



(12) **United States Design Patent**
Cheng

(10) **Patent No.:** **US D1,069,643 S**
(45) **Date of Patent:** **** Apr. 8, 2025**

(54) **BUCKLING COMPONENT APPLIED TO A MAGNETIC BUCKLING ASSEMBLY**

(71) Applicant: **WONDERLAND SWITZERLAND AG**, Steinhausen (CH)

(72) Inventor: **Manqun Cheng**, Guangdong (CN)

(73) Assignee: **Wonderland Switzerland AG**, Steinhausen (CH)

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

(21) Appl. No.: **29/897,913**

(22) Filed: **Jul. 20, 2023**

Related U.S. Application Data

(60) Division of application No. 29/776,769, filed on Mar. 31, 2021, now Pat. No. Des. 1,040,690, which is a continuation of application No. 17/080,281, filed on Oct. 26, 2020, now Pat. No. 11,266,208, which is a continuation of application No. 16/211,248, filed on Dec. 6, 2018, now Pat. No. 10,874,178.

Foreign Application Priority Data

Sep. 20, 2018 (CN) 201821544286

(51) **LOC (15) Cl.** **02-07**

(52) **U.S. Cl.**
USPC **D11/220**
CPC **A44B 11/258** (2013.01); **A44B 11/2511** (2013.01); **A44B 11/2546** (2013.01); **A44B 11/2584** (2013.01); **A44B 11/263** (2013.01); **B62B 9/24** (2013.01); **A44D 2203/00** (2013.01); **B62B 3/1452** (2013.01); **Y10T 24/32** (2015.01)

(58) **Field of Classification Search**

USPC D11/86, 87, 88, 93, 94, 200–241; D2/798, 853
CPC A44B 1/18; A44B 1/32; A44B 1/34; A44B 3/00; A44B 3/08; A44B 11/25; A44B 11/258; A44B 11/2584

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D14,106 S * 7/1883 Searle 24/114.11
323,359 A * 7/1885 Noyes A44B 1/34
D11/226
D31,503 S 9/1899 Shipman
(Continued)

FOREIGN PATENT DOCUMENTS

CN 1628568 A 6/2005
CN 2850359 Y 12/2006
(Continued)

OTHER PUBLICATIONS

CN202110184952.3 First Office Action Dated Aug. 2, 2021.
(Continued)

Primary Examiner — W. A. Teddy Falloway
Assistant Examiner — Sarah J Ault
(74) *Attorney, Agent, or Firm* — Volpe Koenig

(57) **CLAIM**

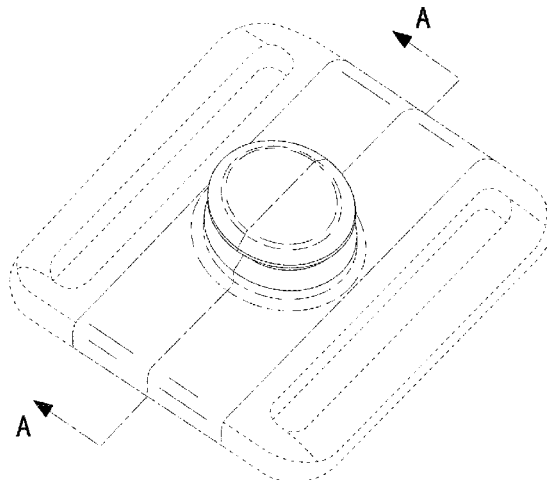
The ornamental design for a buckling component applied to a magnetic buckling assembly, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a buckling component; and, FIG. 2 is a sectional view of the buckling component of FIG. 1 applied to a magnetic buckling assembly along the line A-A.

The dash-dash broken lines shown in the drawings illustrate portions of the buckling component applied to a magnetic buckling assembly. The dot-dashed broken lines shown in the drawings represent the claim boundary. The broken lines form no part of the claimed design.

1 Claim, 2 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

633,752	A *	9/1899	Clark	A44B 1/32 24/109	D539,132	S	3/2007	Aoki
D34,991	S	8/1901	Freeman		7,186,931	B2	3/2007	Chang et al.
D40,432	S	1/1909	Kemp		D555,470	S	11/2007	Aoki
1,055,008	A	3/1913	Wright		D556,032	S	11/2007	Aoki
D44,412	S	7/1913	Pflugger		D558,038	S	12/2007	Aoki
1,515,997	A	11/1924	Chappell		D569,717	S	5/2008	Aoki
1,613,444	A	1/1927	Daughaday		D570,672	S	6/2008	Aoki
D127,880	S	6/1941	Chermow		D572,579	S	7/2008	Aoki
D134,704	S *	12/1942	Stephen	D11/226	D575,670	S	8/2008	Niwa
3,041,697	A	7/1962	Budreck		D581,774	S	12/2008	Aoki
3,083,429	A *	4/1963	Barlow	A44B 17/0058 206/820	D584,601	S	1/2009	Aoki
3,233,590	A	2/1966	Venca		D584,602	S	1/2009	Aoki
3,418,658	A	12/1968	Danico		D595,123	S	6/2009	Aoki
3,538,554	A	11/1970	Ford		D618,590	S	6/2010	Aoki
D228,082	S	8/1973	Waller		D623,088	S	9/2010	Schiebl
D273,840	S	5/1984	Morita		D628,515	S	12/2010	Schiebl
D294,810	S	3/1988	Morita		8,056,151	B2	11/2011	Bologna
4,779,314	A	10/1988	Aoki		D671,443	S	11/2012	Paik et al.
D301,566	S	6/1989	Heiberger		D671,862	S	12/2012	Metsker
D302,401	S	7/1989	Weingast		8,353,544	B2	1/2013	Fiedler
D319,201	S	8/1991	Aoki		8,359,716	B2	1/2013	Fiedler
D330,509	S	10/1992	Belknap		8,368,494	B2	2/2013	Fiedler
D335,266	S	5/1993	Morita		8,430,434	B2	4/2013	Fiedler
D339,521	S	9/1993	Barlett		8,464,403	B2	6/2013	Fiedler
D360,391	S	7/1995	Aoki		8,495,803	B2	6/2013	Plut
D375,061	S	10/1996	Morita		8,484,809	B2	7/2013	Fiedler
D377,919	S	2/1997	Singer		D691,879	S	10/2013	Bernard
5,630,258	A	5/1997	Schneider		D705,695	S	5/2014	Wall
D383,706	S	9/1997	Archambault		D707,584	S	6/2014	Webb
D386,669	S	11/1997	Aoki		8,739,371	B2	6/2014	Fiedler
D400,429	S	11/1998	Morita		8,794,682	B2	8/2014	Fiedler
D401,889	S	12/1998	Wong		8,800,117	B2	8/2014	Fiedler
D405,237	S	2/1999	Maslowski		8,850,670	B2	10/2014	Fiedler
D411,478	S	6/1999	Kenagy		8,851,534	B2	10/2014	Fiedler
D412,865	S	8/1999	Aoki		D716,685	S	11/2014	Oh
D413,282	S	8/1999	Aoki		8,914,951	B2	12/2014	Gaudillere
5,937,487	A	8/1999	Bauer		9,044,071	B2	6/2015	Fiedler
D425,780	S	5/2000	Aoki		9,096,148	B2	8/2015	Fiedler
D426,491	S	6/2000	Chan		9,101,185	B1	8/2015	Greenberg
D426,765	S	6/2000	Aoki		9,245,678	B2	1/2016	Fiedler
D430,483	S	9/2000	Wah et al.		D749,983	S	2/2016	Paik et al.
D431,453	S	10/2000	Chen		9,249,814	B2	2/2016	Isan
D432,400	S	10/2000	Chen		D768,028	S	10/2016	Ling
D434,644	S	12/2000	Aoki		D774,413	S	12/2016	Paik et al.
D438,451	S	3/2001	Reiter		9,555,935	B2	1/2017	Fiedler
D439,147	S	3/2001	Kenagy		D778,207	S	2/2017	Paik et al.
D441,317	S	5/2001	Nire		D778,777	S	2/2017	Paik et al.
D441,639	S	5/2001	Reiter		9,572,410	B2	2/2017	Fiedler
D450,625	S	12/2001	Khromachou		D782,152	S	3/2017	Woodward
D452,137	S	12/2001	Aoki		9,635,919	B2	5/2017	Fiedler
D452,643	S	1/2002	Morita		9,677,581	B2	6/2017	Tucholke et al.
D452,644	S	1/2002	Morita		9,717,323	B2	8/2017	Tsai
D452,813	S	1/2002	Morita		9,907,367	B2	3/2018	Paik et al.
D453,105	S	1/2002	Morita		9,936,772	B2	4/2018	Paik
6,337,520	B1	1/2002	Jeong et al.		D817,830	S	5/2018	Archambault
D454,482	S	3/2002	Morita		9,986,791	B2	6/2018	Botkus et al.
D456,130	S	4/2002	Towns		D822,536	S	7/2018	Wu
D457,834	S	5/2002	Morita		10,098,422	B2	10/2018	Fiedler et al.
D461,116	S	8/2002	Aoki		10,111,499	B2	10/2018	Fiedler et al.
D461,400	S	8/2002	Aoki		10,143,270	B2	12/2018	Fiedler et al.
D462,255	S	9/2002	Aoki		10,179,548	B2	1/2019	Fiedler et al.
D464,562	S	10/2002	Reiter		10,202,790	B2	2/2019	Fiedler
D479,149	S	9/2003	Degl'Innocenti		10,212,993	B2	2/2019	Fiedler et al.
D481,298	S	10/2003	Aoki		D845,168	S	4/2019	Paik et al.
D482,266	S	11/2003	Aoki		10,315,549	B2	6/2019	Fiedler
D486,093	S	2/2004	Tobergte		10,328,983	B2	6/2019	Fiedler et al.
D504,311	S	4/2005	Aoki		10,383,409	B2	8/2019	Fiedler
D506,921	S	7/2005	Aoki		10,385,895	B2	8/2019	Fiedler et al.
D511,449	S	11/2005	Aoki		10,578,241	B2	3/2020	Fiedler
D518,707	S	4/2006	Aoki		D880,625	S	4/2020	Romanoff
D527,618	S	9/2006	Aoki		10,617,179	B2	4/2020	Fiedler et al.
D527,620	S	9/2006	Aoki		10,626,636	B2	4/2020	Fiedler
D533,807	S	12/2006	English		10,703,429	B2	7/2020	Fiedler et al.
					10,758,019	B2	9/2020	Paik et al.
					10,791,804	B2	10/2020	Chu et al.
					10,874,178	B2 *	12/2020	Cheng
					D913,840	S	3/2021	Lachapelle
					D920,834	S	6/2021	Maley
					11,266,208	B2	3/2022	Cheng

(56)

References Cited

U.S. PATENT DOCUMENTS

11,425,969 B2 * 8/2022 Li A44B 11/258
 D1,034,151 S * 7/2024 Pankoke D11/220
 D1,034,300 S * 7/2024 Richter D11/220
 D1,034,301 S * 7/2024 Richter D11/220
 2006/0283691 A1 12/2006 Chang et al.
 2010/0283269 A1 11/2010 Fiedler
 2010/0308605 A1 12/2010 Fiedler
 2010/0325844 A1 12/2010 Fiedler
 2011/0001025 A1 1/2011 Fiedler
 2011/0030174 A1 2/2011 Fiedler
 2011/0131770 A1 6/2011 Fiedler
 2011/0167595 A1 7/2011 Fiedler
 2011/0296653 A1 12/2011 Fiedler
 2011/0298227 A1 12/2011 Fiedler
 2012/0124786 A1 5/2012 Fiedler
 2012/0216373 A1 8/2012 Fiedler
 2012/0227220 A1 9/2012 Fiedler
 2012/0248793 A1 10/2012 Fiedler
 2012/0255144 A1 10/2012 Gaudillere
 2012/0291227 A1 11/2012 Fiedler
 2013/0011179 A1 1/2013 Fiedler
 2013/0185901 A1 7/2013 Heyman
 2014/0317890 A1 10/2014 Koons et al.
 2014/0339232 A1 11/2014 Fiedler
 2015/0135486 A1 5/2015 Fiedler
 2015/0327631 A1 11/2015 Kaneko
 2016/0198813 A1 7/2016 Fiedler et al.
 2017/0015229 A1 1/2017 Fiedler
 2018/0132670 A1 5/2018 Beckeman et al.
 2019/0174875 A1 6/2019 Cheng
 2020/0367611 A1 11/2020 Cheng
 2021/0076784 A1 3/2021 Cheng
 2022/0047045 A1 8/2022 Li
 2022/0330664 A1 10/2022 Li

FOREIGN PATENT DOCUMENTS

CN 201398539 Y 2/2010
 CN 101925313 A 12/2010
 CN 102336210 A 2/2012
 CN 102726891 A 10/2012
 CN 203028290 U 7/2013
 CN 103957739 A 7/2014
 CN 104853636 A 8/2015
 CN 104856373 A 8/2015
 CN 106174909 A 12/2016
 CN 206213411 U 6/2017
 CN 106942848 A 7/2017
 CN 206333464 U 7/2017
 CN 108056538 A 5/2018
 CN 108065513 A 5/2018

CN 108968240 A 12/2018
 CN 208259203 12/2018
 CN 307382316 S 6/2022
 CN 30740591 S 7/2022
 EP 2508095 A1 10/2012
 EP 3165117 B1 4/2018
 EP 3165118 B1 6/2018
 EP 3183986 B1 7/2018
 EP 3616552 A1 3/2020
 JP S63150516 U 10/1988
 JP H07289311 A 11/1995
 JP 2000270906 A 10/2000
 JP 2001275717 A 10/2001
 JP 2006130182 A 5/2006
 JP 2006204691 A 8/2006
 JP 2007244543 A 9/2007
 JP 2009542380 A 12/2009
 JP 2016505306 A 2/2016
 JP 2017012498 A 1/2017
 KR 301151169.0000 2/2022
 TW 1555904 B 11/2016
 WO 2017063195 A 4/2017
 WO 2020173410 A1 9/2020

OTHER PUBLICATIONS

CN201910106228.1 First Office Action Dated Apr. 28, 2022.
 CN202110594687.6 First Office Action Dated Apr. 18, 2022.
 CN201711284857.0 First Office Action Dated Mar. 3, 2021.
 CN201711284857.0 Notice of Allowance Dated Apr. 1, 2022.
 Non-Final Office Action issued in corresponding U.S. Appl. No. 17/322,682 on Jul. 8, 2022.
 Non-Final Office Action in U.S. Appl. No. 17/080,281 mailed Mar. 23, 2021.
 Decision of Dismissal of Amendment in Japanese Patent Application No. 2021-093505, mailed Jan. 25, 2022.
 Snap Male 25 Adjuster, available Nov. 21, 2022, online, site visited Nov. 21, 2022. Available online, URL: <https://www.extremtextil.de/en/snap-male-25-adjuster-size-l-magnetic-fastener-fidlock-25mm.html> (Year: 2022).
 Snap Male Large 25 Adjuster Split Bar, available Nov. 21, 2022, online, site visited Nov. 21, 2022. Available online, URL: <https://www.aplusproducts.net/products/fidlock-snap-male-large-25-adjuster-split-bar?variant=41037158973617> (Year: 2022).
 Snap pull female/male m 25 adjuster, available Nov. 10, 2022, online, site visited Nov. 21, 2022. Available online, URL: <https://www.etsy.com/listing/1320854678/snap-pull-femalemale-m-25-adjuster-set> (Year: 2022).
 1st Office Action for Corresponding Chinese Application No. 202210689318.X dated Oct. 14, 2024.
 1st Office Action for Corresponding Chinese Application No. 202210687150.9 dated Oct. 14, 2024.

* cited by examiner

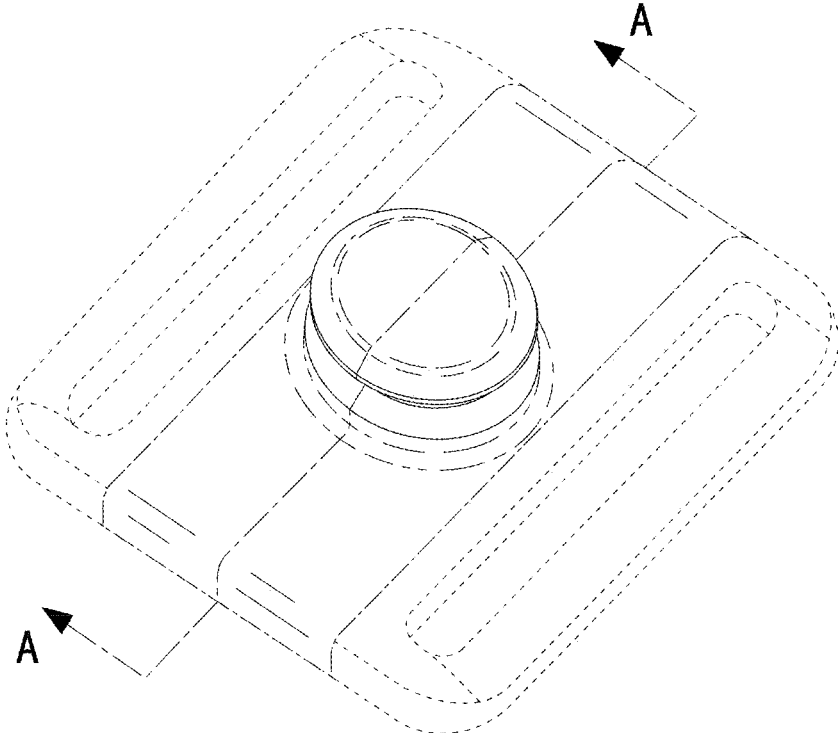


FIG. 1

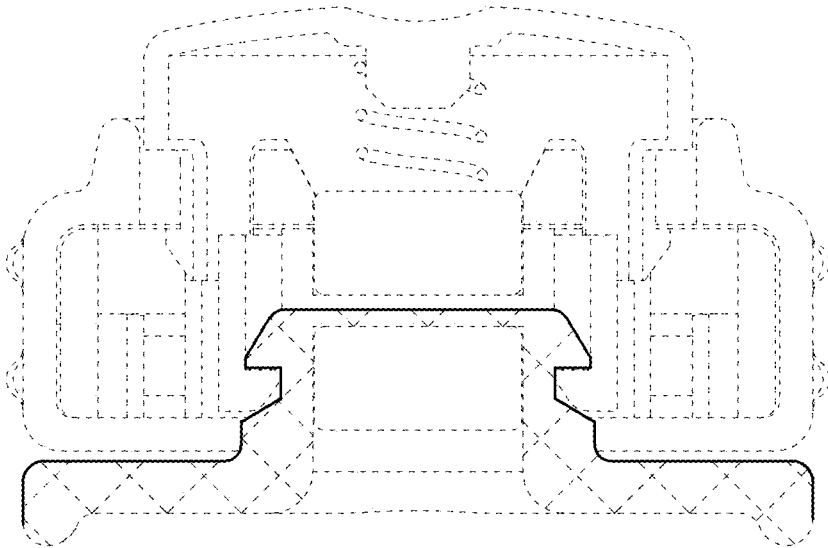


FIG. 2