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

(10) **Patent No.:** **US D834,032 S**  
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- (54) **TOP KNUCKLE OF ARTICULATING ARM**
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- (73) Assignee: **SOUTHCO, INC.**, Concordville, PA (US)
- (\*\*) Term: **15 Years**
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**Related U.S. Application Data**

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- (51) **LOC (11) Cl.** ..... **14-02**
- (52) **U.S. Cl.**  
USPC ..... **D14/452**
- (58) **Field of Classification Search**  
USPC ..... D14/371-382, 125-129, 335-337, D14/447-452, 492, 239, 457, 439-441, D14/432, 251-253, 434; D8/349, 354, D8/363, 373, 376, 380; 348/180, 184, 348/325, 739, 825; D12/407, 415; D3/218; 341/12; 248/323, 278.1, 286.1  
CPC ..... G06F 3/0412; G06F 3/016; G06F 3/0488; G06F 3/011; G06F 3/038; G06F 3/03543; G06F 3/0338; G06F 3/0202; G06F 3/0219; G06F 3/0213; G06F 1/1616; G06F 3/023; G06F 3/04883; G02F 1/13338; G02F 1/1313; G02F 1/1333; G02F 1/135; G02F 1/132; G02F 1/133308; G02F 1/134309; G02F 1/13718; G09G 3/3648; G06K 15/1252; B41J 2/465; G03F 7/70291; G02B  
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D232,372 S 8/1974 Grant  
D269,253 S 6/1983 Gagnon  
(Continued)

FOREIGN PATENT DOCUMENTS

JP 2016019043 A 2/2016

OTHER PUBLICATIONS

Notification of Reasons for Rejection for Japanese Application No. 2017-010325, dated Aug. 29, 2017, including English translation, 3 pages.

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(57) **CLAIM**

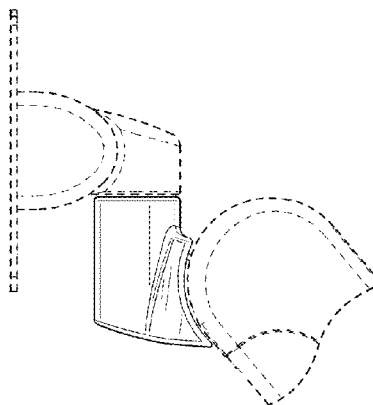
The ornamental design for a top knuckle of articulating arm, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, top, right side perspective view of a top knuckle of articulating arm;  
FIG. 2 is a front elevation view thereof;  
FIG. 3 is a left side elevation view thereof;  
FIG. 4 is a right side elevation view thereof;  
FIG. 5 is a top plan view thereof;  
FIG. 6 is a bottom perspective view thereof;  
FIG. 7 is another right side elevation view thereof shown rotated;  
FIG. 8 is a right side perspective view thereof, shown rotated; and,  
FIG. 9 is another right side perspective view thereof, shown rotated.

The broken lines illustrating the articulating arm in FIGS. 1-9 are environment that form no part of the claimed design,

(Continued)



while the remaining broken lines in FIGS. 1-9 illustrate portions of the top knuckle of articulating arm that form no part of the claimed design.

**1 Claim, 9 Drawing Sheets**

(58) **Field of Classification Search**

CPC ..... 27/0172; G02B 5/30; G02B 2027/0118;  
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 A47B 88/044; A47B 2021/0335; H02G  
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D275,431 S	9/1984	Usab	
5,195,891 A *	3/1993	Sulc .....	A61C 8/005 433/173
D391,444 S	3/1998	Munari	
5,743,503 A	4/1998	Voeller et al.	
D451,317 S	12/2001	Hsieh	
D462,969 S	9/2002	Scharer et al.	
D470,011 S	2/2003	Munari	
D480,376 S	10/2003	Ma	
D488,708 S	4/2004	Lam et al.	
D494,183 S	8/2004	Wills et al.	
D506,257 S	6/2005	Smith	
D510,571 S	10/2005	Cutler et al.	
6,994,547 B1 *	2/2006	Sethi .....	A61C 8/005 433/172
D534,789 S	1/2007	Worrall et al.	
D537,323 S	2/2007	Saez	
D541,807 S	5/2007	Odds et al.	
D541,808 S	5/2007	Odds et al.	
D544,489 S	6/2007	Odds et al.	
D553,123 S	10/2007	Solland	
D558,207 S	12/2007	Ikeda et al.	
D558,208 S	12/2007	Ikeda et al.	
D562,114 S	2/2008	Chiu et al.	
D570,853 S	6/2008	Derry et al.	
7,389,965 B2	6/2008	Odds et al.	
D577,731 S	9/2008	Altonji et al.	
D598,240 S	8/2009	Josancy	
D602,287 S	10/2009	Grove	
7,694,927 B2	4/2010	Chuang	
D618,960 S	7/2010	Chafai et al.	
D631,052 S	1/2011	Hung	
D645,868 S	9/2011	Lau et al.	

D651,199 S	12/2011	Huang	
D654,503 S	2/2012	Sapper	
D659,341 S	5/2012	Gillis et al.	
D660,845 S	5/2012	Schmauch et al.	
D662,103 S	6/2012	Brandt	
D662,104 S	6/2012	Brandt	
D663,576 S	7/2012	McEldowney	
D666,207 S	8/2012	Brandt	
D670,554 S	11/2012	Bowman et al.	
D670,786 S *	11/2012	Mauchle .....	D23/213
D679,282 S	4/2013	Liu et al.	
D682,258 S	5/2013	Anderson	
D686,495 S	7/2013	Murray	
D688,674 S	8/2013	Lau et al.	
D696,325 S	12/2013	Dekar	
D711,307 S	8/2014	Fair	
D712,015 S *	8/2014	Yu .....	D23/263
D717,298 S	11/2014	Sale et al.	
D729,814 S *	5/2015	Anderson .....	D14/452
D729,815 S	5/2015	Anderson	
D733,105 S	6/2015	Wengreen	
9,074,721 B2	7/2015	Lau et al.	
D740,830 S	10/2015	Chu	
D743,537 S *	11/2015	Answine .....	D24/110.5
D745,873 S	12/2015	Xiang et al.	
D747,179 S	1/2016	Xiang et al.	
D751,566 S	3/2016	Anderson	
D752,305 S *	3/2016	DePietro .....	D32/50
9,316,346 B2	4/2016	Lau et al.	
D757,014 S	5/2016	Hahn et al.	
D758,375 S	6/2016	Won et al.	
9,405,498 B2	8/2016	Nishi	
D772,236 S *	11/2016	Anderson .....	D14/452
D779,662 S *	2/2017	Smith .....	D24/129
D786,884 S	5/2017	Borloz et al.	
D789,373 S	6/2017	King	
D794,572 S *	8/2017	Corona .....	D13/146
9,746,125 B2	8/2017	Bowman et al.	
D796,519 S	9/2017	Hung	
D797,928 S	9/2017	Davis et al.	
9,759,371 B2	9/2017	Borloz et al.	
D799,000 S *	10/2017	Chen .....	D23/213
D801,791 S *	11/2017	DePietro .....	D8/376
D805,085 S	12/2017	Xiang et al.	
D808,099 S	1/2018	Yoo et al.	
D808,801 S	1/2018	Cooper et al.	
D809,519 S	2/2018	Jung et al.	
D811,849 S	3/2018	Chou	
D813,009 S *	3/2018	Lindo .....	D8/323
D815,105 S	4/2018	Jung et al.	
D815,643 S	4/2018	Bowman et al.	
D818,309 S	5/2018	Jasso Gomez	
D819,015 S	5/2018	Lee	
2003/0146359 A1	8/2003	Odds, Jr.	
2012/0267497 A1	10/2012	Bowman et al.	
2016/0305600 A1	10/2016	Bowman et al.	

\* cited by examiner

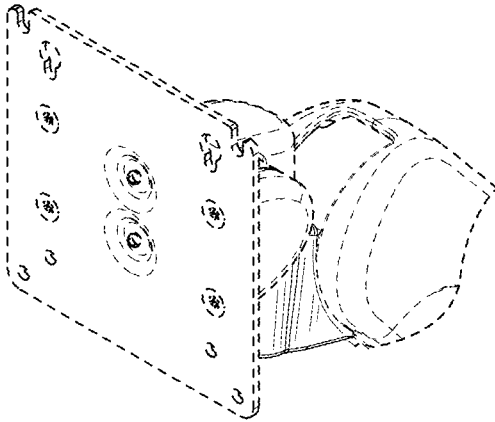


FIG. 1

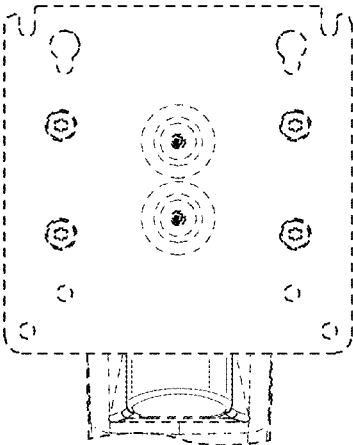


FIG. 2

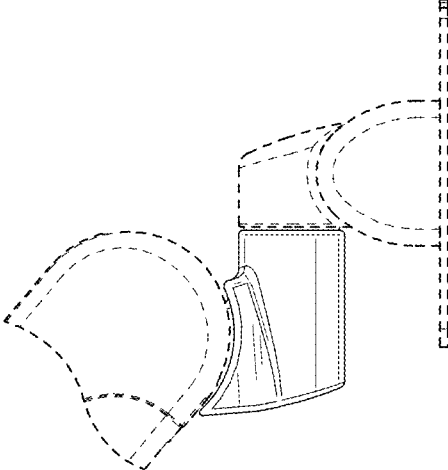


FIG. 3

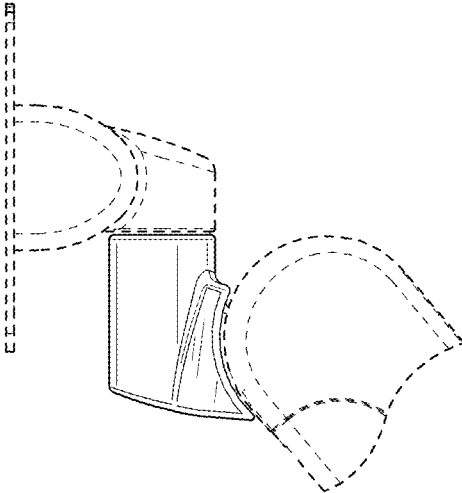


FIG. 4

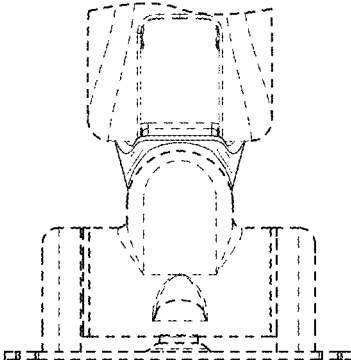


FIG. 5

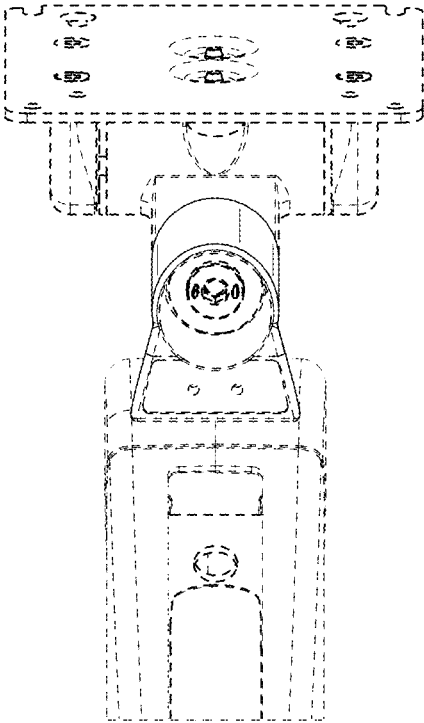


FIG. 6



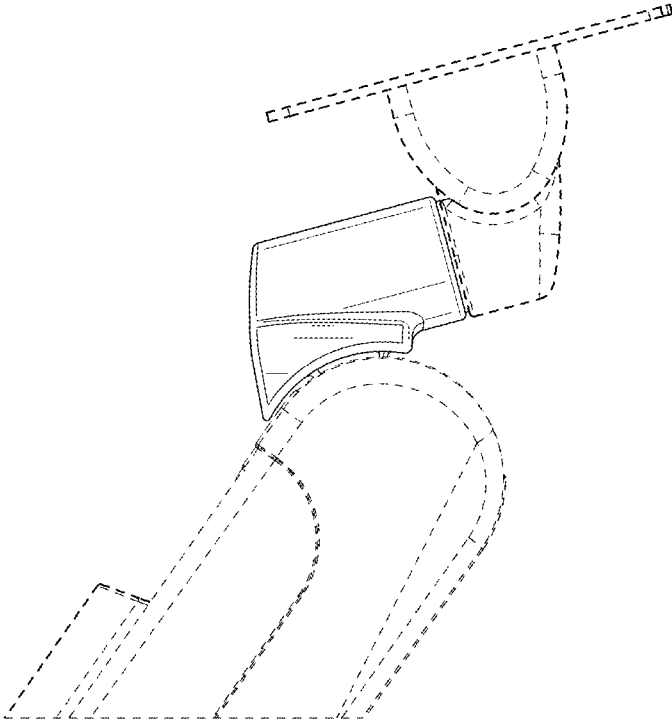


FIG. 7

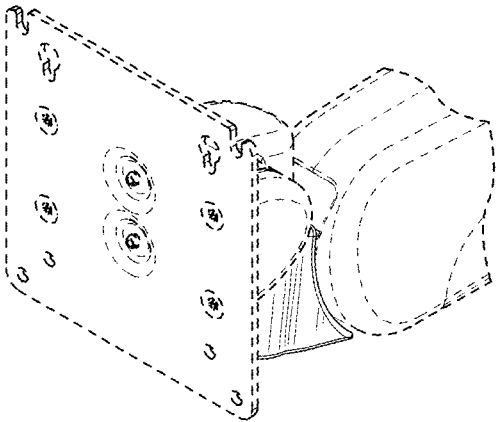


FIG. 8

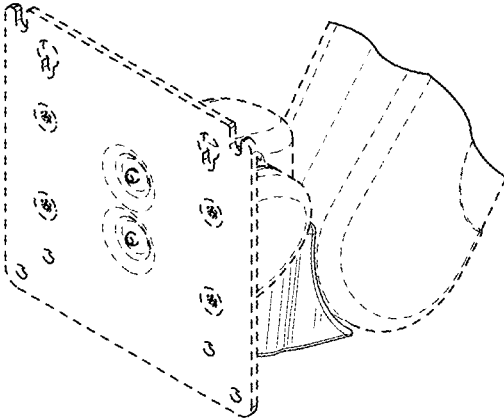


FIG. 9