



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3561

September 1, 2016

James T. Ryan
Chairman, President and Chief Financial Officer
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, 2015
Filed February 29, 2016
File No. 1-5684

Dear Mr. Ryan:

We have limited our review of your filing to the financial statements and related disclosures 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

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

Results of Operations, page 15

1. We note the adjustments to reconcile GAAP diluted earnings per share to non-GAAP adjusted diluted earnings per share on pages 16 and 20 are presented net of tax. Your disclosure is inconsistent with Question 102.11 of the updated Compliance and Disclosure Interpretations issued on May 17, 2016. In future filings, income taxes should be shown as a separate adjustment and clearly explained. Please note that this comment is also applicable to earnings releases filed on Form 8-K.

Financial Statements

Notes to Consolidated Financial Statements

Note 17 – Segment Information, page 73

2. We note that you offer a wide range of products including material handling equipment, safety and security supplies, lighting and electrical products, power and hand tools, pumps and plumbing supplies, cleaning and maintenance supplies, building and home inspection supplies, vehicle and fleet components and other products. Please tell us your consideration of reporting revenues from each group of similar products as required by ASC 280-10-50-40. If you have not provided such information because you believe the products you sell are similar, please explain to us what factors you considered in concluding that the products are similar, and discuss how you considered quantitative aspects such as margins and growth rates in your analysis. If you do not provide the information because it is impractical, please disclose that fact.

Note 10 – Employee Benefits

Postretirement Benefits, page 59

3. We note that the fair value of assets held by the Group Benefit Trust on page 61 differ from the plan assets disclosed on page 59. Please tell us what the differences represent.

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
- 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.

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You may contact Adam Phippen, Staff Accountant, at (202) 551-3336 or me at (202) 551-3344 with any questions.

Sincerely,

/s/ William H. Thompson

William H. Thompson
Accounting Branch Chief
Office of Consumer Products

cc: Ronald L. Jadin
Senior Vice President and Chief Financial Officer