

(No Model.)

E. KUHN.
PATTERN FOR CASTING HOOKS.

No. 445,812.

Patented Feb. 3, 1891.

Fig. 1.

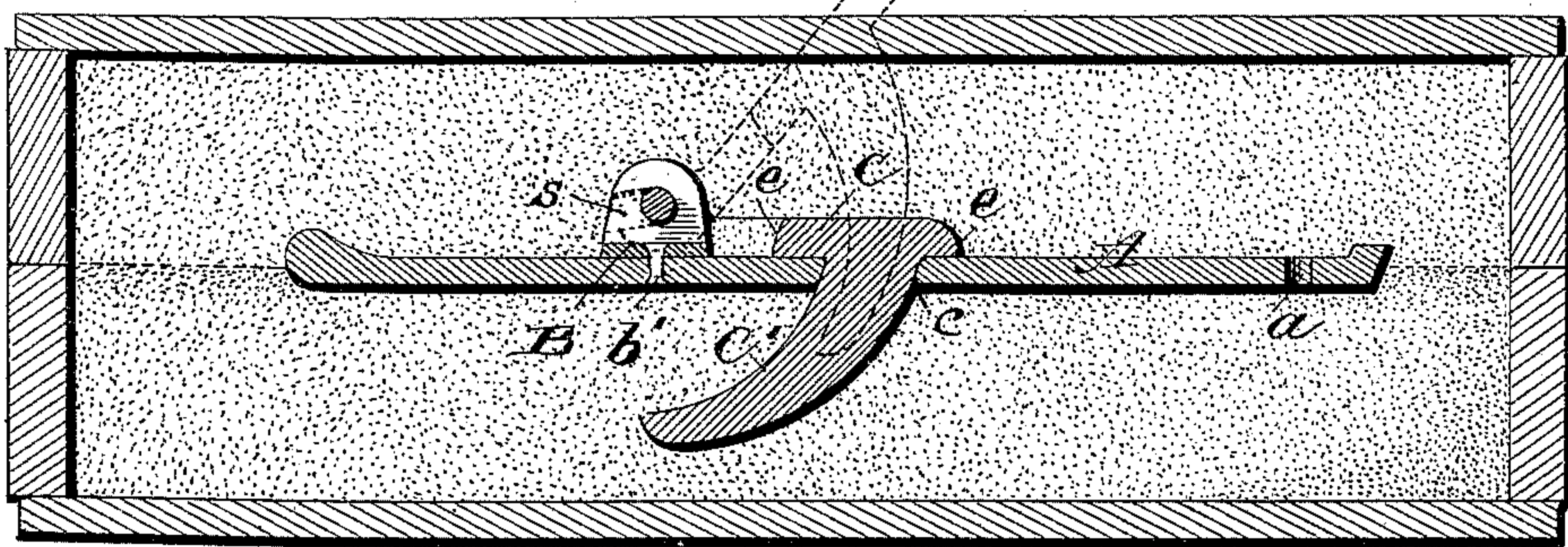


Fig. 2.

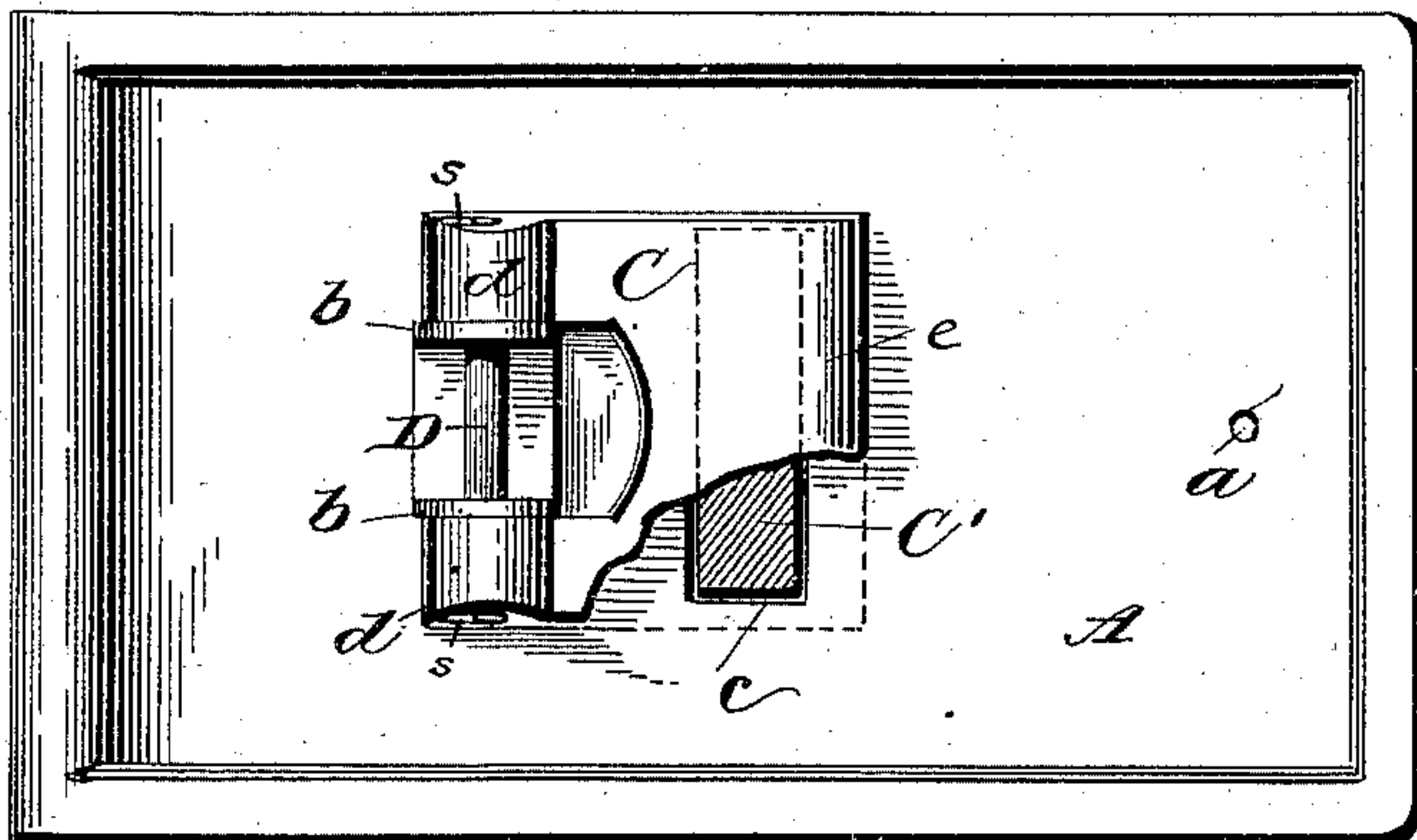
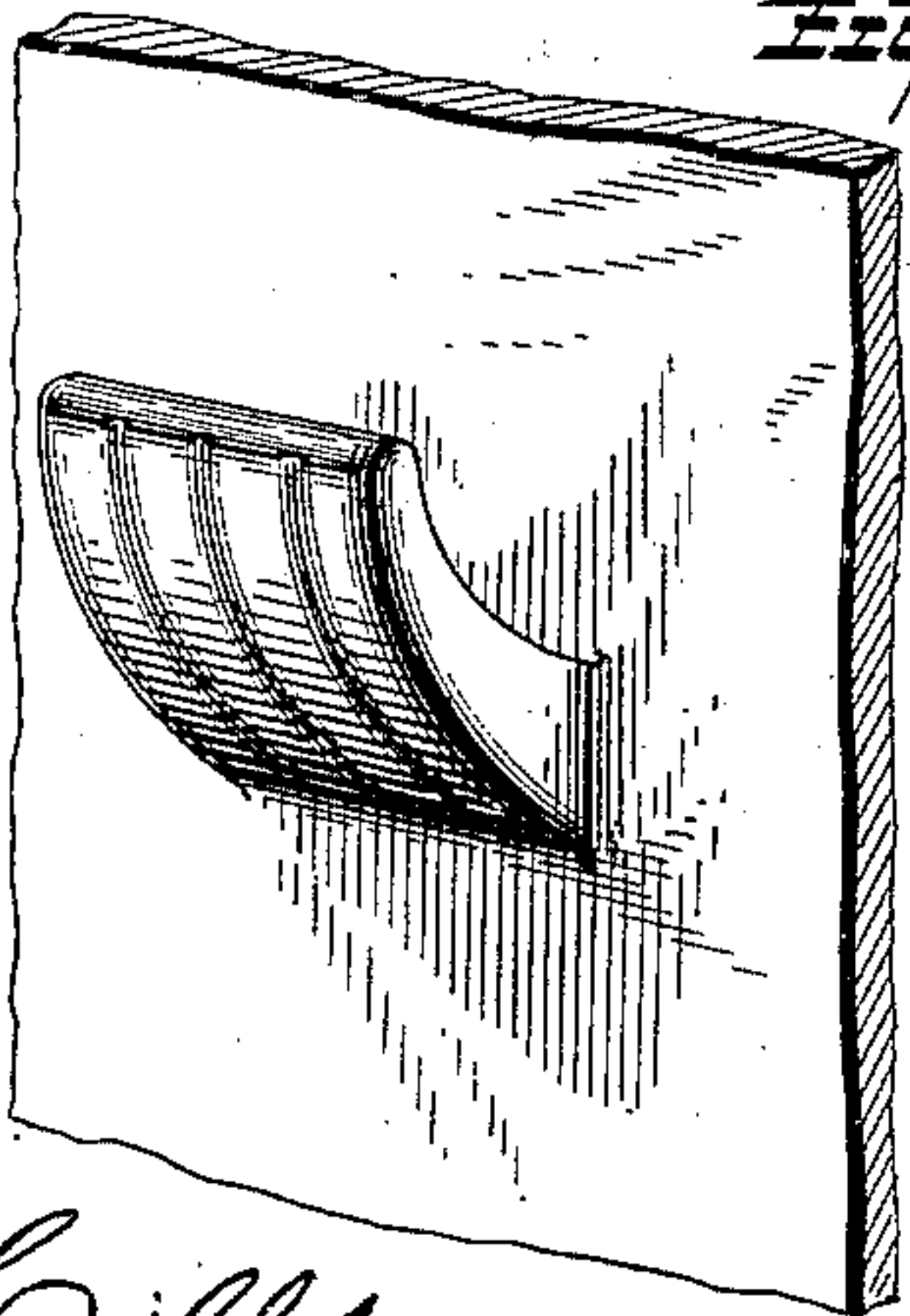


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND KUHN, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO EDWARD
SCANLAN, OF SAME PLACE.

PATTERN FOR CASTING HOOKS.

SPECIFICATION forming part of Letters Patent No. 445,812, dated February 3, 1891.

Application filed July 31, 1890. Serial No. 360,452. (No model.)

To all whom it may concern:

Be it known that I, EDMUND KUHN, a citizen of the United States, residing at Louisville, in the county of Jefferson, State of Kentucky, have invented certain new and useful Improvements in Patterns for Casting Hooks, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in patterns designed for use in casting articles provided with an overhanging or an underhanging part or parts; and it has for its object to provide a pattern
15 wherein the part conforming to the projection on the completed article shall be movable to provide for ready removal from the mold.

Other advantages of the invention will
20 hereinafter appear, and the novel features thereof will be clearly defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, together with
25 the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a central section through a mold illustrating my improvement. Fig. 2 is a
30 plan of the pattern with a portion of the movable part broken away and a portion of the hook shown in section. Fig. 3 is an enlarged perspective view of a portion of the completed article, showing the hook.

Like letters of reference indicate like parts
35 throughout the several views.

Referring now to the details of the drawings by letter, A designates the pattern formed with hole *a*, by which and a suitable tool the pattern may be lifted from the mold. Upon
40 one face this plate is provided with ears *b*, either integral therewith, as shown in Fig. 2, or carried by a separate plate B, and attached thereto by suitable means, as rivets *b'*, as shown in Fig. 1. The pattern or plate A is
45 formed in the position where the overhanging or underhanging part is desired with an opening *c*, as shown in Figs. 1 and 2.

C is the movable part, having a hook or other portion C', which conforms to the shape

and configuration of the projecting part on
the completed article. This portion C is con-
nected in any suitable manner so that the
portion C' shall move upon the arc of a circle,
as illustrated by dotted lines in Fig. 1. It
may be pivotally connected with the plate A
55 by means of a transverse pin or wire D,
which passes through the ears *b* and through
ears *d* on the part C, the lugs or ears *d* of the
part C being open upon one side, as indi-
cated at *s* in Figs. 1 and 2, so as to allow of
60 the ready separation of the part C from the
plate. The transverse edges of the part C
are rounded, as shown in Fig. 1, and the outer
edge is projected slightly beyond the junction
of the hook, as shown at *e* in Figs. 1 and
65 2, so as to have a bearing upon the plate, as
shown, when the parts are in a position shown
in full lines in Fig. 1.

The operation will be readily understood
from the above description when taken in
70 connection with Fig. 1.

The invention is applicable to patterns for
all forms of cast articles having overhanging
or underhanging portions.

I deem it important that the movable portion
75 be pivoted to the face of the face-piece upon
the side opposite to that upon which the pro-
jection is formed, so that the hook only shall
project through the opening in the face-piece,
whereby the turning of the movable portion
80 on its pivot will not leave a depression in the
sand of the mold.

What I claim as new is—

The pattern herein described, consisting of
a face-piece provided with a hole and with
85 ears having open-ended slots, and a movable
portion pivoted between the ears with its
hooked portion only designed to move through
said hole on the arc of a circle and its pivots
detachably held in the open-ended slots, sub-
90 stantially as described.

In testimony whereof I affix my signature in
presence of two witnesses.

EDMUND KUHN.

Witnesses:

GUY C. SIBLEY,
D. S. FINLER.