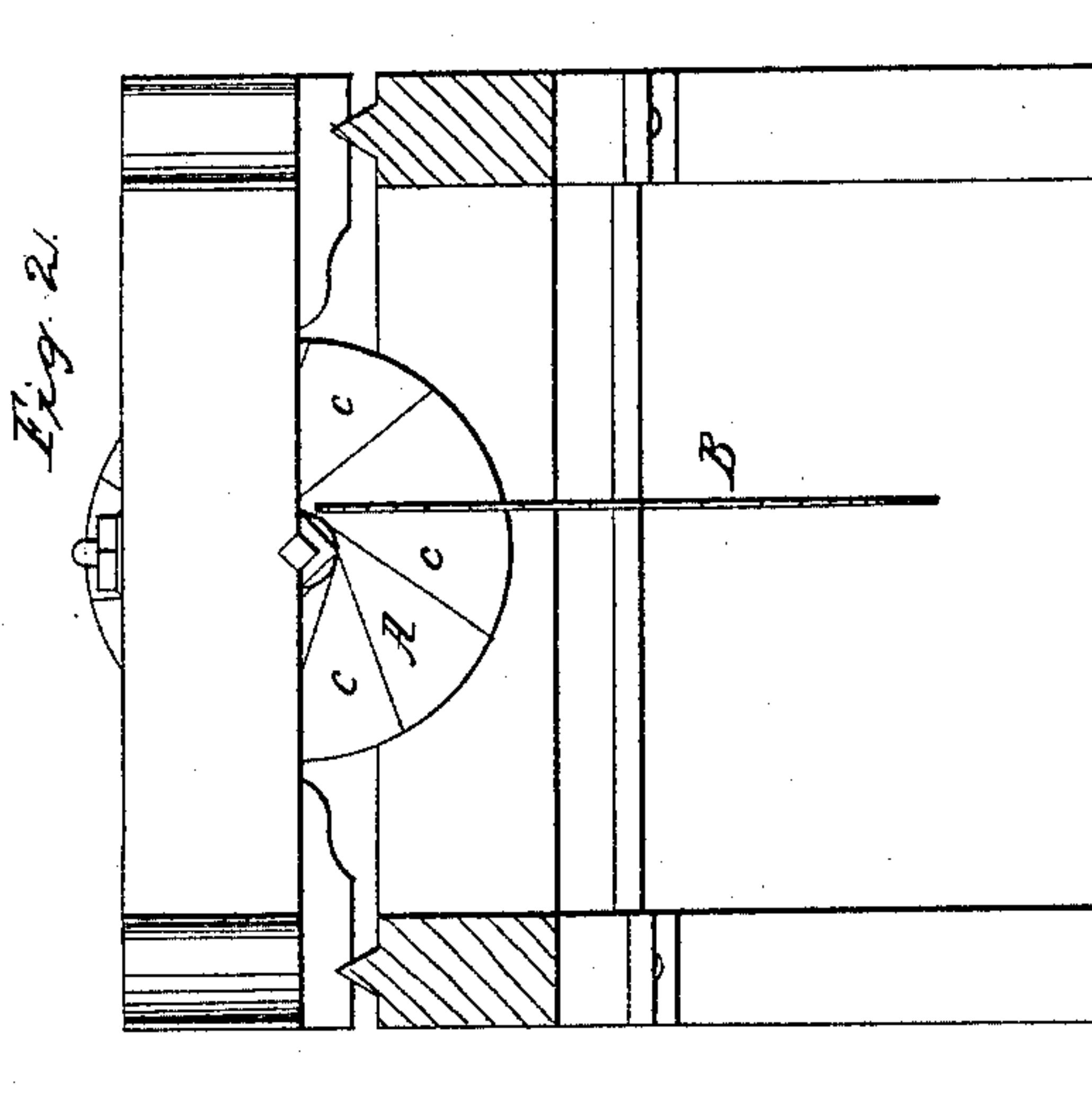
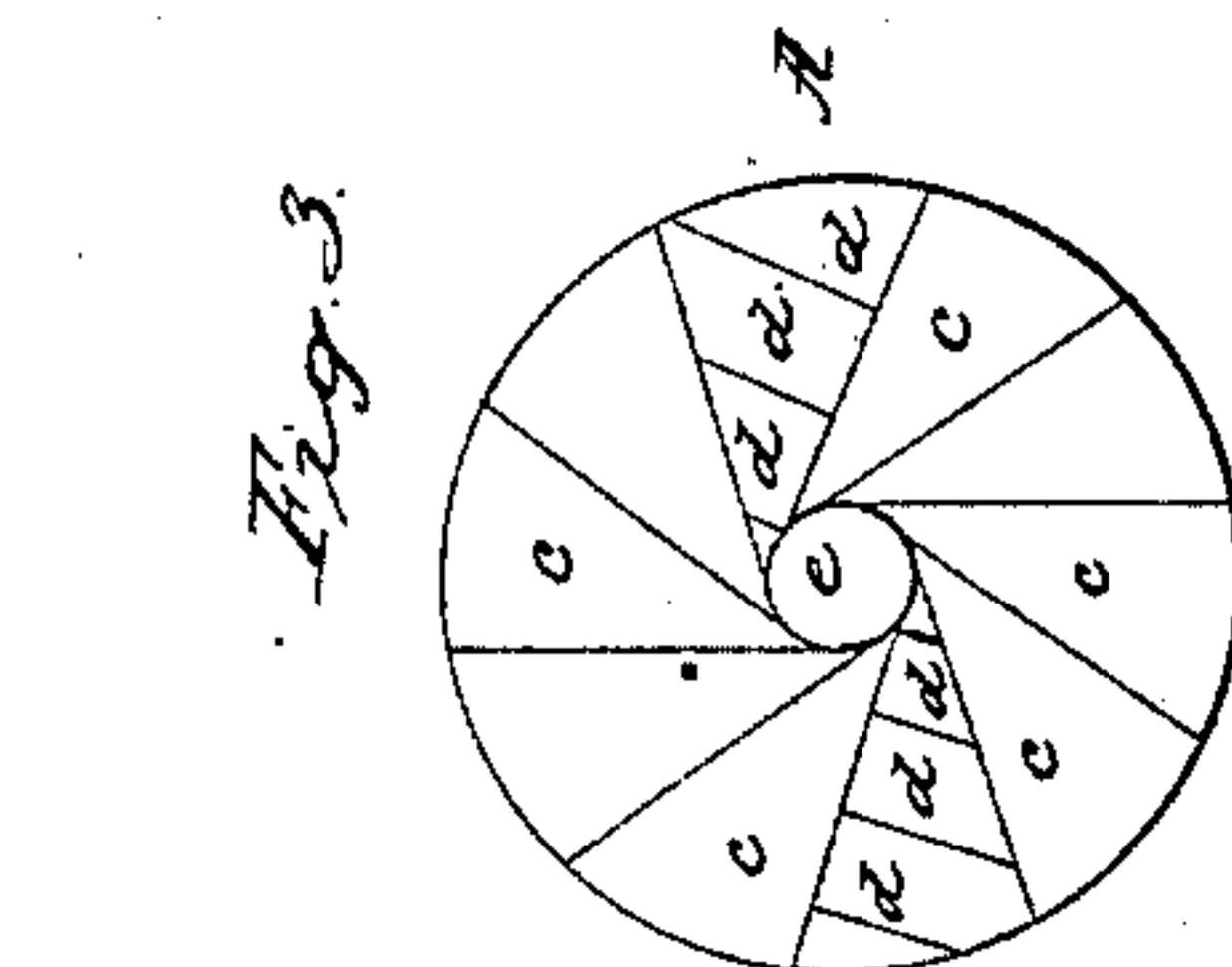
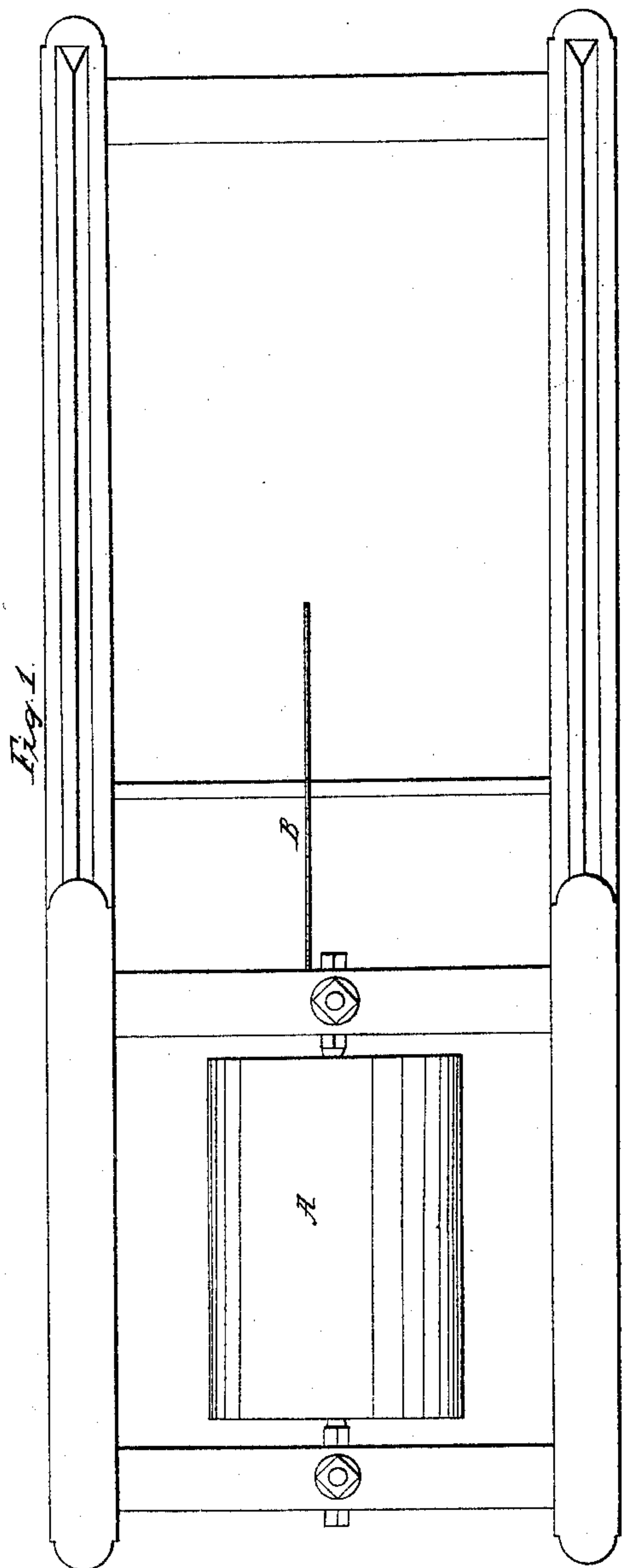


B. Mc Keage,

Making Stares.

N^o 11,900.

Patented Nov. 7, 1854.



UNITED STATES PATENT OFFICE.

BARNET McKEAGE, OF ACCOTINK, VIRGINIA.

MODE OF SAWING BOLTS FOR STAVES.

Specification of Letters Patent No. 11,900, dated November 7, 1854.

To all whom it may concern:

Be it known that I, BARNET McKEAGE, of Accotink, in the county of Fairfax and State of Virginia, have invented a new and
5 useful Improvement in Forming the Segments *c c* from a Log of Wood from which the Blocks to be Cut into Staves are to be Formed; and I do hereby declare that the
10 following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

Figure 1, is a top view of a machine employed in the process of forming said segments; Fig. 2, is an end view of the same,
15 and Fig. 3, is a plan representing the improved shape of said segments, and the stave blocks *d, d*, formed from them, when ready for steaming preparatory to being
20 operated upon by the cleaving knife for converting them into staves.

Similar letter indicate like parts in all the figures.

I have discovered that in cutting staves from steamed timber, good and smooth staves cannot be formed except when the knife passes through the wood in an oblique direction to radial lines passing from the heart of the tree.

30 My invention consists in sawing out the segments from which the blocks for staves are to be cut, of such a shape that one of their sides will be at the proper degree of obliquity, to radial lines from the heart
35 of the tree, to cause smooth staves to be formed from the blocks, sawed from said segments, when the ordinary stave cutting knife is made to pass through the blocks in a direction parallel with said inclined
40 surface of the segments. I first saw a section A, from a log, of the proper length for the staves, and strike a governing circle *e*, around its heart, of the proper size to guide in the formation of the segments from
45 which the stave blocks are to be formed. This circle must vary in size from four to twelve inches; when the grain of the wood

is straight, the circle may be smaller, and when the grain of the wood is winding, the circle must be larger. Experience will soon
50 teach the practical operator the proper size to form said governing circle. The log A, is then placed upon a suitable carriage to be sawed into segments *c, c*, whose sides must be tangential to the governing circle *e*,
55 around the heart of said log. The said carriage must be combined with a saw B, in such a manner as to admit of such an adjustment of the saw, or the carriage, as to bring the saw into a position, as the log is
60 turned around, parallel with either of the tangential lines drawn from the governing circle *e*, on the end of the log. The saw may then be put in motion, and the carriage and log be operated in a similar manner to
65 that practiced in the sawing of radial clapboards from logs, until the log is converted into the segments *c, c*. The segments *c, c*, having been thus formed, they are then sawed, by any suitable machine, into blocks
70 *d, d*, of suitable thickness to be steamed and cut into staves. The staves must be cut from and parallel with that edge of each block which is at right angles to the sides thereof; said blocks being so sawed as to
75 cause their sides to be at right angles to the inner side of each segment, or the side nearest to the diameter of the log.

What I claim as my invention and desire to secure by Letters Patent, is— 80

The improved form of the segments from which blocks for staves are to be cut, to wit: the sides of said segments being tangential to a circle around and concentric with the heart of the log from which said segments
85 are formed, substantially as herein set forth.

The above specification of my improvement in the formation of bolts from which staves are to be cut, signed and witnessed this 20th day of September 1854.

B. McKEAGE.

Witnesses:

Z. C. ROBBINS,
G. W. ADAMS.