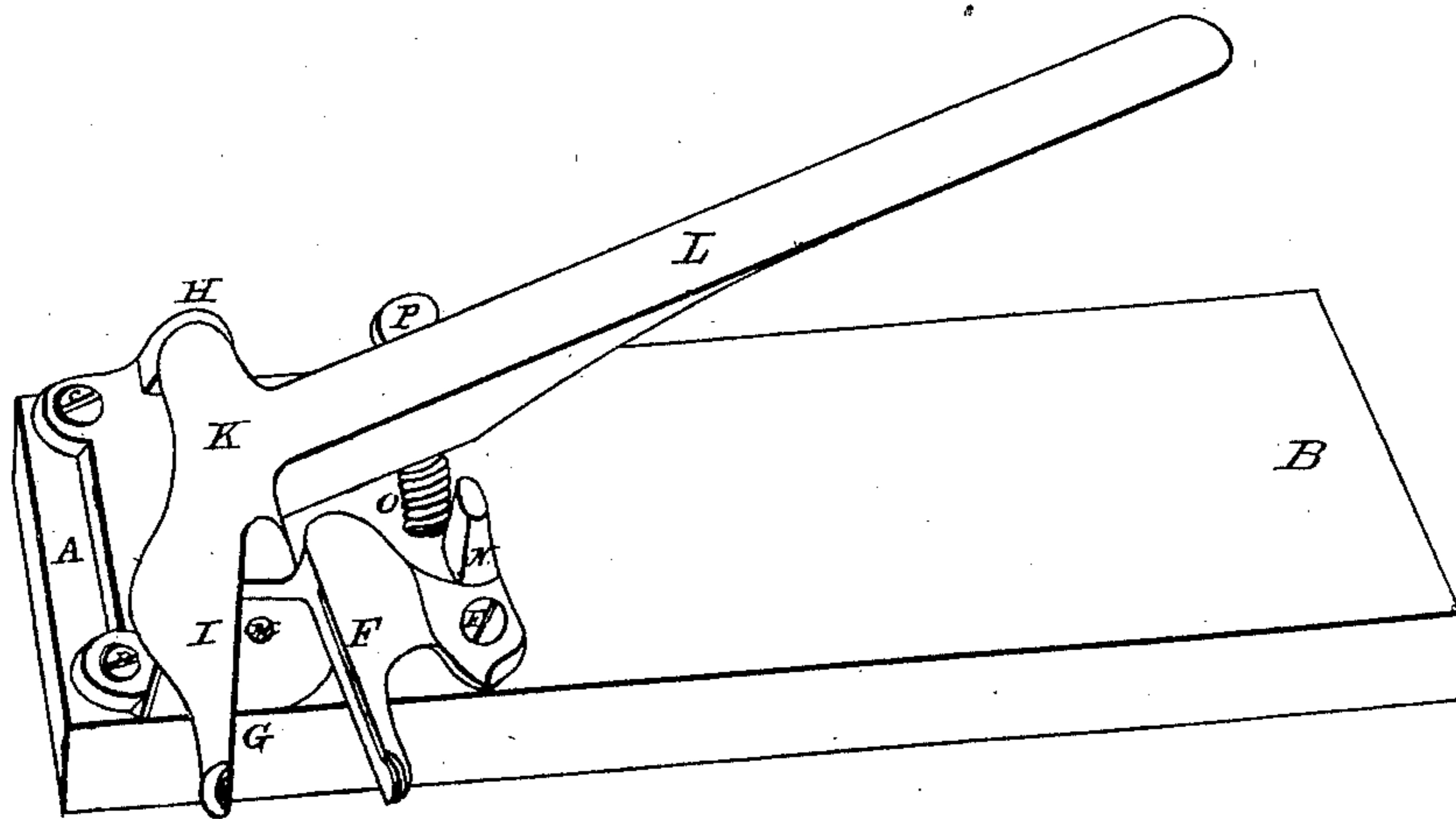
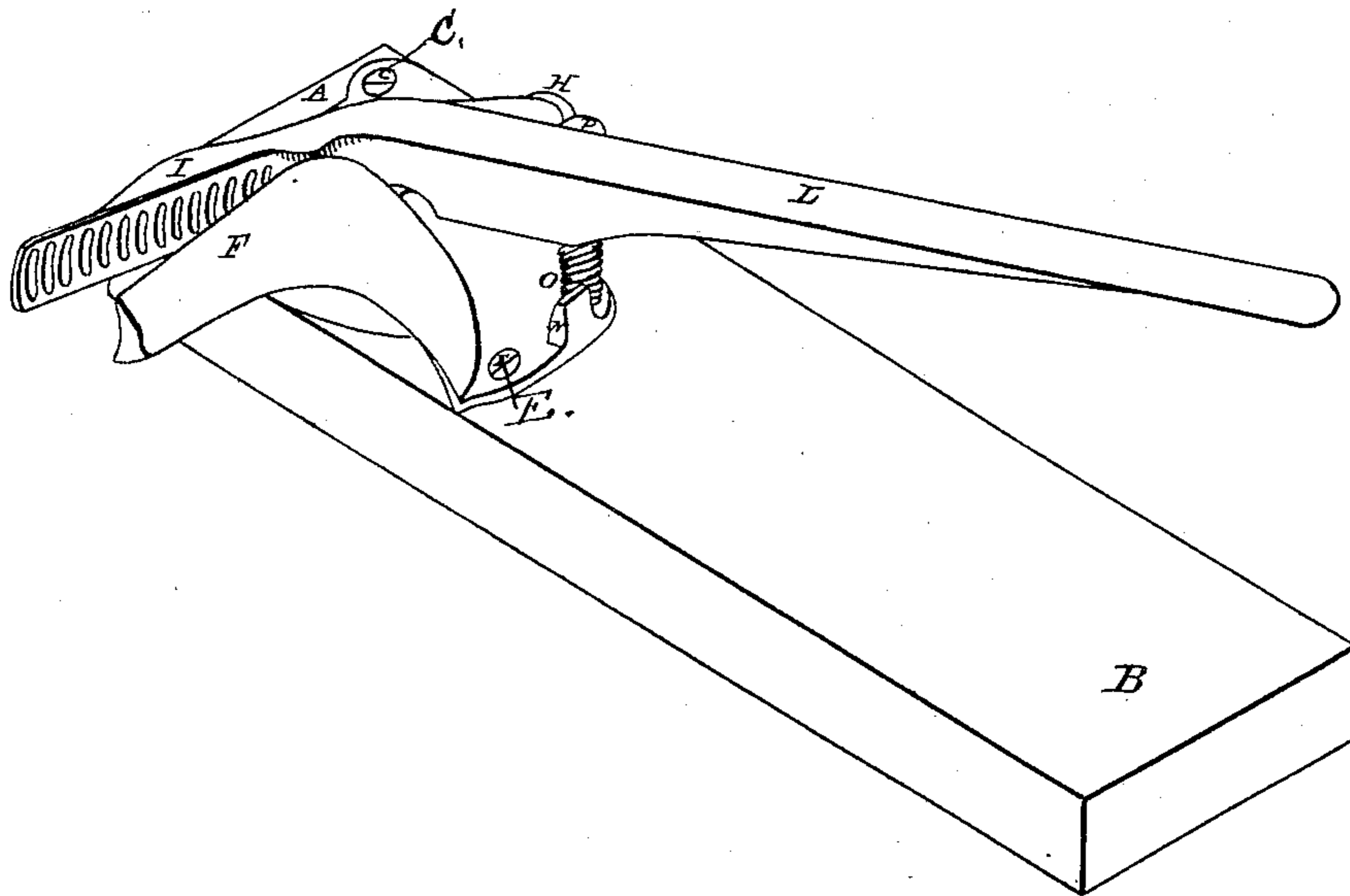


P., E. W. & J. A. BLAKE.  
NUT CRACKER.

No. 9,985.

Patented Sept. 6, 1853.



# UNITED STATES PATENT OFFICE.

PHILOS BLAKE, ELI W. BLAKE, AND J. A. BLAKE, OF NEW HAVEN, CONNECTICUT.

## NUTCRACKER.

Specification of Letters Patent No. 9,985, dated September 6, 1853; Antedated March 6, 1853.

*To all whom it may concern:*

Be it known that we, PHILOS BLAKE, ELI W. BLAKE, and JOHN A. BLAKE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Nutcrackers; and we do hereby declare that the following is a full and exact description.

Our improved nut cracker operates by compressing the nuts between jaws forced together by a lever. In this respect it does not differ from the common nut cracker. But in the common nut cracker no provision is made to regulate the extent to which the compression of the nut is carried. Hence in using that instrument the operator must need exercise continual caution to avoid injuring the meats by over crushing the nuts; and this is rendered the more difficult by the unequal size and hardness of the nuts. It is the object of our improvement to remedy this defect.

Our improvement consists in the peculiar arrangement of the jaws in relation to each other and to the axis on which the movable jaw turns; and in combining therewith stops to limit the motions of the movable jaw in both directions. Such is the joint effect of these modifications that, without any attention or caution on the part of the operator, our instrument will subject every nut to the proper amount of compression and no more, however the nuts may vary in size or hardness.

The following is a description in detail of our improved nut cracker, reference being had to the annexed drawings making part of this specification.

The drawings are perspective views of the instrument on a scale of about half size.

A B is a piece of board which forms the base. To this the base plate of the instrument is secured by the three wood screws C, D, E. On this base plate and united with it is the fixed jaw F, elevated above the plate, and projecting laterally beyond it as shown in the drawing; also the two ears or lugs G, H, which sustain the ends of the pin or axis on which the movable jaw turns.

I is the movable jaw. This is so placed in relation to the fixed jaw that when the two are parted by throwing the former back against the stop, the distance between them shall be, at one end equal to the diameter of the smallest nut, and at the other end equal to the diameter of the largest nut

that it is proposed to adapt the instrument to crack. The movable jaw I is united to the head K of the lever L, and with it turns upon the axis M. This axis is a wire or pin passing through the lugs G and H, and also through corresponding lugs on the underside of the head K, not seen in the drawing. This axis is parallel to the plane in which the jaws diverge; and to the line in that plane which bisects the angle of divergence. The lug G extends under the movable jaw and there forms a stop which limits the distance to which the jaws will open. On the base plate at N is a small stud upon which the lever strikes when depressed, and which serves as a stop to limit the distance to which the jaws will close. These stops are so disposed that the whole motion of the movable jaw shall be no more than the extent to which a nut must be compressed in order to crack it; which in the case of hickory nuts of any ordinary size we have found to be about one-eighth of an inch. We have contemplated making the stops adjustable so as to suit the instrument at pleasure to other nuts requiring more or less motion in the jaw. The acting faces of the jaws are fluted longitudinally or made concave to prevent the nut from turning around between them, and scored transversely to prevent it from being crowded backward. At O is seen the lower end of a spiral spring which is interposed between the base plate and the lever to keep the jaws open except when force is applied to the lever to close them. To keep this spring in place the lower end enters a circular cavity in the base plate, and the upper end embraces a pivot which projects downward from the small ear P on the side of the lever. We make the lever about 10 inches long; and the distance from its axis to the center of the acting face of the jaw  $\frac{3}{4}$  of an inch; which dimensions give a suitable power to crack hickory nuts.

In using the nut cracker we place it upon a table. We present the nut in such manner as to receive the pressure of the jaws in the right direction, carrying it in between the jaws until it comes in contact with both; then depress the lever until its motion is arrested by the stop, and allow it to return again to its former position.

Having thus fully described our improved nut cracker and the manner of using it, we would now state that we do not claim the

use of jaws forced together by a lever to crack nuts; since that device is found in the common nut cracker. Nor do we claim the mere divergence of the jaws irrespective  
5 of their position in relation to the axis of motion; since the jaws of the common nut cracker diverge when opened to receive a nut. But the jaws of the common nut cracker diverge in a plane which is at right  
10 angles to the axis of motion; and consequently nuts of different sizes are received between them at different distances from that axis; whereas the jaws of our instrument diverge in a plane which is parallel  
15 to the axis of motion, and consequently nuts of different sizes are received between them at the same uniform distance from the axis of motion; which condition or a near approximation thereto is indispensable to the  
20 cracking of nuts of different sizes between jaws whose motions are limited by stops in both directions as described.

What we do claim therefore as our invention and desire to secure by Letters  
25 Patent is as follows; to wit:—

1. We claim the divergence of the jaws in a plane which is parallel to the axis of motion, as herein described and shown in the drawings; whereby nuts of different  
30 sizes are all received at a uniform distance from the center of motion.

2. We claim the divergence of the jaws in a plane parallel to the axis of motion in combination with their extension beyond the supports of the axis, as described and shown  
35 in the drawings; whereby the line of the axis of motion is brought in close proximity to the acting faces of the jaws without impairing free access to them to introduce and remove the nuts. 40

In conclusion we add that in the foregoing claims we do not intend to confine ourselves to a strict parallelism between the plane of the jaws and the axis of motion, since it is obvious that some variation therefrom would  
45 not defeat the object aimed at by approximating to parallelism in distinction from placing the plane of the jaws at right angles to the axis of motion as in the common nut cracker. Indeed we have contemplated as  
50 a possible improvement the placing the outer ends of the jaws a little farther from the axis of motion than the other end, with a view to have them act on large nuts through a space somewhat greater than on small  
55 ones.

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Witnesses:

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P. HOWARD BLAKE.