

J. HILTON.

Can-Opener.

No. 220,241.

Patented Oct. 7, 1879.

Fig. 1.

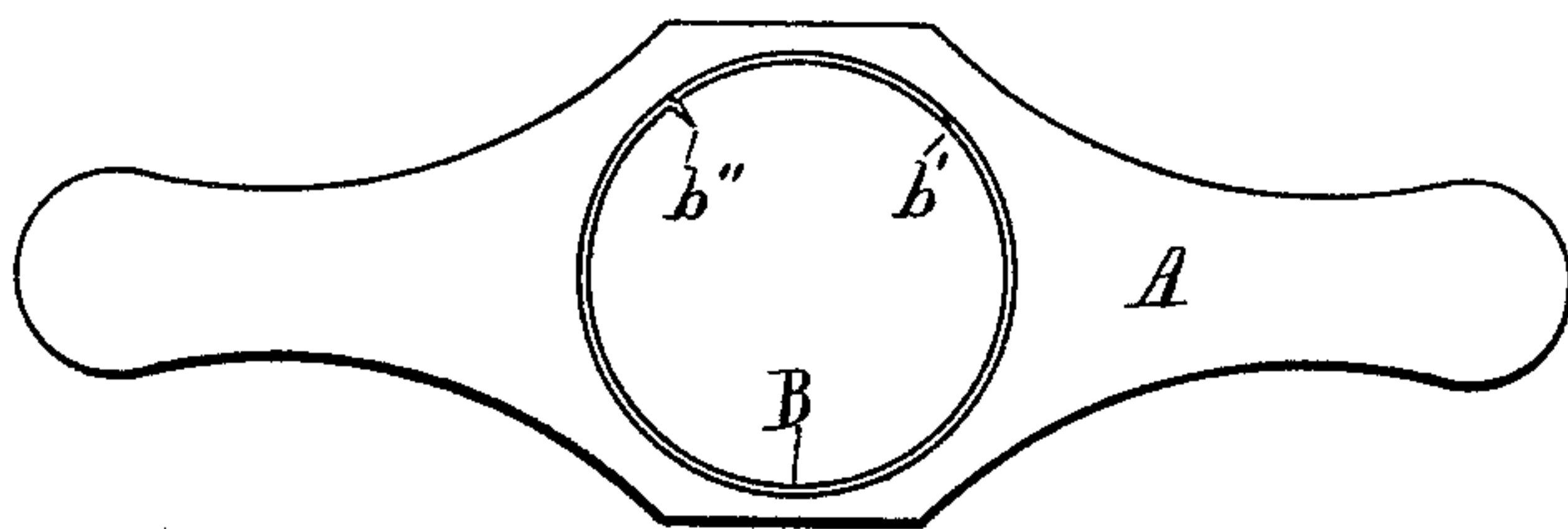
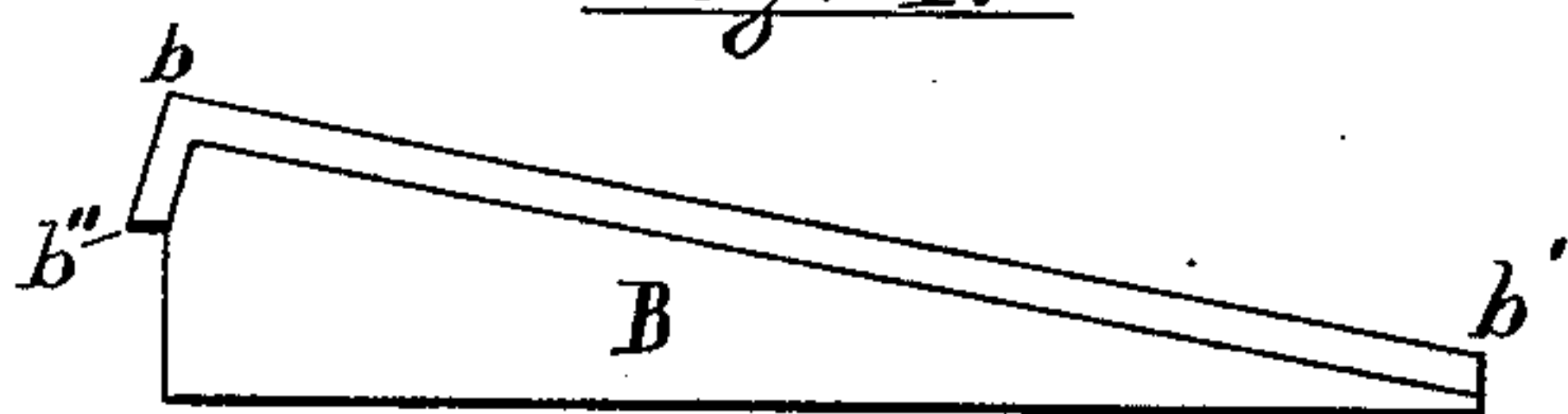


Fig. 2.

Fig. 3.

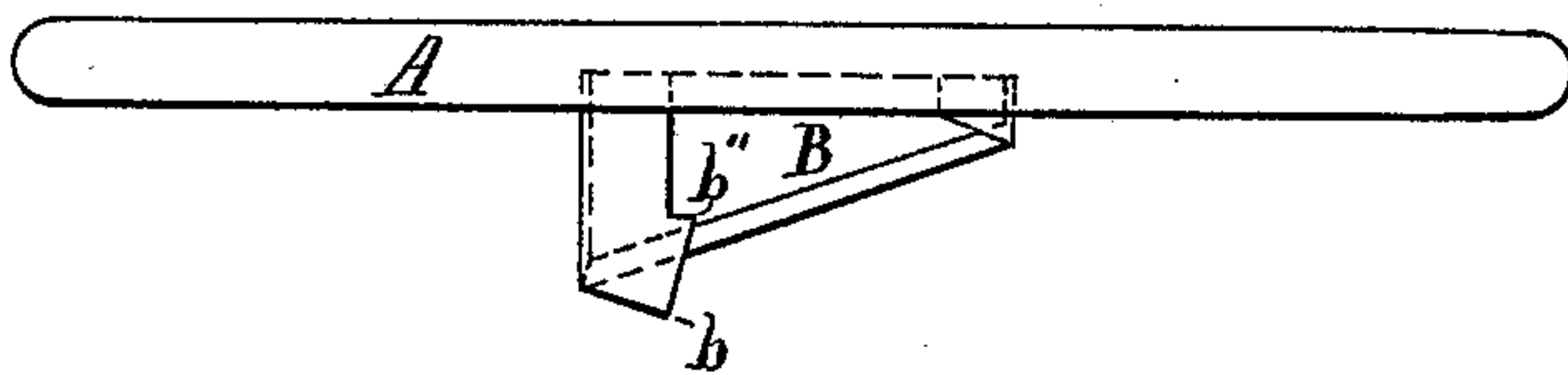
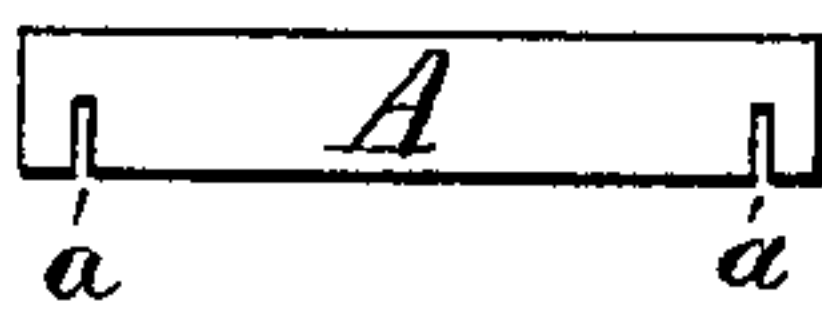


Fig. 4.



Attest:

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UNITED STATES PATENT OFFICE.

JAMES HILTON, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN CAN-OPENERS.

Specification forming part of Letters Patent No. **220,241**, dated October 7, 1879; application filed April 15, 1879.

To all whom it may concern:

Be it known that I, JAMES HILTON, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Can-Openers, of which the following is a specification.

My invention relates to that class of can-openers which is secured to one side of a transverse handle and is operated by a direct pressure upon the metal intended to be cut; and it consists in uniting a nearly-annular cutter to a wooden handle by pressing the thin edge of the metal into a circular groove in one side of the latter, and in providing the cutter with a lifting tooth or projection adapted to engage with the part cut out and lift it from the opening into which it fits.

Figure 1 of the drawings shows the cutter B before it is fitted to the handle A. Fig. 2 is a view of that side of the handle in which the cutter B is secured. Fig. 3 is an edge view of the whole device, and Fig. 4 is a section of the handle A on the central line of the cutter B or circular groove *a*.

A flat piece of wood, shaped at each end to fit the hand, and about the width of the bent cutter B, Fig. 2, forms the handle of my can-opener, and with the tapering steel-cutter, bent into annular shape, forms the entire device.

A circular groove, *a*, Fig. 4, is cut in the flat side of the wood by a barrel-saw or other suitable device, and the cutter B is forced into it by proper tools, as a block of hard wood or soft metal fitted to the tapering edge, and needs no other fastening to keep it secured in its place.

The cutter is a strip of sheet-steel about No. 20 gage, of sufficient length to compass about two-thirds of the length of the groove, and is made at the end *b'* but little wider than the depth of the groove *a*, while the other end extends about an inch and a quarter above the groove, as shown in Fig. 3, its corner *b* forming a cutting-point, which readily penetrates the tin when pressed thereon.

By rolling the cutter into a larger or smaller circle than the diameter of the groove, the metal requires a further compression to force it into the groove in the wood, and it is thereby

prevented from getting loose in case the wood subsequently shrinks, as the expansion of the metal after its insertion in the wood keeps it firmly pressed against the sides of the groove. As soon as water gets into the groove, when the cutter is put in use, the formation of rust cements it very tightly in its place.

The wide end of the cutter has a portion cut out from the end, on the side forced into the wood, leaving a projecting hook or tooth, *b''*, which serves the purpose of lifting out of the can the portion cut loose by my opener.

The operation of this hook is as follows: Its point is turned at right angles to the groove and cutter B, and it thus cuts a small notch in the tin, through which it passes into the interior of the can. The cutter, after being forced down into the can, cuts loose one-third of a circular piece of tin, and is then turned partially around to complete the cut, which removes the hook *b''* from the notch through which it first passed, the turning of the inclined edge of the cutter at the same time forcing the cutter out of the can until the hook *b''* strikes the under side of the tin. When this occurs the cutter is forced again into the can, and, upon being withdrawn, the part cut is lifted out of the can by the contact of the hook with its under side.

By these operations the loose piece is left connected with the can-top by a hinge-like piece. If desired, this also may be cut off by a third movement downward.

My can-opener will thus accomplish all that is done by more cumbrous devices, while the small number of its parts and the simplicity of their shape renders the cost of the whole device no greater than that of an iron lever with a sharpened edge, which requires considerable skill and strength to use.

The blank, with its hook *b''*, as shown in Fig. 1, can be cut from a straight sheet without waste, and the notch cut in its wider end by a foot-punch. It can then be ground on a stone or wheel, to form the cutting-edge, with much greater facility than toothed or scalloped cutters, and is finally bent into a circular ring by a tinman's rolls.

The absence of screws or nails from the fast-

ening saves the formation of holes in the steel and the splitting and injury to the wood from water entering the nail-holes.

Having thus described my invention, I desire to claim the same as follows:

1. The cutter B, of tapering form, and having a hook formed on one of its ends for lifting the cover cut from the can, as herein set forth.

2. The cutter B, of tapering form, and provided with the hook *b''*, in combination with the handle A, provided with a circular groove, *a*, substantially as and for the purpose described.

JAMES HILTON.

Witnesses:

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T. S. CRAM.