

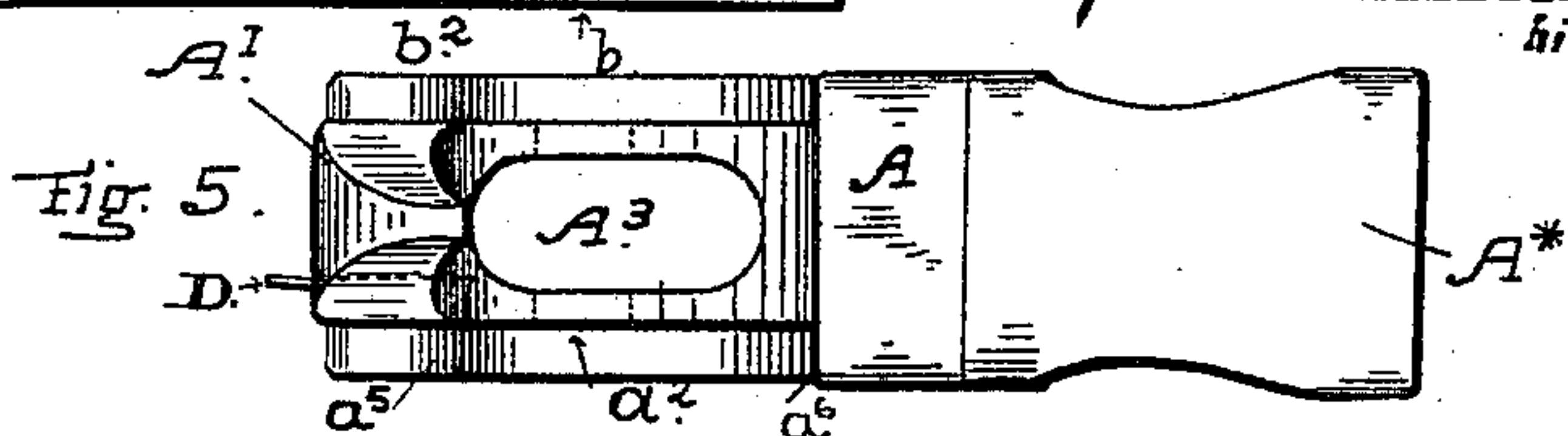
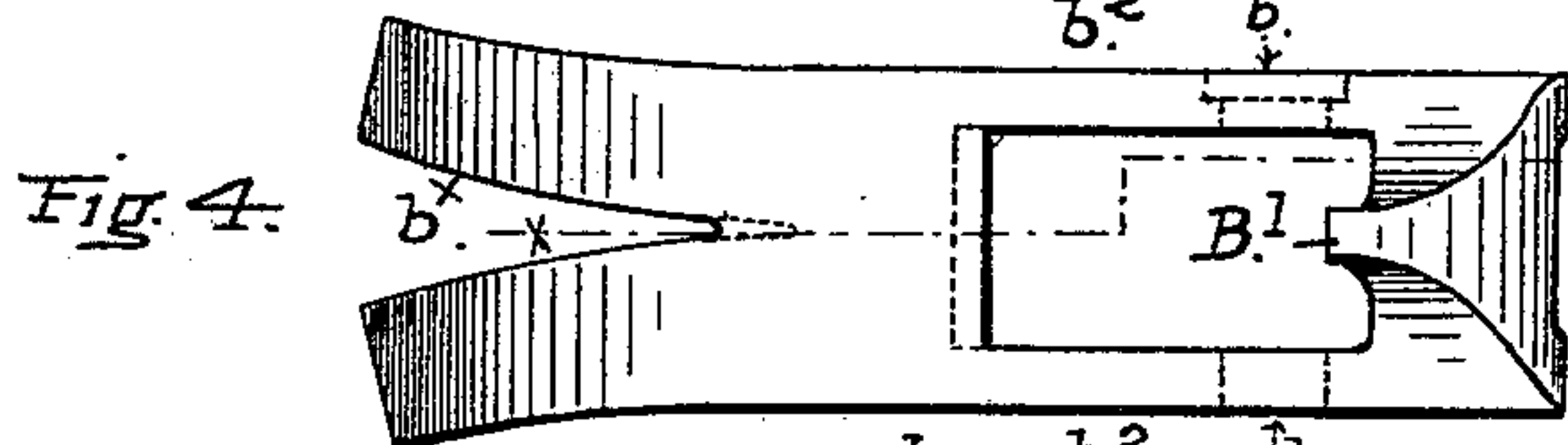
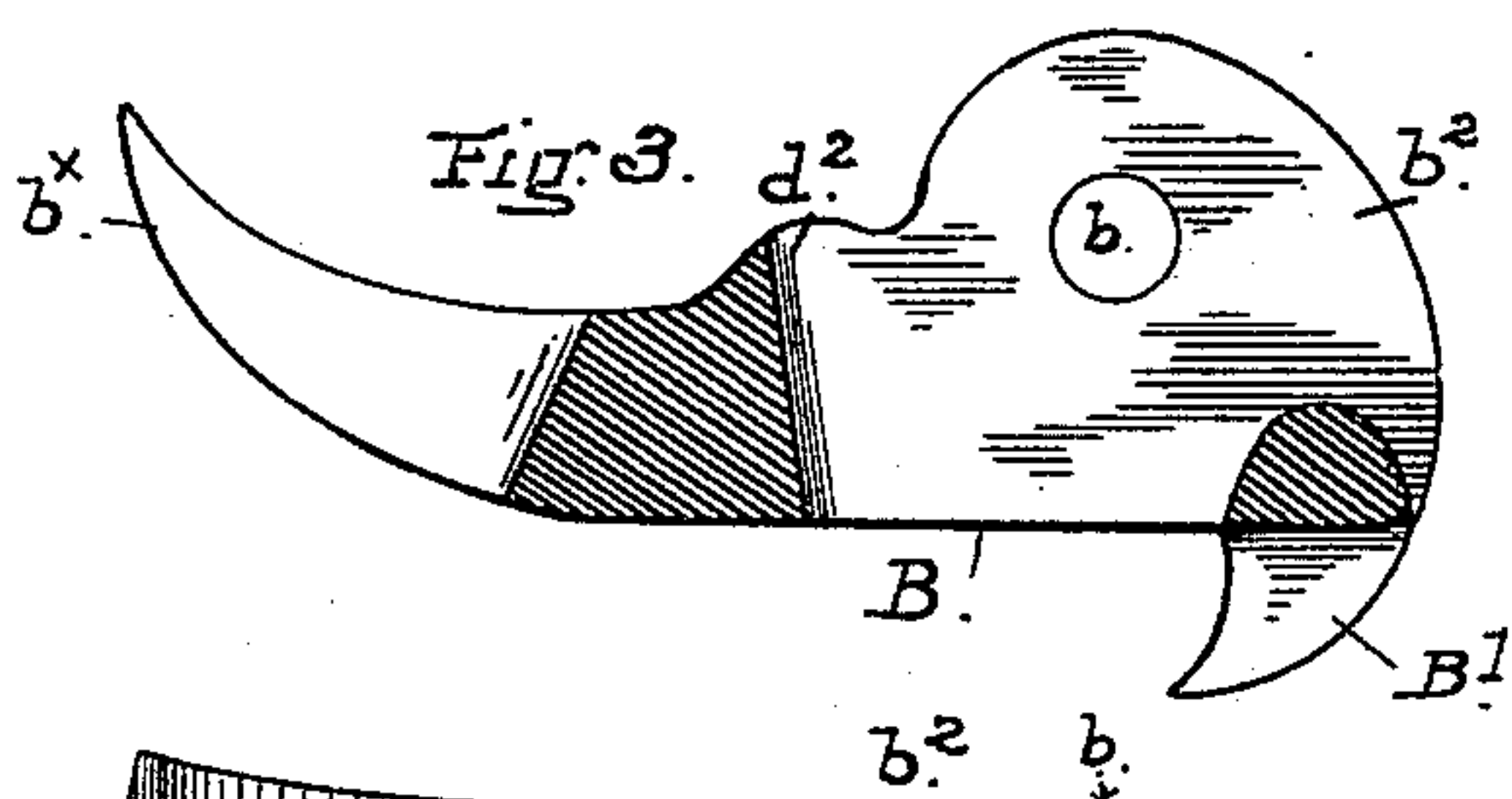
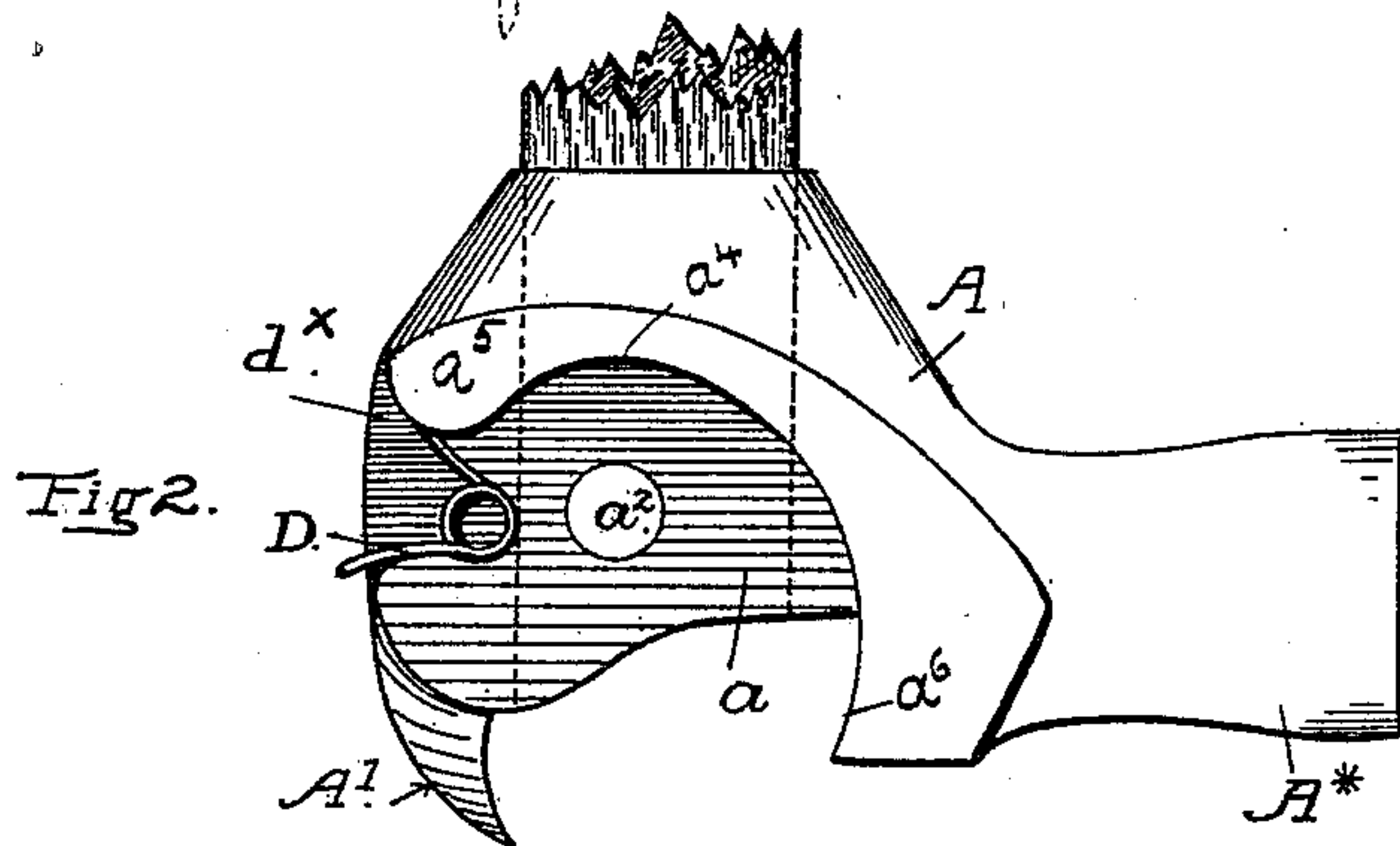
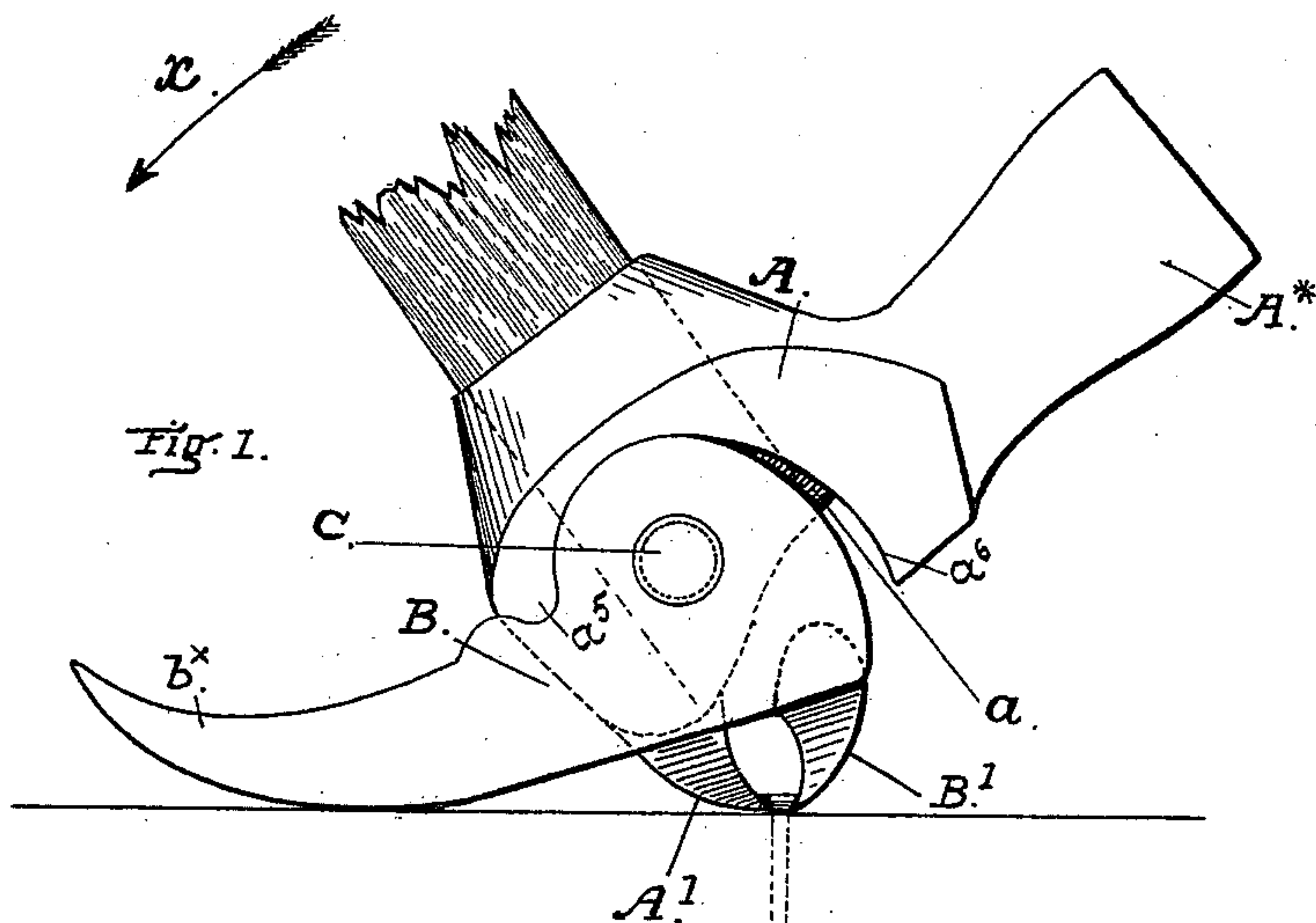
No. 632,227.

Patented Aug. 29, 1899.

C. E. PERRY.
COMBINATION HAMMER AND NAIL EXTRACTOR.

(Application filed May 26, 1898.)

(No Model.)



Witnesses:

M. Reginald
E. Salomons

Inventor:
Charles E. Perry
By Smith Osborn
his Atty.

UNITED STATES PATENT OFFICE.

CHARLES E. PERRY, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF THREE-
FOURTHS TO HERBERT P. DWIGHT, OF OAKLAND, CALIFORNIA.

COMBINATION HAMMER AND NAIL-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 632,227, dated August 29, 1899.

Application filed May 26, 1898. Serial No. 681,835. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. PERRY, a citizen of the United States of America, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in a Combination Hammer and Nail-Extractor, of which the following is a specification.

This invention relates to improvements made in combination-tools for driving and extracting nails; and the improvements consist in certain novel constructions and combinations of parts, as hereinafter described and claimed and as illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the tool and a portion of the handle, representing the position of the parts in the act of gripping and drawing a nail. Figs. 2 and 3 are views in detail of the fixed part or head and the movable part or pivoted jaw separated from each other, Fig. 2 being a side view of the head and Fig. 3 a longitudinal section through the center of the other part. Fig. 4 is a plan or top view of the part Fig. 3, and Fig. 5 is a similar view of the part Fig. 2.

The parts of this tool consist of the head or fixed part A, having a socket A³, in which the handle is secured, the movable jaw or part B, and the bolt C, which unites the two parts together and fastens the handle in the socket, besides forming the pivot for the movable part. The sides of the head are recessed, reducing the thickness of that part in which the handle is inserted, and the part B is slotted to admit this reduced part, so that when the two parts are brought together the cheeks b² will fit closely against the faces a² of the part A and form a knuckle-joint working smoothly on the bolt C, which joins the two parts together. In the side pieces is a hole for the bolt C, which is inserted through the part A, so as to pass through the handle after that part is driven into the socket, and thus fasten the handle securely in the head, in addition to its office or function of joining the two parts of the head together. On one side of the longitudinal center line of the handle the head is provided with a nail-driving face A*, standing substantially parallel with the line of the handle, and on the opposite side

of that center line there is formed solidly with the head a curved claw A', projecting above the top in line with the handle-axis, but with the point curved toward the rear or that part of the tool carrying the hammer-face. The end of this claw is finished with a broad chisel-point. These parts or members of the head are all formed so as to be conveniently worked or cast out of a single piece.

The piece B is formed with the curved nail-pulling claws b^x on the front end of the jaw, and on the top of the head or part forming the jaw there is a curved claw B', shaped like the claw A on the other part, but with its point turned in the opposite direction, so as to face the claw A' and to close against it when the part B is moved on its pivot.

The sides of the recesses on the socket part are curved at the lower part directly under the bolt C and concentric with the bolt, and at the front of this concentric edge a⁴ is formed a shoulder a⁵. From the concentric portion of this recess the sides next the hammer-face are carried in an eccentric curve to the top above the socket, and the socket portion a is cut down below the thick portion of the head, so as to produce the wide shoulders a⁶.

The edge of the jaw or part b² of the piece B is shaped to fit the recessed part, so that the eccentrically-curved edge of the jaw fits closely against the corresponding curved portion of the head A when the movable part B stands in a straight line with the poll A^x, while in the contrary position when the claws b^x are turned inwardly toward the handle the solid portion behind the claws comes to a bearing against the stop a⁵. In like manner the solid portion uniting the cheeks of this part, and on which is formed the claw B', closes against the face or shoulder a⁶ when the part B stands in a straight line with the head and forms a solid bearing for the part B while the nail-pulling claws b^x are in use.

In the head a spring D, set in a recess d, formed in the side, bears against the movable part B to hold it in a straight line with the poll A^x, so that the hammer-head to all appearances and for all ordinary purposes of use in driving or pulling nails is the same as the ordinary solid-head hammer. One leg or member of the spring has a fixed bearing

against a shoulder at the bottom of the recess d^x , and the other leg has a bearing against the front edge d^2 of the eye in the part B.

In the ordinary working position of the two
5 parts, where the nail-extracting claws stand
apart ready for operation in extracting nails
that cannot be readily grasped and drawn by
the claw b^x , the services of these extracting-
claws A' B' are brought into play by intro-
10 ducing the chisel-pointed end of the claw A'
on the handle-bearing part of the head under
the head of the nail while the handle is held
quite or nearly perpendicular and then bring-
ing the handle over toward a horizontal posi-
15 tion, while the curved back of the movable
part B rests upon the board or the surface
from which the nail is to be drawn. Then,
continuing the movement of the handle in
the direction of the arrow, Fig. 1, the jaws
20 A' B' are brought together from opposite sides
upon the nail, and with the curved back of
the claw-bearing portion serving for a fulcrum
the nail is readily drawn upward and out of
the wood through the leverage afforded by
25 the handle and upon the line of least resist-
ance by virtue of the curved part forming the
fulcrum.

As thus constructed and arranged these
parts produce an improved hammer and nail-
30 extractor in which the best and most effective
qualities in one tool are obtained without
weakening the other tool or decreasing its ef-
fectiveness.

Having thus fully described my invention,
what I claim as new, and desire to secure by 35
Letters Patent, is—

The combination of the hammer-head, hav-
ing a socket for the handle, and a driving-face
on one side of the center line on which the
handle is situated, a curved claw on the op- 40
posite side of said center line standing per-
pendicularly upward from the top of said head,
the sides of said socket portion being reduced
in thickness and having a bolt passing through
the socket portion and through the handle in- 45
serted in the socket, the sides of said socket
portion having curved recesses which are
plotted concentric below said bolt and eccen-
tric behind it; the movable jaw having a slot
to receive the reduced recessed portion of the 50
head and fitted to form a knuckle-joint there-
with, the curved standing claw on the top of
said part, the solid portions at the opposite
ends of the slot forming stops to bear against
corresponding stops on the head; the bolt unit- 55
ing said parts; and the spring having two
arms or members one of which rests against
a fixed point on the hammer-head and the
other against a fixed point on the movable
part, substantially as described. 60

In testimony that I claim the foregoing I
have hereunto set my hand and seal.

CHARLES E. PERRY. [L. S.]

Witnesses:

C. W. M. SMITH,
HOLLAND SMITH.