



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

June 2, 2011

Via Email

Gregory S. Irving
Vice President and Controller
W.W. Grainger, Inc.
100 Grainger Parkway
Lake Forest, Illinois 60045-5201

**Re: W.W. Grainger, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed February 28, 2011
Definitive Proxy Statement on Schedule 14A
Filed March 18, 2011
File No. 001-05684**

Dear Mr. Irving:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2010

Exhibit

1. It appears that this Form 10-K is incorporated by reference into an effective registration statement filed on Form S-8 on April 28, 2010. Therefore, please amend your Form 10-K to file a written consent of your independent registered public accounting firm pursuant to Item 601(b)(23) of Regulation S-K.

Definitive Proxy Statement on Schedule 14A Filed March 18, 2011

Directors, page 5

Annual Election of Directors, page 6

2. We note your disclosure on pages 7 and 8 that your Board determined to make an exception to the age limitation set forth in your Criteria for Membership on the Board of Directors with respect to the nominations of Messrs. Gantz and McCarter. Please provide us with proposed disclosure that sets forth the specific factors your Board considered in determining an exception was appropriate.
3. Please provide us with proposed disclosure that expands your discussion on pages 9 and 10 regarding Messrs. Santi and Slavik to specifically describe their business experience during the past five years. See Item 401(e) of Regulation S-K.

Compensation Discussion and Analysis, page 28

10. Stock Ownership Guidelines, page 43

4. We note your disclosure on page 44 that the manner in which you determine NEO compliance with your share ownership guidelines is “[c]onsistent with market best practices....” Please advise us of the basis for this statement.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and

Gregory S. Irving
W.W. Grainger, Inc.
June 2, 2011
Page 3

- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Chris Chase, Staff Attorney, at (202) 551-3485, or me at (202) 551-3720 with any questions.

Sincerely,

/s/ Christopher F. Chase for

H. Christopher Owings
Assistant Director