(No Model.)

N. S. SNELL.

FRAME SAW.

No. 509,256. Patented Nov. 21, 1893.

FIG. 1.

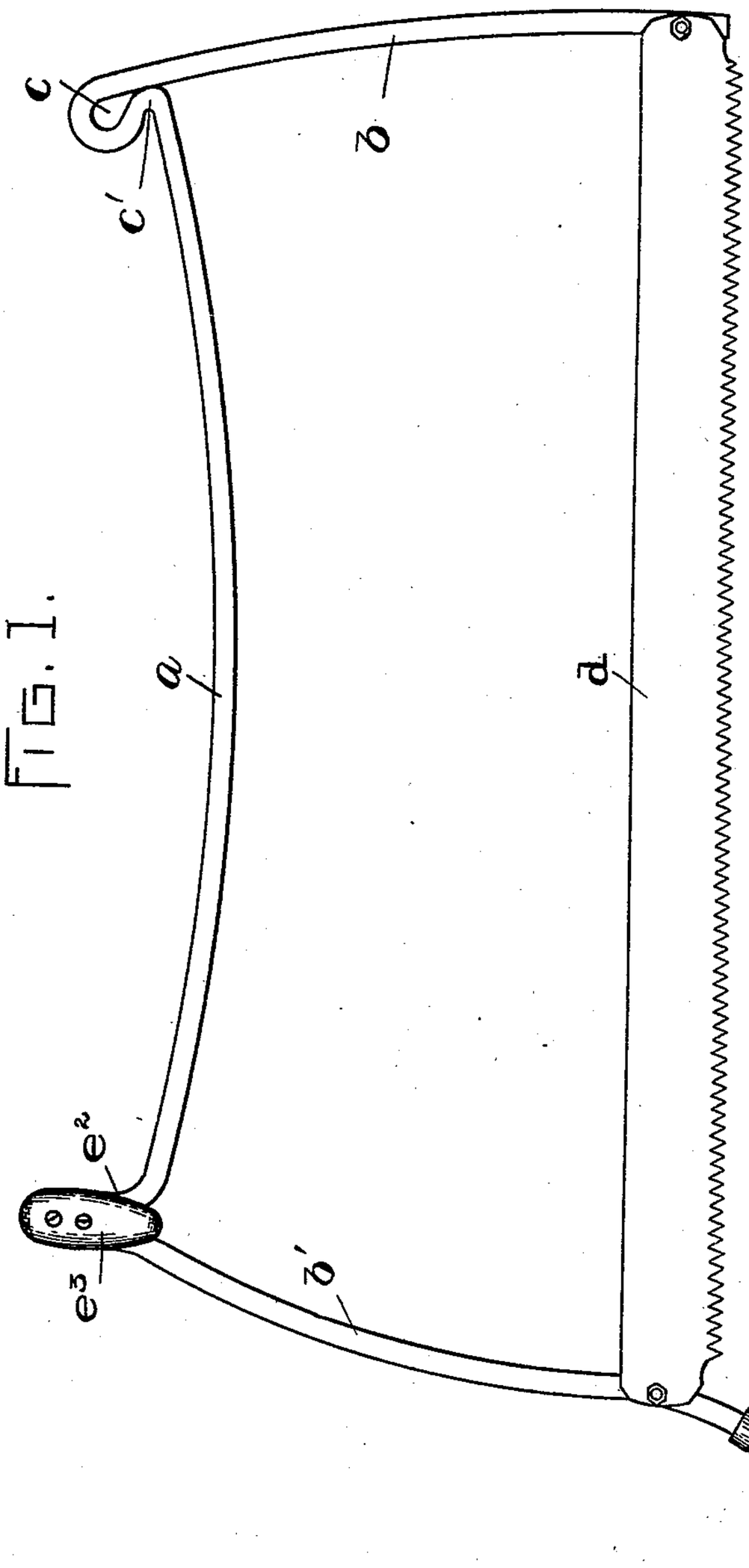

FIG. 2.

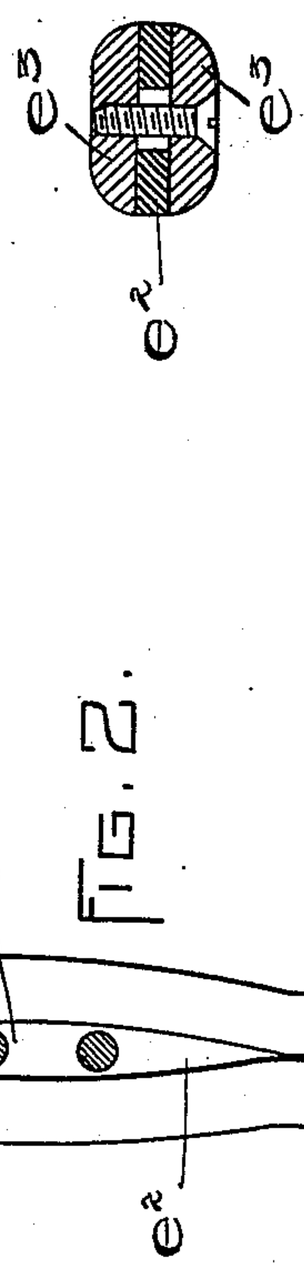

FIG. 3.

WITNESSES:

A. D. Harrison.

Parker Davis.

INVENTOR:

N. S. Snell

by Wright Brown Quinby & Otty.

Attys.

THE NATIONAL LITHOGRAPHING COMPANY.
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NORMAN S. SNELL, OF BRIGHTON, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE BUTLER MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS.

FRAME-SAW.

SPECIFICATION forming part of Letters Patent No. 509,256, dated November 21, 1893.

Application filed April 10, 1893. Serial No. 469,701. (No model.)

To all whom it may concern:

Be it known that I, NORMAN S. SNELL, of Brighton, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Frame-Saws, of which the following is a specification.

This invention relates to an improvement in frame-saws, the object in view being to produce a frame of increased stiffness which will hold the saw-blade under greater tension, and which will provide better means by which to handle the saw, further desiderata being simplicity of construction, strength and durability.

To these ends the invention consists in the novel features of construction hereinafter described and claimed.

The accompanying drawings illustrate a construction by which my invention may be carried out.

Figure 1 shows a side elevation of a saw constructed in accordance with my invention. Fig. 2 shows a detail view of a handle at the back of the saw, one side of said handle being removed. Fig. 3 shows a cross-section of said handle.

The frame of the saw is composed of a single metal bar oblong in cross-section, and forming a curved back-bar, *a*, and side or end-bars, *b*, *b'*, which are curved or bowed outward. The metal bar is doubled to form a loop, *c*, at the corner where the back and side, *b*, meet, the back being bent outward on a sharp angle, as at *c'*, and curved around into the side, *b*. The saw-blade, *d*, is secured at its opposite ends to the two sides, *b*, *b'*, and it will be understood that the said sides are compressed toward each other before the saw-blade is connected with them, so that when relieved the tension of the sides subjects the saw-blade to a strain which holds it stiff. It will be observed that the short bend of the metal at the corner as described, tends to stiffen the same, and thereby increase the the strain on the saw-blade.

The side, *b'*, is extended beyond the saw-blade and receives a wooden handle, *e*, and to increase the facility with which the saw can be handled, I provide another handle which is formed by doubling the metal of the frame at the corner where the side, *b'*, and back, *a*, meet so as to form a doubled portion, e^2, projecting substantially at right angles to the back, *a*. Wood side pieces, e^3, are fastened over this doubled projecting portion. It will be seen that the facility with which the saw may be handled is greatly increased by this construction as one hand may grasp the handle, *e*, while the other hand grasps the handle, e^3. The outward curved or bowed sides, *b*, *b'*, allow of a greater sweep of the saw after having entered the material or body being cut.

It will be observed that the oblong dimension of the cross-section of the saw-frame is in the direction of its length and thereby increases the stiffness of the frame and the tension of the saw-blade. The saw is simple in construction and possesses great durability.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A frame-saw, having a frame composed of a single metal bar which is doubled at one corner, the doubled portion projecting outward substantially at right angles to the back, as and for the purpose described.

2. A frame-saw, having a frame composed of a single metal bar which is doubled at one corner, the doubled portion projecting outward substantially at right angles to the back, and the side of the frame which extends from said corner projecting beyond the saw-blade to form a handle.

3. A frame-saw, having a frame composed of a single metal bar which is doubled into the form of a loop at the corner diagonally opposite the handle of the saw and projecting outward from the back, one side of the loop forming a sharp angle with the back, as and for the purpose described.

4. A frame-saw having a frame composed of a single metal bar, doubled at one corner to form a handle and the side of the frame which extends from said corner projecting beyond the saw-blade to form a handle, and curved or bowed outward as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 11th day of February, A. D. 1893.

NORMAN S. SNELL.

Witnesses:
SAMUEL J. HUTCHINSON,
CHARLES L. HOLLAND.