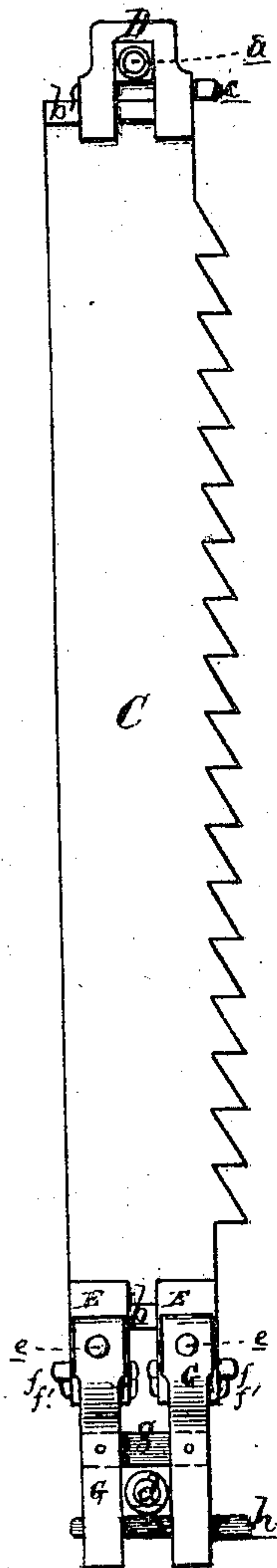


Patented June 7. 1870.

Figure 2—



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WILLIAM M. WILKIN, OF DETROIT, MICHIGAN.

Letters Patent No. 103,952, dated June 7, 1870.

IMPROVEMENT IN SAW-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, WILLIAM M. WILKIN, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Muley-saw Hangings; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a front elevation of a pair of muley saws hung in my improved hangings, and operated by one pitman as a gang;

Figure 2 is a side elevation of the same, showing the method of attaching the saws to the pitman by my improved double buckle;

Figure 3 is a plan of my double muley guides;

Figure 4 is a side elevation of the lower end of a muley saw, showing the method of attaching my double yokes thereto; and

Figure 5 is a diagram showing the advantage of employing two or three muley saws in siding up a log ready for the gang.

Similar letters of reference indicate corresponding parts in each figure.

The nature of this invention relates to an improved method of hanging and operating muley saws, and consists—

First, in the novel construction of the guide-yokes;

Second, in the arrangement of the double-forked buckles, connected by a cross-piece, showing a rectangular transverse bar and certain hooked yokes secured to the lower end of muley saws; and

Third, in the arrangement of the saws, straps, yokes, and keys by which the saws are connected to the transverse arm of the saw-buckles, all as more fully described below.

In the drawing—

A represents an upper and B a lower muley box, about the construction of which there is nothing new except the guides.

a is a cross-head, the middle part of whose body is rectangular and reciprocates in the slides of the upper muley box.

C are muley saws, across whose lower edges are riveted the straps *b*, while *b'* are similar straps secured in like manner to the upper edges.

D is a yoke, whose open ends have a longitudinal slot cut therein. These slots are in the form of hooks, which embrace the saw and straps which are half dove-tailed to receive them. The yoke is slipped over the cross-head, the saw is inserted in the slots and then is secured in place by driving a key, *e*, through the slots in each arm of the yoke, under the squared part of the cross-head and over the upper edge of the saw and its straps, as shown in fig. 2.

The body of the cross-head is of such length that two or more saws may be secured thereto in the manner described, and still permit of the lateral adjustment of the saws to cut lumber of various thicknesses.

The connection above described being of greater length from front to rear of the saw, gives the latter greater rigidity and steadiness when in motion than it would have were a single hook used for the purpose.

E are similar yokes, two of which are attached to the lower end of the saw in the manner above described.

F is the pitman, the construction and arrangement of which, and its attachment, are such that an oscillatory motion is communicated to the saws in their reciprocation. Any arrangement of the hangings to produce this result I do not claim as my invention, but design to show that my method of attaching the saws to the pitman is applicable thereto, equally as well as to an ordinary rig or hanging.

The upper ends of the pitman-forks are provided with guides, which reciprocate between the slides of the lower muley box.

d is the noddle-pin, journaled in the lower part of the fork.

G are two-forked buckles, between the ends of whose forks is a rectangular transverse bar, *e*, on which the lower edge of the saw rests, the yokes E embracing both, and are secured in position by keys and gibbs *f f'*.

The two buckles are rigidly held together by a longitudinal bar or cross-piece, *g*, which forms a yoke with their lower ends.

This yoke embraces the noddle-pin *d*, whose body is squared as shown, when the buckles are connected to the pitman by driving a key, *h*, through a slot in the tail of each buckle under the noddle-pin.

H are the muley guides, which are adjusted on the jaws I in the usual way.

J are guide-yokes, which are also adjustably secured to the jaws I. Their straight bales or edges pass between the saws, where one overlaps the other, as shown.

As each saw would be guided only on its outer face by the blocks H, on the inner faces of the straight parts of the yokes J I place one or more guides or "spots," which consist of one or more thicknesses of raw-hide, leather, or other suitable material, secured thereto by one or more copper rivets. Owing to their small size when reduced to scale in drawings, these "spots" are not shown.

By the above-described arrangement of guides, the saws are prevented from diverging from a right line in either direction.

It will readily be perceived that the saws may be adjusted in their hangings, and their guides to them, so that lumber of various thicknesses may be sawn.

Three or more saws may be hung in like manner

in which case the guide-yokes J are replaced by a frame secured to the jaws I, and movable guides secured thereto between the saws, either through slots in said frame or in any other convenient manner.

In fig. 5 is shown one of the advantages of employing two or three saws in the manner described. In "siding up" a log to prepare it for the gang, where two of my saws are used in one hanging, instead of taking off a thick slab, to go to waste, or to make a cut, gig back, reset and take a second cut, to save board, I make but one cut, and with three saws I take off a smaller slab and two merchantable boards, as shown in the diagram.

Not only is this arrangement of the saws applicable to the purpose just described, but is of equal value in stocking up, doubling, or trebling the product of a set of muley hangings, with but a trifling addition to its first cost, and with a small additional expenditure of power as compared with a single muley saw.

A single saw may be run in the same hangings, by removing the guide-yokes J from the muley guides and adjusting the guide-blocks H.

This method of connecting the saws to the pitman permits of their ready adjustment, and, by the employment of the double yokes E for connecting them

thereto, great rigidity is secured to the saws while cutting.

I am well aware that several saws, hung in a gate or sash, and reciprocated by a single pitman, are not new, and while I expressly disclaim the invention of such,

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The guide-yokes J, constructed, arranged, and operating substantially as and for the purpose set forth.

2. The double-forked buckles G, connected by the cross-piece g, each buckle being provided with a rectangular transverse bar, e, and the hooked yokes E with suitable keys, when the several parts are constructed and arranged as described and for the purpose set forth.

3. The saws O, provided with straps, b, the hooked yokes E, keys f, gibs f', and transverse bars e, when constructed and arranged as described and for the purpose set forth.

WM. M. WILKIN.

Witnesses:

H. F. EBERTS,
H. S. SPRAGUE.