Sept. 28, 1926. 1,601,560

E. A. CODMAN

CUTTING TOOL

Filed April 2, 1924



Fig.1.

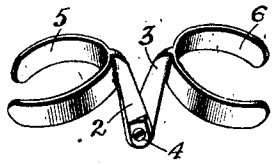


Fig.2.

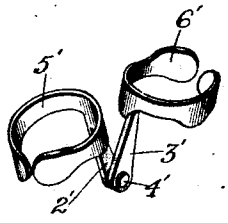


Fig.3.

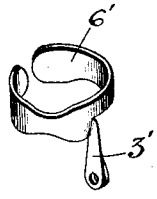


Fig.4.

INVENTOR.
Ernest A. Codman.
By his attorney.
J. H. McCurdy.

Patented Sept. 28, 1926. 1,601,560

UNITED STATES PATENT OFFICE.

ERNEST AMORY CODMAN, OF BOSTON, MASSACHUSETTS.

CUTTING TOOL.

Application filed April 2, 1924. Serial No. 703,821.

This invention relates to tools for cutting thread, string, wire, and the like. The invention will be herein disclosed as embodied in a device designed especially for use by surgeons in cutting thread used in making sutures, ligatures, and the like. It is contemplated, however, that essentially the same device will also be used for many other purposes, as, for instance, by clerks in cutting string with which bundles are tied, and by electricians in cutting small wire. It is the chief object of the invention to devise a tool of this character which can be supported between the fingers of the hand in such a way that it will not interfere with the movements of the hand or fingers and still can be operated at any time simply by a relative movement of the fingers.

The nature of the invention will be readily understood from the following description when read in connection with the accompanying drawings, and the novel features will be particularly pointed out in the appended claims.

Referring now to the drawings,

Figure 1 is a perspective view of a cutter embodying the present invention, showing it supported on a hand as it would be used;

Fig. 2 is a perspective view on a somewhat larger scale of the cutter shown in Fig. 1;

Fig. 3 is a perspective view of a cutter of a somewhat different construction; and

Fig. 4 is a perspective view of one of the members of the cutter shown in Fig. 3.

Referring first to Fig. 2, the cutter there shown comprises two blades 2 and 3, respectively, secured together by a pivot screw 4 which is located at the lower ends or bases of the blades. The blades preferably are shaped and connected like the blades of shears or scissors of the common type. Rigidly secured to the upper or free ends of the blades 2 and 3 are finger clasps 4 and 5, respectively. Each of these clasps is adapted to embrace a finger, and it is made of relatively thin sheet metal so that it can be bent to conform to the size of the finger. Each blade is secured to its respective clasp by welding, soldering, brazing, or the like.

In using this cutter it is placed on the hand, as shown in Fig. 1, with the blades lying in the crotch of the fingers and the clasps 4 and 5 embracing said fingers, respectively. The blades are moved to open or close the cutter simply by moving the fingers toward or from each other. It will be noted that the entire cutter is so small that it does not interfere with the movements of the hand or fingers so that a surgeon is not hampered in any respect by the presence of this device. He makes his sutures or ligatures and then cuts the threads by moving his hand forward, with the fingers separated, as shown in Fig. 1, until the threads are entered between the blades of the cutter, and then squeezing his fingers together to cause the blades to sever the threads.

The construction shown in Figs. 3 and 4 is similar to that shown in Fig. 2, but differs from it in that each blade is made integral with its respective finger clasp. The two members of the cutter are duplicates of each other. This device is designed to be made by the punch and die process, each clasp and its blade being cut out of a piece of sheet steel, and the blade then bent away from the clasp into the proper relationship thereto. The shaping and assembling operations will be obvious to those skilled in the art of sheet metal working. In Figs. 3 and 4 the various parts of the cutter are designated by primed numerals corresponding to those used in Figs. 1 and 2 to designate like parts. This device has the advantage of being somewhat more economical to manufacture than the form of the invention shown in Figs. 1 and 2.

The advantages of this device will be obvious to any surgeon. The fact that the cutter may be carried on the hand where it is instantly available for use, without the necessity of picking it up, is a very important practical advantage and materially facilitates the work of the surgeon.

At the same time this device can also be used to advantage by seamstresses, tailors, and individuals in other callings where there is occasion for the frequent cutting of thread, string, small wires, and the like. It is also contemplated that the device may be modified in minor particulars, as for instance in shaping the blades to suit the requirements of some particular kind of work which the cutter is to perform, or by pivoting or loosely connecting each finger clasp with its blade.

An especially important feature of novelty of this instrument lies in the fact that it is located between the clefts of the fingers and utilizes the movement of the fingers toward and from each other in performing the cutting act, as distinguished from the thumb and forefinger movement, or the relative movement of the thumb and the fingers which is utilized in scissors of the common types, pliers, and various other cutting instruments.

Having thus described my invention, what I desire to claim as new is:

1. A cutter adapted to be carried by and between two adjacent fingers of the hand, said cutter comprising two members pivoted together, each member including a finger clasp and a cutter blade integral therewith, said blade being made of metal cut and bent away from the clasp whereby the cutter is adapted to lie in the crotch of the fingers and to be operated by a relative movement of the fingers, substantially as described.

2. A cutter of the character described comprising two cooperating shearing blades having end portions pivoted together, said cutter being adapted to lie in the crotch between two adjacent fingers of a hand, said blades being of such length as to maintain parallelism with said adjacent fingers, and two finger clasps secured to said blades, respectively, at the ends thereof opposite to said pivot and disposed at substantially right angles to the blades, said clasps being adapted to embrace said fingers, respectively, to enable said fingers to operate said blades and being made of relatively thin sheet metal whereby they may be bent to conform to the size of the fingers.

ERNEST AMORY CODMAN.