

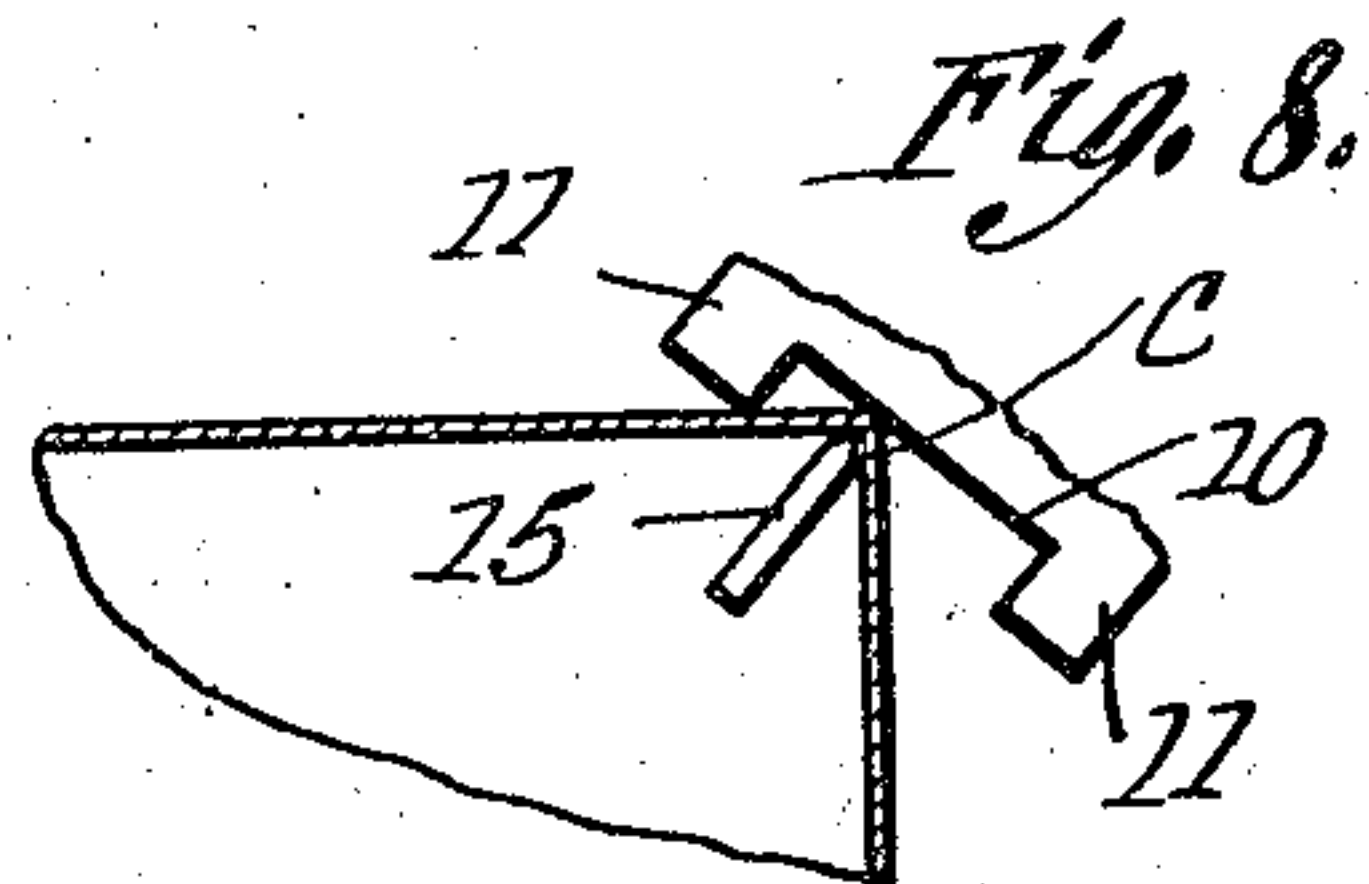
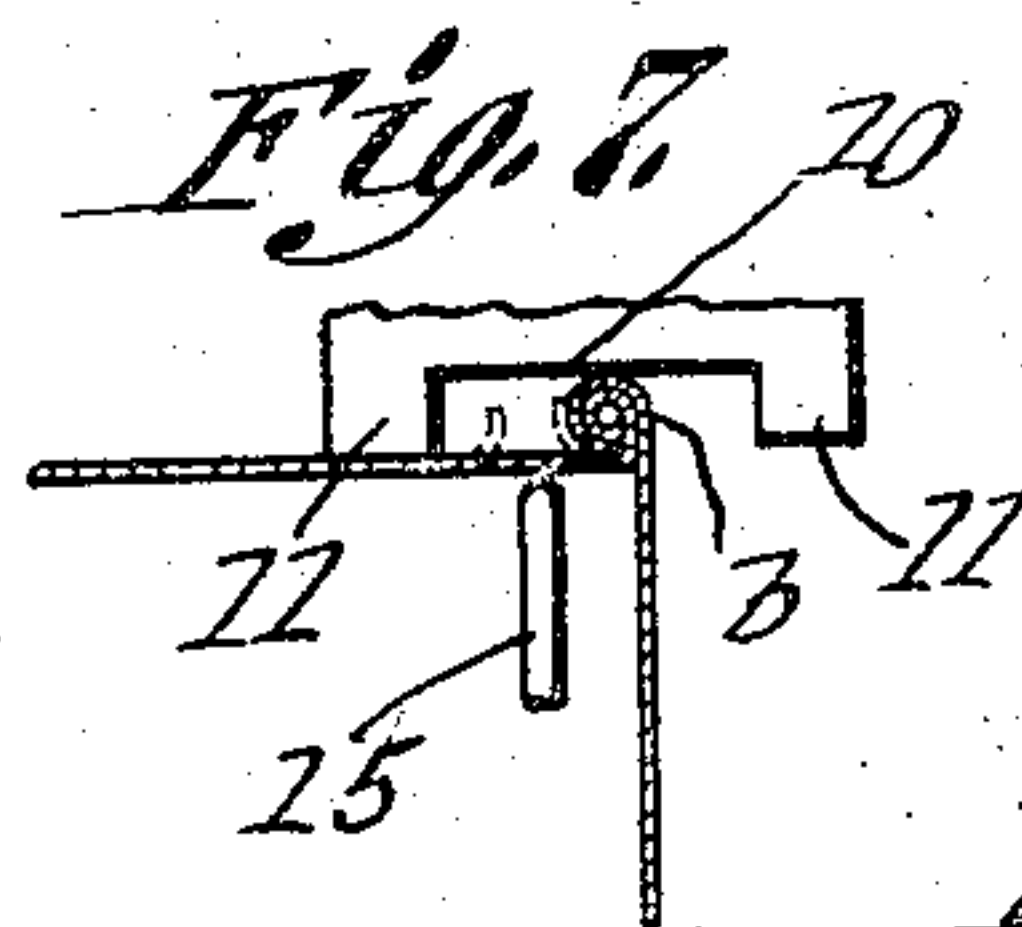
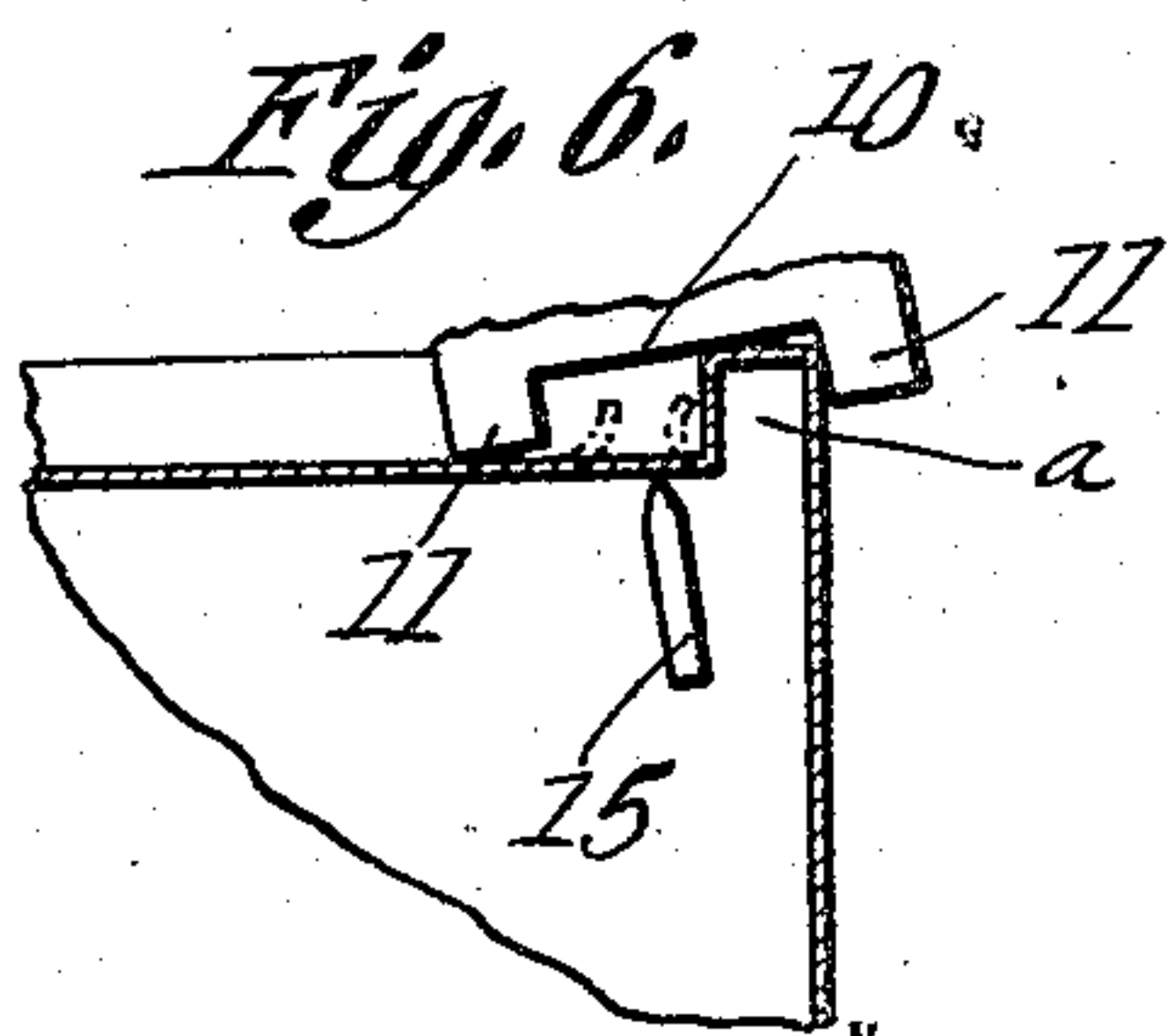
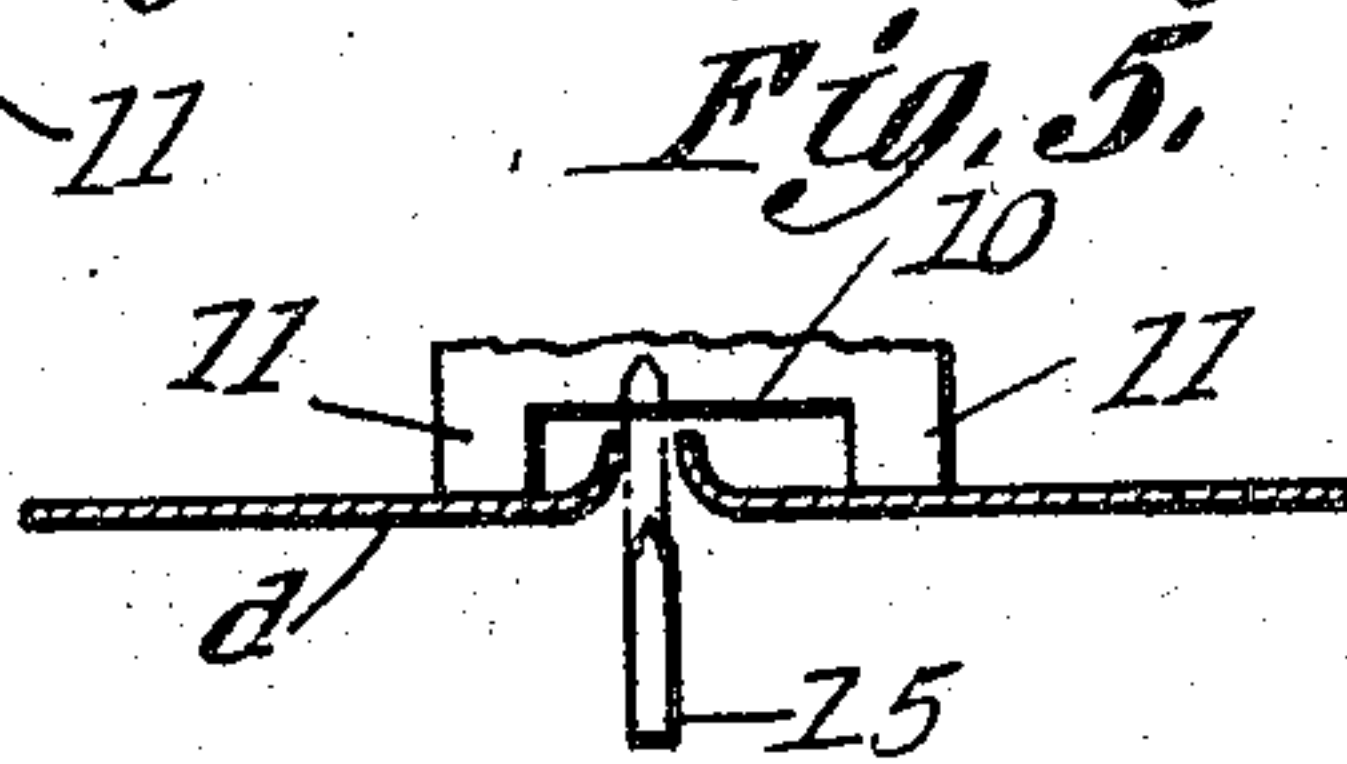
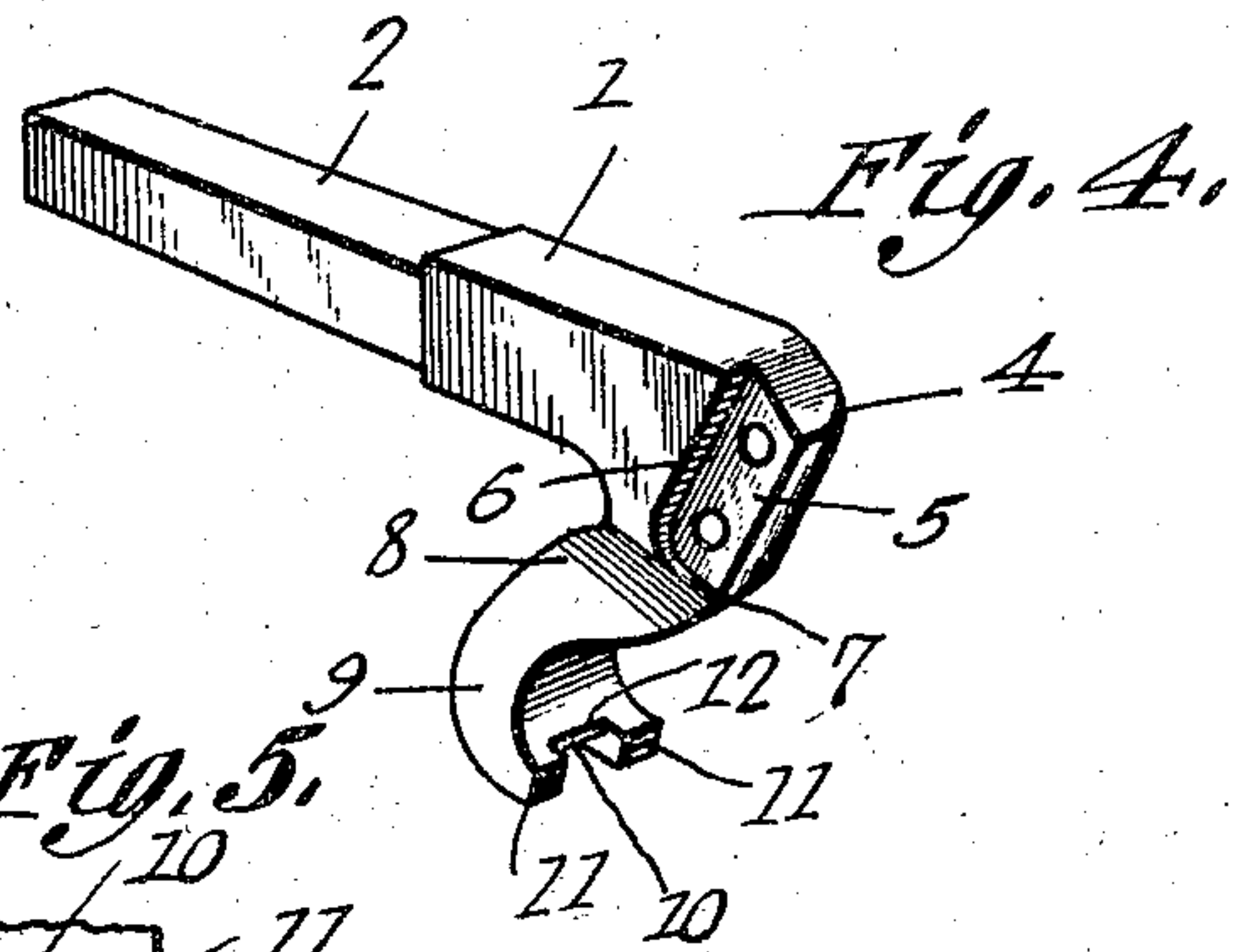
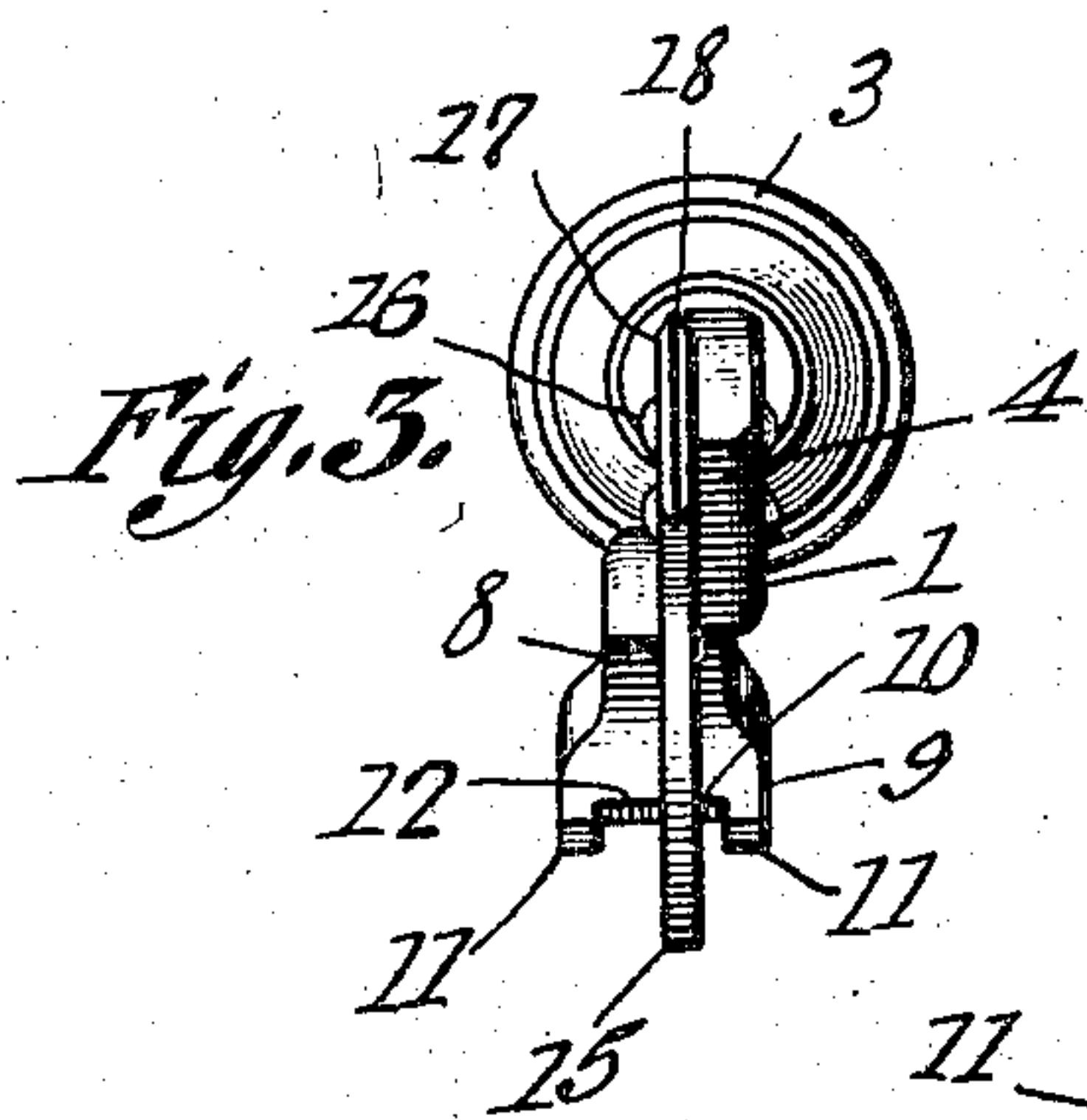
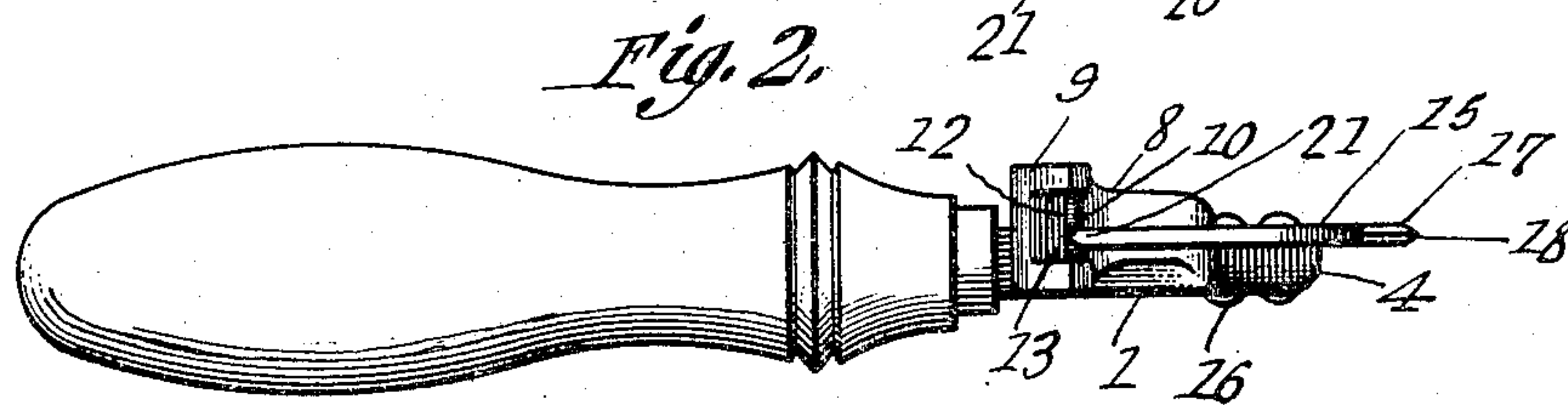
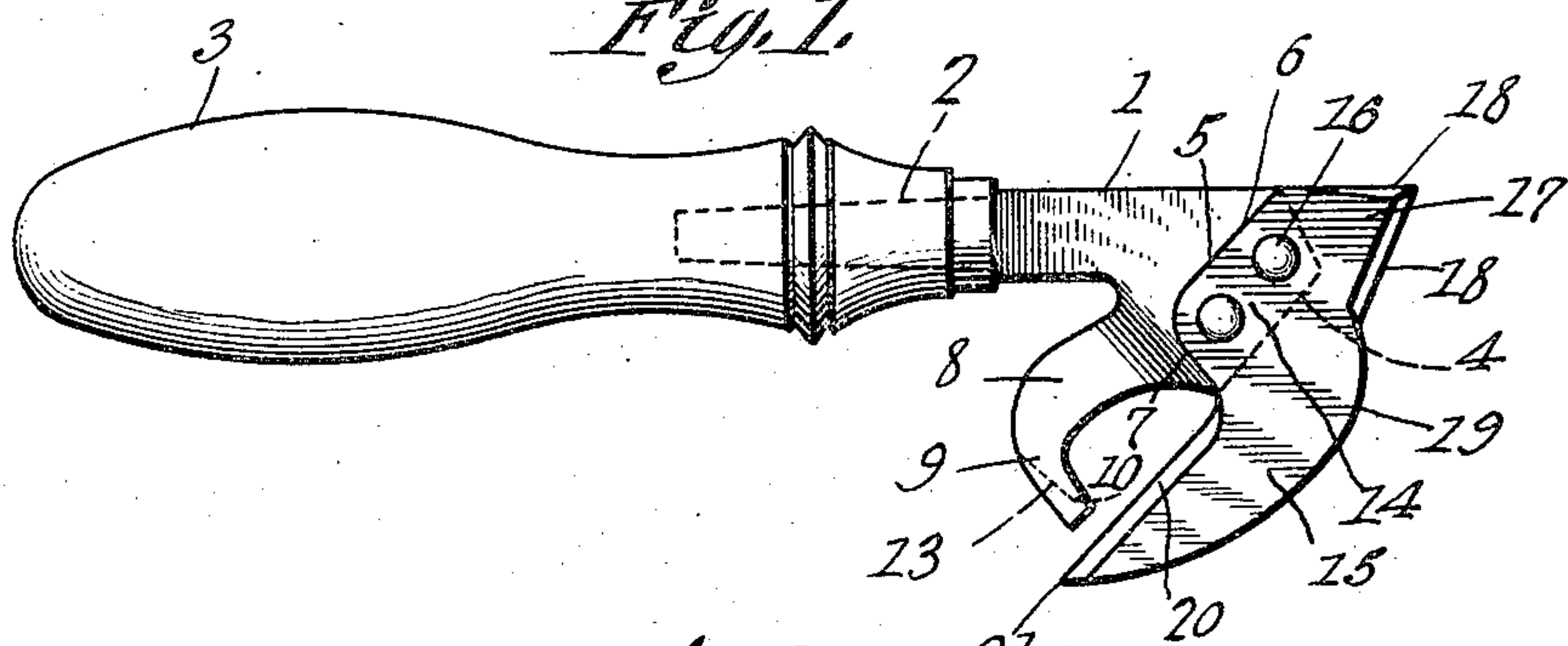
June 19, 1923.

1,459,261

L. D. ROBERTS

CAN OPENER

Filed June 30, 1922



Inventor

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By

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UNITED STATES PATENT OFFICE.

LEWIS D. ROBERTS, OF WASHINGTON, DISTRICT OF COLUMBIA.

CAN OPENER.

Application filed June 30, 1922. Serial No. 571,921.

To all whom it may concern:

Be it known that I, LEWIS D. ROBERTS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Can Opener, of which the following is a specification.

This invention relates to a can opener, one of its objects being to provide a simple structure of this character adapted to cut through the can during successive downward strokes of the handle of the tool, the direction of the cut being toward the user so that danger of injury due to accidental slipping of the device along the jagged edge of the can, is eliminated.

Another object is to provide a tool of this character the parts of which are so assembled that when a can is cut thereby the edge is curled upwardly and laterally so as to leave a substantially smooth surface around the opening produced in the can, thus enabling the can to be handled without danger of cutting the user.

Another object is to provide a can opener utilizing a fulcrum member so constructed and positioned relative to the cutting blade as to adapt the device for use in connection with cans of different types with equal efficiency.

Another object is to provide a can opener composed of few parts so arranged that they will not work loose as a result of the strains to which they are subjected.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings—

Figure 1 is a side elevation of the can opener.

Figure 2 is a bottom plan view thereof.

Figure 3 is an end elevation.

Figure 4 is a perspective view of the body portion of the device.

Figure 5 is a view showing in diagram the position of the fulcrum member and cutting blade when used for cutting through a flat sheet or through the side of a can.

Figure 6 is a similar view showing the relative positions of the blade and fulcrum member when the device is used for cutting through the head of a can having a high annular flange or, in other words, through a head considerably depressed from the end of the can.

Figure 7 is a similar view showing the application of the device to the head of a can having a small annular rib.

Figure 8 is a view similar to Figures 5, 6 and 7 and showing the position of the parts when used in cutting out the flat head of a seamless can.

Referring to the figures by characters of reference 1 designates the angular body of the device provided preferably with a tapered shank 2 adapted to be seated within a handle 3. This body terminates in a blunt end 4 one side of which is formed with a recess 5 providing an obliquely disposed side shoulder 6 merging at one end into an end shoulder 7. A finger 8 extends from the body and is offset laterally so as to project beyond the recessed side of the body. This finger has its free end downturned as at 9 and widened to produce an elongated fulcrum edge 10 interposed between parallel depending side lugs 11 constituting guards. The fulcrum edge 10 is angular in cross section so as to present biting edges 12. The inner sides of the lugs 11 are preferably perpendicular to the fulcrum edge 10 and the outer face of the finger 9 is preferably cut away as indicated at 13 so as to produce the blunt fulcrum edge 10 by reducing the thickness of the finger between the lugs.

Seated snugly within the recess 5 is a wing 14 formed at one end of a cutting blade 15. This wing is so shaped as to bear tightly against the shoulders 6 and 7 and it is held securely in the recess by rivets 16. Extending from the ring is a V-shaped perforating prong 17 having converging sharpened edges 18, the point formed at the meeting ends of these edges being nearly in line with the longitudinal axis of the shank 2.

The blade 15 has its outer edge preferably curved in the direction of its length as shown at 19 while that edge of the blade nearest the finger 8 is straight and sharpened as shown at 20, this straight edge and the curved edge 19 converging to a point 21 located beyond the free end of the finger 8. As shown particularly in Figures 2, 3, and 5 to 8 inclusive this cutting blade is not in

line with the center of the fulcrum edge 10 but is disposed in a plane intersecting said edge at a point nearer one of the lugs 11 than the other. Under ordinary conditions the tool is adapted to be held in the right hand of the user and in that event the blade is nearer the left hand lug than the right hand lug. This construction has been illustrated in Figures 5 to 8 inclusive as well as in Figures 2 and 3.

In using this device the prong 17 is thrust through the can at the point where the cut is to be started. The projecting point of the cutting blade 15 is then inserted through the puncture until the fulcrum edge 10 comes into contact with the bead or corner of the can as shown in Figures 6, 7 and 8. If the can has a high annular portion as shown at *a* in Figure 6 the right hand lug 11 will thrust laterally against the side of the can while the left hand lug will bear upon the end of the can, thus supporting the blade 15 in an inclined position. The edge 10 will rest on the annular portion *a*. By now thrusting downwardly on the handle 3 the fulcrum edge 10 will bite into that portion of the can engaged thereby while the blade 15 will swing about said edge as its fulcrum and cut through that portion of the can in the path of the edge 20. Handle 3 is then swung upwardly and at the same time pulled toward the operator so that the blade 15 is reinserted into the can. By again pressing downwardly on the handle 3 the edge 20 will shear upwardly through the metal in the path thereof. This action is repeated until the end of the can has been partly or completely severed. The upward shearing action of the blade 15 will result in the outer edge of the cut curling outwardly and laterally as shown in Figure 6 and, consequently, there will be no jagged edge left projecting from the can and on which the hand of the operator is likely to be cut. As the tool is drawn toward the operator after each cutting action and the blade 15 is not completely withdrawn from the cut until after the entire operation has been completed, it will be obvious that there is no danger of the tool slipping unexpectedly out of its position in engagement with the can. Consequently a can can be held in one end and opened by the tool held in the other hand without danger of injury to the operator due to unexpected release of the tool.

If the device is used in connection with a can having a low bead, as shown at *b* in Figure 7 the fulcrum edge 10 will properly center the tool and no side thrust by either of the lugs 11 will be necessary.

When it is desired to cut through the corner portion of a seamless can as shown at *c* in Figure 8 the fulcrum edge 10 can be placed at an angle so as to bear against the corner of the can and the left hand lug 11

will thrust laterally against the end of the can. Thus the blade 15 can cut through the corner portion of the can, the peculiar angle at which it is supported permitting it sufficient freedom of movement within the can to cut therethrough at the angle or corner.

In cutting through a flat sheet or through the side wall of a can as shown at *d* in Figure 5 both lugs will rest on the surface and these lugs will constitute the fulcrum of the tool in lieu of the edge 10.

Importance is attached to the fact that the blade 15 does not align with the center of the fulcrum edge 10 but is nearer one of the lugs 11 than the other. This allows the opener to be used in connection with different kinds of cans as will be obvious by referring to Figures 6, 7 and 8. Should the blade be located midway between the lugs it could not properly be used in connection with a can such as shown in Figure 6 or, possibly, with a can such as illustrated in Figure 7.

Importance is also attached to the fact that the lugs 11 are angular as they thus present efficient bearings to receive side thrusts and also properly bite into the can when the tool is used as illustrated in both Figures 5 and 8.

The shoulders 6 and 7 receive practically all of the strain resulting from the cutting action of the blade 15 and also from the perforating action of the prong 17. Thus the sole function of the rivets 16 is to hold the parts assembled and there is no danger of these rivets working loose.

By providing the cutting edge of the blade along a line extending toward the prong 17 and converging toward the longitudinal axis of the handle 3 and shank 2 an acute angle is formed within which is located the fulcrum finger 8 and this particular arrangement enables the cutting operation to take place during the downward thrusts of the handle 3 instead of during upward pulls thereon as ordinarily.

What is claimed is:—

1. A can opener including a body, a handle and a blade extending from the body, the cutting edge of the blade being disposed at an acute angle to the longitudinal axis of the handle, a finger extending from the body and into the angle between the handle and cutting edge, said finger having a transverse fulcrum edge at its free end, and side lugs extending from the ends of said fulcrum edge at angles thereto.

2. A can opener including a body having a recess in one side thereof extending thereinto from one end of the body, a handle extending from the body, a cutting blade having a wing snugly secured within the recess, a perforating prong extending from the wing, the longitudinal axis of the handle

being extended through the prong, and a finger extending from the body into the space between the handle and the cutting edge of the blade, said edge being disposed at an acute angle to the handle.

3. A can opener including a body, a handle, a blade extending from the body and having a cutting edge disposed at an acute angle to the handle, a finger extending from the body between said edge and the handle, that portion of the cutting edge between the finger and the body constituting means for cutting upwardly through a can during the downward movement of the handle, and spaced guard lugs extending from the free end of the finger, said finger having an angular biting edge between the lugs.

4. A can opener including a body, a handle extending therefrom, a finger extending from the body, said body having a recess in one side, a cutting blade having a wing snugly secured within the recess, a perforating prong extending from the wing, the longitudinal axis of the handle being extended through the prong, the cutting edge of the blade being disposed at an acute angle to the longitudinal axis of the handle and said finger extending into the space between said edge and the handle, there being an elongated fulcrum edge upon the

finger and thrust receiving lugs at the ends of said edge, the plane of the blade intersecting said fulcrum edge at one side of the center thereof.

5. In a can opener the combination with a body having a recess in one side thereof at one end and a handle extending from the other end, of a blade having a wing snugly secured within the recess, said blade having a straight cutting edge terminating in a point, a puncturing prong projecting from the wing and beyond the recessed end of the body, the longitudinal axis of the handle and the line of the cutting edge of the blade converging toward the prong, and a laterally offset fulcrum finger integral with the body and projecting between the handle and cutting edge of the blade, said finger being curved toward said edge and terminating in an elongated fulcrum edge spaced from the blade, there being angular thrust receiving lugs at the ends of the fulcrum edge.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of a witness.

LEWIS D. ROBERTS.

Witness:

IVY E. SIMPSON.