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

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(45) **Date of Patent:** **** Jul. 6, 2021**

(54) **PIPE CONNECTOR**
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(**) Term: **15 Years**

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
2004/0032125 A1* 2/2004 Rehder F16L 37/53
285/307
2012/0280486 A1* 11/2012 Stratulat F16L 19/086
285/31
2013/0181446 A1* 7/2013 Le Clinche F16L 37/0915
285/345
2013/0257036 A1* 10/2013 Guest F16L 37/0925
285/93
2013/0257043 A1* 10/2013 Guest F16L 37/101
285/322

(Continued)

(21) Appl. No.: **29/721,654**
(22) Filed: **Jan. 22, 2020**

OTHER PUBLICATIONS

SB1—Push to Connect type fitting for refrigerant; Essen Tech YouTube video Frames 1:48+/4:23; Publish date Jan. 5, 2020; Visited online Mar. 23, 2021; <https://www.youtube.com/watch?v=SGwbP6Wtz5A> (Year: 2020).*

(30) **Foreign Application Priority Data**

Jul. 29, 2019 (KR) 30-2019-0036211
(51) **LOC (13) Cl.** **23-01**
(52) **U.S. Cl.**
USPC **D23/262**

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(58) **Field of Classification Search**
USPC 137/551–552; 251/331; D23/213, 233, D23/235, 259–262, 264–266; 285/91, 285/345, 377, 388, 390, 249, 389, 16, 45, 285/148.22, 148.26, 244, 384, 395, 420; D24/112, 127, 129, 108, 110.6, 113, 130; D13/133, 154–156; 138/39, 96 R, 138/109–110, 113; 604/535; 403/11, 34, 403/196–197, 222, 325, 329, 334, 343
CPC F16L 11/00; F16L 19/02; F16L 57/005; E03F 5/04
See application file for complete search history.

(57) **CLAIM**
The ornamental design for a pipe connector, as shown and described.

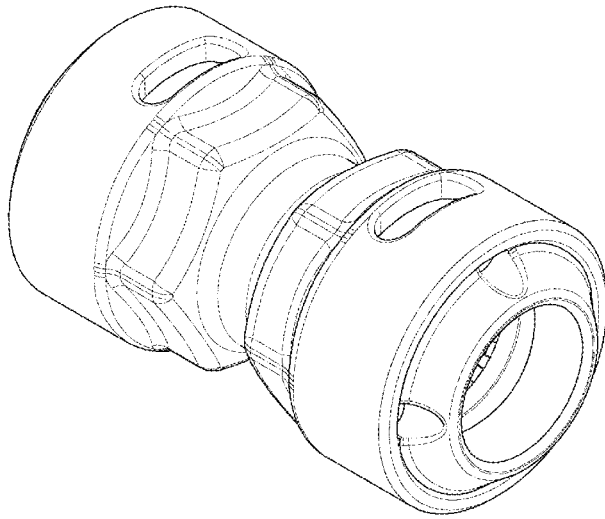
(56) **References Cited**
U.S. PATENT DOCUMENTS

DESCRIPTION

FIG. 1 is a perspective view of a pipe connector;
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;
FIG. 7 is a bottom view thereof; and,
FIG. 8 is a cross-sectional view thereof, taken along line 8-8 in FIG. 5.

D191,883 S * 12/1961 Wing D8/397
D354,801 S * 1/1995 Grant D23/263

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2018/0292036 A1* 10/2018 Boche F16L 33/2073
2019/0390801 A1* 12/2019 Puckett F16L 19/0231

* cited by examiner

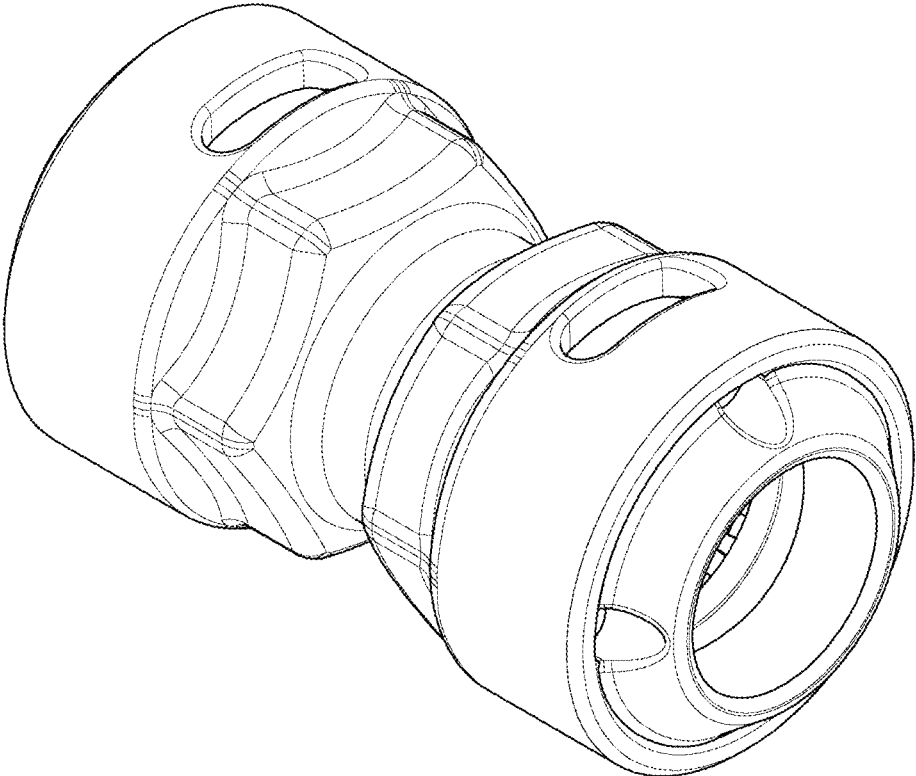


FIG. 1

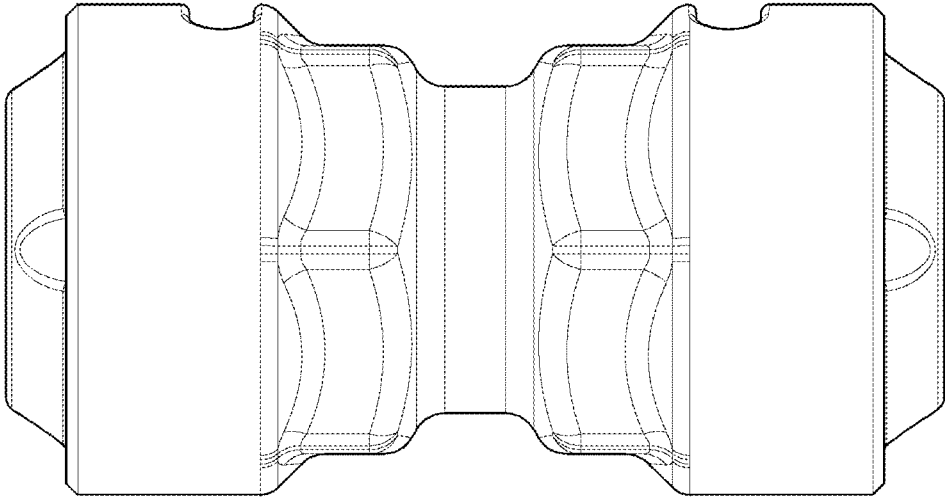


FIG. 2

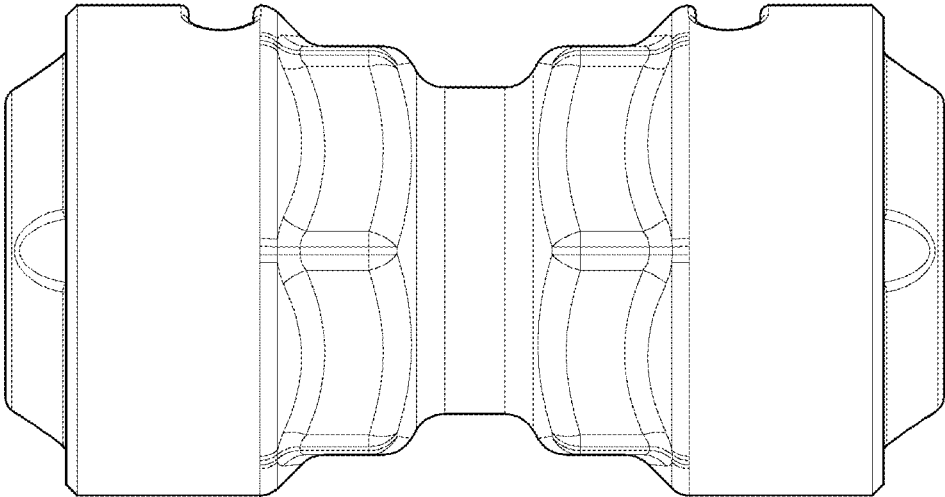


FIG. 3

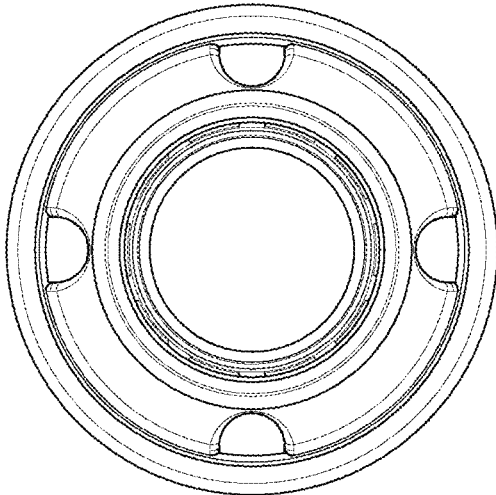


FIG. 4

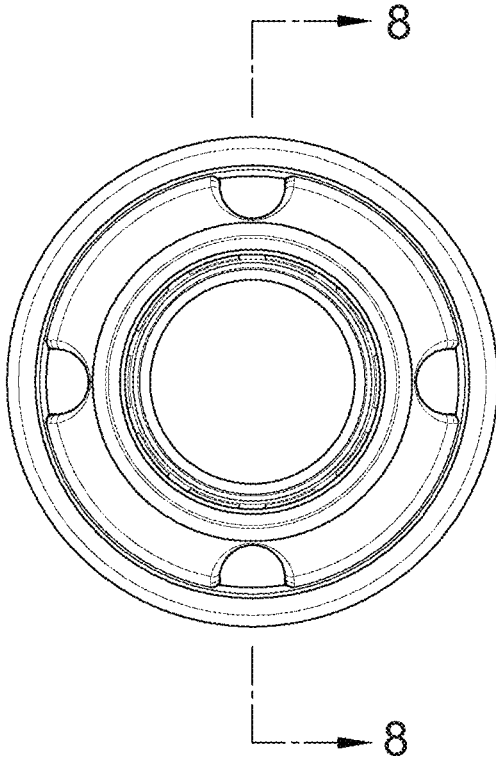


FIG. 5

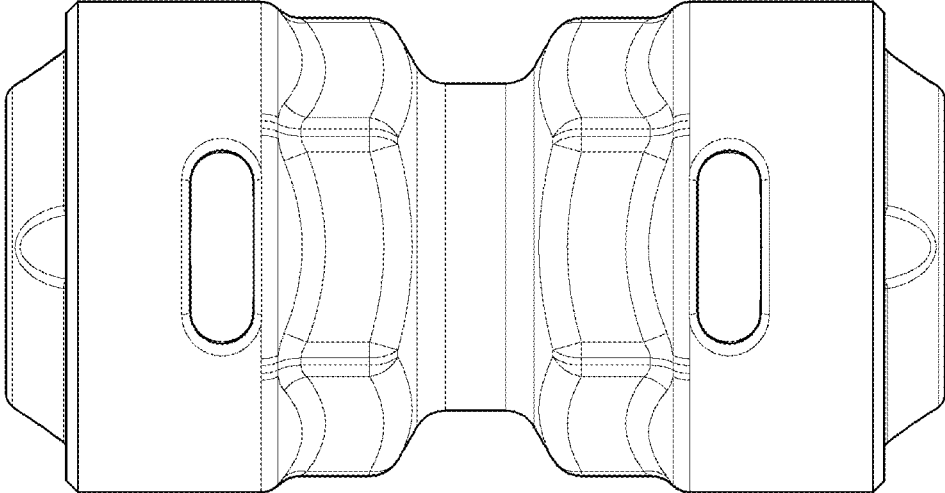


FIG. 6

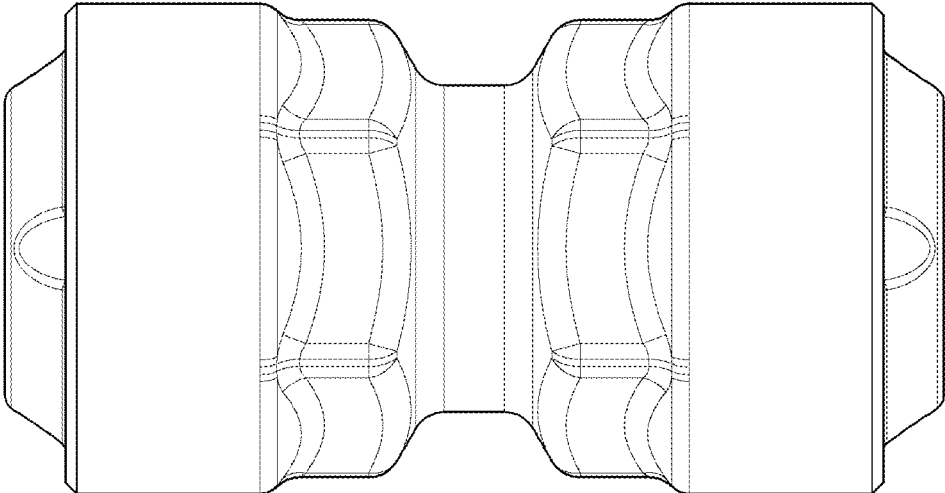


FIG. 7

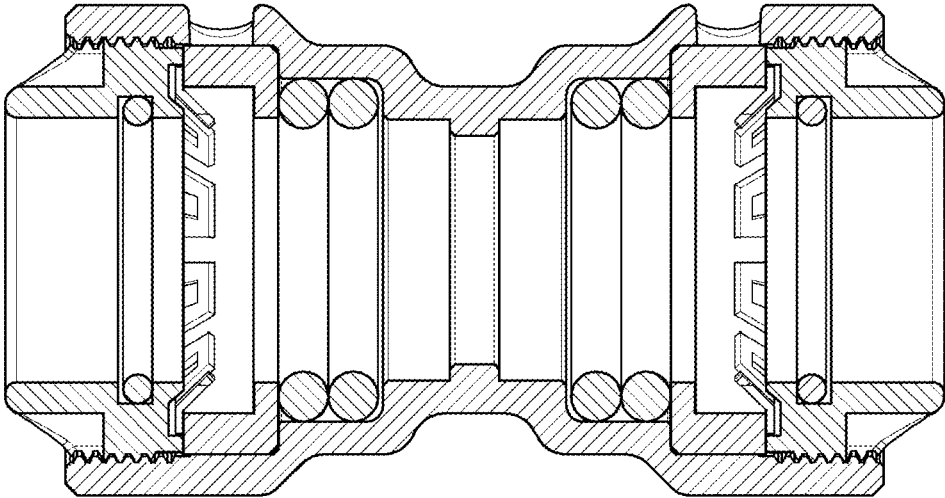


FIG. 8