Form 5 February 11, 2005						
FORM 5			OMB APPROVAL			
UNITED STATE Check this box if no longer subject	UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549					
to Section 16. Form 4 or Form ANNUAL S 5 obligations may continue. See Instruction 1(b). Filed pursuant to Form 3 Holdings Section 17(a) of the Reported 30(h Transactions Reported	ge Act of 1934, of 1935 or Section	Estimated average burden hours per response 1.0				
1. Name and Address of Reporting Person <u>*</u> HAPPEL MARVIN H	2. Issuer Name and Ticker or Trading Symbol CROMPTON CORP [CK]	Issuer	Reporting Person(s) to			
(Last) (First) (Middle) 199 BENSON ROAD	3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) 12/31/2004	Director Officer (give t below)	c all applicable) itleX Other (specify below) mer Officer			
(Street)	4. If Amendment, Date Original Filed(Month/Day/Year)	6. Individual or Joi	applicable line)			

MIDDLEBURY, CTÂ 06749

CROMPTON CORP

X Form Filed by One Reporting Person ____ Form Filed by More than One Reporting Person

(City)	(State)	(Zip) Tab	le I - Non-Der	ivative Se	ecuriti	es Acqu	uired, Disposed	of, or Beneficia	ally Owned
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securi Acquired Disposed (Instr. 3, Amount	d (A) of d of (E 4 and (A) or))	5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock	Â	Â	Â	Â	Â	Â	78,035	D	Â
Common Stock	Â	Â	Â	Â	Â	Â	5,617.6754	Ι	DRIP
Common Stock	Â	Â	Â	Â	Â	Â	2,256.655	Ι	ESOP TRUST
Common Stock	Â	Â	Â	Â	Â	Â	9,156.5223	Ι	ESPP
	Â	Â	Â	Â	Â	Â	25,000	Ι	

Common
Stock

Restricted Stock Account

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

Persons who respond to the collection of informationSEC 2270contained in this form are not required to respond unless(9-02)the form displays a currently valid OMB control number.(9-02)

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

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)			6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)	
					(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
NQ Stock Option (Right to Buy)	\$ 6.38	Â	Â	Â	Â	Â	01/21/2005	06/30/2009	Common Stock	75,000
NQ Stock Option (Right to Buy)	\$ 7.25	Â	Â	Â	Â	Â	10/22/2003	06/30/2009	Common Stock	50,000
NQ Stock Option (Right to Buy)	\$ 7.92	Â	Â	Â	Â	Â	10/23/2003	06/30/2009	Common Stock	60,000
NQ Stock Option (Right to Buy)	\$ 8.1562	Â	Â	Â	Â	Â	10/31/2001	06/30/2009	Common Stock	75,000
NQ Stock Option (Right to Buy)	\$ 8.343	Â	Â	Â	Â	Â	10/19/2000	06/30/2009	Common Stock	200,000

NQ Stock Option (Right to Buy)	\$ 14.3438	Â	Â	Â	Â	Â	08/05/1999	11/14/2008	Common Stock	40,000
NQ Stock Option (Right to Buy)	\$ 14.5	Â	Â	Â	Â	Â	08/04/1999	08/21/2006	Common Stock	27,584
NQ Stock Option (Right to Buy)	\$ 14.5	Â	Â	Â	Â	Â	08/04/1999	09/21/2006	Common Stock	72,244
NQ Stock Option (Right to Buy)	\$ 16.875	Â	Â	Â	Â	Â	08/04/1999	11/16/2006	Common Stock	20,000
NQ Stock Option (Right to Buy)	\$ 26.4063	Â	Â	Â	Â	Â	08/04/1999	11/07/2007	Common Stock	20,000

Reporting Owners

Reporting Owner Name / Add	ress	Relationships								
1		10% Owner	Officer	Other						
HAPPEL MARVIN H 199 BENSON ROAD MIDDLEBURY, CT 06	Â 5749	Â	Â	Former Officer						
Signatures										
Marvin H. Happel	02/11/2005									
**0:	Dete									

<u>**</u>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).

Note: File three copies of this Form, one of which must be manually signed. If space provided 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.