

Mail Stop 3561

February 7, 2006

Mr. Richard L. Keyser
Chairman and CEO
W.W. Grainger, Inc.
100 Grainger Parkway
Lake Forest, Ill 60045-5201

Re: W.W. Grainger, Inc.
Form 10-K for Fiscal Year Ended December 31, 2004
Filed February 28, 2005
File No. 001-05684

Dear Mr. Keyser:

We have reviewed your response dated January 27, 2006 to our comment letter dated January 5, 2006 and have the following additional comment. Please understand that the purpose of our review is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. Feel free to call us at the telephone numbers listed at the end of this letter.

Notes to Consolidated Financial Statements, page 34
Note 21-Segment Information, page 51

1. We note your response to comment 1 in our letter dated January 5, 2006. If we apply the flow chart in paragraph 127, Appendix B of SFAS No. 131, we observe that Grainger Industrial Supply (GIS) exhibits a dissimilar long term average gross margin than other operating segments within Branch-based Distribution. Further, both GIS and Acklands Grainger Inc. exceed the quantitative thresholds set forth in paragraph 18 of SFAS 131. As a result, applying the steps of the flow chart in a consecutive manner indicates these two operating segments are reportable segments and would be disclosed. Please revise and exclude GIS and Acklands from the Branch-based Distribution reportable segment for all periods presented in your future filings. Please show us what your revised disclosure will look like in your response.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide a response. You may wish to provide

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us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comment.

You may contact Brian McAllister, Staff Accountant at (202) 551-3341 or me at (202) 551-3841 if you have any questions regarding comments on the financial statements and related matters.

Sincerely,

Michael Moran
Accounting Branch Chief