



(51) International Patent Classification:

E04B 9/04 (2006.01) *F16B 2/24* (2006.01)
E04B 9/24 (2006.01) *E04B 9/22* (2006.01)

(21) International Application Number:

PCT/US2013/058015

(22) International Filing Date:

4 September 2013 (04.09.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/696,424 4 September 2012 (04.09.2012) US

(71) Applicant: **ARMSTRONG WORLD INDUSTRIES, INC.** [US/US]; 2500 Columbia Avenue, Lancaster, PA 17603 (US).

(72) Inventors: **BERGMAN, Todd, M.**; 53 Evergreen Court, Lititz, PA 17543 (US). **TESTA, Francis**; 922 Edgewood

Avenue, Lancaster, PA 17603 (US). **WATERS, James, R.**; 204 Great Lawn Circle, Lancaster, PA 17602 (US).

(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, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, 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,

[Continued on next page]

(54) Title: CONCEALED GRID CEILING SYSTEM

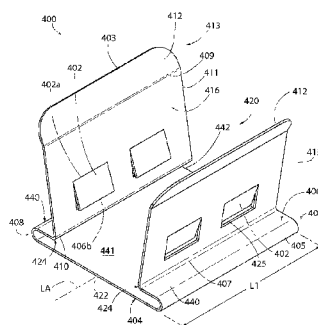


FIG. 1

(57) **Abstract:** A ceiling system in one embodiment includes an overhead support grid comprised of a plurality of intersecting grid support members and a ceiling tile mountable to the grid. Retaining clips support the ceiling tile from the grid which may be concealed from view. The retaining clips each include a cavity that receives a grid support member and a pair of resilient mounting elements configured to lockingly engage a support member. The mounting elements are laterally movable in response to inserting the support member into the cavity of the retaining clip. In one embodiment, the movable elements include locking tabs which create a snap-fit interlock with the grid support member for securing the ceiling tile to the grid.

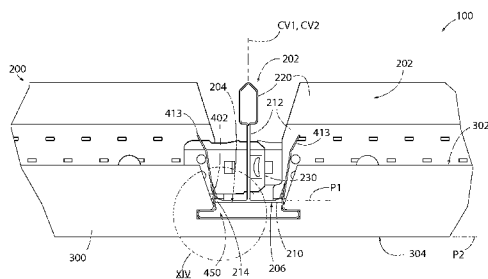


FIG. 13



MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, **Published:**
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, — *with international search report (Art. 21(3))*
GW, KM, ML, MR, NE, SN, TD, TG).