

CLAIMS

1. A neck massager comprising a U-shaped neck pillow capable of being hung on a neck of a person, an inside of the U-shaped neck pillow corresponding to the neck has ~~at least one~~two message components, wherein ~~the at least one~~each of
5 | the message components comprises at least two message heads from the top down along the inside of the U-shaped neck pillow, a height of the upper message head is lower than the adjacent lower message head in sequence, and
an adjusting means capable of adjusting the distance between the two message components is provided between the two message components.

10 | ~~2. The neck massager of Claim 1, wherein two message components are provided and an adjusting means capable of adjusting the distance between the two message components is provided between the two message components.~~

3-2. The neck massager of Claim 1 ~~or Claim 2~~, wherein each of the message components comprises two message heads, a driving means used for driving the
15 | two message heads and a transmission mechanism mounted between the driving means and the two message heads, the transmission mechanism is located in a shell, the outside of the shell is provided with the two message heads which protrude towards the inside of the U-shaped neck pillow.

4-3. The neck massager of Claim 3, wherein the transmission mechanism
20 | comprises a driving gear, a first follower gear driven by the driving gear and two second follower gears driven by the first follower gear and respectively used for driving the two message heads, the driving means has a power element whose output shaft extends into the shell, the driving gear is fixed on the output shaft.

25 | 5-4. The neck massager of Claim 4, wherein a third follower gear is provided between the first follower gear and the two second follower gears, both of the first follower gear and third follower gear are duplicate gears having an upper

gear ring and a lower gear ring, the upper gear ring of the first follower gear engages with the lower gear ring of the third follower gear, the lower gear ring of the first follower gear engages with the driving gear, the upper gear ring of the third follower gear respectively engages with the two second follower gear.

5 | ~~6.5.~~ The neck massager of Claim ~~43~~, wherein the driving means further comprises a control PCB connected with the power element, the control PCB is connected with the batteries in the U-shaped neck pillow.

7.6. The neck massager of Claim ~~32~~, wherein the adjusting means comprises a rotating shaft extending into the U-shaped neck pillow from the external part thereof, a knob mounted on an external end of the rotating shaft, a gear mounted on an internal end of the rotating shaft and two racks respectively engaging with the upper and lower of the gear, the two racks are respectively connected to the two massage components correspondingly.

8.7. The neck massager of Claim ~~76~~, wherein the adjusting means further has a bidirectional locking structure between the knob and the rotating shaft.

9.8. The neck massager of Claim ~~87~~, wherein the locking structure comprises a ratchet wheel clasp which is able to synchronous rotate with the knob and a ratchet wheel base which is able to engage with the ratchet wheel clasp, the rotating shaft is fixed in a center of the ratchet wheel clasp.

10 | ~~10.9.~~ The neck massager of Claim ~~98~~, wherein the ratchet wheel clasp has an upper ratchet buckle and a lower ratchet buckle mounted against each other, the ratchet wheel base is provided with an upper ratchet ring and a lower ratchet ring, the ratchet directions of the upper ratchet ring and the lower ratchet ring are in an opposite direction, the ratchet buckle and the lower ratchet buckle respectively matches with the upper ratchet ring and lower ratchet ring.