I. W. POOL.

Saw-Mill Dogs.

No. 147,168. Patented Feb. 3, 1874.

Fig. 1

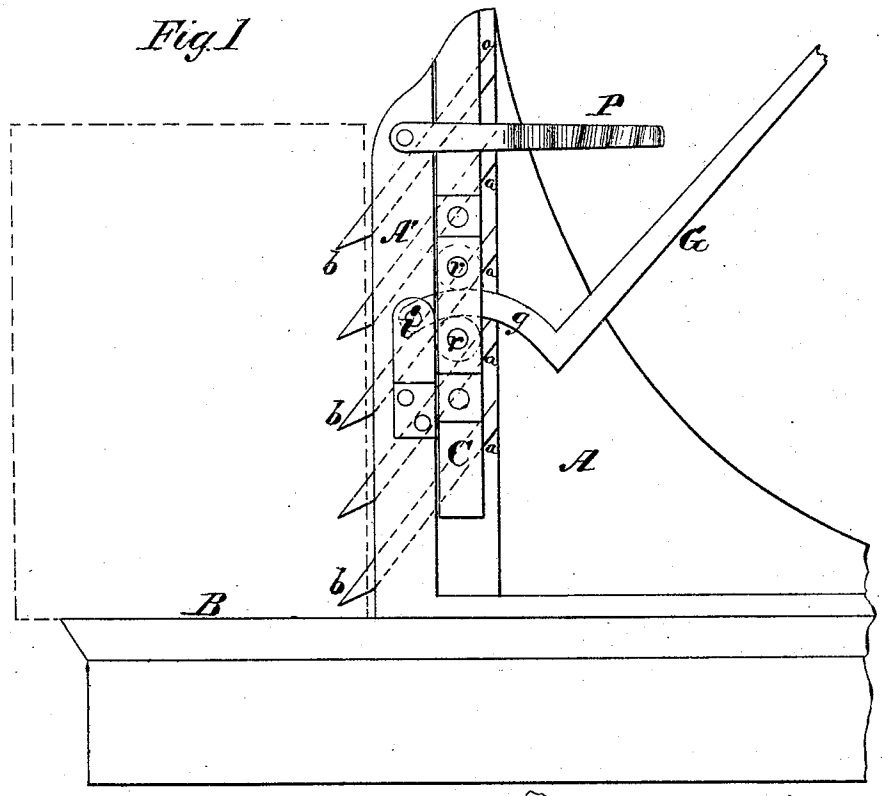
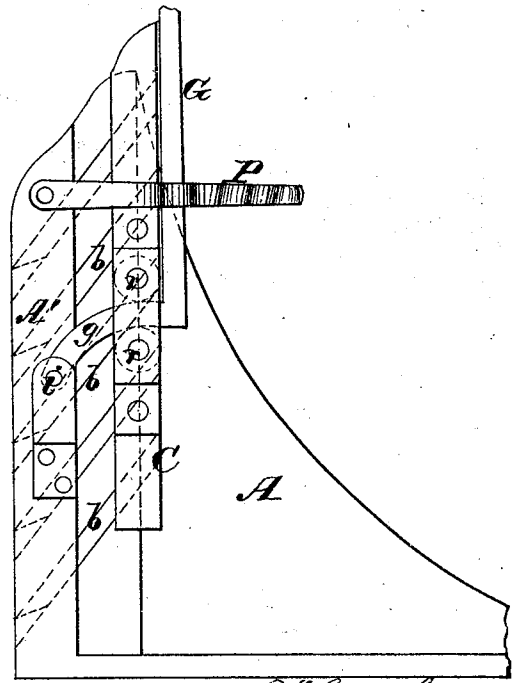


Fig. 2



Inventor
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by
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Witnesses. R. J. Campbell
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UNITED STATES PATENT OFFICE.

ISAAC W. POOL, OF EAU CLAIRE, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO ISADORE COOK, OF SAME PLACE.

IMPROVEMENT IN SAW-MILL DOGS.

Specification forming part of Letters Patent No. **147,168**, dated February 3, 1874; application filed February 15, 1873.

To all whom it may concern:

Be it known that I, ISAAC W. POOL, of Eau Claire, in the county of Eau Claire, and State of Wisconsin, have invented certain novel Improvements in Saw-Mill Dogs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is an elevation of my improvement, representing the dog-teeth thrust into a cant. Fig. 2 is an elevation of the same, showing the teeth retracted.

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

This invention relates to improvements on dogs for securing logs or cants on saw-mill carriages. My object is to employ, in combination with a knee or standard, one or more inclined rectilinear movable teeth or spurs, which will enter a log or cant by a downward and forward movement, and which are moved by means of a vibrating lever-arm, to which a holding-gage is applied, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawings, A represents a knee or standard, mounted in a head-block, B, which standard may be moved on its block in the usual well-known manner. The standard is constructed with inclined grooves *a*, corresponding in their number to to the number of dog-teeth or spurs *b* which it is desired to employ. These grooves *a* may be rectangular, circular, or of any other shape in cross-section. I prefer to have them rectangular, as shown, and to employ teeth or spurs *b* of a corresponding shape. The teeth *b* are steel-pointed, and are all connected rigidly to a vertical bar, C, so that they are all moved together. The bar A′, which partly covers the teeth *b*, is rigidly secured to the standard A, and forms, with the grooves in this standard, a guide for the teeth *b*. The bar C and the teeth which are secured to it are moved by means of a lever, G, which is constructed with the arc of a circle, *g*, on one end, and pivoted at *i* to the vertical bar A′, so as to vibrate in a vertical plane. The curved portion *g* of this lever G passes between two anti-friction rollers, *r r*, which are applied to the bar C, as clearly shown in the drawings. By drawing down the lever G, the arc *g* will forcibly move the teeth forward, and at the same time downward, and if a log or cant be adjusted against the standard A, the point of the teeth will penetrate it and hold it fast on the head-block. Above the lever G, and attached to the bar A′, is a holding-gage, P, for this lever G, which gage is constructed with a number of curves for receiving and holding the lever at different points of adjustment. Each curve in the gage P represents a given distance the points of the teeth will penetrate a log when the lever is adjusted in such groove. This feature of my invention is important, when sawing thin plank, for adjusting the teeth so that their points will not penetrate the log so far as to be struck by the saw while sawing off the last plank on the carriage.

It will be seen, from the above description, that the teeth penetrate a log or cant by a forward, and at the same time a downward movement, which movements have no tendency to force away a log from the standard; also, that the teeth will firmly hold a log upon the head-blocks against any tendency which the saw might have to move the log. It will also be seen that the teeth are guided in their movements, and firmly sustained against strain, by means of the grooves *a*, in which they work. This feature of guiding and sustaining the teeth in the standard is very important, for without it the teeth would be bent or broken in dogging heavy stuff.

I am aware of H. M. Popple's patent, dated May 23, 1871, and do not wish to be understood as claiming what is shown in said patent, viz., a toothed dogging-plate with oblique slots through it, said slots having pins work-

ing in them for the purpose of moving the plate laterally in and out; but

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

1. The standard A of a saw-mill head-block, constructed with separated inclined grooves *a*, in combination with separated dogging-teeth *b* working in them, each tooth having its own guide and support, substantially as and for the purpose described.

2. The lever G, applied to the standard and the bar C, and having combined with it the holding-gage P, substantially as described.

ISAAC W. POOL.

Witnesses:

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