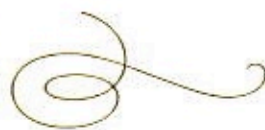


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The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

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Patent

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(12) **United States Patent**
Wang et al.(10) **Patent No.: US 10,917,041 B2**
(45) **Date of Patent: Feb. 9, 2021**(54) **WATERPROOF AND
ELECTRICITY-INSULATING SUPPORT
STRUCTURE FOR SOLAR PANELS**USPC 52/468, 772, 774
See application file for complete search history.(71) Applicants: **Chen Lu Wang, Douliu (TW); Chao
Kai Wang, Douliu (TW)**(56) **References Cited**(72) Inventors: **Chen Lu Wang, Douliu (TW); Chao
Kai Wang, Douliu (TW)**

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(*) Notice: Subject to any disclaimer, the term of this
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248/316.1(21) Appl. No.: **16/448,525**(22) Filed: **Jun. 21, 2019**(65) **Prior Publication Data**

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(Continued)

(30) **Foreign Application Priority Data**Aug. 20, 2018 (TW) 107211387 U
Aug. 20, 2018 (TW) 107211388 U*Primary Examiner* — Gisele D Ford(74) *Attorney, Agent, or Firm* — Thomas J. Nikolai;
DeWitt LLP(51) **Int. Cl.****F24S 25/00** (2018.01)
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F24S 25/70 (2018.01)
F24S 25/67 (2018.01)
H02S 20/20 (2014.01)
F24S 25/63 (2018.01)
F24S 25/13 (2018.01)(57) **ABSTRACT**

A waterproof and electricity-insulating support structure for solar panels includes a base frame having a top portion with two side portions disposed at two sides of the top portion. Each of the side portions connects with a bottom portion to be fixed on a steel frame forming a roof. A fastening member is fixed to the top portion of the base frame to form an assembling space for solar panels therebetween. A plurality of rubber strips for waterproofing and insulating from electricity are disposed between the side portions and the solar panels and between the fastening member and the solar panels.

(52) **U.S. Cl.**CPC **H02S 30/10** (2014.12); **F24S 25/13**
(2018.05); **F24S 25/63** (2018.05); **F24S 25/67**
(2018.05); **F24S 25/70** (2018.05); **H02S 20/20**
(2014.12)(58) **Field of Classification Search**CPC H02S 30/10; H02S 20/20; F24S 25/67;
F24S 25/63**2 Claims, 3 Drawing Sheets**