C. F. RITCHEL.
Nut-Cracker.

No. 207,897. Patented Sept. 10, 1878.

Fig 1

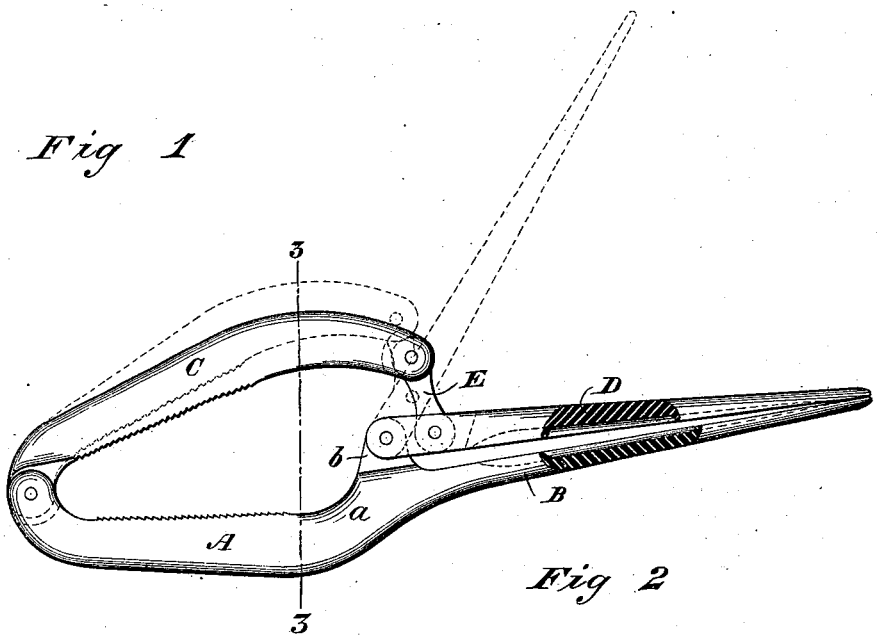


Fig 2

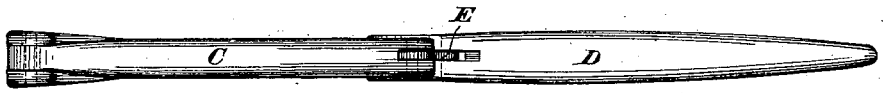
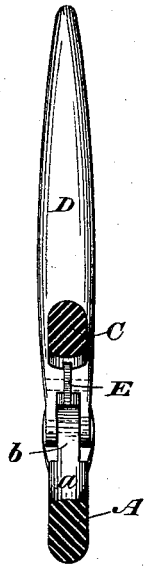


Fig 3



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UNITED STATES PATENT OFFICE.

CHARLES F. RITCHEL, OF CORRY, PENNSYLVANIA, ASSIGNOR TO C. B. CURTISS AND J. B. CUZNER, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN NUT-CRACKERS.

Specification forming part of Letters Patent No. **207,897**, dated September 10, 1878; application filed March 13, 1878.

To all whom it may concern:

Be it known that I, CHARLES FRANCIS RITCHEL, of Corry, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Crackers, of which the following is a specification:

My invention relates to a nut-cracker of the class having a fixed and a movable jaw.

My objects are so to construct the implement as to give great power to the jaws, to adapt them to crack or crush nuts with but comparatively slight exertion by the user, and to adapt the jaws for readily cracking nuts varying considerably in size.

My improvements consist in peculiar constructions and combinations of parts, which will hereinafter first be fully described, and then specifically designated by the claims.

In the accompanying drawings, Figure 1 is a side elevation or longitudinal view of the implement, the dotted lines showing the movable jaw and its handle as swung outward or moved away as far as may be from the fixed jaw and handle; Fig. 2, an edge or top view with the handles closed together; and Fig. 3, a vertical transverse section on the line 3 3 of Fig. 1, with the movable jaw and its handle in the position shown by the dotted lines in said figure.

A rigid jaw, A, and its handle B are made in a single piece, the jaw on its inner surface being roughened or serrated, as usual. At or near the juncture of the jaw and handle the jaw is curved, as at *a*, and a lug or short stud, *b*, is formed, projecting laterally from or at a right angle with the handle.

A movable jaw, C, is pin-jointed at its outer end to the corresponding end of the fixed jaw.

The jaws, it will be seen, are abruptly bent or curved inward or toward each other at their outer hinged ends. The end of the movable jaw, in the construction shown by the drawings, enters the slot or between the forks of the outer end of the rigid jaw. Any other suitable and equivalent hinged connection may be substituted. The hinged jaw is inclined (or it may be curved) outward or away from the fixed jaw for half or more of its length, and then curves (or it may be inclined, inward or toward the fixed jaw and its handle. The movable jaw is ratchet-faced or serrated correspondingly with the fixed jaw.

The movable member or lever D of the handle is pin-jointed or otherwise suitably hinged to the lug *b* at the inner end of the fixed member B of the handle.

A link, E, connects the inner end of the movable jaw with the jointed or lever handle D close to its fulcrum. This link is pin-jointed both to the handle D and jaw C.

The space between the jaws, it will be seen, is quite narrow at and near their jointed or outer ends, so as to act upon the smallest-sized nuts, and the jaws gradually diverge from each other toward their inner ends, to adapt them for cracking larger nuts, and so as to separate the jaws sufficiently near the handles to crack the largest-sized nuts desired. By curving the fixed member of the implement, or the jaw A and handle B, at their juncture, I am enabled to incline the fixed as well as the movable jaw, and cause the jaws to occupy positions sufficiently remote from each other at their inner ends without injuriously inclining the movable jaw. The shape of the jaws is such as to afford a gripe for the hand. By using one hand on the jaws and the other on the handles, in cracking very hard or tough shelled nuts, exertion is lessened. It is manifest that a powerful pressure can be exerted by the jaws by the compound lever formed by bringing the jaws together at their outer ends and hinging one of them to the handle D.

Obviously the fixed jaw and handle B may be made straight, and the lug *b* may be dispensed with, and the movable handle be bent downward at its inner end and jointed to the rigid handle, and connected by the link or its equivalent with the movable jaw. I prefer, however, the construction shown by the drawings.

I claim as of my own invention—

1. The combination, substantially as hereinbefore set forth, of the fixed and movable jaws, jointed together at their outer ends, the rigid handle, and the jointed handle linked to the movable jaw.

2. The combination of the fixed curved jaw, its rigid handle provided with a lug, *b*, the inclined and curved movable jaw jointed at its

outer end to the corresponding end of the fixed jaw, the pivoted handle fulcrumed to the lug on the rigid handle, and the link connecting the pivoted handle near its fulcrum with the inner end of the movable jaw, substantially as hereinbefore set forth.

3. The inclined nut-cracker jaws, pivoted together at their outer ends and diverging toward their inner ends, substantially as and for the purposes specified.

In testimony whereof I have hereunto subscribed my name.

CHARLES FRANCIS RITCHEL.

Witnesses:

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