US00D958973S

(12) United States Design Patent

Nicholas et al.

(10) Patent No.: US D958,973 S
(45) Date of Patent: ** Jul. 26, 2022

(54) **AUTO-INJECTOR CAP**

(71) Applicant: **Regeneron Pharmaceuticals, Inc.**, Tarrytown, NY (US)

(72) Inventors: **Courtney Nicholas**, Fairfax, VA (US); **Scott Barton**, Clifton Park, NY (US); **Bart E. Burgess**, Bernville, PA (US); **Alexei Goraltchouk**, Cambridge, MA (US); **Paige Waechter**, East Greenbush, NY (US)

(73) Assignee: **Regeneron Pharmaceuticals, Inc.**, Tarrytown, NY (US)

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

(21) Appl. No.: **29/801,052**

(22) Filed: **Jul. 26, 2021**

Related U.S. Application Data

(63) Continuation of application No. 29/671,022, filed on Nov. 21, 2018, now Pat. No. Des. 932,006.

(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/113**

(58) **Field of Classification Search**
USPC D24/112–114, 108, 133, 130, 127, 186; 606/181, 185; 604/264, 272, 187, 181, 604/184, 227
CPC A61M 5/178; A61M 3/00; A61M 5/20; A61M 5/31; A61M 5/3146; A61M 5/3129; A61M 5/3148
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,046,145 A 9/1977 Choksi et al.
4,840,185 A 6/1989 Hernandez
4,900,309 A 2/1990 Netherton et al.
4,986,817 A 1/1991 Code
5,000,603 A 3/1991 Isoda
5,147,328 A 9/1992 Dragosits et al.
5,336,197 A 8/1994 Kuracina et al.
5,509,903 A 4/1996 Grendahl et al.
(Continued)

FOREIGN PATENT DOCUMENTS

EP 2716318 4/2014
EP 004420388-0001 10/2017
(Continued)

OTHER PUBLICATIONS

SHL Medical Products Molly Auto Injectors (http://www.shl-group.com/Products_SHLMedical_AutoInjectors_Molly.html), last accessed Jul. 26, 2018.
(Continued)

Primary Examiner — David G Muller
(74) *Attorney, Agent, or Firm* — Bookoff McAndrews, PLLC

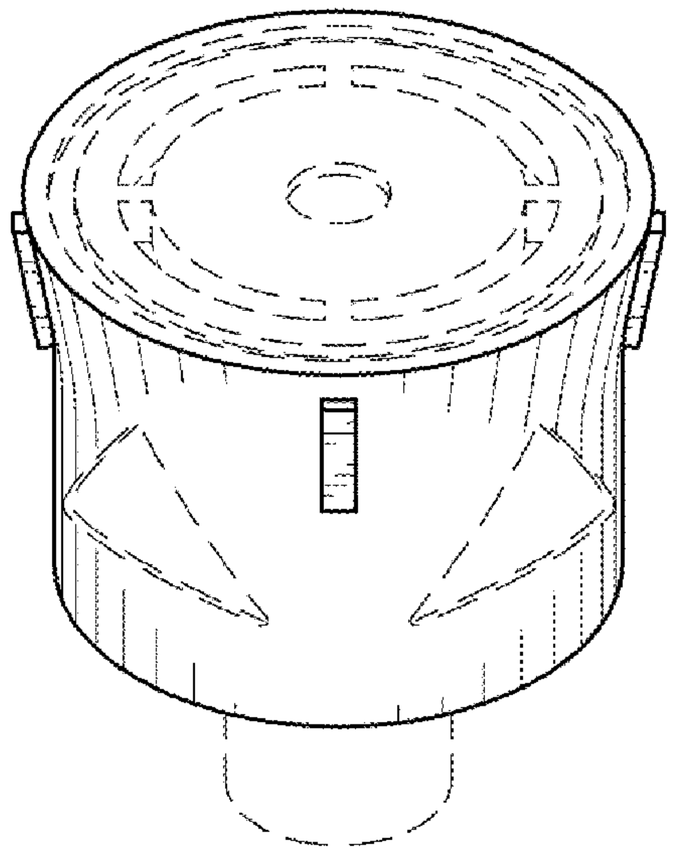
(57) **CLAIM**

The ornamental design for an auto-injector cap, as shown and described.

DESCRIPTION

FIG. **1** is a front right perspective view of an auto-injector cap showing our new design;
FIG. **2** is a front elevation view thereof;
FIG. **3** is a rear elevation view thereof;
FIG. **4** is a left side view thereof;
FIG. **5** is a right side view thereof;
FIG. **6** is a top plan view thereof; and,
FIG. **7** is a bottom view thereof;
The broken lines shown in the drawings illustrate portions of the auto-injector cap that form no part of the claimed design.

1 Claim, 2 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

5,519,931	A		5/1996	Reich
5,554,127	A		9/1996	Crouther et al.
5,554,133	A		9/1996	Haffner et al.
5,716,346	A		2/1998	Farris
5,843,036	A		12/1998	Olive et al.
5,897,266	A		4/1999	Robert
5,997,513	A		12/1999	Smith et al.
D426,299	S		6/2000	Bydlon et al.
D428,651	S		7/2000	Andersson et al.
6,206,855	B1		3/2001	Kunkel et al.
D447,799	S	*	9/2001	Jun D24/130
D460,552	S	*	7/2002	Niermann D24/130
D462,760	S		9/2002	Ahlgrim et al.
D479,599	S		9/2003	Bainton
D479,601	S		9/2003	Tyce
D479,602	S		9/2003	Bainton
D479,603	S		9/2003	Tyce
D479,747	S		9/2003	Bainton
D479,748	S		9/2003	Tyce
D481,120	S		10/2003	Hawley et al.
D488,864	S		4/2004	Fago et al.
D490,149	S		5/2004	Hawley et al.
D490,150	S		5/2004	Hawley et al.
D490,151	S		5/2004	Hawley et al.
D492,027	S		6/2004	Tyce et al.
D492,405	S		6/2004	Bainton
D493,526	S		7/2004	Hwang
D503,797	S		4/2005	Tyce
7,189,217	B2		3/2007	Chang et al.
7,307,265	B2		12/2007	Polsinelli et al.
D561,894	S		2/2008	Hudson
7,338,474	B2		3/2008	Kirk
7,414,254	B2		8/2008	Polsinelli et al.
D581,047	S		11/2008	Koshidaka
7,449,012	B2		11/2008	Young et al.
D596,289	S	*	7/2009	Kawamura D24/130
D598,539	S		8/2009	Tyce
D599,008	S		8/2009	Tyce
D599,009	S		8/2009	Tyce
D599,010	S		8/2009	Tyce
D599,011	S		8/2009	Tyce
D600,794	S		9/2009	Tyce
D600,795	S		9/2009	Tyce
D606,649	S		12/2009	Tyce
D606,650	S		12/2009	Tyce
7,635,348	B2		12/2009	Raven et al.
D608,442	S		1/2010	Tyce
D610,251	S		2/2010	Tyce
D610,252	S		2/2010	Tyce
D610,676	S		2/2010	Tyce
D612,486	S		3/2010	Van der Stappen
7,682,155	B2		3/2010	Raven et al.
D616,089	S	*	5/2010	Van der Stappen D24/113
D619,247	S		7/2010	Loe, Jr.
D621,929	S	*	8/2010	Van der Stappen D24/130
D623,738	S	*	9/2010	Van der Stappen D24/130
7,794,432	B2		9/2010	Young et al.
7,846,136	B2		12/2010	Witowski
7,905,352	B2		3/2011	Wyrick
D641,077	S		7/2011	Sanders et al.
D651,305	S		12/2011	Hawley et al.
8,269,201	B2		9/2012	Fago et al.
D671,638	S		11/2012	Young et al.
D676,957	S		2/2013	Schneider et al.
8,376,998	B2		2/2013	Daily et al.
D677,380	S		3/2013	Julian et al.
D687,543	S		8/2013	Pala et al.
D688,790	S		8/2013	Guarraia et al.
D688,791	S		8/2013	Guarraia et al.
D688,793	S		8/2013	Guarraia et al.
D690,416	S		9/2013	Cappello et al.
8,529,510	B2		9/2013	Giambattista et al.
D692,129	S		10/2013	Dubuc et al.
D694,879	S		12/2013	Julian et al.
D695,892	S		12/2013	Cappello et al.
D696,397	S		12/2013	Guarraia et al.
D696,771	S		12/2013	Schneider et al.
D696,773	S		12/2013	Schneider et al.
D696,774	S		12/2013	Guarraia et al.
D696,775	S		12/2013	Guarraia et al.
D697,205	S		1/2014	Schneider et al.
D703,314	S		4/2014	Schneider et al.
D707,351	S		6/2014	Kunze
D707,352	S		6/2014	Liu et al.
D708,317	S		7/2014	Schneider et al.
D710,498	S	*	8/2014	Koshidaka D24/130
8,801,679	B2		9/2014	Iio et al.
8,821,451	B2		9/2014	Daniel
D714,932	S		10/2014	Hall et al.
D715,422	S		10/2014	Hall et al.
D716,442	S		10/2014	Magome et al.
8,864,718	B2		10/2014	Karlsen et al.
8,870,827	B2		10/2014	Young et al.
D717,428	S		11/2014	Sendatzki et al.
D717,940	S		11/2014	Magome et al.
8,888,713	B2		11/2014	Crawford et al.
9,022,982	B2		5/2015	Karlsson et al.
D733,869	S	*	7/2015	Ratjen D24/113
9,078,973	B2		7/2015	Harms et al.
9,132,236	B2		9/2015	Karlsson et al.
D740,937	S		10/2015	Schneider et al.
9,199,038	B2		12/2015	Daniel
9,216,251	B2		12/2015	Daniel
9,220,841	B2		12/2015	Daniel
9,220,847	B2		12/2015	Holmqvist et al.
D748,253	S	*	1/2016	Ratjen D24/130
9,247,899	B2		2/2016	Shaw et al.
D752,211	S		3/2016	Sanders et al.
D755,369	S		5/2016	Sanders et al.
D755,370	S		5/2016	Riess et al.
D757,254	S		5/2016	Wohlfahrt et al.
D757,255	S		5/2016	Wohlfahrt et al.
D758,567	S		6/2016	Wohlfahrt et al.
D758,568	S		6/2016	Wohlfahrt et al.
D758,569	S		6/2016	Wohlfahrt et al.
D764,657	S		8/2016	Bokelman et al.
9,468,722	B2		10/2016	Olson
D773,039	S		11/2016	Sanders et al.
D773,648	S		12/2016	Wohlfahrt et al.
D774,641	S		12/2016	Miggels et al.
D777,907	S		1/2017	Amend Kwasnik et al.
D777,912	S	*	1/2017	Wohlfahrt D24/130
9,566,380	B1		2/2017	Tcholakian
D780,909	S		3/2017	Burkett et al.
9,586,010	B2		3/2017	Mesa et al.
9,604,004	B2		3/2017	Jakobsen
D783,816	S	*	4/2017	Wohlfahrt D24/130
D785,784	S		5/2017	Jones et al.
D787,666	S		5/2017	Ohashi
D794,178	S		8/2017	Daniel et al.
D794,777	S		8/2017	Daniel et al.
D800,897	S		10/2017	Aneas
D810,282	S		2/2018	Ratjen
D814,022	S		3/2018	Boyaval et al.
D818,587	S		5/2018	Shang et al.
D827,127	S		8/2018	Donnelly
D830,539	S		10/2018	Boyaval et al.
10,149,945	B2		12/2018	Moser et al.
D892,311	S	*	8/2020	Nicholas D24/113
D898,191	S	*	10/2020	Nicholas D24/130
2003/0026642	A1		2/2003	Schwartzman
2004/0116875	A1		6/2004	Fischer et al.
2005/0011911	A1		1/2005	Vaughan
2007/0039156	A1		2/2007	Reich
2007/0113861	A1		5/2007	Knudsen et al.
2007/0239114	A1		10/2007	Edwards et al.
2008/0009808	A1		1/2008	Berler
2008/0210225	A1		9/2008	Geiger
2008/0269692	A1		10/2008	James et al.
2008/0289984	A1		11/2008	Raven et al.
2008/0312604	A1		12/2008	Boesen
2010/0266326	A1		10/2010	Chuang
2013/0030375	A1		1/2013	Daily et al.
2013/0041328	A1		2/2013	Daniel

(56) **References Cited**

U.S. PATENT DOCUMENTS

2013/0041347	A1	2/2013	Daniel
2013/0281934	A1	10/2013	Wilmot et al.
2014/0358037	A1	12/2014	Crawford et al.
2015/0011944	A1	1/2015	Young et al.
2015/0045742	A1	2/2015	Cheung
2015/0051580	A1	2/2015	Shain et al.
2015/0065960	A1	3/2015	Osman
2015/0073383	A1	3/2015	Wilmot et al.
2015/0080807	A1	3/2015	Schneider et al.
2015/0352278	A1	12/2015	Morita et al.
2015/0374918	A1	12/2015	Kumar et al.
2016/0051760	A1	2/2016	Krusell et al.
2016/0051764	A1	2/2016	Dreier et al.
2016/0067407	A1	3/2016	Daniel
2016/0089498	A1	3/2016	Daniel
2016/0158460	A1	6/2016	Mesa et al.
2016/0213845	A1	7/2016	Holmqvist
2016/0263327	A1	9/2016	Radmer et al.
2016/0279334	A1	9/2016	Daniel
2016/0317745	A1	11/2016	Kjeldsen et al.
2016/0375196	A1	12/2016	Wilmot et al.
2018/0133407	A1	5/2018	Kemp et al.
2018/0304067	A1	10/2018	Ryan
2018/0311442	A1	11/2018	Saussaye et al.
2018/0353692	A1	12/2018	Saussaye et al.

FOREIGN PATENT DOCUMENTS

EP	004420388-0002	10/2017
EP	004420388-0003	10/2017
EP	004420388-0004	10/2017
EP	004420388-0005	10/2017
EP	004420388-0006	10/2017
EP	004420388-0007	10/2017
EP	004420388-0008	10/2017
EP	004420388-0009	10/2017
EP	004420388-0010	10/2017
EP	004420388-0011	10/2017
FR	3043562	5/2017
GB	2233607 A	1/1991
JP	10166785 A	6/1998
JP	2000025385 A	1/2000
JP	2003-290353 A	10/2003
JP	1401278	11/2010
JP	1401279	11/2010
JP	1401281	11/2010
JP	1401282	11/2010
JP	1401283	11/2010
JP	1587411	10/2017
WO	WO 2012/073042 A1	6/2012
WO	WO 2015/026737 A1	2/2015
WO	WO 2016/062807 A1	4/2016
WO	WO 2016/193350 A1	12/2016
WO	WO 2017/004345 A1	1/2017
WO	WO 2017/081421 A1	5/2017
WO	WO 2019006296 A1	1/2019

OTHER PUBLICATIONS

International Search Report and Written Opinion issued in PCT/US2018/040282 dated Nov. 13, 2018 (13 pages).

EUIPO Design Gazette, 004420388-0001, HH29206315 (Oct. 25, 2017).

EUIPO Design Gazette, 004420388-0011, HH29206317 (Oct. 25, 2017).

International Bureau Design Gazette, DM/092744, HH29502547 (Sep. 6, 2016).

International Bureau Design Gazette, DM/098096, HH29513908 (Sep. 11, 2017).

* cited by examiner

FIG. 1

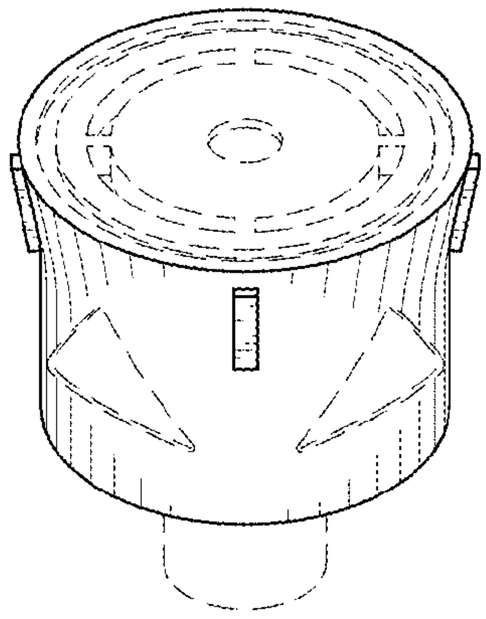


FIG. 2

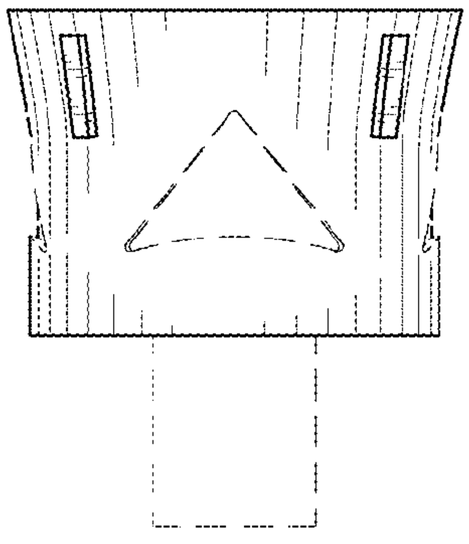


FIG. 3

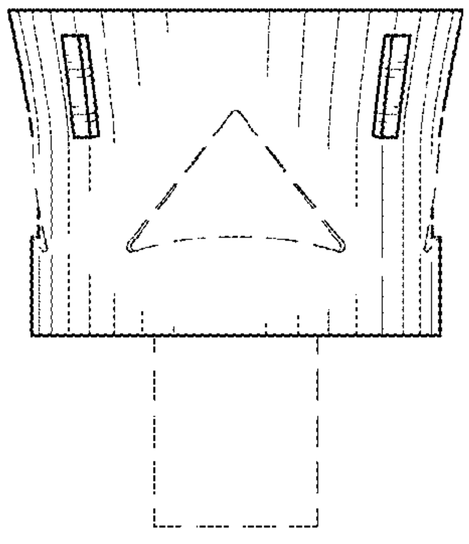


FIG. 4

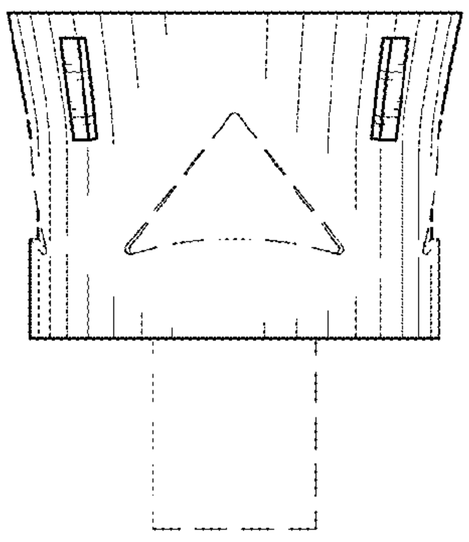


FIG. 5

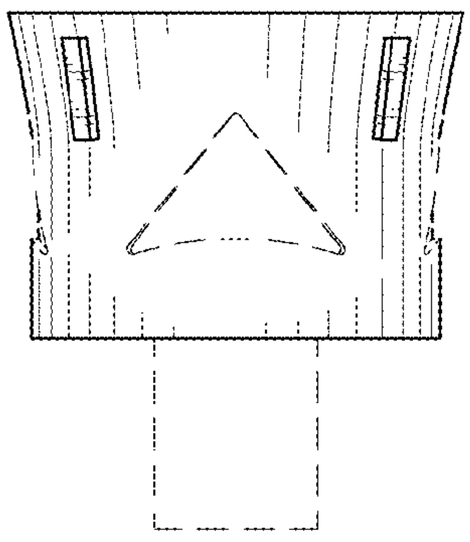


FIG. 6

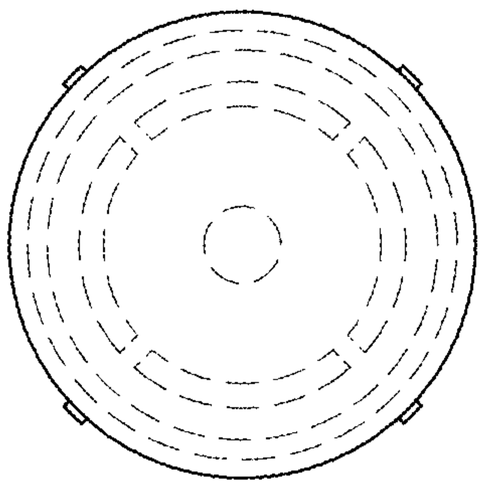


FIG. 7