



(51) International Patent Classification:

C30B 29/06 (2006.01) *C30B 33/08* (2006.01)
B26B 21/58 (2006.01)

(21) International Application Number:

PCT/US2015/035910

(22) International Filing Date:

16 June 2015 (16.06.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

14/306,702 17 June 2014 (17.06.2014) US

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(81) **Designated States** (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
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SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,

[Continued on next page]

(54) Title: METHODS OF MANUFACTURING SILICON BLADES FOR SHAVING RAZORS

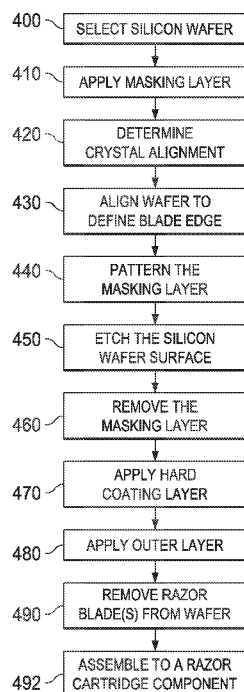


FIG. 4

(57) **Abstract:** Methods are provided for the manufacture of razor blades from silicon material. In some implementations, the method includes aligning a mono-crystalline silicon wafer comprising a {100} surface at an angle where {111} planes intersect the {100} surface parallel and perpendicular to the wafer; etching the mono-crystalline silicon wafer to expose an {111} plane and a second plane to provide a blade edge having between about a 20 degree included blade angle and about a 35 degree included blade angle; applying a hard coating on the blade edge; providing a radius of curvature of the blade edge between about 20 nanometers and about 100 nanometers after deposition of the hard coating; applying a soft coating on the blade edge; and removing the razor blade from the mono-crystalline silicon wafer.



TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*