



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/048,380	10/16/2020	Ignatius A. Kadoma	80615US006	9173
32692	7590	04/01/2022	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			ZHANG, MICHAEL N	
PO BOX 33427			ART UNIT	PAPER NUMBER
ST. PAUL, MN 55133-3427			1781	
			NOTIFICATION DATE	DELIVERY MODE
			04/01/2022	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com

<b>Office Action Summary</b>	<b>Application No.</b> 17/048,380	<b>Applicant(s)</b> Kadoma et al.	
	<b>Examiner</b> MICHAEL ZHANG	<b>Art Unit</b> 1781	<b>AIA (FITF) Status</b> Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2022.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims\*

- 5) ☒ Claim(s) 1-15 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-15 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

#### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

##### Certified copies:

- a) ☐ All      b) ☐ Some\*\*      c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
Paper No(s)/Mail Date \_\_\_\_\_
- 3) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Notice of Pre-AIA or AIA Status***

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

***Claim Rejections - 35 USC § 103***

2. **Claims 1-7 and 15 are rejected under 35 U.S.C. as being unpatentable over Wong et al. (US 2015/0337094).**

3. **Regarding Claim 1,** Wong teaches a biodegradable layered composite or mulch film (Abstract; Paragraph 0047) comprising a first nonwoven biodegradable layer having a first and second major surface (Paragraph 0025) comprising a biodegradable polymeric melt-blown fibers (Paragraph 0024, 0031) with a filler of starch or calcium carbonate, which would qualify as particles enmeshed in the biodegradable fibers as the it would obvious to one with ordinary skill in the art that the particles of calcium carbonate would be physically held by the fibers, (Paragraph 0038) and a biodegradable polymer film on a portion of the first major surface of the first nonwoven biodegradable layer. (Paragraph 0026).

4. **Regarding Claim 2,** Wong teaches the layers can fully cover each other. (Examples; Paragraph 0038-0054). Thus, this overlaps the claimed range of at least 25%.

5. **Regarding Claim 3 and 4,** Wong teaches the film and fibers comprises polylactide or polybutylene succinate (Paragraph 0054).

6. **Regarding Claim 5,** Wong teaches the filler can be calcium carbonate, which can be considered agriculture waste. Calcium carbonate is used as feed additive and fertilizer. (Paragraph 0038)

Art Unit: 1781

7. **Regarding Claim 6**, Wong teaches the filler can comprise 5 to 60% of the composite layers, which means the composite itself has the same weight range. (Paragraph 0038-0040).

This overlaps the claimed range of 1 to 85 wt%.

8. **Regarding Claim 7**, Wong teaches the nonwoven fabric can comprise SMS structure or spunbound/meltblown/spunbound (Paragraph 0024). This means a second nonwoven biodegradable layer comprising spunbound fibers are on the second major surface of the first nonwoven biodegradable layer.

9. **Regarding Claim 15**, Wong teaches this types of material can be stored as a roll. (Paragraph 0061). Thus, it would have been obvious to stores the composite as a roll.

10. **Claim 2 and 11-14 are rejected under 35 U.S.C. 103 for being unpatentable over Wong in view of Merrill et al. (US 3,080,681).**

11. **Regarding Claim 2, 11, and 13**, Wong teaches the composite has a length and width, as is a three-dimensional object.

12. Wong does not specifically teach the claimed coverage range, the film having openings or the film is in the form of sections along the length of the biodegradable layer with areas between sections free of the film.

13. Merrill teaches a weed barrier sheet, akin to a mulching sheet, comprising a nonwoven layer and a film layer on top. (Fig. 1-4, 6; Abstract; Claim 1 of Merrill). Merrill teaches the film has a plurality of openings/film being in sections along the length of the composite with film-free sections on the composite and the film still covers at least 25% of the nonwoven. (Fig 1-4, 6). Merrill teaches this allows for seeds to be placed in a specific order within the nonwoven layer

Art Unit: 1781

and be fully protected by weeds, which allows for more production . (Column 1- 2). Thus, it would have been obvious to one with ordinary skill in the art to add openings into the film of Wong to allow for easier and better production of desired plants.

14. **Regarding Claim 12 and 14**, Wong and Merill do not specifically teach the opening area or the spacing (openings) in the film. However, Merill teaches these openings/spacing between sections are present to place seeds to grow plants. (Column 1-2; Fig. 4). One with ordinary skill in the art in gardening/planting knows that plants have optimal spacing requirements between seeds to ensure proper growth. In other words, the opening area and spacing of film sections could have been optimized through routine experimentation to a person with ordinary skill in the art. Since the seed spacing is an important part of the design of a mulching sheet, the calculation of a workable or optimum opening area or spacing, a results effective variable, to obtain a mulch sheet that could grow certain plants, is well within the skill of one with ordinary skill in the art. (MPEP §2144.05, IIB).

15. Thus, it would have been obvious to one with ordinary skill in the art to reach the claimed opening area and section spacing ranges in the claimed invention, as taught by Merill.

16. **Claim 8 is rejected under 35 U.S.C. 103 for being unpatentable over Wong in view of Labbe et al. (US 6,401,390)**

17. **Regarding Claim 8**, Wong does not teach the basis weight of the composite.

18. Labbe teaches a mulching sheet (Abstract) comprising a biodegradable fiber material and a biodegradable film coated on the fiber material. (Claim 1 of Labbe). Labbe teaches the composite could have a basis weight of 50-150 g/m<sup>2</sup>. (Claim 10 of Labbe). This overlaps the

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.