF BALTIMORE, MARYLAND.

Letters Patent No. 86,358, dated February 2, 1869; antedated January 20, 1869.

IMPROVEMENT IN CIRCULAR-SAW MILLS.

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, VICTOR H. BUSCHMANN, of the city and county of Baltimore, and State of Maryland, have invented certain new and useful Improvements in Feeding-Devices for Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of the improved feed-rollers, and their supporting-frame.

Figure 2 is a longitudinal section, taken in a vertical plan through the centre of the feeding-device.

Figure 3 is a section taken through the device in the horizontal plane indicated by dotted line in fig. 2, representing, in red lines, a board on its way between the rollers to the saw.

Similar letters of reference indicate corresponding parts in the several figures.

The invention relates to a new and improved mode of adjusting and setting feeding and guiding-rollers of machinery which is designed for splitting or resawing thick boards.

The invention is an improvement on the adjusting-devices described in the Letters Patent which were granted to me on the 8th day of December, 1863, and also on the 18th day of April, 1865.

It consists in hanging feed and guide-rollers in laterally-adjustable yielding frames, and in connecting said frames together by means of endwise-adjustable rods, applied to loaded levers, which latter have their axes of motion in a vertical plane of the saw, as will be hereinafter explained, whereby the said feeding and guiding-rollers can be adjusted, and set to press uniformly on both sides of boards passed between them to the saw, as will be understood from the following description.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

The main supporting-frame for the feeding and guiding-devices consists of four upright standards, connected together by horizontal beams $A^1 A^2$.

Between the cross-beams $A^1 A^2$ are two laterally-adjustable frames, each one of which is composed of horizontal beams, connected together by upright pieces B, and prevented from undue longitudinal play by means of studs i , or in any other suitable manner.

These two laterally-movable frames are adapted for carrying the feed-rollers $C' C'$, and also the guide-rollers $C C$.

The feed-rollers $C' C'$ may be rotated by means of a right-and-left screw-rod, on spur-wheels, precisely as described in my Letters Patent above referred to, or they may be rotated in any other suitable manner.

Between the two roller-carrying frames, I secure, in horizontal positions, two rods $g g$, one of which is secured to the top beams A^1 of the main frame, and the other is secured to the bottom beams A^2 of this frame.

Both of the rods $g g$ are in the same vertical plane, and both are in a plane coinciding with that of the saw which is intended for sawing the boards passed between the rollers.

These rods are intended to serve as the fulera for two pairs of levers $D D'$, which carry weights $W W$ upon them, and which are connected together by rods $W' W'$, as shown in the drawings.

The said levers extend out laterally from the main frame, and are guided by means of staple-guides $a a$, on said frame. They are applied in front and in rear of the two pairs of rollers, so as to act upon the upper and lower ends of the roller-carrying frames, in front and rear thereof, for the purpose of keeping the two pairs of rollers pressed against the sides of boards which are being fed up to the saw.

The inner ends $d d'$ of the four loaded levers are bent downward, and receive through them the fixed rods $g g$, which form pivotal connections for said levers.

The roller-carrying frames are connected to the bent portions $d d'$ of the levers $D D$, by means of short rods or links, each one of which is composed of two short sections $c c$, having a right-and-left screw or turn-buckle, b , tapped into their ends, as shown in figs. 1 and 3.

These links are pivoted to their respective bent portions of the loaded levers, at equal distances on each side of the fulera of such levers, and the outer ends of said links are pivoted to eye-pieces or studs upon the roller-carrying frames, in the manner shown in the drawings.

Two adjustable connecting-links are applied to each one of the loaded levers, and each one of the four corners of each roller-carrying frame is thus connected to one of the loaded levers.

When the roller-carrying frames are arranged, connected together, and connected to loaded levers, as above described, each pair of rollers will be acted upon by a weight, W , which will operate to press them toward each other, and when there is nothing interposed between them, they will meet exactly in a plane coinciding with the centre of the saw.

The feed and guide-rollers are set for boards which are of an equal thickness on both edges, by adjusting the four screws b of each pair of rollers until the axes of these rollers are parallel to each other, and equal distances on both sides of a vertical plane, intersecting the axes of the rods $g g$.

When thus adjusted, and a board is passed between the rollers, they will spread apart equally on both sides of the vertical centre of such board, and conduct it up to the work of being sawed, so that the saw will divide it equally.

For clapboards, or boards which are designed to be thicker on one edge than on the opposite edge, the upper or the lower ends of the feed and guide-rollers are set off on each side of the plane of the saw, by adjusting the nuts $b b$.

The adjustment of the feeding and guiding-rollers of

the machines which were secured to me by Letters Patent aforementioned, was effected by means of set-screws, against which loaded levers acted, which levers were acted upon by a weight or weights, arranged centrally below the rollers.

It will be seen that I now dispense with the centrally-arranged weights, and apply the weights upon the extremities of levers which project out laterally from the main frame, to which levers the roller-frames are directly connected by extensible or endwise-adjustable rods, as described and shown.

Having described my invention,

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

1. The arrangement of levers $D D'$ upon axes $g g$,

which are applied between roller-carrying adjustable frames, substantially as described.

2. Connecting adjustable roller-carrying frames at top and bottom, by means of levers $D D'$, $d d'$, and rods c , and links b' , substantially in the manner and for the purpose described.

3. The application of the extensible rods $c c$ and b to roller-carrying frames $B' B'$ and to levers $D D$ or $D D' D'$, substantially in the manner and for the purpose described.

Witness my hand, in matter of my application for a patent for a resawing-machine.

Witnesses: VICTOR H. BUSCHMANN.

R. T. CAMPBELL,

J. V. CAMPBELL.