J. G. Baker,

Saw Teeth,

No. 79,185, Patented June 23, 1868

Fig: 1

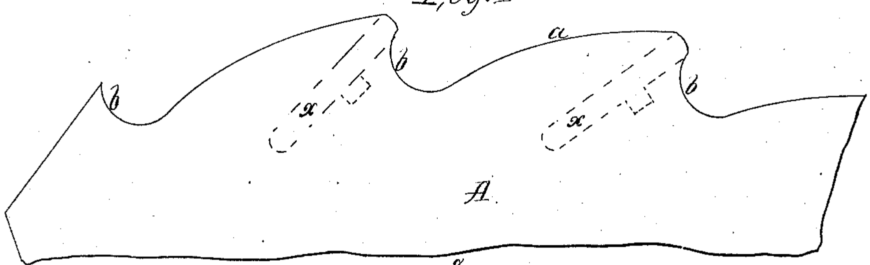


Fig: 2

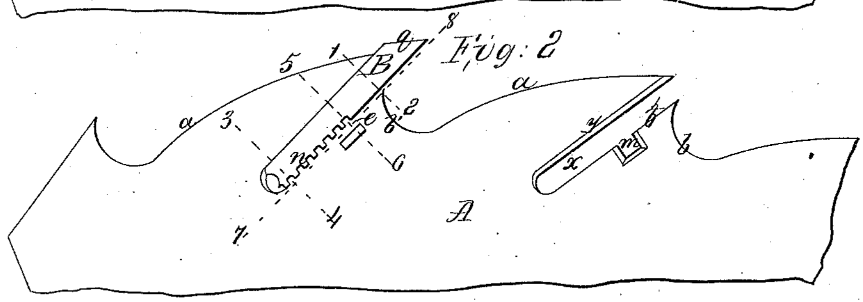


Fig: 3

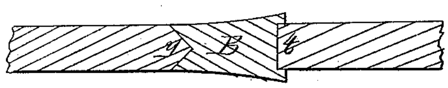


Fig: 4.

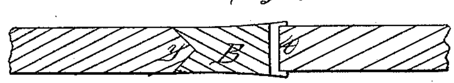


Fig: 5

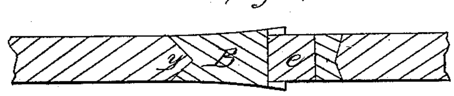
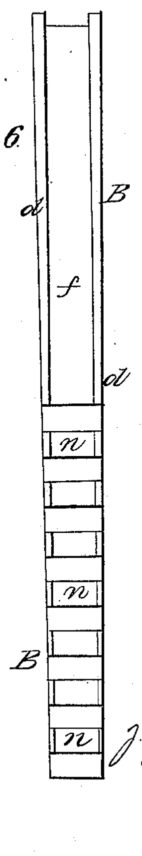


Fig. 6.



Witnesses:
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S. H. Hossie Godwin

Inventor,
J. G. Baker
By his Atty
H. Howson

United States Patent Office.

JOHN GULICK BAKER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HENRY DISSTON, OF SAME PLACE.

Letters Patent No. 79,185, *dated June* 23, 1868.

IMPROVEMENT IN SAWS.

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, JOHN GULICK BAKER, assignor to myself and Henry Disston, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improvement in Adjustable Cutters or Teeth for Saws; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of the construction of a detachable block adapted to an opening in the saw-blade, having projections fitting corresponding notches in the tooth, and secured by a packing of lead or other soft metal, interposed between the block and the saw-plate, as fully described hereafter; the straining and warping of the saw, which result from the use of ordinary rivets, being thus avoided.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 represents part of the blade of a circular saw prior to being prepared for the reception of the adjustable and detachable cutters.

Figure 2, the same, showing a slot for the reception of a cutter, and one cutter inserted.

Figure 3, a section on the line 1–2, fig. 2.

Figure 4, a section on the line 3–4.

Figure 5, a section on the line 5–6; and

Figure 6, an edge view of the cutter, on the line 7–8, fig. 2.

Figs. 3, 4, 5, and 6 are drawn on an enlarged scale.

Similar letters refer to similar parts throughout the several views.

A represents part of the blade of a circular saw, on the edge of which are formed teeth or projections of the form, or approximating to the form, seen in fig. 1, each tooth having the rounded back, *a*, and hollow front, *b*.

The teeth having been thus formed, the next process, in the present instance, is the preparation of the blade for the reception of the detachable and adjustable cutters B, which is done by cutting slots *a*, with parallel edges, in the blade, each slot commencing at or near the junction of the back, *a*, with the front, *b*, of a tooth, and taking the inclined course represented.

On the rear edge of each slot is formed the V-shaped rib *y*, best observed in the sectional views, figs. 3, 4, and 5, the front edge, *t*, being plain, but having a recess, *m*, the edges of which (and the bottom, if deemed necessary,) are V-shaped.

B is the detachable cutter, the rear edge of which is grooved, to suit the V-shaped rear edge, *y*, of the slot; and in the front edge of the cutter, towards the lower end of the same, is formed a rack, *n*, into any of the spaces between the teeth of which can fit projections, on a block, *e*, adapted to the recess *m*, which is deeper than the block is thick.

The cutter having been pushed into its place while the block *e* was resting against the bottom of the recess *m*, the said block is pushed towards the front edge of the cutter, so that some of the spaces between the teeth of the latter shall be penetrated by the projections on the block; and the space between the latter and the bottom of the recess is now filled with a packing, *e'*, of lead or other soft metal, the sole duty of which is to maintain the block in contact with the cutter.

When, after repeated sharpenings of the cutter by filing or grinding the upper inclined end, *q*, of the same, it becomes necessary to readjust it by moving it outwards, the soft-metal packing is first punched out or otherwise removed, the block is then depressed into the recess *m*, so that its projections shall be clear of those on the front edge of the cutter, which is then pushed outwards to the desired extent, after which the block is readjusted to the rack on the tooth, and soft-metal packing introduced into the recess *m*, between the bottom of the same and the block.

It will be seen that the block *e*, which holds the tooth in its position, fits nicely in the opening formed partly in the tooth and partly in the blade, and is maintained in its place by the soft-metal packing, but that neither the block nor the packing bears with such force against the sides of the opening as to warp the saw-blade. Without confining myself to any particular form of tooth,

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

A hard-metal block, adapted to an opening formed in the blade of a saw, and having projections which fit notches in the detachable tooth, in combination with a soft-metal packing, fitting the said opening at one side of the block, and maintaining the latter in its place, all being constructed and operating in the manner substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN GULICK BAKER.

Witnesses:

JOHN WHITE,

W. J. R. DELANY.