

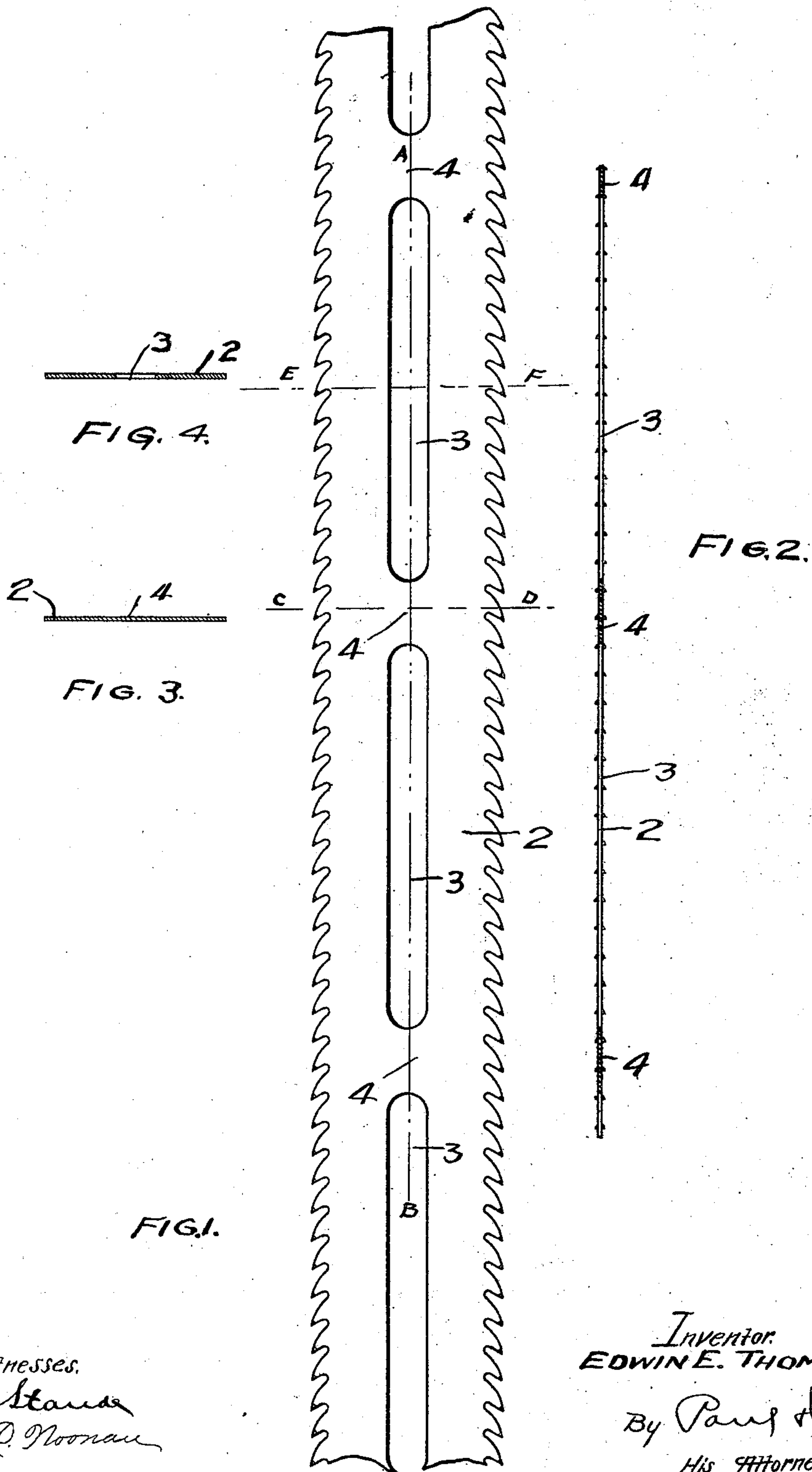
No. 690,678.

Patented Jan. 7, 1902.

E. E. THOMAS.
DOUBLE CUTTING BAND SAW.

(Application filed Oct. 12, 1901.)

(No Model.)



Witnesses.
E. G. Standa
M. R. Noonan

Inventor.
EDWINE E. THOMAS

By *Paul Paul*
His Attorneys.

UNITED STATES PATENT OFFICE.

EDWIN E. THOMAS, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF TO UNION IRON WORKS, OF MINNEAPOLIS, MINNESOTA, A CORPORATION OF MINNESOTA.

DOUBLE-CUTTING BAND-SAW.

SPECIFICATION forming part of Letters Patent No. 690,678, dated January 7, 1902.

Application filed October 12, 1901. Serial No. 78,411. (No model.)

To all whom it may concern:

Be it known that I, EDWIN E. THOMAS, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Double-Cutting Band-Saws, of which the following is a specification.

In the operation of a band-mill it is necessary that the edges of the saw be under considerable tension to insure good results in sawing, and to produce this tension it is customary to lengthen out the saw along its middle line, so that when placed on the wheels its middle portion will be out of contact with them and the strain will be thrown out to the edges, which will sustain the tension of the saw. This lengthening or expanding of the middle portion of the saw is done by hammering or rolling the metal and is a tedious and laborious task and one that requires the services of skilled workmen to insure uniform stretching or expansion.

The object, therefore, of my invention is to provide a double-cutting band-saw of such construction that the operation of expanding its middle portion will be greatly simplified and facilitated.

A further object is to provide a saw that can be more readily fitted to wheels having crowning faces.

The invention consists generally in providing a band-saw with a series of longitudinal slots arranged at intervals along its middle line.

Further, the invention consists in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a portion of a double-cutting band-saw embodying my invention. Fig. 2 is a section on line A B of Fig. 1. Fig. 3 is a section on line C D of Fig. 1. Fig. 4 is a section on line E F of Fig. 1.

In the drawings, 2 represents a portion of a double-cutting band-saw. Along the middle line of the saw I provide a series of longitudinal slots 3, that are long and narrow and rounded at the ends to prevent cracking and

are separated by bridges 4 of the saw metal which connect the opposite edges of the saw. These slots cause a considerable reduction in the amount of metal along the center of the saw without materially weakening it and reduce very largely the area that the workmen have to hammer or roll to properly expand the saw.

Instead of going over the whole middle portion of the saw, as heretofore, it is only necessary to hammer the edges of the slots a little to produce the requisite expansion, and this operation does not require nearly as much care and attention as has been necessary to exercise in expanding the ordinary band-saw.

To adapt the same for use on crown-faced wheels, the bridges are struck a few strokes with a hammer to bend them sufficiently to clear the highest point of the crown and cause the weight applied on the wheels to be sustained by the edges of the saw.

I may provide a single-cutting band-saw with longitudinal slots for the same purpose; but the invention is designed and I regard it as particularly adapted for use with saws of the double-cutting type.

I claim as my invention—

1. A band-saw provided with a series of elongated slots extending lengthwise thereof at intervals.

2. A double-cutting band-saw provided with a series of comparatively long narrow slots extending lengthwise thereof along its medial line.

3. A double-cutting band-saw provided with a series of comparatively long narrow slots extending lengthwise thereof along its medial line, the ends of said slots being curved, for the purpose specified.

4. A double-cutting band-saw provided with a series of elongated slots extending lengthwise thereof at suitable intervals.

In witness whereof I have hereunto set my hand this 7th day of October, 1901.

EDWIN E. THOMAS.

In presence of—

RICHARD PAUL,
M. C. NOONAN.