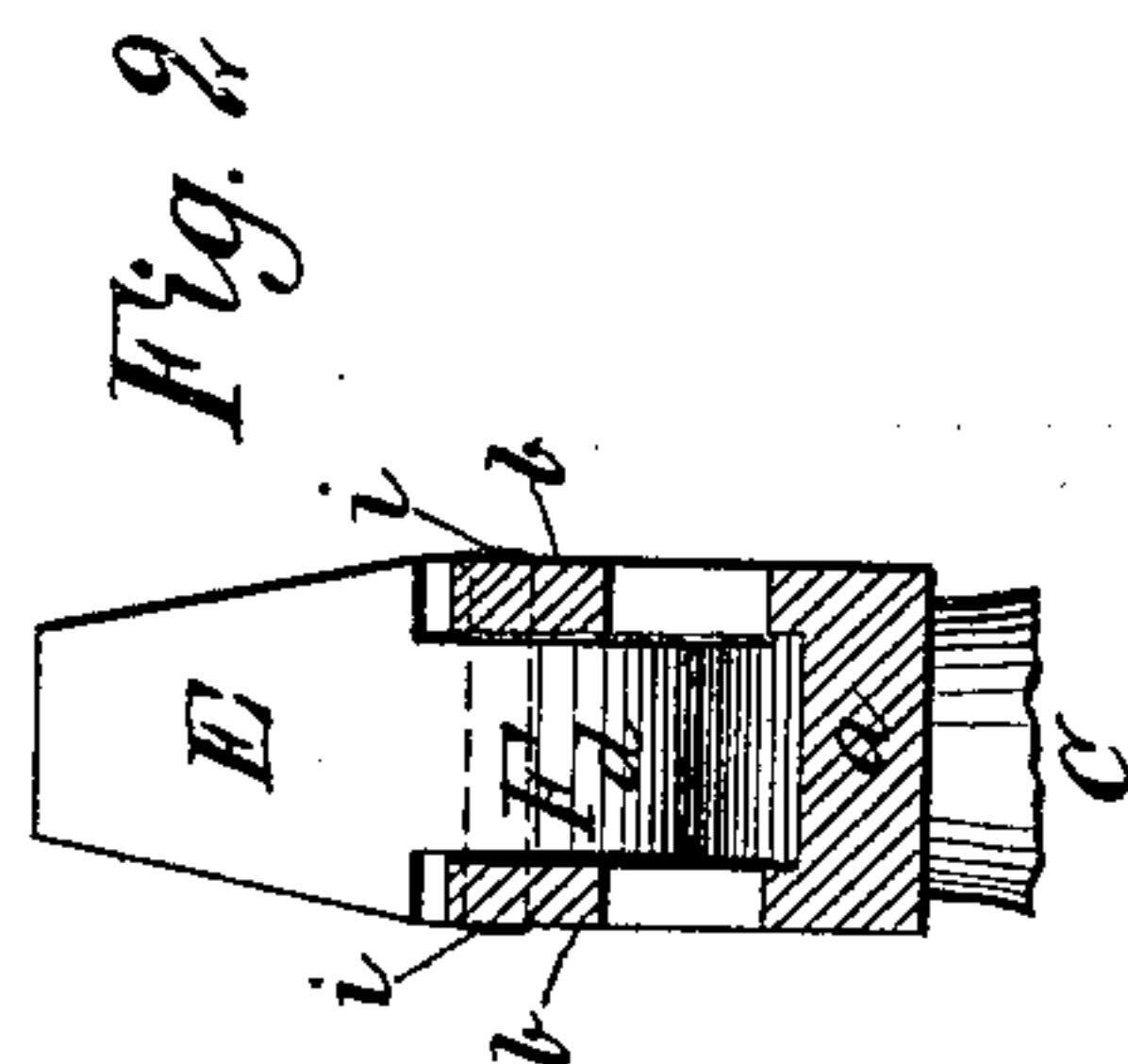
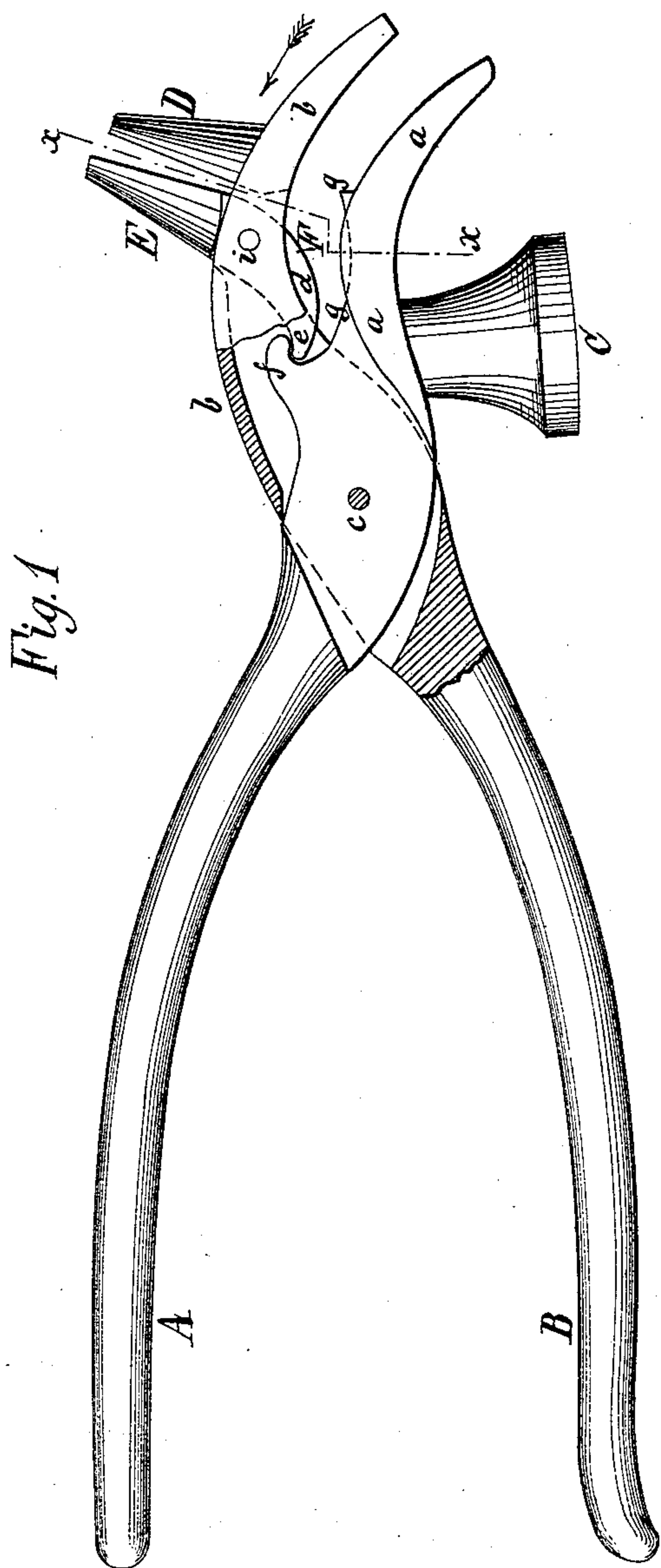


(No Model.)

C. F. O. NORDIN.
SHOE MAKER'S PINCHERS.

No. 329,588.

Patented Nov. 3, 1885.



Witnesses:

C. V. Heljestränd.
[Signature]

Inventor:

Carl F. O. Nordin
by A. W. Almqvist
Attorney

UNITED STATES PATENT OFFICE.

CARL F. O. NORDIN, OF NEW YORK, N. Y.

SHOE-MAKER'S PINCHERS.

SPECIFICATION forming part of Letters Patent No. 329,588, dated November 3, 1885.

Application filed December 6, 1884. Serial No. 149,655. (No model.)

To all whom it may concern:

Be it known that I, CARL F. O. NORDIN, a citizen of Sweden, and a resident of New York, in the county and State of New York, have
5 invented a new and useful Improvement in Shoe-Makers' Pinchers, of which the following is a specification.

My invention has for its object to provide an improved combination-tool adapted for
10 various uses, but specially convenient for shoe-makers, who in their work repeatedly have to alternate the operations of stretching the leather of uppers, tacking their edges to the sole of the last, removing the tacks or nails
15 and inserting them in other places, which manipulation requires to constantly exchange the stretching-pliers and hammer for the tack-puller, and vice versa. To facilitate the work, pliers and hammer have been combined in one
20 tool, which is well known in the trade and market.

My invention consists in the combination, with the ordinary pinchers or pliers, of a pair of nail-pulling jaws, automatically opening
25 and closing simultaneously with the similar respective movements of the jaws of the pliers by the same shanks or handles as the latter.

The invention will be hereinafter fully described with reference to the accompanying
30 drawings, in which—

Figure 1 represents a side view of my improved pinchers, partly in section. Fig. 2 is a cross-section of the same, taken on the line *x*
35 *x* of Fig. 1, looking in the direction indicated by the arrow.

A and B are the shanks or handles, pivoted together at *c*, as usual, and provided with flat jaws *a b*.

The drawings show pinchers of the kind
40 generally used by shoe-makers, the flat leather-pinching jaws *a b* being bent, and one of them, *a*, having a hammer, C, upon the outside thereof for treating leather and driving nails. In order to also adapt the tool for pulling and
45 picking up nails or tacks, I provide upon the outside of the other jaw, *b*, a pair of pinchers, D E, one jaw, D, of which is rigid upon the jaw *b*, while the other, E, is pivoted at *i*,

through an opening in the jaw *b*, in position to close upon the stationary butt or jaw D. 50 For operating it the jaw E has an inward extension or arm, F, which is curved convexly at *d*, and provided with a rounded end or toe, *e*, by which, and by a jog or projection, *f*, upon the inner side of the jaw *a*, the said arm 55 F is movably held in the groove thus formed between the said jog and the inner surface of the jaw *a*, the latter surface being curved concavely to correspond with the convexly-curved surface *d* of the arm F. It is evident that by 60 this construction the jaws D E will respectively close and open simultaneously with the closing and opening of the jaws *a b*, for in closing the latter jaws by the shanks A B, the jaw *a*, by its concave surface *g*, engages and 65 presses upon the convex surface *d* of the arm F to close the jaw E upon the butt D, and in opening the jaws *a b* the jog *f* presses upon the toe *e* to oscillate the arm F in the opposite direction, and thus also to open the jaws D E. 70

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

1. In combination with the shanks A B and jaws *a b* of a pair of pinchers, an auxiliary pair of clamping-jaws, consisting of a butt, D, rigid 75 upon the jaw *b*, and a jaw, E, pivoted to the jaw *b*, and with its inner arm, F, movably held and connected to the other jaw, *a*, substantially as specified.

2. In a pair of pinchers, the combination of 80 the jaw *a*, provided with the jog *f* and concave inner surface, *g*, the jaw *b*, provided with the fixed butt D, and the jaw E, pivoted to the jaw *b* and provided with the arm F, having toe *e* and convex surface *d* to engage the 85 said jog, and surface *f g*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 2d day of Decem- 90 ber, 1884.

CARL F. O. NORDIN.

Witnesses:

A. W. ALMQVIST,

C. V. HELJESTRAND.