GRAINGER W W INC

Check this box

if no longer

subject to

Form 4 March 19, 2010

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington D.C. 20549

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Expires. 2005
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OMB APPROVAL

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January 31,

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Number:

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Section 16. Form 4 or Form 5 obligations may continue. See Instruction

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

ee Instruction So(ii) of the investment Company

1(b).

(Print or Type Responses)

1. Name and Address of Reporting Person * HOWARD JOHN L			2. Issuer Name and Ticker or Trading Symbol GRAINGER W W INC [GWW]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable)			
(Last)	(First)	(Middle)	3. Date of Earliest Transaction	(Choon an apphonene)			
100 GRAINGER PARKWAY		AY	(Month/Day/Year) 03/18/2010	Director 10% Owner X Officer (give title Other (specify below)			
(Street)			4. If Amendment, Date Original Filed(Month/Day/Year)	6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting Person			
LAKE FOREST, IL 60045-5201				Form filed by More than One Reporting Person			

(City)	(State)	(Zip) Tab	le I - Non-l	Derivativ	e Secu	rities Acqui	red, Disposed of,	or Beneficiall	y Owned
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. 4. Securities Acquired (A) Transaction Disposed of (D) Code (Instr. 3, 4 and 5) (Instr. 8) (A) or Code V Amount (D) Price			(D)	5. Amount of Securities Ownership Beneficially Form: Owned Direct (D) Following or Indirect Reported (I) Transaction(s) (Instr. 4) (Instr. 3 and 4)		7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock	03/18/2010		S	171	D	\$ 108.93	46,822	D	
Common Stock	03/18/2010		S	101	D	\$ 108.94	46,721	D	
Common Stock	03/18/2010		S	100	D	\$ 108.945	46,621	D	
Common Stock	03/18/2010		S	200	D	\$ 108.95	46,421	D	
Common Stock	03/18/2010		S	200	D	\$ 108.97	46,221	D	

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Common Stock	03/18/2010	S	200	D	\$ 108.98 46,021	D
Common Stock	03/18/2010	S	400	D	\$ 108.99 45,621	D
Common Stock	03/18/2010	S	400	D	\$ 109 45,221	D
Common Stock	03/18/2010	S	101	D	\$ 109.01 45,120	D
Common Stock	03/18/2010	S	500	D	\$ 109.02 44,620	D
Common Stock	03/18/2010	S	100	D	\$ 109.03 44,520	D
Common Stock	03/18/2010	S	100	D	\$ 109.035 44,420	D
Common Stock	03/18/2010	S	500	D	\$ 109.04 43,920	D
Common Stock	03/18/2010	S	500	D	\$ 109.05 43,420	D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of	2.	3. Transaction Date	3A. Deemed	4.	5.	6. Date Exerc	cisable and	7. Titl	e and	8. Price of
Derivative	Conversion	(Month/Day/Year)	Execution Date, if	Transact	tiorNumber	Expiration D	ate	Amou	nt of	Derivative
Security	or Exercise		any	Code	of	(Month/Day/	Year)	Under	lying	Security
(Instr. 3)	Price of		(Month/Day/Year)	(Instr. 8)) Derivativo	e		Secur	ities	(Instr. 5)
	Derivative				Securities	;		(Instr.	3 and 4)	
	Security				Acquired					
					(A) or					
					Disposed					
					of (D)					
					(Instr. 3,					
					4, and 5)					
									Amount	
						Date	Expiration	m: .1	or	
						Exercisable	Date		Number	
				G 1 1	7 (A) (B)				of	
				Code \	V(A) (D)				Shares	

9. Nu Deriv Secur Bene Own Follo Repo Trans (Instr

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

HOWARD JOHN L

100 GRAINGER PARKWAY Sr. VP and General Counsel LAKE FOREST, IL 60045-5201

Signatures

C. L. Kogl, as

attorney-in-fact 03/19/2010

**Signature of Reporting Person Date

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Remarks:

This is the third of three Forms 4 to report all March 18, 2010 transactions for the reporting person.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

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