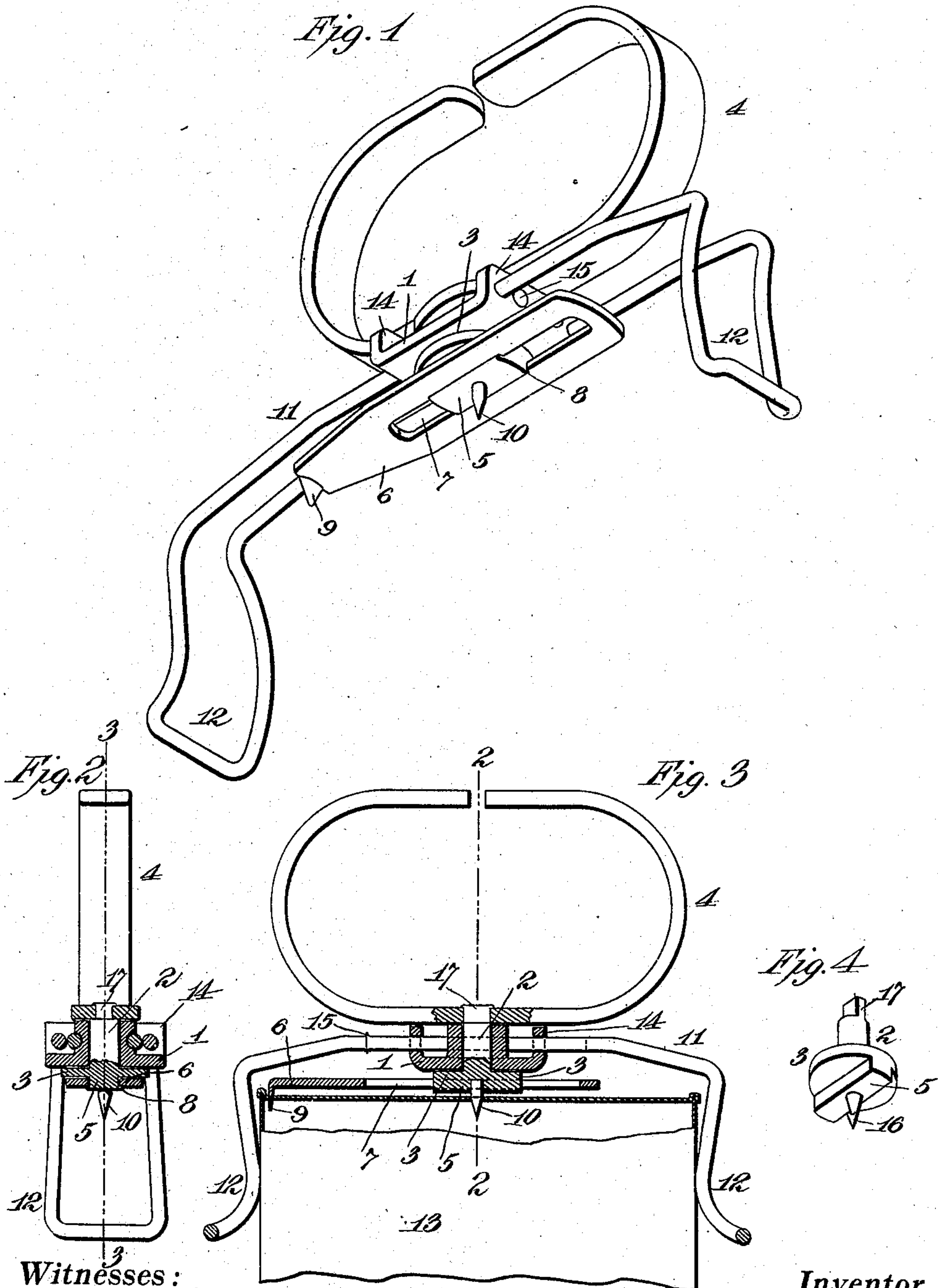


J. H. LYNCH.
CAN OPENER.

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900,030.

Patented Sept. 29, 1908.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH H. LYNCH, OF RED BANK, NEW JERSEY.

CAN-OPENER.

No. 900,030.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed December 12, 1907. Serial No. 406,154.

To all whom it may concern:

Be it known that I, JOSEPH H. LYNCH, a citizen of the United States, and a resident of Red Bank, county of Monmouth, State of New Jersey, have invented an Improvement in Can-Openers, of which the following is a specification.

The object I have in view is the production of a can opener which may be used in connection with cans of different sizes, which will cut a uniformly shaped piece from the can, which may be used without the necessity of special skill or strength on the part of the operator and which may be used without danger or injury to the person using it.

Further objects are to produce a device which may be cheaply constructed and not liable to get out of order.

Other objects will appear from the following specification and accompanying drawings considered together or separately.

In the drawings, Figure 1 is a perspective view of a can opener embodying my invention. Fig. 2 is a section on the line 2—2 of Fig. 3. Fig. 3 is a section on the line 3—3 of Fig. 2; and Fig. 4 is a perspective view of the spindle with a modified form of centering point or pin.

In all of the views like parts are designated by the same reference characters.

In carrying out my invention I provide a saddle 1, which contains a bearing for the spindle 2. The spindle has a flange or enlarged head 3, which bears against the bottom of the saddle, the upper end of the spindle passing through a ring which constitutes the handle 4 and is secured thereto, preferably by riveting. Fig. 4 shows the shape of the upper part of the spindle before its attachment to the handle 4. The spindle is provided at its upper end with a tenon 17 of non-circular cross section, which passes through an opening of the same size and shape in the handle, and is then riveted so as to hold the two together. The lower face of the saddle 1 is flat and the enlarged head 3 of the spindle is also provided with a flat upper surface which engages with the saddle, and by means of which a bearing surface of material size is produced. The lower portion of the enlarged head is provided with a feather or key 5, preferably of the oblong or rectangular shape, as shown. This key serves as a support for the tool-

carrying arm 6, the said arm having a slot 7 which engages with the key. Means is provided for keeping the arm in engagement with the slot, such means being preferably an overhang or enlargement 8, which may be conveniently and cheaply made by a riveting action. On one end of the arm 6 is a tool 9, such tool being preferably made integral with the arm. The centering point 10 is carried by the spindle 2, preferably in the center of the key 5, which point extends downward, preferably about the same distance as does the tool 9.

For the purpose of steadying and supporting the saddle an adjustable bridge or clamp 11 is provided, such clamp or bridge having finger pieces 12—12 which are adapted to be engaged against opposite sides of the can 13, or other article, which is to be operated upon by the tool. These finger pieces 12—12 have diverging lower extremities, as shown, so that there will be thereby produced a convenient means for engagement with the fingers of the hand which grasps the can. The clamp or bridge is preferably made of wire bent to the shape shown, the ends of the wire passing through holes in the turned-up flanges 14—14 on the saddle. The clamp is made in two parts, one on each side of the saddle, the wires from one side passing in the opposite direction to those of the other. The free ends of the wires may be riveted to form enlarged heads, as shown, at 15, so as to prevent the accidental removal of the bridge from the saddle. The wires pass freely through the openings in the saddle, and by moving the finger pieces 12—12 toward or away from each other, the clamp can be adjusted to fit cans of any size. The wires forming the two portions of the clamp or bridge may be given a permanent converging or diverging set so as to frictionally engage with the openings in the flanges 14. The saddle, and with it the spindle, and centering point can be adjusted to engage with the center, or any other portion of the head of the can which may be operated upon.

The operation of the device is as follows: The clamp is expanded so that the finger pieces 12—12 engage with each side of the can. The tool-carrying arm is then adjusted on the spindle, causing the tool to make a circle of the desired size. The centering point and tool 9 are now forced into

the top of the can by pressure exerted upon the handle 4. The clamp is now held firmly in place upon the can, the elasticity of the wires and their sliding engagement with the saddle permitting this to be done, so as to keep the tool and centering point in engagement with the top of the can, and the spindle and with it the tool are now rotated by means of the handle. A complete circle or a portion of the top of the can of less than a circle may be cut out.

It is apparent that the device may be adjusted to fit cans of varying diameters and that the device may be used without danger of the operator being injured.

In the modification shown in Fig. 4, the centering point is provided with a hook 16, which, when a complete disk is cut out of the top of a can, it will be retained and supported by the hook and will not drop into the can.

The pin 10 is shown as formed separately from the spindle 2, but it need not be so made. The flange 8 is shown as extending the full length of the key 5, but it need not be so made, as it can be confined to only a portion of the length of the key, such as at each end. The shape of the handle, the bridge, the saddle and other parts may be varied as may be convenient or desirable—the one shown merely illustrating the principles of the invention.

It is to be noted that the tool 9 has a double cutting edge so that it will cut equally effectively when the handle is rotated in one direction as in the other. If desired, the tool may have but one cutting edge. The shape of the centering point 10 may be modified so that it does not necessarily have to puncture the top of the can 13. In fact, it is possible to modify the device so that the centering point may be omitted, the spindle being held in position entirely by the bridge 11.

In accordance with the provisions of the patent statutes, I have described the principle of my invention, together with the apparatus which I now consider to represent the best embodiment thereof, but I desire to have it understood that the apparatus shown is merely illustrative and that the invention can be carried out in other ways.

Having now described my invention, what

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

1. A can opener having a spindle, a centering point thereon and a tool-carrying arm, and means for engaging the point and tool with the can, the said means including a bridge which may be clamped against the can.

2. A can opener having a spindle with a handle attached thereto, and a centering point, a tool-carrying arm on the spindle, a tool on the arm, and means for adjusting the distance between the tool and point, a saddle, a bearing on the saddle for the spindle, an adjustable bridge on the saddle, and means on the bridge for engaging it with the can.

3. A can opener having a spindle, a handle for rotating the spindle and a bearing for the spindle, the said spindle carrying a cutting tool and the bearing engaging with a bridge, the said bridge having finger pieces, by means of which it may be held in place upon the can.

4. A can opener which has in combination a spindle, a handle for rotating the spindle, a tool-carrying arm adjustably mounted on the spindle, a tool on the arm, and a flexible bridge for supporting the bearing of the spindle in position upon the can.

5. A can opener having a tool and means for causing the tool to traverse an arc of a circle, the said means turning about a center, and a bridge for supporting the tool and having finger pieces by means of which it may be held clamped in position upon the can.

6. A can opener which comprises a tool, a spindle carrying the tool, a saddle having a bearing for the spindle, means for rotating the spindle and an adjustable bridge, the said bridge comprising wires passing through bearings in the saddle and formed in two parts, one on each side of the saddle, and having depending finger pieces, the distance separating the finger pieces being adjustable by sliding the wires within their bearings.

This specification signed and witnessed this third day of December, 1907.

JOSEPH H. LYNCH.

Witnesses:

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