

G. N. STEARNS.

Improvement in Hollow Augers.

No. 130,826.

Patented Aug. 27, 1872.

FIG. 1

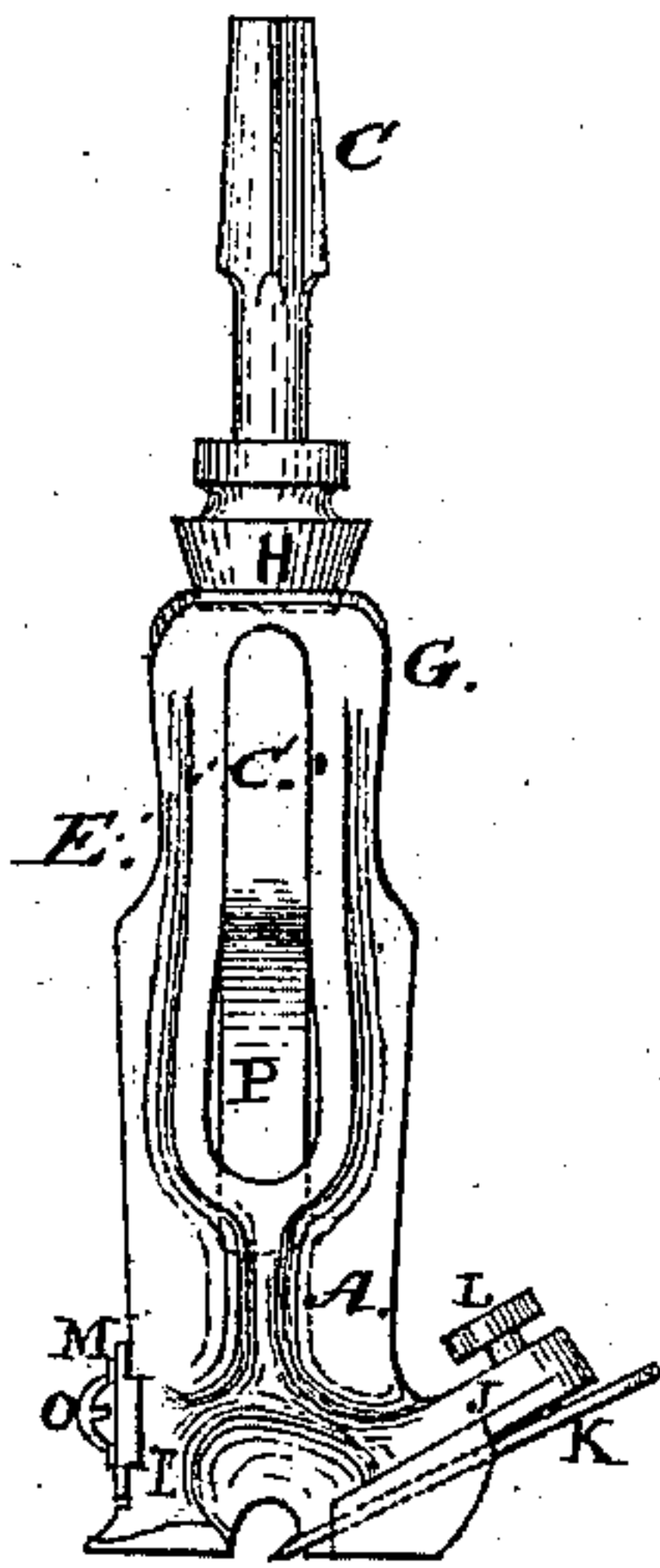


FIG. 2

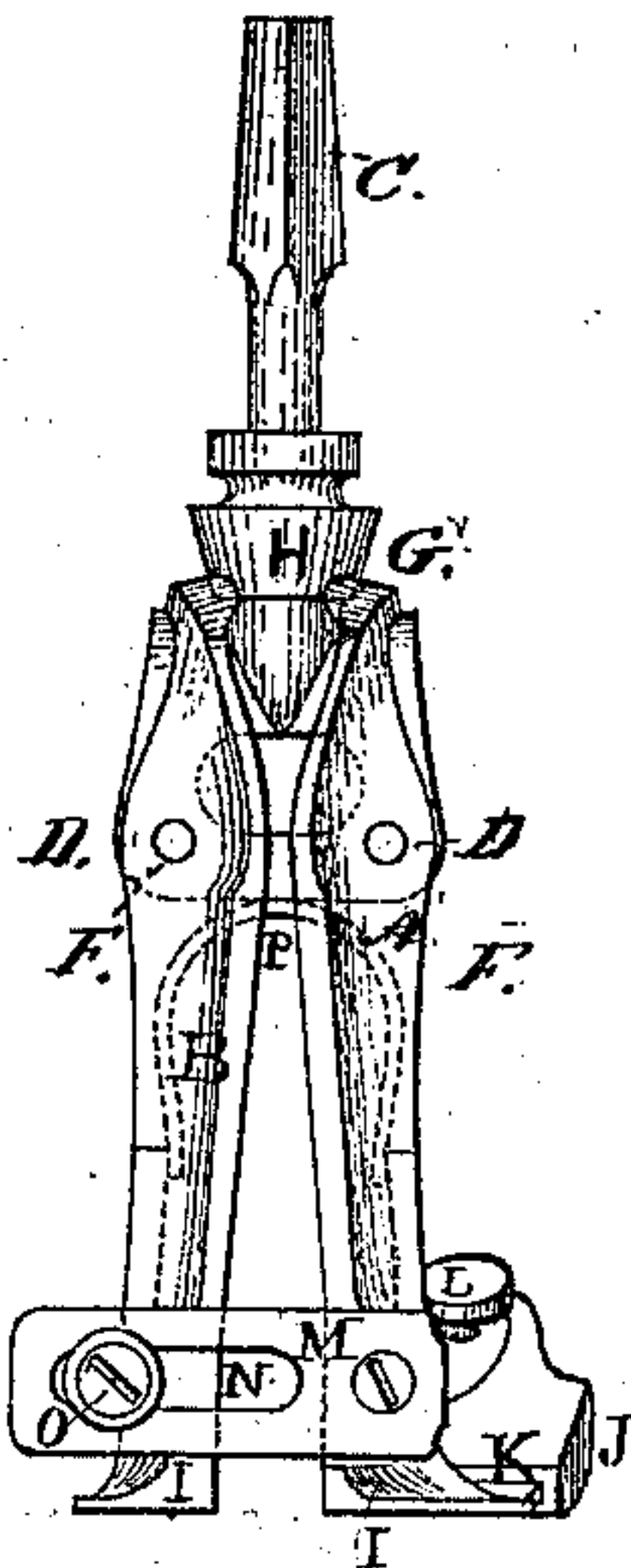


FIG. 3

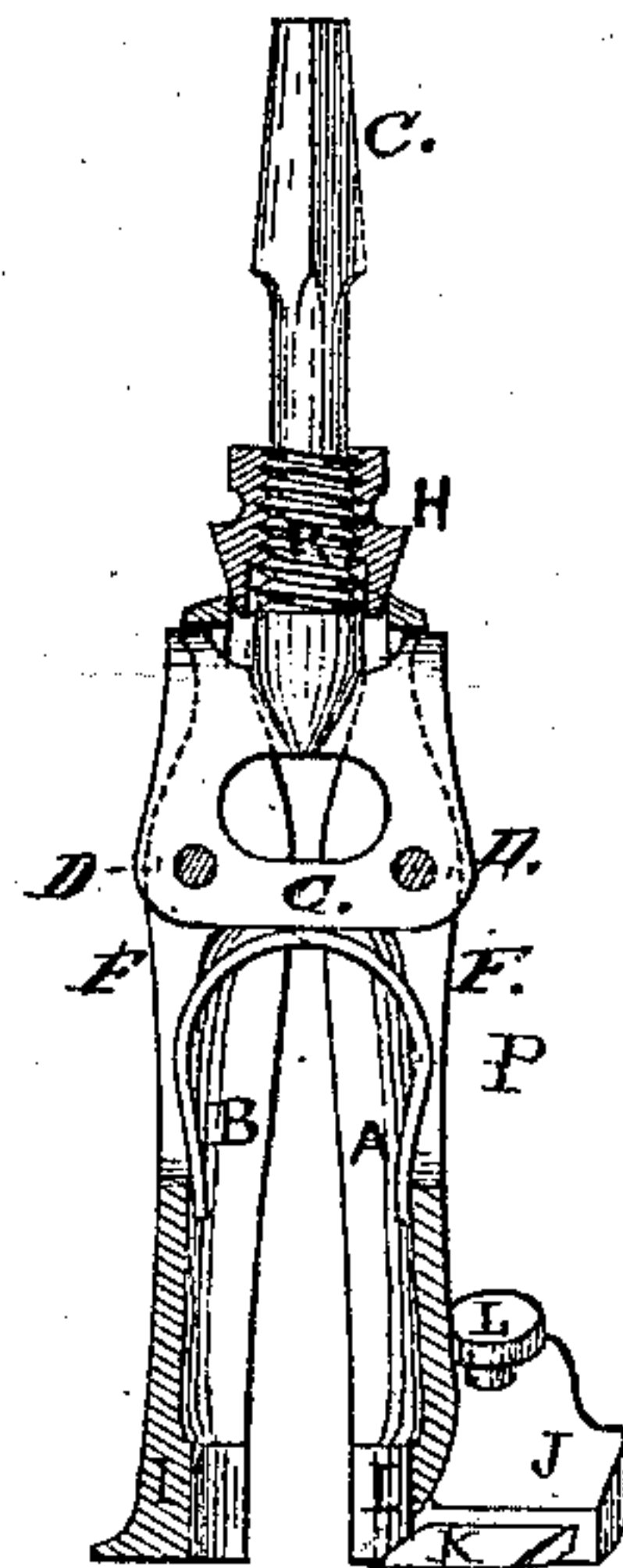
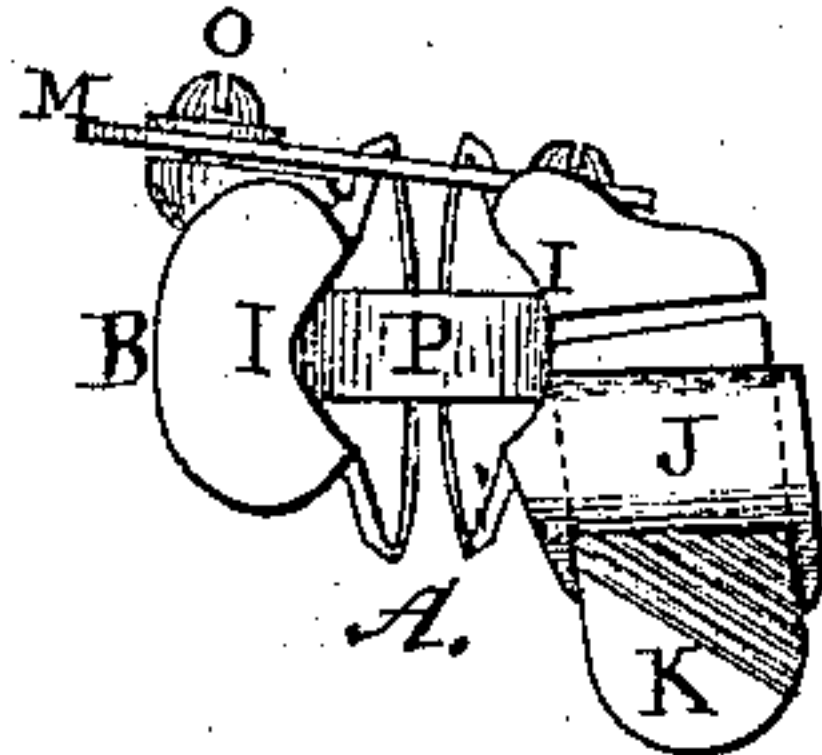


FIG. 4



R. T. Stevens
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WITNESSES

Geo. N. Stearns

INVENTOR

UNITED STATES PATENT OFFICE.

GEORGE N. STEARNS, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN HOLLOW AUGERS.

Specification forming part of Letters Patent No. 130,826, dated August 27, 1872.

To all whom it may concern:

Be it known that I, GEORGE N. STEARNS, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Hollow Augers; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making part of this specification, in which—

Figures 1 and 2 are side views. Fig. 3 is a longitudinal section; and Fig. 4 is an end view of the device.

The nature of my invention relates to the construction and method of operating the hollow auger, embracing the use of a conical nut in operating the two parts of the stock or barrel, the construction of the cutter, and the means of holding it in the mortise.

To construct the auger, I make the barrel in two sections, A and B, each having a slot, E, to receive the end F of the shank C, to which the sections are attached by the pivot D. The sections A and B are shaped at their ends G to receive the conical nut H between them; and their ends I are formed to constitute the hollow or barrel of the auger. Construct the section A with a projection, J, and mortise to admit and hold the cutter K, which is fastened in the mortise by the set-screw L; attach the strap M to the section A, and in it make the slot N, in which the set-screw O is placed, the latter being attached to the sec-

tion B. Between the sections A and B place the spring P, in such position as to force them apart.

To adapt the barrel to any required size of tenon, loosen the set-screw O, and, by turning the conical nut forward, the two parts A and B of the barrel will be thrown together; and, by turning the nut back, the sections A and B will be expanded by the force of the spring P, and held in contact with the conical nut H.

The nut is made in the conical form in order to obtain the action and effect of a wedge in conjunction with the screw R in expanding and contracting the barrel of the auger. By tightening the set-screw O the parts A and B are stayed firmly at the point set.

Make the cutter-blade K with its surfaces roughened, by being cut like a file; and when it is placed in the mortise it is held firmly by the set-screw L acting upon its outer end, and, by leverage, causing it to bind upon its two opposite and roughened surfaces.

What I claim as my invention, and desire to secure by Letters Patent, is—

The conical nut H, in combination with the shank C and two sections A and B, the strap M, spring P, and cutter K, when constructed and operating substantially as described.

GEO. N. STEARNS.

Witnesses:

R. F. STEVENS,
DAVID P. MURPHY.