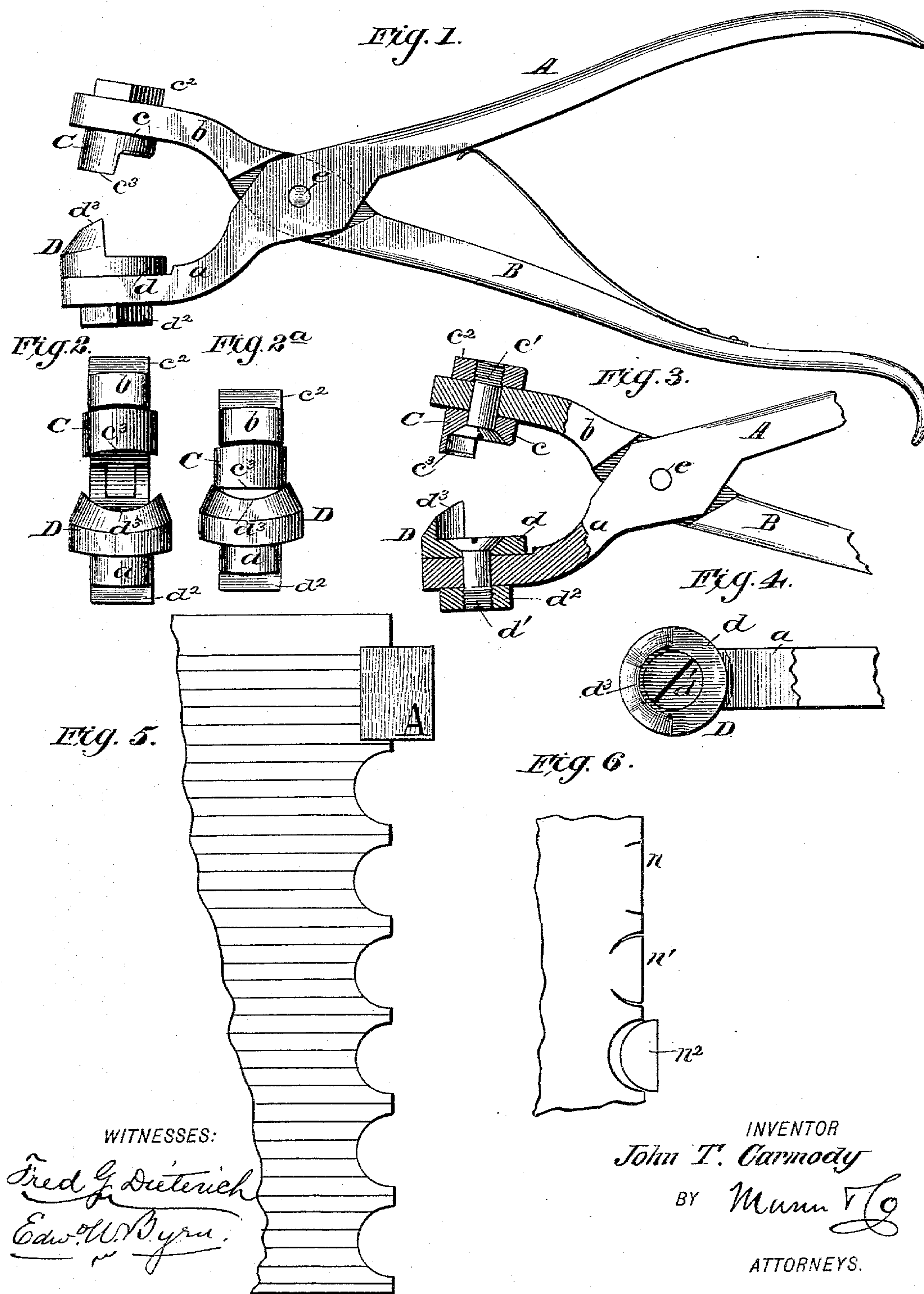


(No Model.)

J. T. CARMODY.
INDEXING CUTTER.

No. 533,527.

Patented Feb. 5, 1895.



UNITED STATES PATENT OFFICE.

JOHN T. CARMODY, OF CEDAR RAPIDS, IOWA.

INDEXING-CUTTER.

SPECIFICATION forming part of Letters Patent No. 533,527, dated February 5, 1895.

Application filed April 27, 1894. Serial No. 509,194. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. CARMODY, of Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Improvement in Indexing-Cutters, of which the following is a specification.

The object of my invention is to provide a hand tool for cutting the semi-circular nicks in the edges of indexed books to facilitate reference to the required letter. Paper, and especially the dense and tough paper used in blank books, affords such a resistance to the action of the ordinary cutters that it is not practical in a hand tool to cut through the many thicknesses of leaves with a clean sharp cut without ragged edges. My invention is designed to provide a hand tool that will do this work neatly and effectively with the exercise of but little power, and without tearing or leaving ragged edges; and it consists in the peculiar construction and arrangement of the parts of the cutter which I will now proceed to describe with reference to the drawing, in which—

Figure 1 is a side view. Figs. 2 and 2^a are front end views; Fig. 3, a longitudinal sectional view of the cutter head. Fig. 4 is a face view of one of the cutters, while Fig. 5 shows indexed pages cut with this tool, and Fig. 6 shows the peculiar progressive action of the cutters in cutting with a double shear cut, as hereinafter more fully described.

A B represent two lever handles loosely jointed together upon a fulcrum pin *e* after the manner of pliers, and having jaws *a* and *b* extending beyond the fulcrum. On the inner face of these jaws are firmly mounted two cutters C and D. These cutters are each constructed with a circular perforated base plate, *c* and *d*, which are clamped to the inner faces of the jaws *a* and *b* by short screws or bolts *c'* *d'* which pass through the base plates and jaws and are secured by nuts *c²* *d²* on the outside of the jaws. These cutters each have semi-circular cutting edges *c³* *d³* which project inwardly toward each other at right angles to their respective base plates, and accurately register to form oppositely acting cutting edges adapted to make a semi-circular cut. One of these cutters C is made smaller than

the other, so as to pass inside the curve of the other one, and the crown or extreme edge of its blade is, see Figs. 2 and 2^a, in a straight plane, that is to say the cutting blade *c³* is of equal height, measured from its base plate, all around the curve. The other cutter D has a cutting blade *d³* which is not of equal height, but is shortest in the middle, and longest at its two ends. This is an important feature of my cutter, for when the jaws come together the blades first come together at the two ends, see Fig. 2^a, and cut progressively from both ends to the center with a double shear cut.

The action of the double shear cut on the pages of the book is illustrated in Fig. 6, in which *n* *n'* *n²* represent the successive stages of cutting. When the cutters first come together on the layers of paper the cut produced is a double one, entering the paper from two points and progressing toward each other as at *n*. As the jaws close more tightly these cuts progress toward each other in the curve of a semi-circle as at *n'* until they meet and dislodge a semi-circular bit *n²* leaving a clean smooth semi-circular nick in the pages.

Ordinarily with cutters having a curved semi-circular blade acting against a plain flat surface it is impossible to cut through such material as dense tough paper without leaving ragged and torn edges, as the cut is not positive. With my invention the two oppositely acting cutter blades make a clean and positive cut, and the double shear cut progressing from the ends toward the center insures the cutting of the outer edges of the pages first, and the bits of paper cut out are cleanly dislodged without any adherence at the outer edges which would be very liable to be torn in removal.

I am aware that various forms of cutters and punches having curved cutting edges have heretofore been used, and I therefore only claim the special construction described which is designed for the special purpose of cutting indexed pages.

Instead of making but one of the cutter blades *d³* with its cutting edges highest at the ends I may make both blades in this way if desired.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

A nick-cutter consisting of jointed lever handles with jaws, in combination with curved registering blades set between the jaws and fixed respectively to their inner faces to cut in a direction at right angles to the said jaws, the outer one of said blades being made of larger circumference, and the other one of smaller circumference so as to work inside of the first,

and one of said blades being also made longer at its ends than it is in the middle to cause a double shear cut starting simultaneously at the two ends and terminating in the center, substantially as and for the purpose described. 15

JOHN T. CARMODY.

Witnesses:

EMIL LEFEBURE,
JOHN W. KOLAR.