

(No Model.)

J. A. AIKEN.
COMBINED CHUCK AND BIT.

No. 427,821.

Patented May 13, 1890.

Fig. 1.

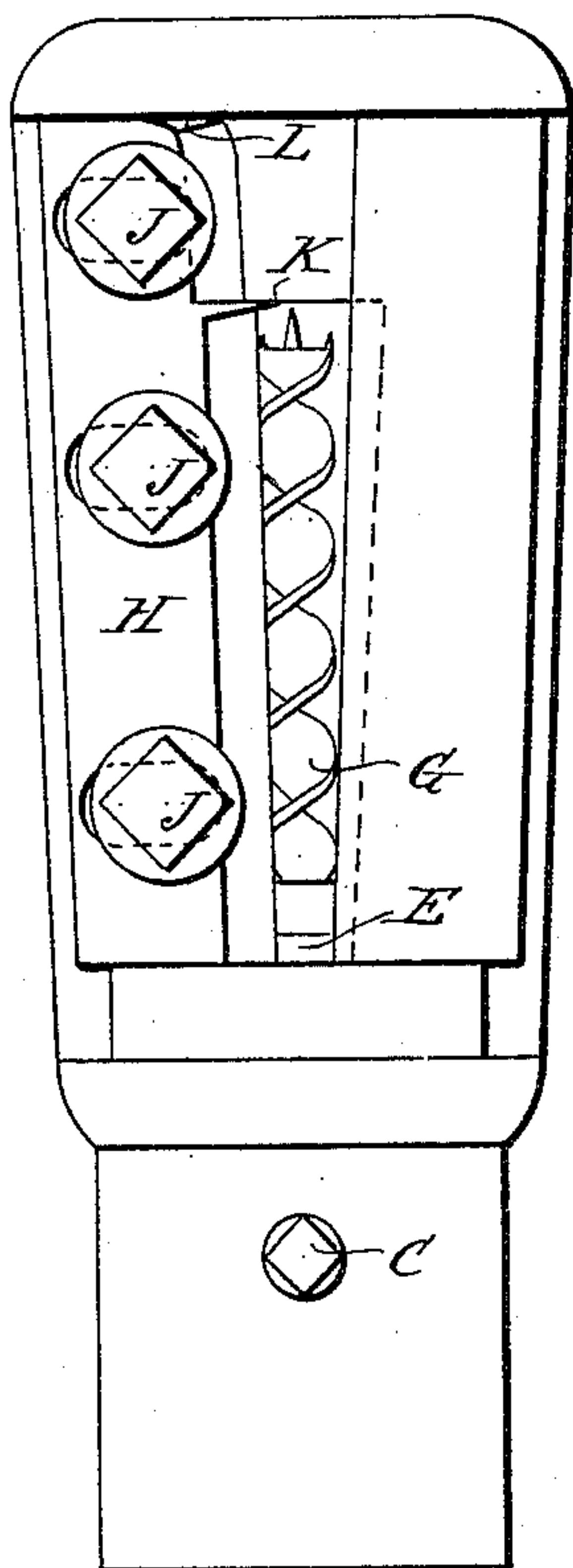


Fig. 5.

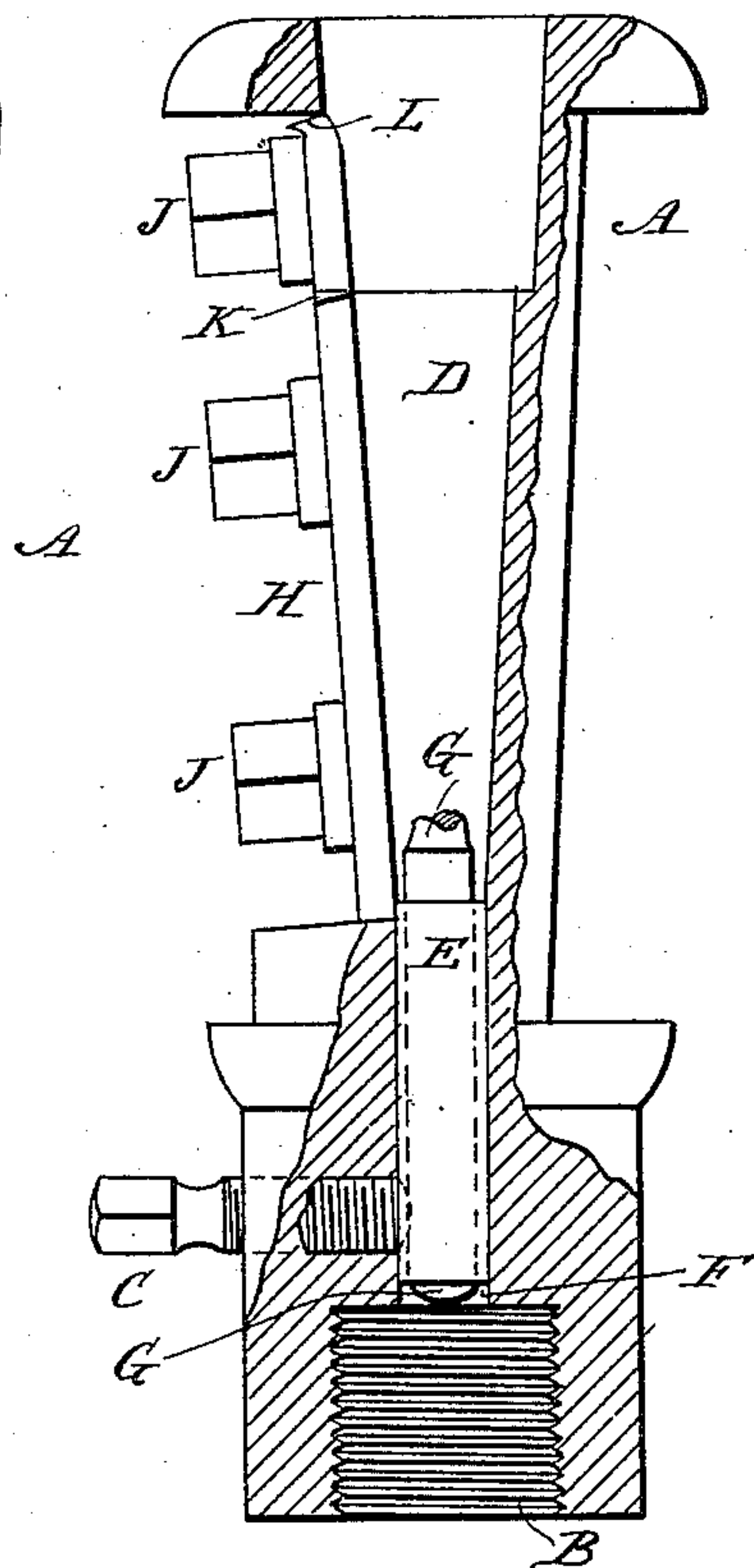


Fig. 4.

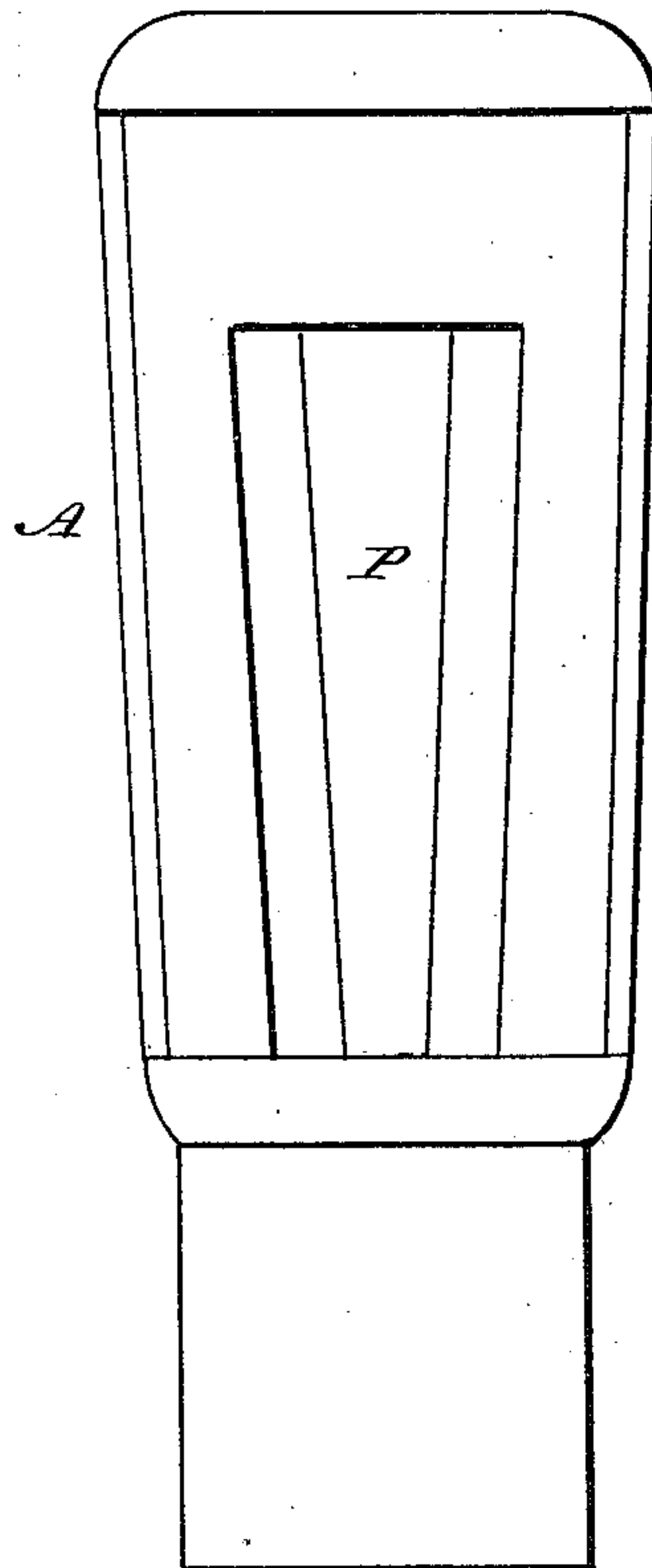


Fig. 3.

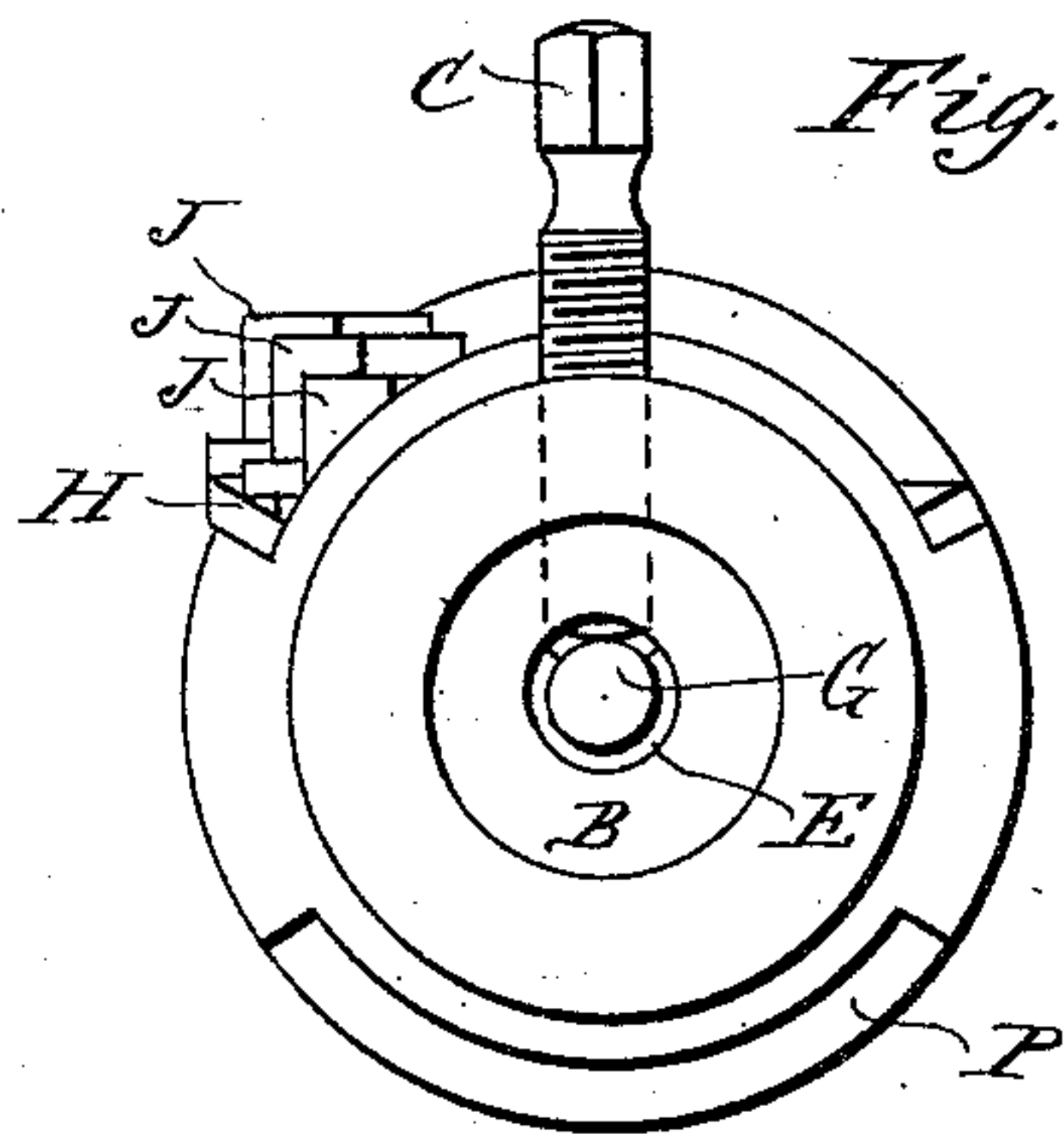
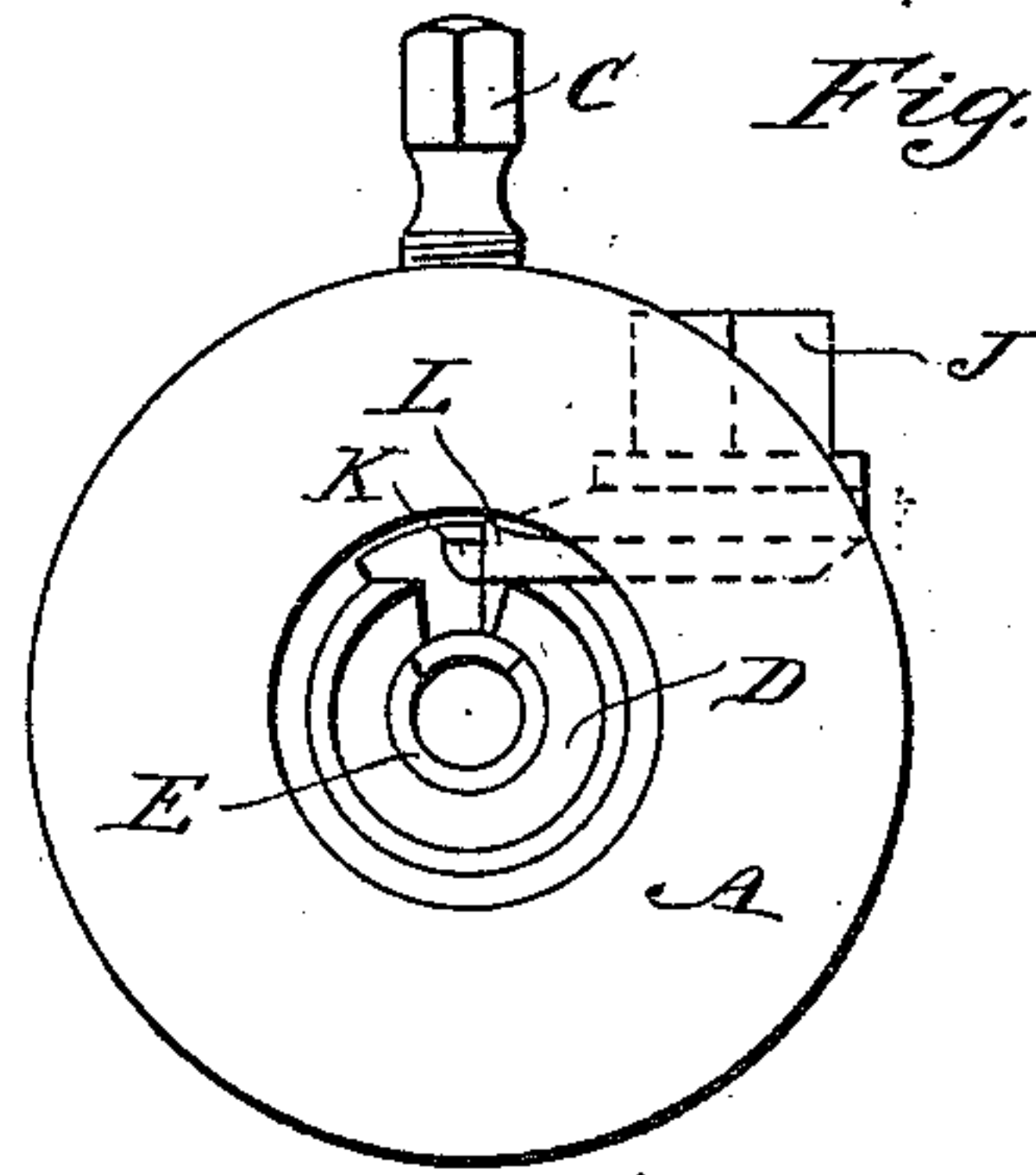


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES A. AIKEN, OF JACKSON, MICHIGAN, ASSIGNOR TO HENRY E. EDWARDS,
OF SAME PLACE.

COMBINED CHUCK AND BIT.

SPECIFICATION forming part of Letters Patent No. 427,821, dated May 13, 1890.

Application filed November 29, 1889. Serial No. 332,057. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. AIKEN, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have made certain new and useful Improvements in Combined Chucks and Bits, of which the following is a specification.

My invention relates especially to devices employed for forming the ends of handles of various kinds and descriptions to receive an encircling ferrule, and for boring a hole in the extremity of said handle to receive the shank of the implement wherewith said handle is to be used, the two operations being performed at one and the same time.

To attain the desired end my invention consists, essentially, in a hollow chuck-shell provided with a cutting-knife arranged to give the wood the desired shape, and a central adjustable boring bit and stop; and my invention also involves certain other novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a plan view of my device. Fig. 2 is a front elevation, and Fig. 3 is a rear elevation. Fig. 4 is a reversed plan view from Fig. 1. Fig. 5 is a longitudinal central sectional view of the device.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

A is the shell of the chuck, made of metal and provided at one extremity with a screw-thread B, securing the device to a mandrel.

C is a set-screw passing through the shank of the shell.

D is the hollow portion of the chuck, having the shape which it is desired to give to the extremity of a handle.

E is a slotted or divided thimble fitting into the perforation F, into which the set-screw projects, and designed to receive the shank of a bit G. By this arrangement the depth of the hole to be bored may be regulated by setting the bit in the proper position, and the length of the portion of the handle shaped for the ferrule regulated by moving the thim-

ble E inward and outward, the extremity of the handle bearing against said thimble when the shaping and boring are completed. The bit and thimble are firmly secured in the desired position by the set-screw C, which passes through the division or slot in the thimble and bears against the shank of the bit.

H is the main body of the knife, held in place at one side of the longitudinal opening I in the shell A by means of set-screws J. This knife is provided with a spur K, which cuts the shoulder upon the handle whereon the ferrule rests when driven home, and is also provided with a curved or turned lip L at the outer end. The object of this turned or curved lip is to smooth down that portion of the handle joining the ferrule, and by giving the knife such a turn I am enabled to prevent the tearing of the wood which often takes place where chucks with straight knives are employed.

P is an opening in the side of the shell for the escape of the bit-shavings.

Heretofore in shaping and boring handles two separate and distinct devices have been employed—one to shape up the extremity of the handle and the other to bore the hole—requiring the time and attention of two men and the use of two distinct machines. By the use of my device one man performs both operations at the same time, dispensing with the services of the second man, and consequently reducing the expense of producing the completed handle, as well as the amount of machinery required. It will thus be seen that my improvement is admirably adapted to the uses and purposes for which it is intended.

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

1. A combined chuck and bit in which are comprised a hollow chuck-shell, a shaping-knife, an adjustable bit, and an adjustable bearing-thimble, through which the bit passes, substantially as shown and described.

2. The combination, with the hollow chuck-shell, of the adjustable shaping-knife having two cutting portions upon different planes, a cutting-spur located between the two cutting portions, and a curved or bent cutting-lip at

its outer extremity, substantially as shown and described.

3. A combined chuck and bit in which are comprised a hollow shell having two longitudinal slots therein, an adjustable knife, 5 shaped as set forth and projecting into one of said longitudinal slots, a set-screw in the shank of the chuck, a slotted or divided thim-

ble located within a perforation in said shank, and a bit, the shank whereof fits into said 10 thimble, the whole arranged substantially as shown and described.

JAMES A. AIKEN.

Witnesses:

ELMER KIRKBY,
E. R. HUNN.