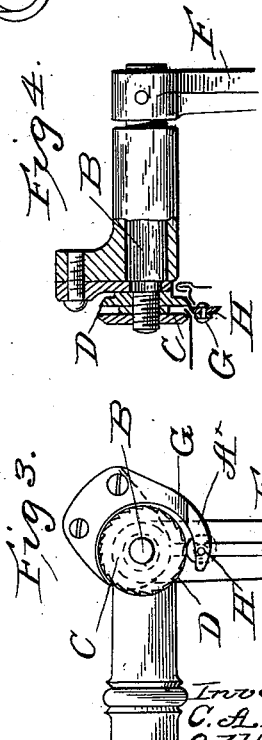
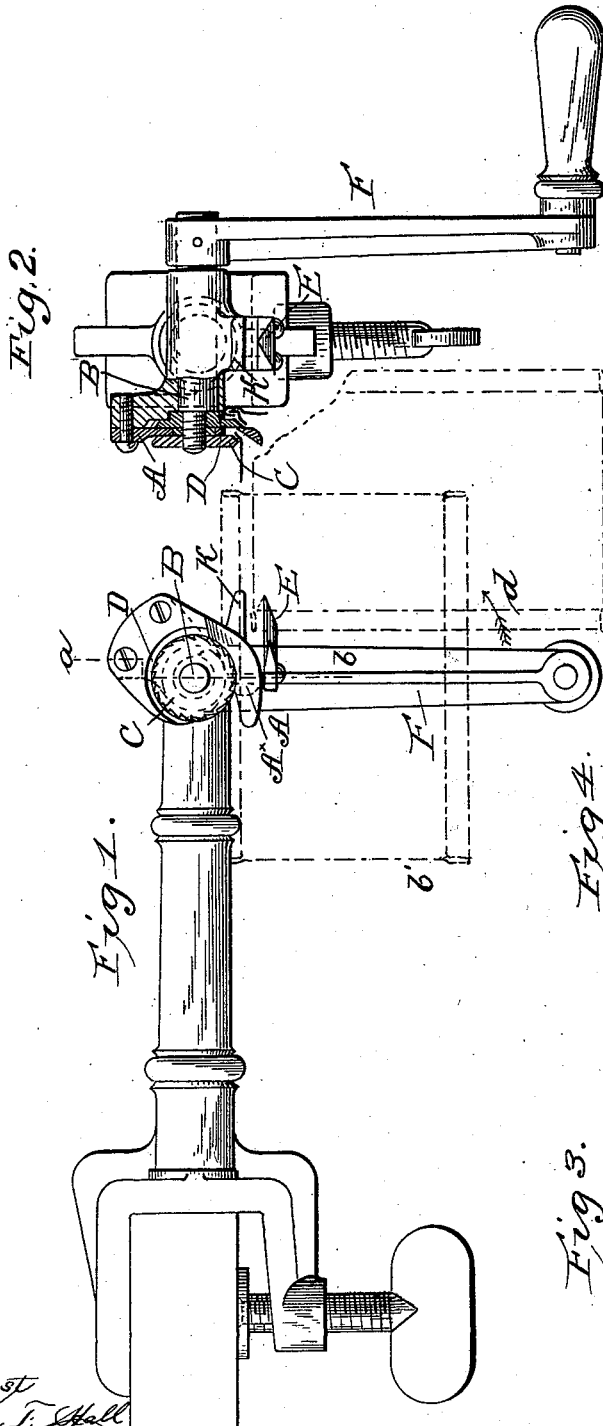


(No Model.)

C. A. & O. W. HULT.
CAN OPENER.

No. 522,213.

Patented July 3, 1894.



Attest
Wm. F. Hall
Notary Public

Inventors:
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by Richards & Co
Atty's.

UNITED STATES PATENT OFFICE.

CARL ALRIK HULT AND OSCAR WALFRID HULT, OF STOCKHOLM, SWEDEN.

CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 522,213, dated July 3, 1894.

Application filed October 6, 1893. Serial No. 487,386. (No model.)

To all whom it may concern:

Be it known that we, CARL ALRIK HULT, mechanician, a resident of 30 Westmannagatan, and OSCAR WALFRID HULT, mechanician, a resident of 14 Carlavägen, Stockholm, in the Kingdom of Sweden, subjects of the King of Sweden and Norway, have invented a certain new and useful Improved Apparatus for Opening Sheet-Metal Cans, Boxes, and the Like, of which the following is a specification.

The invention includes a cutter adapted to pass through the metal, a wheel against which the cutter bears and a feed wheel arranged at a slight distance from the other wheel and knife with means for turning the wheels positively. It includes in combination with the above a spur adapted to make an opening in the metal for the introduction of the cutting knife.

Referring to the drawings which form a part of this specification, Figure 1 is a side view of the apparatus, fastened to a table. Fig. 2 is a front view of the same, partly in section on the line *a-b* of Fig. 1. Figs. 3 and 4 represent a modification.

To the body of the apparatus is fixed a knife A of the shape shown in the drawings and in the said body is journaled the shaft B, supporting at one end two small steel wheels C and D, which, when the shaft B is rotated, turn one on each side of the knife A. One wheel D is located immediately against the knife A and assists in the cutting operation. The other wheel C is toothed at the rim and is located at a little distance from the knife A and has for its object to feed and fold up the tin plate to be cut open. The cutting wheel D can likewise be toothed at the rim and when so constructed not only assists to feed the plate but facilitates the cutting of the plate. To the body of the apparatus there is further secured a pointed knife E. By turning the box on edge and so that the point of the knife E rests at the rim of the box-lid and then by pressing the box against the knife, the latter will penetrate the lid and make an opening, through which the billed part of the knife A can be brought down at the inside of the lid. In order to prevent the opening to be cut up too far from the edge of the lid, there is at a sufficient dis-

tance above the knife E a projection K, under which the edge of the box may be placed, when the knife is to be pressed in through the lid.

When making the opening, the box is held in the position indicated by the dotted lines *a'* and for introducing the knife into the opening thus made, the box is turned in the position indicated by the dotted lines *b'*. By turning the handle F in the direction indicated by the arrow *d* the tin-plate will as already said, be fed and cut by the sharp fore edge of the knife A and the cutting wheel D. At the same time also the edge of the lid, pressing against the side of the knife, will be bent upward being pressed down by the feeding wheel, the rim of which is beveled, thus making way for feeding the knife A between the edges of the tin-plate, so that the box can in the course of the cutting operation be turned without hinderance from the knife, when executing a curvilinear cut along the rim of the lid. A further advantage is that the lid can easily be caught at the edge and bent upward after being cut open.

The apparatus can be modified as shown by Figs. 3 and 4 and in this case it is to be compared with a pair of rotatory shears. The knife A is replaced by an arm G of about the same shape and fixed in about the same manner as the knife and to the lower end of which is fixed a cutting wheel H. This passes under the plate, when the arm G, similarly to the knife A, is brought down through an opening in the plate. The cutting wheel D, which together with the feeding wheel C is secured on the shaft B, passes above the plate. The operation of cutting with the shears modified in this way will be easily understood without further description.

It will be noticed that in Figs. 1 and 2 the cutting knife comprises a cutting edge on the curved arm A^x adapted to pass through the metal. This cutting edge in Figs. 3 and 4 is in the form of a cutting disk or wheel carried by said arm.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In combination, the cutting edge carried by an arm adapted to pass through the metal,

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the wheel against which the knife bears, the feed wheel arranged at a slight distance from the other wheel and knife and the means for turning the wheels positively, substantially
5 as described.

2. In combination in a can opener, the cutting knife, the wheels acting in conjunction therewith and the spur E independent of both the cutting knife and also of the said
10 wheels, said spur being arranged to make an

opening for the introduction of the cutting knife, substantially as described.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

CARL ALRIK HULT.

OSCAR WALFRID HULT.

Witnesses:

HJÄLMAR VON KÖHLER,

CARL TH. SUNDHOLM.