US 20230232090A1

(19) **United States**

(12) **Patent Application Publication**

Nalen et al.

(10) **Pub. No.: US 2023/0232090 A1**

(43) **Pub. Date: Jul. 20, 2023**

(54) **MOTION DETECTION**

(71) Applicant: **SimpliSafe, Inc.**, Boston, MA (US)

(72) Inventors: **Steven Nalen**, Winthrop, MA (US); **Michael Maichen, II**, Boston, MA (US)

(21) Appl. No.: **18/096,883**

(22) Filed: **Jan. 13, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/300,234, filed on Jan. 17, 2022, provisional application No. 63/300,233, filed on Jan. 17, 2022, provisional application No. 63/300,232, filed on Jan. 17, 2022, provisional application No. 63/300,231, filed on Jan. 17, 2022, provisional application No. 63/300,230, filed on Jan. 17, 2022, provisional application No. 63/300,229, filed on Jan. 17, 2022.

Publication Classification

(51) **Int. Cl.**

H04N 23/54	(2006.01)
H04N 23/51	(2006.01)
H04N 23/23	(2006.01)
G02B 3/08	(2006.01)

(52) **U.S. Cl.**

CPC ***H04N 23/54*** (2023.01); ***H04N 23/51*** (2023.01); ***H04N 23/23*** (2023.01); ***G02B 3/08*** (2013.01)

(57) **ABSTRACT**

Motion detectors can include a housing defining a first cavity and an aperture extending through the housing. A circuit board can be disposed in the first cavity. An infrared sensor and a light sensor can be mounted on the circuit board. A lens can extend across the aperture. A wall can extend between the lens and the circuit board such that the wall, the lens, and the circuit board define a second cavity at least partially within the first cavity and the second cavity contains the infrared sensor and the light sensor.