



DIVISION OF
CORPORATION FINANCE

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

April 12, 2013

Via E-mail

Ronald L. Jadin
Chief Financial Officer
W. W. Grainger, Inc.
100 Grainger Parkway
Lake Forest, IL 60045-5201

**Re: W. W. Grainger, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2012
Filed February 28, 2013
File No. 1-5684**

Dear Mr. Jadin:

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, 2012

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations, page 12

Critical Accounting Estimates, page 22

Goodwill and Indefinite Lived Intangible Assets, page 22

1. We note the two-step quantitative test was completed for two of your reporting units wherein you recorded an impairment charge for one of them and you determined the estimated fair value of the other reporting unit exceeded its carrying value. Please expand to disclose whether any other of your reporting units are at risk of failing step one

of the impairment test or that the fair value of these reporting units is substantially in excess of carrying value. For each reporting unit that is at risk of failing step one, you should:

- Identify the reporting unit;
- Disclose the percentage by which fair value of the reporting unit exceeded carrying value as of the date of the most recent test;
- Discuss the degree of uncertainty associated with the key assumptions. The discussion regarding uncertainty should provide specifics to the extent possible for the particular reporting unit;
- Describe potential events and/or changes in circumstances for the reporting unit that could reasonably be expected to negatively affect the key assumptions used in determining fair value.

Please refer to Item 303 of Regulation S-K and Section V of our Interpretive Release No. 34-48960.

Item 8: Financial Statements and Supplementary Data, page 28

Note 9 – Employee Benefits, page 54

Postretirement Benefits, page 55

2. Please explain to us the modifications made to the employee contribution structure that resulted in decline of \$84 million in your postretirement benefit obligation as of December 31, 2012.
3. Please tell us and disclose the changes in your assumptions resulting in the actuarial gain for the year ended December 31, 2012 related to your implementation of the Employer Group Waiver Plan and wrap-around plan for your Medicare eligible retiree medical plan participants. That is, provide insights on how the benefits remain to be comparable along with expected increases in Medicare payments to offset plan costs resulting from these implementations. Please advise us of any other factors such as increased cost sharing were associated with the gain.

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.

Ronald L. Jadin
W. W. Grainger, Inc.
April 12, 2013
Page 3

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
- 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.

You may contact Donna R. Di Silvio, Staff Accountant, at (202) 551-3202 or me at (202) 551-3377 if you have questions regarding our comments or any other questions.

Sincerely,

/s/ Andrew D. Mew

Andrew D. Mew
Accounting Branch Chief

cc: Gregory S. Irving