



US00D977090S

(12) **United States Design Patent** (10) **Patent No.:** **US D977,090 S**
Ozdoganlar et al. (45) **Date of Patent:** **** *Jan. 31, 2023**

(54) **SWAB**
(71) Applicant: **Carnegie Mellon University**,
Pittsburgh, PA (US)
(72) Inventors: **O. Burak Ozdoganlar**, Sewickley, PA
(US); **Yusuf Mert Senturk**, Pittsburgh,
PA (US); **Toygun Cetinkaya**,
Pittsburgh, PA (US); **Ant Yucesoy**,
Pittsburgh, PA (US); **Ali Alp Gurur**,
Pittsburgh, PA (US); **Lisha White**,
Pittsburgh, PA (US); **Ezgi Pinar**
Yalcintas, Pittsburgh, PA (US)

9,170,177 B2 10/2015 Triva
9,200,992 B2 12/2015 Danylewych-May
D772,398 S 11/2016 Triva
9,504,452 B2 11/2016 Triva
10,517,575 B2 12/2019 Triva
D952,150 S * 5/2022 Yang D24/154
2011/0282243 A1 11/2011 Nakatani
2020/0060877 A1* 2/2020 Belmkaddem A61F 11/006
2020/0400537 A1 12/2020 Peterson
2021/0290210 A1* 9/2021 Decker A61B 10/02
2021/0307972 A1* 10/2021 El-Fahmawi A61B 10/0051
2021/0315742 A1* 10/2021 Cicalis A61B 10/02

(Continued)

OTHER PUBLICATIONS

(73) Assignee: **Carnegie Mellon University**,
Pittsburgh, PA (US)
(*) Notice: This patent is subject to a terminal dis-
claimer.
(**) Term: **15 Years**

Behind the Scenes of Forecast 3D'S1 Millionth Nasal Swab Pro-
duction [https://news.pminnovationblog.com/blog/behind-the-scenes-
of-forecast-3ds-1-millionth-nasal-swab-production](https://news.pminnovationblog.com/blog/behind-the-scenes-of-forecast-3ds-1-millionth-nasal-swab-production) Jun. 24, 2020
(Year: 2020).*

(Continued)

(21) Appl. No.: **29/780,372**
(22) Filed: **Apr. 23, 2021**
(51) **LOC (14) Cl.** **24-02**
(52) **U.S. Cl.**
USPC **D24/119**
(58) **Field of Classification Search**
USPC D24/119, 133, 144, 184, 186, 200, 214;
D8/315, 316
CPC A61B 18/2018; A61B 2018/0231; A61C
19/04; A61F 13/38; B01L 2300/0825;
B01L 3/5023; C12M 1/30; G01N
33/5302; B29C 2035/0877; B29K
2021/003; B29K 2033/08
See application file for complete search history.

Primary Examiner — Samantha Q Lawrence
(74) *Attorney, Agent, or Firm* — Dentons Cohen &
Grigsby P.C.

(57) **CLAIM**

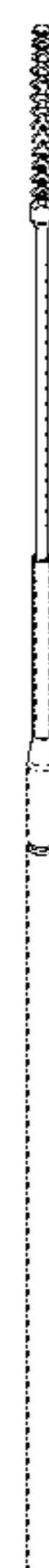
The ornamental design for a swab, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a swab;
FIG. 2 is a front view of the swab;
FIG. 3 is a rear view of the swab;
FIG. 4 is a top view of the swab;
FIG. 5 is a bottom view of the swab;
FIG. 6 is a left-side view of the swab;
FIG. 7 is a right-side view of the swab; and,
FIG. 8 is a closeup side view of a top head portion of the
swab.

1 Claim, 4 Drawing Sheets

(56) **References Cited**
U.S. PATENT DOCUMENTS
D541,931 S * 5/2007 Tsaur D24/119
9,011,358 B2 4/2015 Triva



(56)

References Cited

U.S. PATENT DOCUMENTS

2021/0321991 A1* 10/2021 Elliott A61B 10/0045
2021/0330299 A1* 10/2021 Glickman A61B 10/0051

OTHER PUBLICATIONS

Parametric Nasopharyngeal Swab for Sampling COVID-19 and
Other Respiratory Viruses [https://www.sciencedirect.com/science/
article/pii/S2468067220300444](https://www.sciencedirect.com/science/article/pii/S2468067220300444) Oct. 2020 (Year: 2020).*

* cited by examiner



FIG. 1



FIG. 2



FIG. 3


FIG. 4



FIG. 5



FIG. 6

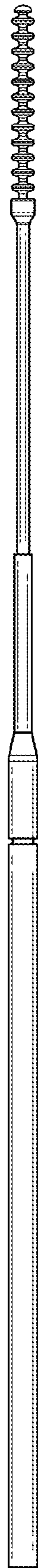


FIG. 7

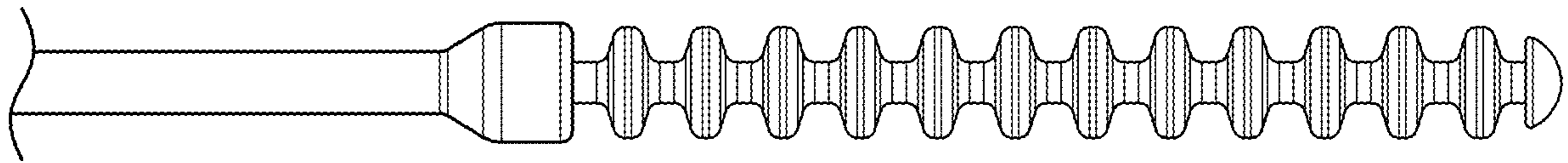


FIG. 8