J. H. RUSSELL & G. BIRNER.

Machines for Bending Scythe-Snaths.

No. 169,120. Patented Oct. 26. 1875.

Fig. 1

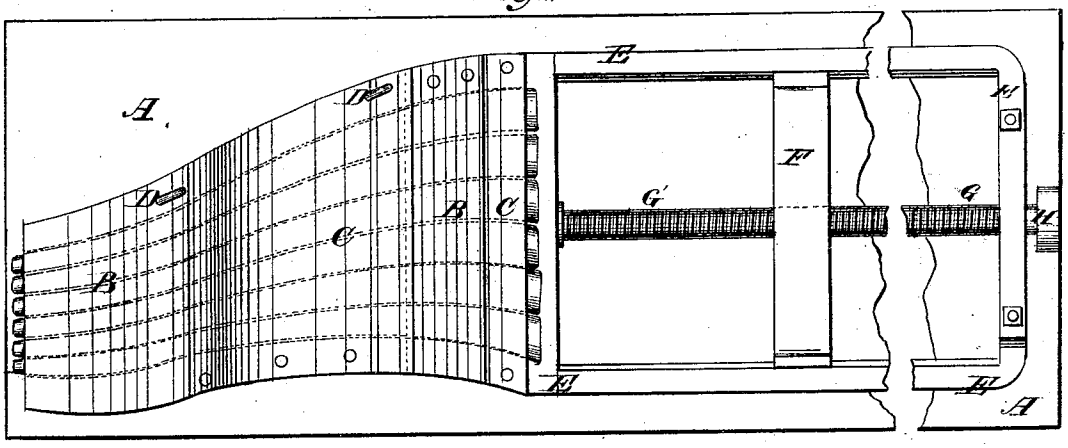


Fig. 2.

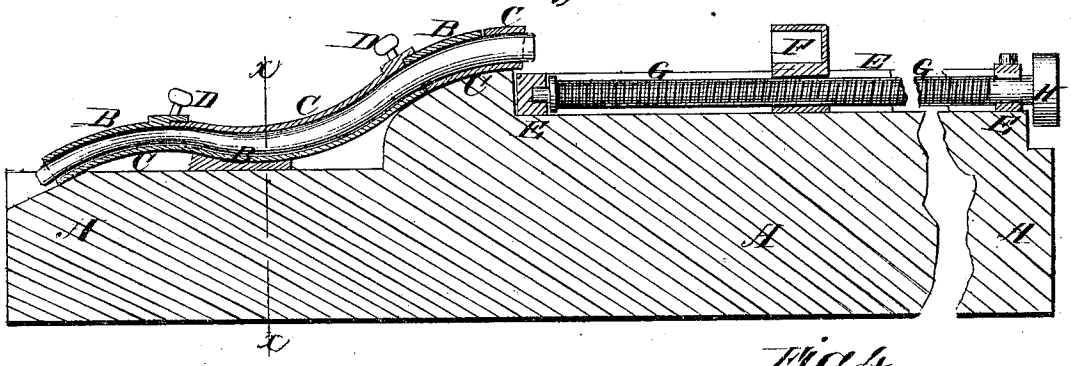


Fig. 3

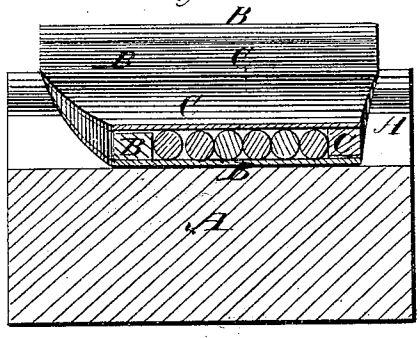
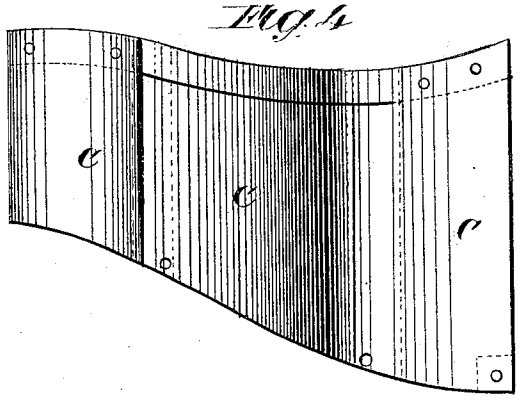


Fig. 4



WITNESSES:

Frances McArdle.

A. F. Terry

INVENTOR:

John H. Russell and George Birner

BY

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN H. RUSSELL AND GEORGE BIRNER, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN MACHINES FOR BENDING SCYTHE-SNATHS.

Specification forming part of Letters Patent No. **169,120**, dated October 26, 1875; application filed February 20, 1875.

To all whom it may concern:

Be it known that we, JOHN H. RUSSELL and GEORGE BIRNER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Machines for Bending Scythe-Snaths, of which the following is a specification:

Figure 1 is a top view of our improved machine. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section of the same, taken through the line *x x*, Fig. 2. Fig. 4 is an under-side view of the detachable part of the form.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A represents the bed of the machine. B is the stationary part of the form, and C is the detachable part. Each of the parts B C consists of a longitudinal side bar, made in about the shape of the desired snaths or other articles to be bent, and having cross-plates formed upon it in such a way that the cross-plates of the two parts may alternate with each other, so that when the said two parts are put together they may form a continuous socket, into which the snaths are forced. The detachable part C is secured to the stationary part B while the snaths are being forced into the form by pins D, inserted in holes in the detachable part C, as shown in Figs. 1 and 2. The form B C may be made of any desired width, or, in other words, of such a capacity as to contain any desired number of snaths, provided the movable part is not made too heavy to be conveniently handled when filled with snaths. To the bed A, at the upper or larger end of the form B C, is secured a frame, E, upon the inner sides of the side bars of which are formed ways for the ends of the cross-bar F to slide upon. Through the center of the cross-bar F is formed a screw-hole to receive the screw G, which is swiveled to the end bars of the frame E, so that the cross-bar F may be moved toward and from the form B C by turning the screw G in one and the other direction. To the outer end of the swiveled screw G is attached a pulley, H, to receive the belt by which the said screw is driven from the driving-shaft or from a counter-shaft, and which should be so arranged that the motion can be instantly reversed when desired. In the forward side of the upper part of the cross-bar F is formed a recess to receive the butts of the wood to be bent.

In using the machine the wood to be bent is steamed or boiled, the movable part of the form is secured in place upon the stationary part B, and the cross-bar F is run back to the proper distance from the form B C. The timbers to be bent are then arranged with their larger ends in the cavity of the cross-bar F, and their smaller ends in the cavity of the form B C. The cross-bar F is then forced forward by turning the screw G, pressing the timbers into the form B C, and giving them the desired shape. The cross-bar F is then run back, the pins D are withdrawn, the movable part of the form is detached, taking the timbers with it, and the said part C and the timbers are taken to the drying-room, while a new part is applied to the stationary part B, and the machine is ready to receive another lot of timbers.

Any desired number of detachable parts C may be used with one stationary part B, according to the amount of work to be done.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The snath-bender herein described, consisting of bed A, separable multiple socket B C, and frame E, provided with hollow cross-bar or pusher moved by a swiveled screw, G, as shown and specified.

JOHN H. RUSSELL.
GEORGE BIRNER.

Witnesses:
WM. WASWEYLER,
CHAS. H. KUEHNE.