A. S. Philbrook,

Bending Wood.

No. 50,272. Patented Oct. 3, 1865.

Fig 1.

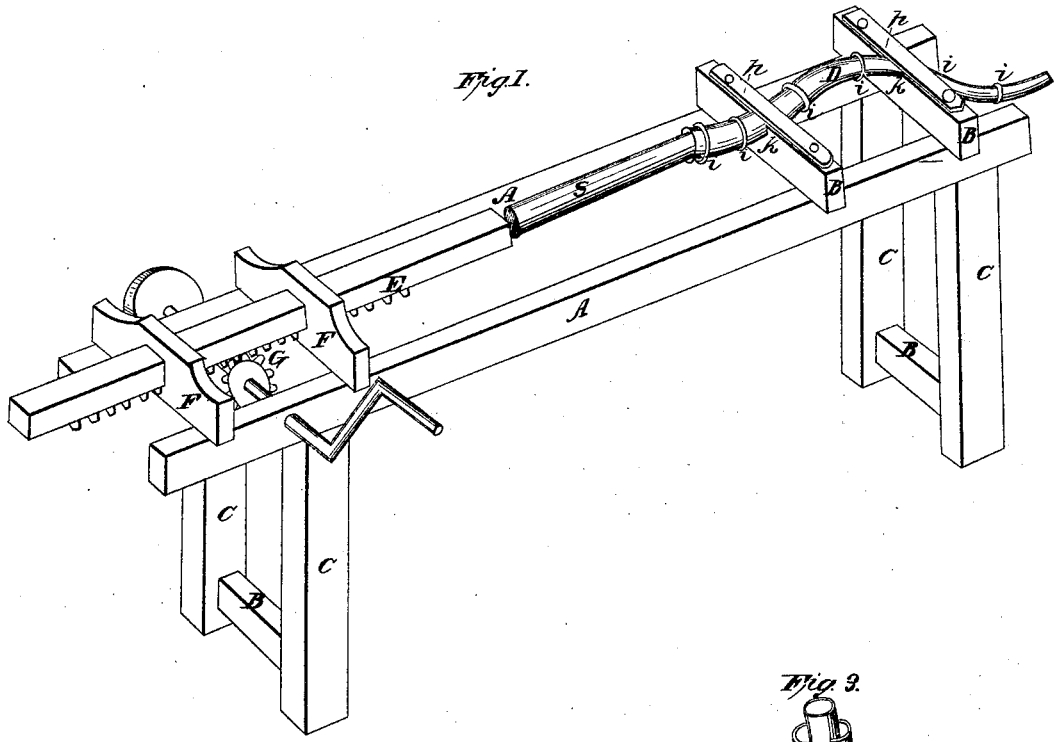


Fig 3.

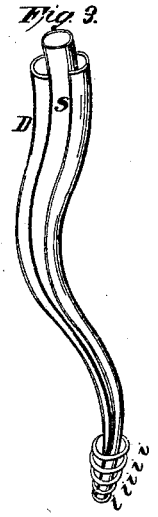
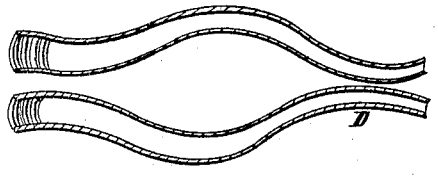


Fig 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALFRED S. PHILBROOK, OF CLAREMONT, NEW HAMPSHIRE.

IMPROVEMENT IN MACHINES FOR BENDING SCYTHE-SNATHS.

Specification forming part of Letters Patent No. **50,272**, dated October 3, 1865.

To all whom it may concern:

Be it known that I, ALFRED S. PHILBROOK, of Claremont, in the county of Sullivan and State of New Hampshire, have invented new and useful Improvements in Machines for Bending Scythe-Snaths; and I do hereby declare the following is a full and exact description of the same, reference being had to the drawings that accompany and form a part of this specification, in which—

Figure 1 is a perspective view; Figs. 2 and 3, views of the pattern or shape in which the snath is formed.

The side pieces, A A, the cross-pieces B B B′ B′, and the legs C C C C constitute the main frame of the machine.

D represents a mold or form by which the straight stick intended for a snath is bent into the desired form.

S represents the stick to be bent.

E represents a beam, moved back and forth within the blocks F F by means of the rack and pinion G.

h h are straps of iron to hold the form D in place.

i i i are rings of various diameters, to hold the two halves of the form D firmly together while the piece intended for the snath is being forced in; *k k*, notches to lay the form D in.

To enable others skilled in the art to make and use my invention, I will describe its construction and mode of operation.

The frame-work is made either of wood or iron, and of suitable strength for the office it has to perform. If made of wood, the timbers should be three by five inches.

The form D is made of two parts, divided longitudinally through the center, of cast-iron or other material of suitable strength, and when in the frame and receiving the intended snath this form is held firmly together by means of the rings *i i i*, &c., and kept in place by means of the notches *k k* in the cross-pieces B′ B′ and the straps *h h*.

The beam E, I make of a timber four or five inches square, running through the blocks F F, as seen in Fig. 1.

The bending is done as follows: Take the form D with the rings *i i i* on, place it and a stick to be bent in position, as seen in Fig. 1; then apply power to the pinion G, so as to carry the beam E forward, and the stick S is forced into the mold D, receiving its exact form. The power applied may be steam, water, or horse power. When a number of these patterns or forms have been filled they are kiln-dried, and then taken and set up with the small end down, when the rings *i i i* will drop down, as seen in Fig. 3; and the snaths are easily removed, and by inverting the form D the rings will slip back to their several positions on the form, as seen in Fig. 1. The interior of the mold D (displayed in Fig. 2) should be kept well lubricated.

The peculiar nature of my invention consists in the use of a series of molds or forms in the exact shape, size, and taper desired for the intended snath, and in so arranging the various parts of the machine as to make it available and easy of operation.

The advantages are that the wasteful process of splitting the timber, and the slow, tedious, and expensive method of shaving, smoothing, and finishing by hand are both entirely avoided.

I saw my timber first into plank, and then saw it up with a circular saw. Each piece intended for a snath is turned in a lathe to the exact size and taper for a snath, and is steamed to facilitate the bending, and when bent is all finished.

The regularity of the curves, the uniform taper, and the exact rounding of the stick by the process of turning give a perfectness, both as to appearance and the desired quality of stiffness, which the old method of making scythe-snaths cannot approach.

Now, what I claim, and desire to secure by Letters Patent, is—

The use of the form D, of the exact size and shape desired for the snath, with its rings *i i i*, and its combination and arrangement with relation to the cross-pieces B′ B′ and the beam E, substantially as described, and for the purposes set forth.

ALFRED S. PHILBROOK.

Witnesses:
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