Candidate's answer

Claim 1

A nutcracker comprising:
a first support element (1) and a second support element (2); and
at least three connecting elements (3, 4, 5, 6) connecting the first support element (1) and the second support element (2) and arranged to squeeze a nut between the connecting elements (3, 4, 5, 6);
characterised by a pivotal attachment (13, 14, 15, 16, 23, 24, 25, 26) arranged between each connecting element (3, 4, 5, 6) and each support element (1, 2) such that moving the support elements (1, 2) relative to one another causes the connecting elements (3, 4, 5, 6) to rotate relative to the support elements (1, 2) so as to move at least two of the connecting elements (3, 4, 5, 6) relative to one another and restrict the space between the connecting elements (3, 4, 5, 6) and in use squeeze a nut by the connecting elements (3, 4, 5, 6).

Claim 2

A nutcracker according to Claim 1, wherein the pivotal attachment (13, 14, 15, 16, 23, 24, 25, 26) is a ball joint (13, 14, 15, 23, 24, 25) such that the support elements (1, 2) rotate relative to one another.

Claim 3

A nutcracker according to Claim 2, comprising three to five connecting elements (3, 4, 5).

Claim 4

A nutcracker according to Claim 2 or 3, wherein the connecting elements (3, 4, 5) are equally spaced relative to one another.

Claim 5

A nutcracker according to any of Claims 2 to 4, wherein the connecting elements (3, 4, 5) are of differing lengths between the support elements (1, 2).

Claim 6

A nutcracker according to any of Claims 2 to 5, wherein at least one of the support elements (1, 2) is a cube.

Claim 7

A nutcracker according to any of Claims 2 to 6, wherein at least one of the support elements (1, 2) comprises a handle formation for gripping.

Claim 8

A nutcracker according to Claim 1, wherein the pivotal attachment (13, 14, 15, 16, 23, 24, 25, 26) is a hinge (13, 14, 15, 16, 23, 24, 25, 26) such that the support elements (1, 2) move on an arc relative to one another.

Claim 9

A nutcracker according to Claim 8, comprising four connecting elements (3, 4, 5, 6) of which a first two move together and a second two move together relative to the support elements (1, 2).

Claim 10

A nutcracker according to Claim 9, wherein the connecting elements (3, 4, 5, 6) are arranged in a rectangle at their attachments (13, 14, 15, 16, 23, 24, 25, 26) such that the large rectangle edge is large enough for insertion of a large nut between the connecting elements (3, 4, 5, 6), and the small rectangle edge is small enough to prevent passage of a small nut between the connecting elements (3, 4, 5, 6).

Claim 11

A nutcracker according to any of Claims 1 to 10, wherein the connecting elements (3, 4, 5, 6) are straight of curved rods or tubes.

Claim 12

A nutcracker according to any of Claims 1 to 11, wherein at least one of the connecting elements (3, 4, 5, 6) comprises ridges or protrusions or a non-slip coating.

Claim 13

A nutcracker according to any of Claims 1 to 12, wherein at least one of the connecting elements (3, 4, 5, 6) extends through at least one of the support elements (1, 2).

Claim 14

A nutcracker according to any of Claims 1 to 13, wherein at least one of the support elements (1, 2) provides a through-hole for insertion of a nut.

Claim 15

A nutcracker according to any of Claims 1 to 14, further comprising a means of fixing one of the support elements (1, 2) to a surface.

A Nutcracker

Technical Field

The present invention relates to a nutcracker.

Background

A known nutcracker, upon which the preamble of Claim 1 is based, is described in D2.

The nutcracker of D2 uses blocks that can slide along rods in order to crack nuts by virtue of the user pulling the blocks toward each other so as to restrict the space between the blocks and thus squeeze a nut by the blocks. By virtue of the ability to open the blocks farther apart or closer together, the nutcracker can accommodate and crack nuts of different sizes. However, in order to crack a nut with the nutcracker of D2 the blocks must be abruptly pulled together to provide enough momentum to crack a nut. Accordingly it is difficult to dose the squeezing of a nut and the nutcracker requires skill to crack a nut without completely crushing it.

A technical problem with the nutcracker of D2 is therefore difficulty of use.

The present invention seeks to provide a nutcracker that is both suitable for use with nuts of different sizes, as the nutcracker of D2, and at the same time which is easier to use.

Summary of Invention

According to an aspect of the present invention, there is provided a nutcracker as claimed in Claim 1. By arranging pivotable attachments between the connecting elements and the supporting elements, moving the support elements relative to one another causes the connecting elements to rotate relative to the support elements. By placing a nut at a distance to one or both of the support elements, a lever is created which allows the user to cause a small movement with a large squeezing effect by the connecting element by virtue of a large movement with little user strength of the supporting element. Hence the nutcracker can enable great ease of use, without risk of completely crushing a nut or requiring particular user skill or strength. At the same time because the connecting elements can be moved relative to one another they can be opened farther apart or closer together to accommodate and crack nuts of different sizes. Thus the present nutcracker can both enable ease of use and is also suitable for nuts of different sizes.

Examination Committee I: Paper A EM 2014 - Marking Details

Candidate No

Category		Maximum possible	Marks awarded	
			Marker	Marker
	Independent claim	50	50	50
	Dependent claims	35	24	25
	Description	15	13	12
Total			**87**	**87**

Examination Committee I agrees on 87 marks and proposes the grade PASS