

Smith College Studies in History

JOHN C. HILDT
WILLIAM DODGE GRAY
HAROLD UNDERWOOD FAULKNER

Editors

ECONOMIC HISTORY OF A FACTORY TOWN

A Study of Chicopee, Massachusetts

by

VERA SHLAKMAN

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NORTHAMPTON, MASS.

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THE SMITH COLLEGE STUDIES IN HISTORY aims primarily to afford a medium for the publication of studies in History by investigators who have some relation to the College, either as faculty, alumnae, students or friends. It aims also to publish from time to time brief notes on the field of History which may be of special interest to alumnae of Smith College and to others interested in the higher education of women. Contributions of studies or notes which promise to further either of these aims will be welcomed, and should be addressed to Professor Harold U. Faulkner, Northampton, Mass.

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(Continued on inside of back cover)

STUDY II
IN THE COUNCIL OF INDUSTRIAL
STUDIES SERIES

Smith College Studies in History

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THE COUNCIL OF INDUSTRIAL STUDIES

The Council of Industrial Studies of Smith College is engaged in studying the economic development of the Connecticut Valley region of New England. When the Council was established in 1932 both historical and contemporary projects were envisaged, but major emphasis was to be placed upon locating and utilizing the rich store of primary documentary materials to be found in the region.

Each Council study is planned as a unit complete in itself. It is a feature of our plan, however, that each is also a part of a co-ordinated series, and it is hoped that eventually out of the series may be built a regional account, the result of the painstaking research that has gone into the separate investigations.

In projecting these coördinated studies the Council seeks at the same time to enrich the research training and opportunities of the graduate students who serve on its staff as research fellows. It also permits research fellows to offer the studies they carry out under Council direction as dissertations for the doctor's degree at the institutions where they have already done their graduate work.

The Council is made up of a committee of five professors from the Departments of Economics and History of the College. Professor Esther Lowenthal of the Economics Department, chairman, Professors Harold U. Faulkner and Merle Curti of the History Department, and Professors William A. Orton and Dorothy W. Douglas of the Economics Department, are members of the Council. The staff comprises a part-time director of research and two full-time research fellows.

The present study, *Economic History of a Factory Town*, by Vera Shlakman is our second study to appear. It has peculiar value for our series, in that in it Miss Shlakman traces the transformation of a rural Connecticut Valley village into a factory town, brought about when large-scale outside capital established textile mills there. Some Valley industrial centers followed this pattern of development, while others trace their original impetus to local

business enterprise. The study goes on to treat subsequent economic development in the community, with special emphasis upon labor and the rise of the middle class. Miss Shlakman has given to her study more than two years of careful research and analysis.

The Council's first monograph, *Shutdowns in the Connecticut Valley*, was a contemporary study prepared by the director of research and published in the fall of 1935. The third, *Industrial Development of the Northampton Region*, an account of the rise and decline of manufactures along the Mill River of Hampshire County, by Agnes Hannay, will be published shortly. The fourth and fifth studies, now in progress, treat the rise of early railroads in the Connecticut Valley and the development of the metals industry before 1860. Studies VI and VII will be begun in the fall of 1936.

KATHARINE DU PRE LUMPKIN,

Director of Research, Council of Industrial Studies.

April 14, 1936

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In the preparation of this study I have been fortunate in the assistance and counsel that I have received both in the search for data and in the evaluation of their significance. Mr. N. P. Ames Carter, Mrs. J. C. Buckley, Mr. F. D. Howard and Miss Ruth McKinstry, residents of Chicopee, were very helpful. I wish to express my thanks and appreciation to Mrs. F. C. Rickert, of Springfield, who very kindly permitted me to make use of the diary of the late George S. Taylor. Mrs. E. W. Hale, of Chicopee, was very generous in placing at my disposal her remarkable collection of Ames Papers. Dr. Arthur Cole allowed me to make use of the facilities of the Baker Library of the Harvard Graduate School of Business Administration. Professors Esther Lowenthal and Harold U. Faulkner, of Smith College, read the manuscript, and I am grateful to them for their comments. I also wish to thank Professor Carter Goodrich, of Columbia University, who has read the manuscript, for his interest in the project and for his helpful suggestions. I owe a special debt of gratitude to Dr. Katharine Lumpkin, Director of Research of the Council of Industrial Studies. I have always been able to call on her for advice and criticism, and I am deeply appreciative of the aid she has given me.

V. S.

CONTENTS

	PAGE
ACKNOWLEDGMENTS	7
I. THE COLONIAL COMMUNITY	11
II. ABSENTEE OWNERSHIP	24
III. YANKEE LABOR, 1825-1840	48
IV. THE RISE OF THE MIDDLE CLASS, 1825-1860	64
V. WAGES AND LABOR UNREST, 1840-1850	98
VI. A DECADE OF IRISH LABOR, 1850-1860	138
VII. THE EXPANSION OF LOCAL ENTERPRISE	151
VIII. LABOR IN PROSPERITY AND DEPRESSION, 1860-1890 ...	180
IX. BUSINESS ENTERPRISE AT THE TURN OF THE CENTURY	195
X. INDUSTRIAL RELATIONS, 1890-1916	212
XI. A FACTORY CITY	226
APPENDIX A	243
APPENDIX B	248
BIBLIOGRAPHY	252
INDEX	257

APPENDIX A
 FINANCIAL AND TRANSPORTATION INTERESTS OF
 THE BOSTON ASSOCIATES

I. BANKING¹

BOSTON BANKS IN OPERATION IN 1848, PAID UP CAPITAL, DIRECTORATES,
 AND CAPITAL OF BOSTON ASSOCIATE BANKS

Bank	Capital	Directors	Boston Associate Capital
Atlantic Bank.....	\$500,000		
Atlas Bank.....	\$500,000		
Boston Bank.....	\$600,000	N. APPLETON D. C. BACON J. I. BOWDITCH J. BRADLEE SAMUEL CABOT T. B. CURTIS J. M. FORBES R. HOOPER J. C. HOWE R. G. SHAW H. UPHAM P. UPHAM	\$600,000
Boylston Bank.....	\$200,000		
City Bank.....	\$1,000,000	W. T. ANDREWS C. W. CARTWRIGHT C. C. CHADWICK D. CHAMBERLAIN J. B. GLOVER I. LIVERMORE S. R. PAYSON P. S. SHELTON	\$1,000,000
Columbian Bank.....	\$500,000	WILLIAM AMORY S. A. APPLETON J. T. COOLIDGE G. W. LYMAN J. TILDEN J. G. TORREY	\$500,000
Eagle Bank.....	\$500,000		
Exchange Bank.....	\$500,000		
Freemen's Bank.....	\$200,000		
Globe Bank.....	\$1,000,000	A. ADAMS S. FAIRBANKS H. HALL J. LAMSON P. PERRIN I. SARGENT	\$1,000,000
Granite Bank.....	\$500,000		
Grocers' Bank.....	\$250,000		

¹ Compiled from *Mass. State Record*, 1847, p. 213 et seq. and 1849, p. 228 et seq.; J. Winsor, *op. cit.*, IV, 161; *Mass., 1830 Private and Special Statistics* C. 144.

I. BANKING (continued)

Bank	Capital	Directors	Boston Associate Capital
Hamilton Bank.....	\$500,000	G. Brewer T. G. CABY D. Denay W. Dwight W. Phipps WILLARD SAYLES S. W. Sweet T. Wigglesworth, Jr. M. P. Wilder W. APPLETON (1831) J. BRYANT " H. CABOT " E. FRANCIS " A. LAWRENCE "	\$500,000
Market Bank.....	\$560,000		
Massachusetts Bank.....	\$600,000		
Mechanics' Bank.....	\$120,000		
Merchants' Bank.....	\$3,000,000	E. Brooks N. F. Cunningham Luke Fay F. C. Gray D. Henshaw S. HENSHAW S. Hooper J. B. Jones J. K. MILLS W. P. Winchester I. Whitney	\$3,000,000
New England Bank.....	\$1,000,000		
North Bank.....	\$750,000		
Shawmut Bank.....	\$500,000		
Shoe and Leather Dealers' Bank	\$500,000		
State Bank.....	\$1,800,000		
Suffolk Bank.....	\$1,000,000	J. Brichg J. Belknap E. CHADWICK J. W. EDMUNDS A. A. LAWRENCE W. LAWRENCE J. A. LOWELL B. R. NICHOLS J. Richardson N. P. Russel H. B. Stone W. W. Tucker N. APPLETON (1818) W. APPLETON " J. W. BOOTT " E. FRANCIS " G. Greene " A. Heard " P. T. JACKSON " A. LAWRENCE " AMOS LAWRENCE " L. LAWRENCE " W. LAWRENCE "	\$1,000,000
Traders' Bank.....	\$400,000		
Tremont Bank.....	\$500,000		
Union Bank.....	\$800,000		
Washington Bank.....	\$500,000		
TOTAL.....	\$18,980,000		\$7,600,000

II. INSURANCE²

INSURANCE COMPANIES IN BOSTON AND MASSACHUSETTS, CAPITAL, AND BUSINESS CARRIED IN 1846. (Boston associate companies are starred)

Boston Companies	Capital	Marine Insurance Carried	Fire Insurance Carried
*American Insurance Co.....	\$ 300,000	\$4,685,528	\$3,086,651
*Boston Insurance Co.....	300,000	2,180,311	.....
Boylston Insurance Co.....	300,000	2,189,792	3,210,463
*Firemen's Insurance Co.....	300,000	.....	10,824,495
Franklin Insurance Co.....	300,000	1,672,675	3,711,883
Hope Insurance Co.....	200,000	492,265	.....
*Manufacturers' Insurance Co.....	400,000	1,954,411	12,391,775
Mercantile Marine Insurance Co.....	300,000	1,639,071	.....
*Merchants' Insurance Co.....	500,000	7,247,702	13,856,305
*National Insurance Co.....	500,000	4,239,462	7,867,453
Neptune Insurance Co.....	200,000	6,931,110	4,331,882
Suffolk Insurance Co.....	225,000	1,022,658	542,815
Tremont Insurance Co.....	200,000	4,734,337	1,338,786
U. S. Insurance Co.....	200,000	1,128,866	372,850
Warren Insurance Co.....	150,000	1,992,270	.....
Washington Insurance Co.....	200,000	2,365,778	.....
Total, Boston Companies.....	\$4,575,000	\$44,476,236	\$61,535,356
Other Massachusetts Companies....	1,200,000	4,264,252	78,190
TOTAL.....	\$5,775,000	\$48,740,488	\$61,613,546
Boston Associate Totals.....	\$2,300,000	\$20,305,414	\$48,026,677
Boston Associate Totals as Percentage of Massachusetts Totals.....	39%	41%	77%

DIRECTORATES OF BOSTON ASSOCIATE INSURANCE COMPANIES IN 1846-47.

American Insurance Co.

J. S. Amory	H. Gray
S. APPLETON	S. May
E. Austin	CHARLES H. MILLS
J. I. BOWDITCH	P. P. Pope
T. Chase	B. Rich
R. B. Forbes	R. G. Shaw
B. A. Gould	

Boston Insurance Co.

T. C. Amory	W. G. Eaton
J. C. Collamore, Jr.	J. G. Hallett
A. Cotting	J. Hay
J. Crane	T. Nichols
P. R. Dalton, Jr.	I. SARGENT
A. Davis	B. Seaver

² Insurance data compiled from official returns printed in *Massachusetts State Record*, 1847, p. 223 et seq.; *Ibid.*, 1849, p. 242 et seq.; Mass. 1831 *Private and Special Statutes*, C. 11.

Incorporated in 1831 by

T. C. Amory
 S. APPLETON
 W. APPLETON
 J. Collamore, Jr.
 H. Curtis
 W. G. Eaton
 J. S. Ellery
 AMOS LAWRENCE

H. G. OTIS
 T. H. PERKINS
 E. G. Prescott
 W. PRESCOTT
 I. SARGENT
 L. M. Sargent
 J. TILDEN
 W. Willett

Manufacturers' Ins. Co.

E. T. ANDREWS
 W. T. Andrews
 A. Binney
 C. W. CARTWRIGHT

T. P. Cushing
 O. Daniel
 H. Hall
 G. Morey

Merchants' Insurance Co.

D. C. Bacon
 J. Balch
 J. Belknap
 E. CHADWICK
 J. W. EDMUNDS
 R. B. Forbes
 P. Grant

H. Hall
 R. Hooper
 ABBOTT LAWRENCE
 J. A. LOWELL
 W. Rollins
 J. Williams
 W. P. Winchester

National Insurance Co.

W. AMORY
 D. Denny
 J. W. EDMUNDS
 S. FROTHINGHAM
 J. L. Gardiner
 W. H. GARDINER
 O. GOODWIN
 T. Gray
 N. Hooper
 G. Howe

D. Kimball
 GEORGE H. KUHN
 J. Lawrence
 I. LIVERMORE
 J. A. LOWELL
 B. R. Nichols
 W. SAYLES
 S. W. Swett
 N. Thayer
 I. Whitney

Mass. Mutual Insurance Co.
 (newly organized)

E. T. ANDREWS
 J. Austin
 G. Bartlett
 H. Codman
 C. P. Curtis
 E. FRANCIS

W. LAWRENCE
 J. Lovering
 J. A. LOWELL
 S. May
 Charles Wells
 J. D. Williams

New England Mutual Life Ins. Co.

Charles Brown
 C. P. Curtis
 T. A. Dexter
 GEORGE H. KUHN
 W. R. Lee
 F. C. Lowell

T. Parsons
 W. Perkins
 W. Phillips
 W. W. Stone
 S. Tappan
 B. Wainwright

Mass. Hospital Life Ins. Co.

J. R. Adam
 W. AMORY
 S. APPLETON
 W. APPLETON

P. C. BROOKS
 J. Hooper
 S. Hubbard
 C. Jackson

P. T. JACKSON
 ABBOTT LAWRENCE
 G. W. LYMAN
 W. Minot
 T. H. PERKINS

J. Quincy
 I. SARGENT
 W. STURGIS
 J. TILDEN
 T. B. WALES

III. RAILWAYS⁸

DIRECTORATES AND MILEAGE OF BOSTON ASSOCIATE RAILWAYS AND TOTAL
 SINGLE TRACK MILEAGE OF RAILWAYS IN MASSACHUSETTS, JANUARY 1,
 1850. (INCLUDES ROADS WHICH EXTEND INTO ADJOINING STATES)

Company	Directorates	Mileage
Boston and Lowell	E. CHADWICK (1847) J. A. LOWELL G. W. LYMAN W. STURGIS J. TILDEN	26
Boston and Providence	W. APPLETON (1847) J. Barstow J. Bryant, Jr. J. Grinnell J. K. MILLS W. STURGIS C. H. WARREN	53
Connecticut River	H. W. Clapp (1848) N. H. EMMONS S. HENSHAW E. Hopkins L. Pope E. H. Robbins I. SARGENT	52
Nashua and Lowell	D. Abbott (1849) J. Bowers C. F. Gove T. B. WALES H. Timmins	14
Stony Brook	Operated by the Nashua and Lowell Road	13
Taunton Branch	W. A. Crocker (1837) J. F. Loring J. K. MILLS G. W. PRATT T. B. WALES S. FROTHINGHAM (1849) J. F. Loring S. Quincy T. B. WALES	11
Western	George Bliss (1837) EDMUND DWIGHT J. Henshaw J. Quincy, Jr. R. Rantoul, Jr. T. B. WALES A. Walker J. K. Mills was the largest individual subscriber. Most of the Boston associates invested in the Western road.	156
All Other Roads		810
TOTAL		1135

⁸ Compiled from *Mass. State Record*, 1847, p. 228; 1849, p. 258; 1851, p. 253; *Mass. Annual Reports of Railroad Corporations*, 1837, 1848; J. Winsor, *op. cit.*, IV, 131, 132.

APPENDIX B

STATISTICAL DATA USED IN CHAPTERS V AND VI

SEMI-ANNUAL ESTIMATES OF OPERATING PROFIT AND CASH DIVIDENDS PAID FOR THREE CHICOPEE COTTON COMPANIES, 1836-1864

Date	COMPANY "A"		COMPANY "B"		COMPANY "C"	
	Estimated Profit	Cash Paid	Estimated Profit	Cash Paid	Estimated Profit	Cash Paid
1836.....	\$48,662	\$27,000	\$.....	\$.....	\$.....	\$.....
.....	40,171	22,500	.....	.....	.....	.....
1837.....	32,038	18,000	.....	.....	.....	.....
.....	14,677	.....	4,128	.....	.....	.....
1838.....	40,897	22,500	14,069	.....	.....	.....
.....	45,224	45,000	27,464	25,000	.....	.....
1839.....	53,431	30,000	38,118	25,000	.....	.....
.....	13,567	15,000	15,099	.....	.....	.....
1840.....	2,225	.....	7,643	15,000	.....	.....
.....	32,145	25,000	36,967	15,000	.....	.....
1841.....	24,901	20,000	23,974	.....	.....	.....
.....	21,031	15,000	20,803	.....	.....	.....
1842.....	17,064	10,000	11,062	15,000	13,980	15,000
.....	12,321	.....	5,327	30,000	11,100	.....
1843.....	18,246	20,000	18,597	.....	22,874	20,000
.....	44,798	35,000	38,307	50,000	50,606	35,000
1844.....	72,494	50,000	71,767	50,000	73,374	56,000
.....	49,574	50,000	61,157	50,000	77,766	70,000
1845.....	51,530	50,000	55,000	50,000	69,253	70,000
.....	56,617	50,000	52,002	50,000	67,246	70,000
1846.....	64,268	50,000	48,803	40,000	72,184	56,000
.....	34,857	30,000	20,891	25,000	54,053	56,000
1847.....	21,651	20,000	27,911	25,000	50,878	35,000
.....	9,214	.....	27,054	20,000	36,795	28,000
1848.....	11,580	15,000	17,258	15,000	27,802	21,000
.....	13,301	15,000	17,668	15,000	31,879	21,000
1849.....	24,092	15,000	12,834	10,000	49,238	28,000
.....	24,455	20,000	16,770	15,000	35,734	28,000
1850.....	20,287	15,000	16,108	.....	44,719	28,000
.....	8,583	15,000	11,834	.....	22,009	21,000
1851.....	14,363	.....	8,616	15,000	26,373	14,000
.....	8,874	.....	5,743	.....	6,064	.....
1852.....	11,927	.....	18,698	15,000	32,973	21,000
.....	15,120	.....	23,773	30,000	33,280	21,000
1853.....	.....	.....	40,081	20,000	37,819	.....
.....	.....	.....	41,045	20,000	45,466	28,000
1854.....	.....	.....	42,160	30,000	36,944	21,000
.....	.....	.....	35,984	.....	29,555	14,000
1855.....	.....	.....	33,444	20,000	36,812	.....
.....	.....	.....	38,821	20,000	37,968	21,000
1856.....	.....	.....	.....	.....	95,013	51,000
.....	.....	.....	.....	.....	70,599	51,000
1857.....	.....	.....	.....	.....	56,327	34,000
.....	.....	.....	.....	.....	3,123	.....
1858.....	.....	.....	.....	.....	19,089	.....
.....	.....	.....	.....	.....	85,137	.....
1859.....	.....	.....	.....	.....	26,736	51,000
.....	.....	.....	.....	.....	75,596	51,000
1860.....	.....	.....	.....	.....	102,286	68,000
.....	.....	.....	.....	.....	79,330	68,000
1861.....	.....	.....	.....	.....	58,413	34,000
.....	.....	.....	.....	.....	111,016	68,000
1862.....	.....	.....	.....	.....	157,666	68,000
.....	.....	.....	.....	.....	300,000	85,000
1863.....	.....	.....	.....	.....	53,597	68,000
.....	.....	.....	.....	.....	72,478	51,000
1864.....	.....	.....	.....	.....	10,366	51,000
.....	.....	.....	.....	.....	50,840	51,000

WEEKLY LOWER QUARTILE, MEDIAN AND UPPER QUARTILE EARNINGS OF
FEMALE COTTON MILL OPERATIVES AS COMPILED FROM THE PAYROLLS OF
COMPANY "C", 1841-1862

Date	Lower Quartile	Median	Upper Quartile
April, 1841.....	\$1.72	\$2.49	\$2.98
May.....	1.16	2.31	2.82
June.....	2.07	2.87	3.55
July.....	1.66	2.71	3.51
August.....	1.78	2.90	3.87
September.....	1.73	2.58	3.46
October.....	1.79	2.64	3.35
November.....	2.22	2.77	3.25
December.....	1.82	2.67	3.31
January, 1842.....	2.08	2.84	3.41
February.....	2.15	2.81	3.43
March.....	1.77	2.80	3.57
April.....	1.61	2.83	3.68
May.....	1.98	2.83	3.44
June.....	1.89	2.78	3.37
July.....	1.09	1.91	2.76
August.....	1.51	2.29	2.86
September.....	1.66	2.35	2.93
October.....	1.23	2.12	2.72
November.....	1.60	2.30	2.96
December.....	1.60	2.40	2.82
January, 1843.....	2.26	2.70	3.56
February.....	2.14	2.75	3.16
March.....	1.77	2.46	3.14
April.....	1.41	1.85	2.47
May.....	1.89	2.56	3.09
June.....	2.12	2.71	3.67
July.....	1.38	2.11	2.60
August.....	1.81	2.45	3.08
September.....	1.51	2.33	2.86
October.....	1.76	2.38	3.10
November.....	1.94	2.51	3.26
December.....	1.41	2.25	2.96
January, 1844.....	2.14	2.62	3.25
February.....	1.95	2.29	2.75
March.....	2.03	2.68	3.45
April.....	1.94	2.55	3.38
May.....	1.91	2.64	3.39
June.....	1.71	2.43	3.18
July.....	1.44	2.35	3.14
August.....	1.39	2.33	3.04
September.....	1.43	2.30	2.91
October.....	1.96	2.58	3.11
November.....	1.65	2.48	2.78
December.....	1.81	2.43	2.95
January, 1845.....	1.85	2.45	2.99
February.....	1.86	2.34	2.76
March.....	1.82	2.40	2.89
April.....	1.66	2.42	2.98
May.....	1.48	2.37	2.99
June.....	1.43	2.30	3.01
July.....	1.20	2.03	2.69
August.....	1.17	2.27	2.98
September.....	1.62	2.31	3.19
October.....	1.84	2.42	2.99
November.....	1.64	2.26	2.80
December.....	1.74	2.42	3.12
January, 1846.....	1.47	2.27	2.90
July.....	1.52	2.26	2.94
January, 1847.....	2.13	2.62	3.03
July.....	1.53	2.24	2.77
January, 1848.....	2.07	2.68	3.20
July.....	1.41	2.24	2.80
January, 1849.....	2.17	2.56	2.91
July.....	1.60	2.23	2.67

WEEKLY LOWER QUANTILE, MEDIAN AND UPPER QUANTILE EARNINGS OF
FEMALE COTTON MILLS OPERATIVES (continued)

Date	Lower Quartile	Median	Upper Quartile
January, 1850.....	\$2.27	\$2.69	\$3.10
July	1.10	1.98	2.60
January, 1851.....	2.26	2.66	2.94
July	1.77	2.45	2.89
January, 1852.....	2.11	2.53	2.77
July	1.71	2.39	2.88
January, 1853.....	2.06	2.64	3.02
July	1.88	2.50	2.99
January, 1854.....	2.09	2.64	3.21
July	2.03	2.54	3.04
January, 1855.....	2.38	2.95	3.40
July	1.97	2.50	2.97
January, 1856.....	2.34	2.90	3.34
July	1.89	2.48	2.99
January, 1857.....	2.22	2.77	3.24
July	1.60	2.39	2.96
August	1.47	2.41	2.98
September	1.62	2.36	2.82
October .....	.86	1.24	1.49
November	1.17	1.37	1.51
December	1.14	1.38	1.60
January, 1858.....	1.13	1.40	1.63
February	1.29	1.52	1.71
March	1.42	2.11	2.68
April .....	.....	.....	.....
May	1.66	2.46	2.72
June	1.87	2.52	2.74
July	1.75	2.39	2.70
August	1.64	2.47	2.71
September	1.62	2.45	2.72
October	1.30	2.24	2.61
November	1.63	2.37	2.67
December	1.65	2.34	2.68
January, 1859.....	1.65	2.45	2.74
July	1.72	2.42	2.84
January, 1860.....	2.17	2.69	3.20
July	1.95	2.60	3.08
January, 1861.....	2.01	2.69	3.18
July	1.26	1.73	1.94
January, 1862.....	1.24	1.53	1.72
July	1.02	1.65	2.25

PIECE RATES FOR SELECTED OPERATIONS AS COMPILED FROM PAYROLL 1 OF COMPANY "C", MAY, 1841-JANUARY, 1846

Date	Warp Spinning	Warping	Speeding	Weaving
May, 1841.....	4.2 Cts.	.... Cts.	2.5 Cts.	48 Cts.
June	4.2	....	2.5	48
July	4.2	....	2.5	48
August	4.2	12.5	2.5	48
September	4.2	12.5	2.5	48
October	4.2	12.5	2.25	48
November	4.1	12.5	2.25	48
December	4.	12.	2.125	48
January, 1842.....	4.	12.	2.1	48
February	3.8	12.	2.1	44
March	3.8	12.	2.1	44
April	3.8	12.	2.1	44
May	3.4	12.	1.8	38
June	3.4	11.75	1.75	38
July	3.1	11.75	1.75	38
August	2.9	10.5	...	34
September	2.9	10.5	...	34
October	2.9	10.5	...	34
November	2.9	10.5	1.7	36
December	2.8	10.5	1.7	36
January, 1843.....	2.8	10.5	1.7	36
February	2.75	10.5	1.7	33
March	2.75	10.5	1.7	33
April	2.6	10.5	1.7	33
May	2.5	10.	1.7	31
June	2.45	10.	1.7	31
July	2.45	10.	1.7	31
August	2.45	10.	1.7	31
September	2.45	10.	1.7	31
October	2.45	10.	1.7	31
November	2.45	10.	1.7	31
December	2.45	10.	1.7	31
January, 1844.....	2.45	10.	1.7	31
February	2.45	10.	1.7	31
March	2.45	10.	1.7	31
April	2.45	10.	1.	31
May	2.45	10.	1.	31
June	2.45	10.	1.	31
July	2.5	10.	1.	31
August	2.5	10.	1.	31
September	2.5	10.	1.	31
October	2.5	10.	1.	31
November	2.575	10.	1.7	31
December	2.575	10.	1.7	31
January, 1845.....	2.575	10.	1.7	31
February	2.575	10.	1.7	31
March	2.575	10.	1.7	31
April	2.575	10.	1.7	31
May	2.575	10.	1.6	31
June	2.575	10.	1.6	31
July	2.575	10.	1.6	31
August	2.6	10.	1.6	31
September	2.6	10.	1.6	31
October	2.65	10.	1.65	31
November	2.65	10.	1.65	31
December	2.65	10.	1.65	31
January, 1846.....	2.65	10.	1.65	31

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INDEX

- Abolition movement, relation to labor movement, 109, 110
- Absentee ownership, ch. II, 195, 200, 206, 230
- Adams, Sylvester, 85
- Agriculture, 18
- Alden, J., 70
- American Bicycle Company, 201, 202
- American Federation of Labor, 180, 212, 218, 221, 224
- Ames, David, 21; paper mill, 23
- Ames, Fisher, 29, 31; philosophy of, 32
- Ames, J. T., 27, 73, 78, 79, 85, 87, 163, 164
- Ames, N. P., 27, 67, 77, 83, 85, 123
- Ames Manufacturing Company, 18, 43, 81 ff., 157; bicycle contracts, 165, 166; capital shortage, 163, 164, 165; Civil War expansion of, 152 ff.; employment of skilled labor, 57, 66, 67; government ordinance contracts, 153, 162; investment of Boston capital in, 82, 84, 85; investment in gas light company, 91, 122; liquidation, 198; loss of bicycle contracts, 166; Mexican War expansion, 85; organization of Ames Sword Company, 164; origins, 27; post-Civil War problems, 162 ff.; products of, 81 ff.; profits, 86 ff.; purchase of Chicopee Falls Company, 77, 84; purchase of Gaylord Manufacturing Company, 164; purchase of Springfield Canal Company, 27, 36, 84; relation of Boston associates to, 82 ff.; sewing machine contracts, 164, 165
- Ames Sword Company, 164, 165, 199, 228
- Amoskeag Mills, 37, 39
- Appleton, Nathan, 31, 36, 38; correspondence of, 45, 46
- Appleton, S., 38, 45
- Appleton, W., 28, 43, 85
- Appleton Manufacturing Company, 36, 38, 39
- Ashton, J. D., 73
- Atlantic Mills, 39, 42
- Automobiles, 203, 204, 227, 228
- Banks, Boston associates' interest in Boston banks, 44, 243, 244; in Chicopee, 65, 67
- Barnard, E., 71
- Barnum, P. T., 96
- Batchelder, S., 44
- Bay State Valve and Faucet Company, 170, 171
- Belcher, Benjamin, 19, 20, 75
- Belcher, Benjamin E., 75, 77
- Belcher, Bildad B., 75; agricultural tool shop of, 76, 154; organizes Belcher and Taylor Company, 154, 155; sells interest in Belcher and Taylor Company, 166, 167
- Belcher, John W., 75; organizes Whittemore, Belcher Company, 76
- B. and J. W. Belcher Company, 167
- Belcher Iron Works, colonial period, 19, 20, 64, 75; expansion of, 75; reorganization as Whittemore, Belcher Company, 75; specialization in manufacture of agricultural implements, 75. *See also* Whittemore, Belcher Company.
- Belcher and Taylor Company, 154, 155, 171, 189, 198, 228; absorbs competitors, 167; post-Civil War expansion of, 166 ff.; profits, 167
- Belchertown, Mass., 149
- Bellamy, Edward, 223
- Bemis, R. E., 67, 85
- Bemis, Steven, 69, 70, 73
- Beverley Cotton Manufactory, 33
- Bicycles, bicycle trust, 201; competition, 200, 201; demand for, 165, 199, 201; manufactured by Ames Manufacturing Company under contract, 165; manufactured by Lamb Knitting Machine Company under contract, 200; profits, 165; relation to automobile and rubber tire industries, 203, 204
- Blake, E., 155, 169

- Bliss, G., 26, 28
 Blossom, T. D., 97, 119
 Board of Trade, 205
 Boarding-house keepers, controversy with corporations, 125 ff.; duties of, 51; social status of, 68
 Boarding-house system, 34, 35, 50 ff.; disintegration of, 182; under attack, 107
 Bobbin shops, 70, 155
 Boiler works, 73
 Boots and shoes, 72, 155
 Boott, K., 43
 Boott Mills, 36, 39, 42
 Boston associates, ch. II, 54; background of, 29 ff.; banking interests of, 44, 243, 244; compared with local business leaders, 171; control of cotton mill towns, 36 ff.; control of sales agencies, 38; co-operation of, 38; exchange of cost information, 42; importance of in cotton industry, 37 ff.; insurance interests of, 44, 45, 245 ff.; interest in Ames Manufacturing Company, 81 ff.; marriage relationships of, 37, 38; public life of, 45, 46; railway interests of, 43, 44, 247
 Boston Manufacturing Company, 30, 31, 33, 38, 39
 Bowman, W., 21
 Boynton, D., 197
 Bramley, Walter, 196
 Brewer, J., 26
 Brick making, 18, 155
 Brooks, Gorham, 26
 Brooks, P. C., 45
 Brooms, 71, 155
 Brown, John, purchase of guns from Massachusetts Arms Company, 79 ff.
 Brushes, 71
 Bryant, David, 58, 66, 77
 Buckley, J. C., 198
 Bullens brothers, 66
 Bullens, I, 73
 Burtworth Carpet Company, 205
 Business enterprise, 35
 Business leadership, 171, 172, 179, 197
 Byers, J., 19
 Cabot Bank, 67
 Cabot family, 33
 Cabot, Samuel, 28, 85
 Cabot Manufacturing Company, 27, 36, 39, 49, 67; merges with Perkins Mills, 91; profits, 103
Cabotville Chronicle and Chicopee Falls Advertiser, 97, 119, 136; attacks cotton corporations, 125 ff.; attacks labor recruiting methods, 133, 134; stops publication, 134; supports demands for higher wages, 131, 132
 Capital, 24; agricultural implements, 76; Belcher and Taylor Company, 154, 155; Boston capital in Ames Manufacturing Company, 82, 84, 85; Chicopee Falls Company, 76; cotton textile, 28 ff.; Lamb Knitting Machine Company, 168, 169; mercantile, 66; shortage of in Ames Manufacturing Company, 163, 164; J. Stevens Arms and Tool Company, 161, 162
 Capitalist enterprise, 46, 47, 170, 171
 Card and reed shops, 69, 70, 155
 Carter, E. O., 155
 Carter, T. W., 79, 85, 160; agent Chicopee Manufacturing Company, 67; agent Massachusetts Arms Company, 77, 78; director Lamb Knitting Machine Company, 168; mercantile career, 66; president Chicopee Falls Company, 77
 Central Trades' Council, 215, 220, 222, 224
 Chadwick, E., 43, 45
 Chapin family, 17
 Chapin, C. W., 70, 78
 Chapin, Daniel, 74
 Chapin, Edward, diary quoted, 17, 18
 Chapin, Joseph, 21
 Chapin, Levi, 21
 Chapin, Oliver, 21
 Chapin, William, 21
 Chapman, G. H., 72
 Chase, E., 169
 Chase, John, 77, 78
 Chester Village, Mass., 29
 Chevalier, Michel, 35, 52, 107
 Chicopee Boot and Shoe Company, 72

- Chicopee Electric Light Company, 197
- Chicopee Falls Building Association, 198
- Chicopee Falls Company, 77, 83, 84
- Chicopee Falls Hosiery Company, 170, 171
- Chicopee Falls Screw Company, 170, 171
- Chicopee Malleable Iron Company, 153
- Chicopee Manufacturing Company, 142, 146, 156, 157, 159, 160, 184, 186, 188, 189, 196, 216, 220; buys spindles from Ames Manufacturing Company, 81; construction of, 48; employment of children, 56; integration of, 26, 36, 40; operation of company store, 57, 58; origins, 20, 25, 26, 34; profits, 103; purchased by Johnson and Johnson Company, 228; wages paid, 56
- Chicopee River, 17, 33, 34
- Chicopee Telegraph*, 97; labor policy of, 134 ff.
- Chicopee Weekly Journal*, 97
- Child labor, 56, 114
- C. F. Church Manufacturing Company, 205
- Civil War, effect on local enterprise, 151 ff.
- Cochecho Manufacturing Company, 36, 40
- Colonial period, ch. I
- Company store, 57, 58, 66
- Company towns, 14, 31, 34
- Competition, agricultural tools, 167; bicycles, 200; cotton textile, 38, 42, 101, 102, 103; screws, 170
- Connecticut River, 15, 16, 17, 91
- Consumers, retail expenditure, 233; scatter of, 208
- Cost of living, 53, 62, 117-119, 142, 184
- Cotton corporations, control of by Boston associates, 36 ff.; importance to community, 88, 89; integration of, 34, 43; investment in local improvements, 91; labor policy of, 34, 35; origins, 32 ff.; separation of financial and industrial operations, 65; tenement policy, 146, 147. *See also* Boston associates, Interlocking directors and Dividend rate.
- Cotton mills, colonial period, 21; 22
- Cotton mill supplies, manufacture of, 69 ff.
- Cox, Benjamin, 21
- Cox, Lemuel, 21
- Cutler, N., 72
- Day, Benjamin, 28
- Denison, T. A., 72, 73
- Dickens, Charles, 35, 107, 120
- Dividend rate, Ames Manufacturing Company, 87, 88; compared with operating profit in cotton corporations, 103 ff.; relation to costs, 105, 106; relation to panics, 106, 107
- Domestic and personal services, 234, 235
- Dover, N. H., 31, 60, 61, 63
- Dunlap, George, 76
- Duryea, Charles E., 203
- Dutton, Warren, 45
- Dwight, Edmund, 33, 38, 48, 82, 85, 122; association with Fisher Ames, 31; cotton manufacturing investments, 26 ff.; education, 29, 30; investment in Ames Manufacturing Company, 27; marriage, 30; partnership with J. K. Mills, 30
- Dwight, Jonathan, Jr., 26, 27
- Dwight, Jonathan, Sr., 28, 29
- Dwight, Josiah, 28, 29
- Dwight enterprises, 28, 29
- Dwight Manufacturing Company, 36, 40, 146, 186, 187, 189, 201, 207; increased capacity of, 159, 160; merges with Perkins Mills, 91; origins, 28; profits, 103; shutdown, 229; southern expansion, 228, 229, 230
- Dwight store, 19, 29, 48
- Economic conditions, 99, 184, 187, 189
- Education, 17
- Eldridge Sewing Machine, 165
- Eliot, Samuel, 26, 28
- Eliot, William, 26
- Emerson, Ralph Waldo, 96
- Enfield, Conn., 16

- Fall River, Mass., 110, 123
 Fay, W. B., 161
 Ferry, L. M., 199
 Fisk Rubber Company, 204, 205, 220, 221, 226, 229
 Foot, Homer, 67
 Fur trade, 16
- Gale, A., 198
 Gaylord, Emerson, 88, 151, 166, 169
 Gaylord, Sereno, 153
 Gaylord Manufacturing Company, Civil War expansion, 152, 153; competition with Ames Manufacturing Company, 166; origins, 88; post-Civil War business, 166; purchased by Ames Manufacturing Company, 166. *See also* Emerson Gaylord.
 Gold rush, local reaction, 91, 92
 Granby, Mass., 49
 Gray, F. C., 45
 Great Falls Manufacturing Company, 37, 40
 Greeley, Horace, 45, 96; letter to N. Appleton quoted, 46
 Grist mill, 18
- Hamilton Manufacturing Company, 36, 38, 40
Hampden Post, 124, 125
 Hardware, 69, 70
 Hartford, Conn., 72
 Henshaw, S., 26
 Holyoke, Mass., 31, 36, 37, 209, 229
 Homestead Act, 152
 Hopewell Mills, 36, 40
 Hours of work, 54, 55, 59, 184, 185; eight hour movement, 214, 215; eleven hour day adopted, 142; return to twelve hour day, 144; shorter hours, mechanics petition for, 123; ten hour law, 185; ten hour movement, 142
 Housing, 208
 Howard, F. D., 202
 Hutchins, H., 71
- Income tax returns, 157, 158, 159, 234
 Indian warfare, 16 ff.
 Industrial revolution, 24
- Injunction, use of in labor dispute, 218, 219
 Intemperance, 143
 Interlocking directorates, 37, 39 ff.
 Irish, coming of, 49, 138, 139; conflict with Yankees, 96, 97, 177; middle class, 196; replace Yankee operatives in mills, 98
 Iron works, colonial period, 19, 20
 Insurance, Boston associates' interest in Massachusetts companies, 44, 45, 245-247
 Jackson, P. T., 30, 43
 Johnson and Johnson Company, 228
 Kelly, John J., 223
 Kendall, C. M., 71
 Knights of Labor, 180, 193
 Knit Goods Specialty Company, 196, 197
 Knitting needles, manufacture of, 170. *See also* Page Needle Company.
 Kuhn, G. H., 44
- Labor, ch. III, V, VI, VIII, X; blacklist, 54; canal builders, 49; child labor, 56, 114; competition for, 149, 150; condition of, 136, 141, 142; legislative investigation of, 112 ff.; employment by big companies, 182; exploitation of, attacked by *Cabotville Chronicle*, 125; injunction, use of, 218, 219; literary activities of early operatives, 59, 60, 119 ff.; Massachusetts labor movement in forties, 109 ff.; mill discipline, 54; number of, 64, 227; origins of first operatives, 49; participation in politics, 222 ff.; permanent factory population, development of, 139; press, 107, 108; price of board, 53, 62; recruiting of, 49, 50, 133, 134, 147, 148; regulations governing life of, 51 ff.; shortage of, 146 ff.; skilled 64, 66, 79, 168; social status of, 68; speed-up and reaction to, 62, 116 ff.; supply of, 49; turnover, 146, 149; welfare plans for, 221. *See also* Hours of work, Strikes, Labor organization, Wages and Labor, nationality of.

- Labor, nationality of, French-Canadian, 148, 150, 181, 190; Irish, 98, 138, 139, 150, 181; Polish, 181, 190; Yankee, 49, 58, 98, 138, 150.
- Labor organization, American Federation of Labor, 180, 212, 218, 221, 224; bakers, 213; barbers, 213; bartenders, 213; carpenters, 213; Chicopee Central Trades' Council, 215, 220, 222, 224; International Rubber Workers of America, 221; Knights of Labor, 180, 193; metal workers, 213; mule spinners, 187; rubber workers, 220; "rank and file" action, 220; United Textile Workers of America, 212, 213, 215
- Laconia Mills, 36, 40
- Lamb Knitting Machine Company, 160, 168, 171, 197, 198; control of by A. G. Spalding, 200; expansion, 169; manufacture of bicycles, 200; profits, 169, 170. *See also* Lamb Manufacturing Company.
- Lamb Knitting Machine Company (reorganized), 202, 229
- Lamb Manufacturing Company, 200, 204, 226; discontinued production, 202; joins bicycle trust, 201
- Lawrence, Abbott, 31, 36, 38, 45, 124
- Lawrence, Amos, 31, 32
- Lawrence, Mass., 15, 31, 36, 43, 234
- Lawrence Manufacturing Company, 36, 40
- Leavitt, B., 70
- Longmeadow, Mass., 16
- Loom harness shops, 70, 155
- Lowell, F. C., 32, 33, 34
- Lowell, J. A., 45
- Lowell, Mass., 15, 31, 50, 51, 63, 110, 123; cotton companies in, 36, 38, 43; development of, 36; strikes in, 60, 62
- Lowell Machine Shops, 36, 43
- Lowell Offering*, 59, 60, 97, 107 ff., 119, 120, 135
- Lyman, G. W., 26, 28, 43, 85
- Lyman Mills, 36, 37
- Lyon, H. N., 198
- McFarland, W. P., 155, 198
- Manchester, N. H., 15, 31, 37, 43
- Manufactures, local corporative, alienation of, 226 ff.; control of, 168, 171; establishment of, 77 ff.; expansion of, 168 ff.
- Manufactures, local small-scale, aid of cotton mills in establishing, 69; Civil War expansion of, 152; consumption goods, 71; establishment of, 68 ff., 155, 170, 172 ff., 196, 197; investments in by French-Canadians and Poles, 196; possible expansion of, 70, 72; use of savings for, 71
- Manufactures, statistics of, 1875-1934, 227
- Martineau, Harriet, 35, 107, 135
- Massachusetts Arms Company, 69, 154, 155, 156, 168, 171; expansion of, 79; liquidation, 160; litigation with Samuel Colt, 78; organization, 78; production of Maynard rifles, 78; profits, 153; prosperity of, 151, 152, 153
- Massachusetts Cotton Mills, 36, 41
- Matches, manufacture of, 73 ff.
- Mercantile enterprise, small scale of, 157
- Merchants, *See* Retail Trade and Middle class
- Merrimack Manufacturing Company, 36, 38, 41
- Metropolitan centers, influence of, 236
- Middle class, ch. IV, VII, XI; analysis of middle class position, 230 ff.; cleavage of, 209, 210; constituent elements of, 65, 67, 68; control of town government by, 92 ff.; decline of, 206, 207, 210, 226, 231, 235, 237; dependence on mercantile prosperity, 90; homogeneity of, 177, 196, 209; importance of merchants to, 68; limitation of opportunity, 70, 72, 90, 175, 236; nationality of, 156; position of the merchant, 89, 90; post-Civil War expansion of, 174, 175, 176; present underdevelopment of, 235; proximity of Holyoke and Springfield, influence of, 231 ff.; relative economic importance of, 157; status of, 233 ff.; wealth of, 156 ff.

- Mill towns, character of, 231
 Millinery, production of, 71
 Mills, Charles H., 45
 Mills, J. K., 26, 27, 38, 43, 82, 83, 87, 122
 Mills, J. K., and Company, 85, 143
 Municipal government, control by middle class, 92 ff.; home rule, 92; machine politics, 210; occupations of town officers, 93, 94; under jurisdiction of Springfield, 65
 Nashua, N. H., 31, 37, 55
 National Scale Company, 206, 229
 Nettleton, A., 71
 Norris, H. P., 202
 Northampton, Mass., 29
 Nye, S. R., 197
 Nye Truss Company, 197
Olive Leaf and Factory Girls' Repository, 97, 119, 120, 121, 125, 134
 Orne, J. D., 169
 Otis, Harrison Gray, 26, 28, 30, 33
 Overman, A. H., 165, 170, 199, 204; manufactures automobile, 203, 204. *See also* Overman Wheel Company.
 Overman Wheel Company, 165, 166, 198, 199, 200, 201, 224. *See also* A. H. Overman.
 Page, A. W., 170
 Page, I. H., 161, 169
 Page, T. C., 169, 170, 198
 Page Needle Company, 228
 Page-Storms Drop Forge Company, 206
 Paige, J. W., and Company, 38
 Panic of 1857, 76, 143 ff.
 Paper Makers Chemical Corporation, 205
 Paper mill, 21, 23, 48, 64
 Parker, A. G., 72
 Patterson, F. W., 192
 Pease, Joseph, 70
 Pepperell Mills, 42
 Perkins, T. H., 28, 30, 45, 85
 Perkins, B. F. Company, 205
 Perkins Mills, 41, 42; origins, 28; merges with Dwight Manufacturing Company, 91; profits, 103
 Personal services, 67
 Phillips, Alonzo, 73, 74
 Pinney, Gustavus, 21
 Plant shutdown, 229
 Population, 90, 168, 195; nationality of, 181
 Prescott, W., 45
 Prescott Manufacturing Company, 36, 41, 42
 Press, 97, 98; lack of, 178
 Prices, cotton, 101, 102
 Professions, early development, 66, 67; recent status of, 234
 Profits, Ames Manufacturing Company, 86 ff.; bicycle, 165, 199; cotton textile, 33, 36, 100 ff., 125; Lamb Knitting Machine Company, 168, 169; mercantile, 90, 156, 168, 207; Massachusetts Arms Company, 153; reinvestment of, 168, 179
 Prohibition, 96
 Public debt, 206
 Pynchon, William, 16
 Quincy, Josiah, 45
 Railways, Boston associates important in promotion of, 43, 247; Boston and Lowell road, 43; Boston and Maine road, 44; Boston and Worcester road, 43; Connecticut River road, 44; reach Chicopee, 69; Taunton Branch road, 43; Western road, 43
 Regalia, manufacture of, 162, 169
 Retail Trade, Civil War, effect of, 155, 156; colonial period, 18, 23; competition of Holyoke and Springfield, 208, 209, 236; condition of, 1840 to 1860, 89, 90; dependence on cotton mill prosperity, 88; development of, 65, 66; early mill days, 57, 58; fluctuations in gross income, 88, 89, 175; increase of investment in, 66; opportunities in, 90, 156, 168, 232; relation to middle class, 90, 231, 232; specialization, 174; statistics of, 233.
 Russell, R., 202
 Salmon Falls Manufacturing Company, 36, 41

- Sargent, I., 85
 Sashes and blinds, manufacture of, 71
 Savage Arms Company, 228
 Savings, use of for petty industry, 71, 175
 Saw mills, 17
 Settlement, 16
 Shackford, S. A., 66
 Shutdowns, 229
 Skeele, Otis, 72
 Slavery, compared with factory work, 61, 111, 135, 136
 Smith, C. H., 169
 Smith, W., 19
 Social life, 92 ff., 177, 178, 210, 224
 Social mobility, 175, 235, 236
 Socialist Party, 223, 224
 Somersworth, N. H., 37
 South Hadley, Mass., 29
 Southworth, Wells, 66
 Spalding, A. G., 200, 201, 202. *See also* Spalding Company and Lamb Manufacturing Company.
 Spalding Company, 198, 199, 202, 203
 Spaulding and Pepper Rubber Company, 204
 Speed-up, 62, 116 ff.; reaction to, 119 ff.
 Springfield, Mass., 12, 13, 16, 33, 179; competition of, 208, 209, 236; influence of proximity of, 175, 236
 Springfield Armory, 49, 79
 Springfield Canal Company, 26, 27, 43, 67, 84
Springfield Republican, attacked by *Cabotville Chronicle*, 130; defends corporations, 124, 125, 129; politics of, 119, 121
 Squier, G. L., 75
 Standard Oil Company, 205
 Stanton, Francis, 26, 28
 Stark Mills, 37, 41
 Stevens, Joshua, 78, 153, 161, 187, 198. *See also* J. Stevens Arms and Tool Company.
 J. Stevens Arms and Tool Company, 154, 160, 161, 171, 198; incorporation and new capital, 161, 162; manufactures Duryea automobile, 204; purchased by Westinghouse Electric Company, 226, 228
 Stevens-Duryea Automobile Company, 204, 227
 Street Railway, 178, 179, 209
 Strikes, cotton textile, 62, 121, 122, 131, 132, 144 ff., 186 ff., 192, 193, 213, 214, 216, 217, 219, 220, in Dover, N. H., 60, 61, in Lowell, Mass., 62, 63, in Nashua, N. H., 55; Fisk Rubber Company, 220, 221, 222; metal polishers, 214; railway workers, 134; Stevens Arms Company, 217 ff.
 Sturgis, W., 28, 43, 85
 Suburban communities, 236
 Suffolk Manufacturing Company, 36, 41
 Swift Packing Company, 205
 Taunton, Mass., 36
 Taylor, Albert, 196
 Taylor, George S., comment on retail trade, 90; investments, 154, 155, 156, 161, 197. *See also* Belcher and Taylor Agricultural Tool Company.
 Taylor, James, 155, 161, 167, 169
 Taylor-Bramley Company, 196, 197
 Thorndike, Israel, 26, 31
 Tilden, J., 43, 45
 Tinsmiths, 71
 Transportation, colonial, 16; local improvements, 19; relation to manufactures, 69. *See also* Railways.
 Tremont Mills, 36, 42
 Unemployment, 141, 142, 143, 157, 189, 190, 191, 192, 229, 230
 Wages, comment on reduction by *Hampden Post*, 124; daily wage rates, of canal builders, 49, in Massachusetts, 1859 to 1890, 183; earnings of female operatives, 55, 56, 115 ff., 140, 141, 143, 144, 146, 186 ff., 249, 250; method of computation, 114, 114; general adjustments in cotton mills, 144, 146, 186, 187, 190, 213, 220; male workers, 56, 57, 186 ff.; method of payment, early mill days, 57; piece

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~~2003~~
2003-04

INDEX

- rates of female operatives, 117,
118, 140, 251
- Wales, T. B., 43
- Waltham, Mass., 14, 34, 50
- Warner, T., 78
- Water power, control of, 43; devel-
opment of, 25, 26, 28; location of,
17
- Webster, Daniel, 45; letter to N.
Appleton quoted, 45, 46
- Wells, Jerome, 66, 67
- Wells, John, 67, 72, 155
- West, Bailey, 76, 155
- West Springfield, Mass., 49
- Westfield, Mass., 16
- Westinghouse Electric Company, 220,
226, 228
- Westward movement, 150
- White, L., 199
- Whittemore, John R., 75, 167
- Whittemore, Jonathan, 170
- Whittemore, Belcher Company, 76,
154, 167
- Whittenden Mills, 36, 42
- Willimansett Card Manufacturing
Company, 57, 69, 70, 81
- Withrell, F. N., 198
- Wood, N. R., 197
- Woodworth, A. C., 164, 199
- Woolen mill, 73
- Working Man's Advocate*, 109
- York Mills, 38, 42

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