## THE NEW HAMPSHIRE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS BULLETIN. DURHAM, NEW HAMPSHIRE. APRIL, 1917

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649150366

The New Hampshire College of Agriculture and the Mechanic Arts bulletin. Durham, New Hampshire. April, 1917 by ` Various

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

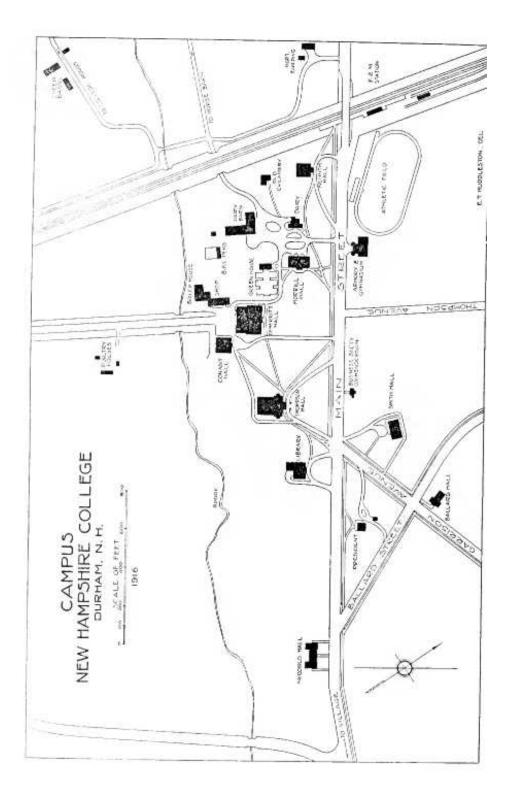
This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

# VARIOUS

# THE NEW HAMPSHIRE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS BULLETIN. DURHAM, NEW HAMPSHIRE. APRIL, 1917

Trieste



# The New Hampshire College of Agriculture and the Mechanic Arts Bulletin

Durham, New Hampshire

### APRIL, 1917

33

Entered as second class matter, August 5, 1907, at the Post Office at Durham, N. H., under the Act of Congress of July 16, 1894

									С	A	I	.1	E	N	L	)	1	R									
												1	9	1	7												
JANUARY.				FEBRUARY.						MARCH.							APRIL.										
s	M	T	W	T	F		S	M	T	W	T	-			M	T	w	T	F	-	S	-	-	W	T	-	_
21	15	16 23	24	18	5 12 19 26	20	4 11 18 25	19	20	21	15	29 16 23	17 24	11 18 25	19 26	20 27	21 28	15	23	17 24	15 22	16 23	17	18	5 12 19 26	20	21
	1	M	1	÷+)	++1		֥1		n	INI	E.	-			5 F.	J.	UIL.	Y.			• • •		U	GU	ST		
s	M	т	W	T	F	s	s	M	T	w	T	-	-	-	-	-	_	-	-	-	s	M	T	w	Т	F	5
20	14	22	16 23	17 24	11 18 25	19	3 10 17 24	11	10	28	21	15	16	15	16	17	18	5 12 19 26	20	21 28	12	20	14 21	15	2 9 16 23 30	17 24	18
SEPTEMBER.					OCTOBER.						NOVEMBER.						DECEMBER.										
s	M	T	w	T	F	s	S	M	T	W	-	1	s	S	M	т	W	-	F	S	S	M	T	W	T	F	-
16 23	10	18 25	19]	20]	21	22	7 14 21 28	15	16 23	10 17 24	18	5 68 19 26	20 27	11	19	13 20	21	15	23	17 24	16	17	11	19	6 13 20 27	21	23
Ĩ											D														22		
	J.	AN	UA	R	ν.		j	FE	BI	RU	A	1	9	1		MA	R	сн		ei S		- 6	-	R	IL.	-	_
s	J. M		UA	R Y	¥.	S	s		BI	RU	A					MA		CH T	F	s		M	A	W	ц.,  Т	F	15
	M	1 1 5	W 29	T 3 10	F 4 11	-5	S 310 17 24	M	T 5 12 19 26	W	T	F 1 15	S 29 16 23	S 	M 	T	W	T '7	F	29	S	M	A) T 29	W 3	T	-5 12 19	20
6 13 20 27	M 7 14 21 38	T 1 8 15 22 29 M	W 2 9 16 23 30 	T 3 10 17 24 31 	F 4 11 18 25	-5	3 10 17 24	M	T 5 12 19 26 JI	W 6 13 20 27	T 14 21 28 E	F 1 15 92	S 9 16 23	S 30 17 24 31	M 4 11 18 25	T 5 12 19 26 	W - 6 13 20 27	T 14 21 28	F 1 8 15 22 29	2 9 16 23 30	S  74 21 28 	M 15 22 29	Al T 2 9 16 23 30	W 3(0) 17 24	T 11 18 25	-5 12 19 26	1320
	M 7 14 21 38	T 1 8 15 22 29 M	W 2 9 16 23 30 	T 3 19 17 24 31 7	F 4 11 18 25	-5 12 19 26	3 10 17 24	M	T 5 12 19 26 JI	W 6 13 20 27	T 14 21 28 E	F 1 15 92	S 29 16 23	S 30 17 24 31	1 M 	T 12 19 26 JI T	W	T 14 21 28 X.	F 15 222 29 	29 16 23 30	S	M 15 22 29	Al T 2 9 16 23 30	W 3(0) 17 24	T 11 18 25  ST	-5 12 19 26	1:20
	M 7 14 21 38  6 13 20 27	T 152229 M T 714 218	W 2 9 16 23 30	T 310 17 24 31 17 29 16 23 56	F 4. 11 18 25  F 3 10 17 24 31	-5 12 19 26 -5 12 19 26 -5 	3 10 17 24 5 29 16 23	M 11 18 25  M 30 10 17 24	T 512 19 26 JU T 41 18 25	W 613 20 27 JN W 512 19 26	T 1421 28 E. T 4320 20 27	F 18 15 99 F 14 21 28	S 29 16 23  S 1 8 15 22 29	S	M 411 18 25 15 22 29	T 12 19 26 JI 7 29 16 23 30	W 64 1320 27 JL W 30 10 17 24 31	T 14 21 28 Y. T 41 18 25	F 15 222 29  F 5 12 19 26	29 916 23 30 8 6 13 20 27	S7 14 218  S4 11 18 25	M 18 15 22 29  M  5 12 19 26	AI T 29 16 23 30  T 6 13 20 27	W 3017 24 GU W 714 28	T 11 18 25  ST T 1 8 15 22 29	-5 12 19 26 F 29 16 23 30	11 20 21 10 11 24 31
	M 7 14 21 38  6 13 20 27	T 1 8 15 22 29 M T 7 14 21 28	W 2 9 16 23 30 1 8 15 22 29	T 310 17 24 31  T 29 16 23 56	F 41 118 25  F 310 17 24 31	-5 12 19 26 -5 -5 19 26 		M 3 10 17 24	T 512 19 26 JU T 4 11 18 25	W 613 20 27 JN W 512 19 26	T 714 21 28 E T 43 20 27	CY F 18 15 99       	S 29 1623	S	M	T 12 19 26  JI 7 29 16 23 30 	W	T 14 21 28 Y. T 41	F 15 22 29  F 5 12 19 26 	29 16 23 30 8 6 13 20 27	S	M 15 229 M 5 122 19 26	Al T 2 9 16 23 30  U T 6 13 20 27 	W 3017 24 GU W 714 2128	T 11 18 25  ST T 1 5	F 29 16 23 30	1120
	M 7 14 21 28  6 13 20 27  SE	T 15 222 M T 7 14 215 229 M T 7 14 215 229 M T 7 14 215 229 7 M T	W 29 916 23 30  W 18 15 229 EM	T 310 1724 31 7 29 16 23 56 18	F 4 11 18 25  F 3 10 17 24 31  ER	-5 12 19 26 	3 10 17 24 5 29 16 23	M 411 18 25  M 310 17 24 	T 5 12 19 26 JU T 4 11 18 25 CT	W 61 200 27 N W 512 19 26 OI	T 14 21 28 E T 41 20 27 3E T	F 14 215 15 15 15 15 15 15 15 15 15 15 15 15 1	S 18 15229	S	M 411 1825 152229 N(	T 12 19 26  JI 7 26  JI 7 26  JI 7 26  9 16 23 30  VI	W 613 20 27 7 10 10 17 24 31 24 31	T 14 28 Y. T 411 18 25  BI	F 15 222 29  F 5 12 19 26  R.	2916 2330 5613 207 27	S	M 1522 29 M 5129 20 M	AI T 29 16 230  U T 6 13 200 277  C T	W 3017 24  GU W 714 28  EM W	T 11 11 18 25  T 1 8 152 29  BE	F 29 16 23 30	121 21 21 21 21 21 21 21 21 21 21 21 21

### BOARD OF TRUSTEES.

HIS EXCELLENCY, GOVERNOR HENRY W. KEYES, A.B., B.S., exofficio.

#### PRESIDENT

#### ex-officio.

\*HON. HARVEY L. BOUTWELL, B.S., LL.D., Malden, Mass., President. Sept. 1, 1911, to Sept. 1, 1917.

HON. JAMES A. TUFTS, A.B., Excter, Secretary, Jan. 10, 1914, to June 14, 1919.

HON. WALTER DREW, Colebrook. Aug. 30, 1902, to Aug. 30, 1917.

\*HON, EDWARD H. WASON, B.S., D.Sc., Nashua, Jan. 16, 1996, to Aug. 1, 1919.

- HON. GEORGE H. BINGHAM, A.B., LL.B., Manchester, Dec. 2, 1908, to Dec. 2, 1917.
- HON. RICHARD W. SULLOWAY, A.B., Franklin, May 13, 1909, to Oct. 9, 1918.

HON. WILLIAM H. CALDWELL, B.S., Peterborough, July 29, 1912, to July 20, 1918.

- HON. EUGENE S. DANIELL, Greenland, June 14, 1916, 10 June 14, 1919.
- HON. ROY D. HUNTER, West Claremont. June 14, 1016, to June 14, 1919.
- HON. HENRY C. PHILLIPS, Haverhill. Nov. 24, 1916, to July 17, 1917.
- HON. DWIGHT HALL, A.B., Dover. Oct. 29, 1915, to Oct. 17, 1918.

#### OFFICERS OF ADMINISTRATION.

President of the College.

- CHARLES H. PETTEE, A.M., C.E., LL.D., Dean of the College, Acting President.
- FREDERICK W. TAYLOR, B.Sc. (Agr.), Dean of Agricultural Division,
- CHARLES E. HEWITT, B.S., M.M.E., Dean of Engineering Division.
- ERNEST R. GROVES, A.B., B.D., Dean of Arts and Science Division.

Elected by the Alumin.

HELEN KNOWLTON, A.B., Dean of Women.

- JOHN C. KENDALL, B.S., Director of Experiment Station and Extension Work.
- CONDA J. HAM, A.B., Registrar and Secretary of the Faculty.
- WALTER M. PARKER, A.B., Treasurer.
- OREN V. HENDERSON, Business Secretary.
- CHARLES W. STONE, A.M., Superintendent of Farm.
- OSCAR W. STRAW, Superintendent of Power and Service and Curator of Buildings.

#### ASSISTANTS IN ADMINISTRATION.

MARTHA F. EMERSON, Librarian.

CHARLOTTE A. THOMPSON, Assistant Librarian.

- CAROLINE A. BARSTOW, Assistant Librarian.
- MARCIA N. SANDERS, Matron of Smith Hall.
- ELIZABETH P. DEMERITT, Matron of Ballard Hall.
- ARABELLA S. LIVINGSTON, Matron of Bickford Hall.
- NATHANIEL E. CURTIS, Proctor of Fairchild Hall.
- ANNIE J. MORGAN, Manager of Book Store.
- VELMA W. DAVIS, Secretary to the President.
- BEATRICE M. RICHMOND, Bookkeeper.
- BEULAH M. MADDOX, Secretary to the Business Secretary.
- MARTHA C. BLODGETT, A.B., Secretary to the Dean.

### THE COLLEGE FACULTY\* AND TEACHING STAFF.

President of the College.

#### PROFESSORS T.

- CHARLES H. PETTEE, A.M., C.E., LL.D., Dean and Professor of Mathematics.
- CLARENCE W. SCOTT, A.M., LL.D., Professor of History.
- FREDERICK W. TAYLOR, B.Sc. (Agr.), Dean of Agricultural Division and Professor of Agronomy.
- RICHARD WHORISKEY, JR., A.B., Professor of Modern Languages.
- CHARLES E. HEWITT, B.S., M.M.E., Dean of Engineering Division and Professor of Electrical Engineering.
- ERNEST R. GROVES, A.B., B.D., Dean of Arts and Science Division and Professor of Sociology.
- C. FLOYD JACKSON, B.S., A.M., Professor of Zoology and Entomology.

\* The faculty is composed of the president of the college, full professors, associate professors, assistant professors, and the director of the experiment station and of extension work.

+Arranged in order of seniority of appointment.

WALTER C. O'KANE, A.M., Professor of Economic Entomology. CHARLES JAMES, F.I.C., Professor of Chemistry.

ALFRED E. RICHARDS, PH.D., Professor of English.

ORMOND R. BUTLER, PH.D., Professor of Botany.

JOSEPH H. GOURLEY, M.S., Professor of Horticulture.

OTTO L. ECKMAN, B.S. (Agr.), Professor of Animal Husbandry.

JOHN C. KENDALL, B.S., Director of Experiment Station and Extension Work.

ERIC T. HUDDLESTON, B:ARCH., Professor of Drawing and Design.

CHARLES L. SIMMERS, A.B., Professor of Education and Psychology.

ROY H. PORTER, B.S., M.E., Professor of Mechanical Engineering. WILLIAM H. COWELL, B.S., Physical and Athletic Director.

KARL W. WOODWARD, A.B., M.F., Professor of Forestry.

ROBERT V. MITCHELL, B.S., Professor of Poultry.

HELEN KNOWLTON, A.B., Dean of Women and Professor of Home Economics,

JOHN M. FULLER, B.S., Professor of Dairying.

VERNON A. SUYDAM, PH.D., Professor of Physics.

CHARLES A. HUNT, B.S., Captoin U. S. Infantry, Professor of Military Science and Tactics.

#### ASSOCIATE PROFESSORS.\*

FRANK C. MOORE, A.B., Associate Professor of Mathematics.

GEORGE A. PERLEY, M.S., Associate Professor of Chemistry.

CHARLES C. STECK, A.B., M.S., Associate Professor of Mathematics.

CAROLINE A. BLACK, PH.D., Associate Professor of Bolany.

WILLIAM H. WOLFF, M.S., Associate Professor of Pomology.

#### ASSISTANT PROFESSORS.\*

LEON W. HITCHCOCK, B.S., Assistant Professor of Electrical Engineering.

HAROLD H. SCUDDER, B.S., Assistant Professor of English.

FORD S. PRINCE, B.S., Assistant Professor in Agronomy.

FRIEDA REINER, B.S., Assistant Professor in Home Economics.

W. ROSS WILSON, B.S. (Agr.), Assistant Professor in Dairying.

OLUS J. STEWART, Ph.B., A.B., M.S., Assistant Professor in Chemistry.

JOHN B. SCHERRER, B.S., Assistant Professor in Vegetable Gardening.

MARION O'K. MCKAY, B.S., A.B., A.M., Assistant Professor in Economics.

WILLIAM H. SEVERNS, B.S., M.S., Assistant Professor in Mechanical Engineering.

Arranged in order of seniority of appointment.

#### INSTRUCTORS.\*

THOMAS J. LATON, B.S., Instructor in Drawing.

CLEMENT MORAN, A.B., Instructor in Physics.

CONDA J. HAM, A.B., Instructor in Accounting.

HARRY P. YOUNG, B.S., Instructor in Agronomy.

JAMES MACFARLANE, Instructor in Floriculture.

CLIFFORD J. FAWCETT, B.S., Instructor in Animal Husbandry.

LYMAN J. BATCHELDER, Instructor in Wood Shop and Foundry Practice.

ELIZABETH A. ROLLINS, Instructor in Physical Culture.

CHARLES H. BATCHELDER, B.S., M.S., Instructor in Zoology.

SHIRLEY E. CULVER, A.M., Instructor in Modern Languages.

CARL A. GARABEDIAN, B.S., M.S., Instructor in Mathematics.

HAROLD D. MCBRIDE, Instructor in Machine Work and Forging.

FRED N. RAYMOND, B.S., Instructor in Modern Languages and English.

CLYDE C. WHIPPLE, B.S., Instructor in Electrical Engineering.

WALTER D. EMERSON, B.S., Instructor in Mechanical Engineering and Physics.

WILLIAM L. DORAN, B.S., Instructor in Botany.

#### ASSISTANTS.\*

CLARENCE R. CLEVELAND, A.B., Assistant in Economic Entomology.

ARTHUR S. AMBROSE, B.S., Assistant in Dairying.

ARNOLD J. GRANT, B.S., Assistant in Chemistry.

RAYMOND J. BEAN, B.S., M.S., Assistant in Zoology.

ALBERT W. GAMASH, B.S., Assistant in Forestry.

CHARLES F. SCOTT, B.S., Assistant in Political Science.

ARABELLA S. LIVINGSTON, B.S., Assistant in Home Economics.

LELAND CRAFTS, B.S., Assistant in Modern Languages and English.

32

\* Arranged in order of seniority of appointment.