

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**
(PCT Rule 43*bis*.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2019/081861

International filing date (day/month/year)
20.11.2019

Priority date (day/month/year)
28.11.2018

International Patent Classification (IPC) or both national classification and IPC
INV. B26B19/14

Applicant
KONINKLIJKE PHILIPS N.V.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application


2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:




European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0
Fax: +49 89 2399 - 4465

Date of completion of this opinion

see form
PCT/ISA/210

Authorized Officer

Rattenberger, B
Telephone No. +49 89 2399-0



Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-16</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-16</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-16</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

The subject-matter of independent claim 1 is considered new and inventive (Articles 33(2) and (3) PCT) over the available prior art cited in the search report for the following reasons:

The present application refers to a hair-cutting unit for use in a shaving device according to the subject-matter of claim 1. The special/inventive technical effect of claim 1 is represented by the combination of the features that:

- i) the cutting edges [of the internal cutting member] and the counter-cutting edges [of the external cutting member] enclosing a shearing angle during said passing, and each said passing starting at a radial initial-passing position relative to the axis of rotation, said radial initial-passing position being defined as a radial position at which a respective cutting edge first meets a respective counter-cutting edge as compared to other radial positions along the respective cutting edge,
- ii) and the features of the characterizing portion of claim 1 (see the specific wording thereof) with regard to the abutment geometry/segment being present at said radial initial-passing position either on the internal cutting member or on the external cutting member.

These two features i) and ii) in question of claim 1 reduce the risk of a collision between the cutting edges of the internal cutting member and the counter-cutting edges of the external cutting member at the radial initial-passing position where such risk is the highest (see also from page 2, line 10, to page 3, line 24, of the present application).

The combination of the features i) and ii) of claim 1 - in order to solve the problem posed - is not considered obvious from the available/cited prior art for the following reasons:

WO 2013/093718 A1 (see e.g. figure 5a thereof) discloses the preamble of claim 1 including feature i) above but without the features of the abutment geometry/segment/s as defined in feature ii) of the characterizing portion of claim 1. The problem of collision between the cutting edges of the internal cutting member and the counter-cutting edges of the external cutting member is not addressed in that document.

DE 2 342 678 (see figures 1-4) also discloses feature i) of claim 1 but without disclosing also feature ii) of claim 1 and the problem of collision of the cutting edges is also not mentioned therein.

EP 0 428 211 A1 (see figures 4 and 6, 7) discloses the abutment geometry/segment being present at the external cutting member according to the one alternative of feature ii) of claim 1. The specific abutment geometry/segment of the external cutting member of that document improves the hair catching effect of the external cutting member when

being moved in the right direction (Q2) as shown in figures 6 and 7 thereof. However, EP 0 428 211 A1 fails to disclose feature i) of claim 1 and the problem of collision of the cutting edges is also not mentioned in that document.

WO 2014/147520 A1 (see figures 2-7) discloses an abutment geometry/segment being present on the wrong/opposite position of the external cutting member which does not cooperate with the cutting edge of the internal cutting member, and in EP 3 398 733 A1 (see figures 3-5) the abutment geometry/segment (40, 42) is located outside of the cutting zone of the cutting edges of the internal and external cutting members.

The subject-matter of independent claim 1 - with regard to the combination of the features i) and ii) thereof - is therefore not considered obvious from the available/cited prior art (Articles 33(2) and (3) PCT).

Claims 2 to 16 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.