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(12) **United States Design Patent**
Kwak et al.

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(54) **PIPE CONNECTOR**

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(**) Term: **15 Years**

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(52) **U.S. Cl.**
USPC **D23/262**

(58) **Field of Classification Search**

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D23/262-266; D13/133, 154, 156
CPC F16L 37/00; F16L 37/008; F16L 39/005;
F16L 39/02; F16L 41/005; F16L 41/007;
F16L 37/127; F16L 37/16; F16L 37/06;
F16L 37/12; F16L 37/092; F16L 37/0925;
F16L 37/0927; F16L 37/146; F16L
37/148; F16L 37/252; F16L 37/04; F16L
33/01; F16L 33/23; F16L 33/28

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D676,940 S * 2/2013 Kluss D23/262
D676,943 S * 2/2013 Kluss D23/262
D733,846 S * 7/2015 Guest D23/262

D741,457 S * 10/2015 Guest D23/262
D746,952 S * 1/2016 Gledhill D23/259
D751,673 S * 3/2016 Gledhill D23/259
D751,674 S * 3/2016 Gledhill D23/259

(Continued)

FOREIGN PATENT DOCUMENTS

KR 3020190036209 * 12/2019
KR 3020200037116 * 3/2021
KR 3020200037117 * 3/2021

OTHER PUBLICATIONS

Quick Fitting 3/4" Coupling Pipe Fitting | Push-to-Connect Plumbing Fittings with Slip Clip Removal Tool | Brass Fittings for Copper, Pex, PE-RT and CPVC | Lead-Free Certified, Date First Available: Apr. 6, 2022, site visited Apr. 20, 2023; <https://www.amazon.com/Straight-Coupling-Connect-Lead-Free> (Year: 2022).*

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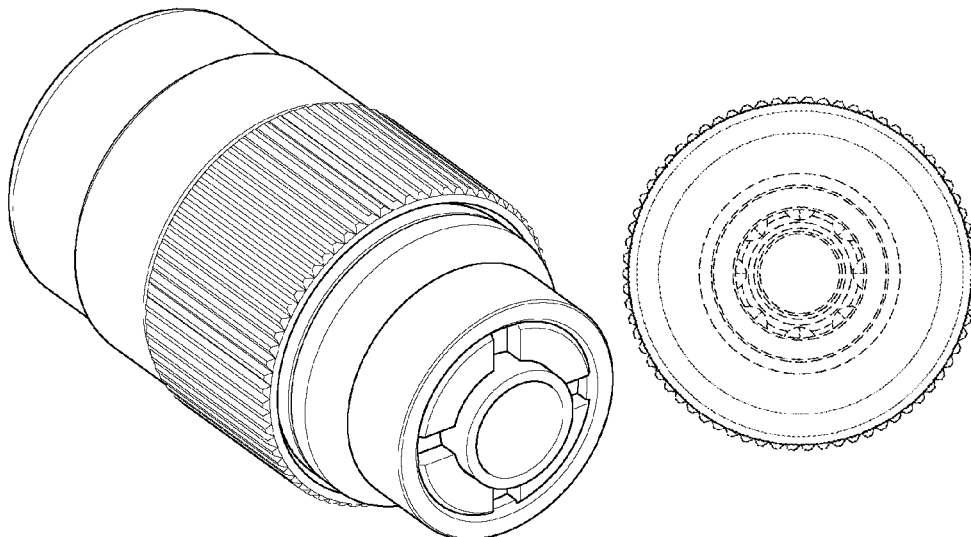
(57) **CLAIM**

The ornamental design for a pipe connector, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a pipe connector showing my new design;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top view thereof; and,
FIG. 7 is a bottom view thereof.
The broken lines depict portions of the pipe connector that form no part of the claim.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D856,496	S *	8/2019	Dagdelen	D23/259
D886,248	S *	6/2020	Ji Ho	D23/262
D923,155	S *	6/2021	Mezzalira	D23/262
D924,376	S *	7/2021	Kwak	D23/262
D924,377	S *	7/2021	Kwak	D23/262
11,060,648	B2 *	7/2021	Kwak	F16L 15/007
D937,392	S *	11/2021	Vaz	D23/262
11,619,333	B2 *	4/2023	Kwak	F16L 37/0915 285/86
2018/0292036	A1 *	10/2018	Boche	F16L 33/2073
2022/0042636	A1 *	2/2022	Kwak	F16L 37/23

OTHER PUBLICATIONS

HQMPC Pex Fittings 3/4" inch Pex Fittings Copper Straight Coupling 3/4" Push Fit Pex Fittings, Push-to-Connect Copper, CPVC No Pb Brass Plumbing Fittings (2Pcs, 3/4"); Date First Available: Mar. 19, 2020; site visited Apr. 20, 2023; <https://www.amazon.com/Fittings-Straight> (Year: 2020).*

Straight Coupling Pipe Connector, Push Fit Coupling, Push-to-Connect Plumbing Fittings, Brass Straight Plumbing Fittings with Disconnect Clip, Push-to-Connect, CPVC (3/4", 10Pcs); Date First Available: Dec. 21, 2021; site visited Apr. 20, 2023; <https://www.amazon.com/Straight-Coupling-Connector> (Year: 2021).*

* cited by examiner

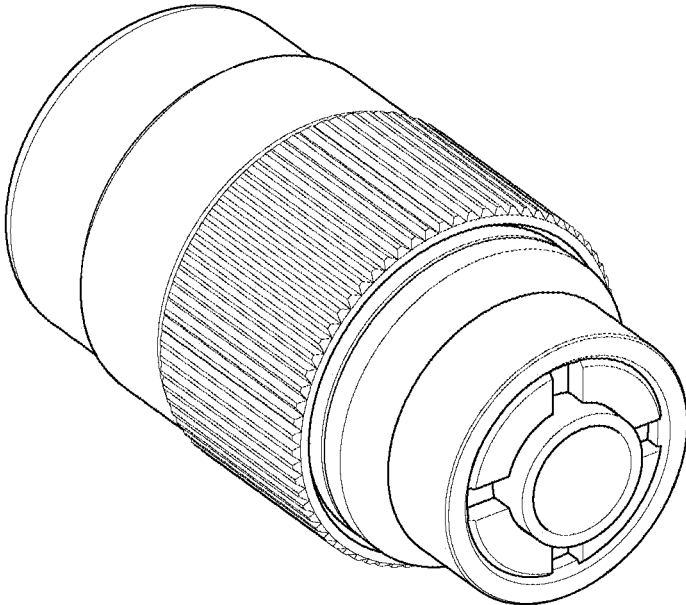


FIG. 1

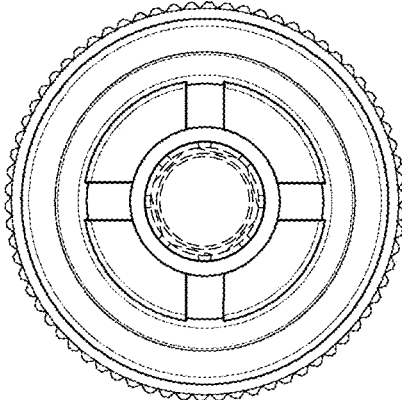


FIG. 2

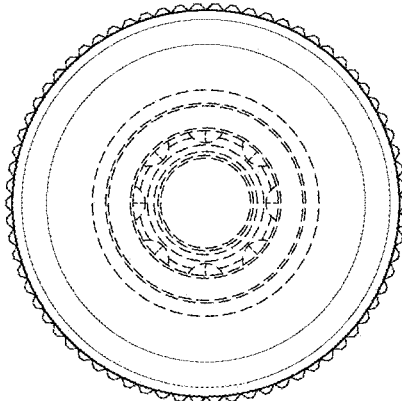


FIG. 3

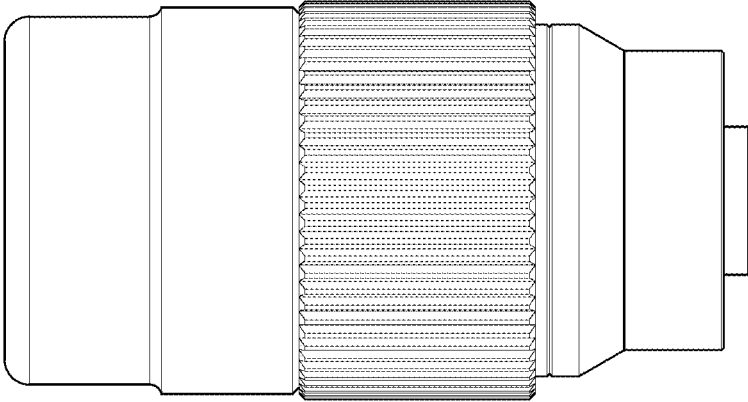


FIG. 4

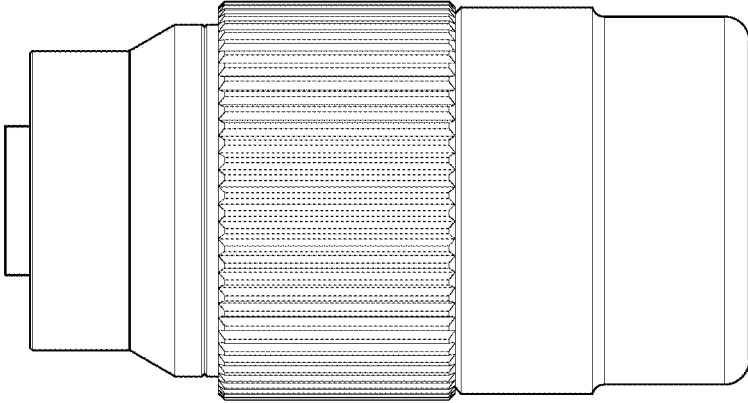


FIG. 5

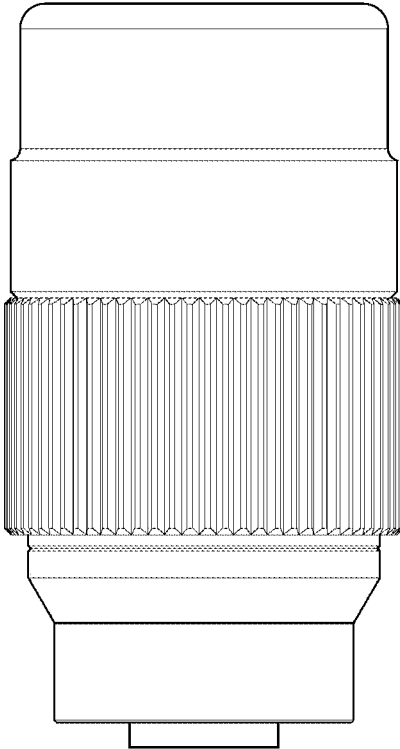


FIG. 6

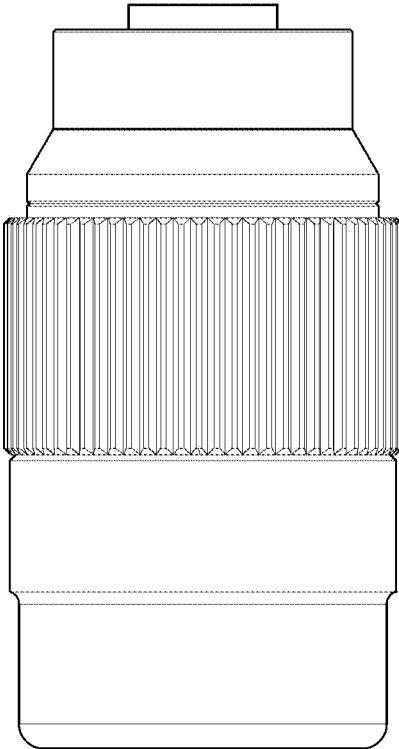


FIG. 7