SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

Current Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported) October 26, 2004			
W.W. Grainger, Inc.			
(Exact Name of Registrant as Specified in its Charter)			
	Illinois		
(State or Other Jurisdiction of Incorporation)			
1-5684		36-1150280	
(Commission File Number)		(I.R.S. Employer Identification No.)	
100 Grainger Parkway, Lake Forest, Illinois		60045-5201	
(Address of Principal Executive Offices)		(Zip Code)	
(847) 535-1000			
(Registrant s Telephone Number, Including Area Code)			
Not Applicable			
(Former N	ame or Former Address, if Changed	! Since Last Report)	

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

[] Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

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[]	Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)		
[]	Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))		
[]	Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))		
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Item 5.02. Departure of Directors or Principal Officers; Election of Directors; Appointment of Principal Officers			
	(d) On October 26, 2004, the Company s Board of Directors appointed a new director, Gary L. Rogers, after increasing the number of directors from ten to eleven. Mr. Rogers will serve on the Company s Board Affairs and Nominating Committee and on its Compensation Committee. There is no arrangement or understanding between Mr. Rogers and any other person pursuant to which he was selected as a director, and there are no related party transactions between Mr. Rogers and the Company. A copy of the Company s press release announcing Mr. Rogers appointment is attached as Exhibit 99 to this Current Report on Form 8-K and is incorporated herein by reference.		
Item 9.01. Financial Statements and Exhibits			
(c) Exhibits (numbered in accordance with Item 601 of Regulation S-K).			
	Exhibit No.	Document Description	
	99	Press release issued by the Company on October 26, 2004	

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: October 26, 2004

W.W. GRAINGER, INC.

By: <u>/s/ P. O. Loux</u>

P. O. Loux Senior Vice President, Finance and Chief Financial Officer

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