PUBLIC DOCUMENTS OF MAINE

1909

BEING THE

ANNUAL REPORTS

OF THE VARIOUS

DEPARTMENTS AND INSTITUTIONS

For the Year 1908.

VOLUME II.

AUGUSTA
KENNEBEC JOURNAL PRINT
1909

REPORT

OF

CATTLE COMMISSIONERS

ON

Contagious Diseases of Animals

Under the Law of 1889, Chapter 19 of Public Laws of Maine.

HON. F. O. BEAL, Bangor, *President.*
JOHN M. DEERING, Saco, *Secretary.*
F. S. ADAMS, Bowdoinham, Maine.

WATERVILLE
SENTINEL PUBLISHING COMPANY
1909

REPORT

To His Excellency, the Governor of Maine.

We herewith submit the report of the Cattle Commissioners for the two years commencing December 1, 1906 and ending December 1, 1908, containing our accounts of horses, cattle and sheep condemned and destroyed under the provisions of the law of 1889, chapter 19, relating to contagious diseases among cattle, horses and sheep, and as amended in 1898 and also the new law, passed by the Legislature in 1905, relating to pure blood cattle.

BALANCE SHEET OF JOHN M. DEERING, SECRETARY, STATE OF MAINE CATTLE COMMISSION.

Cash on hand, December 1, 1906.....	$177 56	
Received from Portland Rendg. Co. for hides	38 56	
Received from recoveries, not properly due	50 00	
Received from State Treasurer, (1906 deficiency)	28,814 75	
Received from State Treasurer, (1907 business)	25,000 00	
Received from State Treasurer, (1908 business)	25,000 00	
		$79,080.87
Paid on 1906 deficiency for cattle.....	$22,671 75	
1906 deficiency for expenses...	5,919 20	
1907 business, for cattle.....	16,349 60	
1907 business for expenses....	8,997 35	
1908 business, for cattle.....	14,446 50	
1908 business, for expenses..	10,553 50	
		$78,937 90
Cash on hand, December 1, 1908....		$142 97

Payments made on account of Expenses, during the year 1907.

1	Maine Central R. R.	$20	00	194	Alfred Murch	37	85
3	John M. Deering	545	82	195	A. W. Cleaves	5	00
4	John Chase	22	00	215	J. M. Deering	173	43
6	Maine Central R. R.	20	00	216	J. M. Deering	120	00
7	John M. Deering	183	86	217	J. M. Deering	57	24
48	C. W. Purcell	171	55	218	S. A. McDaniel	104	50
49	Horace B. Dearborn	5	00	219	C. W. Carsley	2	50
50	M. B. V. Mitchell	31	00	220	F. S. Burch & Co	56	00
51	F. C. Dwinal	34	80	221	Loring, Short & Harmon	3	00
52	Dr. Brackett	8	00	222	C. W. Purcell	72	34
53	G. E. Chesley	15	00	255	R. E. Freeman	120	00
54	W. H. Spear	18	45	256	E. V. Estes	6	00
55	Thos. Daggett	7	35	257	C. H. McGillicuddy	129	00
56	J. A. Ness	14	00	258	A. Joly	156	90
57	W. H. Watson	5	75	259	E. E. Crockett	5	00
58	W. H. Watson	14	00	260	H. D. Anderson	40	00
59	H. S. Usher	5	00	261	E. C. Walker	25	00
60	S. A. McDaniel	7	50	262	H. L. Stevens	34	90
62	Biddeford Journal	3	50	263	J. B. Darling	8	00
63	J. F. Butler	40	00	264	C. W. Purcell	13	18
64	Alvah Smith	15	00	265	E. E. Crockett	6	00
65	O. S. Higgins	5	50	266	R. E. Freeman	12	00
66	W. S. Lord	44	40	267	J. B. Darling	8	00
67	Oscar Smith	2	00	268	J. B. Ness	14	00
68	E. Eugene Knight	7	00	269	C. L. Blakeley	85	00
69	Geo. E. Wescott	58	50	270	J. A. Ness	23	00
70	E. V. Estes	5	00	271	Lewis Fish	16	37
71	S. A. McDaniel	52	80	272	F. S. Adams	496	78
72	C. W. Purcell	115	66	341	F. O. Beal	281	35
73	Carrabassett Stock Farm	32	00	342	W. N. Bachelder	2	00
74	C. H. Leighton	7	40	343	H. T. Potter	22	15
75	C. W. Purcell	16	46	344	A. W. Cleaves	24	50
105	Geo. W. Pooler	5	00	345	J. H. Black	21	30
106	E. C. Walker	20	00	346	J. W. Stewart	12	30
107	C. L. Wakefield	36	00	347	H. B. Jarvis	46	00
108	C. H. McGillicuddy	91	50	348	E. C. Walker	5	00
109	J. A. Ness	12	00	349	J. M. Deering	169	75
110	J. A. Ness	11	65	351	J. M. Deering	149	25
111	A. P. Small	5	00	352	F. L. Russell	70	00
112	G. R. Ingliss	200	00	353	W. H. Lynch	10	00
113	F. S. Adams	51	83	354	H. M. Moulton	10	00
114	F. S. Adams	265	40	355	C. W. Purcell	23	00
115	G. S. Porter	5	00	356	Fred T. Fogg	7	33
116	J. A. Ness	23	75	357	C. W. Purcell	45	71
117	H. L. Stevens	11	90	358	A. A. Dyer	3	00
118	G. S. Porter	5	00	359	M. O. Richards	2	50
119	J. B. Darling	7	00	360	W. S. Lord	22	90
120	H. L. Stevens	11	20	361	Gibbs Y. Benson	15	00
121	E. E. Crockett	7	00	362	J. F. Butler	40	40
122	J. H. Goddard	3	00	363	Lewis Fish	13	00
148	F. C. Dwinal	50	30	364	E. C. Walker	15	00
149	Lewis Fish	15	00	365	R. E. Freeman	81	75
150	H. M. Martin	18	00	366	E. E. Crockett	18	00
61	Lewis Fish	14	00	367	J. A. Ness	8	00
151	F. O. Beal	415	05	368	H. L. Stevens	35	80
152	Alfred Murch	67	80	369	F. L. Hopkins	11	00
153	Thomas Daggett	34	00	370	C. W. Purcell	44	36
154	J. W. Stewart	11	00	371	D. W. Goodwin	4	00
155	D. D. Winslow	5	00	372	W. H. & G. H. Dunn	9	00
156	A. D. Howden	6	50	373	F. S. Adams	200	48
157	Not written			374	F. E. Freeman	90	00
158	J. B. Darling	35	50	375	Thomas Daggett	119	50
159	Forrest C. Strout	2	00	376	Emil Wilson	6	00
160	Lewis Fish	34	50	377	C. O. Witham	4	00
161	F. C. Dwinal	29	00	378	J. H. Black	76	05
162	Thomas Daggett	24	00	379	J. B. Darling	45	50
163	J. B. Darling	6	00	380	H. T. Potter	15	50
164	J. W. Stewart	39	50	381	A. D. Howden	8	00
165	G. W. Fernald	46	40	382	A. L. Murch	98	90
187	H. F. Richards	2	00	383	J. H. Black	18	50
188	W. Howard Ward	5	00	384	F. C. Dwinal	121	70
189	M. B. V. Main	15	00	385	F. O. Beal	291	10
190	J. H. Black	71	98	473	C. W. Purcell	82	96
191	G. W. Fernald	6	65	491	J. M. Deering	145	00
192	Lewis Fish	12	75	492	J. M. Deering	133	95
193	F. C. Dwinal	45	65	493	W. S. Lord	9	58

494	J. A. Ness	17 00	571	G. R. Titcomb	7 00
495	Biddeford Journal	9 00	572	E. C. Butterfield	20 00
496	G. E. Chesley	5 00	573	C. W. Purcell	4 50
497	G. E. Chesley	5 00	574	Not written	
498	Lewis Fish	5 00	575	F. H. Webster	5 00
499	E. V. Estes	3 00	576	F. S. Adams	109 72
500	O. F. Dolloff	11 38	577	H. D. Anderson	21 00
501	Geo. Hanson	10 00	578	F. D. Knightly	5 60
502	Howard Cole	7 50	579	Paul H. Howe	10 00
503	F. E. Freeman	10 00	580	E. E. Crockett	5 00
504	J. A. Ness	14 00	581	C. A. Miller	5 00
505	Geo. R. Inglis	42 00	582	E. C. Walker	5 00
506	Dr. Brackett	8 00	583	A. F. Morrill	5 00
507	Lewis Fish	6 50	584	T. H. Day	10 00
508	W. H. Lynch	5 00	585	Walter F. Wood	15 25
509	C. W. Purcell	25 31	586	F. S. Adams	88 24
510	C. W. Purcell	59 06	587	A. Joly	5 00
511	Houghton & Small	5 75	588	E. E. Croskett	8 00
512	C. W. Purcell	25 41	615	A. D. Howden	5 00
513	C. W. Purcell	11 41	616	J. B. Darling	10 00
514,	515, 516, 517, 518, 519, Not written		617	C. H. McGillicuddy	15 50
			618	Lewis Fish	5 00
563	F. L. Cotton	7 50	619	J. H. Black	94 80
564	H. D. Hammond	12 25	620	F. O. Beal	237 55
565	Leon A. Brooks	10 80	621	F. C. Dwinal	61 30
566	C. H. & S. O. Colby	15 00	622	F. C. Dwinal	18 00
567	L. H. Morrison	5 00	623	Lewis Fish	6 00
568	C. D. Morse	15 00	631	J. P. Rundle Co	4 50
569	C. W. Purcell	6 25			
570	J. A. Ness	13 00			$8,997 35

Payments made on account of cattle during year 1907.

2	Geo. Hill	$12 50	79	C. H. Libby	192 00
5	E. R. Fogg	22 00	80	Cole Bros.	92 50
8	Cole Bros.	35 00	81	C. W. Purcell	8 00
9	Ernest H. Ward	22 50	82	Edward Gowell	37 50
10	Henry F. Barker	20 00	83	C. E. Clark	18 00
11	Ernest E. Getchell	12 50	84	Willis Cushing	20 00
12	J. Frank Mathews	17 50	85	D. W. Bragdon	50 00
13	S. C. Hall	50 00	86	W. S. Lovejoy	50 00
14	H. P. Libby	18 75	87	Farver Bower	15 00
15	F. W. Jones	25 00	88	John E. Nason	11 00
16	Horace E. Dearborn	62 50	89	Geo. E. Douglas	25 00
17	John O. Hayes	25 00	90	Frank Fogg	42 50
18	A. E. Cowell	10 00	91	Not written	
19	Cole Bros.	17 50	92	Geo. E. Clark	50 00
20	J. M. Deering	45 00	93	H. H. York	25 00
21	Cecil Clark	20 00	94	Benj. D. Wood	25 00
22	Nehemiah Day	12 50	95	Freeman H. Cook	22 50
23	John W. Clark	60 00	96	F. Mercier	22 50
24	Frank E. Rollins	18 00	97	Chas. E. Clark	19 50
25	S. B. Edgecomb	12 50	98	Eugene Plaisted	210 00
26	John H. Chase	25 00	99	E. E. Harris	45 00
27	C. F. Knights	20 00	100	Oren Sands	17 50
28	Frank L. Whitney	50 00	101	G. F. Skillings	20 00
29	L. M. Burnham	7 50	102	Cole Bros.	50 00
30	James Burnie	20 00	103	John Harper	62 50
31	E. H. Flurent	40 00	104	Eugene Plaisted	2 50
32	A. S. Smith	25 00	123	Samuel Norton	15 00
33	Byron Hill	17 50	124	E. R. Wilkins	25 00
34	Chas. E. Weeman	25 00	125	H. G. Vaughn	50 00
35	Chas. E. Clark	22 00	126	William P. French	17 50
36	L. L. Bradbury	20 00	127	C. C. Bean	7 50
37	B. L. Littlefield	20 00	128	Geo. W. Pooler	25 00
38	C. W. Carsley	15 00	129	A. F. Woodard	20 00
39	Cole Bros.	40 00	130	H. B. Ellis	25 00
40	S. W. Gould	25 00	131	L. H. Maxim	50 00
41	F. H. Brown	21 50	132	Delia E. Weymouth	22 50
42	F. L. Cunningham	22 50	133	James S. George	25 00
43	W. Q. Colmer	20 00	134	E. T. Brown	12 50
44	C. A. Collins	25 00	135	R. R. Merrill	42 50
45	E. I. Littlefield	20 00	136	E. L. Rose	25 00
46	Fred B. Snow	43 00	137	Chas. E. Field	12 50
47	Chas. E. Brown	25 00	138	Geo. W. Benner	62 00
76	Chester Dutch	17 50	139	A. C. Rowe	25 00
77	Edward Cowell	37 50	140	Dennis L. Martin	12 00
78	Henry S. Hanson	120 00	141	Fred E. Johnson	7 50

142	S. R. Leland	25	00	276	L. M. Sartell	22	50
143	E. G. Leam	50	00	277	G. W. Benner	25	00
144	C. N. Masson	25	00	278	D. W. Goodwin	25	00
145	W. W. Light	25	00	279	W. H. & G. H. Dunn	125	00
146	W. F. Dunton	575	00	280	John Burgess	15	00
147	J. W. Millay	20	00	281	James H. Roy	12	50
166	Newell B. Ames	25	00	282	Wm. H. Prescott	40	00
167	Jerry Bridges	25	00	283	H. M. Porter	17	50
168	C. M. Bragdon	25	00	284	J. A. Brewster	20	00
169	S. B. Prescott	310	00	285	T. C. Smart	20	00
170	Mary B. Sawyer	20	00	286	Merrill Co	25	00
171	J. K. Maloon	17	50	287	W. N. Bachelder	42	50
172	W. N. Bachelder	335	00	288	Mark Avery	22	50
173	B. A. Ramsdell	30	00	289	B. C. Bailey	17	50
174	James A. Hodges	107	50	290	Herman S. Garland	77	50
175	Mrs. G. W. Downs	105	00	291	T. G. Jennings	15	00
176	C. F. Workman	35	00	292	Morey & Co	200	00
177	W. N. Bachelder	25	00	293	W. H. Hurd	22	50
178	Edmund F. Bantin	17	50	294	W. H. Maddox	32	50
179	Mrs. Annie Holmes	50	00	295	C. V. Bailey	275	00
180	Walter E. Merrill	20	00	296	J. W. Norton	20	00
181	Leroy E. Littlefield	17	00	297	F. N. Richardson	25	00
182	Chas. A. Calson	20	00	298	W. E. Bumpus	100	00
183	Mrs. L. E. Bennett	37	50	299	Josiah French	25	00
184	Forrest C. Strout	20	00	300	F. B. Grant	157	50
185	Emil Wilson	25	00	301	Joseph Reeves	15	00
186	R. Alden	85	00	302	F. M. Grant	25	00
196	W. L. Packard	22	50	303	Geo. W. Smith	41	00
197	Peter H. Davis	70	00	304	W. F. Dunton	250	00
198	William Carney	20	00	305	Atwell Kene	25	00
199	W. F. Richards	50	00	306	G. H. Simpson	37	50
200	Chas. E. Fogg	95	00	307	Percy G. Wilson	20	00
201	C. O. Witham	22	50	308	B. K. Rose	25	00
202	Geo. O. Black	50	00	309	Fred Chase	15	00
203	A. L. Merrill	100	00	310	Geo. W. Turner	37	50
204	Leroy E. Littlefield	17	00	311	Lee J. House	30	00
205	Mrs. Howard S. Varney	175	00	312	Wm. T. Haines	207	50
206	B. F. Stanley	15	00	313	J. W. Morrill	10	00
207	T. C. Higgins	20	00	314	F. W. Hill	22	50
208	Mrs. Annie Holmes	25	00	315	L. Spencer	29	00
209	A. O. Ward	20	00	316	C. C. Willey	28	00
210	Fred A. Nason	20	00	317	Mrs. Susie C. Hackett	25	00
211	E. C. Dunham	20	00	318	Chas. A. Wood	20	00
212	W. H. Ward	50	00	319	Walter J. Bicknell	25	00
213	H. L. Leavitt	17	50	320	F. W. Preble	50	00
214	M. B. V. Main	50	00	321	D. A. McLeod	27	00
223	Samuel Plummer	50	00	322	J. W. Sawyer & Son	54	00
224	D. W. Bragdon	25	00	323	Aurelias Newcomb	22	50
225	Walter S. Keene	75	00	324	Alvin Overlock	22	50
226	Frank E. McKenny	25	00	325	E. H. Carter, Treas	50	00
227	R. E. Hudson	20	00	326	C. C. Willey	28	00
228	Cole Bros	52	50	327	G. N. Easterbrook	125	00
229	Nat. S. Carl	12	50	328	Walter H. Verrill	25	00
230	Chas. Pullen	20	00	329	L. L. Hackett	50	00
231	N. H. Herrick	10	00	330	Wm. M. Tolman	37	50
232	Chas. E. Clark	25	00	331	Thos. Brooks	5	00
233	F. B. Snow	17	50	332	H. W. Wiswell	32	50
234	Eugene Mills	22	50	333	W. F. Richards	27	00
235	Paschal M. Langton	17	50	334	Edward Canty	50	00
236	Alvin H. Ricker	25	00	335	F. F. Rich	50	00
237	Geo. M. Ferguson	17	50	336	Alfred L. Murch	100	00
238	B. C. Roberts	21	00	337	Seth Brown	17	50
239	J. L. Robinson	100	00	338	F. L. Mower	25	00
240	Henry W. Evans	15	00	339	L. A. Stevens	17	50
241	Chas. L. Dunn	37	50	340	Crook Bros	25	00
242	F. S. Blanchard	50	00	350	D. W. Holmes	25	00
243	Joshua Clark	50	00	386	C. M. Guptil	25	00
244	Wm. H. Dyer	25	00	387	A. J. Guptil	25	00
245	E. W. Rowe	20	00	388	Wm. F. Pratt	19	00
246	Isaac Earle	20	00	389	L. A. Stevens	17	50
247	John Burney	25	00	390	Chas. E. Durell	12	50
248	L. L. Meginnes	50	00	391	E. B. Osgood	37	50
249	W. H. Hooper	25	00	392	F. H. Chandler	50	00
250	Squire Libby	40	00	393	Gibbs Y. Benson	125	00
251	E. J. Miller	50	00	394	Geo. E. Haskell	37	50
252	Mrs. M. E. Hagin	25	00	395	W. S. Berry	25	00
253	Ernest S. Currier	25	00	396	Chas. W. Lewis	25	00
254	J. L. Robinson	120	00	397	Houghton & Small	25	00
273	F. L. Pike	50	00	398	A. J. Guptil	25	00
274	H. Arthur Robbins	50	00	399	S. C. Hall	45	00
275	W. E. Cooper	25	00	400	Cole Bros	50	00

401	E. B. Osgood	12	50	483	C. A. Dyer	25	00
402	E. B. Moulton	25	00	484	L. E. McIntyre	25	00
403	Cole Bros	45	00	485	Geo. S. Lowell	50	00
404	Geo. Hanson	75	00	486	E. E. Chapman	25	00
405	Lewis J. Bickford	25	00	487	E. E. Paignon	75	00
406	D. W. Bragdon	45	00	488	Thompson & Hanson	25	00
407	Edward A. Roberts	34	35	489	A. H. & A. D. Kilby	25	00
408	Theodore H. Hanson	50	00	490	M. E. Stockman	25	00
409	C. E. Weeks	17	50	520	Cole Bros	20	00
410	N. A. True	20	00	521	D. W. Bragdon	20	00
411	John A. Hanson	25	00	522	D. W. Bragdon	50	00
412	Earle A. Carter	15	00	523	Cole Bros	22	50
413	G. W. Kimball	17	50	524	Geo. W. S. Nixon	25	00
414	Roswell Pinkham	25	00	525	F. G. Otis	25	00
415	J. W. Rowell	22	50	526	W. P. Mitchell	25	00
416	C. W. Livermore	100	00	527	E. H. Grant	21	50
417	Chas. Henry	20	00	528	Elias Thomas	25	00
418	O. H. Gray	72	50	529	Geo. A. Phillips	22	50
419	Arthur Towne	25	00	530	Henry S. Jones	60	00
420	Frank L. Dow	67	50	531	C. L. Jones	50	00
421	Samuel H. Young	18	00	532	James Clough	12	50
422	C. D. Morse	180	00	533	G. H. Duran	15	00
423	Geo. A. Grover	30	00	534	Geo. E. Hawthorne	40	00
424	J. L. Lowell	25	00	535	Geo. E. Hawthorne	60	00
425	W. L. Wyman	25	00	536	F. E. Freeman	25	00
426	Ira E. Andrews	12	50	537	E. T. Brown	20	00
427	C. A. D. Allen	25	00	538	John F. Murphy	20	00
428	E. S. Skillen	15	00	539	Elmer E. Cummings	25	00
429	Geo. B. Dow	50	00	540	Geo. Ducharme	25	00
430	Howard Cole	25	00	541	D. W. Bragdon	45	00
431	Myron J. Moody	12	50	542	Cole Bros	37	50
432	Fred T. Fogg	25	00	543	E. P. Fenderson	25	00
433	Oscar F. Dolloff	50	00	544	C. F. Mabery	140	00
434	F. J. Gushee	25	00	545	J. W. Johnson	25	00
435	A. S. Hogdon	25	00	546	Almon W. Johnson	42	50
436	A. F. Morrill	25	00	547	Peter Hendrickson	100	00
437	G. R. Titcomb	50	00	548	J. E. Gowen	25	00
438	Michael Williams	3	00	549	Wm. N. Lane	25	00
439	F. D. Knightly	25	00	550	Chas. L. Dow	100	00
440	Paul H. Howe	25	00	551	S. C. Hall	20	00
441	Lauri Immonen	20	00	552	Almon W. Johnson	45	00
442	Geo. W. Beckler	25	00	553	Asa M. Seavey	7	50
443	Chas. T. Neal	45	00	554	F. M. Trafton	25	00
444	A. W. Underwood	25	00	555	Frank A. Chaplin	265	00
445	C. M. Workman	45	00	556	J. H. Randall	20	00
446	J. W. McInnes	15	00	557	Asa L. Seavey	12	50
447	Russell M. Chase	35	00	558	Geo. F. Piper	25	00
448	W. A. Packard	25	00	559	Joseph Guertin	15	00
449	H. L. Crafts	17	50	560	C. C. Fenderson	25	00
450	F. P. Ayer	50	00	561	W. W. Center	12	50
451	G. A. Severy	20	00	562	Wm. H. Dow	17	50
452	Geo. Carter	22	50	589	Nathan Berliawsky	25	00
453	Arthur Crosby	20	00	590	C. A. Miller	25	00
454	Ernest C. Hopkins	20	00	591	F. S. Cotton	25	00
455	Lewis H. Dow	67	50	592	H. D. Hammond	30	00
456	John W. Holyoke	22	50	593	Leon A. Brooks	25	00
457	Frank White	25	00	594	E. C. Butterfield	25	00
458	Neil E. Newman	25	00	595	H. S. Scribner	16	00
459	E. J. Colburn	25	00	596	C. H. & S. O. Colby	50	00
460	Geo. F. Hillman, Jr	20	00	597	J. W. Soule	25	00
461	L. H. Weymouth	20	00	598	L. W. Morrison	25	00
462	B. C. Bailey	50	00	599	A. Raggle	25	00
463	Herbert L. Pratt	25	00	600	Edwin Crockett	150	00
464	Albion Hersom	25	00	601	W. E. Gordon	15	00
465	W. P. Perry	22	50	602	P. M. Olin	25	00
466	C. A. Curtis	6	00	603	E. H. Wyman	20	00
467	W. P. Perry	25	00	604	A. D. Kilby	37	50
468	Mrs. B. E. Witham	20	00	605	T. H. Day	25	00
469	Winnefred J. Grouse	25	00	606	Frank L. Bell	25	00
470	C. O. Witham	25	00	607	Frank E. Ranger	22	50
471	Irvin M. Page	25	00	608	Frank Adams	25	00
472	I. Risker	25	00	609	F. A. Phillips	25	00
474	Geo. W. Weston	25	00	610	P. O. Reed	20	00
475	H. L. Goodrich	75	00	611	G. W. Ethridge	20	00
476	F. O. Thompson	25	00	612	Walter A. Gleason	25	00
477	M. D. Holt	47	50	613	John Spiller	50	00
478	E. L. Libby	22	50	614	Frank H. Leathers	10	00
479	A. H. & A. D. Kilby	50	00	624	Mrs. Amanda Stevens	20	00
480	Geo. S. Lowell	50	00	625	R. G. Libby	20	00
481	Geo. S. Lowell	50	00	626	Mark McPhetre	25	00
482	E. R. Foye	25	00	627	J. B. Mercier	25	00

628	R. M. Barker	12	50	630	Frederick A. Griffin	20	00
629	Geo. S. Lowell	50	00				
						$16,349	60

Expenses, paid during 1908.

653	Frank A. Chaplin	$15	00	845	J. A. Ness	14	00
654	W. S. Leighton	5	00	846	A. Joly	166	40
655	Biddeford Journal	11	65	847	J. B. Darling	5	00
656	C. H. Leighton	8	50	848	A. K. Damon	23	41
657	Fred B. Snow	5	00	849	H. A. Robbins	5	00
658	J. F. Butler	28	40	850	F. T. Pike	5	00
659	John A. Ness	49	50	851	J. A. & R. Ness	15	00
660	C. F. Traynor & Co	11	55	852	H. L. Stevens	10	90
661	E. V. Estes	2	00	853	H. L. Stevens	10	90
662	John M. Withee	17	44	854	H. D. Anderson	21	50
663	H. S. Usher	2	00	855	W. E. Fairbanks	391	20
664	C. Eugene Knights	14	00	856	R. E. Freeman	12	75
665	W. S. Lord	21	00	857	F. E. Freeman	10	00
666	Herbert E. Coffin	12	00	858	F. E. Freeman	13	00
667	C. W. Purcell	49	75	859	F. E. Freeman	12	00
668	W. G. Hammond	7	50	860	C. L. Blakeley	72	00
669	Lewis Fish	10	00	861	R. E. Freeman	13	00
670	C. C. Fenderson	5	00	862	E. E. Crockett	4	00
671	J. M. Deering	156	71	863	E. E. Crockett	5	00
672	J. M. Deering	151	37	864	E. E. Crockett	6	00
715	H. L. Stevens	5	00	865	F. S. Adams	149	87
716	H. L. Stevens	6	50	866	F. S. Adams	147	76
717	H. L. Stevens	17	20	867	E. H. Bemis	3	00
718	H. L. Stevens	11	90	925	Thomas Daggett	14	00
719	J. A. Ness	35	00	926	Alfred L. Murch	62	95
720	J. A. Ness	14	00	927	Geo. W. Fernald	25	00
721	I. L. Salley	142	95	928	A. D. Howden	10	00
722	W. D. Anderson	35	00	929	John L. Learey	12	00
723	E. C. Walker	26	50	930	J. H. Black	32	55
724	Eli Hodkins	5	00	931	F. O. Beal	239	85
725	Edwin Crockett	20	00	932	Geo. H. York	3	00
726	John Spiller	5	00	933	C. A. Harmon	5	00
727	J. B. Darling	7	50	934	Wm. Morrison	5	00
728	C. W. Purcell	8	75	970	Chas. E. Atwood	10	00
729	H. L. Stevens	13	80	973	John M. Deering	154	37
730	W. W. Mitchell	5	00	1	Warren P. Doughty	15	00
731	H. D. Anderson	7	00	2	Clifford L. Wescott	7	00
732	H. L. Stevens	11	70	3	F. L. Bodwell	10	40
733	H. L. Stevens	12	00	4	Lemuel Pope, Jr.	42	95
734	H. L. Stevens	13	50	5	J. A. Ness	1	00
735	H. L. Stevens	12	50	6	Theodore Kerr	40	00
736	H. L. Stevens	12	10	7	C. H. McGillicuddy	8	00
737	A. J. Hayes	13	00	8	J. Fred Lord	10	00
773	I. L. Salley	5	00	9	C. W. Purcell	193	20
774	F. O. Beal	224	70	10	C. F. Traynor & Co	9	15
775	F. C. Dwinal	11	70	11	Maine Farmer	10	00
776	Lewis Fish	5	00	12	C. W. Purcell	91	05
777	J. D. Howden	8	00	13	J. M. Deering	184	00
778	Thomas Daggett	14	50	14	A. K. Kemp	14	64
779	F. C. Dwinal	38	25	15	Chas. S. Purrington	18	85
780	J. H. Black	117	11	16	C. W. Purcell	46	44
781	A. K. Weymouth	5	00	17	J. M. Deering	149	68
782	D. D. Winslow	32	00	52	A. Joly	15	00
809	F. S. Adams	229	62	53	R. E. Freeman	73	70
826	John M. Deering	159	41	54	W. A. Rand	10	00
827	John M. Deering	172	51	55	E. C. Walker	9	00
828	Lewis Fish	6	00	56	Mark Haskell	5	00
829	Mark McPheters	5	00	57	Town of Winthrop	5	00
830	Harry L. Hanson	7	00	58	Harry Gouch	5	00
831	G. E. Chesley	5	00	59	Samuel G. Winslow	5	00
832	G. E. Chesley	6	00	60	D. F. Coats	5	00
833	L. D. Pinkham	4	00	61	I. L. Salley	70	40
834	Henry F. Varney	5	00	62	E. E. Crockett	9	00
835	J. A. Tanner	5	00	63	Geo. Watts	3	00
836	Geo. F. Wescott	84	45	64	G. F. Fowler	5	00
837	C. W. Purcell	136	97	65	J. A. Ness	14	00
838	M. V. B. Mitchell	103	95	66	E. E. Crockett	16	00
839	C. W. Purcell	12	00	67	J. H. Goodard	6	00
840	E. W. Macomber	7	00	68	J. A. Ness	12	50
841	E. C. Walker	12	50	69	R. E. Freeman	7	00
842	J. A. Ness	17	50	70	H. L. Stevens	29	50
843	J. A. Ness	14	00	71	J. H. Goodard	6	00
844	J. A. Ness	11	50	72	J. A. Ness	24	50

73	F. E. Freeman	30	50	207	W. A. Wood	9	35
74	Lewis Fish	10	00	208	J. A. Ness	12	50
75	Geo. R. Inglis	11	00	209	E. E. Crockett	16	25
76	C. H. Day	10	00	210	W. A. Clark	5	00
77	F. S. Adams	511	63	211	H. D. Anderson	27	50
120	John O. Gould	2	00	212	H. L. Stevens	11	50
121	Lewis Fish	14	00	213	R. E. Freeman	18	50
122	I. L. Salley	66	00	214	Lewis Fish	24	00
123	G. G. Downs	10	00	215	A. Joly	71	20
124	J. H. Black	107	05	216	E. E. Russell	10	00
125	A. D. Howden	15	00	217	E. E. Crockett	5	00
126	F. C. Dwinal	143	15	218	E. C. Walker	5	30
127	F. O. Beal	286	00	219	H. L. Stevens	24	50
128	F. L. Russell	58	50	220	R. E. Freeman	60	25
129	Lewis Fish	6	00	221	W. W. Dunham	6	00
130	A. D. Howden	71	00	222	F. S. Adams	282	27
131	Thomas Daggett	13	00	223	W. H. Hamilton	17	00
132	J. B. Darling	12	00	224	H. B. Jervis	32	90
190	F. O. Beal	175	40	225	Thomas Daggett	15	50
191	A. L. Murch	50	88	226	J. H. Black	132	15
192	C. F. Dwinal	26	50	227	F. O. Beal	338	53
193	C. E. Atwood	10	00	228	J. B. Darling	36	00
194	J. M. Deering	131	81	229	John A. Orr	10	00
195	C. W. Purcell	135	43	230	Omar Cunningham	10	00
196	A. Joly	100	00	231	Martin Wilcox	10	00
197	C. W. Purcell	136	27	243	John M. Deering	78	38
198	J. M. Deering	151	52	244	C. W. Purcell	160	24
199	F. S. Burch & Co	87	10	245	J. M. Deering	130	28
200	A. A. Dyer	5	00	246	F. S. Adams	190	43
201	G. E. Chesley	12	00	247	F. S. Adams	112	19
202	W. S. Lord	23	00	248	F. O. Beal	291	92
203	F. W. Chandler	10	00	249	C. W. Purcell	114	94
204	Theodore Kerr	28	90	250	J. M. Deering	221	78
205	W. S. Ladd	25	44		Ladd Printing Co	13	18
206	C. W. Purcell	95	57				

Appraisals paid during 1908.

632	W. D. Bennett	25	00	693	Chester Dutck	17	50
633	B. R. Brackett	15	00	694	D. W. Bragdon	20	00
634	John O. Gould	25	00	695	Frank K. Deland	25	00
635	Geo. S. Lowell	50	00	696	E. C. Marston	20	00
636	A. W. Bean	22	50	697	F. E. Adkins	27	50
637	A. A. Call	20	00	698	C. M. Stevens	15	00
638	F. W. Wormwell	25	00	699	J. M. Withee	25	00
639	F. O. Thompson	25	00	700	Theodore Kerr, (H.E.H.)	20	00
640	C. A. Dyer	25	00	701	H. H. York	45	00
641	C. A. Dyer	25	00	702	J. B. Leary	25	00
642	Geo. S. Lowell	25	00	703	Oldin P. Stevens	25	00
643	Geo. S. Lowell	25	00	704	E. W. Macomber	25	00
644	H. L. Goodrich	25	00	705	Wm. T. Haines	195	00
645	O. B. Merrow	25	00	706	F. E. Rollins	20	00
646	F. L. Libby	25	00	707	Asa M. Seavey	40	00
647	H. L. Goodrich	25	00	708	A. Cote	20	00
648	H. L. Goodrich	25	00	709	R. D. Fickett	25	00
649	O. B. Merrow	25	00	710	Chas. E. Clark	45	00
650	F. O. Thompson	25	00	711	J. R. Sawyer	50	00
651	F. O. Thompson	25	00	712	D. W. Bragdon	25	00
652	Walter S. Keene	100	00	713	C. F. Dyer	20	00
673	Oren Sands	20	00	714	Cole Bros	180	00
674	Cole Bros	40	00	738	Wm. F. Adams	17	50
675	Eugene Lavasseur	10	00	739	Mahlon P. Moore	22	50
676	B. C. Keene	12	50	740	S. W. Gould	25	00
677	W. L. Prout	25	00	741	W. G. Hammond	80	00
678	F. W. & H. N. Pillsbury	25	00	742	C. P. Willard	25	00
679	Fred B. Snow	12	50	743	J. B. Lurvey	25	00
680	E. A. Carter	10	50	744	J. D. Rogers	20	00
681	H. M. Moulton	100	00	745	M. D. Stockman	25	00
682	Byron H. Hill	15	00	746	H. P. Brown	25	00
683	D. W. Bragdon	50	00	747	Chas. H. Nelson	200	00
684	Alvin F. Moulton	45	00	748	Mark Haskell	50	00
685	L. W. Pendexter	20	00	749	Cobb Bros	20	00
686	Stephen Mudgett	21	50	750	J. D. Davis	50	00
687	Frank A. Chaplin	25	00	751	C. M. Jordan	25	00
688	F. N. Trafton	20	00	752	W. H. Gowell	50	00
689	B. S. Willy	20	00	753	Ezra H. Bemis	25	00
690	C. Eugene Knight	255	00	754	R. E. Farnum	75	00
691	D. W. Bragdon	20	00	755	A. K. Damon	175	00
692	Chas. E. Clark	20	00	756	M. F. Burnham	25	00

757	Ansel C. Newton	15	00	891	A. D. Kilby	40	00
758	W. W. Mitchell	350	00	892	Alfred S. Sawyer	25	00
759	Harry Gough	50	00	893	L. D. Pinkham	25	00
760	W. A. Brown	22	50	894	Chas. E. Emery	20	00
761	J. D. Rogers	40	00	895	Henry F. Varney	25	00
762	Eli T. Worster	25	00	896	Fred A. Hersom	25	00
763	M. D. Stockman	35	00	897	E. E. Chapman	20	00
764	W. S. Crossman	25	00	898	J. A. Tanner	20	00
765	E. W. Macomber	100	00	899	Wm. Pendexter	35	00
766	Eli Hodkins	120	00	900	A. S. Hamblen	25	00
767	A. D. Kilby	20	00	901	Cole Bros	25	00
768	D. C. McLeod	17	50	902	E. M. Penley	15	00
769	A. A. Noyes	25	00	903	W. H. & J. S. Barnard	20	00
770	W. B. Currier	17	50	904	E. M. Penley	25	00
771	Henry Cookson	17	50	905	J. L. Robinson	350	00
772	G. W. Day	25	00	906	D. W. Bragdon	22	50
783	Chas. T. Neal	45	00	907	F. W. Wormell	25	00
784	Geo. S. Lowell	45	00	908	Geo. Preble	45	00
785	Geo. S. Lowell	47	50	909	Thomas W. Underwood	25	00
786	C. E. Williams	15	00	910	F. B. Edwards	21	50
787	A. K. Weymouth	25	00	911	Cole Bros	20	00
788	J. M. Gilman	25	00	912	Cole Bros	20	00
789	W. B. Bastier	25	00	913	Clifton G. Libby	20	00
790	Geo. H. York	20	00	914	Oren Sands	20	00
791	J. B. Ulmer	25	00	915	Hooper Bros., (S.C.H.)	25	00
792	Geo. S. Lowell	70	00	916	Hooper Bros., (S.C.H.)	20	00
793	Peter H. Davis	22	50	917	Cole Bros	40	00
794	C. G. Blake	25	00	918	Sarah J. Curtis	15	00
795	J. E. Haley	25	00	919	Cole Bros	20	00
796	W. J. Buswell	25	00	920	D. W. Bragdon	25	00
797	H. J. Smith	22	50	921	Harry Merrill	50	00
798	Henry O. Wilson	25	00	922	Geo. E. Merrill	100	00
799	H. C. Nelson	25	00	923	O. L. Higgins	15	00
800	F. C. Burdetts	25	00	924	S. C. Hall	25	00
801	A. T. Lord	25	00	935	Franck C. Bradley	25	00
802	H. Ellingwood	20	00	936	Edwin Kelly	50	00
803	Chas. W. Wilson	25	00	937	H. Q. Blake	12	50
804	O. P. Mayhews	25	00	938	C. G. Downs	75	00
805	John Norton	560	00	939	Carroll H. Clement	25	00
806	Frank White	25	00	940	L. L. Hackett	145	00
807	John H. Perry	25	00	941	Alfred L. Murch	50	00
808	G. E. Pettingall	25	00	942	Geo. H. York	110	00
810	Hutchinson & Dyer	25	00	943	Fred Chase	20	00
811	Hutchinson & Dyer	25	00	944	A. L. Merrill	75	00
812	H. L. Goodrich	25	00	945	Oscar Cole	25	00
813	A. H. Kilby	25	00	946	Chas. McNeil	70	00
814	C. A. Dyer	25	00	947	Albert Pierce	50	00
815	Hutchinson & Dyer	25	00	948	Joseph Carter	20	00
816	A. D. Kilby	25	00	949	Clarence I. Curtis	22	50
817	H. L. Goodrich	25	00	950	E. W. Leathers	25	00
818	M. D. Holt	25	00	951	C. A. Harmon	25	00
819	H. L. Goodrich	25	00	952	Melvin Patterson	25	00
820	H. L. Goodrich	25	00	953	J. S. Patterson	22	50
821	Geo. S. Lowell	25	00	954	Harry E. Downs	25	00
822	Geo. S. Lowell	25	00	955	G. L. Fogg	37	50
823	Geo. S. Lowell	25	00	956	Sarah A. Nickerson	50	00
824	Geo. S. Lowell	25	00	957	W. L. Grant	72	50
825	Geo. S. Lowell	25	00	958	A. F. Lambert	25	00
868	F. H. Jordan	25	00	959	L. L. Lewis	25	00
869	F. L. Edwards	20	00	960	J. C. McCure	70	00
870	C. M. Wilson	25	00	961	Walter F. Bicknell	22	50
871	V. E. Stillings	25	00	962	E. E. Harvey	42	50
872	E. H. Downe	50	00	963	A. W. Shaw	22	50
873	Edwin Andrews	25	00	964	M. C. Barrows	25	00
874	S. G. Norton	25	00	965	H. T. Heath	25	00
875	W. E. Ring	25	00	966	W. Vagne	50	00
876	F. R. Jeffrey	25	00	967	John I. Thompson	12	50
877	A. N. Linscott	25	00	968	Wm. Morrison	20	00
878	John F. Littlefield	25	00	969	Irvin Rand	25	00
879	E. H. Bemis	22	50	971	Not written		
880	Ernest M. Smith	45	00	972	Not written		
881	O. G. Morse	25	00	18	H. J. Brown	25	00
882	J. A. Hodges	25	00	19	Johnson Bros	20	00
883	Elizabeth Atherton	20	00	20	Eugene H. Lowe	25	00
884	Frank P. Huntley	37	50	21	Cole Bros	42	50
885	M. Austin Roakes	15	00	22	C. W. Davis	25	00
886	Geo. S. Smith	50	00	23	P. H. Howe	25	00
887	S. C. Wheeler	10	00	24	S. C. Hall	17	50
888	P. W. Genther	15	00	25	Henry Watkins	65	00
889	J. D. Rogers	25	00	26	Theodore Kerr	30	00
890	James S. Jewett	25	00	27	Craven Sharp	17	50

28	J. O. DuBois	20 00	134	Geo. L. Lowell	50 00
29	H. W. Shaw	22 50	135	John Emery	25 00
30	Jacob Baker	15 00	136	W. S. O. Elliott	50 00
31	J. O. Knight	25 00	137	Chase E. Fogg	100 00
32	W. L. Gray	35 00	138	B. R. Fitzpatrick	25 00
33	H. M. Moulton	25 00	139	Lorenzo French	25 00
34	Cole Bros	15 00	140	Dorsey & Crowningshield	25 00
35	Geo. F. Gammon	20 00	141	Neil E. Newman	25 00
36	W. F. Dresser	20 00	142	Chas. E. Dole	50 00
37	F. D. Knightly	25 00	143	John O. Gould	25 00
38	Frank H. Ilsley	20 00	144	L. C. Stevens	15 00
39	S. C. Hall	12 50	145	J. P. Pollard	30 00
40	W. H. Emmons	30 00	146	James Ross	30 00
41	Melbourne E. Mayberry	12 50	147	Jabez Daggett	25 00
42	Cole Bros	20 00	148	J. H. Black	55 00
43	Theodore Kerr	15 00	149	C. C. Willey	28 00
44	Geo. S. Ayer	25 00	150	Cyrus E. Walker	449 00
45	Geo. M. Ferguson	25 00	151	Irvin H. Wilson	30 00
46	Geo. C. Fogg	25 00	152	John A. Orr	25 00
47	Albert Chadbourne	17 50	153	J. A. McCusick	25 00
48	V. A. West	25 00	154	Leonard M. Patterson	28 00
49	Ernest Getchell	25 00	155	Fred Grendon	25 00
50	O. H. Sands	35 00	156	Joseph Bowley	25 00
51	Cole Bros	25 00	157	Geo. T. Dire	25 00
78	E. T. Brown	20 00	158	Grace H. Prescott	25 00
79	L. J. Tuscan	25 00	159	Omer Cunningham	25 00
80	Paul Lalonde	25 00	160	C. E. Williams	50 00
81	F. A. Cushman	20 00	161	C. H. Clement	25 00
82	H. L. Morse	25 00	162	H. E. Jenkins	17 50
83	John F. Noyes	25 00	163	Not written	
84	R. E. Gerish	25 00	164	L. L. Taylor	311 00
85	E. S. Gifford	200 00	165	O. B. Merrow	25 00
86	W. A. Rand	180 00	166	Geo. L. Lowell	25 00
87	H. B. Thurston	17 50	167	H. S. Whitney	25 00
88	J. D. Rogers	50 00	168	O. B. Merrow	25 00
89	Chas. W. Lee	20 00	169	F. O. Thompson	25 00
90	Harlan P. Merrill	20 00	170	Thompson & Hanson	25 00
91	John E. Wescott	18 00	171	H. L. Goodrich	25 00
92	Town of Winthrop	40 00	172	Geo. S. Lowell	25 00
93	Myron J. Moody	12 50	173	Geo. S. Lowell	25 00
94	Lillian J. Blackwell	12 50	174	A. D. Kilby	25 00
95	Mrs. L. P. York	25 00	175	F. O. Thompson	25 00
96	Henri P.Bouchard(C.H.C.)	75 00	176	F. L. Libby	25 00
97	A. D. Kilby	20 00	177	A. D. Kilby	25 00
98	D. F. Coats	25 00	178	F. L. Libby	25 00
99	Elmer E. Clark	25 00	179	Geo. S. Lowell	25 00
100	Samuel G. Winslow	25 00	180	Geo. S. Lowell	25 00
101	Baker & Priest	42 50	181	Geo. W. Weston	25 00
102	D. F. Smiley	25 00	182	Fred Wormell	25 00
103	B. F. Burns	25 00	183	F. W. Wormell	25 00
104	Peter Gardner	65 00	184	M. D. Holt	25 00
105	Chas. Webster	25 00	185	Geo. S. Lowell	25 00
106	W. E. Alden	17 50	186	M. D. Holt	125 00
107	Ira W. Grant	25 00	187	D. C. Greenlaw	25 00
108	Wm. H. Schenk	20 00	188	E. Paignon, Jr	25 00
109	J. H. Goddard	25 00	189	Goodrich & Brown	25 00
110	G. F. Fowler	25 00	232	A. F. Kemp	120 00
111	A. H. Kilby	20 00	233	Reuben Wescott	100 00
112	J. H. Goddard	25 00	234	Helen L. Ward	22 50
113	Joseph S. True	150 00	235	Fred A. Higgins	25 00
114	J. D. Rogers	25 00	236	E. J. Parmenter	20 00
115	Not written.		237	Geo. L. Ditmars	25 00
116	J. T. Glover	50 00	238	Fred Lessard	22 50
117	James A. Gilchrist	20 00	239	J. A. Morrill	20 00
118	O. B. Fuller	12 50	240	J. D. Rogers	25 00
119	Crosby Mercantile Co	100 00	241	Parker S. Mower	40 00
133	G. A. Chandler	50 00	242	Lucie E. Bennett	29 00

Deficiency in Expenses, for 1908.

F. H. Bodwell	$10 00	J. F. Butler	10 00
W. H. Lynch	30 00	J. A. Ness	13 50
Lemuel Pope, Jr	9 75	A. Joly	269 65
H. L. Stevens	23 50	C. W. Purcell	63 18
J. A. Ness	12 00	J. A. Ness	12 00
W. S. Lord	15 00	H. S. Usher	3 00
Wallace S. Ladd	40 05	G. R. Inglis	120 50
W. S. Leighton	5 00	W. S. Lord	44 50
Frank Kimball	3 50	J. H. Lynch	35 00

E. I. Brackett	20 00	C. L. Blakely	105 00
C. G. Rancourt	6 00	F. E. Freeman	146 75
John E. Church	10 00	C. W. Purcell	160 82
R. E. Freeman	122 00	C. F. Traynor & Co	36 55
E. E. Crockett	27 25	J. M. Deering	159 17
A. J. Hayes	108 45	J. M. Deering	167 17
H. L. Stevens	69 75	E. C. Walker	9 20
J. A. Ness	34 20	J. W. Stewart	67 75
E. C. Walker	15 00	F. S. Adams	149 55
Lewis Fish	13 00	F. S. Adams	146 80
R. M. Stanley	10 00	F. S. Adams	188 60
C. E. Winchester	5 00	I. L. Salley	148 20
Frank Clark	5 00	F. L. Hopkins	10 00
J. H. Black	113 35	H. L. Stevens	11 00
C. H. Newton	27 00	Irvin P. Symonds	5 00
Alfred L. Murch	272 45	R. E. Freeman	20 00
Thomas Daggett	40 00	W. E. Fairbanks	510 50
A. D. Howden	12 00	John A. Andrews	5 00
C. F. Dwinal	61 35	G. W. Fernald	41 00
J. B. Darling	182 50	Alfred L. Murch	62 90
G. D. Chesley	15 00	F. O. Beal	474 04
C. H. McGillicuddy	22 00	Lewis Fish	16 50
F. L. Russell	44 70	J. B. Darling	14 00
S. A. McDaniel	209 75	A. B. Dick & Co	35 00
Lemuel Pope, Jr	20 75	A. D. Howden	27 00
S. A. McDaniel	11 00		

Deficiency in Appraisals, for 1908.

John E. Pratt	$25 00	W. W. Hight	25 00
F. N. Hawkes	20 00	F. L. Palmer	15 00
F. H. Stanorth	50 00	J. H. Gordon	100 00
Fred L. Haskell	50 00	Howard Hilton	25 00
H. J. Brown	25 00	W. H. Hooper	20 00
H. N. Trafton	25 00	H. Arthur Robbins	25 00
Geo. E. Grover	25 00	W. B. Jellison	17 50
Boothby & Fenderson	15 00	Chas. S. Stone	30 00
Cole Bros., (A. F. S.)	85 00	Samuel Prowse	25 00
D. W. Bragdon	25 00	W. B. Grant	22 50
B. F. Smith, (E. P. S.)	32 50	John T. Briggs	155 00
L. C. Littlefield	27 50	M. H. Kelly	20 00
Wilbur T. Webber	15 00	O. H. Sands	35 00
Fred N. Dow	585 00	C. H. Colby	22 50
Arthur B. Fels	25 00	W. B. DeCosta	37 50
Chas. R. Murch	57 50	J. W. Keenan	22 50
Lyman N. Barnes	90 00	C. W. Lewis	22 50
Frank P. Milliken	25 00	Fred W. Jones	50 00
Wm. E. True	25 00	Sylvanus Hartford	15 00
R. M. Wormwell	25 00	Chester Dutch	20 00
Frank H. Peabody	20 00	D. W. Bragdon	20 00
E. L. Johnson	12 50	D. W. Bragdon	40 00
James H. Fogg	25 00	C. F. Mabery	150 00
Henry Mains	17 50	W. W. Tuttle	25 00
Fred W. Leach	17 50	Will Grant	17 50
Chester A. Bisbee	20 00	Albert Mitzman	22 50
H. B. Bartlett	25 00	Oren Sands	17 50
Frank P. Milliken	62 50	David Morin	17 50
Fred L. Haskell	50 00	M. H. Kelly	50 00
B. A. Foss	25 00	W. E. Stearns	12 50
D. S. Simpson	22 50	John McDonald	20 00
Jacob Baker	18 00	Fred B. Snow	12 50
Lewis French	20 00	Chas. H. Kimball	45 00
Addie W. Knowlton	20 00	Hamilton Gordon	20 00
A. W. Stanley	25 00	F. H. Chandler	35 00
Geo. P. Bickford	25 00	Littlefield & Webber	20 00
P. C. Knight	20 00	F. W. Faught	25 00
Asa M. Seavey	25 00	Fred N. Dow	180 00
Lincoln Hatch	25 00	G. A. Jackson	210 00
French Brothers	100 00	Geo. A. Allen	25 00
S. C. Hall	20 00	Frank P. Blaisdell	20 00
Roy C. Goodwin	25 00	James G. Johnson	25 00
Geo. W. Hall	20 00	Ervin O. Libby	20 00
Edward Ingraham	17 50	Asa M. Seavey	35 00
W. A. Creamer	25 00	Geo. W. Furlong	25 00
A. F. Jackson	50 00	Mrs. Arthur B. Fels	25 00
H. G. Dinsmore	32 50	Neils Hanson	20 00
Frank W. Cox	25 00	A. S. Rollins	25 00
Geo. W. Taylor	20 00	C. A. Pierce	25 00
M. S. Stockman	22 50	Fred L. Knowlton	25 00

Frank C. Tuck	40 00	H. A. Hersey	125 00
W. M. Huse	25 00	Austin Hutchinson	25 00
C. K. Paige, (H. R. R.)	25 00	C. E. Waterman	417 50
S. W. Peaslee	17 50	E. W. Penley	112 50
Atwell Keene	15 00	E. M. Files	50 00
F. E. Mitchell	40 00	Ernest D. Basford	25 00
J. S. Allard	25 00	Geo. L. Ditmars	25 00
Ernest L. Fernald	15 00	G. E. Hayden	12 50
F. B. Taylor	22 50	W. B. Arno	15 00
W. O. Luce	20 00	H. W. Coy & Son	60 00
Harlow A. Wescott	47 50	Skofiel Hulby	25 00
John Bowdoin	25 00	Watson McAllister	25 00
Chas. T. Frost	17 50	John A. Orr	25 00
Patterson Bros	25 00	A. D. Weeks	25 00
Arthur Purkis	275 00	Chas. E. Reed	135 00
Milton Leavitt	12 50	W. L. Packard	45 00
M. A. Roakes	50 00	J. B. Adams	150 00
Chas. E. Jordan	25 00	E. C. Mathews	50 00
Geo. Perley Fish	25 00	W. S. Caldwell	45 00
W. C. Hinds	85 00	Lewis Kingsbury	37 50
C. L. Blakeley	50 00	W. Dillingham	7 50
John M. Kinney	25 00	A. V. McLaughlin	25 00
J. D. Rogers	45 00	F. M. Harrington	35 00
W. H. Sprague	20 00	Ann Quinn	25 00
R. W. Goodwin	12 50	Austin Greer	32 50
Mrs. J. E. Jones	25 00	John McGregor	90 00
L. C. Mason	160 00	Elmer F. Parcher	317 00
James E. Irish	310 00	O. L. Bartlett	20 00
A. A. Keene	285 00	C. O. Dill	22 50
Edward R. Jones	25 00	R. E. Smith	22 50
J. T. Mason	17 50	Chas. W. Spencer	47 50
C. E. Morey	50 00	Fred W. McDougal	47 50
E. J. Miller	25 00	J. S. Barker	7 50
E. T. Brown	100 00	C. P. Curtis	40 00
Mrs. Eva D. Corson	25 00	Willard Kingsbury	25 00
C. G. Rancourt	25 00	Henry Wheeler	15 00
W. V. Kneeland	25 00	Geo. Dyer	27 50
W. H. Stobie	25 00	T. F. Smith	25 00
Donald McAusland	25 00	Geo. A. Glidden	25 00
W. H. Stobie	25 00	L. A. White	25 00
W. H. Snell	20 00	James McGregor	206 00
Alphonse LeClerc	25 00	J. L. Butler	17 50
John H. Estes	25 00	Newman Dairy Co	105 00
Walter A. Turner	37 50	Joseph Hemphill	20 00
Peter Gardner	25 00	Chas. H. Phillips	25 00
J. H. Russ	25 00	John S. Chandler	28 00
B. F. Flood	20 00	Alfred L. Murch	65 00
C. C. Davis	375 00	D. S. Hodges	17 50
Howard C. Frank	25 00	Great Northern Paper Co	50 00
John E. Church	25 00	Grover C. Drinkwater	30 00
O. B. Merrow	50 00	F. A. Pinkham	110 00
J. H. Bennett	25 00	Bangor Poor Department	25 00
Louis Gamache	160 00	M. A. Grant	25 00
L. H. Dunn	17 50	Gilman & Emmons	25 00
Chas. H. Andrews	17 50	G. W. Stevens	28 00
H. W. Coy & Son	102 50	Somerset County Creamery	25 00
William Briggs	150 00	Berry & Doyle	25 00
F. V. Leavitt	12 50	D. E. Crockett	31 00
F. E. Adkins	25 00	Fred O. Miller	28 00
Geo. E. Roberts	11 00	A. A. Downs	25 00
C. A. Bonney	100 00	L. L. Lewis	25 00
D. B. Wiley	50 00	Berry & Doyle	115 00
Geo. W. Brown	15 00	Arthur A. Ledbetter	25 00
Winslow S. Walker	75 00	J. H. Black	40 00
Joseph A. Putnam	37 50	Ira S. Gould	25 00
John F. Andrews	25 00	M. A. Grant	50 00
Harold S. Day	25 00	L. L. Tibbetts	32 00
Chas. R. Dow	25 00	Maurice B. Dow	30 00
Geo. E. Roberts	20 00	J. W. Blaisdell	30 00
W. S. Learned	40 00	Somerset County Creamery Co	25 00
Napoleon LaRochelle	15 00	Oscar Cole	30 00
W. C. Howland	25 00	Wm. H. Jackman & Sons	30 00
A. W. Black	25 00	Chas. B. Robinson	20 00
Luigi Pennachi	20 00	Harley N. Ferguson	25 00
C. G. Thurston	35 00	A. S. Foster	25 00
J. F. Reynolds	25 00	J. C. Raymond	18 00
J. H. Foss	37 50	John H. Perry	25 00
C. A. Bradstreet	25 00	John F. Ricker	40 00
C. H. Record	7 50	G. W. Reed	28 00
N. B. Saunders	20 00	H. Ellingwood	22 00
W. T. Johnson	17 50	F. E. French	18 00

J. R. Bean	25 00	Mrs. Sarah P. Berry	105 00
N. L. Littlefield	15 00	R. L. Webber	18 00
Chas. H. Harmon	25 00	Clifford Davis	20 00
H. M. Rogers	25 00	William Crowley	25 00
B. F. Fuller	17 50	E. W. Penley	12 50
Anson M. Adams	18 00	Geo. M. Ferguson	20 00
Donald F. Snow	30 00	E. W. Penley	12 50
Fred E. Scribner	29 00	E. W. Penley	12 50
E. H. Neal	65 00	Cole Bros.	20 00
A. E. Kimball	30 00	A. H. Talpey	19 00
D. P. Lincoln	20 00	A. E. Cowell	22 50
Geo. Thomas	28 00	Asa M. Seavey	22 50
F. W. Emery	25 00	E. A. Stanford	35 00
G. L. Lowell	100 00	Jesse E. McLain	15 00
F. O. Thompson	25 00	W. E. Bryant	20 00
M. D. Holt	25 00	Mark Niskaman	20 00
H. L. Goodrich	25 00	C. K. Paige	25 00
E. R. Foye	25 00	B. L. Ludwig	50 00
M. D. Holt	25 00	Geo. F. Morrison	17 50
F. O. Thompson	50 00	Mrs. Annie E. Day	25 00
A. H. Kilby	25 00	A. G. Haley	8 00
G. L. Lowell	75 00	M. Shuman	25 00
F. O. Thompson	25 00	Geo. Raymond	10 00
E. Paignon, Jr.	25 00	Franklin W. Otis	25 00
R. L. Wormwell	75 00	W. E. Bartlett	40 00
G. L. Lowell	100 00	W. T. Rowell	28 00
E. L. Libby	25 00	W. J. Buswell	70 00
F. O. Thompson	125 00	John L. Bean	15 00
F. W. Wormwell	25 00	R. G. Arey	25 00
Hutchinson & Dyer	50 00	I. M. Coburn	25 00
G. S. Lowell	75 00	Lorenzo French	25 00
Goodrich & Brown	25 00	W. A. Buzzell	25 00
F. L. Howe	25 00	Ralph Hayford	37 50
G. W. Weston	25 00	M. E. Locke	42 50
C. E. Morey	1,000 00	E. L. Knapp	25 00
John Norton	400 00	L. A. White	145 00
Cole Bros.	175 00	L. L. & C. L. Taylor	100 00
Benj. L. Deshon	25 00	W. E. Peach	25 00
Geo. H. Hall	20 00	J. D. Rogers	25 00
Jacob Baker	20 00	E. L. Libby	25 00
E. W. Penley	37 50	A. H. Kilby	25 00
E. W. Penley	37 50	A. H. Kilby	25 00
W. A. Smith	30 00	F. L. Libby	25 00
Fred D. Knightly	25 00	Cyrus E. Walker	375 00
J. H. Gordon	20 00		
C. H. Prince	187 50		$21,327 63
E. M. Richardson	20 00		

During the years 1907-08, there have been condemned and destroyed by your Commissioners as follows:

	Cattle.	Horses.	Total.	Sheep,
1907	802	68	870	56
1908	925	111	1,036	51
Total	1,727	179	1,906	107

Business done and paid for, 1907	$25,346 95
Business done and paid for, 1908	25,000 00
Business not paid for, 1908	21,827 63
Total business, 1907-08	$72,174 58

AVERAGE COSTS FOR ANIMALS.

	1903-04	1905-06	1907-08
Cattle and horses	$33 98	$35 48	$37 87
Owner received	22 07	23 34	25 03
Cost to condemn	11 91	12 14	12 84

"Cost to condemn" covers all expense, of every nature, except the actual payment to the owner, which has increased in six years $2.96 per animal.

This cost has gradually risen, on account of the increasing of the tuberculin test to pure blood herds, more thorough disinfecting of premises where disease is found, and more investigation, and has increased in six years 91 cts. per animal.

During the two years, 130 head of cattle were destroyed at Brighton, the owners calling on the Commission to pay for the same, under the law of 1907, costing the State, $3,220.00.

There has been a large increase in the work of the department within the last few years, so much so, that from a financial standpoint, it has become one of the most important departments of the State. This increase has been brought about, by an increased demand made upon the Commissioners, by Boards of Health of the large cities, and towns, demanding a certificate of health from owners of herds sending milk and cream to these communities.

Also dairymen in all sections of the State are testing their herds in order to ascertain whether or not, tuberculosis exists among the animals, realizing the danger of this trouble in the herd to the rest of the animals.

Another feature was added to the work, by the passage of the law of 1905, requiring the testing of pure blood animals.

This law has done very much to reduce tuberculosis in the State, going as it does, to the fountain head. Four years ago, there was shown to be 20% among these herds, diseased, while this year it has dropped to less than 5%. The law has been shown to be a success and should be kept in force.

As to the investigation of grade herds, public sentiment is so strong among both dairymen and consumers in favor of healthy cattle and dairy products, that there seems to be no possible way to retrench in the department at the present time.

I am aware that there will be an effort made at the coming legislature, to increase the work of the Commission, which will add more expense to the department. The last two years, the Commissioners have spent the appropriation of $50,000 and have created a deficiency of $21,827.63. This deficiency could have easily have been enlarged to two or three times its size, had the Commissioners lent willing and encouraging ear to the many applications for work along the line of investigation. There is a strong sentiment in the State for a general test, a general law requiring all cattle to be tested. This would mean the eradication of the disease from our herds, and while it would be a result greatly to be desired, it is one of such large proportions, both financially and physically that it is very doubtful if any legislature would lent its sanction and aid to the proposition.

That the State should do more than it is doing, is self evident or what has been done is a total loss. There are large sections of the State where there is practically no disease. The work of the Board has been confined to the worst infected part, as there is where Boards of Health have demanded that the most work be done.

This last year many new sections of the State have been gone over as well as the old districts covered by the Portland milk supply, where testing has been going on for some three years and where the percentage has fallen from 6 to 2%.

There have been nearly 25,000 head tested the last year, being about 5,000 more than the previous year. Each year sees an increase in this direction.

The United States government furnish your Commission with tuberculin, free, to help carry on the work, and have expressed their gratification in many ways, at the amount of work being done.

There is at the present time a demand being made by many states that the Government take the matter in charge and make a sweeping test of all the live stock in the country, on account of the disinclination of many states to make appropriations. It is not for us in Maine to wait for any such movement to mature, as we are much freer from the disease than any other state in the Union, and should keep so.

Every government in the civilized world is taking hold of this matter more energetically every year and the late international

Congress on Tuberculosis, held in Washington in September, has intensified public interest in this country, to a high degree of endeavor, to eradicate it.

Your Commissioners believe that the sentiment in this State is in favor of the State paying for the testing of animals, such expense in the past having been borne by the owner, and has constituted one of the most serious matters of controversy between the owner and the Board of Health, in the enforcement of its "regulation."

They would be in favor of the State bearing this expense, whenever it was necessary, or in other words when application was made to the Board by the owner. We believe that such a proposition would be liberally taken advantage of and would be better than an enforced test. When any community through its Board of Health, demanded an examination of its milk supply, then the Cattle Commission could act, and escape the odium of the enforcement, making friends instead of enemies. There is hardly a week, but what some association, society or body, in this State and all over the country, deliberates, debates and resolves on this subject. Medical literature and expression abound with material on this line, and the Red Cross Stamp is only the latest messenger to carry on the crusade which will never stop until the disease has been practically driven from both stable and home.

Late in the fall of 1906, tuberculosis was reported to exist in the Insane Hospital herd at Augusta. The Commissioners were called into council about Jan. 1, 1907. Prior to this time the herd, consisting of 169 cattle, had been tested by reliable veterinarians, with the result that the entire herd re-acted under the tuberculin test, and by the advice of the governor, the Commissioners met with the Trustees of the Institution, and after freely discussing the matter, the Trustees voted to turn the herd over to the Cattle Commission, for them to do with as they thought best. This action of the Trustees, brought the matter before the Commission with power to act, under the law, along the same line as though the herd had been owned by a private party.

There seemed to be a sentiment among some people that the Commissioners could discriminate somewhat upon the herd as it belonged to the State; but the Commissioners could not see it

in that light, and the whole herd was condemned and destroyed, the institution paying for the slaughtering of the cattle and the labor for disinfecting the stables and receiving the proceeds from the cattle in the way of hides and carcasses, sold to the Portland Rendering Co., which amount was turned over to the Institution.

The disinfecting of the barns was done in a very thorough manner and was looked after by the Commissioners from time to time and when the new stock was bought, Mr. Campbell consulted with the Commissioners and all new stock was tested before going into the stables. The first of December, 1908, all were re-tested and showed to be in sound condition.

CONFERENCE ON BOVINE TUBERCULOSIS.

At the meeting of the State board of health held at the State House March 30, 1908, in acceptance of an invitation which had been sent to them by the board, a large number of persons were in conference with the board on the question of "Bovine Tuberculosis from the Public Health Point of View." Aside from private individuals and representatives of the local boards of health of some of the cities and larger towns, there were represented at this conference the Commissioner of Agriculture, the State Dairy Instructor, the three Cattle Commissioners, a committee of three representing the Maine Veterinary Medical Association, The Maine Creamerymen's Association, and the Maine Dairymen's Association.

The following program had been prepared:

PROGRAM.

Meeting of the State board of health March 30, 1908.

Through brief papers or verbal statements the following topics will be presented for discussion, it is hoped in each case by the person to whom the topic is assigned.

Dr. C. D. Smith, Pres., State board of health, Portland, Maine. "Statement of the objects of the meeting."

Dr. F. L. Russell, Professor of Bacteriology and Veterinary Science, University of Maine. "Ways in which tuberculosis is spread in dairy herds."

Dr. A. L. Murch, Pres., Maine Veterinary Medical Association, Bangor, Maine. "The most important measures for the control or prevention of bovine tuberculosis."

Dr. A. Joly, Sec., Maine Veterinary Medical Association, Waterville, Maine. "The tuberculin test: technique and avoidance of error."

Dr. Walter E. Tobie, Chr., Local board of health, Portland, Maine. "Experience of the local board of health of Portland in the enforcement of the by-law requiring the tuberculin test of cows supplying milk to that city."

Professor F. C. Robinson, Brunswick, Maine. "If the tuberculin test of dairy herds is to be required by local boards of health, what uniform system for doing and supervising this work would be the best?"

Mr. Leon S. Merrill, State Dairy Instructor, Solon, Maine. "The part of educative work in banishing tuberculosis from dairy herds."

Mr. F. S. Adams, Pres., Maine Dairymen's Association, Bowdoinham, Maine. "What further legislation is needed, if any, to guard against the improper disposal of cows and other animals which, under private tests, have reacted to tuberculin?"

Mr. John M. Deering, Sec., Cattle Commission, Saco, Maine. "What laws or regulations, if any, are in force in other States against the spread of bovine tuberculosis or its communication to man which should be adopted by us?"

Hon. F. O. Beal, Chr., Board of Cattle Commissioners, Bangor, Maine. "How can we guard against the danger of the distribution of tuberculosis from pure-bred herds? Is new legislation needed in this direction?"

Hon. R. Alden, Treas., Maine Dairymen's Association, Winthrop, Maine. "What precautions should be observed at creameries against the dangers of the dissemination of infection to swine or other animals through separated milk?"

The meeting will also be open for the consideration of the question of concerted action for desirable work and for the discussion of other phases of the relation of bovine tuberculosis to the public health which may be suggested by members of the conference, so far as time may permit.

It is thought to be necessary to limit the opening papers or remarks to ten minutes and each speaker in the discussion to five minutes.

A. G. YOUNG, *Secretary.*

AUGUSTA, March 23, 1908.

The meeting was called to order by the president.

Dr. C. D. Smith, President of the State board of health, in welcoming the different bodies said he wished to express the pleasure the State board had in greeting so many men interested in the various phases of hygienic work. In opening the meeting he stated briefly the object of it. For many years the State board has recognized the desirability of considering the interests of the people, not only from the standpoint of the management of conditions directly pertaining to the health of the public, but by securing coordination of effort on the part of every department of State work which in any way, however remotely, affects human hygiene.

Up to this time, although there have been organizations for special purposes, there has never been, so far as I know, any attempt at co-operation in this work. It has seemed to the State board of health desirable that an effort should be made to get together for familiar discussion, the various interests which have to do with the conditions concerning animal and human diseases, and the secretary has arranged certain topics to be considered.

As a matter of fact the State board of health wants to know how you can co-operate with us and how we can co-operate with one another. I hope every one will feel at home in his desire to ask questions or to secure all the information which the occasion may afford. With due regard to brevity, let there still be a full discussion.

The president now introduced the first speaker, Dr. F. L. Russell, Professor of Bacteriology and Veterinary Science, University of Maine.

Dr. Russell's subject was *"Ways in which tuberculosis is spread in dairy herds."* He said: "Gentlemen, it does not seem likely that this body of representative men have gathered here for any idle purpose; that something of good will be done at this meeting is to be anticipated. My contribution to the dis-

cussion at this stage is not a very important one. What I can say you have read many times, but briefly I will rehearse some of the methods by which this disease is spread.

"1st. In cattle the disease is spread from one herd to another by traffic in diseased cattle. Also at fairs and in cars it may be given by one animal to another.

"A little over a year ago we were called upon to test a herd of about 60 cattle, of which all passed except one, a bull less than a year old, brought from Canada as a young calf without any test. He was killed but he had already been in contact with the herd some months. This winter we tested the same herd again. No other animals had been purchased. We found four animals that had to be condemned. This bull brought the disease to the herd and before he was killed he had infected the herd so that four other animals had it. This is a common experience; that the disease is spread by traffic in diseased animals.

"2d. How does the disease spread in the infected herd?

"It is not quite so simple a matter to explain how the diseased animal gives out the germs of the disease. They may be coughed up. They may be given off through the feces. They may be given off through the milk. We know these are facts; that they have been demonstrated time and time again. The young calf that suckles a tuberculous dam may become infected. Animals that are in close proximity contract the disease from one another by means of contaminated feed and water.

"3d. The feces and sputum from the infected cow may be dried and carried by currents of air to all parts of the barn to infect other animals. The infected feces may, unfortunately, get into the milk pail, or the milk may be tuberculously infected when it comes from the udder of the cow.

"Cattle drinking from a common trough may contract tuberculosis from water infected by a diseased animal coughing into it."

President Smith. "It has been thought well, gentlemen, that the discussion be made on the subjects in groups, and I am going to ask Dr. Much to speak on *'The most important measures for the control or prevention of bovine tuberculosis.'*"

Dr. A. L. Murch, President Maine Veterinary Medical Association, spoke as follows:

"We have a law which makes it necessary for a cow brought here for breeding purposes to be accompanied by a certificate of inspection or to be inspected after reaching the State. In my own limited sphere of observation, I have known of two instances where a palpably false certificate accompanied the animal. This, to me, shows the inadequacy of the present arrangement and the imperative need of inspection by the Cattle Commission, with the necessary quarantine.

"As to the prevention: Upon the requirement of the Bangor Board of Health, 937 cattle were tested the past winter, 33 diseased animals were found, a percentage of approximately 3 1-2 per cent.

"About 14 years ago a sensation was caused by the discovery of whole herds of tuberculous cattle. Statements made at that time would indicate a 10 per cent infection.

"The improved conditions are due directly to the continued application of the tuberculin test, in many instances voluntarily made by the owners. Every milk man has to replenish his stock of cattle and in our locality they seek Winterport, Monroe, Newburg, Etna, Carmel and towns within a radius of 20 miles. In these towns I have found from 10 to 100 per cent diseased. How then, can we prevent the disease, unless by a thorough test of every animal in the State, the extermination of the diseased ones and the thorough disinfection of infected premises. Any other method is but to temporize with a disease deadly in its action and a burdensome expense to farmers and dairymen; or, like the poor and needy, we shall always have it with us.

"In round numbers there are 163,000 cattle in the State. The most conservative place the percentage at 2. This means at least 3200. The average price paid by the Cattle Commission, that is one-half value, is $20. This means that $64,000 be paid for diseased cattle. This being a small item in connection with this comprehensive scheme is somewhat of a staggering suggestion. But 160,000 cattle are exposed to the contagion of these 3200 and that means at least 3200 more diseased animals yearly, and another 64,000 and so on ad infinitum. The curse and evil of the condition are not ameliorated by time but under existing conditions go on forever."

In the discussion which followed, Dr. Whittier asked: "What means are taken to disinfect barns if tuberculosis is found in them?"

Dr. Russell.—"It is not of course, a very simple matter to disinfect some barns; we might burn them down, there would be no question then. Taking conditions as we find them it is not quite a hopeless task to disinfect most barns with a fair degree of success. The material commonly used is corrosive sublimate, 1 part to 1000 of water, applied with a spraying pump, and left to dry. Another method of doing this work now is by the use of formaldehyde and permanganate of potash. This has not been tried very much, but in some cases it ought to be satisfactory."

Mr. Adams referred to a badly infected herd owned by a Dr. Turner three years ago where they had to kill twenty-three cattle. When they find a very bad herd they have a retest. In Dr. Turner's herd when they retested they got out one. They tested again the third time and found the herd all right. To disinfect they used formaldehyde and sulphur candles and thoroughly washed with corrosive sublimate bad barns. He also referred to the sale of infected cattle to a man in Portland, and said the milkmen bought infected cattle or sold them to each other. He thought the great danger of spreading tuberculosis is by the sale of infected cattle.

Dr. Young.—"Does Dr. Russell apprehend any danger by spraying the mangers with the usual 1 to 1000 solution of corrosive sublimate?"

Dr. Russell.—"We have had quite an experience along that line. Where we have disinfected stables we have disinfected the woodwork about the mangers with more than ordinary care, and when the mangers were tight the water would accumulate to a considerable depth. In such cases it is well to remove the excess of water to avoid the possible danger of poisoning the cattle when they are returned to the stable."

Dr. Smith—"Dr. Russell, what are your methods of quarantining a suspected animal; one which reacts but imperfectly; what is your system of observation?"

Dr. Russell—"An animal that is sufficiently tuberculous so that it fails to react to the tuberculin test is not quarantined, but killed. Cases may occur where we are uncertain whether there is a reaction or not. In such cases we should allow them to go three or four months and test them again."

Professor Robinson.—"In regard to disinfection I wish to say, about formaldehyde disinfection used in barns, that you do not want to get the idea from its use in household disinfection that you can depend upon gaseous disinfection with it under all conditions. Where there is a place to be disinfected that has cracks in the floor it is of the greatest importance that spraying as well as gaseous disinfection be used. I should never feel safe to disinfect a barn with formaldehyde, using it in its gaseous form alone. Accompanying it with spraying."

Dr. Smith—"What percentage would be considered safe?"

Prof. Robinson.—"One part to eight of the 40 per cent formalin."

Dr. Young.—"In connection with the matter of disinfection I would say that the problem of disinfecting barns is similar to our work in disinfecting lumber camps. In disinfecting lumber camps we have not deemed it safe to depend upon fumigating the camps with formaldehyde, but we have sprayed very thoroughly the floors, the walls, and all parts of the interior, unless we have found them tight. For the general work in disinfecting barns and stables it would not be well to recommend the permanganate process."

Dr. F. W. Huntington, United States Inspector of Cattle at Portland, when asked to give his views, said: "If our cities were properly supplied with public abattoirs, it would in a great measure, improve the conditions."

He said: "I have been in this tuberculosis business so many years that I am getting about sick and tired of it. I was one of the first to see the necessity of a careful inspection of our dairy herds, and our meat-producing animals in this State, having for twenty-five years been trying to beat into the people's heads the necessity of inspection of our food-producing animals.

"The local boards of health of Maine should try to arrange to have all the slaughtering of the animals in a town in one central location or public slaughter-house, where all could go and slaughter their animals under inspection if necessary.

"If some of you gentlemen here would visit some of your local slaughter-houses and see the very insanitary and filthy condition in which they are kept, and the manner in which the slaughtering is done, I think you would help me in the work which I have been trying to do for the past twenty-five years.

"The Federal Government has been making an inspection of all the slaughter-houses in the State; some over five hundred, mostly all being small ones doing a local business. Very few were found in a good condition as to cleanliness; many in a very filthy condition with the accumulation of years of refuse under buildings causing a stench which would be something awful in the summer. Not one of those inspected would stand government inspection."

Dr. Smith.—"What would be the government requirements in small cities?"

Dr. Huntington.—"A place that can be kept clean; no hogs on the premises; offal removed every night; buildings kept clean; floors washed every day after slaughtering is finished; and the instruments used in slaughtering kept clean."

In answer to a question from Dr. Smith, Dr. Huntington said: "The government does not allow any person with tuberculosis to work in a slaughter-house or in a packing house, if it knows it. If there, he has to get out."

Dr. Smith inquired what proportion of meat from tuberculous cattle finds its way into the hands of the Jews. To which Dr. Huntington replied that he did not know. It was hard to tell. They never come to the rendering works.

Dr. Smith—"What constitutes a diseased animal in the eyes of the Jews?"

Dr. Huntington.—"Well, they are fussy. There must be no inflammation, no adhesion of the pleura, no trouble with the heart, lungs, or intestinal glands. The fact is, I don't know just what they condemn or pass. The government inspectors might pass some that the Jews would not and the Jews might pass some that the government would not."

Dr. Young—"Would it be practicable to provide slaughter-houses and inspection for the whole State conforming with the requirements set by the government? In how many places would you have these slaughter houses?"

Dr. Huntington.—"The farmer generally kills his animals on his farm and his place generally is in fairly good sanitary condition. I think abattoirs could be profitably erected in Bangor, Waterville, Augusta, Portland, and all the large towns should have their own slaughter-houses. The government might furnish inspection, or you could have slaughter days; days when

the farmers could bring in their cattle, and the government might furnish inspection."

A. W. Gilman, Commissioner of Agriculture, asked: "What does the government require of those men who butcher out in the country?"

Dr. Huntington.—"It requires that they keep their places in a proper sanitary condition. Only retail butchers are allowed exemption and they must keep their places up to the requirements of the regulations."

Mr. Gilman.—"A farmer may be a farmer and a butcher, and the butcher can predominate over the farmer."

Dr. Huntington.—"The government requires him to keep his slaughter house in as good condition as those under inspection, and quite a number of exemption papers have been taken away. The farmers only should have exemption; all others should come under inspection. What we want is to have these slaughter houses so to give these fellows a chance to sell and guarantee their stuff. A law should be passed compelling them to do this. The government does all it can, but the boards of health and the State authorities must help us."

Dr. Smith now introduced Dr. A. Joly, Secretary Maine Veterinary Medical Association, Waterville, Maine, who spoke on *"The Tuberculin test: technique and avoidance of error,"* as follows:

"To diagnose bovine tuberculosis, a disease so varied in its attack upon the different organs of the body and in the extent of the disease process, must necessarily lead to mistakes when diagnosis is attempted by the ordinary means of examination. It has been confounded with the later stages of pleuro-pneumonia, with parasitic diseases of the brain, the lungs, the intestines, and with actinomycosis.

"A careful examination of the lungs by ausculation and percussion enables the expert to locate large tubercular masses, owing to dullness, loss of respiratory murmur and abnormal sounds, such as blowing, whistling and creaking. However, the majority of cases of tuberculosis in cattle, including many in which the lungs are quite seriously involved, cannot be detected in this manner.

"The tuberculin test, which is marvelously accurate in its indications has been universally adopted for the detection of tuberculosis.

"Tuberculin is a diagnostic agent prepared by sterilizing, filtering and concentrating the liquids in which the tubercle bacillus has been allowed to vegetate. This substance, discovered by Koch, has the effect when injected into the tissues of a tubercular animal, of causing a decided rise of temperature, while it has no such effect upon animals free from the disease. It has recognized as a most remarkable and accurate method of detecting tuberculosis, even in the early stages and when the disease has yet made but little progress.

"The tuberculin test came into existence through the most careful and thorough scientific experimentation. From average temperatures calculated, it appears that in general the rise of temperature begins from six hours after the tuberculin is injected, reaches its greatest height from the sixteenth to the twentieth hours, and then gradually declines, reaching the normal again by the twenty-eighth hour.

"The following method of making the tuberculin test seems to have been generally adopted:

"The temperature of the animal is taken in the evening and immediately after the injection of tuberculin; a dose of 2 c. c. of a ten per cent. solution is administered.

"The injection is made hypodermically, behind the shoulder, or on the side of the neck, after either region has been disinfected. The needle should be dipped into a disinfecting lotion after each injection.

"Ten hours after the tuberculin has been injected, the temperature is taken, and at intervals of two hours, until four readings have been obtained. In animals free from tuberculosis there is no reaction. In tuberculous cattle there is a decided rise of temperature sometimes reaching 107.

"Profiting by the experiments of many distinguished European veterinarians, also by the veterinarians of our bureau of animal industry, at Washington, errors in applying the tuberculin test can be easily avoided.

"To begin with, the test should be made by a competent and honest veterinarian, a man with early medical training, a man who understands what antiseptics mean. In Maine as well as

in Massachusetts, the tuberculin test has been in the hands of almost everybody and anybody. No wonder that innumerable errors have been recorded.

"One of our Maine cattle drovers has offered for sale and sold to many farmers apparatus to test their own cattle. In Massachusetts, as related in the public press by the president of the New England Live Stock Association, during the year of 1907, 9,000 head of cattle from this State have been tested in Brighton; 200 have shown reaction, and after a second test, 160 were released. It would be unjust and unfair to condemn the test upon such farcial inspection.

"In 1897, Dr. Voges' compiled statistics of tuberculin tests, the accuracy of which had been determined by post-mortem examination, of 7,327 reacting animals, only $2\frac{3}{4}\%$ failed to show tuberculous lesions. In the work of the Pennsylvania Live Stock Sanitary Board, post-mortem examinations were made on 4,400 reacting cattle, and the disease was found in all but eight. In this State at the Augusta Insane Hospital, 148 animals reacted, and by post-mortem examinations all showed tuberculous lesions with the exception of two. It seems to me that these figures establish the reliability of the tuberculin test.

"The normal temperature of cattle varies from 100 to 102°, such variation being due to digestion, environment and other incidental causes. That considerable experience, technical skill and good judgment are required in arriving at right conclusions in doubtful cases is obvious.

"In order to condemn an animal as failing to stand the test, two conditions must exist: first, a reaction of at least two degrees, and, second, the temperature must reach 104. The dose of 2 c. c. of a ten per cent, solution of tuberculin must vary, according to the size of the animal and its age.

"A physical examination of every animal before the test should be made with great care. Any animal with a temperature above 102° is not in a condition to be tested. If auscultation and percussion of the lungs reveal any abnormal conditions, the animal should receive a larger dose, and the least rise of temperature should put the operator upon his guard, for it is admitted that advanced cases of tuberculosis in many cases will cause a slight rise of temperature, and oftentimes fail to show

reaction. The history of the herd, if possible, should be obtained.

"In closing, I will add that no radical change in the feeding, watering or care of the cattle should be allowed during the time the test is being made."

Dr. Smith.—"In the absence of Dr. Tobie, whose subject was the *'Experience of the local board of health of Portland in the enforcement of the by-law requiring tuberculin test of cows supplying milk to that city,'* although in no sense speaking for him, I will say that, in spite of a very decided opposition on the part of some farmers, the local board of health of Portland have had sufficient public sentiment on their side to have driven out of Portland all milk save that which is certified as having been inspected. There has seemed to be on the part of milkmen some distrust as to the methods, such as the tuberculin test. It is stated that the observation of cattle has not always been systematic, and there may be some doubt as to the validity of some of the certificates, but the whole result of the campaign has been excellent. It has been borne in upon me from my observation that there should be more uniformity of methods. If tuberculin testing and dairy inspection are worth doing at all, and if we are to rely upon them, there should be uniformity."

The president then announced the next topic: *"If the tuberculin test of dairy herds is to be required by local boards of health, what uniform system for doing and supervising this work would be the best?"*

Professor Robinson.—"The topic is a very definite one. If this test is required what uniform method of supervising it should there be? I can very briefly outline my views. It seems to me that it can only be done by some State authority. It is all very well for a large city to start in and require this test, but even there the supervision may not be all that it should be. Local boards of health in small towns have not the money to provide proper supervision, but the State must do it in some way. As to what that way should be I have no plan. In fact, it seems to me that no plan has been properly matured. I have tried to look up a plan but have not found any yet that I can heartily approve. A plan doubtless could be evolved that would be suitable for our needs. It seems to me that the time is ripe

to get ready some legislation on broad lines with reference to the health of the people of the State. I hope the interest which has been shown in a conference like this will continue, and we can present to the next legislature some plan by which this matter can be given proper supervision.

"The fight against tuberculosis is in the air. The people are waking up slowly, but they are waking up. We in this State who have anything to do with making the laws and helping on work of this kind will be very derelict if we do not help along this rising tide. The signs of the times are seen in the local tuberculosis associations that are being formed.

"We do not want it left with a local board here and a local board there to make regulations, but we want a general law so that the thing shall be done correctly so far as it may be. The proper regulation of it must be in some central authority. There should be perfect harmony among all interests in carrying out this matter."

In the discussion which followed, Dr. Smith said that the farmer had some rights; that there was an economic side for him to this question; another aspect was the effect on the consumer of impure milk. The farmer is told he cannot sell milk unless he can show a certificate. He is required to use glass bottles. He must have certain rules about separating or mixing the milk. He must do certain things to the tieups. The public should recognize the fact that if it wants clean milk and wants milk free from tuberculosis bacilli and with a low bacterial count, it cannot be produced at the prevailing prices for ordinary milk.

"I do not believe a small number of men can thoroughly test the number of cattle requiring it in the time now given and for the price now paid. I do not believe it from my own observation, and from the testimony of farmers. As superintendent of the Maine General Hospital, I get from one man the milk for the hospital; milk, cream, butter-milk, skim-milk. From time to time I have had a physical and bacteriological examination of that milk made by Professor Robinson. We test that milk every morning for its temperature and require the producer to fulfil certain obligations as to care of his cattle and barns and his handling of the milk. It is as clean as we can expect it to be; it is a good milk; it is a nutritious milk; it is wholly free

from injurious germs and from ordinary germs as well as we can expect.

"There is nothing to prevent men near Portland whose cattle are not tested from carrying their milk into Westbrook and other cities which have no regulations. That milk gets into circulation, and it is only a question whether Portland does not get some of it."

Mr. Deering.—"I suppose it is my time to speak of the work of the Portland board, and really I should not stand here today and see the Portland board of health criticized. The board of cattle commissioners were called into council. We have to work by the law; we have nothing else to work by. We told them what we could do; we would assist them all in our power. The law of the cattle commission is this: We have no right to test unless we suspect. We could not order them tested until we had suspicions. They said they had the power. We said if you have the power you press the button and we will help. The farmers were receiving six cents a quart in Portland. When the farmers rebelled, the cattle commission did mission work. We said: "Put your price up." They said: "They won't pay." We replied: "Make them pay." We raised the price of milk from one to two cents a quart. We went to see the farmers. There were 75 farmers at one meeting. We asked: "Gentlemen, what will you do about this matter? Will you test for half a cent a pound more for your butter, what will you do? How much do you want to test your cattle, a cent a pound? Seventy-five agreed to test for one cent a pound more.

"They said they wanted us to test their cattle and do good work. They wanted a good veterinarian. We sent to Washington for tuberculin which is furnished free if a duplicate test is sent back. We had used 450 doses before we got on to this. The work was practically all done by graduated veterinarians; these are the men we depend on, the graduated veterinarians. We depend upon their judgment because they ought to know. We did have a little trouble, but we rectified it and got it straight. The first year we tested 5,000 cattle at an expense of over $10,000.

"One man would have nothing to do with us. I told him I should have to quarantine his cows. Put them into a pasture and not sell milk and keep them there thirty days. Later he

went to Portland and told a veterinary he had lost $148. He then had them tested. It reacted on one and he had her killed.

"We give the best work we can and we want good work. All the cattle commission wants is square business done and we demand it. There was only $25,000 appropriated for the work. We started in to test. We went into the State and did mission work. The Secretary of Agriculture was against the work. We now have the co-operation of the Commissioner of Agriculture and the Dairymen's Association. We have spent $44,000 of our $50,000. We will have to go on and let those people wait for their money, and will have to go without our pay for six months. Now you talk up the boards of health."

Replying to a question from Dr. Smith, Mr. Deering said his idea was that unless we can get a general law, Portland will have to work too long. Dr. Smith asked: "You think the work of testing should be in the hands of your board?"

Mr. Deering.—"Yes. In relation to this campaign we have a system and a herd book. We require every veterinary within 24 hours to report to this commission. We use test sheets, 5,600 of which were sent the other day in one bunch to the Federal Government. We have used 20,000 doses of tuberculin."

Mr. Beal—"Does not the government require the return of these test sheets to get pay for the tuberculin?"

Answer. "Yes. The postmortem must show certain things so that not only the cattle commission has the record but the U. S. Government."

Mr. Beal asked Dr. Smith if the people wanted good milk, should they not pay for it?

Dr. Smith replied, "If the farmers could get together and stand for a higher price they could get it. It is up to them."

Mr. Deering made a correction in the price of milk. It was raised two cents instead of one.

A motion to adjourn until after lunch was made, and the meeting was adjourned to 1 o'clock in the afternoon.

At the afternoon session the first speaker was Dr. C. W. Purcell, of Biddeford. He said: "I was not prepared to say

anything. One matter has escaped your attention, the matter of disinfecting tieups. A little more than a year and a half ago we adopted a method of disinfecting a tieup. Where it was old we would tear out and put in new. Where it was pretty good we gave it a scrubbing with white lye, washed with whitewash, four ounces of formaldehyde to the gallon. Sometimes it was whitewashed with four to eight ounces of solution of formaldehyde to the gallon. We use plenty of this wash. When a tieup was disinfected in this manner there has never afterwards been any trouble."

The presiding officer introduced Mr. Leon S. Merrill, State Dairy Instructor, Solon, Maine. Mr. Merrill's subject was *"The part of educative work in banishing tuberculosis from dairy herds."*

Mr. Merrill.—"I hardly feel competent to discuss this matter. It seems to me our cattle commissioners who have been coming in contact with this work and this disease would have been better fitted to talk to us upon this subject. It has appealed to me that there should be a work of education along this line. My experience has been that the farmers are disposed and desire to do what is right, and when they understand the situation they are willing to comply. In the Portland matter I found no difficulty at all. In fact, I never found much opposition. We found one man who objected, but he was going out of the business. This year when the test was repeated no opposition was found because the farmers had an interest in the retest. I believe in carrying this educative work to the different towns. Here is a splendid opportunity and one which we should take advantage of. We should explain to the people; we should teach them more of sanitary methods. A score card which has been prepared for the inspection of dairies has been used extensively. Several of our creameries are using the score card in the inspection of their patrons' dairies. They receive cream from nearly 5,000 dairies. The inspectors should go among the farmers instructing them and explaining the use of these score cards. Two very important things are light and ventilation. These two things are of the greatest importance in enabling the dairy animals to resist disease. The Department

of Agriculture is endeavoring wherever possible to introduce the use of the dairy score card.

"Inspection work should be done along the line of education. Today a great many people have been driven out of the dairy business in some states because they cannot make a dollar. Mr. Deering meant no wrong impression in saying milk had advanced one cent, but the farmer does not get that one cent. It is of small consequence what the dealers get. It is important to the farmers. When the farmers gets four cents a quart and the consumer pays eight cents, things are not equal. There is no farmer but who desires to keep his cows as healthy as possible. The Department of Agriculture made an investigation and out of 999 cows inspected only four showed any evidences of disease. I am pleased with Professor Robinson's suggestion to centralize the responsibility. When a veterinarian has condemned an animal should not the State bear the whole expense if the animal is killed and found not diseased? There is sometimes a failure to show the owner the results. It is not done by the veterinarian in all cases."

Dr. Purcell.—"I am surprised to hear that cases are not always demonstrated. I always demonstrate. I remember a case where two animals were condemned and I argued two afternoons before the owner would consent to have them destroyed; finally he consented to have one destroyed, and when he saw what that one was like, he would not let the other one stand in his tieup over night but led her to the slaughter house to stay over night as it was too late that day to kill her. He took a small box such as these dollar clocks come in, to take some of the diseased material from the first cow to have it sent to the State board of health for examination, as he wanted to be certain that what I would pronounce tuberculous material would actually be such. He needed two water pails to carry off what he saw and left the box without taking any material, saying that he was satisfied."

Referring to the proposition to pay for all animals that did not show the disease on post-mortem examination at their full value, Dr. Purcell said that they were not sound animals, but were diseased animals and should be paid for as such.

Mr. Beal.—"What do you consider a diseased animal?"

Dr. Purcell.—"An animal that reacts to the tuberculin test."

Mr. Beal.—"Is it not a fact that an animal may be infected with tuberculous bacilli that may not be seen by the naked eye?"

Dr. Purcell.—"Yes, but if the animal reacts to the test, it is certainly diseased."

Mr. Beal.—"Is it not necessary to find ulcers if an animal responds to the tuberculin test?"

Dr. Purcell.—"It is necessary to find them in order to demonstrate the trouble; but four out of one hundred condemned cows will not show the trouble on post-mortem examination. A proposition that can demonstrate ninety-six one hundredths of its truthfulness ought to be believed."

Mr. Merrill.—"Did you find any more in New Hampshire than in Maine?"

Dr. Purcell.—"Yes. In testing 440 cattle, 51 proved to be tuberculous."

Mr. Merrill.—"What was the result of that testing up there? Were those animals destroyed?"

Dr. Purcell.—"I will say in regard to that New Hampshire business, I tested 440 head and found 51 diseased cattle. They wanted me to come and they were pleased to have the cattle tested with tuberculin. They were glad to know what they had. I found a number of cases that had been reported by the owners to the New Hampshire Cattle Commission and that had been pronounced sound by their veterinarian; but which reacted under my testing, and which the owner was satisfied was diseased both before and after the test. One case where a party had 20 head and where 10 reacted, I was told by the owner that he was satisfied they were diseased, had reported to the New Hampshire Cattle Commission and they had pronounced them sound. He had not used any of the milk in his family for one year without boiling it. He wanted the New Hampshire Cattle Commission to take them and destroy them.

"Every one of the owners wanted the same thing done but were positive it would not be done. I sent a detail of the complete test to the New Hampshire Cattle Commissioners and received the following:

'CONCORD, N. H., Oct. 19, 1907.

'*C. W. Purcell, V. S.:*

'DEAR SIR:—We thank you for your favor of October 13 and test sheets of work done at Jefferson.

Yours truly,

N. J. BACHELDER, *Secretary.*'"

Mr. Merrill.—"Has that milk come into Maine?"

Dr. Purcell.—"Whether the milk from the condemned cows has come or not, I cannot say. The Portland board of health has made no effort to find out. The New Hampshire Cattle Commission did not take the cows nor were they destroyed. These parties had been sending their milk to the condensed milk factory at Whitefield, and had been subject to inspection of dairies and expected inspection on the part of the Maine people. They wanted to know when an inspector would come and I told them I did not know just when, (but I could have told them he would never come). Whatever the faults of disease, they certainly kept the tieups in nice shape, well whitewashed and absorbents under the cattle."

Dr. Smith.—"Does that milk come to Portland?"

Dr. Purcell.—"Yes. The Maine farmer has a lot of good arguments on his side and one of them is this. Why should I be required to test and my neighbor who makes butter not be required? Also some party refuses to test and nobody makes any fuss about his not testing and he sends right along to the same market that the other one does. Next year the man that did test says he will not again because his neighbor did not and fared as well as he did."

Mr. Merrill.—"Last Saturday Mr. T——— of ——— told me that a man who said he was from the Portland board of health had made a physical examination of his cows and charged him $8.00. A few states are agitating paying the full value of an animal. The Agricultural Department, the Cattle Commission, and the different forces should engage to show the farmers the need of retesting."

Mr. Beal.—"I think Mr. T——— needs to be educated. No man should be allowed to give a physical examination and get his pay for it."

Dr. Young.—"I would suggest to the meeting whether it might not be well or expedient for us to get up a leaflet or a circular to be distributed among the dairymen stating many things that they do not understand. For instance, the question of retesting could be explained. I offer this as a suggestion."

Mr. Beal.—"A very good suggestion."

The next speaker called upon by the president was Mr. F. S. Adams, President Maine Dairymen's Association, Bowdoinham, Maine. His topic was: *"What further legislation is needed, if any, to guard against the improper disposal of cows and other animals which, under private tests, have reacted to tuberculin?"*

Mr. Adams.—"In a section of the State where we had destroyed three or more cattle, the Agricultural Committee of the State Legislature asked about seventy-five persons these questions: 'Do you believe in the tuberculin test?' 'Is the tuberculin test accurate?' Every man said: 'Yes, we should have had this test before.' The sentiment among the farmers has changed. Years ago they knew nothing about it because it was in its infancy, but anything that is right, the better it is known, the more faithfully it is done. There is no disposition on the part of the farmer not to report if his cows react. A milkman may have bovine tuberculosis in his herd. He sells his cows, but it is not so with the farmer. The calf gets that disease and the owner finds out in a little while he can make no money. The farmers ask to have their cows tested. Mr. B. of H. had ten or fifteen cows that did not seem right. He called in a veterinary and had them tested. If they reacted they were reported. There is more disposition among the milkmen and traders to cover up. They sell somewhere, they are not particular. If we could have a certain day at Portland or Bangor, a market day, the milkmen who want to replenish their herds could go there and buy and have them tested. By the interchange of cows the disease is spread. I would like to see a law requiring the tuberculin test of every cow in Maine from which milk or butter is produced. The farmer cannot afford to comply with the requirements at the price he is getting now. The public must be educated to pay more. The cattle commission are doing what they can. The farmers should have full pay when their cows show reaction from tuberculin. The percent-

age that does not show anything in a post-mortem is very, very small. If a farmer wants it he gets the post-mortem. There will be a certain time in the stage of the disease when the post-mortem will not show the disease. We have a law that requires all thoroughbred cattle sold into the State for breeding to be tested. All thoroughbreds in the State should be tested. A great majority of cases can be traced to thoroughbreds. A man went to Wisconsin and brought back a bull and two cows. In a little while these animals went wrong, and in a short time thirty-two animals, all he had, were infected."

Dr. Smith announced the next subject *"What laws or regulations, if any, are in force in other states against the spread of bovine tuberculosis or its communication to man which should be adopted by us?"* and introduced Mr. John M. Deering, Secretary Cattle Commission, Saco, Maine. Mr. Deering spoke as follows:

"At a meeting of the Eastern Live Stock Sanitary Association, held in New York City on the 11th of the present month, Mr. Adams and myself were present. Nine states were represented, including the New England States, New York, New Jersey, Pennsylvania, and the District of Columbia. Every state through its commissioner, set forth the manner in which tuberculosis is handled in the state represented. If I understood the discussion correctly, and I think Mr. Adams will bear me out in the statement that, instead of Maine's being in the rear or behind the times in handling tuberculosis, nearly all the states represented gave Maine the credit of being in the front rank and doing better work than they are able to do under their laws. Dr. Melvin, Chief of the U. S. Bureau of Animal Industry, remarked that the manner in which Maine was handling tuberculosis was particularly gratifying to the authorities of the Bureau at Washington.

"The Commissioner from New Jersey was surprised at the advanced manner in which we are doing business. Dr. Leonard Pearson of Pennsylvania, even suggested a vote of thanks to Maine for the good work she is doing.

"By this it would not seem prudent for Maine to adopt many of the methods in force in at least some of the eastern states. It is conceded that Maine has the best law in relation to interstate cattle and also the testing of pure blood cattle. Maine

tests all of its pure blood cattle, and condemns all that react by the tuberculin test, and also condemns all grades that react whether by official or by private test, if reported.

"New Hampshire does not condemn cattle by the tuberculin test unless they show the disease physically, (they condemn them then test or no test), and they only destroy and pay for the wrecks, or cattle that are broken down with the disease. I rather think it would be hard work to get Maine to adopt the New Hampshire policy. Massachusetts tests all cattle brought into the state for breeding and dairy purposes, and if any react they are condemned and destroyed without compensation to the owner. No testing is done without the owner's consent and it is optional with the Chief of the Cattle Bureau whether he will condemn and destroy or place them in quarantine. If there are funds available, they are condemned and paid for, if there are no funds, they are all quarantined and the product pasteurized and allowed to be sold.

"The Rhode Island laws are practically the same as those of New Hampshire although they do some testing and do condemn by the test, although generally it is done by physical examination.

"New York seems to have a good working department, I think, under the Board of Agriculture. Three veterinarians represent the Board of Cattle Commissioners, and in my judgment were very intelligent men and are doing all that they can to suppress tuberculosis; but with their 2,000,000 cows and with only $100,000 to work with they cannot teach far enough to make much of a showing. The commissioners regretted that they could not carry on the work to such an extent as Maine was able to do. It seemed by what was said that New York had a good law and system; but was handicapped by lack of appropriations.

"Pennsylvania was represented by Dr. Leonard Pearson of the University of Pennsylvania, no doubt, one of the brightest and most intelligent men in this line of work in the country.

"He has been for a number of years working out the problem of bovo-vaccine, a process of vaccination for immunizing young cattle against tuberculosis. He said that, up to the present time, their experiments have not been successful enough to recommend its general use to young grade cattle, but could be used

upon pure blood cattle in an experimental way; but he has hopes that further experiments may demonstrate its more practical use in the future. There are 1,500,000 cows in Pennsylvania and I understood that the appropriation was about $100,000 per year. The law is practically the same as in Maine, with the exception of the pure-blood law, and I think they are doing as good work as is possible with the funds they have at hand.

"I doubt if public sentiment among the dairymen of that state runs as high as it does in the State of Maine and without that, little can be done.

"Vermont has a law similar to that of Maine and comes nearer to our method of doing business than any other state, and they are in the front rank in protecting their dairy interests and keeping good the reputation of their dairy products.

"The most important agency in the suppression of tuberculosis is a strong public sentiment and it appears that sentiment in Maine is stronger than in any other state. The dairymen in Maine are an intelligent class of people and have learned that it is not to their interest to allow tuberculosis in their herds; that a herd of tuberculous cows is not profitable, and that pure healthy products demand the highest prices and that reputation counts.

"I hardly think that there is a good dairyman in Maine who, if he was sure that he had a tuberculous cow in his herd, would allow her to stand in the tieup over night, yet I am sorry to say that tuberculosis is looked after more closely by butter and cream dairymen than by milk producers.

"This is partly due to milk dairymen being obliged to change their herds or cows much oftener, making it more inconvenient to keep tested up, while cream and butter dairymen raise more of their cows and do not change them so often.

"I am of the opinion that Maine cannot improve its methods by adopting the laws of any other eastern state, but can improve by all departments working along practically the same lines, working together, and I voice the sentiments of my associates when I say: that it is very gratifying to the Cattle Commission that the State board of health is taking an active interest in our work."

Mr. Beal asked about cattle that reacted by private and public test.

Mr. Deering replied that "there was very little done in Maine by private persons."

Dr. Smith then called upon Hon. F. O. Beal, Chairman Board of Cattle Commissioners, Bangor, Maine, to speak on *"How can we guard against the danger of the distribution of tuberculosis from pure-bred herds? Is new legislation needed in this direction?"*

Mr. Beal.—"This title would seem to call for some new and advanced ideas, some suggestion of new laws, adoption of new rules or regulations, the application of some new ideas to the physical workings of some theory. But, gentlemen, inasmuch as the State Board of Cattle Commissioners have for several years been grappling with this same problem, applying the test of practical experience, adopting new theories which their wide experience has suggested, taking advantage of every conceivable plan that has presented itself during the twenty years of experience which I have had upon the board, leaves no opportunity for me at this time to promulgate any new thought. The Cattle Commissioners have always found our legislature ready and willing to give us a helping hand by adopting all laws which we might suggest for the curtailing and eradicating of this terrible disease from among our dairy herds.

"The law today is such that no one can bring cattle of any kind into Maine without a permit signed by one of the Cattle Commissioners, and, in the case of pure blood, they must remain in quarantine upon the owner's premises for thirty days after arrival, during which time they will be tested by order of the Cattle Commissioners and if found diseased, they are destroyed at once, and, of those in the State, the law requires that they shall all be tested once a year, and further, anyone selling one or more cannot deliver them or move them off of their premises until they have notified the commissioners and by them the animals have been tested, if not previously tested within six months.

"The law also requires the assessors of every town or city to report each year all pure bred cattle found in their several towns, so that there would seem to be but very little more to be desired."

Dr. Smith.—"It would seem, gentlemen, that the questions here have been generally answered. Has anyone anything to say? If not, let us proceed to the next topic. I will ask Hon. R. Alden, Treasurer Maine Dairymen's Association, Winthrop, Maine, to tell us *"What precautions should be observed at creameries against the dangers of the dissemination of infection to swine or other animals through separated milk?"*

Mr. Alden.—"One of the safest and most certain ways to exterminate the germs of tuberculosis that may be found in separated milk at creameries would be to have all the milk pasteurized before it leaves the creamery. This could be controlled by law and could be done at a small expense.

"I have given this question some thought and have come to the conclusion that the best way to prevent the spread of tuberculosis from the bovine race to the human family is to commence at the fountain head and pass a law requiring that all calves in the State shall be treated with bovo-vaccine if the final results with that method of conferring immunity prove a final success. Let the State pay one-half the expense and the owner pay the other half. Then pass a law to make it the duty of the Cattle Commissioners to have all the remaining cattle tested with tuberculin and have all the cattle that react paid for by the State at a fair valuation and not compel the owners to lose one-half the valuation as they now have to.

"It would be a hardship for the farmers to lose one-half the value of their cattle and then pay their proportion of the tax for the half paid for by the State. Every person in the State would be benefited by such legislation. If we stop to think of the lives of children which might be saved by having pure milk, and think of the increased value of our dairy products, the cost imposed by this legislation would not seem a burden, as I believe our Cattle Commissioners have the task of exterminating tuberculosis well in hand and that the per cent. of those now remaining that are infected would be small."

Dr. Smith.—"Gentlemen, you know the methods in vogue."

Mr. Adams.—"Dr. Leonard Pearson of Pennsylvania says that Von Behring's method of bovine vaccination is only good for one year, that it requires three inoculations and at a certain time during the periods of inoculation the calf is more susceptible to tuberculous germs."

Mr. Beal.—"As regards paying full value for cattle. Today the law appraises these cattle as though they were in health. They will take them for what they are worth at the time."

Professor Robinson.—"The various papers have been enlightening. It may be that no new legislation is needed, but I think the weight of opinion judging from the papers is that more law is needed, and I move:

"That it is the sense of this conference that a committee be appointed consisting of one member from each of the bodies here repesented, to consider the advisability of any new legislation bearing upon public health interests in connection with animal industry." So voted.

Hon. F. O. Beal then moved: "That the chairman be authorized to appoint anyone on that committee whom he thinks advisable." The motion was carried.

Professor Robinson further moved: "That it is the sense of this conference that educational methods are of the greatest importance connected with the matters we have been discussing today, and that each department represented here should carry on a campaign of education in every possible way, by leaflets, as suggested by Dr. Young, or in any other way which seems best."

This was unanimously voted.

In closing Dr. Smith said he wished to express the greatest pleasure and satisfaction that the board had been able to meet so many interested in this educational movement and discuss a question of so much hygienic importance. He had felt the greatest pleasure and satisfaction in listening to the remarks, and should esteem it a very great privilege to meet again those who had been in attendance. He hoped the results of this conference would be a source of pleasure to those who had taken part in it, and that it would result in new advantages to the people of the State with whom the board has to deal. A motion to adjourn would be in order, but he hoped no one would hurry away as there was some time left for informal discussion.

CONFERENCE COMMITTEE.

At the close of the conference on Bovine Tuberculosis it was voted that a committee be appointed to consider the advisability of any new legislation bearing upon public health interests in connection with animal industry. This committee appointed to represent every interest in the cattle and dairy industries, is composed of the following persons:

Mr. Chas. S. Pope, Manchester.

Mr. Leon S. Merrill, State Dairy Instructor, Solon, Maine, representing the State Agricultural Department.

Dr. F. L. Russell, Professor of Bacteriology and Veterinary Science, University of Maine, representing the Maine Veterinary Medical Association.

Mr. F. S. Adams, Bowdoinham, representing the Cattle Commission.

Mr. R. L. Bradford, Auburn, Maine, representing the Creamerymen's Association.

Hon. Rutillus Alden, Winthrop, representing the Dairymen's Association.

Dr. A. G. Young, Augusta, representing the State board of health.

Circular No. 95.

STATE BOARD OF HEALTH OF MAINE.

TUBERCULIN AND THE TUBERCULIN TEST FOR TUBERCULOSIS.

While the State board of health believes that tuberculous persons are the chief source of tuberculosis in human beings, the earnest re-investigation in the past few years of the question whether the tuberculosis of cattle is transmissible to man, has given results which must be accepted as confirmatory evidence that some part of the prevalence of tuberculosis in our human population is due to the use of milk from tuberculous cows. Believing also that the promulgation of correct information about the tuberculin test is very important from the public health point of view, as well as from that of the farmer, this circular has been prepared.

Those persons who have had the largest experience with tuberculin and those who are in the best positions to judge of its value to the farmer as a means of weeding out tuberculous animals and to know of any injurious results to animals, if such are possible, are in accord the world over in regard to its value. If there are any dissenting voices on this question it is safe to say that they are not of persons who occupy the highest positions of trust whose duty it is to work for the uplift and the profit of the farmer. In the following paragraphs, it is hoped to answer certain questions about tuberculin in a way which shall be fair, square, and right.

Is the Tuberculin Test Trustworthy?—While the animal is living, there are only two methods of determining whether it has tuberculosis. One is by physical examination. That was the only resource until within recent years. This method of investigation rarely gives positive evidence of the presence of tuberculosis until the disease has made much progress and usually not until long after the animal has been scattering infection to other animals. Cows often present a general appearance of health long after they are dangerously tuberculous.

The other method is the tuberculin test. It is by far the most delicate and accurate means which is thus far known for detect-

ing the presence of tuberculosis. It is not entirely infallible but it approaches closely to infallibility. In many parts of the world very strong and positive evidence has been accumulating for more than twenty years as to the worth of tuberculin. The longer it is used, the higher the estimation of its value.

In the first place, what appeared to be mistakes or failures were a few years ago about ten in a hundred. Now, carefully and intelligently used, inaccurate results are not obtained in more than 3 per cent. of the cases.

Tuberculin is the only means we have for detecting tuberculosis early enough so that infected animals may be removed from the herd before they infect other animals. Without the use of it, there would be no possibility of eradicating tuberculosis from our cattle. With its use, and with other well understood measures, tuberculosis may, with certainty, be abolished from dairy herds. That fact stamps it with a value almost inestimable.

The National Agricultural Department says: "Practically all the animals which react are affected with tuberculosis, and should be separated from the herd, not only in the interest of the public, but in the interest of the owner of the herd. The best authorities admit, after studying many thousands of tests, that there are few if any mistakes made in condemning cattle which show a typical tuberculin reaction. The errors are principally in the other direction, that is, some tuberculous animals are not discovered by the tuberculin test; but as the most dangerous of these may be picked out by ordinary clinical examination, this fault of tuberculin is not so serious as it at first sight appears. This being the case, it should not be necessary to force the tuberculin test upon cattle owners. They should be anxious to adopt it in their own interests and for the protection of their patrons. Tuberculin is a great boon to the farmer—one of the most beneficial scientific discoveries of modern times."

Apparent Inaccuracies.—1st. In far advanced cases of tuberculosis tuberculin may fail to produce its characteristic reaction. But in most of these cases, where a physical examination suffices to show the condition of the animal, the tuberculin test is not needed.

2d. Reaction may not occur in a few cases in which the tuberculous deposit has become encapsulated or inactive. But these latent or arrested cases may subsequently become active; hence, the need of a retest that they may be discovered before these animals infect the other animals of the herd.

3d. At the time of testing a herd, some animals may have received the infection and may not have yet developed the disease. They are only in the incubation stage and fail to react. To detect these incipient cases, a retest from three to six months after the first testing, is needed.

4th. The reaction occurs in a few animals in which tuberculous deposits are not found after the animals are slaughtered. That the disease does not exist in even these few cases, is not necessarily true. There are good reasons for believing that almost always, in these cases, the tuberculin test is more accurately searching than has been the post-mortem examination, for experience has shown that a very small tuberculous deposit may cause the reaction and to find this much time might be required. Tuberculin is an exceedingly trustworthy indicator of the presence of tuberculosis, but it must be borne in mind that it gives no evidence of the extent of the disease.

Retesting.—What has already been said indicates the need of retesting animals under certain circumstances. If the first test discovers tuberculous animals it would be bad business management to omit the application of the tuberculin test to the well animals again at the proper time to learn whether any of them have developed the disease later. Again, the owner of a sound herd is very unwise who buys a cow and places her with his other cows before the tuberculin test has indicated that she is free from tuberculosis. It is just as indiscreet as if the swine breeder in regions where hog-cholera is prevalent should buy shoats and put them with his other hogs without a preliminary period of quarantine. But to make assurance doubly sure, a newly introduced cow should, if possible, be retested six months or so after the first test. Dr. Russell of the University of Maine, hit the nail squarely on the head when he recently said that, "in cattle the disease (tuberculosis) is spread from one herd to another by traffic in diseased cattle." This he placed first in his enumeration of the conditions favoring the spread of bovine tuberculosis.

Can Tuberculin Possibly Produce Tuberculosis?—It may safely be answered that it is quite impossible for it to do so. At the last stage in its preparation, the liquid is twice subjected to a temperature at or above the boiling point and then is twice filtered. The presence of a single germ of tuberculosis, dead or alive, in the tuberculin is therefore wholly impossible. Without infection or inoculation with the bacillus of tuberculosis, it is impossible for animals or for human beings to have tuberculosis. No matter what the condition of the animal, there are no facts to indicate the probability, or even the possibility, that tuberculin ever causes tuberculosis. In fact, so far as any effect upon well animals could be expected, it would be possibly to render them slightly more resistant against tuberculosis.

Tuberculosis has been wholly unknown to races of men in various parts of the world until they were infected by persons from other peoples who brought the disease to them, and the same has been true of cattle in many places. It was largely true of the dairies of Maine so long as the movement of cattle was almost exclusively in the direction of Brighton and the local slaughter-houses and while animals from other sections of the State, or from other states were rarely imported into our fathers' and grandfathers' herds.

Can it Harm Well Animals?—All the existing evidence, and there is much of it, is to the effect that the answer to this question should be positively no. Unless the animal tested has tuberculosis somewhere, in some form, there is no reaction and not the slightest ill result immediate or remote. Observations in thousands of cases teach that neither the temperature, the respiration, nor the pulse is affected, nor is there any effect upon the flow of milk nor the percentage or value of the butter-fat.

Is it Injurious to the Tuberculous Cow?—Some hours after the injection of the tuberculin under the skin there is a rise in the temperature of the tuberculous animal—that is, a reaction occurs indicating the existence of tuberculosis. Applied by a properly instructed person, it is doubtful whether any real injury results to even the tuberculous cow; but the owner is injured and often calamitously by keeping herds of cows and not learning, by means of the tuberculin test, that some of them are tuberculous.

As throwing some light on this question, it may be said here that, some of the foremost men in the medical profession, some of the most painstaking and conscientious for the welfare of their patients, men in this country, and men abroad, have for years been using the tuberculin test to help them determine the existence of tuberculosis in their human patients and doing this without harm to them. When tuberculosis is present, it is very important for the welfare of the patient that the fact be known at the earliest possible moment, just as it is for the welfare of the dairyman to discover the tuberculous cow just as soon as possible. So important is a very early diagnosis for the safety of the patient that the Health Department of the city of Chicago is offering to furnish tuberculin free in properly diluted doses or to make the diagnosis with tuberculin for any physician who asks for this help.

Furthermore, tuberculin is used as an aid in the cure of tuberculosis, and has been so used for years by some of the best and most careful men in this special line of work in America and elsewhere, and their testimony indicates that in many selected cases cures are made with tuberculin which cannot be made without it. Is it safe? Dr. Trudeau, the first man in this country to devote himself to the cure of consumptives by modern sanatorium and other methods, and who has for years cautiously made use of tuberculin to help him to make an early diagnosis and to aid in the cure of his patient, says: "No evidence in connection with the tuberculin test as applied to man and animals has been forthcoming thus far from those who have made use of it which would tend to sustain the general impression that this method is necessarily dangerous and tends invariably to aggravate the disease, and my own experience has developed nothing which would seem to confirm this impression."

The symptoms of tuberculosis in cattle are not sufficiently prominent except in advanced stages or when superficially located to enable one to diagnose this disease by the ordinary methods of physical examination. And cattle may, without showing any clinical symptoms, be in such a stage of tuberculosis as to render them capable of spreading disease. Indeed an animal may be fat and sleek, eat and milk well, have a bright,

glossy coat, and be apparently in the pink of condition, and still be passing tubercle bacilli through the feces or by an occasional cough, and thus endanger all the healthy cattle in the herd.—Dr. John R. Mohler, Chief of Pathological Division, U. S. Bureau of Animal Industry.

Tuberculin may, therefore, be considered a most beneficial discovery for the stock raiser. Strange to say, many of these men have been incredulous, antagonistic, or prejudiced against the tuberculin test by misinterpreting published statements, by incorrect, unsubstantiated, or exaggerated reports, and by alleged injurious effects to healthy cattle. * * * Probably the most popular objection to tuberculin is that it is too searching, since it discovers cases in which the lesions are small and obscure. While this fact is admitted, it should also be borne in mind that such a small lesion today may break down and become widely disseminated in a relatively short period. Therefore any cow affected with tuberculosis even to a slight degree must be considered as dangerous not only to the other animals in the herd, but also to the consumer of her products.—Same.

Referring to the disastrous spread of bovine tuberculosis which often results from the sale of animals from tuberculous herds, the Live Stock Commissioners of Ohio say, in their report for 1907: "Herds of this kind are known to have been disposed of at public sales, each animal going to the highest bidder. Frequently such animals come from registered herds with wide reputation, and many of these animals are bought with the intention of introducing new blood, and improving some other herd. The consequences can be nothing but disastrous. During the past two years, with not even a fair beginning on the work of suppressing the ravages of this disease, nearly eight thousand dollars' worth of cattle were ordered destroyed on account of tuberculosis. In every instance the disease could be traced to the introduction into the herd at some time or other of a tubercular animal that was bought, unsuspectingly, either with a view to enlarging the herd or to the introduction of new and better blood."

Again they say: "A law, such as exists in one form or another in all of the German states, providing for the annulling of a contract of sale if, within a specified number of days an animal is found affected with a chronic incurable disease, would

be of inestimable value in the work of suppressing tuberculosis."

The Committee appointed by the State Board of Health, held a meeting at Augusta, on December 18, 1908, and were all present.

There was considerable talk along the line of a general test and the reason seemed to be, that there was a general complaint that where a dairyman wanted to replenish his herd he had to go out and buy stock of which he knew absolutely nothing so far as the healthfulness of the animal was concerned. That it was expensive to test an individual cow, so much so as to almost be prohibitive. That the buyer had to take all the risk and the risk of his herd additionally. After freeing his herd from the disease, he was just as likely to buy it in again with every new purchase, and his trouble and expense of testing go for naught.

If a general test were made then the whole state would be free and purchases could be made with a good degree of safety. The advantages of such a condition would be of tremendous importance and if they could be brought about would no doubt redound to the credit of the State; but the difficulties in the way also came up for consideration, and the whole matter was left to be discussed at a future meeting.

MAINE CREAMERYMEN'S ASSOCIATION MEETING.

The Maine Creamerymen's Association held a meeting June 10, 1908, at Auburn and the Cattle Commissioners were called in in conference, for the purpose of advancing some plan to enable the several creameries to continue their trade in dairy products in the city of Portland, where milk and cream were prohibited, unless taken from tuberculin tested cows. The Turner Centre Creamery seemed to be in a hard position, just at this time as its products had been rejected in the Portland market.

This condition of affairs, occurred at the time when our appropriation was nearly exhausted and there was no funds to pay for cattle if found diseased. However, we advised Mr. Bradford, Manager of Turner Centre Creamery, to go into the country towns, those that we would name, where a very limited amount of disease existed, and to have enough tested to furnish cream for his Portland trade. He accomplished this in a very benevolent manner, by offering his patrons, one cent per pound extra for their butter fat, coming from tested cows, and the desired number was tested at this time. Had this not been done, Turner Centre would have had to give up its Portland trade. Mr. Bradford stated that the testing would have gone further had not the Commissioners advised him to go slow on account of lack of funds. There was an outspoken opinion at this meeting, by the several creamery owners and operators, for a general test, which they claimed would meet with favor with their patrons provided they would advance the price of butter fat one cent per pound which they all seemed willing to do, and I understand that Turner Centre Creamery has advertised this proposition to its patrons to take effect January 1st, 1909.

MAINE DAIRYMEN'S ASSOCIATION MEETING.

The Maine Dairymen's Association held a meeting at Dexter Dec. 10, 1908, and one day of the meeting was given over to the subject of bovine tuberculosis among our dairy herds. Great interest was taken in this part of the meeting and the consensus of opinion was that the most essential thing for successful dairying, was a healthy herd. There was no criticism offered against the present policy of Maine, in controlling tuberculosis. There was a feeling that expressed itself strongly, for an extension of the work, and in conversation with one member, he expressed himself by saying "we have got tuberculosis on the run, let's keep it a going and drive it out. I see *now* that it can be done." At this meeting a vote was passed that it was the sense of the Association, that the State should pay for the testing of all cattle whether pure blood or not.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

This Congress was held in the City of Washington, Sept. 28, 1908. Commissioners Deering and Beal were present and attended all the sessions of Section VII, which was the section devoted to bovine tuberculosis. It was the most interesting and important meeting ever held in this country on this subject of tuberculosis, both human and bovine. There were thirty-three countries represented by the most eminent scientists, men of world wide reputation, and the flower of scientific research and attainment. It was a liberal education in itself to meet with these men, listen to their papers and discussion of the same and talk with them freely upon disputed points.

Section VII, had its full quota of foreign delegates, and papers were also read by gentlemen from almost every state in this country. For the control of tuberculosis, tuberculin is used in every country and state, and its usefulness and reliability was recognized beyond question.

The principle is the same all over the world in handling and controlling the disease; but there is a difference in handling reacting animals. Some states destroy all reacting animals, others separate them from the healthy ones, keeping them isolated and pasteurizing the product, and selling it for what it is and for what it will bring in competition with healthy cows product, keeping this up until the disease wears the animal out and death thins the diseased herd out. This policy is more particularly confined to Denmark, and is called the Bang system after the originator, Prof. Bang. It is only because Denmark is a poor country and cannot afford to pay for all animals which are diseased, that such a system can be practiced. The government only pays for animals that show disease in the udder, which is claimed to be only one per cent of diseased animals, and such payments are only about $15 on the average. Even in that country, their report shows a "sad falling off" in the number of cattle tested each year.

Dr. Baker of California, reported that upon twelve open ranges in the centre of that state, 41,000 cattle were tested and 9½% were found diseased, and in the middle west they are as badly affected, both among their cattle and their hogs. Dr. Knowles of Helena, Montana, reported "my observation justifies the assertion that tuberculosis of cattle cannot exist under open range conditions strictly speaking, especially in a high dry altitude such as we have in Montana, where sunshine the greatest of bacteria destroyers, is more abundant than it is in Egypt." And yet he says, "under the semi-range conditions, the number of affected animals in a herd, (ordinarily consisting of from 300 to 1000 cattle) will be relatively small,—five or six per cent; but where the shelter provided is enclosed on all sides, although the cattle are fed in an open lot, only using the sheds during the night, and in stormy weather, the percentage of infection is usually large—in fact nearly as great as though under close domestication." Dr. W. H. Dalrymple of Louisiana, reported, that "the prevalence of and extent of tuberculosis in the southern states seemed to depend largely upon the condition and environment under which cattle exist and also upon the predominance or otherwise of the improved breeds. The genial climate of the southern states permitting an almost continuous

out-of-door existence throughout the entire year, should afford ideal conditions for the maxium healthfulness in our cattle.

Reports from twelve southern states shows—"That bovine tuberculosis is prevalent, and apparently on the increase. That the prevalence and increase are almost wholly amongst stabled or dairy cattle.

"That native or unstabled cattle, scrub cattle are nearly free from infection."

Dr. A. D. Melvin, Chief of the Bureau of Animal Industry at Washington, reported that "the annual loss from tuberculosis among farm animals in this country, reaches the enormous total of $14,000,000."

In France, the method of controlling tuberculosis is practically the same as in Maine.

GENERAL OBSERVATIONS.

In New Hampshire, only cattle that show physical evidence of the disease are destroyed, and yet they will not allow a Maine cow to enter that state unless she is found sound by the tuberculin test.

Massachusetts is a buyer of cattle and Maine is a seller. From 9,000 to 11,000 cattle are yearly shipped to the Brighton market and are tested by order of the Chief of the Cattle Bureau, but during the last two years only 130 cattle from Maine were found diseased.

In California, Dr. Ward reports as follows: "The idea that the close housing of cattle during the winter in illy ventilated stables with restricted hours of exercise, constitutes an important factor in the spread of tuberculosis, is quite prevalent in the colder portion of the United States.

"There it is quite generally believed that the climatic conditions prevailing in California discourage the spread of tuberculosis. This is based upon the assumption that the mild climate permitting greater freedom for the cattle, constitutes a powerful factor in the repression of the disease. Eastern cattle spend a large portion of the day in the winter in stanchions in the stable. This raises the question ventilation, to secure for the cattle fresh air without the discomfort from drafts of air and cold. California cattle are stabled during the time of milking—

say four hours a day—and then in structures built so cheaply that the problems of ventilation do not need consideration. Except during milking time, dairy cattle live a free life in the open air."

"We have tested 22 herds, containing 1022 cows in all, of which 326 or 32% reacted."

So it seems that open range, or open air on dairy farms in California do not insure against the trouble.

In New York state the same condition seems to exist and the various reports from there would indicate about the same percentage of disease as in California, or over 30%.

Pennsylvania and New Jersey also have their quota and the Cattle Commission of New Jersey claims that that state is the dumping ground for diseased cattle for the larger cities and states surrounding it, and that the Commission is powerless to prevent it as they have no laws bearing on the matter.

New York and Pennsylvania are controlling by destroying reacting animals and in a limited way by the Bang method and immunization of calves with bovo-vaccine. It has been generally supposed by the outsider, that the milk supply of New York City, came from tuberculin tested animals; but according to Dr. Alfred Hess, of 107 samples taken at random from dealers, 16 per cent showed the bacilli of tuberculosis.

The same authority states that of "commercially pasteurized milk" eight samples were taken and one of them contained virulent tubercle bacilli. Pasteurized milk has for some time been held to be the ideal way to provide against infection from diseased milk and much money and effort has been spent to establish depots where such milk could be provided for the great mass of consumers. In New York City, through the efforts of Nathan Strauss, a philanthropist of large means, laboratories were founded in 1892 which are continued to the present day for the sale of such milk, and for the dissemination of information as to how to pasteurize milk at home, and for the sale of household apparatus for the home pasteurization of milk. That a great saving of infant life is made by the use of such milk, is distinctly shown by the figures relating to the infants' hospital at Randalls Island, N. Y., where the mortality in 1897, with raw milk, was 44% while in 1898, with pasteurization of the milk it was only 19%. Yet medical opinion is

at the present time distinctly against depending on the "pasteurization" method for while it is all right when properly done, the value of the method depends upon the thoroughness of the individual, which in these days has been found to be almost a lost art. Milk that has been properly pasteurized is not so palatable, so nourishing or so digestible as raw milk and does not so well fill the bill for infants food.

To an outsider it would seem that instead of spending so much time, effort and money skimming over the surface, establishing hugh depots here and there, hospitals and sanitoriums by the wholesale, that the most common sense proposition would be to commence at the root of the evil and get after the tuberculous cow. Yellow fever in the last 50 years has destroyed only 70,000 persons; but tuberculosis claims 150,000 every year as its own. Like the Minotaur of old, consuming his annual tribute of youths and maidens, so tuberculosis is annually calling for its victims and will continue until the elementary principle of destroying the source is put into effect. Athens paid her yearly tribute to the Bull-headed monster with the flower of her young blood, until a Theseus arose to destroy. The world has gone mad over sanitation and sanitary science; but the bacillus of tuberculosis is just as deadly dressed up in a clean suit, as if it was dressed like a tramp. Clean tie-ups and clean cows should be insisted upon and a clean product will be the result; but no amount of cleanliness will ever make up for the diseased cow, and a Theseus is needed as badly today as ever in the olden times. The disease don't need washing, it needs destruction. If ever tuberculosis is brought under control among our herds, it will be after a crusade against the tuberculous cow.

SANITARY CONDITIONS.

Much has been said and done along sanitary lines by the Cattle Commissioners, in the way of remodelling tie-ups, adding more light and more space per animal and educating dairymen to a higher degree of cleanliness so far as we have the power by the law. We can only disinfect and clean up premises where disease is found, to which much more attention has been paid within the last few years, learning by experience that if disease gets into a tie-up, it is there to stay unless driven out. New cattle put in there will become diseased and it is just as essential to disinfect as it is to destroy diseased animals. The cost of disinfection for the last two years has been about three per cent of the appropriations, and will continue fully as large if good work is to be done in the future. The following "Card" system has been established and whenever disease is found, the amount of work to be done is agreed upon, the way it shall be done and the price to be paid. The "Card" is signed and returned to the Commissioner ordering the work, when it is completed and ready for inspection.

MAINE CATTLE COMMISSION.

F. O. Beal, Bangor.
John M. Deering, Sec., Saco.
F. S. Adams, Bowdoinham.

This card must be returned to the Commissioner authorizing the work, when the disinfection is completed.

This is to certify that the disinfection ordered by you has been completed and is now ready for your inspection.

.....

.....

Amount agreed upon.....

Directions for Disinfecting Cow Stables.

A thorough disinfection is necessary, and this should be practiced immediately after the diseased animals are removed from the stable.

In order to carry out such disinfection there should first be a thorough cleaning with brooms to remove all litter and dust, not only from the floor but from the walls, the ceiling, and all projections where dust may lodge.

All loose boards and decayed woodwork should be removed. In most tie-ups of the ordinary stable, a complete removal of all partitions, both in front and between the cows, and the putting in of new work is the surest way, and where extensive disease has been found, the only way of treating the matter safely. If this be not advisable, all the partitions and floors should be washed and scoured with a solution of hot lye. In fact, the whole interior of the stable should be sprayed with a disinfecting solution.

The woodwork should then be whitewashed with a lime wash made from freshly burned lime, containing four ounces of "formaldehyde" solution to the gallon. Corrosive sublimate and carbolic acid are often recommended for this purpose; but as both are dangerous poisons it is better to use lime wash and formaldehyde solution, which probably are just as effective in destroying the tubercle bacillus. No work can be too thoroughly done, and nothing short of thorough work will do.

RUMFORD FALLS.

Early last March, the people of Rumford Falls Village Corporation became suspicious that their milk supply was not as good as it ought to be, and the Cattle Commission was requested to investigate the herds producing the milk.. The commissioners met several gentlemen interested in the matter and explained that they had no right by the law to order testing done unless they were suspicious that disease existed. That in order to get the milk supply tested up the Board of Health would be obliged to pass a by-law, similar to the ordinance now in force in Portland, which is to the effect that unless milk is produced by tuberculin tested cows, it will not be allowed to be sold in the city.

The village corporation raised $1,500 for the work, had the proper by-law passed, appointed a milk inspector at $400 a year salary, furnished themselves with paraphernalia for testing milk and to do all other necessary work to demonstrate the quality of the milk and cream. The State Dairy Instructor was called and

scored all tie-ups and gave instruction as to what should be done to improve conditions. The farmers were willing to do what was necessary and the work went on in a very satisfactory manner. The testing commenced in October, and at the present time nearly all the herds have been tested out with very small amounts of disease found.

GLANDERS IN HORSES.

There seems to be an increase in the disease among horses called "Glanders." Glanders or Farcy, is a specific contagious disease of horses attacking the nasal mucous membranes, the bones of the head and the lymphatic system throughout the body. It is quite rapidly fatal and is communicable to the human family, and from which there is no escape once it is contracted as there is no known cure. During the last two years there have been condemned and destroyed 179 horses as compared with 128 the two previous years. The disease is mostly found among team horses and especially among the horses in lumber camps, from which it is spread by the annual spring sale of such animals after the lumber season closes. Glanders and Farcy are one and the same disease only manifested in a different mannner. When the specific poison enters the systm, it may show itself first by attacking the lymphatics of the legs especially of the hind legs, and is then spoken of as farcy. If it attacks the mucous membrane of the head first, it is spoken of as glanders; but in either case it extends and runs from one into the other in time. It is liable to be confounded with chronic catarrh of the nasal passages which it simulates. Owners of horses should be on the watch for this trouble as it is highly contagious both to horse and man. Veterinarians should promptly report suspicious cases, that they may be dealt with at an early stage.

FOOT AND MOUTH DISEASE.

This disease is also known as epizootic aptha, aphthous fever, infectious aptha, &c., and may be defined as an acute, highly contagious fever of a specific nature, characterized by the eruption of vesicles, or blisters, in the mouth, around the coronets of the feet, and between the toes.

Symptoms:—In from three to six days after the exposure of the animal to the infection, the disease makes its appearance. It is first indicated by the animal suffering from a chill, quickly followed by an invasion of fever, which may cause the temperature to rise as high as 106 F. Following this in one or two days it will be noticed that small vesicles about the size of hemp seeds or a pea, are making their appearance upon the mucous membrane of the mouth at the border and upper surface of the tongue near the tip, the insides of the cheeks, on the gums and the inner surface of the lips, or on the margin of the dental pad. These little blebs contain a yellowish watery fluid and gradually become more extensive as the disease advances. Soon after the eruptions have appeared in the mouth of the animal it will be noticed that there is considerable swelling, redness and tenderness manifest about the feet, at the coronet, and between the digits of each foot. Eruptions similar to those within the mouth make their appearance upon these swollen regions of the foot a day or two later and at this stage it is usual to find that like lesions have made their appearance upon the perineum of the victim. In cows, the udder and more particularly the teats show the same vesicular eruption. The attack upon the feet of an animal is frequently manifested in all four feet at once; but one or more of the feet may entirely escape and remain unaffected. As the feet become sore, the animal lies down persistently and bed sores develop which wholly baffle all attempts at treatment until after the patient has regained its feet.

While the disease is not very fatal (from 1 to 3 per cent) it destroys the usefulness of the animal for from two weeks to one year, and is quite fatal to young stock fed on the infected milk, (from 60 to 80 per cent). It is highly infectious, easily disseminated, and the virus liable to live a saprophytic life for long periods. When an outbreak occurs, the owner should make every effort to keep other animals from coming in contact with his diseased cattle. The contagion is likely to spread rapidly by means of infected manure, hay and other feeds, by the feet of attendants, by dogs, cats and rats carrying it on their feet, by infected cars and other means hard to trace.

As the disease has appeared in Pennsylvania and some other states, your Commissioners decided to refuse permission to

bring cattle from other states into Maine until such time as the federal authorities had got the disease under control. They therefore met at Bangor and issued the following notice.

BANGOR, MAINE, Nov. 30, 1908.

Board of Cattle Commission in session.

Ordered: That in view of the fact that foot and mouth disease is reported in several middle and western states, that the Maine Cattle Commission herewith discontinue granting Permits, for the purpose of bringing into Maine, any grade or pure blood cattle, until further notice.

The following two subjects should be made into law in this state:

Whenever any person buys an animal of another, either for breeding purposes or for slaughter, and it is found, within 30 days of such sale, that such animal is affected with tuberculosis, the seller shall be held liable for any loss that may occur to the buyer, and all expenses of examination shall be borne by the buyer.

Agricultural Societies, offering prizes for pure blood cattle, shall demand a certificate of tuberculin test, duly authorized by the Maine State Cattle Commission, for any and all such cattle exhibited for breeding purposes. Such certificate of test, shall bear date, of within six months of the opening of such agricultural society's exhibition. Calves under four months old excepted.

We should try and bring our appropriations nearer to our expenditures so that farmers will not have to wait for their money, as in cases now, sometimes nine months pass before payment is made for the condemned cattle, notably in the present year, and the Commissioners are deluged with letters asking that payment be made.

This is seemingly unnecessary and is a great hardship in very many cases. It constitutes the worst feature of the law.

All of which is respectfully submitted.

F. O. BEAL,
JOHN M. DEERING,
FRANK S. ADAMS,
State of Maine Cattle Commissioners.

NOTICE OF QUARANTINE.

Rule 1. The Cattle Commissioners of the State of Maine, having found from recent experience that it has become absolutely necessary to supplement our former notice of quarantine issued January 1, 1892, so that it shall include not only Massachusetts but all other states, order that no cattle for dairy or breeding purposes shall be brought into this State either by road, water, railroad or other conveyance until further notice; and all such cattle entering our State, without a permit signed by some member of our Board, will be subject to quarantine at the owner's expense, and the attention of all persons is directed to chapters 177 and 194 of the Public Laws of Maine of 1889 and 1893 respectively, which will hereafter be rigidly enforced.

Rule 2. Each and every animal brought into this State of Maine for any other purpose than those stated in Rule 1 shall be subject to the same restrictions, except Western Cattle for slaughtering purposes. And all owners of such animals shall secure a written permit for transporting such animals into the State, which permit shall be signed by one or more members of the State Board of Cattle Commissioners, now existing.

QUARANTINE STATION.

Rule 3. There will be three quarantine stations provided, one at Saco, near the Eastern Division Railroad Station, the other at Brunswick, on the line of the Maine Central Railroad, also one at Westbrook Junction.

Rule 4. The style of permit shall in each instance be as follows:
No.....

STATE OF MAINE.

BOARD OF CATTLE COMMISSIONERS.

F. O. Beal, Bangor, President.
John M. Deering, Saco, Secretary.
Frank S. Adams, Bowdoinham.

LIVE STOCK PERMIT.

.....1889.

Permission is hereby granted Mr.....of.....
to bring into the State of Maine from....., ...head of neat stock. This permit is valid on any transportation company, railroad or steamship, if used within thirty days from its date.

(Signed)

Rule 5. In case any animal is found diseased, and is therefore condemned and killed by the Cattle Commissioners, the owner of such animal at the time of its killing shall give a release to the Board of Cattle Commissioners, and shall declare in the said release his acceptance of the appraisal. Said release shall read as follows:

STATE OF MAINE.

BOARD OF CATTLE COMMISSIONERS.

F. O. Beal, Bangor, President.
John M. Deering, Saco, Secretary.
Frank S. Adams, Bowdoinham.

CONDEMNED LIVE STOCK RELEASE.

I hereby release the Board of Cattle Commissioners from all liability or action on account of killing.....owned by me, found diseased by....., under the provisions of chapter 19 of the Public Laws of 1889, as amended by chapter 19 of the Public Laws of 1893. I also hereby agree to accept the appraisal of..... in full compensation for said condemned animal.

Rule 6. If any person owning animals suspected of being diseased makes lawful application to the Cattle Commissioners for an examination of such animals, and the symptoms of the suspected animal are not sufficiently developed to warrant the destruction of the animal, the Commissioner or his agent making the examination may make an agreement with the owner to the effect that if said animal reacts under the tuberculin test, the State shall pay for such testing, otherwise the owner shall pay the expenses incurred.

Rule 7. Upon application of the boards of health, municipal officers, or citizens and taxpayers of the several cities and towns within the State, the Commissioners stand ready to promptly investigate and examine such cases as are reported to them. The Commissioners are to be regarded as the examiners or judges of suspected animals, and consider it the duty of the boards of health, and any others who may be interested or affected by diseased animals, to notify them of any and all cases which may be dangerous to the health of the community.

Rule 8. There shall be a meeting of the Board of Cattle Commissioners on the first Wednesday of January, April, July and October respectively, for the purpose of auditing bills incurred in the preceding three months, and all such bills shall then be paid, provided there are sufficient funds in the State treasury therefor.

Rules adopted by the Maine Cattle Commissioners June 27, 1899.

F. O. BEAL,
JOHN M. DEERING,
FRANK S. ADAMS.

AUGUSTA, June 27, 1899.

The foregoing rules are approved by me.

LLEWELLYN POWERS,
Governor of Maine.

Any person or persons claiming compensation from the State under chapter 57, laws of 1907, for cattle shipped to the quarantine station at Brighton, Mass., and that are subjected to the tuberculin test and that

respond to such test, and that upon post-mortem examination by the inspector of the Massachusetts Cattle Bureau are found diseased with tuberculosis, must, within twenty days from the date of such shipment from Maine, furnish to the State of Maine Cattle Commission the following information under oath:

1. Number of cattle under this claim.
2. Name and residence of person of whom purchased.
3. Value of the animal before it was condemned.
4. Date and place of shipment from Maine.
5. Description of animal. Breed, sex, age and color marks.
6. Name and address of shipper.

Also a certificate from the Massachusetts Cattle Bureau, giving date and details of the test, post-mortem findings and description of the animal, which certificate shall be signed by the inspector for the Massachusetts Cattle Bureau and countersigned by the Chief of said Bureau.

Blanks for these purposes will be furnished upon application to the secretary of this Board.

F. O. BEAL, Bangor.
JOHN M. DEERING, Secretary, Saco.
F. S. ADAMS, Bowdoinham.

The foregoing rules are hereby approved by me.

W. T. COBB,
Governor of the State of Maine.

April 11th, 1907.

LAW RELATING TO CONTAGIOUS CATTLE DISEASES AS AMENDED IN 1899.

CHAPTER 19.

An Act to Extirpate Contagious Diseases Among Cattle.

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Sect. 1. That for the purpose of facilitating and encouraging the live stock interests of the State of Maine, and for extirpating all insidious, infectious and contagious diseases, now or that may be among cattle and other live stock, and especially tuberculosis, the governor of the State is hereby authorized and required, immediately after the passage of this act, to appoint a board of cattle commissioners consisting of three persons of known executive ability, who shall be charged with the execution of the provisions of this act, and who shall be known and designated as the State of Maine Cattle Commission and whose powers and duties shall be those provided for in this act, and whose tenure of office shall be at the option of the governor. The compensation of said

commissioners shall be at the rate of three dollars per day during the time they are actually engaged in the discharge of their duties as commissioners. The said commissioners shall respectively take an oath to faithfully perform the duties of their office, and shall immediately organize as such commission by the election of one of their number as president thereof, and proceed forthwith to the discharge of the duties devolved upon them by the provisions of this act.

Sect. 2. That it shall be the duties of the said commissioners to cause investigations to be made as to the existence of tuberculosis, pleuropneumonia, foot and mouth disease, and any other infectious or contagious diseases. And such commissioners or their duly constituted agent are hereby authorized to enter any premises or places, including stock yards, cars and vessels within any county or part of the State in or at which they have reason to believe there exists any such diseases, and to make search, investigation and inquiry in regard to the existence thereof. Upon the discovery of the existence of any of the said diseases, the said commissioners are hereby authorized to give notice, by publication, of the existence of such disease, and the locality thereof, in such newspapers as they may select, and to notify in writing the officials or agents of any railroad, steamboat or other transportation company, doing business in or through such infected locality, of the existence of such disease; and are hereby authorized and required to establish and maintain such quarantine of animals, places, premises or localities as they may deem necessary to prevent the spread of any such disease, and also to cause the appraisal of the animal or animals affected with the said disease, in according with such rules and regulations by them as hereinafter authorized and provided, and also to cause the same to be destroyed, and to pay the owner or owners thereof one-half of their value, as determinated upon the basis of health before infection, out of any moneys appropriated by the legislature for that purpose; provided, however, that no appraised value shall be more than two hundred dollars for an animal with pedigree recorded or recordable in the recognized herd-books of the breed in which the animal destroyed may belong, nor more than one hundred dollars for an animal which has no recordable pedigree; provided, further, that in no case shall compensation be allowed for an animal destroyed under the provisions of this act, which may have contracted or been exposed to such disease in a foreign country, or on the high seas, or that may have been brought into the State within one year previous to such animals showing evidence of such disease; nor shall compensation be allowed to any owner who, in person or by agent, knowingly or wilfully conceals the existence of such disease, or the fact of exposure thereto in animals of which the person making such concealment, by himself or agent, is in whole or part owner.

Sect. 3. That the said commissioners are hereby authorized and required to make record, and publish rules and regulations providing for and regulating the agencies, methods and manners of conducting, and the investigations aforesaid, regarding the existence of said contagious

diseases; for ascertaining, entering and searching places where such diseased animals are supposed to exist; for ascertaining what animals are so diseased, or have been exposed to contagious diseases; for making, reporting and recording descriptions of the said animals so diseased or exposed and destroyed, and for appraising the same, and for making payment therefor; and to make all other needful rules and regulations which may, in the judgment of the commissioners, be deemed requisite to the full and due execution of the provisions of this act. All such rules and regulations, before they shall become operative, shall be approved by the governor of Maine and thereafter published in such manner as may be provided for in such regulations and after such publication said rules and regulations shall have the force and effect of law, so far as the same are not inconsistent with this act and other laws of the State, or United States.

Sect. 4. That any person or persons who shall knowingly and wilfully refuse permission to said commissioners, or either of them, or their duly constituted agent to make, or who knowingly and wilfully obstructs said commissioners, or either of them, or their duly constituted agent in making all necessary examinations of, and as to animals supposed by said commissioners to be diseased as aforesaid, or in destroying the same, or who knowingly attempts to prevent such commissioners, or either of them, or their duly constituted agent from entering upon the premises and other places hereinbefore specified where any of said diseases are by said commissioners supposed to exist, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, or of either of the acts in this section prohibited, shall be punished by fine not exceeding one hundred dollars, or by imprisonment, not exceeding ninety days, or both fine and imprisonment, at the discretion of the court.

Sect. 5. That any person who is the owner of, or who is possessed of any interest in any animals affected with any of the diseases named in section two of this act, or any person who is agent, common carrier, consignee, or otherwise is charged with any duty in regard to any animal so diseased, or exposed to the contagion of such disease, or any officer or agent charged with any duties under the provisions of this act, who shall knowingly conceal the existence of such contagious disease, or the fact of such exposure to said contagion, and who shall knowingly and wilfully fail, with a reasonable time, to report to the said commissioners their knowledge or their information in regard to the existence and location of said disease, or of such exposure thereto, shall be deemed guilty of a misdemeanor, and shall be punishable as provided in section four of this act.

Sect. 6. That when the owner of animals, decided under the provisions of this act, by the proper authority, to be diseased, or to have been exposed to contagion, refuses to accept the sum authorized to be paid under the appraisement provided for in this act, it shall be the duty of the commissioners to declare and maintain a rigid quarantine as to the animals decided, as aforesaid, to be diseased or to have been exposed

to any contagious or infectious disease, and of the premises or places where said cattle may be found, according to the rules and regulations to be prescribed by said commissioners, approved by the governor, and published as provided in the third section of this act.

Sect. 7. That no person or persons owning or operating any railroad, nor the owner or owners, or masters, of any steam, sailing, or other vessels, within the State, shall receive for transportation, or transport from one part of the State to another part of the State, or to bring from any other state or foreign country any animals affected with any of the diseases named in section two of this act, or that have been exposed to such diseases, especially the disease known as tuberculosis, knowing such animals to be affected, or to have been so exposed nor shall any person or persons, company or corporation, deliver for such transportation to any railroad company, or to the master or owner of any vessel, any animals, knowing them to be affected with, or to have been exposed to, any of said diseases; nor shall any person or persons, company or corporation, drive on foot, or transport in private conveyance, from one part of the state to another part of the state, any animal, knowing the same to be affected with, or to have been exposed to, any of said diseases. Any person or persons violating the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by fine not exceeding the sum of two hundred dollars, or by imprisonment not exceeding six months, or by both fine and imprisonment.

Sect. 8. That it shall be the duty of the several county attorneys to prosecute all violations of this act, which shall be brought to their notice or knowledge by any person making the complaint under oath; and the same shall be heard in any supreme judicial court having jurisdiction in the county in which the violation of this act has been committed.

Sect. 9. That the said commissioners are hereby authorized to appoint or elect one of their number as secretary of said board, who shall receive a reasonable compensation for his services during the time in which, under the provisions of this act, the services of the said commissioners shall be required. The said commissioners shall make and preserve a full record of all rules and regulations promulgated under the provisions of this act, of all payments and expenses hereunder incurred, and all other transactions performed by said commissioners in the discharge of their duties as herein provided; and the said commissioners shall, on or before the first Wednesday in January of each year, during their continuance in service, and at other times as they may deem conducive to the public interests, or as they may be required so to by the governor of State, report to said governor full and accurate accounts of their expenditures, and other proceedings under the provisions of this act, and of the condition of said diseases, if any, in the State, to be communicated by him to the legislature. Whenever the functions of said commission shall be suspended or terminated, it shall turn over to the secretary of State, all its books, papers, records, and other effects, taking his

receipt therefor, and he shall remain the custodian of the same until such time as the functions of said commission may be restored.

Sect. 10. That the commissioners shall have power, and are hereby authorized to employ skilled veterinarians, and such other agents and employes as they may deem necessary to carry into effect the provisions of this act, and to fix the compensation of the person or persons so employed, and to terminate such employment at their discretion; and they are authorized out of the moneys by this act appropriated, to make such expenditures as may be needed for the actual and necessary traveling expenses of themselves and their said employes, stationery, expense of disinfecting premises, cars and other places, destroying diseased and exposed animals, and paying for the same, and such other expenses and expenditures as they may find to be annually necessary to properly carry into effect the provisions of this act.

Sect. 11. That the moneys appropriated by this act shall be paid over to the secretary of said commission, from time to time, as the same may be found to be needed, upon requisition made by the said commissioners, and shall be disbursed by the said secretary of said commission only upon vouchers approved by said commissioners or a majority of them. The said secretary shall, before entering upon the duties of his office, take an oath to faithfully discharge the duties thereof, and shall enter into a bond to the State of Maine, with sureties to be approved by the treasurer of State, in such sum as he may designate, for the faithful accounting of all moneys received by the said secretary of the commission, under the provisions of this act.

Sect. 12. That for the purpose of carrying into effect the provisions of this act, the sum of five thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any moneys in the treasury not otherwise appropriated.

Sect. 13. That all acts and parts of acts inconsistent or in conflict with the provisions of this act, be, and the same are hereby repealed.

Approved February 14, 1889.

STATE OF MAINE.

IN THE YEAR OF OUR LORD ONE THOUSAND NINE HUNDRED AND FIVE.

An Act in addition to chapter nineteen of the Revised Statutes relating to contagious diseases among cattle.

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Section 1. It shall be the duties of the assessors of all cities, towns and plantations to keep a record of all pure blooded cattle kept for breeding purposes, and shall report to the secretary of the Cattle Commissioners on or before the first day of July of each year, the name of the owner, number of each herd, age and sex, such reports to be made upon blanks furnished by the Cattle Commissioners.

STATE OF MAINE.

IN THE YEAR OF OUR LORD ONE THOUSAND NINE HUNDRED AND FIVE.

An Act in addition to chapter nineteen of the Revised Statutes relating to contagious diseases among cattle.

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Section 2. All persons selling pure blooded cattle or cattle represented to be pure blooded, for breeding purposes, shall, before delivery, make a report to said commissioners on blanks furnished by them on application, stating the number of cattle sold, their age and sex and to whom sold, and before delivery thereof such cattle shall be tested with tuberculin and a certificate of health be given by said commissioners or some person duly authorized by them to the seller and purchaser.

STATE OF MAINE.

IN THE YEAR OF OUR LORD ONE THOUSAND NINE HUNDRED AND FIVE.

An Act in addition to chapter nineteen of the Revised Statutes, relating to contagious diseases among cattle.

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Section 3. Any person bringing pure blooded cattle into this State for breeding purposes shall report to the commissioners the name and residence of seller, number purchased, age and sex upon blanks furnished by the commissioners upon application. Such cattle shall remain upon the purchaser's premises thirty days from the date of arrival and within that time be tested by order of the commissioners. But nothing herein contained shall be construed as requiring the testing of calves under four months old.

DISEASES AS AMENDED IN 1893.

CHAPTER 19.

An Act to Amend an act entitled "An Act to extirpate Contagious Diseases Among Cattle."

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Sect. 1. Section one of chapter one hundred and seventy-seven of public laws of eighteen hundred and eighty-nine, is hereby amended by striking out the words, "and other live stock" in the fourth line, and

inserting instead the words 'horses and sheep,' so that said section as amended, shall read as follows:

'Sect. 1. That for the purpose of facilitating and encouraging the live stock interests of Maine, and for extirpating all insidious, infectious and contagious diseases, now or that may be among cattle, horses and sheep, and especially tuberculosis, the governor of the State is hereby authorized and required, immediately after the passage of this act, to appoint a board of cattle commissioners consisting of three persons of known executive ability, who shall be charged with the execution of the provisions of this act, and who shall be known and designated as the State of Maine Cattle Commission, and whose powers and duties shall be those provided for in this act, and whose tenure of office shall be at the option of the governor. The compensation of said commissioners shall be at the rate of three dollars per day during the time they are actually engaged in the discharge of their duties as commissioners. The said commisioners shall respectively take an oath to faithfully perform the duties of their office, and shall immediately organize as such commission by the election of one of their number as president thereof, and proceed forthwith to the discharge of the duties devolved upon them by the provisions of this act.'

Sect. 2. Section two of said act is hereby amended by striking out the word "two" in the twenty-ninth line and inserting instead thereof the word 'one'; and by striking out the words "one hundred" in the thirtieth and thirty-first lines and inserting instead thereof the word 'fifty'; also by striking out the word "one" in the thirty-sixth line, and inserting instead thereof the word 'three'; also by inserting after the word "disease" in the thirty-seventh line the words 'and the owner or owners shall furnish satisfactory evidence as to the time such animal or animals shall have been owned in the State,' so that said section two as amended, shall read as follows:

'Sect. 2. That it shall be the duties of the said commissioners to cause investigation to be made as to the existence of tuberculosis, pleuropneumonia, foot and mouth disease, and any other infectious or contagious diseases. And such commissioners or their duly constituted agent, are hereby authorized to enter any premises or places, including stock yards, cars and vessels within any county or part of the State in or at which they have reason to believe there exists any such diseases, and to make search, investigation and inquiry in regard to the existence thereof. Upon the discovery of the existence of any of the said diseases, the said commissioners are hereby authorized to give notice, by publication, of the existence of such disease, and the locality thereof, in such newspapers as they may select, and to notify in writing the officials or agents of any railroad, steamboat or other transportation company, doing business in or through such infected locality, of the existence of such disease; and are hereby authorized and required to establish and maintain such quarantine of animals, places, premises or localities as they may deem necessary to prevent the spread of any such disease, and also

to cause the appraisal of the animal or animals affected with the said disease, in accordance with such rules and regulations by them as hereinafter authorized and provided, and also to cause the same to be destroyed, and to pay the owner or owners thereof one-half of their value, as determined upon the basis of health before infection, out of any moneys appropriated by the legislature for that purpose; provided, however, that no appraised value shall be more than one hundred dollars for an animal with pedigree recorded or recordable in the recognized herd books of the breed in which the animal destroyed may belong, nor more than fifty dollars for an animal which has no recordable pedigree; provided, further, that in no case shall compensation be allowed for an animal destroyed under the provisions of this act, which may have contracted or been exposed to such disease in a foreign country, or on the high seas, or that may have been brought into this State within three years previous to such animals showing evidence of such disease, and the owner or owners shall furnish satisfactory evidence as to the time such animal or animals shall have been owned in the State; nor shall compensation be allowed to any owner who in person, or by agent, knowingly and wilfully conceals the existence of such disease, or the fact of exposure thereto in animals of which the person making such concealment, by himself or agent, is in whole or part owner.'

Approved March 10, 1893.