

MAINE STATE LEGISLATURE

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PUBLIC DOCUMENTS OF MAINE

BEING THE

ANNUAL REPORTS

OF THE VARIOUS

Public Officers ^{and} Institutions

FOR THE YEAR

1890.

VOLUME I.

AUGUSTA :
BURLEIGH & FLYNT, PRINTERS TO THE STATE.
1892.

THIRD ANNUAL REPORT
OF THE
BUREAU OF INDUSTRIAL
AND
LABOR STATISTICS

For the State of Maine.

1889.

AUGUSTA:
BURLEIGH & FLYNT, PRINTERS TO THE STATE.
1890.

STATE OF MAINE.

Office of
COMMISSIONER OF INDUSTRIAL AND LABOR STATISTICS, }
Augusta, December 31, 1889.

To His Excellency, EDWIN C. BURLEIGH, Governor of Maine:

SIR:—In conformity with the provisions of law, I have the honor to present the Third Annual Report of the Bureau of Industrial and Labor Statistics.

Very respectfully,

SAMUEL W. MATTHEWS,

Commissioner.

INTRODUCTION.

The work of the Bureau during the past year has been confined, mainly, to an investigation of the quarrying and ship-building industries of the State. Thorough and systematic investigation of a small number of the varied "departments of labor in the State" is more valuable than a hasty and incomplete canvass of a large number, and the industries to which the Bureau has limited its labors are sufficiently important to constitute the substance of an annual report. The granite quarries give employment to an average number of 4,000 working-men, the lime and slate quarries furnish employment to more than 2,000, and the ship yards of the State, during the past year, have employed nearly 2,000, with a prospect of an increase of the number of workmen in the year to come. Investigations into the extent and condition of these branches of Maine's industries, together with inquiries into the "industrial, social, educational and sanitary condition of the laboring people" connected therewith, have furnished ample employment for "the means and machinery" at the disposal of the Bureau. The last legislature made a small increase of the "means," by which the Bureau was enabled to add a competent and faithful special agent to the "machinery." Mr. T. J. Lyons of Vinalhaven, an intelligent and capable working-man, was employed during the summer and fall months, and well performed his duties as agent of the Bureau. Deputy Commissioner Campbell has, in compliance with the legal requirement imposing the duty on him, "to assist in the collection of statistics and other information which may be required for the use of the Bureau of Industrial and Labor Statistics," contributed valuable aid in the collection of statistics, especially in relation to the lime industry of the State. The usual difficulties in the way of a prosecution of the investigations of the Bureau have been encountered, viz: apathy and indifference on the part of many manufacturers; misapprehension and ignorance on that of many working people. It is hoped

that an increasing knowledge of the purposes of the Bureau will cause these difficulties "to grow small by degrees and beautifully less," until employer and employed come to thoroughly realize the importance of carefully and correctly filling out the blanks furnished them, and promptly returning them to the Commissioner. Statistics can only be valuable when they "tell the truth, the whole truth, and nothing but the truth." Half truths are frequently more misleading than whole falsehoods, and imperfect statistics more mischievous than none at all. The adage "figures will not lie," is rendered practically untrue by the fact that "*liars will figure.*" Some of the most erroneous and hurtful conclusions of certain classes of economic writers have been drawn from the false premise of imperfect census statistics. The true relations between labor and capital in the work of production can be correctly ascertained only through a *full and complete presentation* of the statistics relating thereto.

PART I.

THE GRANITE INDUSTRY.

THE GRANITE INDUSTRY.

Investigations of the granite industry have been made through personal visits to localities where the business is carried on, as well as by means of blanks sent to the operators.

Several of these operators have failed to make returns, and the information given concerning their works was obtained through a special agent.

The variable character of the granite industry, depending largely, as it does, on special contracts for the products, and profitably carried on during but a portion of the year, renders it a matter of difficulty to obtain exact statistics as to average number of employes, annual earnings, etc.

In the State there are, in round numbers, 4,000 men employed in the granite industry, divided as follows: 1400 granite cutters, 1,000 paving cutters and 1,600 attendant laborers, including tool sharpeners, quarrymen, teamsters, drag tenders, boxers, (men who box the cut stone,) draftsmen, foremen, engineers, laborers, superintendents, polishers, clerks, etc. Besides this number there are employed through this industry 500 more engaged in sailing vessels that are almost constantly employed in freighting the granite to the different centers of trade.

The wages paid to day-workers throughout the State are as follows:

	Cents per hour.		Cents.
Granite Cutters,	.25 to .30	average	.27½
Paving Cutters,	.25 to .30	“	.27½
Tool Sharpeners,	.22½ to .27½	“	25
Quarrymen,	.15 to .17½	“	.16½
Teamsters,	.16 to .21½	“	.18
Laborers,	.12½ to .18	“	.15
Polishers,	.15 to .20	“	.17½

These figures, by themselves, might be misleading to those unacquainted with the granite business, for while they are correct they apply to but a small portion of those employed, probably not more than 12 per cent; and those so employed are generally the best of the workmen. The average annual earnings of granite cutters working by the day, at an average of \$2.75 for 287 days, allowing 25 days for holidays and shortening of the days in winter, would be \$789.25.

The average annual earnings of granite cutters, (piece workers) is \$600.00, an average for 287 full days of \$2.09 per day.

The average annual earnings of tool sharpeners, working by the day, at an average of \$2.50 for 287 full days, is \$717.50.

The average annual earnings of the quarrymen, at an average of \$1.65 per day, is \$396.00, an average for 287 days of \$1.38 per day, showing a loss to the quarrymen, in addition to shortening of days, of 47 days from bad weather.

The season for making paving profitably, does not exceed eight months, although the business is carried on at most of the places throughout the year. As most of the paving cutters work out of doors, considerable time is lost by bad weather. The average number of days worked for eight months is 180; for that time the average pay would be \$2.50 per day, or a total for 180 days, of \$450.00. During the four winter months the average would be about \$30.00 per month, a total for the year of \$570.00, or an average for 287 days of \$1.99 per day. The price for paving working is from \$20.00 to \$30.00 per thousand, an average of about \$26.00 per thousand, \$20.00 being for stock on the dump, \$30.00 being for motion work. (The paving cutter quarrying his own stone.)

GRANITES AND GRANITE WORKERS.

By A GRANITE CUTTER.

There is no industry of any importance that has received so little attention from statistical experts as the granite industry. Extensive as it is, reaching into almost every state and territory, yet no work is to be found that gives reliable information of the extent or national importance of this great and solid business.

People stop and gaze with astonishment at the magnificent granite structures that have grown up, as it were, in our large cities and business centers the past few years; but the many as they applaud

and admire the gigantic proportions or delicate workmanship, have no conception of the labor necessary to produce such wonders

From the taking of the stone from its bed in the quarry, until it is finally stowed in the hold of the vessel that is to carry it to its destination, the work is of the hardest kind, requiring endurance and intelligence to perform it.

Unlike many other industries, the granite business has undergone but little change during the last twenty years. The shoemaker has had to give way to the lasting, pegging, stitching and other machines, until to-day he does not know what part of a shoemaker he represents. The same is the case with a great many other trades, but with the exception of the steam drill, the stone is quarried by the same process and with the same tools as it was twenty years ago. In the cutting or dressing of the stone, there has been no displacement by machinery, nor is there likely to be; and the same methods and the same tools are used as were twenty years ago. Machinery has been tried in all forms, but, as yet, nothing has been found that will perform the labor that is now done by human power. Used as a lathe, machinery does work satisfactorily in turning out columns, (there is one in operation at Vinalhaven by the Bodwell Granite Company) but even this does not finish the surface except when it is to be polished.

Machinery is used very extensively in polishing granite, and many improvements have been made in that department. The result of this has been to increase the demand for the stone and for the men who work it.

And who are these men, and what is their condition socially and intellectually, compared with other kinds of laborers? The men who are the principal granite workers in Maine may be divided as follows:

The granite cutters are about 70 per cent American born. As a class these men are in comfortable circumstances; the large majority of them are the possessors of farms, and no homes are more comfortably furnished. Pianos and elegant furnishings are no rarity in the homes of the granite cutters of Maine. They work hard and steadily; they receive in the main, very fair wages, but they do not save up a great portion of their earnings. They are not of the miserly sort, and believe they are entitled to the best there is to be had, therefore they enliven trade wherever they are congregated. Their children have all the advantages of our public schools, as

they cannot be put to work on granite until fully matured, or at least before 16 years of age, as the work is of too hard a nature for frail limbs. Intellectually, the granite cutters of Maine are on a level if not in advance of any other class of mechanics. Instead of the saloon they patronize the public library. They are very active and interested in national and State affairs, and it is a fact that there are more daily papers taken among the granite cutters of Vinalhaven and others of our granite villages, than are taken in many larger communities. The foreign portion of our granite cutters are chiefly Scotch, Italian and English.

The Scotch came among us to better their condition, believing that they are better paid for their labor than at home. Intellectually they compare favorably with any, and soon become thoroughly Americanized. If their families are not with them it is their intention to have them here as soon as convenient. They generally avail themselves of the advantages of citizenship, are very industrious and soon make for themselves and families a comfortable home.

The Italians seem to be here simply for what they can make. It is a very rare thing for one of them to become a citizen, and very few of them bring their families with them. They live differently from the other cutters and are seldom found at boarding-houses or hotels. They congregate together, and speak their own language almost exclusively. They seem to care nothing for our institutions, and their only object seems to be the accumulation of a few hundred dollars with which to return to Italy. Of course there are exceptions, and there are Italians who prefer our country and institutions, but as a class they are here only temporarily.

The English stone cutters, like their Scotch neighbors, are generally here to stay. It comes quite hard to them to forswear their Queen, but they soon get so they can live like a Yankee. They are about as lavish in their expenditures as the natives, and there is nothing in the market too good for an Englishman.

The paving cutters, of whom there are about 1,000 in the State, are a different class of men from the stone cutters; 75 per cent of these are foreigners, mostly Scotch. Their work leads them from one place to another, and they are constantly on the move. A large portion of them are single. The married men generally settle down; they make about the same wages as the stone cutters, and are usually comfortable and well informed.

The quarrymen are the poorest paid of any of the granite workers, and, although they have to work out of doors exposed to heat and cold alike, they do not receive, on an average, much more than half as much as the stone cutters or paving cutters. There is just as much intelligence required in the quarry as in the shed, and yet the quarryman at .15 or $.17\frac{1}{2}$ per hour, is obliged to lose all bad weather, while the stone cutter at $.27\frac{1}{2}$ or .30 per hour can work every day if he will. The causes of all this may be summed up in these words: The stone cutters and paving cutters are organized, the quarrymen are not. Of course the quarrymen have to live on their incomes, but there are very few of them, especially those who try to maintain the American standard of living, or who have others depending on them, that more than pay their bills and many of them cannot do that.

As a whole, granite cutters are a most useful and creditable portion of our citizenship.

The granites of Maine are as varied in color as they are in the nature of their working. Our red granite is found at Jonesboro' and Red Beach, Washington county, and Mt. Desert, Hancock county. It is very extensively used, especially the Jonesboro', which is owned by the Bodwell Granite Company. Large buildings are constructed out of this stone. The Red Beach is a finer (closer grained) stone than the others and is used mostly and very extensively for monumental purposes. This granite takes a very high polish and is as fine as any of the Scotch imported. It is what the workmen term good working stone, and what is meant by that is, a stone that will work quite free and safe on all sides. Such stone has but little rift. The black granite is found at several places, but the best specimens are found at South Thomaston and Vinalhaven. It is somewhat different in its composition from the other granites, hornblende taking the place of mica, so prominent in granite. This stone should properly be termed sienite. It is very highly prized for monumental purposes. It takes a polish that cannot be equalled by any other stone, and the contrast between the polished and hammered work is what would be expected from the shades of this stone, black and white. A great deal of this stone is used by the firm of George Green and Company, the owners of the quarry at South Thomaston, also by Barton & Sprague, Vinalhaven. The Addison quarries, in Washington county, are also black, but are not used much for monumental work. The Bodwell

Granite Company have a large quarry at Vinalhaven, but find it expensive to work. The stone that is principally used is very good working stone. Our white granite is not much more abundant than the red or black. The finest grade is the Hallowell stone, quarried by the Hallowell Granite Company, and by Archie and Augustine (Hallowell Central Granite Works.)

White granite is also quarried at Waldoboro', Lincoln county, North Jay, Franklin county, Lincolnville, Waldo county, and Friendship, Knox county. The Hallowell Granite Works do an immense business in monumental and statuary work. The stone being free working and soft, allows it to be worked as fine as marble. This white granite is one of the stones that the paving cutters delight to work on. It is very rifted and will split like a piece of wood.

The gray granite as it is termed, is very abundant, but differs a great deal in quality. This stone is quarried the most extensively, and is used chiefly for building purposes and for paving. It is generally coarse grained.

The most prominent of the quarries of this granite are those of the Bodwell Granite Company, at Vinalhaven, Booth Bros. & Hurricane Isle, Mt. Waldo Granite Company, Mt. Waldo, and the quarries at Somes' Sound and West Sullivan. Most of these gray granites will take a nice polish, but do not show a great contrast between the hammered and the polished work.

A granite that is valued highly for all purposes is what is called dark granite. This granite hammers very light, but takes a very dark, high polish, and is closely grained, hence it is called dark. The most prominent of this class, is Clark's Island Granite Company, Clark's Island, Booth Bros. & Hurricane Granite Co., Long Cove, Oak Hill Granite Company, Belfast, Freeport Granite Works, Freeport, Brown McAllister & Co., Round Pond, Burleigh & Hall, Rockland, and the firms of Brown & Wade, John Ingraham, Charles Ward and others, of South Thomaston. All of these granites are of superior quality and nothing better can be produced for monumental purposes.

The Dodlin Hill and the Spruce Head granites, though in different parts of the State, are somewhat similar. There are numerous other quarries throughout the State, that, although not mentioned in this report, will be very valuable when thoroughly developed.

At nearly all of these quarries, paving blocks are made, some firms working at that branch of the industry exclusively, others using only the waste stock.

RETURNS OF GRANITE OPERATORS.

Number of return.	Location.	Days operated in 1888.	Average number employed in 1888.	Number employed at date of return.	Percentage of increase of wages.	Percentage of decrease of wages.	Capital invested.	Gross product in 1888.
1	Swanville.....	200	40	-	-	-	\$20,000	\$25,000
2	Biddeford.....	195	15	12	-	-	5,000	7,000
3	Franklin.....	234	56	58	-	-	4,000	-
4	Mt. Desert.....	170	32	28	-	-	-	-
5	North Jay.....	197	53	49	-	.15	125,000	35,000
6	Deer Isle.....	247	150	80	-	-	50,000	150,000
7	Mt. Desert.....	-	-	28	.015	-	8,000	-
8	Biddeford.....	240	10	16	-	-	4,000	10,000
9	Sullivan.....	200	20	-	-	-	5,000	15,000
10	Bristol.....	250	43	44	-	-	-	-
11	Norridgewock.....	325	50	25	-	-	25,000	50,000
12	Manchester.....	312	56	50	-	-	100,000	28,383
13	Hallowell.....	312	250	350	.10	-	40,000	260,000
14	So. Thomaston.....	312	75	80	-	-	-	60,000
15	St. George.....	312	20	20	-	-	-	12,500
16	Jonesboro.....	220	35	33	-	-	-	14,000
17	Vinalhaven.....	312	450	500	-	-	-	250,000
18	Sullivan.....	240	50	100	-	-	20,000	51,000
19	North Jay.....	190	10	24	-	-	1,500	3,500
20	North Jay.....	303	25	18	-	-	-	-
21	St. George.....	-	-	22	-	-	-	-
22	Biddeford.....	312	14	5	-	-	3,000	11,000
23	Penobscot.....	-	-	22	-	-	-	1,500
24	Mt. Desert.....	-	-	19	-	-	400	-
25	Chester ville.....	83	6	2	-	-	400	1,000
26	Mt. Desert.....	200	4	4	-	-	200	1,500
27	Mt. Desert.....	-	-	20	.20	-	-	-
28	Addison.....	234	18	22	-	-	15,000	10,000
29	Calais.....	196	51	60	-	-	60,000	39,600
30	Deer Isle.....	286	20	14	.08	-	-	10,000
31	So. Thomaston.....	310	18	20	-	-	5,000	14,000
32	Bluehill.....	312	300	289	-	-	-	-
33	Deer Isle.....	238	48	54	.015	-	2,000	35,000
34	Mt. Desert.....	16	-	6	-	-	500	-
35	Mt. Desert.....	58	18	23	-	-	3,000	1,850
36	Frankfort.....	325	70	112	.05	-	-	-
37	Franklin.....	250	30	45	.05	-	6,000	35,000
38	Waldoboro.....	175	15	12	-	-	5,000	9,000
39	Biddeford.....	272	22	16	-	-	8,000	12,268
40	Sullivan.....	200	38	36	-	-	10,000	5,000
41	Freeport.....	275	75	40	-	-	25,000	20,000
42	St. George.....	250	100	143	-	-	50,000	70,000
43	Frankfort.....	312	325	225	-	-	-	-
44	Sullivan.....	312	266	200	-	-	100,000	150,000

RETURNS OF GRANITE OPERATORS—Concluded.

Number of return.	Location.	Average weekly wages when fully employed.								
		Overseers.	Stone cutters.	Paving cutters.	Quarrymen.	Sharpners.	Blacksmiths.	Polishers.	Teamsters.	Common laborers.
1	Swanville	\$21 00	\$14 00	\$10 00	\$ 9 00	\$15 00	-	-	\$14 00	\$9 00
2	Biddeford	15 00	16 50	20 00	10 50	13 50	-	-	-	-
3	Franklin	18 00	15 00	15 00	11 00	16 50	-	-	11 50	-
4	Mt. Desert.....	18 00	-	19 00	10 50	15 00	-	-	12 00	9 00
5	North Jay.....	12 00	-	24 00	10 50	16 50	-	-	9 90	9 00
6	Deer Isle	-	15 50	15 00	10 50	16 50	\$18 00	-	9 60	9 00
7	Mt. Desert	16 50	-	18 00	12 00	-	15 90	-	12 00	9 60
8	Biddeford	-	18 00	-	10 00	15 00	-	-	-	8 00
9	Sullivan	18 00	15 00	18 00	11 50	15 00	-	-	12 00	9 00
10	Bristol	17 25	16 00	-	10 50	16 00	-	\$10 00	10 50	-
11	Norridgewock	24 00	16 50	-	10 50	15 00	-	-	9 00	9 00
12	Manchester	-	16 50	-	10 00	16 50	-	12 00	10 00	9 00
13	Hallowell	18 50	17 25	16 00	10 50	15 90	13 50	12 00	12 00	10 50
14	So. Thomaston	18 00	15 00	-	10 50	15 00	-	-	11 25	9 50
15	St. George	-	-	15 00	-	-	-	-	11 25	9 50
16	Jonesboro	18 00	15 00	15 00	10 50	15 00	15 00	-	11 25	9 50
17	Vinalhaven....	18 00	15 00	15 00	10 50	15 00	15 00	10 50	11 25	9 50
18	Sullivan.....	21 00	18 00	20 00	10 50	16 50	-	-	11 00	9 00
19	North Jay.....	18 00	15 00	18 00	10 50	15 00	-	-	12 00	9 00
20	North Jay.....	20 00	16 50	-	10 50	16 50	-	-	9 00	-
21	St. George.....	10 50	-	16 00	9 00	15 00	-	-	9 00	7 00
22	Biddeford.....	15 00	15 00	-	10 50	15 00	-	-	-	9 00
23	Penobscot.....	-	-	18 00	10 20	15 00	-	-	10 20	9 00
24	Mt. Desert.....	16 20	-	18 00	10 00	16 20	-	-	-	-
25	Chesterville	15 00	12 00	-	9 00	12 00	-	-	-	6 00
26	Mt. Desert.....	-	-	20 00	12 00	12 50	-	-	10 50	-
27	Mt. Desert.....	12 00	-	18 00	9 90	16 00	-	-	-	9 00
28	Addison.....	16 62	15 00	-	9 70	12 00	-	9 24	9 24	8 52
29	Calais.....	18 00	14 50	-	8 40	13 50	18 00	9 00	9 00	7 50
30	Deer Isle.....	-	-	-	-	-	-	-	-	-
31	So. Thomaston	-	12 00	-	10 50	15 00	-	12 00	11 00	-
32	Bluehill.....	-	20 00	-	10 50	16 50	15 00	-	10 50	-
33	Deer Isle.....	18 60	18 00	-	10 50	13 00	-	-	13 50	9 90
34	Mt. Desert.....	-	-	20 00	-	-	-	-	10 00	9 00
35	Mt. Desert.....	-	-	17 00	-	16 50	-	-	10 50	10 50
36	Frankfort	15 00	-	16 50	-	13 50	-	-	10 20	9 00
37	Franklin	18 00	15 00	15 00	12 00	18 00	-	-	10 50	10 50
38	Waldoboro	15 00	18 00	15 00	9 00	15 00	-	-	9 00	8 40
39	Biddeford.....	-	16 00	-	10 50	15 00	-	-	-	-
40	Sullivan	20 00	16 00	19 00	10 50	18 00	-	-	10 50	9 00
41	Freeport	25 00	16 50	15 00	10 50	16 50	16 50	12 00	15 00	9 00
42	St. George.....	25 00	16 50	18 00	10 50	15 00	16 50	-	16 50	8 00
43	Frankfort	16 50	14 40	15 60	9 00	13 50	13 50	-	10 20	8 40
44	Sullivan	17 00	18 00	24 00	10 50	16 50	18 00	-	12 00	9 00

ANALYSIS.

Of the above 44 returns, 30 give a total capital invested.....	\$701,000
Thirty-two give a total gross product	\$1,338,101
Forty-two give a total of men employed at time of making return	2,926
Thirty-eight give an aggregate of the average number employed in 1888..	2,872
Thirty-nine give the average number of days in operation in 1888.....	241

Average Weekly Wages when Fully Employed.

Overseers	\$17 63
Stone cutters.....	15 86
Paving cutters	17 34
Quarrymen.....	10 33
Sharpeners	12 84
Blacksmiths.....	15 90
Polishers	10 84
Teamsters.....	11 02
Common laborers	8 94

The following list includes several important works not found in the above tables. The descriptions are based on personal examinations, and give number of employes, nationalities, etc., as found at the time of examination. The tables and descriptive list embrace all the granite works of the State of any magnitude, with the exception of some three or four. The whole number of quarries operated to any considerable extent in 1888 and 1889 was about 55, and the whole number of workmen employed about 4,000.

VINALHAVEN. BODWELL GRANITE COMPANY, Superintendent, Mr. John Lowe.—The extensive quarries at Vinalhaven have been largely worked for a number of years, large contracts being executed for all parts of the country, some of which are the State, War and Navy building, Washington; Masonic Temple, Philadelphia; Post Office, Cincinnati, Ohio; Board of Trade, Chicago; Brooklyn Post Office, St. Louis and Brooklyn bridges.

The General Wool monument, which weighed, when completed [foundation and all,] some 650 tons, was taken from these quarries at Vinalhaven. The shaft of this monument alone was 60 feet long and 5 feet and 9 inches square at the base; when finished, without doubt the largest granite shaft ever quarried in this country. The weight of this shaft in the rough would be nearly 185 tons.

The Bodwell Granite Company was incorporated in 1871, and since that time an extensive business has been carried on. Some

years as many as 1,500 men have been employed. The granite produced at Vinalhaven is of many different kinds and colors, both fine and coarse grained, but the most notable and most extensively used is taken from what is known as the Sands and Harbor quarries. Large quantities of red granite taken from the company's quarries at Jonesboro' is also used both here and at Spruce Head.

The company have at present, employed at Vinalhaven, granite cutters, 256; paving cutters, 30; quarrymen, 130; blacksmiths, 28; polishers, teamsters, engineers, clerks, etc. 56; total number, 500. Wages are as follows for day workers: Granite cutters, $.27\frac{1}{2}$ to .30 per hour; quarrymen, .15 to $.17\frac{1}{2}$; first derrickmen, breakers and men who handle powder, .20 per hour; boxers, [men who box the cut stone] $.17\frac{1}{2}$ per hour; teamsters, .18, .20, .22 per hour. Nationality of workmen; granite cutters, 72 Americans, 55 Scotch, 18 English, 4 Irish, 6 Canadian Provinces, 1 Swede; paving cutters, 18 Scotch, 6 English, 1 Canadian, 1 Swede, 2 Welshmen, 2 American born. Ninety per cent of the other labor, American born.

The company has a store in connection with their works. Employes are paid fortnightly in cash. No labor trouble has occurred at these works for the past eleven years.

The men are nearly all members of labor organizations, who enter into agreements with the company from time to time that, in the main, are satisfactory to both parties.

BOOTH BROS. & HURRICANE ISLAND GRANITE COMPANY, located at Hurricane Island Knox County.—These works were first opened in 1870 by General Davis Tillson, Garrett Coughlin, John Hogan and Patrick McNamara, General Tillson becoming shortly after the sole proprietor. Some very large contracts, notably the St. Louis post office, have been filled from the quarries at Hurricane, furnishing employment at times to hundreds of men. The stone is gray in color, coarse grained and an excellent stone for building purposes and paving. Large quantities have been shipped to the west and south for monumental purposes. At present there are about 150 men employed, divided as follows: granite cutters 60; paving cutters 25; attendant labor 65. Wages are about the same as paid in vicinity, and are paid monthly in cash. The company, which is now known as Booth Bros. & Hurricane Island Granite Company, have also about 30 men employed at Waldoboro' cutting stone for the extension to the State Capitol at Augusta.

Nationality of men employed at Hurricane: Granite cutters: Italians 26; English 10; Scotch 5; Irish 5; American born 16. Paving cutters; Scotch 18; American born 5; English 2. Attendant labor: seventy per cent American born. Men employed at Waldoboro': forty per cent American born.

SULLIVAN QUARRIES.—The Granite quarries of Sullivan have been extensively operated for over fifty years and are the oldest in Hancock county, and among the oldest in the State. The principal branch of the business carried on at present is the paving, although large contracts of hammered stone have been filled in the past.

The quarries are situated on Mt. Washington Ridge, which lies along an arm of Frenchman's bay, known as Taunton bay. Arriving at Sullivan, widely known from the Sullivan and Sorrento Land and Water Company, large numbers of men are found engaged in building new streets, driveways, etc., for this company, for which they receive \$1.85 per day. These improvements will continue for some years, affording employment for a great many laborers in addition to the mechanics employed in building hotels, cottages, etc.

Leaving Sullivan, and walking a distance of about one and a half miles, passing on the way the ruins of the Sullivan and Milton Mining and Milling Companies, we reach West Sullivan, where the granite business is principally carried on. The quarries lie along the ridge for a distance of five or six miles, and are worked by the following parties: Stimpson Quarry Company, Crabtree & Havey, Joseph H. West, Alonzo Abbot, G. W. Pettengill & Son. These are the principal operators, while a few others have small crews of men, and quarry stone on sub-contracts from the large firms. Among these are Alexander Taylor, E. F. Chaplin, Wm. McKenzie, and Hovey & Hooper.

The Sullivan Quarry Company, operated by J. H. Stimpson, W. B. Eaton, manager, are the oldest of the Sullivan quarries. They have been in periodic operation for over fifty years, and in constant operation for the past fifteen years. General Sullivan of revolutionary fame, from whom the town received its name, quarried stone, it is said, from these hills, to build a dam, the ruins of which can be seen in a stream of Frenchman's Bay. In former years when large stone cutting operations were carried on, the cut stone was conveyed from the quarries by steam engine

and cars, on tracks laid to the wharf; but this method proving unprofitable in paving operations, was discontinued some years ago. The distance from the quarry to the wharf is about one mile, and the stone is now conveyed by teams. The teamsters generally, own their teams, and are hired to work by the piece, trucking the paving to the landings for a stated amount per thousand blocks; this same system being in operation at all the other quarries in town. This company have five main quarries in operation, and motions, as they are called, covering a territory of two hundred acres. These motions are opened by the paving cutters, they doing the quarrying and cutting out the blocks at so much per thousand blocks.

The quarries lay in sheets varying in thickness. The quality is medium fine grained and gray in color. All the quarries in the vicinity are of the same quality and lay in about the same form as the Stimpson quarries. Free and fine in the grain, this stone is considered excellent for paving work. In past years the main quarries of this company have been almost entirely worked for paving, but this season the stone is being used for curbing and other stone cutting work. A store is run in connection with these works, prices being generally as low as at other places in town. Most of the houses in which the workmen live are owned by the company, and are near the quarries. Many of them are of the shanty finish, but are clean and comfortable enough, except in severe weather. The amount charged for rents is from \$2.50 to \$4.00 per month. Many of the men build shanties and do their own cooking preferring this in the summer time to boarding. Although the company has boarding houses, most of the men board in private families. These same conditions will apply to the other firms as they are about all worked on the same principle.

Number engaged at Sullivan Quarry Company, otherwise known as Stimpson's Works. Total number, 155; paving makers, 75; granite cutters, 15; attendant labor, 65. Nationality of workmen, paving cutters; Scotch, 30; English, 15; Irish, 5; Canadians, 5; Americans, 20. Nationality of the granite cutters; Scotch, 10; American, 5. Nationality of attendant labor; American, 36; Scotch, 7; Canadians, 22. The number engaged at these works at the present time is considerably less than in previous years. Wages are paid monthly in cash.

WEST SULLIVAN.—This quarry has been in operation about eighteen years, operated by the proprietors, Messrs. Crabtree and Havey. This company is doing a very nice business, and have at present employed 83 men, as follows: Paving cutters, 20; granite cutters, 25; attendant labor, 38; total number, 83. A store is run in connection with the works. Men are paid monthly what is coming to them. Sixty per cent of their laborers are foreign; forty per cent are American born. The stone cutters on this job are mostly engaged cutting street curbing; paving cutters work in motions at \$30.00 per thousand; rough stock on dump \$25.00 per thousand.

Joseph H. West has been in operation for some years. Besides his interest at West Sullivan, he has a large force engaged at Franklin, a town adjoining Sullivan. At West Sullivan he has employed 30 men as follows: Paving cutters, 10; granite curb cutters, 15; attendant labor, 5; total, 30. The price paid for paving is \$30 per thousand, all in motions. This firm always buys largely from small paving companies in vicinity.

G. W. Pettengill & Son employ 25 men, mostly engaged at cutting curbing. A few paving cutters are also employed working in motion at \$30.00 per thousand. A large number of quarrymen and laborers of West Sullivan and vicinity are natives of New Brunswick and Nova Scotia. They are employed in the woods during the winter and come here in the summer.

The following rates of wages are paid at West Sullivan and vicinity in granite industry: Paving cutters, \$30.00 per thousand in motions, the company furnishing all tools; square dimension stone [or dump] \$20.00 per thousand; rough stone or grout \$25.00; and \$30.00 per thousand, according to the quality.

Most of the paving made here are made in motions, and the earnings of the workmen depend a great deal on the kind of a motion he has to work, the stone being good to work; if the man strikes a good motion he makes good pay, but at my interviews with the men, I find there are more poor motions than good ones, and the men as a whole prefer to work stock on the dumps quarried for them, than to work in the motions, the work being lighter, and more money can be earned.

A cutter can make, when his motion is good, and no clearing to be done, \$75.00 or \$80.00 per month, but at times he will not make more than half of it, so that his average is not so large as many would have it appear.

The prices paid for day labor at West Sullivan are the same at the different quarries and are as follows :

Quarrymen,	\$1.50 to \$1.75	per day of 10 hours.
Teamsters,	1.75 to 2.00	“ “ “
Sharpeners,	2.50 to 2.75	“ “ “
Laborers,	1.50	“ “ “

Teamsters working by the piece receive from \$3.50 to \$4.00 per thousand for putting blocks on the wharf from quarries.

Curbing cutters receive eight to nine cents per lineal foot, and a good workman will cut from 25 to 30 feet per day, most of the work being done out of doors.

Board is from \$3.50 to \$4.00 per week. About 400 men are employed at the present time in the granite industry. About 60 per cent are foreign born, in the following proportions: Scotch, 25 per cent; Canadian, 17 per cent; English, 10 per cent; Irish, 5 per cent; other nationalities, 3 per cent; American born, 40 per cent.

There are two labor organizations in town, an assembly of the Knights of Labor and a branch of the Paving Cutter's Union, both having a large and active membership. There have been no labor disturbances at West Sullivan for some years. The men in most cases receive their pay monthly.

ROUND POND.—Round Pond in town of Bristol, Lincoln county. Quarries operated by Brown, McAllister & Company of New York, Mr. Thomas Couch, Superintendent. The granite produced from this quarry is of a fine quality, very even in the grain, and taking a very high polish, showing splendid contrast with hammered work. The stone is used mostly for monumental and cemetery purposes, large quantities being shipped to the yards at New York. Total number employed, 41; granite cutters, 21; paving cutters, 2; quarrymen, 11; all others, 7. Wages of granite cutters (all day work,) 25 to 27½ cents per hour; paving cutters, \$27.50 per thousand; quarrymen, 15 to 17½ cents per hour. Nationality of workmen: Granite cutters, American, 17; English, 4; paving cutters, Scotch, 2; quarrymen, all American born; others, 95 per cent American born. Board is \$4.00 per week. This quarry is operated most of the time, summer and winter.

SPRUCE HEAD in town of Thomaston.—The quarries are operated by Bodwell Granite Company. It was first opened about 1836, very little being done until about 1860, the firm of Cobb, White &

Case of Rockland, having then commenced active operations continuing until consolidated with Bodwell Granite Company. The granite of this quarry is gray in color, differing somewhat in its make-up from other granite in vicinity, and although susceptible to a high polish is used almost exclusively for building purposes.

Among the many contracts filled from Spruce Head quarries are the Court House and Post Office, Atlanta, Ga. ; Albany Post Office, Philadelphia City Buildings ; Gate House, New York City ; polished columns for Auditorium, Chicago, etc., etc.

One hundred men are employed at present furnishing stone for Hackly Library, Muskegon, Michigan, and Mechanics' National Bank, New York City ; 65 are granite cutters, 35 attendant labor, 85 per cent of whole being American born.

Men are paid fortnightly in cash, prices being about the same as at Vinalhaven. A store is run in connection with the works, prices being about the same as at other places where a monopoly of the trade is had. Board is \$4.00 per week.

EAST BLUE HILL.—The quarries at this place are held by Christopher Binder & Sons, and have been in operation about four years. The contractors are M. A. McGown & Company of Washington D. C. The work under construction is the Pittsburg Post Office, and is under the supervision of Major Appel, who was placed in charge by the government, owing to a failure on the part of the contractors to carry on the work. The stone used is a very fine quality, but very hard and expensive to quarry. The conditions under which the men work are very favorable. A great many of them have farms in this or adjoining towns, enabling them to live very comfortably and independently. Payments are monthly in cash, the money coming direct from the United States Treasury. Board is but \$3.50 per week. Number employed at East Blue Hill : Granite cutters, 150 ; quarrymen, 110 ; other labor, 40. Wages are about the same as at the other granite centers, the cutters working by union bill of prices. Nationality of granite cutters : American-born, 78 per cent ; Italian, 15 ; English, 2 ; Irish, 3 ; Canadian, 2. Other labor 98 per cent American-born.

JONESBORO' BODWELL GRANITE COMPANY.—The Jonesboro' Granite Quarries are located in town of Jonesboro', Washington county, and are operated by the Bodwell Granite Company, Ephraim Whit-

ney, Superintendent. The granite taken from this quarry is of a red color and very highly prized. It takes a nice polish and is used very much for trimmings, columns, etc. The granite is shipped to Vinalhaven and Spruce Head, where it is dressed and prepared for the market. About 40 men are employed about the quarry, mostly natives.

The quarry is operated about nine months of the year. In winter most of the men go in the woods for the company, they having large lumbering interests there. The wages paid is about the same as at other places for the same class work.

A store is run in connection with the works. Wages are paid fortnightly. Board is \$3.50 per week.

HALLOWELL CENTRAL GRANITE COMPANY, Archie & Augustine, proprietors.—This firm has been in operation about four years. The quarry and sheds are located near the quarries of the Hallowell works. The stone produced is without doubt as fine as there is in the State, and is used mostly for statuary and monumental work. The quarry though not very extensively operated as yet, will no doubt be made to yield an abundance of stone when properly opened.

At present the company are engaged in furnishing stone for the extension of the State House at Augusta, some 45 men are employed altogether, engaged as follows: Granite cutters, 30; attendant labor, 15. The same conditions exist as at Hallowell works. Ninety per cent of men employed are Italians and Spaniards.

MT. WALDO GRANITE COMPANY.—Mt. Waldo Granite Company, located at Frankfort on the Penobscot river, first opened in 1852, operated more or less since and quite extensively at times by Messrs. Pierce & Rowe.

The quarries are located almost on the top of the mountain from which they receive their name. Two kinds of stone are found at these quarries, one being coarse grained, the other fine and of excellent quality. It hammers very light, works very easily and splits to almost any dimension.

The extent of these works and their capacity is unlimited. The average number of men employed is about 250. At present there are about 150 employed, divided as follows: stone-cutters, 90; attendant labor, 60; 75 per cent are American-born. The foreigners generally work at paving, cutting and in the quarry. A

great many of them have settled here and have built themselves comfortable homes. Many more return home in the fall, coming back in the spring.

The wages paid at these works are about ten per cent lower than at the average works throughout the State. Still the conditions under which the men work, most of them having homes and farms in this and surrounding towns, where they can raise their own produce, keep a cow, etc., compensates to a certain extent for the lower wages.

Rents are very reasonable and the necessaries of a family lower than at most places. Potatoes can be bought for .40 per bushel, apples .25, butter .20, good flour, \$6.50 per bbl., hard wood \$3.50 per cord [sometimes \$4.00] and board is \$3.50 per week.

To get the stone from the mountain side to the shipping point, a distance of about one-fourth of a mile, a track has been laid, running with an endless chain. The loaded car down takes an empty car back, by this means a great amount of stone is handled during the day. At these quarries can also be seen a "blondin," such as is used at Long Cove, by which means large stones are taken through the air to a point where they can be handled with teams.

The work is carried on about nine months out of the year and is superintended by Mr. John T. Rowe, who has been connected with the works since they were first opened.

QUARRY OF BOOTH BROS. & HURRICANE GRANITE COMPANY is situated at what is called Pequod in the town of Vinalhaven. This is a branch of the large business carried on by this firm, and is superintended by Mr. William Grant.

The stone is fine grained and is used altogether for paving. About 30 men have been employed on an average, and the output this year will be about 350,000 blocks. The men are all employed by the day at the following wages: Paving cutters, \$3.00; quarrymen, \$1.75; sharpeners, \$2.75; teamsters, \$2.00. Wages are paid monthly in cash; 100 per cent of the paving cutters are Scotch; 100 per cent of the attendant labor, American born. The cutters comprise half of crew.

HALLOWELL GRANITE WORKS, located at Hallowell, operated by the Hallowell Granite Works' Company, Mr. J. P. Hunt, Superintendent.—This company, aside from their large building operations, are the largest producers of monumental, statuary and ornamental

work in the State. In almost every city of the country can be seen the handiwork of the Hallowell mechanics. The nature of this granite is such that it can be worked almost as close as marble. In color it is probably the whitest of any in the country, being used extensively for all purposes. The State House at Albany, New York; the Equitable Building, New York; the Yorktown Monument, Plymouth, Mass.; Soldiers' Monument, Boston Common; Memorial Monuments for Maine troops at Gettysburg, etc., are evidence of the ability of this company to fill any and all contracts that they may undertake.

The quarries of this company are two miles and a half from the city and are very extensive. Stone of almost any dimension can be quarried. More than 100 quarrymen are constantly employed at these quarries, besides a crew of paving cutters. Some 60 stone cutters are also worked at these quarries. Most of the heavy stone is cut there to save freight in transportation.

Three hundred and fifty men are employed by this company at Hallowell, engaged as follows: Granite cutters, 196; paving cutters, 13; quarrymen, 104; blacksmiths, 20; other labor, 17. Nationality of workmen at Hallowell Granite Works; granite cutters, Italians, 92; Scotch, 4; American, 77; Irish, 3; Canadians, 5; English, 15; 90 per cent of the other labor is American born.

The granite cutters on these works are all members of the Granite Cutters' National Union. A scale of prices is arranged from year to year by which the men work. All disputes are settled by the committee representing the men and superintendent of works. No store is run in connection with these works.

MAINE GRANITE & IMPROVEMENT COMPANY, BELFAST. In operation about eight years. The granite used at these works is taken from the company's quarries at Somes Sound and Otter Creek, Mt. Desert, Dodlin Hill and Norridgewock, all of excellent quality, the Otter Creek stone being a dark red and susceptible of a high polish. Eighty-eight men are employed at this writing, 73 of whom are granite cutters and divided as follows as to nationality: American born, 61; English born, 6; Scotch born, 4; Swedish born, 1; Canadian born, 1; 14 attendant labor, all American born.

The conditions under which the men exist are very favorable. Located as they are near the center of the city, they have all the advantages of a thickly settled community. No store is connected with these works, the men therefore are paid monthly in cash, and

can trade where they like. Country produce is very cheap, owing to large numbers of farmers in vicinity. Rents are very scarce and consequently high, ranging from \$65.00 to \$120.00 per year. Board can be had for \$3.50 per week. Fuel is very cheap, good hard wood selling for \$3.50 to \$4.00 per cord, and a great many other things in proportion. The works are under the general supervision of Mr. C. J. Hall, General Superintendent of the Maine Improvement & Granite Company. The company are furnishing stone for Prospect Park, Brooklyn, N. Y.

GRANITE WORKS AT LONG COVE.—Long Cove granite quarry, in town of St. George, operated by Booth Bros. & Hurricane Granite Company. This quarry is worked quite extensively both in paving making and stone cutting. Nearly 1,000,000 blocks were shipped from these works in 1888 and among the building contracts filled are Albany Court House, and Post Office, Fall River Court House, etc. The stone is fine grain, looks nice hammered and takes well in the market. A store is run in connection with the works. Men are paid monthly in cash, prices being the same as paid in vicinity for similar work. Total number employed, 130; granite cutters, 26; paving cutters, 40; other labor, 64.

Nationality of granite cutters: American born, 7; Irish, 5; English, 5; Scotch, 9. Nationality of paving cutters: American born, 10; English, 8; Scotch, 10; Irish, 2; Russian Finns, 10; other labor, 90 per cent American born.

FREEPORT GRANITE WORKS, E. B. Mallett, Jr., proprietor.—In operation about four years. Granite is gray in color, fine grained, and works nicely to an edge. Quantities of this stock are sent to the west, many preferring it for monumental and statuary work.

The facilities at these works are such that, at no distant day, they will probably be extended to such an extent as to rank among the first in the State; 65 men are employed as follows: Granite cutters, 20; paving cutters, 10; attendant labor 35. Nationality, 95 per cent American born. Wages, granite cutters per day, \$2.75; sharpeners, 13 men, \$2.75; engineer, \$2.00; polisher \$2.00; other labor, \$1.50, \$1.75. Wages are paid fortnightly in cash. There has been no labor disturbance on these works.

CROWN HILL.—The Crown Hill Granite Company, Vinalhaven, J. P. Armburst, proprietor, has been in operation one year. So far the sole production has been paving blocks.

Number employed at present, [total] 40; paving cutters, 20; sharpeners, 2; teamsters, 2; quarrymen and laborers, 16; average number employed for year, 40; men are employed all the year and paid as follows:

Paving Cutters,	average wages per week,	\$18.00
“ “ “ “	“ “ “ “ day	\$ 3.00
Quarrymen,	“ “ “ “	\$1.75 to \$ 2.00
Teamsters,	“ “ “ “	\$1.60 to \$ 2.00
Sharpeners,	“ “ “ “	\$2.00
Laborers,	“ “ “ “	\$1.50

This firm, though not a corporation, pays promptly all of its help in cash every two weeks. The conditions under which the men work are very favorable and all appear to be satisfied. Nationality of paving cutters: Scotch, 9; English, 6; American born, 5.

GRANITE WORKERS' RETURNS.

TABULATION OF GRAN
STONE

No. of return.	Age.	Where born	Present residence.	No. hours employed daily.	Wages per day	Earnings from regular trade for year	Earnings from other personal service.	Earnings of all others in family.	Days lost on regular trade.			Value of homes	Amount of mortgage.
									From sickness.	Inability to get work.	Other causes.		
139		Winterport.	Belfast	10 3 00	\$695				8 35	37	1	\$1,000	
240		Frankfort ...	"	10 2 75	600		\$8		15 52	27	-	-	
341		Prospect	"	10 2 50	600		100		-	72	1	1,500	
438		Vinalhaven ...	"	10 2 50	780				-	-	1	800	
541		Brooksville ...	So. Brooksville ..	10 3 00	936				-	-	1	1,500	
643		Bluehill	Bluehill	10 - -	-				-	-	1	2,000	
732		"	"	10 3 00	750				3	59	1	1,800	
848		Sedgwick ...	Ea. Bluehill	10 3 09	600				-	112	1	1,500	
942		Bluehill	"	10 2 25	691				5	-	1	900	
1037		St George ...	"	10 3 00	800				2 5	38	-	-	
1159		"	"	10 3 00	540				20 20	92	1	1,500	
1229		Bluehill	"	10 3 00	826		5		4	33	1	1,500	
1327		Deer Isle ...	So. Deer Isle	10 3 00	400				-	179	1	1,200	\$600
1449		"	No. Deer Isle	10 2 00	300				-	162	1	800	
1536		Matineicus ...	Green's Landing	16 1 29	300				72	7	-	-	
1638		Bangor	"	10 2 50	400				152	-	-	-	
1744		Deer Isle ...	"	10 3 50	700		\$200		-	78	34	1	1,000
1828		"	"	10 3 00	575				25 95	-	-	-	
1935		"	"	10 2 75	450				10	138	1	-	
2057		"	"	10 2 00	500	100			5	57	1	700	
2144		St George ...	Hallowell	10 2 90	690	100			-	76	1	2,000	
2221		Washington.	"	10 2 50	500				18	94	-	-	
2349		Vinalhaven ...	"	10 1 00	285				21	6	-	-	
2447		Frankfort ...	Manchester	10 2 00	450				87	-	-	-	
2544		Prospect	Prospect	10 2 50	500		30	100	-	112	1	800	
2623		England	Round Pond	10 2 65	659				6	57	-	-	
2729		St. George ...	St. George	10 2 50	500				2	110	-	-	
2824		"	"	10 2 50	600				6	66	-	-	
2937		Nova Scotia.	Spruce Head ...	10 2 00	520				10	42	-	-	
3026		Vinalhaven ...	Vinalhaven ...	10 2 74	792				6	14	-	-	
3124		"	"	10 2 75	765				-	34	1	800	400
3237		"	"	10 2 00	450				10	77	-	-	
3332		"	"	10 1 88	530			25	14	16	1	600	
3440		"	"	10 2 23	683	16			-	6	1	950	
3547		"	"	10 2 56	748			60	-	20	1	850	
3641		"	"	10 2 00	400	140	50	10	102	1	800		
3735		"	"	10 3 00	665				30	60	-	-	
3838		N. Brunsw'k.	"	10 2 87	500	200			-	138	-	-	
3926		Maine	"	10 2 00	500	100			3	59	1	450	250
4040		Canada	"	10 2 17	620	45	45	6	6	20	-	-	
4133		W Gardiner.	"	10 2 00	500	185			48	14	-	-	
4221		Union	"	10 2 27	640				12	18	-	-	
4343		Matineicus ...	"	10 2 40	664			45	-	35	1	400	
4428		Maine	"	10 2 70	775				-	25	-	-	
4545		Scotland	"	10 2 72	706		388		15	37	-	-	
4638		Waldoboro' ...	"	10 2 50	725				6	16	1	750	
4731		Deer Isle ...	W. Tremont	10 2 00	450				-	87	1	500	

ITE WORKERS' RETURNS.
CUTTERS.

Rate of interest on mortgage.	Number in family.	Number working for wages.	Wages increased—how much.	Wages decreased—how much.	Are you expected to trade at company store?	Are prices higher than at other stores?	How often paid?	Could you live cheaper if paid oftener?	Are any wages withheld under certain rules?	Do you belong to any labor organization?	Do you belong to any beneficiary association?	Do you receive weekly benefits in case of sickness?	Have you a savings bank account?	Have you accumulated any savings during former years?	Have you accumulated any savings during past year?	Have you run into debt during past year?
-	8	1	.09	-	No.	-	monthly	Yes	Yes.	Yes.	Yes	Yes.	No	Yes.	Yes.	No.
-	4	1	-	-	-	-	"	"	No.	"	"	"	"	No.	"	"
-	4	1	-	-	"	-	fortnightly	No.	"	No.	"	No.	"	Yes	Yes.	"
-	4	1	-	-	"	-	monthly	Yes.	"	Yes	"	Yes	"	"	No.	"
-	4	1	-	-	"	-	"	No.	Yes	"	No	No.	Yes	"	Yes.	"
-	7	1	-	-	"	-	"	Yes	No.	"	"	"	"	"	No.	"
-	4	1	-	-	"	-	"	No	"	"	Yes.	Yes	"	"	Yes.	"
-	8	4	-	-	"	-	"	"	"	"	"	"	No.	"	"	"
-	3	1	-	-	"	-	"	Yes.	"	"	"	No.	"	"	"	"
-	3	1	.09	-	"	-	"	No.	Yes.	"	"	"	"	"	"	"
-	3	1	-	-	"	-	"	"	No.	"	No.	"	"	"	"	"
-	4	1	-	-	"	-	"	"	"	"	"	"	Yes	"	"	"
.05	5	1	-	-	"	-	"	Yes	"	"	"	"	No.	"	"	"
-	6	1	-	-	"	-	"	"	"	"	"	"	"	No	No	"
-	1	1	-	-	"	-	"	No.	"	"	"	"	"	"	"	"
-	5	1	-	-	"	-	"	"	"	"	"	"	Yes	Yes.	Yes.	"
-	5	2	.17	-	"	-	"	"	"	No.	"	"	"	"	"	"
-	2	1	-	-	"	-	"	Yes	Yes.	Yes	"	"	"	"	"	"
-	5	1	-	-	"	-	"	"	"	"	"	"	"	"	"	"
-	4	2	-	-	"	-	"	"	No	"	"	"	"	"	No.	Yes.
-	4	1	-	-	"	-	"	"	"	"	"	"	"	Yes.	No.	"
-	1	1	-	-	"	-	fortnightly	No.	"	"	"	"	Yes.	"	"	"
-	2	1	-	-	"	-	"	"	"	"	"	"	"	"	"	"
-	7	1	.10	-	Yes	No.	"	Yes	"	"	No.	"	"	"	Yes	"
-	4	2	-	-	No.	No.	monthly	No.	Yes	"	"	"	"	Yes.	"	"
-	1	1	.15	-	No.	-	"	"	No	"	Yes	Yes.	Yes	"	"	"
-	2	1	-	-	"	-	fortnightly	"	Yes.	"	No.	No.	"	"	"	"
-	1	1	-	-	"	-	"	"	No.	"	"	Yes.	No.	"	"	"
-	5	1	-	-	Yes.	Yes.	"	Yes.	"	"	Yes.	No.	"	No.	No.	Yes.
-	4	1	-	-	"	"	"	"	"	"	"	"	"	Yes.	Yes	No.
-	3	1	.24	-	"	"	"	No.	"	"	"	"	"	Yes.	Yes	No.
-	3	1	-	-	"	"	"	Yes.	"	"	Yes.	Yes	"	"	"	"
-	3	1	-	-	No.	-	monthly	Yes.	No.	"	No.	No.	"	"	"	"
-	2	1	-	-	"	-	fortnightly	No	Yes	"	Yes	Yes.	"	No.	"	"
-	4	1	-	-	"	-	"	"	No.	"	"	No.	"	Yes.	"	"
-	8	1	-	-	"	-	"	"	"	"	"	"	"	"	"	"
-	2	1	-	-	"	-	"	"	"	"	"	"	"	"	"	"
-	3	1	-	-	Yes.	Yes	"	"	"	"	"	"	"	"	"	"
-	3	1	-	-	No	"	"	"	Yes.	"	Yes	"	Yes.	"	"	"
.06	6	1	-	-	"	-	"	Yes	"	"	No.	"	No.	No.	No.	"
-	9	1	-	-	Yes.	Yes	"	No.	No.	"	"	Yes.	"	"	Yes.	"
-	4	1	-	-	No.	-	"	"	"	"	Yes	"	"	Yes.	No	"
-	2	1	-	-	"	-	"	"	"	"	No.	No.	"	"	Yes.	"
-	3	1	-	-	"	-	"	"	Yes.	"	Yes.	Yes.	"	"	"	"
-	3	1	-	-	Yes.	Yes.	"	"	No.	"	"	"	Yes.	"	"	"
-	6	3	-	-	No	-	"	"	Yes	"	"	"	"	"	"	"
-	6	1	-	-	"	-	"	Yes	No.	"	"	"	No.	"	No.	"
-	5	1	-	-	"	-	irregularly	Yes	Yes.	"	No.	No.	"	"	"	"

TABULATION OF GRANITE PAVING

No. of return.	Age.	Where born.	Present residence.	No. hours employed daily.	Wages per day.	Earnings from regular trade for year.	Earnings from other personal service.	Earnings of all others in family.	Days lost on regular trade.			Owning homes.	Value of homes.	Amount of mortgage.
									From sickness.	Inability to get work.	Other causes.			
48	24	St. George .	Clark's Island...	10	2 00	450	-	-	-	-	87	-	-	-
49	19	Franklin....	Egypt.....	10	2 00	500	-	-	10	52	-	-	-	-
50	34	Maine.....	Frankfort.....	10	2 75	496	-	-	5	127	1	200	-	-
51	35	Frankfort....	".....	10	3 00	908	-	-	-	9	-	-	-	-
52	44	Hancock....	Hancock	10	3 00	350	200	10	12	183	1	2,000	200	-
53	33	Bowdoin....	Tenant's Harbor	10	2 00	300	45	-	3	159	1	400	-	-
54	36	England.....	Vinalhaven.....	10	2 43	628	-	-	-	54	-	-	-	-
55	26	Scotland.....	".....	10	3 24	752	-	-	2	78	1	300	-	-
56	56	Sweden.....	".....	10	2 00	450	-	-	78	9	1	1,000	-	-
57	40	Vinalhaven..	".....	10	1 95	450	-	175	-	81	1	600	-	-
58	30	Scotland....	W. Sullivan.....	10	2 50	588	-	-	7	69	-	-	-	-
59	28	Lubec.....	".....	10	2 00	445	-	-	-	89	-	-	-	-
60	23	Sullivan.....	".....	10	2 00	390	-	500	5	112	1	665	-	-
61	42	Newburg....	".....	10	2 50	420	45	-	104	40	1	400	-	-

QUARRY

62	40	Mass.....	Egypt.....	10	1 50	360	-	-	-	4	15	72	1	700	500
63	35	Frankfort...	Frankfort.....	10	1 62	214	240	-	-	-	-	161	1	1,000	-
64	35	Mass.....	Hallowell.....	10	1 66	375	-	21	30	-	-	56	-	-	-
65	38	Bluehill....	".....	10	1 75	489	-	-	-	-	-	33	-	-	-
66	20	Nova Scotia	Hurricane.....	10	1 70	350	-	-	4	21	-	81	-	-	-
67	21	Mass.....	".....	10	1 75	400	-	-	10	-	-	74	-	-	-
68	32	Manchester..	Manchester.....	10	1 75	492	-	-	2	-	-	29	-	-	-
69	34	Waldoboro'.	Thomaston.....	10	2 25	400	-	-	-	-	-	135	1	500	-
70	49	Canada.....	Vinalhaven.....	10	1 40	336	-	-	7	-	-	65	-	-	-
71	42	Maine.....	".....	10	1 75	402	-	-	6	-	-	76	-	-	-
72	58	France.....	".....	10	1 50	375	-	-	-	-	-	62	-	-	-
73	52	Vinalhaven..	".....	10	1 87	376	-	25	25	-	-	86	1	1,500	-
74	56	".....	".....	10	1 75	412	-	75	-	-	-	77	1	300	-
75	47	".....	".....	10	1 75	416	-	312	-	-	-	73	1	400	50
76	25	".....	".....	10	2 00	520	-	-	12	-	-	40	1	400	-
77	41	".....	".....	10	1 75	407	-	-	9	-	-	71	-	-	-
78	30	".....	".....	10	1 75	230	-	-	21	-	-	159	-	-	-

WORKERS' RETURNS—Continued.
CUTTERS.

Rate of interest on mortgage.	Number in family.	Number working for wages.	Wages increased—how much.	Wages decreased—how much.	Are you expected to trade at company store?	Are prices higher than at other stores?	How often paid?	Could you live cheaper if paid oftener?	Are any wages withheld under certain rules?	Do you belong to any labor organization?	Do you belong to any beneficiary association?	Do you receive weekly benefits in case of sickness?	Have you a savings bank account?	Have you accumulated any savings during former years?	Have you accumulated any savings during past year?	Have you run into debt during past year?
-	3	1	-	-	Yes	Yes	monthly	Yes	No.	Yes.	No.	No.	No.	Yes.	Yes.	No.
-	8	1	-	-	"	No.	"	"	"	"	"	"	"	No.	No.	"
-	7	1	-	-	No	-	"	"	"	"	Yes.	"	"	Yes.	Yes.	"
.07	6	1	.09	-	Yes	Yes.	"	No.	Yes.	"	No.	"	Yes.	No.	"	"
-	4	1	-	-	"	No.	"	No.	No.	"	"	"	No.	Yes.	No.	"
-	8	1	-	-	"	Yes	"	Yes.	"	"	"	"	"	No.	"	"
-	6	1	-	-	"	-	fortnightly	No.	"	No.	"	"	"	"	"	No.
-	3	1	-	-	"	No.	"	Yes.	"	Yes.	"	"	Yes	Yes	"	"
-	4	1	-	-	No	-	"	"	"	"	Yes	Yes.	"	No.	"	"
-	3	2	-	-	"	-	monthly	"	"	"	No.	"	"	"	Yes.	"
-	3	1	-	-	Yes.	Yes.	"	Yes	"	Yes.	"	No.	"	"	"	"
-	3	1	-	-	No	No.	"	"	"	"	No	"	"	No.	No.	"
-	6	2	-	-	Yes	Yes	irregularly	"	Yes	"	"	"	"	"	"	Yes.
-	4	1	-	-	"	"	"	"	No.	"	"	"	Yes.	"	"	No.

MEN.

.06	9	1	-	-	Yes.	Yes.	monthly	Yes.	Yes.	Yes	No.	No.	No.	No.	No.	Yes.
-	1	1	.11	-	No.	-	fortnightly	No.	"	No.	"	"	Yes	Yes.	Yes	No.
-	3	1	-	-	"	-	"	"	No.	"	"	"	No.	No.	No.	Yes.
-	4	1	.17	-	"	-	"	"	Yes	"	"	"	"	Yes	"	"
-	1	1	.12	-	Yes	Yes.	monthly	Yes.	"	Yes.	"	"	"	No.	Yes	No.
-	1	1	.06	-	"	"	"	"	"	"	"	"	"	"	No.	"
-	4	1	-	.09	No	-	fortnightly	No.	"	No.	Yes.	"	"	"	"	"
-	4	1	-	-	Yes.	No.	weekly	"	No.	Yes.	No.	"	Yes	"	"	Yes.
-	3	1	-	-	"	Yes	fortnightly	"	"	No.	"	"	"	No.	"	"
-	7	1	-	-	"	No.	"	"	"	Yes.	"	Yes.	"	"	"	"
-	4	1	-	-	"	Yes	"	"	"	No.	"	No.	"	"	Yes.	No.
-	3	1	-	-	"	No.	"	"	"	"	"	"	Yes	"	"	"
-	4	2	-	-	"	"	"	"	"	Yes.	"	"	"	No.	No.	Yes.
.06	6	2	-	-	"	"	"	"	"	"	"	"	"	Yes.	"	No.
-	1	1	-	-	No.	-	"	"	"	"	"	Yes.	"	No.	Yes.	"
-	2	1	-	-	Yes.	No.	"	"	"	"	"	No.	"	Yes.	"	"
-	1	1	-	-	"	"	"	Yes	Yes.	"	"	"	No.	No.	"	"

TABULATION OF GRANITE QUARRYMEN

No. of return.	Age.	Where born.	Present residence.	No. hours employed daily.	Wages per day.	Earnings from regular trade for year.	Earnings from other personal service.	Earnings of all others in family.	Days lost on regular trade.				Value of homes.	Amount of mortgage.
									From sickness.	Inability to get work.	Other causes.	Owning homes.		
79	35	North Haven	Vinalhaven.....	10	1 75	\$359	-	-	35	-	72	1	75	-
80	68	Canada	"	10	1 75	513	-	-	-	-	19	1	600	-
81	37	Bristol	"	10	2 00	480	-	-	10	-	62	1	600	-
82	45	Cape Breton.	"	10	1 75	437	-	-	12	-	50	-	-	-
83	37	Orland	W. Sullivan	10	1 50	245	-	-	45	-	104	-	-	-
84	21	Skowhegan...	"	10	1 75	300	-	-	20	-	121	-	-	-

BLACK

85	30	Prospect ...	Frankfort	10	2 50	500	-	-	-	10	102	1	600	-
86	35	Burnham .	"	10	2 25	600	-	25	-	-	4	1	1,800	-
87	31	Deer Isle...	Green's Landing	10	3 00	700	50	-	-	-	7	1	2,000	-
88	48	Warren ...	"	10	2 50	300	-	-	-	-	19	1	1,000	-
89	51	Vinalhaven.	Vinalhaven	10	2 50	550	55	-	-	-	9	-	-	-
90	52	Rockland...	"	10	2 50	667	-	-	30	-	1	1	400	400

MISCELLA

		Occupation.												
91	64	Lewisier	Vinalhaven	10	1 50	436	-	550	-	-	21	1	700	-
92	31	Drag Tender.	"	10	1 80	508	-	-	-	30	-	-	-	-
93	56	Teamster	"	10	1 80	481	-	350	10	35	-	-	-	-
94	29	Engineer	"	10	2 00	620	-	25	-	2	1	500	100	-
95	25	2d Derr'km'n	"	10	1 75	438	-	-	-	62	1	500	-	-
96	46	Stone Boxer.	Round Pond....	10	1 65	507	-	-	-	5	1	600	-	-

NOTE.—The questions in the blanks, re-
sawered by only a part of the workingmen.
of Living," contains the answers returned
sponding numbers in the first table.

EXPENSES OF LIVING FOR THE YEAR 1888.

STONE CUTTERS.

No. of return.	Total income.	Total expense.	Rent	Food.	Clothing.	Fuel and lights.	Society dues.	Life insurance.	Other things.
1	\$695	\$500	-	\$264	\$136	\$52	\$18	-	\$ 30
3	700	400	-	125	60	50	10	\$35	120
6	-	460	-	300	50	50	10	-	50
7	750	600	-	-	-	-	-	-	-
9	691	347	-	180	80	55	12	12	8
10	800	555	-	300	40	41	4	-	170
11	540	480	-	240	100	48	6	-	86
12	831	451	-	250	50	50	1	-	100
13	400	350	-	150	75	50	6	-	69
14	300	300	-	200	75	20	-	-	5
15	300	300	*	213	35	-	7	-	45
18	475	400	\$30	200	100	30	7	-	33
21	790	553	-	350	100	75	3	-	25
22	500	221	*	170	15	-	5	-	31
24	450	428	75	195	70	55	8	-	25
25	630	302	-	200	60	20	7	-	15
26	659	325	*	216	60	-	-	49	-
30	792	625	72	325	72	50	6	-	100
31	765	650	60	389	80	35	10	16	60
33	555	425	-	213	75	42	15	-	80
34	699	666	-	330	114	33	7	24	158
35	808	708	-	456	100	46	12	-	100
36	590	440	-	270	60	40	10	-	60
37	665	381	60	150	75	50	6	-	40
38	700	650	30	180	75	45	15	175	130
39	600	669	-	400	52	48	9	10	50
40	710	670	48	427	80	45	10	-	60
42	640	476	50	115	84	26	6	95	100
43	709	649	-	322	105	40	10	100	72
44	775	575	72	230	65	48	8	92	60
45	1044	678	60	400	80	49	22	23	44
46	725	480	-	200	150	50	10	17	53

PAVING CUTTERS.

50	496	300	-	180	63	22	5	-	30
53	345	402	-	326	30	30	6	-	10
54	628	628	48	377	75	43	-	-	85
55	752	738	23	210	85	39	6	1	374
57	625	415	-	250	60	42	3	-	60
58	588	488	30	240	112	50	10	-	46
59	445	445	36	144	100	30	3	-	132
61	465	450	-	300	90	40	3	-	17

EXPENSES OF LIVING—Concluded.

QUARRYMEN.

No. of return.	Total income.	Total expense.	Rent.	Food.	Clothing.	Fuel and lights.	Society dues.	Life insurance.	Other things.
63	\$454	\$209	*	\$150	\$35	-	\$10	-	\$14
64	396	375	\$60	204	50	\$24	-	-	37
66	350	312	*	250	40	-	2	-	20
67	400	337	†	222	75	-	-	-	40
70	336	376	42	204	40	30	-	-	60
71	402	424	42	255	60	36	3	-	28
72	375	340	30	210	50	30	-	-	20
73	401	365	-	225	50	30	-	-	60
74	487	524	-	350	75	35	3	-	61
75	728	728	*	450	100	25	4	-	149
76	520	359	*	192	75	-	5	\$12	75
77	407	372	36	168	80	40	3	-	45
79	359	359	-	216	50	30	3	-	60
80	513	226	-	143	25	30	3	-	25
83	245	245	36	100	30	27	2	-	50

BLACKSMITHS.

85	500	400	-	250	50	10	-	-	90
89	605	590	27	310	50	30	3	20	150

MISCELLANEOUS.

91	986	1026	-	685	200	46	3	32	60
92	508	508	50	270	70	45	3	-	70
93	831	790	50	515	125	40	-	-	60
94	645	503	-	350	75	50	3	-	25
95	438	417	-	218	72	30	3	-	94

* Single men boarding. The figures in column of "food," indicate cost of board during the year.

ANALYSIS.

	Stone cutters.	Paving cutters.	Quarrymen.	Blacksmiths.	Miscellaneous.	Total.
No. of reports.....	47	14	23	6	6	96
No. native born.....	42	10	18	6	6	82
No. foreign born.....	5	4	5	-	-	14
No. assisted by their families.....	7	3	4	1	3	18
No. owning homes.....	26	8	10	5	4	53
No. homes mortgaged.....	3	1	2	1	1	8
No. renting.....	17	6	10	1	2	36
No. without families, boarding.....	4	-	5	-	-	9
No. boarding who own homes.....	-	-	2	-	-	2
No. reporting pay raised.....	6	1	5	-	1	13
No. reporting pay reduced.....	-	-	1	1	1	3
No. expected to trade at company store ...	7	10	17	3	3	40
No. reporting prices higher than at other stores.....	6	7	10	1	2	26
No. paid weekly.....	-	-	1	-	-	1
No. paid fortnightly.....	23	3	17	2	5	50
No. paid monthly.....	23	9	5	3	1	41
No. paid irregularly.....	1	2	-	1	-	4
No. belonging to labor organizations.....	45	12	16	4	4	81
No. belonging to beneficiary organizations,	20	4	1	1	1	27
No. having savings bank accounts.....	12	1	4	-	-	17
No. accumulating savings in former years,	38	8	9	3	1	59
No. accumulating savings during past year,	35	6	8	4	2	55
No. running in debt during past year.....	2	2	7	1	1	13

AVERAGES.

Age of persons reporting.....	37	34	39	41	41	38
Hours employed daily.....	10	10	10	10	10	10
Daily wages.....	\$2 48	\$2 34	\$1 74	\$2 54	\$1 75	\$2 25
Annual earnings.....	623	530	396	570	498	522
No. of days lost.....	70	98	90	94	28	78
Earnings of other members of family.....	11	49	19	5	185	54
Gross income.....	634	579	415	575	683	577
Cost of living.....	498	483	370	495	641	499
No. of persons to family.....	4.4	4.4	3.8	4.7	5.3	4.5
Earnings over expenses.....	136	96	45	80	34	78

Prices of board, rents, provisions and fuel, at various places where granite quarries are located, in June and July, 1889:

SPRUCE HEAD.

Board, per week	\$4 00
Rents (in vicinity) per month	3 00
Flour, best quality, per barrel	7 00
Butter, per pound	\$.20 to 25
Sugar, " granulated	10
Lard, "	11
Pork, salt, "	\$.10 to 12
Tea, "	\$.35 to 60
Yellow-eyed beans (per peck)	1 00
Potatoes, bushel (old)	50
Beefsteak, per pound	\$.15 to 18
Roast beef, "	12
Corned beef, "	07
Salt codfish "	06
Wood, per cord (hard)	\$6 00 to 7 00
Wood, per cord (soft)	4 50 to 6 00
Coal, per ton	7 00

VINALHAVEN.

Rents, per month	\$4 00 to \$6 00
Board, per week	4 00
Butter, per pound	\$.25 to 28
Lard, "	10
Pork (salt) per pound	10
Sugar, " granulated	10
Tea, "	\$.40 to 60
Roast beef, "	10 to 12
Beefsteak, "	16 to 20
Corned beef, "	07
Salt codfish "	06
Potatoes, per bushel (old)	60

Beans, per peck (yellow-eyed)	1 00
Eggs, per dozen	18
Wood, per cord (hard)	\$6.25 & 6 50
Coal, per ton	6.50 to 7 50
Wood, per cord (soft)	4 50
Flour, per barrel (best quality)	7 25

GREEN'S LANDING.

Rents, per month	\$2.50 to \$5 00
Board, per week	4 00
Flour, per barrel, best quality	7 00
Butter, per pound	28
Pork (salt) "	12
Lard, "	11
Tea, " (Oolong)	50
Sugar " (granulated)	11
Potatoes, per bushel.	40
Beefsteak, per pound	\$.14 & 15
Roast beef, "	10
Corned beef, "	\$.06, \$.07 & \$.08
Salt codfish, "	07
Yellow-eyed beans, per peck	1 28
Eggs, per dozen	14
Wood, per cord (hard)	6 00
Wood, per cord (soft)	4 00
Coal, per ton	7 00

HALLOWELL.

Rents, per month	\$6.00 to \$15.00, average, \$10 50
Board, per week	\$3.50 to 4 00
Flour (best quality) per barrel	7 50
Butter, per pound	25
Sugar, "	10
Lard, "	12
Pork (salt) "	12
Tea, " (good quality)	60
Beans, per peck (yellow-eyed)	1 00

Beefsteak, per pound.....	\$ 16 to 20
Roast beef, “	18
Corned beef, “	09
Salt codfish, “	06
Wood (hard) per cord.....	6 00
Wood (soft) per cord	4 00
Coal, per ton... ..	6 50
Potatoes, per bushel.....	55

LONG COVE.

Rent, per month.....	\$4 00
Board, per week.....	4 00
Flour, per barrel (best quality)	8 50
Sugar, per pound (granulated)	10
Butter, “	20
Lard, “	12
Pork, salt, “	14
Tea, “	60
Potatoes, per bushel.....	80
Apples, “	80
Eggs, per dozen.....	15
Salt codfish, per pound	05
Beefsteak (round) per pound.....	15
Beefsteak (rump) “	18
Roast beef, per pound.....	12
Wood, per cord (hard).....	5 00
Wood, per cord (soft).....	4 00
Yellow-eyed beans (per peck).....	80
Coal, per ton	7 00

THE STRIKE AT HURRICANE ISLAND.

In the fall of 1888, a branch of the Paving Cutters' Union was organized at Hurricane Island. The employers offered no objection; and harmony prevailed throughout the winter until spring, when prices for summer work were to be arranged. About this time the Hurricane Granite Company was re-organized, Booth Brothers of New York having joined with them, the company becoming what is now known as Booth Brothers' & Hurricane Granite Company.

The newly organized company had appointed a new paving superintendent, and were, as was stated, to conduct this branch of the business on a different basis from past years.

The prices paid for cutting paving blocks at Hurricane Island were, for New York blocks, size 4 to 5 inches wide, 7 to 8 inches deep, 10 to 14 inches long, \$27.50 per thousand for all qualities of stone as taken from the quarries. This was the price paid during the fall and winter of 1888, and up to April 1st, 1889. As is customary in this work, the men presented their bill of prices for summer work on March 1st, which was as follows :

Measured dimension stone, \$25.00 per thousand, or rough stone, irregular shape, etc., \$27.50 per thousand; motions (where men quarry their own stone), \$30.00 per thousand, and the stone to be cleared and started out by the company. These prices were paid for New York blocks, the only kind being then cut. The company rejected this bill, and notified the men that, instead of paying these prices they intended to cut the present price of \$27.50 down to \$24.00 per thousand for all qualities of stone as taken from the quarry.

This announcement caused considerable discussion among the men, and on March 23d they went out on a strike, but being informed that the reduction would not take effect until April 1st, they resumed work on the 25th. During this time, Mr. W. S. White, as representative of the company, advised them to give the new arrangement a trial before declaring a strike. This the men declined to do, and on April 1st the Paving Cutters' Union declared a strike at Hurricane Island against the \$3.50 reduction and for the bill as presented by the men. The company; when informed of the condition of affairs, demanded from the council a fair investigation of the matter before giving authority to the branch to strike. The reply to this was that the strike had already been declared, and that the trouble could only be settled by the company acceding to the terms of the men. Several communications had passed between the company and the council, attempting a settlement, but to no avail, and as the men had all left the island after the strike had been declared, there appeared to be no mode of communication, as the company had been informed that the settlement must be made with the men who struck. The strike had continued from April 1st until July. During this time the company had offered to arbitrate the whole difficulty, but for some unaccountable reason the council

failed to agree to this until July 8th, when the proposition was accepted, and a committee of three was appointed by the union to confer with the company and its representative regarding the settlement of the difficulty. The committee, having full power to act for the union, were, James Grant of West Sullivan, George Forsythe of Clark's Island and Charles Lawrence of Vinalhaven. This committee on the thirteenth of July, 1889, met Mr. White, the representative of the company at Central Hotel, Vinalhaven, and after a short conference adjourned until Monday, the fifteenth, when they again met at the same place, and after a few hours' deliberation an agreement was effected, signed by both parties, and the strike declared off, it having lasted three months and a half. The settlement was virtually a compromise. The company agreed to recognize the union, to use no discrimination against union men who may have been out on strike, and the prices to be paid were to be equal to any in this section of the country.

The agreement was to stand, subject to change after sixty days' notice by either party. Work was immediately resumed, some thirty or more cutters going to work. A misunderstanding regarding one of the clauses in the agreement, caused a little dissatisfaction among the men after work was resumed, but this was remedied and work has continued since.

The existence of this strike for so long a time is to be regretted, as the same settlement agreed upon could have been brought about months previous, could the parties interested have been brought together in friendly conference, but as there were no cutters on the island during the strike to confer with, and the members of branches in vicinity having no jurisdiction, months were allowed to pass, until a member from a distant branch visited the island, took a conservative view of the situation in all its bearings, and laid the whole matter before the council, strongly advising arbitration, which was accepted, and with the above result. The strike at Hurricane has shown two prominent facts, viz. : First, that the spirit of arbitration is being encouraged by some employers, (although it is unaccountable in this instance why it was refused by the men, when it is conceded by all organizations of labor to be the pillar upon which they are willing and anxious to rest a settlement of their rights ;) and, second, that a strong union feeling exists among the members of this craft, for during this strike no paving cutter, union or non-union, commenced work on the island. A few lessons, which, if

considered, may be of much importance in the future in connection with such difficulties, may be learned from this trouble. If any fair investigation could be made by labor organizations through fair-minded representatives of the trade or calling involved, as is the custom with the Granite Cutters' Union, before a strike is declared, a great many such difficulties could and probably would be averted, and the bitterness and ill feeling created would be replaced by a better understanding. At the inception of most labor troubles, the extreme radical elements are generally the predominating force, and the calm of reason is not likely to prevail among men who feel as though they had been wronged, and whose only desire is for revenge. It must be manifest, then, that the arrival of a committee belonging to the society, but outside of the place where the trouble exists, who would fairly weigh both sides before strikes were declared, would tend to a more rational knowledge of difficulties and would in many instances prevent them altogether. It is the opinion of many workmen that the strike could have been prevented had this plan been earlier adopted. The paving cutters, it is said, are about to adopt this principle and place it in their constitution. Whatever means will or can be instituted, whereby labor troubles can be fairly settled without resort to strikes, will be welcomed by all true friends of labor.

THE GRANITE CUTTERS' UNION.

The Granite Cutters' National Union was organized at Rockland, Maine, March 10th, 1877. Its first secretary was Hon. Thompson H. Murch, who served the union until his election to Congress in 1878. Josiah B. Dyer was his successor and has continued in office ever since his official residence at the present time being at Barre, Vermont.

The objects of this union as set forth in their constitution are: "To raise ourselves to that condition in society to which we, as mechanics, are justly entitled, and to place ourselves on a foundation sufficiently strong to secure us from further encroachment, and to elevate the moral, social and intellectual condition of every stone worker in the country. At the first, the union was largely confined to Maine, where there were then a large number of stone cutters employed on government contracts at Dix Island, Clark's Island, Hurricane Island and Vinalhaven. Under these circumstances the

union started out under very bright prospects, but a strike for a bill of prices that took place at Vinalhaven, coming as it did before the union was fairly arranged and organized, proved very injurious to its early success and usefulness. This strike, followed by the great strike at Quincy, Mass., and at other places, gave the union a severe blow, but time and experience, with thorough organization and conservative ideas in the management, have united in placing the union in the front rank of the labor organizations of the country. Though the granite cutters are not so strong numerically as some of the other organizations of the country, yet they are a power in themselves, as their membership includes nearly all of their craft, as well as a large number of tool sharpeners, who are also eligible to membership. The membership of the union at the present time is about 6,000, included in 102 branches, embracing almost every state and territory in the country. This is a gain, since January 1885, of 55 branches and 3742 members. Maine has 15 branches, with a membership of about a thousand, one-sixth of the total membership, and about one-seventh of the total number of branches.

These branches are located as follows: Portland, Waldoboro', Round Pond, Hallowell, Spruce Head, Clark's Island, Long Cove, Hurricane, Belfast, Long Island, East Blue Hill, Green's Landing, Vinalhaven, Mt. Waldo and South Thomaston. Great strides have been made by the union within the past few years, by way of increasing wages, reducing the hours of labor, etc. No attempt has ever been made by the union to establish a uniform number of hours per day's work all over the country, although something may be looked for in that direction before long.

There is no reason why the hours of the day should not be uniform, and less than what they are, in a great many cases. Wages can and should, to a great extent, be governed by the surrounding conditions. Of the 102 branches at the present time, two work 48 hours per week, average day wages \$2.91; twenty-two work 53 hours per week, [which is the 9 hour day with 8 hours on Saturday,] average day's wages \$3.33, eleven work 54 hours per week, average day's wages 3.55, fourteen work 58 hours per week, average wages \$2.87½ per day, thirty-two work 59 hours per week, average daily pay \$2.90, twelve work sixty hours per week, average daily wages, \$2.90. Of the branches in Maine, six work 58 hours per week, average daily pay \$2.87, four work 58 hours per week with an average day wage of \$2.75, two work 59 hours per week

with an average day wage of \$2.75, one works 59 hours with an average wage of \$2.50, and two work 60 hours per week with an average day wage of \$2.50 per day. These figures though perhaps uninteresting to the every day reader should contain a world of thought to the man who is interested in the elevation of his fellows, and the promulgation of liberal labor ideas. To the man who is always preaching that the reduction of hours of labor must necessarily cause a reduction of wages, we commend a careful study of the conditions governing this trade, and they are but a repetition of the history of many other callings.

Long hours and poor pay, short hours and good pay, is what is clearly shown by these figures, and the sooner the granite cutters of Maine understand that these are real facts, the sooner they may expect to take their position alongside their more progressive craftsmen of the other states. The benefits to the trade resulting from the shortening of the hours of labor, must be apparent to the most prejudiced non-unionist, for there has been no time within the remembrance of the writer that work could be secured with so little exertion. The reduction of the hours in Maine among the granite cutters to 58 hours per week, means work for 29 more men per week. Not only that, but when the reduction of two hours per week was conceded, an advance of \$1.50 in wages was secured at the same time, so this clearly shows that less hours bring more pay instead of less, another point in the trade statistics.

Where the short day and highest wage prevails, the men generally are employed by the day, thus securing to all a fair remuneration for their labor. On the other hand, where the long day is in vogue and small pay is received, the work is almost exclusively by the piece, a system that is highly pernicious, as the over exertion of the men in the greed to make big pay, has a tendency to keep wages down, and bring the more ambitious of them to premature old age. The sooner the piece system is done away with the better it will be for those whose comforts and opportunities are measured by their capacity of production as a machine.

In more than half of the branches of the Union, the standard wage is \$3.00 per day and upwards, ten of them having a standard of \$4.00. There are but five branches that have a standard day's wage of \$2.50, three of them being in Maine. No strikes of any importance have occurred in this branch of the granite business in Maine, for some time, which speaks volumes for its conservative management and business methods.

The Union pays to the heirs of deceased members who die in good standing \$125.00 for funeral benefit, some \$2,000 being expended for that purpose within the past ten years. Strikes are only entered into when every other method has failed, but when once declared, its funds and resources are amply sufficient to carry it to a successful termination.

THE PAVING CUTTERS' UNION.

The Paving Cutters' Union of America was organized at Baltimore, June, 1886. The headquarters of the Union is at Berlin, Wisconsin.

The main purpose of the Union, as set forth in its constitution, is for mutual protection against unfair reductions of wages. A funeral benefit of \$100 is paid from the general fund to the heirs of deceased members. This craft have a Trade Journal which is issued monthly, in which matters connected with the trade and of interest to the members are recorded. The membership of the Union, in Sept. 1889, was 1700, distributed among 56 branches in 19 States. The first branch organized in Maine was at Vinalhaven, in the summer of 1888. At present there are ten branches in this State, located as follows: West Sullivan, Mt. Desert, Frankfort, North Jay, Vinalhaven, Clark's Island, Tenant's Harbor, Long Cove, Green's Landing and Hurricane Island.

Maine has more branches than any other state. Owing to the migratory habits of the workmen who are frequently compelled to go from place to place in search of employment, the number of the membership of branches cannot easily be ascertained.

REMARKS OF GRANITE WORKERS.

I think that the fortnightly payment bill ought to have been amended by our last legislature, so as to apply to individuals and firms. I also think that the laboring classes should be better represented in our next legislature than they were in our last. Rich men and lawyers make poor laws for the poor man.

Stone Cutter.

In my report of last year, I stated that a regular pay day had been established at this place, for each month. I now wish to state that the firms here pay no attention to the pay day, as it has only been complied with twice since June, 1888, and there are men here now who have not been paid in full for last year's work.

Stone Cutter.

You will find my report rather higher than the general average on this Isle. I have worked by the piece and have had a very good run of work the past year.

Stone Cutter.

Our company stores trade as cheap as any other stores for the same quality of goods. They keep a far better quality of goods than any other stores around here.

Stone Cutter.

I am interested in your labor bureau and will gladly assist you in any way I can. I think your bureau will be of great benefit to the laboring people; that it will tend to bring labor and capital nearer together and make them see clearer their dependence upon one another. I started in the world for myself in 1869, with nothing but my hands, married, with scarcely a dollar in my pocket. How many there are who have had an equal or better chance than myself and are no better off than when they started, and are always crying out against the oppression of capital. The reform in many cases, I think, should begin at home.

Stone Cutter.

I think that a man can live cheaper if he gets his pay every two weeks, for I find that I can trade cheaper for cash than on time. In the year 1887, I worked at a place where we had to trade at a company store, and they had no regular pay day, but if a man got \$5 00 he had to be smart. I worked for that company long enough to lose \$130.00; quite long enough for me. Every man that was at work for them lost more or less. I believe any person, employing ten or more men, should be made to pay them fortnightly.

Stone Cutter.

Not having kept account of my expenditures I can not tell the cost of food, clothing, etc., separately, but find that we have gained about \$250.00, mostly in property. Stone cutters residing in this vicinity are laying up something at present.

Stone Cutter.

When working by the day my wages are \$2.87.

Stone Cutter.

I have \$3.00 per day, average day work pay, \$2.75. By what I can learn here the company pays whenever it sees fit, but we are in hopes to get paid hereafter twice a month, which we all know would be of great benefit to the working class and ought to be enforced.

Stone Cutter.

Wages are reduced winter months according to the number of hours, at the rate of $.27\frac{1}{2}$ per hour. We work about $8\frac{1}{2}$ hours winter months. Our pay day is on the 15th of the month, but usually runs over a few days.

Stone Cutter.

The granite business here is carried on under very trying conditions for the men. Most of the contractors attempt to do business without capital, and when we ask for our pay, in most instances, we are told that the money will come when the job is finished. The consequence is pay days are about a year apart, and with some of the firms they never come around. Instances have occurred here of men losing as high as \$150.00, actually cheated out of their hard earnings. Strikes are very frequent, owing to men refusing to go without their pay when due, the result being that some of the firms have suspended business, and it would be a benefit to the industry if others would follow, or change their methods.

Stone Cutter.

I find it very difficult to fill out the blank intelligently, not having kept strict account of my expenditures; however, realizing the importance of the bureau's work, I shall adopt the suggestion advanced, to keep a minute account, and by so doing will be in a better condition to do this work when called on to do so, and at the same time understand my own condition better than I have in the past. I can see that the work intended is an educational feature that should be appreciated by the working people, and I have no doubt but what the results will prove beneficial when the work of the bureau is more fully understood.

Stone Cutter.

In summer we get \$22.50 per thousand for cutting paving, and in December we are cut down \$2.50 per thousand, working for \$20.00 from the first day of December to the first day of April. The most of the men cut by the piece, some work by the day. For grout, [that is poor stock] we get \$27.50 per thousand. The men working by the day all cut grout; they are the best paving cutters and get from \$2.50 to \$3.00 per day. We are supposed to trade at the company store, although we are paid every month. If any men are discharged they are always men that do not trade at the store.

Paving Cutter.

I think I am an exception to the most of laborers, for there are many that get no more than \$1.50 per day during the spring, summer and fall, and get no work at all during the winter months. As for myself I work at piece work. During the first three months I was paid \$24 per thousand, the next two, \$26.00, the next six months \$30.00, then, December 1st, was cut down to \$28 00 for the winter. There have been instances where men have been discharged for not trading at the company store. There are others who go in debt during the winter then work it out in the summer, but upon the whole I think we are a prosperous community.

Paving Cutter.

In the winter of 1888, the ice and snow kept me from work about four months, and we cannot depend upon those months at all, for our work is out of doors, so that eight months is about all that we can expect in the year, that we can earn wages. I have been eight years in paying for my home, four hundred dollars.

Paving Cutter.

Paving cutting, like some other branches of the granite business, is subject to a great deal of lost time, owing to stormy weather, and again in the winter when the stone is frozen, it is impossible to do much. A good paving cutter will make \$3.00 per day, for eight months; the other four not much over \$1.00 a day can be earned, which brings the average of the year down a great deal below summer wages.

Paving Cutter.

Paving cutting is a business that cannot be worked at in stormy weather, and this is the reason why so many days are lost during the year. At a few places some of them have sheds, but the majority of paving cutters work out of doors. In the winter, frost

goes into the stone and makes it so much harder to break that it takes half as much again work to get the same number of blocks as it does in the summer; besides the prices are reduced during the winter months. Paving cutting, in an average winter, is not a very remunerative employment, and he who comes out of it without drawing on former savings or running in debt, does better than the majority of his brother workmen. In the summer, wages are as good as in any other trade, requiring the same amount of skill. The fortnightly payment bill ought to be amended so as to include in its operation all companies, firms and individuals. I can testify to the many benefits which the friends of the bill claimed would follow its enactment. It has done more good in our business than any other one thing that I know of. To understand this, it will be well to explain that the majority of paving cutters work by the piece; they receive so much per thousand, and hardly ever get a settlement till their blocks are shipped. I have myself gone seven months without getting pay. Labor organizations have done a good deal to remedy this, but much is required to be done yet.

Paving Cutter.

I should like to see the fortnightly payment system adopted. I think the intimidation law passed last winter ought to be abolished; it is harsh and unfair. Trustee process ought to be amended, and the company store or truck system abolished, for this store system is a great wrong to working men. Prices are generally high, men are compelled to buy or lose their employment, and many a poor man is forced into the cruel clutches of debt, the hardest bondage to bear. Every working man ought to receive cash for his labor and have the privilege of spending it in the cheapest and best market. Although many of my brother workmen neglect sometimes to fill out these blanks issued by your bureau, it is not from want of appreciation of the good advantages derived from the bureau, but a want, or supposed want, of ability to fill them, and in some cases from carelessness and negligence. In relation to the work of cutting paving blocks, I would say, that throughout 1888, our trade has been up to the average of 1887, prices being about the same. Last winter being an unusually good one, I was enabled to do better than in any fall or winter for a number of years previous. Next to a fair price for my labor, I consider that regular fortnightly or weekly payments would be to my highest advantage. The oftener

workmen receive their wages the better they can do. Our work is by the piece, and if I could receive my money oftener I could make better bargains, have more zeal to do more work, but if I get my pay only once in a month or two, I do not take the same interest in my work. There are many advantages in fortnightly or weekly payments.

Paving Cutter.

If we could get our pay once a week or fortnight, and get the money, we could live better for the same pay, but as long as we have to trade at the company store it is no use to think of living any better.

Paving Cutter.

I have been at work on quarry for the past seven years. During that time by strictest economy of myself and family, I have managed to save the magnificent sum of \$200, or \$28.57 per year for seven years. We do not get pay enough, and when one thinks of what we have to endure for the privilege of staying, not living, it almost discourages the bravest. In the winter, coal goes up to \$8.00 per ton, wood to \$7.50 per cord, while wages drop from thirty-five to forty cents per day. The consequence is, in the spring we are in debt and must work until quite late in the fall, to clear it up. All we ask is a chance to live on a plane with the rest of the granite workers.

Quarryman.

I find some of these questions very hard to answer, for instance, "How often are you paid?" For a man who has not been paid for fifteen years, that question is a stunner. I did have a little coming last fall, but it was not put up with the rest and when I asked the reason, I was politely told that they thought they would keep it as they would be likely to need it in the winter, so you see our employers are very paternal. Money is such a scarce article with us that they were afraid I might get excited over it and perhaps spend it at some other store. Our wages three years ago were only \$1.50 per day, but thanks to the Knights of Labor, we got \$1.75. We should have had \$2.00, and at that our average would not have been over \$1.60 per day.

Quarryman.

Should the time ever come when a man can get \$2.00 per day and be paid weekly, he would be able to get the necessaries of life, but not the luxuries.

Quarryman.

A quarryman, for about eight months of the year, can make fair pay, but the rest of the time he has to work for \$1.25 per day.

Quarryman.

Weekly and cash payments would be a great benefit to the laborers of this place. We can have all that is due us at the end of the month but the trouble is, we have to eat something during that time, and the prices are so much higher at those stores than any others there is nothing left.

Quarryman.

The wages of quarrymen are very small, when you take into consideration the time they are obliged to be idle on account of stormy weather and shortening of the days in winter. You will see that taking the number of working days exclusive of holidays, that I would have worked last year had I the chance, would have been 299, [being sick nine days] and dividing my total cash received by the number of working days long and short, and it gives me \$1.36 per day.

Quarryman.

I have received twenty-five cents more per day for the last three years, since I belonged to the Knights of Labor.

Quarryman.

A family can live much better on one-third less, by weekly or fortnightly payments. Store pay is no pay. We all do well since we receive fortnightly payments, or twenty-two days' pay.

Quarryman.

I have been working on quarry constantly for the past seventeen years, and I find it very hard to keep square with the world. We get \$1.75 per day, but stormy weather and winter season brings our wages down to about \$1.35 per day. Quarrymen have, as a rule, very few of the luxuries of this life. If one has a boy, he cannot give him the opportunity he should have, the needs of the family requiring him, as soon as he is able, to assist in their support, when he should be at school. I have a boy 19 years of age working with me, and only for the assistance I receive from him I would have a hard road to travel. A man requires to be something more than human to struggle on for years and never have a cent come at pay day that he can call his own, but such is the case with most quarrymen. I have a house, if such it can be called. It is valued at \$400, but the value has been put there by my labor after working hard all day, so that I have not accumulated the value of that home in money. If the quarrymen were organized as other branches of the granite industry, we would I think be better paid. Before the Knights of Labor were organized here we were getting but \$1.50 per day, and we would be getting it now, but for the organization.

Under the same conditions we could be getting \$2.00 per day, if we would be true to ourselves and the organization.

Quarryman.

Quarrymen are the poorest paid of any of the granite workers. Our work being out of doors, we are obliged to lose, on an average, from 60 to 75 days per year, through stormy weather and short days in winter. We do not receive enough for labor, under the conditions which we work. Other branches of the business afford those engaged most of the comforts of life, while the quarryman, who has a family to support, has to be satisfied with the scantiest of fare. I believe the remedy for our ills is organization. We received twenty-five cents per day through the Knights of Labor, and could have had another twenty-five cents if we had been true to the organization and to ourselves, and until we do that, we can never hope to better our condition.

Quarryman.

By strict economy I managed to save a few dollars last year, but as it went to pay debts that I had contracted while sick, previous to that, it left me no better off. I earn a little more than the rest of the laborers, as I have a chance to work in the sheds part of the time during stormy weather. I rent two rooms for which I pay \$30.00 per year; coal is from \$7.50 to \$8.00 per ton here in the winter season. All kinds of provision are higher than for some time past, while my wages are lower by fifteen per cent than in 1885, so that it is impossible to think of laying by anything for time of need.

Quarryman.

Here are situated some of the best granite quarries in the State. Only a few are worked, for want of capital. Those that are worked furnish employment for all of the laboring men here, and a large number from other places. I am a granite tool sharpener and have always steady employment except a short time in winter. I have lived here ten years and have saved enough to build two houses. The one in which I live is worth \$1,500. I have another which I rent, worth \$500. The laboring men here are doing well; about all own a home, the average cost about \$500. There are now in active operation here sixteen granite quarries, with plenty of chance for others. If men of capital would come and operate them, it would furnish employment for a large number of men from adjoining towns, who have not the chances which we are favored with.

Blacksmith.

A man must be able to work all of the time, with the present wages, to support a family of six. Some articles are higher than on the main land. We finish work at 4 o'clock Saturdays, for which we are cut down twenty-five cents per hour. A man's wages at \$2.50 per day, taking out legal holidays, amounts to about \$723 per year. We work ten hours eight months, about nine hours two months, and eight hours two months.

Sharpener.

I have worked here nine years and have had three monthly payments during that time. That is about the way they do business here. I think the men that work on granite in this place have a hard show, on account of the way they are paid. I think there ought to be something done about it.

Blacksmith.

I have a better chance than quarrymen for the reason that the derricks are run some days that the quarry is shut down, hence my average pay is a little better for the year.

Derrickman.

My business being out door work, (as stones are mostly lewised in yard) I am thereby obliged to lose all bad weather. Am in favor of labor organizations properly conducted, and think the fortnightly payments should apply to all persons and firms.

Lewiser.

My occupation as teamster gives me better pay than on the quarry. My wages are \$1.80 per day, but the stormy days and shortening of the days in winter bring my average earnings to \$1.62 per day.

Teamster.

I came to Maine when four years of age and have resided here ever since. I was married in 1876, have always been a sober and industrious man, and do not use tobacco. Have worked at my trade eighteen years and have always found it hard to keep out of debt. There has been more or less sickness in my family, and I have been obliged many times to go to different parts of the State in order to obtain employment. I have always worked in Maine with the exception of five weeks I worked in Massachusetts. I have boarded away from home most of the time, and have found it difficult to clothe myself and family suitable to attend church. I do not read any novels but love to study the news of the day, but, on account of long hours, I am prevented from reading as much as I wish to do. I believe eight hours would prove a great blessing to the laborers of Maine. I consider the intimidation law, passed

last winter, an outrage on the laborers, and think it a disgrace to the law makers of the State. I claim the privilege of using my influence to keep wages up, to oppose the influence of my employers to cut wages down. I consider it a fair fight between employers and employes regarding wages, and the battle has and always will go on, and it is not more than right that each army have the same chances.

Stone Cutter.

I have not been laboring here any length of time, only since November, 1888. I came here from the West. I have been in this country seven years, worked in Massachusetts two years, and the remainder of the time in Illinois, Wisconsin, Missouri and Ohio. The wages are higher there and not so long days, the longest being nine hours. The eight hour system is fast finding its way in our Western branches. The work here is nearly all piece work, only a few work by the day.

Stone Cutter.

I think the State labor bureaus are good institutions. There should be more liberal appropriations of money for this work, and additional powers conferred on the commissioners.

Stone Cutter.

It has been a usual custom with the stone contractors of this place to pay their men when they saw fit, and pay them in goods too.

Stone Cutter.

The increase of my wages was brought about by my securing wages by the day, which I consider far better than the piece system. A granite cutter, working by the day, will have stones that he can make more pay on, but many more that he cannot make a day's pay. Another thing; the piece man is generally ambitious, and when he gets a good paying stone he will overwork himself, rushing as it is called; then this leads to exhaustion, and two or three days are taken to recuperate; the consequence is that at the end of the year he finds his earnings will not average as much as the day man's. Labor organizations have benefited us wonderfully and to-day our trade is second to none in organization.

Stone Cutter.

PART II.

LIME AND SLATE INDUSTRIES.

THE LIME INDUSTRY.

The limestone formation underlying so large a portion of Knox and Waldo Counties, is of uncertain age. It seems to be almost entirely lacking in fossils, which would of itself seem to indicate a special variety of geological conditions extended over repeated ages. Geologically speaking, the rocks in this portion of Maine are probably among the oldest of any in the known world.

This limestone crops out in various places throughout Knox and Waldo Counties. The geologists say, generally, wherever found in this district, it lies between strata of talcose, micaceous, and argillaceous slates. "Samuel Waldo of Boston, having by purchase or inheritance from his father, Jonathan Waldo, obtained a title in the lands of the St. George and Medomac rivers: having made experiments upon the limestone found near the river at what is now called the prison quarry, and finding it good, he caused a new lime kiln to be erected, and lime burnt in considerable quantities for the Boston markets." This was about the year 1733. 31E

This was the commencement of an industry, on which, to-day, the people of Knox County, directly and indirectly, in a great measure, depend for their prosperity. The lime of Knox County has been examined and tested by experienced lime men, architects and builders, from Maine to the Gulf States, who universally pronounce it the best produced for nearly all purposes for which lime is used. The lime industry is carried on in the city of Rockland and the towns of Thomaston and Camden. The quarries are situated about one mile and a half from the kilns. The kilns are always built near the water-front for the purpose of easy shipment by water, by which channel nearly all the lime is sent to the various markets. The process of quarrying, transportation of the rock to the kilns and its manufacture into lime, is nearly the same in all quarries and kilns in Knox county.

The quarries from which Rockland and Thomaston get their supply of rock, are about one and one-half miles from their kilns; also the rock for the Rockport and Camden kilns comes from quarries two to three miles from kilns.

Rockland and Thomaston quarries generally run north and south, extending one and one-half miles in length, with an average width of from 150 to 200 feet and some 50 feet deep. The deepest quarry is about 150 feet.

The rock is separated from the native ledge by blasting. Until within a few years, gunpowder may be said to have been exclusively used for the purpose of blasting lime rocks. The blasting or digging of rock in the quarries is done by what is known as the small short system. The small short system consists of drilling holes into the rock with steel pointed drills about two inches in diameter to six to ten feet in depth. While drilling the rock the workman pours, now and then, a little water in the hole: this serves to preserve the temper of his drill, and makes the rock easier to cut. When using gunpowder for quarrying the rock, two men can drill, blow and break, on an average of ten hours per day, 120 casks of rock. For a number of years they have used dynamite (or as the workmen call it, giants.) There is a very great advantage, the quarrymen say, in using dynamite over powder, in their work. A quarryman of 32 years' service says: "I will tell you the advantage of the giants over powder in our work. You take 50 lbs. of giant, costing \$16.00, (best,) same amount of powder at \$5.50; the powder will blow 400 casks of rock; the giant will average 2000 casks of rock; also we can depend on the giants to be more sure in blowing. Sometimes we are hours working over a hole, charged with powder, which at times is very dangerous, but in the use of the giants, accidents are lessened one-half. When there is a good head of rock, we sometimes drill twenty holes and charge them with dynamite and attach an electric battery to the several lines of fuse, and, by so doing, are able to blow 2000 casks of rock at a time." They use, in a number of the quarries, steam drills.

These will drill seventy-five feet of rock a day. In the last year, there has been a great revolution in and around the quarry and kilns. One of the changes is in the removing of rock from the quarries, which was formerly done by horses, but now in most of the quarries in Rockland, is done by steam derricks and tramways. There are two tramways in use, in Rockland quarries. The dis-

tance between the towers of one of these tramways is 500 feet. It is said to be the longest tramway in the country.

The advantages of a tramway over a derrick are many. First, you can go into any part of a quarry for rock, while you would have to move the derrick from place to place, so as to bring it directly over the load which you wish to hoist. Second, the tramway will hoist a greater load and with greater speed. It will take, with the use of the tramway, about ten minutes to load the buckets, hoist them 100 feet, and dump the rock in cars on the bank of the quarries. There are about 20 engines used for hoisting rock, running the steam drills, and pumping water from these quarries. The average power of these stationary engines is 30 horse power. Most of the quarries in Knox county are very deep, requiring a great expense for the pumping of water. A good steam engine and a set of pumps are indispensable for every quarry of any extent. Much expense, now and then, is incurred in clearing away chips (small pieces of rock) and other loose debris from the quarries. For a few years past, at Rockport, they have operated two engines on a narrow gauge road, running two and one-half miles from quarries to kilns. This road cost \$40,000. This road supplies nearly all the kilns at Rockport. The kilns not accommodated by this road, at Rockport and Camden, use horse teams. The rock for the kilns at Thomaston is transported by horses; but within the last year, the manner of transportation of the rock for the Rockland kilns has undergone an extraordinary transformation. A corporation, known as the Rockland Rock Railroad Company, commenced building a standard gauge railroad. They have built and equipped for active work, up to this time, 10 miles of surface road. This road is at present employing two engines, 264 cars, and about twenty men, in the transportation of rock from the quarries to the kilns. The mouths of the kilns being of a greater elevation than the railroad bed, they were under the necessity of building trestle work to reach them. One and seventy-four hundredths miles of this work has already been built. This trestle work is all built out of yellow pine brought from the south. This road will, when completed, cost over \$300,000.

The kilns in Rockland are not at present all supplied with rock by this company. It is claimed, by good authority, that this road will be able to put rock upon the kilns at a great deal less expense than can be done by horses. It takes one two-horse and one four-

horse teams, with two drivers, to haul the rock for a kiln. On an average, the former team will haul 12 casks, and the latter, 18 casks of rock per load. If all the rock for the kilns in Knox county for 1888 had been hauled by horses, it would have required at least 550 horses to have done the hauling, and given employment to 184 teamsters nearly all the year round. These teamsters generally receive about ten dollars per week for their work. Teamsters are exposed to all kinds of weather, from the hot sun of summer to the drifting snows of winter, but they are apparently a hearty and happy lot of men, generous to a fault in their dealings. Previous to 1856, lime was all burnt in what is now known as the "old-fashioned kilns." Kilns are always built upon the sides of hills, so as to give a good chance for their economical working, which gives a better chance for sheds in which to store lime, wood and casks. These "old-fashioned kilns" were constructed on the following plan, viz: they were on an average, about $6\frac{1}{2}$ feet wide at the bottom, tapering a little towards the top of the kiln, 20 to 23 feet long, 12 to 14 feet high; they were constructed out of field rock, laid in lime mortar. These kilns would make from 400 to 550 casks at a burn. With good lump rock, they would produce two-thirds lump lime; but in comparison with patent kilns, (kilns now in general use), it cost a great deal more to produce the same amount of lime. Owing to this fact, the "old-fashioned kilns" have become almost obsolete. There are not more than ten "old-fashioned kilns" in Knox county at this time. It took five days and nights to burn an "old-fashioned kiln," giving employment to a day man and a night man. The first patent kiln built in Rockland, was about 1856.

These are constructed of granite, and lined inside with fire brick. These patent kilns average in height 28 to 36 feet above the arches inside of kiln, averaging seven feet in diameter. At the bottom is a hopper, on an incline plane of 45 degrees; below this is an iron door from which they take the lime from the kiln. Six feet above the hopper are the arches, from which the kiln gets its heat or blaze to burn the rock into lime. The rock, by the power of heat, passes through a chemical change, which consists of expelling the carbonic acid, and lime is left.

There were, in Knox county, in 1888, 92 patent kilns which produced 1,800,000 casks of lime, and in this production the kilns consumed 85,000 cords of wood. Of the 85,000 cords of wood,

about 52,173 were imported from our neighbors of the Maritime Provinces. The wood was invoiced for about \$1.50 per cord.

Our domestic manufacturers paid on an average \$3.75 per cord. The gross sum paid to foreign producers of kiln wood was \$195,-648.75. To freight this 52,173 cords of wood there were 604 foreign arrivals at Rockland alone. This wood was brought in what is known as St. Johns' wood boats. These boats will carry from 50 to 60 cords on an average, per load. The crew generally consists of three to four men to a vessel. The lime is put into casks that will hold about two bushels and a peck. It will take about five coopers working nearly all the year through to supply the lime casks for a kiln, or about 460 coopers to make all the casks required for the kilns in Knox county for the year 1888.

These casks are made within a radius of twenty miles of the kilns. To burn, fill, cooper and put on board of vessels and cars for shipment, requires about six men to a kiln or about 644 men to the kilns in Knox county. To distribute this lime to the various markets it takes 275 vessels. These vessels, on an average, for the Boston market, will carry 700 casks; vessels for the New York market will freight 1,500 casks. This gives employment to over 800 sea-faring men. Boston and New York are the two principal distributing points for the lime. The Knox & Lincoln railroad transported, for the year ending December 31st, 1888, over their road, 114,000 casks of lime.

It is claimed that the first cargo of lime ever shipped to New York, was by Samuel Rankin in 1823, from East Thomaston, now Rockland, on board the schooner "Leo," Capt. Josiah Spaulding. The lime sold in New York at \$2.00 per cask. In 1888, lime sold, on an average, in the markets at 97 cents per cask. There has been within the last year, a new quarry opened at North Warren, in Knox county, situated $2\frac{1}{2}$ miles from the Knox & Lincoln railroad, where there is said to be a large quantity of nice rock. There has been a patent kiln erected, and a survey for a railroad to connect with the Knox & Lincoln railroad. At Lincolnville, in Waldo county, there are one patent and eight "old fashioned kilns." The quarries are situated four miles from the kilns. This lime is almost all shipped to New Bedford, Massachusetts.

There have been a number of experiments tried, and a great deal of money lost by the experimenters, to find a cheaper substitute for

wood in the production of lime, such as soft coal, crude petroleum, etc., but without success up to the present time.

To run these plants requires an active capital of over three quarters of a million dollars annually, giving employment, directly and indirectly, to 3,000 men. These employes, as a class, are very intelligent. There are but few foreigners employed in this industry. The employes, as a class, are industrious and frugal. Quite a percentage of the workmen own their homes.

As in all other commercial transactions, the lime burners of Knox county are not exempt from competition. Their competitors are our neighbors of the Maritime Provinces. The St. John lime comes into direct competition with the Knox county lime, in the eastern states, and more especially in the markets of Massachusetts and New York. Lime can be produced cheaper in the British Provinces than here in the states, and as the status of the lime industry in the states is at the present time, if it were not for the superior quality of the lime of Knox county over the St. John's, the latter lime would drive the former out of a great many of its markets; but notwithstanding the finer quality of the Knox county lime over the St. John, the latter lime on account of its cheapness, is being used in conjunction with the Rockland lime in building and other industries. Good authorities estimate that in the year 1888, there were shipped to the states 225,000 casks of this St. John lime. The duty on this lime is ten per cent *ad valorem*, but the lime is invoiced for thirty-five cents per cask, which gives a specific duty of only three cents per cask.

The following are some of the advantages our Province neighbors have over our manufacturers, viz: their rock is dug and placed at the kilns for ten cents per cask; rock costs our lime burners, at the kilns, twenty-two cents per cask. Wood, at the kilns at St. John costs, on an average, from \$2.00 to \$2.25 per cord. Nor is this all; the cord at New Brunswick must have the following dimensions; when wood is four feet long, it must be four feet high, and twelve feet in length of pile, making 192 cubic feet, or equal to one and one-half cords of our wood.

Wood, per cord, on an average, costs the Knox county manufacturers \$3.75, 128 cubic feet for a cord, or it costs the above lime burners \$5.62 for the same amount of wood that costs the St. John lime burners from \$2.00 to \$2.25.

Labor, which is the largest item in this industry, is certainly twenty-five per cent less at St. John than at the Knox county plants.

For the first few months in the year, at St. John, it is the custom to pay at the rate of \$1.40 per day; later in the season they advance the wages of their employes. The highest wages ever paid to kiln men, as far as we could learn from personal investigations, were \$1.80 per day. The general average would be about \$1.50 per day, while in the Rockland lime industry, labor in and about the kilns, is paid at the rate of \$2.00 per day.

RETURNS OF LIME MANUFACTURERS.

No. of return.	No. of quarries worked.	No. of kilns.	Location.	No. of days operated in 1888.	Average number men employed in 1888.	Present number empl'd.	Percentage of increase in wages.	Percentage of decrease in wages.	Capital invested.	Barrels of lime made in 1888.
1	1	2	Rockland.....	-	-	18	-	-	-	53,143
2	2	2	".....	225	25	26	-	-	\$30,000	47,240
3	10	8	".....	-	-	107	-	-	-	158,500
4	2	3	".....	234	-	45	-	-	35,000	56,069
5	1	4	".....	-	50	50	-	-	-	75,000
6	1	1	".....	240	-	-	-	-	-	24,000
7	2	2	".....	250	20	15	-	-	20,000	45,000
8	1	2	".....	278	33	33	-	-	10,000	44,000
9	2	2	".....	300	10	-	-	-	-	40,000
10	2	4	Thomaston.....	200	76	-	-	-	100,000	80,000
11	1	2	".....	312	-	-	-	-	30,000	43,000
12	1	1	".....	240	15	15	-	-	5,000	24,000
13	1	2	".....	300	30	30	-	-	50,000	60,000
14	1	2	Camden.....	300	30	28	-	-	10,000	45,000
15	1	2	".....	300	20	29	-	-	50,000	50,000
16	3	5	".....	200	85	85	-	-	50,000	100,000
17	1	1	".....	189	11	11	-	-	15,000	22,500
18	2	3	".....	365	38	42	-	-	40,000	66,000
19	-	1	".....	275	77	7	-	-	5,000	25,000
20	-	1	".....	-	11	-	-	-	6,000	15,000
21	-	4	Rockland.....	225	50	51	-	-	36,000	80,000
22	-	15	".....	300	75	100	-	-	100,000	300,000
23	-	2	".....	210	14	17	-	-	4,500	32,000
24	-	2	".....	210	-	-	-	-	-	33,500
25	-	4	".....	200	44	44	-	-	12,000	80,000
26	-	5	".....	300	25	35	-	-	-	100,000
27	-	1	".....	225	8	6	-	-	5,000	21,500
28	-	2	".....	300	7	-	-	-	-	38,000
*29	5	-	".....	300	50	60	-	-	632,200	-

*This company does not manufacture lime. They operate quarries and sell the rock.

Employed, and Average Annual Earnings.

forem'n	Engineers.		Rock breakers at quarry.		Drillmen.		Rock handlers.		Foremen.	
	Annual earnings.	Weekly wages.	Annual earnings.	Weekly wages.	Annual earnings.	Weekly wages.	Annual earnings.	Weekly wages.	Annual earnings.	Weekly wages.
-	-	-	\$13 50	-	\$13 50	-	\$12 00	-	-	-
\$385	\$13 50	-	12 00	-	13 50	-	12 00	\$400	-	-
-	12 00	-	12 00	-	13 50	-	12 00	-	\$15 00	-
-	12 00	-	13 50	-	13 50	-	13 50	-	-	-
-	15 00	-	13 50	-	13 50	-	12 00	-	-	15 00
-	18 00	-	15 00	-	15 00	-	12 00	-	-	-
-	12 00	-	12 00	-	14 00	-	12 00	-	-	15 00
-	-	-	-	-	15 00	-	13 50	-	-	-
-	-	-	-	-	13 50	-	-	-	-	-
-	-	-	15 00	-	-	-	-	-	-	-
-	12 00	\$600	13 50	600	13 50	600	-	-	15 00	\$780
-	-	-	12 00	540	12 00	540	10 00	450	-	-
-	12 00	-	12 00	-	12 00	-	12 00	-	12 00	-
500	12 00	400	10 50	350	12 00	400	10 50	350	15 00	500
-	-	-	12 00	-	12 00	-	10 50	-	-	-
-	-	-	12 00	-	12 00	-	10 50	-	-	-
-	-	-	12 00	-	12 00	-	-	-	-	-
-	-	-	12 00	-	12 00	-	-	-	-	-
624	-	-	13 50	391	15 00	435	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-
-	13 50	-	12 00	-	13 00	-	-	-	-	-

ANALYSIS.

Of the above twenty-nine returns, eighteen show concerns operating both quarries and kilns; ten, operating kilns only; and one, quarries only.

Twenty-one give a total capital invested.....	\$1,245,700
Twenty-eight give total number of barrels of lime produced in 1888.....	1,758,452
Twenty-five give the average number of days in operation in 1888.....	259
Twenty-three give an aggregate of the average number of men employed in 1888.....	804
Twenty-two give a total of men employed at time of making return.....	854
Number of quarries operated.....	40
Number of kilns in operation.....	85

The total number of kilns in operation in 1888 was 90; in 1889, 94.

The total number of casks of lime manufactured in 1888, was about 1,800,000.

The net value, per cask, for much the larger part, was 80 cents per cask; a small portion was valued in Rockland at \$1.00 per cask, making the net value of total product about \$1,500,000.

Average Weekly Wages when Fully Employed.

Rock breakers at kiln.....	\$10 84
Kiln tenders.....	13 51
Wharf laborers.....	11 75
Lime trimmers.....	12 23
Coopers.....	10 85
Shed foremen.....	12 47
Engineers.....	13 20
Rock breakers at quarry.....	12 70
Drillmen.....	13 25
Rock handlers.....	11 83
Foremen.....	14 40

TABULATION OF LIME WORKERS' RETURNS.

Number of return.	Age	Where born.	Branch of work.	No. hours employed daily.	No. days in week.	Wages per day.	Earnings from regular trade for year.	Earnings from other personal services.	Earnings of all others in family.	Days lost on regular trade			Value of homes.
										From sickness	Inability to get work.	Other causes.	
1	37	Rockland ...	Kiln tender	12	7	\$2 00	\$550	-	-	25	60	5	
2	33	Belfast.....	"	12	7	2 00	360	\$180	-	-	185	-	
3	26	Waldoboro'..	"	12	7	2 00	400	-	-	35	130	-	
4	39	Bluehill	"	12	7	2 00	570	12	-	-	80	-	
5	53	Rockland ...	"	12	7	2 00	562	-	-	24	60	- 1	\$1,500
6	36	Clinton.....	"	12	7	2 00	250	100	-	-	240	- 1	500
7	35	Rockland....	"	12	7	2 00	520	-	\$312	-	105	- 1	900
8	25	Friendship ..	Rock breaker ...	10	7	2 00	316	175	-	-	207	-	
9	32	Gouldsboro',	Laborer	10	6	2 00	240	60	-	25	155	12	
10	31	Rockland ...	Trimmer	10	6	2 00	600	-	-	-	12	- 1	1,000
11	27	" ...	"	10	6	2 00	380	50	75	-	122	-	
12	37	" ...	"	10	6	2 00	250	-	125	-	175	12	
13	74	Liberty	Cooper	12	6	1 50	450	-	-	-	-	12 1	700

LIME WORKERS' RETURNS—Concluded.

	Number of return.	Amount of mortgage.	Rate of interest on mortgage.	No. in family.	No. working for wages.	Wages increased—how much.	Wages decreased—how much.	Are you expected to trade at company store?	Are prices higher than at other stores?	How often paid?	Could you live cheaper if paid oftener?	Are any wages withheld under certain rules?	Do you belong to any labor organization?	Do you belong to any benevolent association?	Do you receive weekly benefits in case of sickness?	Have you a savings bank account?	Have you accumulated any savings during former years?	Have you accumulated any savings during past year?	Have you run into debt during past year?
1	-	-	-	5	1	-	-	Yes.	Yes.	Irregularly.	Yes.	No.	No.	No.	No.	No.	Yes.	Yes.	No.
2	-	-	-	3	1	-	-	"	"	Fortnightly.	"	"	Yes.	"	"	"	"	"	"
3	-	-	-	5	1	-	-	"	"	Irregularly.	"	"	"	"	"	"	No.	"	"
4	-	-	-	5	1	-	-	"	"	Weekly.	No.	"	"	"	"	"	Yes.	No.	"
5	-	-	-	2	1	-	-	"	"	"	"	No.	"	"	"	"	"	Yes.	"
6	-	-	-	2	1	-	-	"	"	Irregularly.	Yes.	"	Yes.	"	"	"	"	"	"
7	-	-	-	9	3	-	-	"	"	Weekly.	No.	"	"	"	"	"	"	"	"
8	-	-	-	5	1	-	-	"	"	"	"	"	"	"	"	"	"	"	"
9	-	-	-	4	1	-	-	"	No.	"	"	"	No.	"	"	"	No.	No.	"
10	-	-	-	4	1	-	-	"	Yes.	Fortnightly.	"	"	"	Yes.	Yes.	"	Yes.	Yes.	"
11	-	-	-	2	2	-	-	"	"	Irregularly.	Yes.	"	Yes.	No.	No.	"	No.	No.	"
12	-	-	-	4	2	-	-	"	"	Weekly.	No.	"	"	Yes.	Yes.	"	Yes.	"	Yes.
13	-	-	-	8	1	-	-	"	"	Fortnightly.	"	"	No.	No.	No.	"	"	"	No.

The burning of lime is supposed to necessitate Sunday work. A large proportion of lime workers are employed seven days in the week.

INCOME AND COST OF LIVING.

No. of return.	Total earnings of family.	Total expense.	Rent.	Food.	Clothing.	Fuel and lights.	Society dues.	Life insurance.	Other things.
1	550	500	72	320	50	58			
2	540	507	72	325	40	35	-	-	35
4	582	582	55	310	72	45	2	-	98
5	562	408	-	260	50	32	-	-	66
6	350	285	-	223	30	29	3	-	
7	832	671	-	412	182	49	-	-	28
8	491	416	72	226	68	40	-	-	10
10	600	500	-	234	90	52	4	-	120
12	375	375	72	200	39	35	4	-	25

THE SLATE INDUSTRY.

By J. F. SPRAGUE, Esq.

Roofing slate was first discovered in Piscataquis county, about the year 1846, at the Glendour, or what is better known as the Brownville quarry, in Brownville. The discovery was first made by some Welchmen who had chanced to settle in that vicinity as farmers.

Making the plan known to others, operations were immediately commenced by the late Hon. A. H. Merrill, who continued to carry on that quarry until the time of his death, about a year ago. It has since been operated by his heirs, who own it. Until the Bangor and Piscataquis Railroad was built through Milo, about six miles from his quarry, Mr Merrill was obliged to transport his entire product to Bangor, a distance of thirty-five miles, with horses and mules.

A branch of this road, the Katahdin Iron Works Railway, now connects it with the Canadian Pacific and with the Maine Central systems. Other quarries in that section, in Brownville, Williamsburg and Barnard, have been opened and suspended for various causes.

In the spring of 1870, slate veins were discovered in Monson, by John C. Tripp. The first quarry opened was on land owned by Rev. Charles Davison and was known as the Eureka.

From that time until 1880, the history of this industry in this town is similar to that of numerous other stock operations, which have been manipulated by speculators. Considerable capital was invested and on account of mismanagement in some instances unfamiliarity with the most economical and approved methods of quarrying in others, and in more than one case, through apparent dishonesty of purpose, many failures occurred between 1870 and 1880. During the latter year, a number of capitalists who were residents of Lowell, Mass., became interested in the business and invested quite largely and purchased the property known as the Hebron Pond quarry and opened three others, the Monson Pond, Kineo and Pine Tree quarries. Through their influence the entire business was materially changed and placed upon a substantial basis.

They opened an extensive trade in the western states and built up a large and flourishing industry. These gentlemen, with their own capital, built the narrow gauge railroad, known as the Monson Railroad which connects these quarries with the Bangor & Piscataquis Railroad.

In 1886, the various corporations engaged here conveyed all this property to the Monson Slate Company. About the year 1883, Messrs. Charles H. Fifield of Salem and Geo. G. Proctor of Boston purchased two quarries known as the Forest and Oakland quarries. Under their management they prospered finely, and a corporation known as the Monson Maine Slate Company, was organized, having as members several wealthy citizens of Salem and Boston.

In 1887, the Monson Slate Company sold and transferred a controlling interest in all of its Monson property to the Monson Maine Slate Company, since which time the entire business has been under the exclusive management of Messrs. Fifield & Proctor, who have always associated with them David R. Straw, Esq. of Guilford, Maine, with R. C. Penney of Monson as Superintendent. These gentlemen are most excellent business men, and they have made great advancement. They have increased the trade, enhanced the prosperity of the industry, and improved very much the mode of making and preparing the product for the market, and have added important auxiliary branches.

To one familiar with the history of the industry in this town from 1870 to 1880, it is a significant fact that no failure has occurred among any of the owners of the quarry since 1880. It demonstrates that, with careful management and shrewd financiering, the business can be profitably and successfully operated.

In 1879, Hon. C. A. Packard of Blanchard, conveyed to General Chas. Hamlin and other gentlemen of Bangor, a tract of some 1,200 acres of land lying on the line of the B. & P. R. R. The late Hon. Wm. B. Hayford of Bangor, Hon. A. C. Hamlin of that city, Hon. Eugene Hale of Ellsworth, and other Maine citizens, organized the Blanchard Slate Mining Company, and formed a corporation that owns this property on which are valuable veins of as good roofing slate as any in our country. A quarry was opened and worked for about two years. It was, however, suspended until about a year ago when it was leased to the State of Maine Slate Company, composed of several practical slate workers of Monson. They are prosecuting

a profitable and quite an extensive business which promises to be successful.

On these same veins in a northeasterly direction A. Deslauriers and several gentlemen from Providence, R. I., have located a quarry and are opening it and erecting buildings. This is in the towns of Monson and Shirley.

The difference of the slate among the different Piscataquis quarries is so slight that it is hardly perceptible, and not of consequence enough for consideration. It is in every respect equal to that produced in Wales, and equal to any, and superior to a great deal of the other American slates.

Under the stimulating and strengthening influence of legislation, the American manufacturers have driven the Wales slate entirely from our market, although it had an advantage over many other freights, as it was used as ballast for vessels and was consequently brought to our seaports at merely nominal rates.

The business has, however, become so thrifty, and the competition among American producers so sharp, that our slates are now sold in Boston for lower prices than were the Wales slate in former days.

The manufacture of slates for roofing, and many other purposes, is now confined to Piscataquis county, in the towns of Monson, Brownville and Blanchard. The Monson Maine Slate Company operate four quarries. Average number of employes for year ending December 31st, 1888, 150; number of employes at date of return (in July, 1889) 209; number of days in operation during the year 1888, 312; amount of capital invested in operating the quarries, \$300,000; value of product at the quarry for the year ending June 30, 1889, \$79,919.80; amount of product, 19,979 25 squares, (a square covering 100 square feet of roof).

AVERAGE WEEKLY WAGES OF EMPLOYES.

4 pit foremen, each	\$18 00
39 ledgemen, each	12 00
30 rubbish handlers, each.	9 00
8 drillmen, each	12 00
13 hoisters, each	9 00

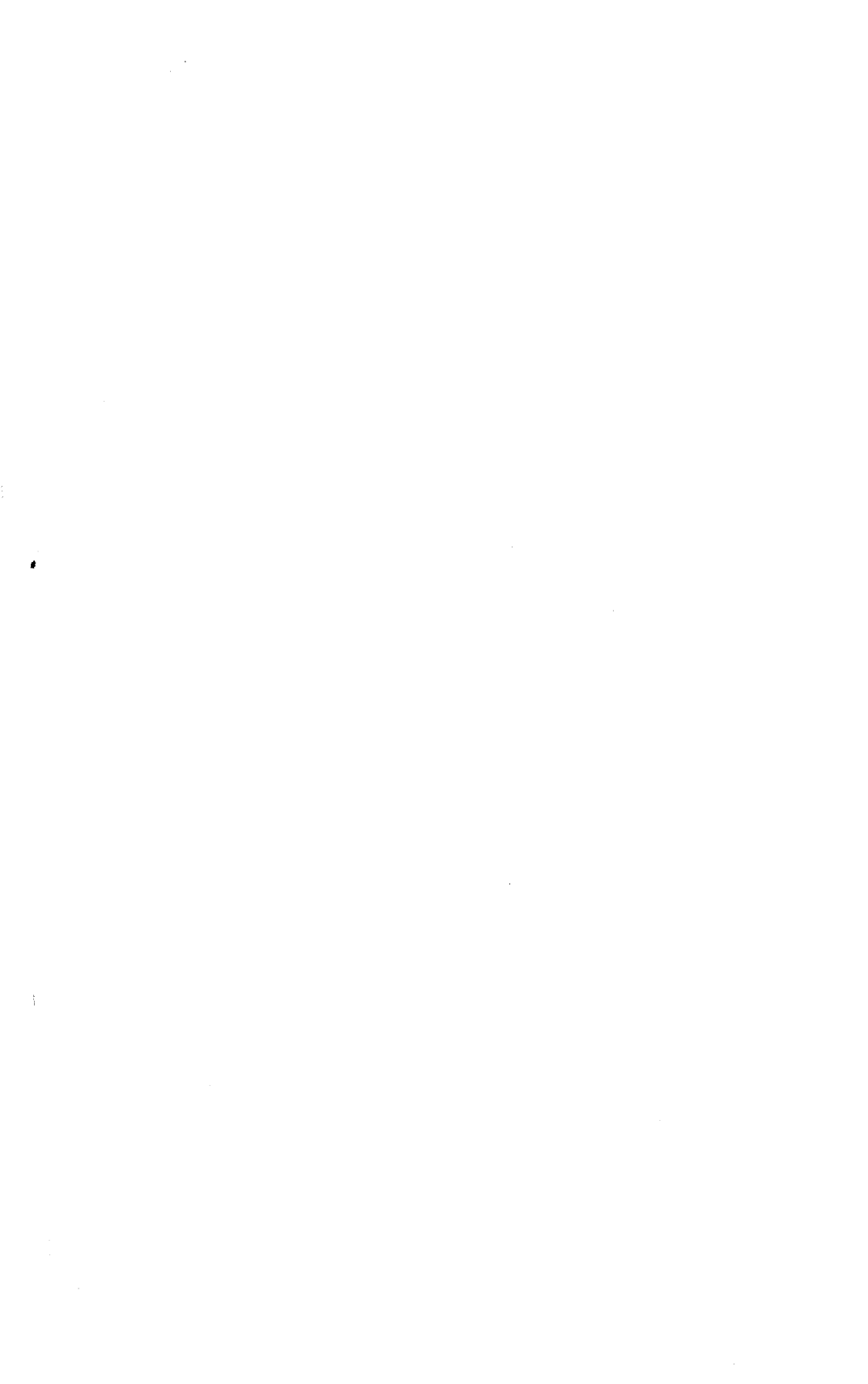
4 engineers and firemen, each	\$12 00
8 dumpmen, each	9 00
9 derrickmen, each	9 00
4 blacksmiths, each	12 00
5 carpenters, each	12 00
4 shed foremen, each	15 00
31 splitters, each	12 00
15 trimmers, each	12 00
6 handlers or shippers, each	12 00
1 mill foreman	15 00
2 sawyers, each	10 50
6 planers, each	10 50
3 rubbers, each	9 00
2 boxers, each	12 00
15 common laborers, each	9 00

The price of labor for 1889 remains about the same as during the year 1888. About 50 per cent of employes are American born; other nationalities, Welch, Swedes, Prince Edward Islanders, Irish, French and English.

STATE OF MAINE SLATE Co., Blanchard Number of quarries, one; capital invested, \$8,000. This company did not commence operations until November, 1888. The company is composed of nine practical slate workers who lease the quarries, paying a royalty. The company carry on the business on the co-operative plan, and, during the past season have done a very successful business which has paid the same rates of wages to each member of the company as are paid at Monson, and a handsome dividend to the members of the company, in addition to wages.

The company employ a number of men, making the average number of operatives sixteen. The conditions of this work are very favorable, and the harmony and success that have thus far attended its operations afford a gratifying illustration of what *may* be accomplished through co-operation in the work of production.

BROWNVILLE SLATE QUARRY, heirs of A. H. Merrill, proprietors. Number of employes from 60 to 80. The Bureau was unable to obtain a report from the agent of this work.



PART III.

THE SHIP-BUILDING INDUSTRY.



THE SHIP-BUILDING INDUSTRY.

The ship-yards of the State, have, during the past year, shown more activity than at any time since 1882 and 1883. The number of ship-yards in operation has been 41, and the average number of workmen employed at the yards, 1,967, as follows :

		Yards.	Average No. employed.
Bath	District,	14	1,000
Bangor	“	2	40
Kennebunk	“	2	50
Portland	“	1	46
Machias	“	9	250
Wiscasset	“	3	50
Belfast	“	3	206
Waldoboro’	“	7	325
		<hr style="width: 10%; margin: 0 auto;"/>	<hr style="width: 10%; margin: 0 auto;"/>
		41	1,967

Other classes of workmen, such as sail-makers, block-makers, rope-makers, etc., carry the total number of workmen directly engaged in the ship-building industry during the year 1889, to 2,000. The total tonnage built and launched, at the date of the last report to the Bureau, made in November, was, gross tonnage, 45,129.96. Vessels being built and near completion, will swell the aggregate tonnage for the year to figures exceeding those of any year since 1883. The class of vessels that have been built are generally of large tonnage, many of them schooners of more than 1,000 tons. Many contracts for future building have been made, and the prospect of increased activity in this important Maine industry, during the year to come, is very encouraging. Owing to the depression in this industry for some years past, but few men have learned the ship-building trades, while many others who had followed these trades in more prosperous times, had abandoned them for other

pursuits. In order to supply the sudden demand for ship-carpenters and other ship-building trades, many workmen have come from Canada and the lower Provinces. The present rates of wages are somewhat above those that have ruled for some years, but the time lost in the ship-building trades, as shown by individual returns, is very large, and reduces the annual earnings below those of many trades, the per diem wages of which are much less.

Average daily wages paid at Bath in 1889, 1888, 1887 and 1886.

Wages in Bath yards are generally somewhat higher than at other yards in the State.

	1889.	1888.	1887.	1886.
Foremen	\$4 00			
Ship carpenters	2 50	\$2 00	\$2 00	\$1 75
joiners	2 50	2 50	2 00	2 00
dubbers	2 75	2 50	2 25	2 00
borers	2 75	2 25	2 25	2 00
fasteners.....	2 25 to 2 50	2 00	2 00	1 75
calkers.....	2 75	2 25	2 25	2 00
riggers.....	2 50	2 00	2 00	1 75
blacksmiths	2 50	2 50	2 25	2 25
helpers	1 75 to 2 00	1 75	1 75	1 50
teamsters.....	\$9 to \$12 per week			
laborers.....	1 75	1 50	1 50	1 50

For old work, (repairing), carpenters have twenty-five cents per day more than on new work. Most of the carpenters on old work, at Bath, have \$2.75 per day.

A ship-builder in Bath returns the following list of average daily wages paid during seasons of 1889, 1888, 1887 and 1886.

	1889.	1888.	1887.	1886.
Foremen.....	\$4 00	\$3 00	\$2 75	\$2 50
Ship carpenters.....	2 50	2 00	2 00	1 50
dubbers.....	3 25	2 75	2 00	1 75
joiners.....	2 50	2 50	2 00	1 75
borers.....	3 00	2 75	2 50	2 00
fasteners.....	2 50	2 00	1 75	1 50
calkers.....	2 75	2 50	2 00	1 75
riggers.....	2 50	2 25	2 00	1 75
sail-makers.....	3 00	2 75	2 50	2 25
blacksmiths.....	3 25	3 00	2 75	2 25
helpers.....	2 25	2 00	1 75	1 50
teamsters.....	1 75	1 50	1 25	1 25
painters.....	2 75	2 50	2 00	1 75
laborers.....	2 00	1 75	1 50	1 25
other labor.....	1 75	1 75	1 50	1 25

Average daily wages in Camden during seasons of 1889 and 1888.

	1889.	1888.
Foremen.....	\$4 00	
Ship carpenters.....	2 00 to	\$1 75 to
joiners.....	2 25	2 00
fasteners.....	1 75 to	“
calkers.....	2 00 to	
riggers.....	2 25	
painters.....	“	
teamsters.....	\$25 per mo.	
laborers.....	and board.	
blacksmiths.....	1 50 to	
helpers.....	1 75	
engineers.....	2 50	
spar-makers.....	2 00	
other labor.....	2 50	
	1 75 to	
	2 00	

Wages paid per day at Thomaston in 1889 and 1888.

	1889.	1888.
Ship carpenters.....	\$2 50	\$2 25
joiners.....	2 50	2 25
fasteners.....	2 00	
calkers.....	2 50	
riggers.....	2 00	
sail-makers.....	2 50	
painters.....	2 00	
blacksmiths.....	2 50	
spar-makers.....	2 50	
laborers.....	2 00	

These prices are the highest paid. There is no way of getting at the average, as it has been the custom here for years, for the men to go to work in the spring without any agreement as to what they were to receive per day, and in the fall, when paid off, to take whatever their employers see fit to give them. They can get money whenever they want it, but desire no settlement, or at least, have none until the close of the season. Wages are about twenty-five cents per day higher than last year.

Average daily wages paid at Harrington in 1889.

Foremen	\$4 00
Ship carpenters.....	2 25
joiners.....	3 00
dubbers	2 65
spar-makers.....	2 75
fasteners.....	1 75
calkers	3 00
riggers	3 25
sail-makers, per yard	16
teamsters.....	1 50
painters.....	2 25
blacksmiths.....	3 25
laborers	1 50
other labor.....	1 25

Average daily wages paid at Belfast for the season of 1889.

Foremen.....	\$4 00
Ship carpenters	2 12½
joiners.....	2 50
fasteners.....	1 75
calkers.....	2 00
riggers	2 00
sail-makers	3 00
spar-makers.....	2 25
dubbers	2 62
borers	1 75
blacksmiths.....	2 50
helpers..	2 00
teamsters.....	1 00
other labor.....	1 75

Average daily wages paid at Machias during seasons of 1889 and 1888.

	1889.	1888.
Ship carpenters.....	\$2 00	\$1 87
joiners.....	2 25	2 25
dubbers.....	2 50	2 25
fasteners.....	1 75	1 50
calkers.....	2 75	2 75
riggers.....	2 50	2 50
sail-makers.....	2 00	2 00
blacksmiths.....	2 25	2 28
painters.....	2 50	2 50

The following lists of wages paid at ship-yards in other states were obtained from builders and from other reliable sources. They will be found interesting and valuable for comparison.

Average daily wages paid at East Boston, Mass., during seasons of 1889, 1888 and 1887.

	1889.	1888.	1887.
Foremen	4 00		
Ship carpenters.....	2 50	2 25	2 00
joiners	2 50	2 25	2 00
dubbers	2 75	2 50	2 25
borers.....	2 00	1 75	1 50
spar makers	2 50 to	2 50	2 25
fasteners	2 00	1 75	1 50
calkers.....	2 50	2 50	2 50
riggers.....	2 50	2 50	2 50
blacksmiths.....	2 50	2 50	2 50
helpers.....	2 00	1 75	1 50
teamsters.....	10 00 per		
painters.....	2 50	2 50	2 50
engineers	2 00	1 50	1 50
other labor	2 00 to	1 75	1 50
	2 25		

Average daily wages paid at Wilmington, Del., for the seasons of 1889, 1888 and 1887.

	1889.	1888.	1887.
Foremen	\$4 00	\$4 00	\$4 00
Ship carpenters	2 50	2 25	2 25
dubbers	2 50	2 25	2 25
borers	1 87½	1 75	1 75
joiners	2 25	2 00	2 00
fasteners.....	2 00	1 75	1 75
calkers	2 50	2 25	2 25
riggers.....	2 50	2 50	2 25
sail-makers	2 50	2 50	2 50
blacksmiths	2 50	2 25	2 25
helpers.....	1 50	1 50	1 50
engineers	1 75	1 50	1 50
teamsters.....	1 50	1 50	1 50
painters	2 00	2 00	2 00
spar-makers.....	2 50	2 25	2 25
laborers.....	1 37½	1 25	1 25

These wages are higher than are paid in smaller ship-building towns in lower parts of the State.

Average daily wages paid at Baltimore, Md., during seasons of 1889, 1888, 1887 and 1886.

	1889.	1888.	1887.	1886.
Foremen	4 00	4 00	4 00	4 00
Ship carpenters.....	2 75	2 75	2 75	2 75
joiners.....	2 75	2 75	2 75	2 75
dubbers	2 75	2 75	2 75	2 75
spar-makers.....	2 75	2 75	2 75	2 75
fasteners.....	2 75	2 75	2 75	2 75
calkers.....	2 50	2 50	2 50	2 50
riggers.....	3 00	3 00	3 00	3 00
sail makers.....	3 00	3 00	3 00	3 00
painters	2 50	2 50	2 50	2 50
other labor.....	1 50	1 50	1 50	1 50

There are 13 yards in operation in Baltimore, employing from 1,500 to 2,000 men.

Average daily wages paid at the Delaware River Iron Ship-building Works, Chester, Pa., for the seasons of 1889, 1888 and 1887.

	1889.	1888.	1887.
Ship carpenters	2 50	2 42	2 42
joiners.....	2 25	2 17	2 00
smiths.....	2 75	2 50	2 50
helpers	1 50	1 33	1 33
fasteners, on wood	1 67	1 67	1 67
painters	2 25	2 00	1 83
teamsters	1 33	1 25	1 25
laborers	1 25	1 17	1 17
other labor.....	1 17	1 17	1 17

Average daily wages paid in Camden, N. J., at yard of Morris & Mather, during seasons of 1889, 1888, 1887 and 1886, as returned October 11, 1889.

	1889.	1888.	1887.	1886.
Foremen	3 50	3 00	3 00	3 00
Ship carpenters	3 00	3 00	3 00	3 00
joiners.....	2 50 to 3 00	2 50 to 3 30	2 50 to 3 30	2 50 3 30
dubbers.....	3 00	3 00	3 00	3 00
spar-makers.....	3 50	3 50	3 50	3 50
borers	2 00 to 2 25	2 00 to 2 25	2 00 to 2 25	2 00 2 25
fasteners.....	2 00 to 2 25	2 00 to 2 25	2 00 to 2 25	2 00 2 25
calkers.....	3 00	3 00	3 00	3 00
riggers.....	3 50	3 00	3 00	3 00
sail-makers.....	3 50	3 50	3 50	3 00
blacksmiths.....	2, 2 50, 3	2, 2 50, 3	2, 2 50, 3	2, 2 50, 3
helpers	1 50 to 2 00	1 50 to 2 00	1 50 to 2 00	1 50 2 00
teamsters	1 50	1 00	1 00	1 00
painters.....	2 00 to 2 25	2 00 to 2 25	2 00 to 2 25	2 00 2 25

Average daily wages paid at Fair Haven, Conn., for the seasons of 1889, 1888 and 1887.

	1889.	1888.	1887.
Foremen	\$5 00	\$5 00	\$5 00
Ship carpenters	2 50	2 50	2 50
joiners.....	3 00	3 00	3 00
dubbers.....	4 00	4 00	4 00
spar-makers.....	4 00	4 00	4 00
riggers	4 00	4 00	4 00
calkers	2 50	2 50	2 50
sail-makers.....	3 00	3 00	3 00
borers and fasteners.....	2 50	2 50	2 50
blacksmiths.....	3 00	3 00	3 00
helpers.....	2 00	2 00	2 00
painters	3 00	3 00	3 00
teamsters	2 00	2 00	2 00
other labor.....	1 50	1 50	1 50

Average daily wages paid at Norfolk, Va., for the seasons of 1889, 1888 and 1887.

	1889.	1888.	1887.
Foremen.....	\$3 50	\$3 50	\$3 50
Ship carpenters.....	2 50	2 50	2 50
joiners.....	2 50	2 50	2 50
calkers	2 25	2 25	2 50
blacksmiths.....	2 25	2 25	2 25
helpers	1 50	1 50	1 50
spar-makers.....	3 00	3 00	3 00
engineers	2 50	2 50	2 50

Average daily wages paid by Cleveland Dry Dock Company, Cleveland, O., during seasons of 1889, 1888 and 1887.

	1889.	1888.	1887.
Foremen	6 00	6 00	6 00
Ship carpenters.....	2 75	2 75	2 50
joiners.....	2 50	2 50	2 25
dubbers.....	5 00	5 00	5 00
spar-makers	2 75	2 75	2 75
fasteners.....	1 75 to 2 25	1 75 to 2 25	1 75
calkers.....	2 75	2 75	2 50
riggers	2 50	2 25	2 25
teamsters.....	2 00	2 00	2 00
laborers.....	1 62½	1 62½	1 62½

Average daily wages paid by the Union Dry Dock Co., Buffalo, N. Y., for the season of 1889.

Foremen.....	\$3 50
Ship carpenters.....	2 75
joiners	2 75
dubbers.....	2 75
spar-makers.....	3 00
borers	2 00
calkers	2 75
riggers	2 00
fasteners.....	2 00
blacksmiths.....	2 75
helpers.....	1 50
painters.....	2 00
teamsters.....	1 75
laborers	1 50

Wages have been about the same for past three years.

FROM CONSULAR REPORTS IN 1884.

SHIP-BUILDING IN IRELAND.

Weekly wages of fifty-six hours paid in Cork.—Wooden ships.

Draftsmen	\$17 03
Foremen	13 38
Carpenters	8 03
Riggers	8 03
Sail-makers	8 03
Blacksmiths	8 03
Blacksmith strikers	4 38

PRICE OF PROVISIONS.

Flour per barrel	\$7 30 to \$8 76
Fresh beef per pound .....	.18 to .28
Beef (corned) " .....	.15 to .18
Pork (fresh) " .....	.10 to .20
Butter " .....	.18 to .38
Eggs per dozen .....	.18 to .40
Sugar per pound .....	.05 to .10
Tea " .....	.40 to .90
Lard " .....	.16 to .20
Dry codfish .....	.06 to .08

SHIP-BUILDING IN ENGLAND.

Wages per week of fifty-four hours.

	New Castle on Tync.	Liverpool.	Bristol.
Carpenters and Shipwrights	\$8 51	\$9 12	\$8 64
Joiners	8 03	8 57	7 92
Painters	6 80	7 78	
Blacksmiths	7 78	8 51	7 92
Calkers	7 54	6 81	7 20
Pattern makers	8 51		
Strikers		5 83	
Helpers		5 35	6 48
Sawyers	7 78		
Laborers		5 23	5 47
Machinists	7 42		
Iron workers			8 64
Platers	8 03	9 24	
Riveters	8 03	7 78	
Fitters	8 15	8 27	8 64

Sail-makers in England and Wales average \$7.02.

SHIP-BUILDING IN GERMANY.

Wages per week of sixty hours.—Bremen.

Foremen	\$13 80
Shipwrights	5 40
Carpenters.....	4 28
Painters.....	3 57
Joiners.....	4 28
Mast and spar-makers	6 90
Blacksmiths	4 28
Riggers.....	5 40
Sawyers	5 40
Saw-mill machine men.....	5 40
Laborers.....	3 57
Sail-makers.....	4 98

Rent per year in Bremen is \$45.00 for man earning \$5.20 per week.

SHIP-BUILDING IN HOLLAND.

Average wages per week of sixty hours.—Wooden ships.

Foreman,	weekly wages.....	\$6 00
Carpenters,	“	5 28
Joiners,	“	5 28
Mast and block makers,	“	5 28
Blacksmiths,	“	5 00
Laborers,	“	4 08
Sail makers,	“	4 80

PRICE OF PROVISIONS, ETC.

Flour,	per pound.....	\$.04 to \$.06
Roast beef,	“ .....	.24 to .29
Soup beef,	“ .....	.15 to .22
Fresh pork,	“ .....	.14 to .22
Bacon,	“ .....	.16 to .18
Ham,	“ .....	.16 to .26
Horse flesh,	“ .....	.09 to .19

SHIP-BUILDING IN BELGIUM.

Wages per week of sixty hours, in Antwerp.

Ship carpenters.....	\$7 60
Calkers.....	7 60
Joiners.....	7 60
Blacksmiths	6 55
Boat builders	6 00

PRICE OF PROVISIONS.

Flour, per pound	\$.08
Pork “ .....	.20
Lard “ .....	.20
Sugar “ .....	.11½
Beef, “ .....	.20
Butter, “ ..	.32
Eggs, per dozen .....	.24
Sausages per pound .....	.20
Potatoes “ .....	.03
Beans, per quart .....	.10

SHIP-BUILDING IN SCOTLAND.

Clyde ship yards in 1884.— Weekly wages of fifty-four hours.

Carpenters.....	\$ 8 00
Joiners.....	7 51
Blacksmiths	7 29
Hammer men (blacksmiths helpers).....	4 84
Painters.....	7 10
Riggers	8 85
Machine men.....	6 56
Calkers.....	9 60
Riveters.....	12 63
Laborers.....	4 12
Platers and fitters	7 98
“ “ laborers	5 04

Wooden ships.

Carpenters	7 65
Joiners.....	7 00
Blacksmiths.....	6 87
Blacksmiths helpers	4 56
Laborers.....	4 12

PRICE OF PROVISIONS IN DUNDEE, SCOTLAND.

[FAIRLY SUPERIOR QUALITY.]

Butter per pound.....	.30
Eggs per dozen .....	.26
Flour per pound (American).....	.04
Potatoes “ .....	.01
Tea “ .....	.75

AND LABOR STATISTICS.

95

Beef (fresh home fed) per pound.....	.24
Beef (American) " .....	.16
Pork (salted) " .....	.12
Fish (salted) " .....	.05
Sugar " .....	.07
Milk per pint.....	.04
Rent per year with taxes and water, (three rooms)	77 50
" " " (two rooms)	48 00
Rent per week " " (one room).....	.60 to .75

TABULATION OF SHIP
SHIP CAR

No. of return.	Age.	Where born.	Present residence.	No. hours employed daily.	Wages per day.	Earnings from regular trade for year.	Earnings from other personal service.	Earnings of all others in family.	Days lost on regular trade.			Owning homes.	Value of homes.	Amount of mortgage.
									From sickness.	Inability to get work.	Other causes.			
166		Bowdoin.....	Bath.....	10	2 50	\$538	-	\$300	-	-	97	1	\$1000	-
253		Ireland.....	".....	10	2 50	520	-	-	-	-	104	1	3000	-
357		Harpwell.....	".....	10	2 50	580	67	-	6	-	74	1	1600	-
463		New Brunswick,	".....	10	2 00	400	-	10	-	20	92	1	1000	100
529		Bath.....	".....	10	2 26	424	-	-	-	-	124	-	-	-
654		P. E. Island....	".....	10	2 13	559	75	433	-	-	49	-	-	-
753		So. Thomaston..	".....	10	2 50	493	-	-	20	60	35	1	1000	-
852		Russia.....	".....	10	2 00	450	-	-	-	-	87	1	800	-
960		Bremen.....	".....	10	2 25	364	80	240	10	-	140	1	1500	-
1059		Parkman.....	".....	10	2 50	501	16	-	-	-	112	1	1500	-
1143		Nova Scotia....	".....	10	2 50	350	50	100	-	45	127	1	800	-
1240		Whitefield.....	".....	10	2 25	439	15	48	2	18	97	1	600	-
1333		New Brunswick,	".....	10	2 00	516	-	-	6	6	42	-	-	-
1458		Litchfield.....	".....	10	2 50	536	-	364	-	50	48	-	-	-
1538		Woolwich.....	".....	10	2 00	388	50	208	-	128	-	-	-	-
1657		Hallowell.....	".....	10	2 25	500	-	-	-	-	90	1	1500	-
1759		Washington....	".....	10	2 28	473	-	-	63	-	42	1	1750	-

MISCEL

Occupation.														
18	34	Anchor smith....	Camden.....	10	1 75	495	-	-	4	-	25	-	-	-
19	28	Calker.....	Bath.....	10	2 75	300	40	-	-	203	-	-	-	-
20	25	Sail-maker.....	Thomaston..	10	2 50	456	-	-	-	-	130	1	1000	-

YARD WORKERS' RETURNS.

PENTERS.

Rate of interest on mortgage.	No. in family.	No. working for wages.	Wages increased—how much.	Wages decreased—how much.	Are you expected to trade at company store?	Are prices higher than at other stores?	How often paid?	Could you live cheaper if paid oftener?	Are any wages withheld under certain rules?	Do you belong to any labor organization?	Do you belong to any benevolent organization?	Do you receive weekly benefits in case of sickness?	Have you a savings bank account?	Have you accumulated any savings during former years?	Have you accumulated any savings during past year?	Have you run into debt during past year?
-	4	3	-	.20	No.	-	Weekly.	No.	No.	Yes.	No.	No.	Yes.	Yes.	Yes.	No.
-	6	1	.25	"	"	-	"	"	"	"	"	"	"	"	"	"
-	5	1	-	"	"	-	"	"	"	"	"	"	"	"	"	"
.06	3	1	-	"	"	-	"	"	"	"	"	"	No.	"	"	"
-	1	1	.40	"	"	-	"	"	"	"	"	"	Yes.	"	"	"
-	5	2	.30	"	"	-	"	Yes.	"	Yes.	Yes.	"	Yes.	No.	"	"
-	2	1	.25	"	"	-	"	No.	"	No.	No.	Yes.	Yes.	"	"	"
-	5	1	.14	"	"	-	"	"	"	Yes.	"	"	"	"	"	"
-	3	2	-	"	"	-	"	"	"	"	"	"	"	No.	"	"
-	4	2	-	.10	"	-	"	"	"	No.	"	"	"	Yes.	"	"
-	10	2	-	"	"	-	"	"	No.	Yes.	"	"	No.	"	"	"
-	5	1	-	"	"	-	"	Yes.	No.	"	"	"	Yes.	"	"	"
-	6	1	-	"	"	-	"	"	"	"	"	"	"	No.	No.	"
-	3	2	.25	"	"	-	"	"	No.	"	"	"	"	Yes.	Yes.	"
-	5	2	-	"	"	-	"	Yes.	"	Yes.	"	"	No.	No.	No.	"
-	2	1	-	"	"	-	"	"	"	"	"	"	"	Yes.	Yes.	"
-	3	1	.25	"	"	-	"	"	"	Yes.	"	"	Yes.	"	"	"

LANEOUS.

6	1	.17	-	"	-	"	"	"	Yes.	"	Yes.	No.	No.	No.	"	"
5	1	-	.15	"	-	"	"	"	"	"	"	"	"	"	"	"
3	1	-	-	"	-	"	"	"	No.	"	"	"	"	"	"	"

**EXPENSES OF LIVING FOR THE YEAR 1888.
SHIP CARPENTERS.**

No. of return.	Total income.	Total expenses.	Rent.	Food.	Clothing.	Fuel and lights.	Society dues.	Life insurance.	Other things.
1	\$838	\$500	-	\$300	\$105	\$35	-	-	\$60
2	520	470	-	364	50	35	4	-	17
3	587	500	-	300	75	50	24	-	51
4	410	400	-	260	40	50	20	-	30
5	424	300	*	156	42	-	2		
6	1067	332	\$60	156	50	35	20	7	4
8	450	400	-	260	50	20	3	15	52
9	684	580	-	206	170	30	20	-	154
11	500	365	-	200	74	60	6	-	25
12	502	404	-	208	103	33	3	-	57
13	516	514	60	325	75	40	2	-	12
14	800	355	84	200	30	35	6		
15	626	626	100	225	75	40	2	-	164
16	500	350	-	200	56	40	18	36	
17	573	552	-	250	93	50	-	51	108

MISCELLANEOUS.

18	495	495	48	250	50	17	2	12	116
19	340	340	72	150	75	40	3		
20	456	456	-	300	100	24	4	28	

* Unmarried man, boarding.

ANALYSIS.

	Ship carpenters.	Miscellaneous.	Total.
No. of reports.....	17	3	20
No. native born.....	11	3	14
No. foreign born.....	6	-	6
No. assisted by their families.....	8	-	8
No. owning homes.....	12	1	13
No. homes mortgaged.....	1	-	1
No. renting.....	4	2	6
No. without families, boarding.....	1	-	1
No. reporting pay raised.....	7	1	8
No. reporting pay reduced.....	2	1	3
No. paid weekly.....	17	3	20
No. belonging to labor organizations.....	14	2	16
No. belonging to beneficiary organizations.....	6	3	9
No. having savings bank accounts.....	12	-	12
No. accumulating savings in former years.....	11	-	11
No. accumulating savings during past year.....	12	-	12
No. running in debt during past year.....	-	-	0

AVERAGES.

Age of persons reporting.....	51	29	40
Hours employed daily.....	10	10	10
Daily wages.....	\$ 2 29	\$ 2 33	\$ 2 31
Annual earnings.....	471 00	417 00	444 00
No. days lost.....	105	121	113
Earnings of other members of family.....	\$100 00	-	\$ 50 00
Gross income.....	588 00	\$430 00	510 00
Cost of living.....	443 00	430 00	437 00
No. of persons in family.....	4.4	4.7	4.5
Earnings over expenses.....	\$145 00	-	\$73 00

REMARKS OF SHIP CARPENTERS.

Ship work is, perhaps, different from other kinds of work, as we are subject to a rise and fall in wages, according as there is much or little work to be done. My wages were raised three times and also cut down three times during the year, but the year closed with the wages where they were when the year began. The average was higher than in the year before, and now in August, 1889, they are higher than in 1888, owing partly to the increase of building and partly to labor organizations. The length of days varies. In the summer we work ten hours regularly, and in the winter from sun rise to sun set, which in the shortest days, is about eight hours. Wages are always smaller in winter than in summer.

Ship Carpenter.

My average pay for the whole number of working days would be \$1.39 per day. In the winter we work from sun to sun, when the sun rises at 7 o'clock A. M. and sets before 6 o'clock P. M. so that we do not average ten hours the year round.

Ship Carpenter.

I have always been one of the foremost advocates of the labor interests. Was one of the founders of the ten hour system.

Ship Carpenter.

I have found out that it is impossible to save money by trading at a particular store.

Ship Carpenter.

In the yards, when the sun rises after 7 o'clock and sets before 6 o'clock, we work from sun rise to sun set. Our shortest days are about eight hours long; our longest being from 7 o'clock to 12 o'clock, and from 1 o'clock to 6 o'clock.

Ship Carpenter.

If it was not for organized labor we should not get much. I believe that immigration ought to be stopped altogether, unless a man wants to become an American citizen and share its burdens and benefits. The law should be strictly enforced. If there is not something done soon, this land of ours will become a land of tramps.

Ship Carpenter.

The past year or eighteen months, has been more than an average for wages, in our business of ship-building in Bath, as, in some previous years the best carpenters here have only received \$1.25 to \$1.50 per day in the best of the summer season. It is only by

organizing and contending for our rights, that we have increased our pay so as to pay our honest bills, and now the employers contrive every way they can, to bring in men from Canada and the Provinces. If one comes they get him to write to his friends to come, and by so doing it brings in a great many, so when business slacks up a little there will be an overplus of men, I cannot say mechanics, as many of them are very green at the business, but they will work for what they can get, and that tends to reduce pay of good mechanics. They pay no taxes, and send most of their pay back to their families.

Ship Carpenter.

I have belonged to a labor organization for a long time but have never derived any benefit therefrom, either of obtaining work, or otherwise.

Ship Carpenter.

I have found it hard to make both ends meet, at all times. The reason I have never saved anything in former years is that I have never tried.

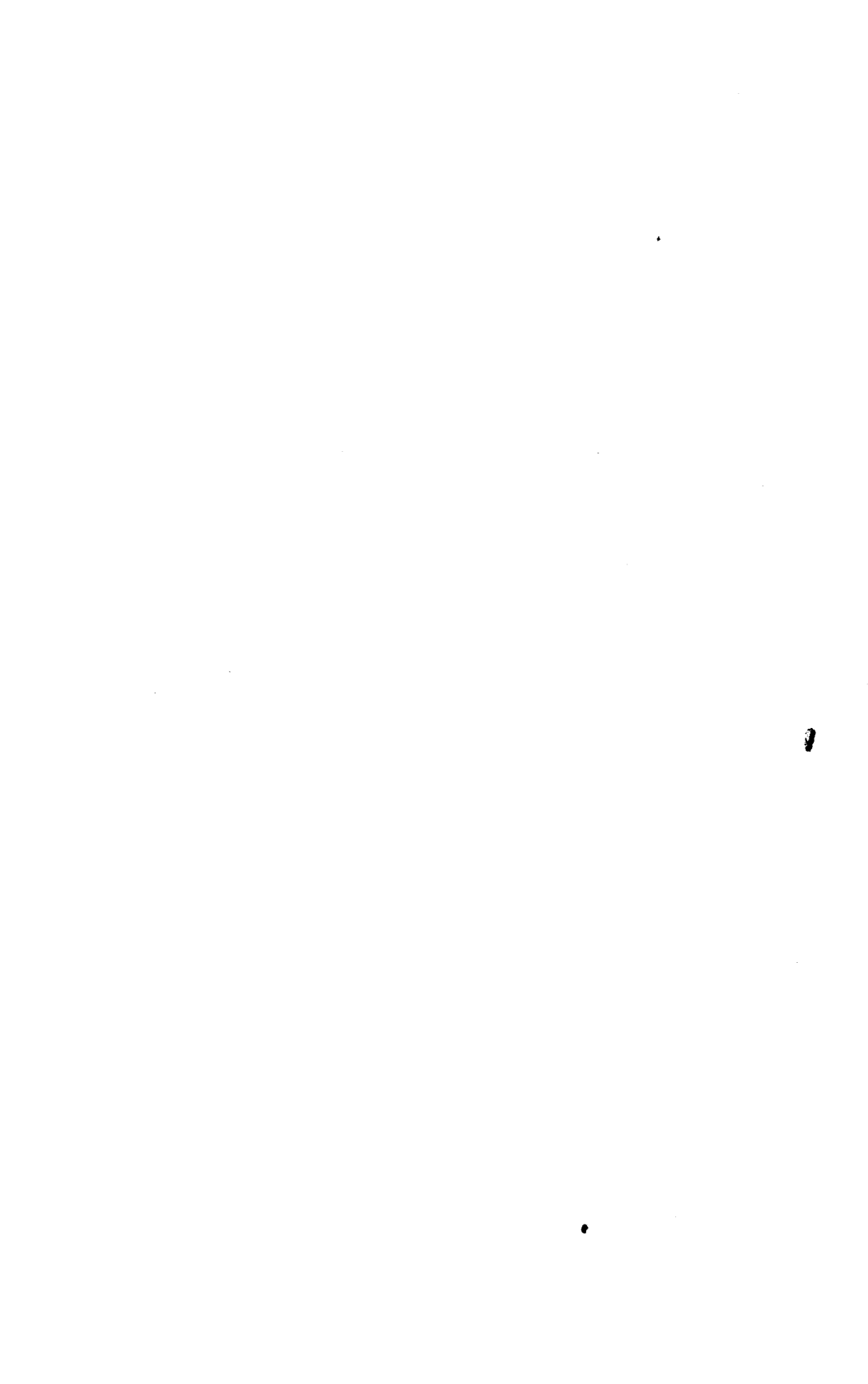
Ship Carpenter.

In regard to the eight and ten hours employed; in winter we work from sun rise to sun set, so you see that, in the winter season, we only work eight hours. I also wish to say that the past year has been more than an average for wages in the ship business in Bath, as for some years in the past, wages have been as low as \$1.25 and \$1.50 per day, in the summer season. It is only by keeping well organized, educated and united, that we can keep wages where they are.

Ship Carpenter.

For the last year and a half business has been very good in this place. I have been employed all the time.

Ship Carpenter.



PART IV.

Convention of Bureaus of Labor Statistics.

Extracts from Remarks made and Papers read at the 7th
Annual Conv of Chiefs and Commissioners of
Bureau of Labor Statistics.

The Seventh Annual Convention of Chiefs and Commissioners of the several Bureaus of Labor Statistics in the United States, met in the Senate Chamber, in the State Capitol building, Hartford, Connecticut, at 2.25 o'clock on the afternoon of Tuesday, June 25, 1889.

The convention was called to order by President Carroll D. Wright, of Washington, D. C., with Col. E. R. Hutchins as Secretary.

In opening the convention, President Wright spoke as follows :

GENTLEMEN—We can congratulate ourselves upon the generosity and courtesy of the State of Connecticut for the privilege and the pleasure, too, of meeting in this beautiful hall. The legislature, by official action, has placed the rooms of the Capitol at our disposal, and so we have met in exceedingly pleasant ways, and we hope to have the deliberation which belongs to a Senate Chamber.

Let me call your attention to the progress of the work of the bureaus of labor statistics in the United States; to the greatly increased interest which the work of these bureaus commands from all parts; to the support given to it by the manufacturers and working men; and to the confidence which the results of our labors inspire among all classes. These results are making actual contributions to political and economic science. The bureaus are not solving great labor or economical problems, but they are contributing most important information, and presenting it without bias. It is not our business to seek or offer solutions; it is our business to collect information and present it impartially and fearlessly to the public.

But the work in which we are engaged is surrounded by a great many difficulties. The limitations of the statistician's peculiar province are so great that after a wide practical experience, extending over sixteen years, I am sometimes somewhat discouraged. The lines of actual work are often so greatly limited and restricted that it seems impossible, sometimes, to secure the truth. Our business is then and under such circumstances, to do the best we can, and give nothing to the public but what has a sound and solid basis. The old saying is that "figures will not lie," but a new saying is "liars will figure." It is our duty, as practical statisticians, to prevent the liar from figuring; in other words, to prevent him from perverting the truth, in the interest of some theory he wishes to establish. We can only do this by being absolutely fair ourselves. But the limitations of which I speak almost prevent fairness and justice on the part of the statistician. It is the consideration of these limitations that leads me at this time, as the most proper thing, to call your attention more specifically to the real object of our annual convention, which was to consider the difficulties surrounding the work of the bureaus.

You know that in past conventions we have taken up more or less time listening to papers on abstract subjects,—all very valuable, and very interesting, to be sure; but our work should be of a more practical nature, and it has seemed to the officers of this convention that a more valuable use of the greater part of the time here at Hartford would be in discussing the methods of statistical work, and all the limitations which surround it; the difficulties, in fact, which arise in the every day performance of our duties.

These limitations and difficulties surround almost every question that we have approached, or are likely to approach. They are felt more seriously in ascertaining the moral conditions which surround people or communities. Statistical presentations relating to moral conditions are likely to be misleading. For instance, suppose the good people of Hartford desire to be philanthropic, and they find that this year there are 2,000 people seeking employment; that the people are suffering from loss of organization. It leads to the organization of a charitable society for furnishing work to the unemployed, or for assisting them to find employment. The society finds at the close of the year that instead of 2,000 people being out of work there are but 1,500. At the end of the second year they find but 1,200; and at the end of the third year, 1,000. And then

the society congratulates itself upon the great results of its work. Now, it may be true that they have actually accomplished nothing, and that a further examination of the situation would disclose the fact that industrial conditions have changed, markets been strengthened, and wages increased, thus increasing the opportunities for employment; and that these were the real reasons why the army of unemployed was reduced so rapidly.

I simply use this illustration to show that in ascertaining moral conditions two or more lines of facts are essential. It is the difficulty which the statistician often finds, and as often finds that he has made a mistake, by running on one line of investigation, and drawing the conclusion from that line, when parallel lines are absolutely essential in order to reach important results. The statistical failures come from the failure to recognize the necessity of different lines approaching a common center.

The limitations which surround the conclusion and presentation of the statistics of wages are very great. A few years ago many of our statisticians and economists thought there was one truth, at least, to be obtained from the census of the country. This supposed truth related to the average wages paid in the manufacturing industries, and was secured by dividing the aggregate amount of all wages paid by the total number of people among whom this aggregate amount of wages was supposed to be divided, the quotient representing the average wages, or earnings, of the whole body of people engaged in the manufacturing industries. The fact is there is nothing more fallacious in the whole census than the quotient thus derived. The aggregate of wages paid, which constitutes the dividend, is positive, but the number of people, constituting the divisor, is far from being positive; in truth, it is very shifting. It is fluctuating, because the exact number of people that should constitute the divisor cannot be known. If you take the average number of people employed, that certainly makes a vicious divisor; if you take the largest number, or the smallest number, your difficulty is still greater. If, therefore, the divisor is fluctuating and therefore vicious, your quotient has the same element. The question is asked in the census: "How many hands are there employed now? What is the amount paid?" The explanation is, "Give the greatest number of hands employed at any one time, and the least number at any one time; also the average number employed; also the number employed on a given date." Which of these numbers shall

constitute the divisor? In censuses back of the present period, say ten or twenty years, only one question was asked, "Number of hands employed?" The modern census taker asks all three, greatest, least, and average, and perhaps adds the fourth, number employed at a given time; but I fail to understand how a quotient resulting from the use of either of the numbers as a divisor can possibly represent the average earnings of the people. The result is vicious, because it is fluctuating.

It is this that has brought various results for different decades of years. Without using exact figures, but with sufficient exactness to illustrate my point, the average earnings of the people at any one period may be shown to be \$400 per year, and at another \$370, and so the claim made that there has been a loss in the average earnings, while the exact truth may be just the reverse. And this may be the result of using a fluctuating divisor. So we have no right to draw conclusions that wages are either falling or rising from the use of any such material.

The difficulties I have spoken of constitute a very serious limitation that we should not forget. The only way to avoid the limitation, or rather the results of the limitation, is to fill out individually each account for each workman, from month to month, for a whole year. This method, the only true scientific one relative to earnings, absolutely precludes, on account of its tediousness, its adoption. The road is altogether too hard for any bureau to travel on to any great extent. I am trying it in the department of labor at Washington, in relation to railroad laborers, but even here the limitations prevent absolute completeness. The result, however, is far more satisfactory, for under such method, facts are presented for representative conditions; and they are, to my mind, far better than the aggregate facts resulting from vicious details.

While at the head of the Massachusetts Bureau of Statistics of Labor, another instance of statistical limitation came under my observation. This related to the statistics of prohibition and license. An investigation was directed into the number of arrests made for drunkenness during the years when prohibition prevailed, and during the years under license, respectively. Curiously enough, the result showed that for some places there were more arrests for drunkenness during the prohibitory years than under the license years. The statistics were worth but little, for this reason: The governments of cities are, as a rule, or at least used to be, quite opposed to pro-

hibition, and the police officers, under the prohibitory rule, were generally very strict in making arrests for drunkenness; while under license fewer arrests were made.

The difficulties of treating any moral question statistically are very great. I have only cited some familiar cases that we may better understand our course of procedure. But the limitations show the value of our annual meeting to compare methods, to consult with each other as to means which can be adopted to overcome difficulties. The field for statistical work grows wider, while the difficulties increase. Statistical limitations have prevented a line of investigation in this country of interest to, and in which the whole country is, or should be, interested, and that is one relating to the cost of producing articles which are manufactured in the United States and in countries abroad. At present there is no line of statistical information which will give us the cost of production for any great variety of articles. This state of affairs is to be regretted, and the chief reason why we have not at present such statistical information lies in the limitations which surround statistical work. Our consular service has for many years been engaged in this direction, but it has made but little progress, because in getting the cost of production consuls and consular agents have found that they could not overcome the difficulties which confronted them. And, again, they largely have undertaken to collect the information either by correspondence or by furnishing well prepared blanks to manufacturers in other countries. All such methods, for such a branch of statistical work, must inevitably meet with failure. There is only one way in which to secure the desired information, and that is by personal investigation. The manufacturer, as a rule, finds it impossible to observe the requirements of a great schedule, and they need, and are entitled to the assistance which an intelligent expert or special agent can offer. There are no offices in the country so well equipped for this class of work as the bureaus of labor. Some of the bureaus have attempted this cost of production investigation. It has been attempted with partial success by the department at Washington, and I am happy to inform you that in Italy, France, Belgium and Germany, as well as Great Britain, the cost of producing the cotton, wool, and iron and steel products, is being investigated on parallel lines with the investigation in this country, and that manufacturers in all the countries named are furnishing the information desired; grudgingly, perhaps, and in small quantities,

but with a standard of accuracy which encourages me to believe that we shall, sooner or later, arrive at some valuable results.

With perseverance, with encouragement from legislatures, our bureaus can ascertain important facts and overcome limitations and difficulties which surround our peculiar work, and it is only by perseverance that we can ascertain great and important truths.

These remarks show, in a suggestive way, the importance of our deliberations, and warrant our coming together once a year for the purpose of each member of the convention telling the whole body fairly and fully, and at length, the work upon which he is officially engaged, the difficulties which he encounters, and the methods he adopts to overcome them. This is our legitimate work as a body, and this I believe you are ready to take up as vigorously now as you have been disposed to in the past.

The Secretary reported the following states having bureaus of labor statistics, with the names of the officers in charge, together with their post-office address :

Bureau of Labor, Washington, D. C. Established January 18th, 1885 ; made a Department in 1887. Carroll D. Wright, Commissioner, Washington, D. C.

Bureau of Statistics of Labor of Massachusetts. Established June, 1869. Horace J. Wadlin, Chief, Boston, Massachusetts.

Bureau of Industrial Statistics of Pennsylvania. Established 1872. Prof. Albert S. Bolles, Chief, Harrisburg, Pennsylvania.

Bureau of Labor Statistics and Inspection of Missouri. Established 1876 ; enlarged 1883. Lee Merriwether, Commissioner, Jefferson City, Missouri.

Bureau of Labor Statistics of Ohio. Established 1877. A. D. Fassett, Commissioner, Columbus, Ohio.

Bureau of Statistics of Labor and Industries of New Jersey. Established March, 1878. James Bishop, Chief, Trenton, New Jersey.

Bureau of Labor Statistics of Illinois. Established 1879. John Lord, Secretary, Springfield, Illinois.

Bureau of Statistics of Indiana. William A. Peelle, Jr., Chief, Indianapolis, Indiana.

Bureau of Labor Statistics of New York. Established 1883. Charles F. Peck, Commissioner, Albany, New York.

Bureau of Labor Statistics of California. Established 1883. J. J. Tobin, Commissioner, San Francisco, California.

Bureau of Labor and Industrial Statistics of Michigan. Established March, 1883. Alfred H. Heath, Commissioner, Lansing, Michigan.

Bureau of Labor Statistics of Wisconsin. Established April, 1883. H. M. Stark, Commissioner, Madison, Wisconsin.

Bureau of Labor Statistics of Iowa. Established March, 1884. E. R. Hutchins, Commissioner, Des Moines, Iowa.

Bureau of Statistics of Labor of Maryland. Established 1884. Thomas C. Weeks, Chief, Baltimore, Maryland.

Bureau of Labor Statistics of Kansas. Established May, 1885. Frank H. Betton, Commissioner, Topeka, Kansas.

Bureau of Labor Statistics of Connecticut. Established April, 1885. Samuel M. Hotchkiss, Commissioner, Hartford, Connecticut.

Bureau of Labor Statistics of Maine. Established March, 1887. Samuel W. Matthews, Commissioner, Augusta, Maine.

Bureau of Labor Statistics of Minnesota. Established March, 1887. John Lamb, Commissioner, St. Paul, Minnesota.

Bureau of Labor Statistics of Colorado. Established March, 1887. Secretary of State, *ex-officio* Commissioner; C. L. Driscoll, Deputy Commissioner, Denver, Colorado.

Bureau of Labor Statistics of North Carolina. Established March, 1887. J. F. Crowell, Commissioner, Raleigh, North Carolina.

*Bureau of Labor Statistics of Rhode Island. Established April, 1887. J. B. Bowditch, Commissioner, Providence, Rhode Island.

Bureau of Labor and Industrial Statistics of Nebraska. Established 1887. John Jenkins, Commissioner, Lincoln, Nebraska.

Upon calling the roll, the following were found to be present:

Carroll D. Wright, Commissioner of National Bureau.

Horace J. Wadlin, Chief of Massachusetts Bureau.

Prof. Albert S. Bolles, Chief of the Pennsylvania Bureau.

Lee Merriwether, Commissioner of the Missouri Bureau.

James Bishop, Chief of the New Jersey Bureau.

John S. Lord, Secretary of the Illinois Bureau.

E. J. Kean, Deputy Commissioner of the New York Bureau.

Alfred H. Heath, Commissioner of the Michigan Bureau.

H. M. Stark, Commissioner of the Wisconsin Bureau.

*Almon K. Goodwin is the successor to Mr. Fowditch.

- E. R. Hutchins, Commissioner of the Iowa Bureau.
Frank H. Betton, Commissioner of the Kansas Bureau.
Samuel M. Hotchkiss, Commissioner of the Connecticut Bureau.
Samuel W. Matthews, Commissioner of the Maine Bureau.
John Lamb, Commissioner of the Minnesota Bureau.
J. F. Crowell, Deputy Commissioner of the North Carolina Bureau.
J. B. Bowditch, Commissioner of the Rhode Island Bureau.
John Jenkins, Commissioner of the Nebraska Bureau.

United States Senator Joseph R. Hawley, of Hartford, Connecticut, being introduced, said :

I certainly did not mean to make any suggestions as to the nature and manner of your work, and I would rather not present my criticism until after you are through. I am not sufficiently posted in the work of the bureaus to criticize it as a whole or individually. While I fully recognize all the chairman has said to be true, I believe it is absolutely necessary to be cautious against placing implicit confidence in the bare figures of statistics. They must be studied with a knowledge of the impossibility of thoroughly collecting them. Whether absolutely correct or not, one sometimes finds them as fascinating as romances. Take, for instance, the scope and variety of Mulhall's various works, the dictionary of statistics ; certainly that is an exceedingly interesting and instructive book. It presents prices of commodities, the wages received in various countries, the number of men employed in various kinds of work, and the hours of work, etc. He has decidedly disclosed the fact that the American workman is the most productive, man for man, because he is better fed, clothed, housed, paid and educated than those in any other country. It might be added that there is another element that cannot be told in figures or labor statistics, and that is the hope and assurance of the wage-earner that, if he will, he may better himself. It gives great pleasure to studious men to see the advancement made by these organizations toward better statistical work, and I have no doubt their labor will result in advancing social and economic interests.

So, gentlemen, while I agree with the chairman in regard to these limitations in furthering this work, I am satisfied from these discussions great good will come, and I prefer to listen to others and afterward criticise them, if it be possible.

United States Senator O. H. Platt of Meriden, Connecticut, being called upon, said :

Mr. CHAIRMAN :—I am glad to be here for two reasons ; and the first is, because I am deeply interested in the work which the gentlemen composing this convention have in hand. It is not a new-born interest, for all through my life I have felt that the value of labor as a factor in the great problem of development was, if not overlooked, largely unappreciated.

I have noticed the establishment and organization of labor bureaus in the different states with great satisfaction, and have been gratified with the progress made by them in ascertaining and giving to the public accurate facts and figures, calculated to awaken in the popular mind a greater interest in the welfare, happiness and progress of the men who are doing the world's work. It seems to me that, satisfactory as the work already accomplished is, it has just begun. The gentlemen who have met here to-day, representing their organizations in the different states, are in the highest sense educators. The public are pupils, and have scarcely progressed beyond the primary stage in learning the lessons taught by the statistical information which is being collected and published. I look for great advancement both in the teaching and in the learning of the facts calculated to improve, not only the material interests of the country, but also the condition and welfare of its citizens.

The other reason why I am glad to be here is this : I desire myself to learn all that may be learned from the deliberations of the convention. My interest in this branch of social science is necessarily but that of an amateur ; and you, gentlemen, who have made a special study of the relations of labor to capital, and of both labor and capital to production, can, any one of you, instruct me. I am glad, therefore, to come here to-day as a learner.

I have sometimes felt that, in the agitation which has characterized the newly awakened interest in labor and laborers, we were all, to some extent, overlooking the great idea which underlies this agitation. We see the evidences of discontent ; we read of strikes and controversies, and violence at times ; we feel that there is a contest, and we cannot always wholly approve the conduct of the contestants on either side. These surface events attract our attention, and sometimes we become alarmed at what seems to be a dangerous conflict between classes of our people—between capitalists on the

one side and laborers on the other. But if we look deeper than the surface, I think that we shall see that a great movement for the uplifting of humanity is in progress the world over; that if discontent exists among the common people, it is but the evidence of an aspiration for better things; of an aspiration which ought to be and must be satisfied.

I am not one of those who believe that humanity is being degraded in the world. I believe that the people as a mass are growing wiser, better, happier, and are coming to a more perfect understanding of their rights, duties and responsibilities. The disagreeable symptoms which shock and alarm our pessimistic friends, seem to me to indicate, not decay or deterioration, but healthy and vigorous life. The truth, as I read it, is, that the common people are coming to understand their rights and their duties, and are determined to enjoy the one and perform the other. Mistakes they will undoubtedly make, but out of all the agitation and contest they will reach a higher plane in social, moral and political life.

The very theory of our government requires a recognition of the dignity of labor and the worth of the laborer. In a country where the vast majority of men labor with their hands, democracy is impossible unless each laborer counts as an equal unit in the problem of government; and this is possible only where the laborer is fairly treated, justly appreciated, and honestly discharges the responsibilities which a republican form of government puts upon him. To put it in more practical words: A republican government is a government by all the people. Each one who participates must be the equal of every other one. The rights of the laborer must not be subordinate to the rights of the idler. A glance at the world's events must satisfy any one that the common, humble people of the world are coming to understand this, and, whether under a republican or monarchial government, are aspiring to become real factors in all problems of human life.

What we call the "labor movement" is after all but a new development of the passion of mankind for liberty. And whatever the strife or contention, whatever the mistakes or blunderings, which may attend this development, the outcome is sure to be a higher and nobler liberty for mankind. We all ought to welcome this. I rejoice in it, not in the wrongs that may be perpetrated in securing this liberty, but in the result that is sure to be accomplished. If there is danger, safety is to be found in knowledge.

With accurate information as to the respective relations which capital and labor sustain to production, we shall have less of contention and strife. It is easy for the man who labors, to think that he alone produces; it is easy for the capitalist to think that capital is the greatest factor in production, and that labor plays only a subordinate part. But when the facts which you, gentlemen, are engaged in ascertaining, shall be generally known and understood, the true relations of capital and labor will come to be thoroughly apprehended. It will be found that both are essential to production and progress, and that neither can dispense with or despise the other. Money will no longer exalt its possessor, nor manual labor degrade him who performs it. The laborer and the capitalist must, and when this subject is understood, will meet on the common ground of manhood, each understanding the part he has to perform in the world's progress and in human advancement. As the importance of the work you have in hand comes to be better understood, it will be more universally appreciated.

When labor bureaus were first established, I think it may have been felt by some that they were merely a concession to a troublesome class of our citizens. But "we builded better than we knew." They were the need of the century, and that fact is coming to be fully recognized. As investigators, you occupy a position second in importance to none, and your responsibility is consequently great. What we, who cannot spend the time to investigate, wish to know is exact truth. We do not wish to be fed with speculation, but with cold, unimpeachable facts. Your work will be slow, your labors difficult, and oftentimes discouraging, but the fruits of your labor well performed will be ample and satisfactory. Like the leaves of that tree planted by the River of Life, your conclusions are to be for the "healing of the nations."

I am glad, therefore, to welcome you to Connecticut, to the state in which, I think, labor has been as highly respected and appreciated as in any state in the Union. I trust that your stay here will be made pleasant; I know it will be valuable to us. I am glad to make the acquaintance of the delegates; and I hope that when you leave us, it will be with a feeling that Connecticut has been hospitable, and has appreciated the honor of your gathering here.

THE DRESSED BEEF MONOPOLY.

[From a Paper read by Commissioner Betton of Kansas.]

Probably many, if not all, of the members of this convention are familiar with the fact that during the sessions of the legislatures of their respective states—some of which have only recently ceased from their labors—the question of a “beef combine,” or dressed beef monopoly was exhaustively discussed. It was charged in the Senate of my own state, and if I mistake not, in the legislatures of several of the states, that a combination existed among the large packers of Chicago, Illinois, and Kansas City Missouri, to keep down the price paid for live animals at the stock-yards of those cities, with the result, that prices had fallen so low that the farmer and cattle-raiser, not only realized no profits from his business, but that he was producing at an actual loss. While on the other hand it was claimed that the consumer was paying as much or more for his meat as he had formerly done under the old system of local slaughtering.

As a result of these charges, bills were introduced providing for a system of local inspection, requiring cattle designed for food to be inspected by a duly authorized officer, just previous to their slaughter, at the place where the meat was to be offered for sale. In other words, it was proposed to return to the old system of local slaughtering-houses, and to prohibit, under penalty, the sale of the meat killed at our great packing-houses, which has been distributed over the country by means of the perfected system of refrigerator cars, and which has displaced the old system of local butchering in almost every community of any importance throughout the country. In New Mexico, and in Minnesota, I believe, laws of this character were enacted, and strenuous efforts were made in the legislatures of several other states, which in most instances came nearly proving successful. Through legislative action, a convention, consisting of committees of the legislatures of many of the Western states, met in the city of St. Louis, and after a thorough discussion of the situation, recommended that action be taken by the states represented in conference looking to the formulation of a local inspection law. It may be that the charges made against the packing-houses are true so far as they affect the cattle-raiser. That side of the question

will be presented in connection with this paper, if the convention should kindly grant me time and space for its proper submission.

But it seems to me that as labor commissioners, especially charged, as most of us are, with the investigation of all subjects affecting the interests and the welfare of our vast army of wage-earners, what we should seek to learn is, whether the developments of the dressed meat industry has cheapened the cost of meat to the great mass of the consumers, and to this branch of the subject I think we should confine our investigations. Next to the "staff of life," meat is the most important item in the budget of the average-working-man, and represents the largest sum in his food outlay. In fact, the cost of "bread and butter" are overshadowing factors in the family expense book, and any system designated to cheapen prices to the laborer, and cause the steak and the roast to become a familiar visitor to his table, it seems to me, is worthy of full investigation by this convention of labor commissioners. Viewing the subject in this light, I addressed letters to the commissioners of the states where this agitation for local inspection was most prominent, suggesting that information be sought as to what effect the introduction of meat killed at the large packing-houses of Chicago and Kansas City had had in the cheapening of the product to the great mass of consumers, and that the result be reported to this convention, to the end that further concerted action might be taken by this body, if deemed expedient.

Individually I have interviewed a number of the longest established butchers, located in two or three of the principal cities of my own state. The answers to my questions were substantially alike in all cases; and the following obtained from a butcher in Kansas City, Kansas, who has been engaged in the business in that city continuously for the last twenty-five years, and whom I have personally known for even a longer period, will serve practically to illustrate the results obtained from the half a dozen or more individuals interviewed. This gentleman furnished me with the following statement:

"In 1879 I paid 3 cents per pound on foot for my cattle, sold sirloin steak at $12\frac{1}{2}$ cents per pound, sirloin roast $12\frac{1}{2}$ cents, rib roast 10 cents, and corned beef at from 6 to 8 cents; I got $7\frac{1}{2}$ cents per pound for my green hides, and 8 cents per pound by the barrel for my rendered tallow. When I quit butchering my own beef, in the spring of 1881, I was paying 6 cents on foot for cattle, and

sold sirloin steak at 15 cents per pound. round steak at $12\frac{1}{2}$ cents, rib roasts at 10 cents, boiling pieces at 8 cents, and corned beef at 6 cents; I got 7 cents for green hides, and 8 cents for rendered tallow. I now sell packing-house beef as follows: sirloin steak at $12\frac{1}{2}$ cents, round steak $8\frac{1}{2}$ cents (three pounds for 25 cents,) rib roast 8 cents, boiling pieces 5 to 6 cents, and corned beef at 5 cents; but I only get $2\frac{1}{2}$ cents per pound for my green hides, and from $2\frac{1}{2}$ to 3 cents for cow, and 4 to $4\frac{1}{2}$ cents for steer tallow. It will be observed that there has been a decline of about sixty-four per cent in the price of hides, and fifty per cent in the price of tallow, during the past eight years. I buy one or two beeves at a time from Armour's packing-house, but I find it much more difficult to dispose of the poorer parts than formerly. All classes of people seem to want the best cuts. The neck and soup-bones are very hard to get rid of, and in the summer I frequently have to throw them away. I sell a whole shank for ten or fifteen cents. The cheap boarding-house keepers, and many others, go to the packing-houses, where they can buy the cheap parts of a beef at very low rates. I think that people who live within reach of the packing-houses can buy the ordinary parts of a beef now much cheaper than they could under the old system; how it may be in distant cities, I cannot say. I could sell meat cheaper if I could realize anything near what I used to for hides, tallow and the poorer parts of the carcass."

In order to learn how cheap meat was sold at the packing-houses, I visited the retail department at Armour's, and was furnished with the following figures:

Porterhouse steak	$12\frac{1}{2}$ to 16 cents per pound
Sirloin "	$12\frac{1}{2}$ to 15 " "
Round "	8 " "
Flank "	8 " "
Rump "	7 " "
Chuck "	6 " "
Porterhouse roast	15 " "
Extra rib "	14 " "
Rib "	10 to $12\frac{1}{2}$ " "
Chuck "	6 to 8 " "
Rump "	6 " "
Boiling pieces	3 to 5 " "
Corned beef	4 to 6 " "
Hearts	10 cents each
Liver	15 " "

I have the full list here, as furnished me by the obliging superintendent, but I have quoted enough to present a fair comparison with the figures given by the local butcher, before quoted. From the information gained I have prepared the following table, which, though far from complete, may serve to form a basis for comparison :

	Local butcher—price per pound			Packing-house— price per pound.
	1879.	1881.	1889.	1889.
Sirloin steak . . . . .	.12½	.15	.12½	.12½ to .15
Round steak	-	.12½	.06½	.08
Rump steak	-	-	-	.07
Chuck steak	-	-	-	.06
Sirloin roast . . . . .	.12½			
Rib roast . . . . .	.10	.10	.08	.10 to .12
Chuck roast	-	-	-	.06 to .08
Rump roast	-	-	-	.06
Boiling pieces	-	.08	.05 to .06	.03 to .05
Corned beef . . . . .	.06 to .08	.06	.05	.04 to .06

By referring to the packing-house price list, it will be seen that the different kinds of steaks and roasts are given very much more in detail than they are by the local butchers, grading higher as well as lower. This may be accounted for by the fact that those packing-houses have very large retail departments, and do a greater business than the ordinary retail meat dealer. They keep on sale in large quantities the choice parts of the carcass, for first class hotels, etc., for which the smaller dealers have slight demand; while on the other hand they have opportunities to dispose of the coarser and less desirable parts at lower prices than the butcher has occasion to quote. The local butcher says that in 1879 he paid three cents per pound, live weight, for his cattle, while in 1881 he paid six cents, or just double; still his prices for meat show very little change. In 1889 he sells his sirloin steak for two and one-half cents per pound less than in 1881, when he did his own butchering, his round steak for about one-third less per pound, his rib roast for twenty per cent less, his boiling pieces at from twenty-five to thirty-

seven and one-half per cent less, and his corned beef at about sixteen per cent less; while the packing-house prices on the cheaper grades of meat show a still greater reduction. These figures show that the cost of beef, especially for the less choice parts of a carcass, are lower than they were in 1879 or in 1881, at least in the vicinity of our Kansas packing-houses. This tendency of the packing-houses to a closer classification of the different parts of an animal, results in raising the price of the more desirable portions, with a corresponding cheapening of the coarser, but just as nutritious pieces. A close examination of the retail packing-house price list will justify this statement. It may not be generally known that in Europe this custom does not prevail; meat is meat, and one part of a carcass sells for about the same price per pound as does another, possibly.

A comparison with the figures obtained by some of my brother commissioners will enable us to determine whether the introduction of refrigerator cars, and the transportation of dressed beef has been a factor in effecting the reduction.

In view of the legislative action providing for the St. Louis convention, Hon. H. B. Kelley, of McPherson, a prominent member of the Kansas State Senate, and chairman of the committee appointed by the Governor to attend that meeting, prepared the following very able paper, which gives a broad and comprehensive *resume* of the entire question:

“For the first time in the history of our government under the constitution, a convention has been called by the legislatures of several of our states for the purpose of deliberating upon a great question affecting common interests, which seems not to be within the unquestioned delegated power of the general government. Any matter touching the food supply of our people is worthy of the profoundest legislative consideration, and should receive it.

“‘Products and prices’ are the great economic questions of civilization, and the proposition that supply and demand regulate prices needs no argument, where products flow unrestrained through the channels of commerce between producer and consumer; but check this natural flow, hoard the staples, store the bread and meat supply in granaries and warehouses, erect barriers, this side of which there is a glut and beyond which there is dearth; lay heavy tribute on the passage of these staples, and the natural channels become disturbed; an abnormal, and hence an unhealthy condition follows, in

which, while the producer receives the minimum, the consumer pays the maximum price for that he consumes.

“Forty years ago the population of the world existed in isolated neighborhoods, a part of which might suffer famine while others revelled in over-abundance. This is now changed, the multitude of neighborhoods, having been consolidated into one vast civilization that reaches around the globe. Steam and electricity have obliterated time and space, and brought the remote regions of the earth into quick and easy communication with the great centers of civilization. The frontier has disappeared from the maps, while the term ‘backwoods’ has been dropped from our vocabulary. Every continent and island is supplied with means of transportation for its surplus products to the places where markets await them.

“No country has at this time a monopoly of the food supply of the world, nor are prices longer regulated by local supply and demand; hence, in an investigation of the causes that determine the prices of the staple food supplies, we must measure the world’s products with the demand in the world’s market. Prior to 1880 the United States was the great meat shop for western Europe; but the inventive genius that discovered the process of shipping perishable products over long distances in refrigerator cars and ships, brought a world of fresh meats from South America, Australia and New Zealand, placing them in sharp competition with American meats in the markets of Europe. The invention of the refrigerator brought to Europe an almost inexhaustible supply of the cheapest fresh meat that ever found its way to that continent. This meat supply was unknown in the markets of Europe prior to 1880, the year in which the first experimental shipments were made from the Argentine Republic, Australia and New Zealand. In 1881 Australia shipped to London 110,000 weight of *fresh meat*; while in 1886 shipments reached the enormous quantity of about 30,000,000 weight. In 1880 the Argentine Republic exported to England but \$50,000 worth of fresh meat, while in 1886 that country sent \$1,800,000 worth to the same market; and that Republic is now paying an annual bounty of \$500,000 per year upon the exportation of fresh meats. During the first quarter of 1888 the shipments of mutton to London, from Australia, New Zealand and the Argentine Republic, reached 250,000 carcasses. Canada, too, of late years, has become a strong competitor with American meats in the markets of Europe. Prior to 1872, the Dominion shipped no cattle to England; the

trade commencing in that year, reached about 8,000 head in 1878, while in 1887 it had reached 63,000 head of cattle and 68,000 head of sheep. Nor does Canada stop with shipping to Great Britain; but her shipments of cattle to this country reached, in 1887, about 46,000 head, and 363,000 head of sheep. Thus our neighbor on the north, during the past ten years, has not only been dividing the English market with us, but she is also sending large quantities of meat into this country to compete with American meats.

“Some idea may be had of the almost inexhaustible meat supply of the Argentine Confederation, when it is remembered that with a population of less than five millions of people, there were about eighteen millions head of cattle and one hundred and forty millions of sheep in that country in 1880; while in the United States we had but thirty-three millions head of cattle and forty millions head of sheep the same year. Since 1880 the increase in the number of cattle has been proportionately greater in the United States than has been the increase in population; the ratio of cattle to population in 1880 being about six animals to nine of population, while in 1888 it was about seven animals to nine of population. In Kansas the increase has been much more rapid, as in 1878 we had about five cattle to seven of population, and in 1888, sixteen of cattle to fifteen of population. Notwithstanding low prices, corn-fed cattle are higher now than they were ten years ago, while during last November such cattle brought better prices than at any previous time during the last ten years. The increasing supply of grass-beef from South America, however keeps the grass-beef of this country down; while the corn-fed meat of the United States, practically without competition in the world's market, reaches good prices as frequently as it falls below them, notwithstanding Great Britain is receiving an annually increasing meat supply from Canada, South America and Australia. The Canadian meat supply has grown from almost nothing to its present immense proportions during the last ten years. South America, Australia and New Zealand, commencing in 1880, with Canada commencing in 1878, now supply Great Britain with perhaps half of all her fresh meats. These countries, strong competitors in the English market with the grass-beef and mutton of the United States, were unknown in European markets ten years ago.

“The growth of the meat product in the United States of late years may be seen from the following:

Live Stock Statistics of the United States.

1870.		1880.	
Sheep	40,853,000	Sheep.....	40,765,000
Swine	26,751,000	Swine.....	34,034,060
Cattle	25,383,000	Cattle.....	33,258,000

1888—Cattle, 49,000,000 ; swine, 44,000,000 ; sheep, 43,000,000.

In the cattle States, and especially the grass States, we find the following increase or decrease since 1880 :

	Sheep.	Swine.	Cattle.	
Kansas {	1880	746,443	1,787,969	1,451,057
	1888	402,744	1,433,245	1,619,849
Dakota {	1880	30,244	63,394	140,815
	1888	216,019	533,970	767,809
Iowa {	1880	455,359	6,034,316	2,612,036
	1887	429,488	4,461,087	2,116,417
Texas {	1880	2,411,633	1,950,371	4,084,605
	1887	4,275,394	940,929	7,081,976
Indiana {	1880	1,100,511	3,186,413	1,363,760
	1887	1,394,045	3,801,248	1,779,351
Nebraska {	1880	199,453	1,241,724	758,550
	1887	402,744	1,433,245	1,619,849
Illinois {	1880	1,037,073	5,170,266	2,384,322
	1884	933,330	2,808,898	1,990,927
Colorado {	1880	746,443	7,657	346,839
	1886	-	-	885,038
Montana {	1880	184,277	10,278	172,387
	1887	200,000	-	1,400,000
Wyoming {	1880	140,225	567	278,073
	1887	-	-	753,608

“The number of meat animals, aside from milch cows, in the United States in 1878 was 88,000,000 ; population, 48,000,000 ; an average of about $1\frac{1}{2}$ animals to each inhabitant. The number, aside from milch cows, in 1888, was 122,000,000 ; population, 60,000,000 ; making an average of about 2 1-30 animals to the inhabitant, or an increase of nearly one-sixth of an animal *per capita* to the entire population. Confined to cattle alone (excluding milch cows) we had in the United States, in 1880, 21,231,000 head, or forty-two *meat* cattle to each one hundred population, while in 1888 we had 34,378,000 head of meat cattle, or fifty-five meat cattle to each one hundred of population, a gain of about $23\frac{1}{4}$ per cent in eight years.

“Since 1880 the increase has been remarkable in the states and territories of Kansas, Dakota, Texas, Indiana, Nebraska, Colorado, Montana and Wyoming. The aggregate increase in these states and territories since 1880 has been 7,312,000 head of cattle, while in the same states the number of swine has fallen off from 19,000,000 in 1880 to 15,000,000 in 1887.

“The great increase in cattle in the United States since 1880 has been in the range districts, while in the states of Iowa and Illinois there has been a decrease to the extent of about 875,000. Just as the ranchman with his range meat, from the western states and territories has driven the American farmer out of the grass meat market, so the cheaper and more abundant grass meats of South America and Australia are now crowding American range meats out of the European markets, the conditions confronting American beef being a market annually becoming more circumscribed, with a rapidly increasing supply.

“The farmer can no longer make grass meat with profit for the reason that he cannot compete with refrigerators, rapid transportation and the cheap pasturage of remote and favored latitudes, but when he converts his corn into pork and choice beef he has a product in which he holds a monopoly as against the world as no other country produces corn-fatted meats in any considerable quantities. Good prices are usually obtained for this class of meats in spite of combines and pools.

“During twelve years, from 1878 to 1889, inclusive, choice corn-fed good shipping steers have been higher six years during the month of November than at present, namely : 1882, 1883, 1884, 1886, 1887 and 1888, and in the same time the November price of hogs has been higher six years than at present. On the 5th inst., London

quotations for beef, dead weight, was 12½ cents per pound, and the same paper quoted Kansas City prices for choice corn-fed, live weight, at \$3.80 to \$4.20 per hundred. The rapid growth of western cattle interests during the period from 1878 to 1888, inclusive, may be seen in the growth of receipts at the Kansas City stockyards which was, in round numbers in 1878, 175,000, and in 1888 1,056,000.

“Receipts for 1888 show an increase of 386,000 over 1887, while the receipts of hogs at the same place show a falling off of 414,000; sheep showing an increase of 141,000 for last year over 1887. We find the following October quotations given for native shipping steers for the several years, average weight 1,200 to 1,400 pounds. We give quotations for hogs for the same time :

Year.	Steers.	Hogs.
1878.....	\$3 60	\$2 15
1879.....	4 00	3 25
1880.....	4 10	4 50
1881.....	4 00	6 25
1882.....	4 85	5 60
1883.....	5 50	4 60
1884.....	5 00	4 50
1885.....	4 35	3 45
1886.....	4 65	4 00
1887.....	4 80	5 00
1888.....	4 55	5 40
1889.....	4 40	4 40

“The annual export meat supply increased during the last ten years as follows: From Australia and New Zealand, from nothing in 1880, to 30,000,000 lbs. in 1886; from the Argentine Republic (estimated,) \$3,000,000 worth for 1887, and from Canada nearly \$7,000,000 worth the same year. Since 1880 the number of meat animals in the United States has increased by about 28,000,000, or nearly 8,000,000 head of meat animals above the ratios to population that obtained in 1880. As Europe draws largely upon the recently developed regions for her bread supply, so also does she for her

supply of beef and mutton. In 1887 she took but 43,000,000 pounds of our beef, while we sent her 360,000,000 pounds of our pork, making our shipments eight pounds of pork to one pound of beef. Whatever may be the effect of combines upon prices to the producer in our investigation of the subject, we must not overlook the revolution that has been wrought by means of refrigerator shipments and cheap transportation that have since 1880 brought within reach of European consumption from Canada, Australia and South America a greater supply of fresh meats than the entire product of the United States amounts to.

“Whatever may appear to be the causes that depress the price of bread and meat to the producer, investigation must keep in view the changed conditions from local markets, local supply and demand, to general markets, and the world’s supply and demand; the change from restricted to unlimited and vastly increased production, improved transportation which has brought the remotest regions of the earth within quick and easy reach of the great centers of population, the successful invention for handling and shipping to market products that a few years ago perished where raised; the refrigerator shipments of fresh meat, which has since 1880 opened new fields of supplies from which the product is much less expensive, and the quantity for export far greater than that from this country. If we do this, we may find a combine more potent in determining prices to the producer than the combine of which we complain. It is alleged that the effect of “the combine,” however, tends to crowding out local butchers, hence destroying local markets for that class of stock not suitable for shipment to be found in limited numbers among farmers, causing the consumption in our towns and villages of beef grown in distant fields, while the farmer who has a cow he would sell to the local dealer is deprived of a market, as the local dealer himself has become a buyer of dressed meat from the large packing-houses. Upon the other hand, the price paid by the consumer seems out of proportion with the price paid by the producer; the gap between production and consumption being doubtless too great. Is it chargeable to the large or to the small dealer? The abundance of production should bring with it cheaper commodities to consumption, and if measures can be devised that will prevent hoarding the world’s food supplies it will be in the line of a correct public policy.

“Appended is the average cost of cattle in Kansas City: For 1885, \$3.32½; for 1886, \$3.16; for 1877, \$3.14; for 1888, \$3.06.

The receipts and shipments were as follows:

Year.	Receipts.	Shipped.	Sold to the butchers and packers of Kansas City.
1880	244,709	194,849	49,860
1881	285,863	223,718	62,145
1882	439,671	359,162	80,509
1883	460,780	387,780	73,000
1884	535,526	442,535	90,991
1885	506,627	402,431	104,196
1886	490,871	370,415	120,556
1887	669,224	483,534	185,690
1888	1,056,086	683,161	373,925

Yearly receipts and shipments of cattle at Chicago.

	1885.	1886.	1887.	1888.
Receipts	1,905,518	1,964,723	2,388,085	2,610,932
Shipments	744,100	706,538	791,483	969,028
Leaving for packers	1,161,418	1,258,155	1,576,602	1,641,904

Yearly receipts and shipments of cattle at Kansas City.

	1885.	1886.	1887.	1888.
Receipts	506,627	490,971	669,224	1,056,086
Shipments	402,381	370,350	283,372	682,622
Leaving for packers	104,246	120,621	185,852	373,464

Current price of beef cattle and beef products at Kansas City.

	Week Dec., 1885	Week Dec., 1888.
Beef hams, bbl.	\$ 15 25	\$ 11 25
Barrels beef	7 50	5 50
Tallow, per lb	01 $\frac{3}{4}$	05 $\frac{1}{2}$
Hides.....	10 $\frac{3}{4}$	07
Cattle, common to good.....	3 25 to 4 15	2 75 to 3 85
Butchers' steers.....	3 00 to 3 75	2 50 to 3 25

“This shows an increase in receipts of cattle, at the two principal points, Chicago and Kansas City, for the year 1888 over 1885 of 50 per cent.

“Take the selling price of beef product of 1885 and 1887 and compare with selling price of cattle same dates. Cattle were bringing more, relatively, in December, 1888, than they were in December, 1885.

“In this connection must we not recognize the great changes wrought during the last twenty-five years in our methods of commerce and manufactures. A few great railroad systems have grown out of many short, independent lines; refrigerator ships and cars transport perishable products for thousands of miles over sea and land, which before were governed by the demands of a local market. Are we not fast traveling in the line of more economic methods, which can only be attained by a systematic application of these methods, making labor more productive and reducing loss, through waste, to a minimum? Production on a larger scale is crowding out production on a small scale. The flouring mill, turning out one thousand barrels per day, can work at a less cost per barrel than the one producing fifty; and the big butcher shops, killing hundreds of beeves, and utilizing every scrap of the offal, can produce meat cheaper than can the butcher who kills only one or two. Society is rapidly realizing the fact that a newer and more efficient industrial era has begun, and legislation should be so directed as to not cripple its development, but to so guide and control it as to make it serve the best interests of all the people.

“The allegation on which the dressed beef legislation is passed, is that the combine reduced the price of live stock until the farmers

were producing it an actual loss, while the consumer was paying more than ever. The legislation provided for the inspection of all cattle killed, thus insuring a return to drovers and slaughter-houses, and preventing slaughtering at the packing factories. In many western cities such legislation has been almost successful. The price of meat had generally risen, although there were exceptions, while the price of hides and tallow had declined, the former sixty-four per cent and the latter fifty per cent. Local butchers complained that they frequently had to throw away poor pieces; everybody wanted the best cuts. The less desirable parts were often bought very cheaply at the packing-houses by the consumer. In Europe one part of the carcass sells for about the same price as another. I have made a study of this whole matter, and, in my opinion, in the neighborhood of packing-houses, and every such concern, beef can be bought cheaper to-day than it could ten years since.

“The tendency, however, to cut the carcass into so many variously named pieces, runs up the price of certain choice cuts, while the coarser, though not less nutritious, parts are sold at a correspondingly low rate. Butchers nowadays, when purchasing a whole beef, find great trouble in disposing of the poorer pieces; and the prices of the hides has materially fallen off. The tendency of these large packing-houses is to drive the local butchers out of the market. Modern refrigerator cars and vessels make it possible to transport beef in perfect condition. On the whole, the industry is one of importance and economic value.

“I have personally interviewed many people, and have learned that the prices obtained by the butchers in 1879 were considerably above what they get now. The price of meats has been reduced by these monopolies, because the packing-houses make a good profit on the offal, which, under the old system, was thrown away.

“Great quantities of meat are sent to Europe from the Argentine Confederation, Canada, Australia and New Zealand. Notwithstanding all this, the price of corn-fed cattle from the United States is at the highest. The farmers can no longer make grass-feed profitable, but in corn-feed he has yet a monopoly, despite the combines. The consumer pays more for his beef than he ought to, when we consider the price paid to the producer.”

COL. W. M. GROSVENOR, OF THE NEW YORK TRIBUNE.

I hardly feel that it is fitting or proper that I should endeavor to speak upon such subjects as are being discussed before this convention. However, I am glad to be here, and shall gladly give any information I can. It has never been my fortune to have charge of a bureau, but I have given considerable attention to the investigation of labor statistics. I have been exceedingly interested in the work, and I have learned a great deal from the discussions which it has been my privilege to listen to. Many things have occurred to me in the direction already suggested by you, and I can readily see the numerous difficulties with which you have to contend in the performance of your work.

You have taken up a good deal of work, considering all the difficulties you have to contend with, and the means and force at your command.

Another thought has occurred to me, and I know it has occurred to all the different bureaus, and that is, the way the manufacturers treat the commissioners and chiefs when they ask for information. In listening to the discussion as to printing the proceedings of your convention, it seems to me that nothing could be more important to the different bureaus than these proceedings, when published. They are read by the thinking men of the country, who are very anxious to see what work the different bureaus are carrying on. People can see the figures and facts concerning labor and the limitations, etc.

Another suggestion I think of at this time is, that the bureaus often attempt too much, and that they should be unified, and their labors should be largely in the same direction. It should be possible for the commissioners in the various states to seize upon some points of universal interest. I would suggest that a record of prices of certain commodities might be kept throughout the year. Many of your investigations are peculiar to your respective states; in one state you have mining labors, and in another state factory labor and so on. These investigations are not by any means to be discredited, but on the contrary, you are each doing a grand work for the whole country.

I have for some fifteen years compiled tables regarding the prices of several hundred articles. These records are kept every day at my home, and any day that I want to find the price in a certain

market in comparison with that of any year before at the same time, I can find it out for two years, or ten years, or fifteen years before. I can do so at a glance on a single sheet of paper. These records are very interesting to me. If you should keep such a record in connection with your bureaus, you could compare records every year, and would be posted as to the rise and fall of prices. You could compare results very easily. I get some four hundred quotations every day, which I keep on record. You can get in this, the average earnings in different states from year to year. For example, you can compare prices in New York, Massachusetts, Connecticut, Missouri and Nebraska, and find the cost of productions very easily. Suppose you take up three or four classes of labor, the larger or representative classes, and work for a common end; you will have some difficulty in going into the matter too far. I have tables that cover thirty distinct quotations for twenty years, and I was satisfied that long before I reached the last year I knew what the average was.

I would be glad to send you any information in regard to my work at any time, so far as in my power.

REV. JOSIAH STRONG, D. D., GENERAL SECRETARY EVANGELICAL ALLIANCE, NEW YORK CITY.

I desire to express my appreciation of the courtesy by which I am present. When I first saw a notice of this convention I cast a desire hitherward, but had not thought to follow it in person until I received a very cordial invitation to do so from our host, the commissioner of Connecticut.

I have a deep sense of the importance of the work in which you are engaged. As I understand it, your work is primarily to gather facts, a most difficult task. There is nothing so elusive, nothing so hard to catch and to cage as a fact. Some seem to find no difficulty in amassing them, but the philosopher, Josh Billings says: "I would rather not know so many things than to know so many that aren't so." There can be no true science without a correct and definite knowledge of facts. You are collecting materials for a true social science, and this is pre-eminently *the* science of this generation, and will be of the next.

In every period of human history there has been some root idea out of which the great thinking and the great doing of the time

have sprung. Of our own period that root idea is the right relations of man to his fellows. From it has come the abolition of slavery and the elevation of woman. From it has come the spread of Democracy, which is an attempt to realize the right relations of man to his fellows, politically. From it come socialism and communism, which are attempts to establish right relations between man and his fellows, socially and industrially.

Socialism wants to save society without saving the individual; wants to establish the brotherhood of man without accepting the fatherhood of God. Jesus Christ told the world how to save both the individual and society, viz: by love to God, and love to our neighbor.

The Christian Church has seemed to believe that religion consists in right relations of the individual soul to God, and such relations are established when, in obedience to Christ's first great command, a man gives his supreme love to God. But the church seems to have almost forgotten that the second great command is *like unto* the first, and equally binding.

During the earlier part of the period of which I am speaking, the church, occupied with bringing individuals into right relations with God, left for the most part to unbelievers, like Rousseau, Proudhon and Karl Marx, the study of sociological problems—how to bring men into right relations with each other. Hence the church has, in a large measure, lost its hold on the masses; while socialists have failed because they have generally disregarded God's claims to love and obedience, which spring from Divine Fatherhood, and from which alone can come human brotherhood.

Jesus Christ taught what are the two hemispheres of truth, which are alike necessary to produce the new world wherein dwelleth righteousness; and it is only by accepting the teachings of Christ, by applying the principles of the Gospel to all the relations of life, —social, industrial, commercial, political,—that the labor problem and the other great problems of our times can be solved.

The new movement of the Evangelical Alliance is an attempt to secure the co-operation of the churches in applying the Gospel of Christ to the entire life of the community. We aim to bring together the most thoughtful and christian men of each town to study the problems of their own community. By systematic and thorough house-to-house visitations they gain a personal knowledge of existing needs, and bring to bear a personal influence for good;

and while their systematic and thorough investigations under the crust of society reveal what needs to be done, their co-operation makes them strong to do it.

I might quote to you the opinions of many eminent men expressing the conviction that the plans of the Alliance, which have been only very partially outlined to you, are entirely practicable, and give promise of the greatest usefulness; or I might give you illustrations of the actual workings of the plan where it has been adopted, but I must not take your time. I will only add that I do not believe you can make a better use of your annual reports than to send a full set of them to the Alliance, at 42 Bible House, New York. I thank you for your attention.

REV. GRAHAM TAYLOR, PROFESSOR OF THEOLOGY AND
SOCIOLOGY, HARTFORD, CONNECTICUT.

It is a privilege to improve this opportunity so courteously and unexpectedly afforded to an interested attendant upon your meetings, to give heartiest expression to the high appreciation I have of the great value and wide reaching influence of this convention. You have laid our city and commonwealth, and all their public institutions and business interests, under great obligations to you in coming to our capitol to hold your national convention.

As a representative of institutions and interests which you may not have been accustomed to regard as influenced by the work of the labor bureau, let me assure you that nowhere should your labors be more deeply appreciated, or their published results be more carefully studied than among the churches and in the theological seminaries, where their ministers to the people are trained for their very practical work. For first of all, by your collection and classification of facts, you afford a working example of the scientific and practical method of study, which is gaining sway in all departments of education. To the demand of the age that facts must precede theory, and be the basis of methods of work, the church is giving belated yet earnest response, as indeed she must, to retain, much more to increase, her hold on even the present generation.

Your facts are making as imperative demands for recognition also upon the theorists in political economy. These facts of yours will

not let what has been considered well enough alone. They show something better to be both necessary and possible. They force the human personality, with its capacity for suffering and reaction, into the calculation of the economist as one of the prime factors of the common problem. They declare that by so much, as a man is a man, labor is more than a commodity.

No man among you may even be able to suggest the solution of these difficulties and delicate complications of our modern life, but you are nevertheless building better than you know. The facts you are everywhere gathering and carefully sifting will yet make it possible for some social economist to arise, and upon a wider basis of fact than has ever before been accessible, draw more accurate inductions than has ever before been possible for the ultimate solution of the problems of the industrial situation. In helping to evolve a science of statistics, too, you are rendering one of the most needed services to the church, as well as to the whole community. But you will not, I know, deny that your relations with the religious community are reciprocal, nor will you regard the emphasis I am disposed to put upon the influence of the churches and their work in your fields as unwarranted. To any solution of our industrial problems the need of intermediary influences between apparently conflicting interests and antagonistic classes is recognized as imperative. Now, for these middle men and mediating agencies, society is more dependent upon the local church than upon any or all its other organisms. By its fundamental doctrines of the universal Fatherhood of God, and the common brotherhood of man, the christian church alone is not only committed to this intermediary position, but is capable of assuming it. Alone among social organizations, it in theory, at least, knows no classes. Its membership and ministry cannot without self-stultification be classified. Their only Master is the Son of Man. Those of you who come closest to the most discontented of the laboring classes will bear me witness that few, if any, among them have ought to say against Jesus, the Elder Brother of us all. Their complaint is solely against those claiming to follow Him who seem to them to misrepresent Him, against a class-church. Have we not, then, around the person of the Son of Man, the only common ground upon which we can all stand? Are not His true followers the only mediators among men? Can they not best say to those who differ, "All ye are brethren?" Does not the Church of Christ in any community really hold the key of its

situation? Can social economics afford to ignore such a unifying force as the Christian Spirit has ever proven itself to be when and wherever it has been allowed to assert itself? Aside from its purely divine institution and religious mission, the church surely has a place among men and a social economic mission for which there is no substitute, and which invites the freest and largest use.

Beyond the statistical reports and economic conclusions of the bureau in Connecticut, as valuable as they are conceded to be, the christian brotherliness of our commissioner, Mr. Hotchkiss, has been pre-eminently serviceable to this commonwealth in keeping the bond of brotherhood between its employers and employes stronger, tenderer and more vital than it could have been without his personal touch upon the hearts and hands of both. Besides this personal ministry to the individual, christianity has a new social status to establish on the earth. It comes preaching everywhere the Gospel of the Kingdom, as its Master began to do. It claims not 'only to have' salvation for the individual, but to be the Savior of Society. And the church is more and more awakening to its public and social mission.

The laws of heredity, sanitary conditions, economic circumstances and the whole social environment of the people are now seen to be hers to study and shape. These are imperative studies in preparation for the christian ministry of to-day. When the old and only Gospel is preached upon the new basis of these underlying facts, it will have strangely new power. When poverty, vice and crime are clearly seen in their relations to these all conditional factors, these great open sores of the body politic will have preventive agencies, reformatory effects, and charity methods of a different and higher efficiency than those with which we now almost toy with death, and with the use and predominance of such a church, equipped with such scientific apparatus, a new kingdom will be at hand, the kingdom of heaven on earth. In the study of the social and economic conditions of christian society, let us be brethren and co-workers in state and church.

REV. JESSE H. JONES.

I thank you for this opportunity to speak. Perhaps I may appropriately say something about child-labor in the factories, as it was my fortune, several years ago, under your direction, Mr. President, to investigate the condition of labor, when as yet, and for years

after, there was no labor bureau here. During that investigation I visited most of the larger textile factories in the State, and I found no exception to the fact that it was the parents who crowded the children into the factories rather than the employers who drew them in. And the parents who did this would unblushingly falsify concerning the age of their children in order to get them into the mills. This, I think, ought to be said plainly and distinctly for the employers.

As I have given some study to the problem of the city, perhaps I may be permitted to say a few words concerning what Rev. Mr. Strong has just said. His plan of visitation is excellent, helpful, truly co-operative with the statistical work of the State, but it can never, I think, be more than a palliative; and with all of it that can be done, the evil will inevitably gain ground on the good of the city from the very nature of the city as now constituted, and from the necessary working of that nature. When Thomas Jefferson said, "Great cities are great sores," he said what was and is, and ever will be, deeply and dreadfully and surely true, while society continues in its present order.

The constitution of things remaining as it is, no device or effort of man can change the current of life from its present natural working of increasing evil in the cities. There is only one possible solution of the problem of the cities; and I would fain to utter that solution with all the fervor of which I am capable: **THE CITY, IT MUST BE DESTROYED.** Except as this is done, it will continue to reek and rot and ruin its myriads of inhabitants.

But there are two ways to destroy the city. One is the old way, to sack the city, slaughter the inhabitants, burn the buildings and leave the place a waste like Babylon. This is cutting out the sore with a knife; but then other sores keep coming. This is not a solution of the problem. The solution is to cure the body politic of the sores, so that they will never come any more. That destruction of the cities, by which to cure society of them, is to diffuse them into vast villages. And this is the way to do it: Let our municipalities, in a legal and orderly way, seize all the railroads, horse and elevated, and run them for the people. Then, by a system of tickets, give every working-man a free ride to and from his work. Along with this give him the eight-hour day; and then he can shoot out to his home, thirty miles, if need be, every night and back in the morning. Then he can have his cottage with a garden behind it, and a patch

of green all around, and nobody will be constrained to live in the city. And when our cities are thus expanded into plats, in which every family dwells amid a carpet of green, like South Manchester, over east of us a bit, then they will have unfolded into the New Jerusalem.

Mr. President, again I thank you for the opportunity to speak.

HON. T. S. GOLD, SECRETARY OF THE CONNECTICUT STATE
BOARD OF AGRICULTURE.

I did not expect to be called upon to speak here, but the thoughts so happily expressed on the connection of moral growth with material prosperity, calls to mind an address delivered some forty years ago by Rev. Dr. Horace Bushnell, of sainted memory, before the Hartford County Agricultural Society. Referring to the decadence of agriculture in some of the hill towns, and the consequent difficulties of sustaining the institutions of education and religion in those places, from the outflow of their young men, eager to enter upon the more exciting contests of life, he says in substance: "Is it not time for us to consider whether, instead of sitting in a board of missions, we should not rather be sitting in a board of agriculture, to consider what can be done to sustain and revive the agriculture of our State?" So new was this idea at the time, that his words seem almost prophetic. He recognized that material prosperity was an important element in moral growth.

Your work as a convention of labor commissioners is in that line; and I am happy to hear the expressions that the material prosperity you are seeking to advance is only to be secured with a corresponding mental and moral growth, and that this is the crowning glory of the whole work. It is for this end that the board of agriculture has been established, and has been laboring; and be assured that we heartily welcome you as co-laborers in the work of alleviating the burdens, relieving the cares, and elevating the moral condition of the people.

Father Hyacinth, in an address delivered in Paris before the Peace League, refers to the union of agriculture, manufactures and commerce, as pouring out those great streams of physical life, without which all moral life itself would speedily die away.

Again, assuring you of our hearty welcome to Connecticut, and our high appreciation of your work, I thank you for this opportunity of giving my testimony to the necessity of your work in this age of the world, and an assurance of hearty co-operation and support from all who have at heart the good of their fellow men.

L A W S .

Among the most important Acts passed by the Maine Legislature in 1887 and 1889, are the following :

An Act to abolish Imprisonment for Debt except in cases of Fraud.

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

SECT. 1. No execution issued on a judgment founded on a contract, express or implied, or on a prior judgment on contract, shall run against the body of the judgment debtor, except as hereinafter provided, or unless the debtor was arrested on the original writ as provided in section two of chapter one hundred and thirteen of the revised statutes.

SECT. 2. The owner of such a judgment remaining unsatisfied in any part, may have a disclosure of a judgment debtor's business affairs at any time, by proceeding as hereinafter provided.

SECT. 3. Such owner, or his attorney, may make application in writing to a disclosure commissioner, judge of probate, register of probate, or judge of a municipal or police court, in the county in which the judgment debtor resides, stating the amount of the debt and of the costs for which said judgment was rendered, the court and term at which it was rendered, the names of the original parties, the title of the petitioner, and praying for subpœna to issue to the debtor to appear and make disclosure.

SECT. 4. Such magistrate shall thereupon issue under his hand and seal, a subpœna to the debtor, commanding him to appear before such magistrate within said county, at a time and place therein named, to make full and true disclosure, on oath, of all his business and property affairs. The application shall be annexed to the subpœna.

SECT. 5. The subpoena may be served by any officer qualified to serve civil process in said county as other subpoenas are served. The debtor shall have twenty-four hours' notice for every twenty miles travel from his home or place of abode at the time of service to the place of disclosure.

SECT. 6. At such time and place, the debtor shall appear and submit himself to examination on oath concerning his estate and effects, their disposal and his ability to pay the judgment.

SECT. 7. The petitioner may propose to the debtor any interrogatories pertinent to the inquiry, and if he requires it, they shall be answered in writing and signed and sworn to by the debtor.

SECT. 8. If, on such examination and hearing, the magistrate is satisfied that the debtor's disclosure is true, and does not discover anything therein inconsistent with his taking the oath, the magistrate may administer to him the oath prescribed by section thirty of chapter one hundred and thirteen of the revised statutes.

SECT. 9. When, from such disclosure, it appears that the debtor possesses, or has under his control, any bank bills, notes, accounts, bonds, or other contracts or property, not exempted by statute from attachment, which cannot be come at to be attached, and the petitioner and debtor cannot agree to apply the same towards the debt, the magistrate hearing the disclosure, shall appraise and set off enough of such property to satisfy the debt, cost and charges; and the petitioner or his attorney, if present, may select the property to be appraised. If the petitioner accepts it, it may be assigned and delivered by the debtor to him, and applied towards the satisfaction of his demand. If any particular article of such property, necessary or convenient to be applied in satisfaction of the execution, exceeds the amount due thereon, and is not divisible in its nature, the petitioner may take it, by paying the overplus to the debtor, or securing it to the satisfaction of the magistrate.

SECT. 10. If the petitioner is absent, or does not so accept it, the debtor shall deposit with the magistrate a written assignment to the petitioner, of all the property thus appraised and set off; and the magistrate shall make a record of such proceedings, and cause such property to be safely kept and secured for the term of thirty days thereafter, to be delivered to the petitioner with the assignment, on demand, within that time. If not so demanded, they shall be returned to the debtor.

SECT. 11. If an execution debtor discloses real estate liable to be seized on execution, the magistrate shall give the petitioner a

certificate thereof, stating the names of the parties and the amount of the execution; and the petitioner shall have a lien thereon for thirty days thereafter, if he files the certificate with the register of deeds of the county or district where the real estate lies within five days from the date of the disclosure; and the register shall enter and file it like officers' returns of attachments.

SECT. 12. If he discloses personal estate liable to be seized on execution, the petitioner shall have a lien on it, or so much of it as the magistrate in his record judges necessary, for thirty days; and if the debtor transfers, conceals or otherwise disposes of it within said time or suffers it to be done, or refuses to surrender it, on demand, to any proper officer having an execution on the same judgment, the debtor shall have no benefit from the certificate described in section 19; and the petitioner may recover, in an action on the case against him; or any person fraudulently aiding in such transfer, concealment or disposal, double the amount due on said execution; and any execution on a judgment in such action, shall run against the bodies of the debtor and other persons so aiding, but the payment thereof is a satisfaction of the original debt.

SECT. 13. If said magistrate finds reasonable cause to believe that any other person holds any property or credits of the debtor in trust for him, or in fraud of his creditors, or if the petitioner shall make oath that he believes that such other person so holds property of the debtor, the magistrate shall issue a similar subpoena to such person to appear and testify in relation thereto, the same to be served as subpoenas in civil suits. The testimony of such witness may be reduced to writing, and signed by him, and if it shall satisfactorily appear to the magistrate, from all the evidence in the case, that such person so holds property or credits of the debtor, he shall so certify upon the execution; and the petitioner shall have a lien upon said property or credits for thirty days succeeding such disclosure, to be enforced by bill in equity or trustee process, and if upon such bill in equity or trustee process the court finds such property or credits to be so held as aforesaid, it may order the same, or so much of them as may be necessary to satisfy the judgment and all costs, to be conveyed, transferred, or assigned to the petitioner; and if the parties cannot agree upon the value of such property or credits, they shall be assigned to the petitioner, if he shall give such trustee a bond with sufficient surety, accepted by the court, to account for and pay over

to said trustee, the surplus of the proceeds of such property or credits, after satisfying said judgment and costs.

SECT. 14. If the debtor, or any other person duly served with subpoena as above provided, refuses or neglects to appear, the magistrate shall issue a *capias* to bring said debtor, or other person before him, and may adjudge such debtor or other person to be in contempt, and shall order him to pay the costs of issuing and executing said *capias*, and in default thereof to be committed to jail until paid.

SECT. 15. If the debtor, or other person duly served with subpoena, refuses to testify in obedience thereto, or refuses to answer any proper question, or if the debtor refuses to make full disclosure upon all matters named in section six, or if said debtor refuses to comply with any proper order of the magistrate, or perform the duty imposed upon him by section ten, he shall be adjudged to be in contempt, and be committed to jail until he purges himself of such contempt by compliance, or is otherwise discharged by due process of law. The warrant of commitment shall state specifically the contempt of which the prisoner is guilty.

SECT. 16. The magistrate, for cause shown by either party, may adjourn from time to time.

SECT. 17. After the examination of the debtor, other competent evidence may be introduced by either party, and the debtor may then be further examined. Depositions may be used in such disclosures, and the magistrate may, at the request of either party, issue subpoenas to witnesses, who are entitled to the same fees as witnesses before a trial justice.

SECT. 18. Section sixty-seven of chapter one hundred and thirteen of the revised statutes, shall apply to disclosures under this act.

SECT. 19. After the oath mentioned in section eight of this act is administered, and the property disclosed is secured, and the debtor has complied with all proper orders of such magistrate, a certificate of the fact of such disclosure shall be indorsed by the magistrate under his hand and seal, on the execution issued upon the judgment upon which the disclosure is had, and a copy of said certificate shall be indorsed on every subsequent execution issued on said judgment or on any judgment founded thereon, and the body of the debtor shall thereafter be forever free from arrest on

any execution so issued, except as provided in sections twelve and eighteen of this act.

SECT. 20. If upon such disclosure, the debtor fails to obtain the benefit of the oath provided for in section eight, the magistrate shall, under his hand and seal, indorse a certificate of that fact upon the execution in force at the time of such disclosure, and a copy of said certificate shall be endorsed on every subsequent execution issued on said judgment, or on any judgment founded thereon, and such subsequent execution shall run against the body of said debtor. The magistrate shall also issue a *capias* under his hand and seal, and annex the same to said execution in force at the time of such disclosure, and the debtor may be arrested and imprisoned on said *capias* and execution, the same as upon executions issued in actions of tort.

SECT. 21. If the debtor fails to appear and submit himself to examination, at the time and place named in the subpoena, his default may be recorded and like proceedings had as in section twenty.

SECT. 22. When a debtor is arrested upon said *capias* and execution, or upon any subsequent execution upon which a copy of either of the certificates required by sections twenty and twenty-one has been indorsed, all subsequent proceedings for his release shall be the same as in case of arrest or imprisonment on executions in actions of tort; but if said debtor fails to obtain his discharge at any subsequent examination before justices of the peace and quorum, he shall not a second time disclose before such justices, but may thereafter apply to a justice of the supreme judicial court and disclose as provided in section forty-six of chapter one hundred and thirteen of the revised statutes.

SECT. 23. The magistrate shall be entitled to twenty-five cents for each subpoena, twenty-five cents for *capias*, twenty-five cents for certificate, and three dollars for each day in hearing the disclosure and other testimony, and for entering default, one dollar. The fees of officers shall be the same as for service of other process of similar nature. The petitioner may, if the magistrate authorizes it, procure an officer to be in attendance during the proceedings, and the fees for such attendance shall be seventy-five cents a day. The above fees shall be paid by the petitioner, and in case the oath named in section eight is administered, shall be added to the costs on the judgment and execution and taxed in detail thereon by the

magistrate. In case said oath is not administered to the debtor, the petitioner shall recover his costs and said fees, as in actions before a trial justice, and the magistrate shall issue a separate execution therefor.

SECT. 24. No debtor who has disclosed upon mesne process before judgment, or upon any execution, shall be required to disclose under the provisions of this act, upon the same judgment, or upon any judgment founded thereon, and a debtor who has once been examined upon a judgment under this act, shall not be required to again submit himself to examination under this act, upon the same judgment, or upon any judgment founded thereon.

SECT. 25. Any magistrate who has once refused to administer to the debtor the oath named in section eight, shall be incompetent to sit as a justice of the peace and quorum or commissioner, under section forty-six of chapter one hundred and thirteen of the revised statutes, to hear the disclosure of the debtor, in any subsequent proceedings upon the same judgment or any judgment founded thereon.

SECT. 26. Any disclosure commissioner heretofore or hereafter appointed under the provisions of section fifty-one of chapter one hundred and thirteen of the revised statutes, shall have power to perform the duties required by this act.

SECT. 27. This act shall not apply to any existing contract, pending action or existing judgment.

SECT. 28. No application or subpoena shall be deemed incorrect for want of form only, or for circumstantial errors or mistakes when the person and case can be rightly understood. Such errors and mistakes may be amended on motion of either party.

To Regulate the Hours of Labor and the Employment of Women and Children.

SECT. 1. No female minor under eighteen years of age, no male minor under sixteen years of age, and no woman shall be employed in laboring in any manufacturing or mechanical establishment in this State more than ten hours in any one day, except when it is necessary to make repairs to prevent the interruption of the ordinary running of the machinery, or when a different apportionment of the hours of labor is made for the sole purpose of making a shorter day's work for one day of the week; and in no case shall the hours of labor exceed sixty in a week; and no male person sixteen years and over shall be so employed as above more than ten hours a day during minority, unless he voluntarily contracts to do so with the consent of his parents, or one of them, if any, or guardian, and in such case he shall receive extra compensation for his services; provided, however, any female of eighteen years of age or over may lawfully contract for such labor for any number of hours in excess of ten hours per day, not exceeding six hours in any one week or sixty hours in any one year, receiving additional compensation therefor; but during her minority the consent of her parents, or one of them, or guardian, shall first be obtained.

SECT. 2. Every employer shall post in a conspicuous place in every room where such persons are employed a notice, printed in plain, large type, stating the number of hours' work required of them on each day of the week, the exact time for commencing work in the morning, stopping at noon for dinner, commencing after dinner, and stopping at night; the form of such printed notice shall be furnished by the deputy commissioner of labor hereafter named, and shall be approved by the attorney general; and the employment of any such person for a longer time in any day than that so stated shall be deemed a violation of section one, unless it appears that such employment is to make up for time lost on some previous day of the same week, in consequence of the stopping of machinery upon which such person was employed or dependent for employment.

SECT. 3. Whoever, either for himself, or as superintendent, overseer, or agent for another, employs or has in his employment any person in violation of the provisions of section one, and every

parent or guardian who permits any minor to be so employed, shall be punished by a fine of not less than twenty-five dollars nor more than fifty dollars for each offense. A certificate of the age of a minor made by him and by his parent or guardian at the time of his employment shall be conclusive evidence of his age in behalf of the hirer, upon any prosecution for a violation of the provisions of section one. Whoever falsely makes and utters such a certificate with an intention to evade the provisions of this act shall be subject to a fine of one hundred dollars.

SECT. 4. It shall be lawful for any person, firm or corporation engaged in any manufacturing or mechanical business, to contract with adult or minor employes to give one week's notice of intention on such employe's part to quit such employment, under a penalty of forfeiture of one week's wages. In such case the employer shall be required to give a like notice of intention to discharge the employe; and on failure shall pay to such employe a sum equal to one week's wages. No such forfeiture shall be enforced when the leaving or discharge of the employe is for a reasonable cause; provided, however, the enforcement of the penalty aforesaid shall not prevent either party from recovering damages for a breach of the contract of hire.

SECT. 5. No child under twelve years of age shall be employed in any manufacturing or mechanical establishment in this state. Whoever, either for himself, or as superintendent, overseer or agent of another, employs or has in his employment any child in violation of the provisions of this section, and every parent or guardian who permits any child to be so employed, shall be punished by a fine of not less than twenty-five nor more than fifty dollars for each offense.

SECT. 6. No child under fifteen years of age shall be employed in any manufacturing or mechanical establishment in this state except during vacations of the public schools in the city or town in which he resides, unless during the year next preceding the time of such employment he has for at least sixteen weeks attended some public or private school, eight weeks of which shall be continuous; nor shall such employment continue unless such child in each and every year attends some public or private school for at least sixteen weeks, and no child shall be so employed who does not present a certificate made under or by the direction of the school committee, superintendent of the public schools, or the teacher of a private school, that such child has so attended school; and it shall be the

duty of such committee, superintendent or teacher to furnish such a certificate in accordance with the fact, upon request and without charge; provided, that this section shall not take effect until January one, eighteen hundred and eighty-eight.

SECT. 7. Any parent or guardian who procures a child to be employed contrary to section six, and any corporation, owner, superintendent, or agent of the owner of such establishment violating the provisions of said section, shall forfeit the sum of one hundred dollars, one-half to the use of the county and one-half to the use of the city or town where the offense is committed. Money so recovered to the use of the city or town shall be added to its school money. It shall be the duties of the school committees and superintendent of public schools to inquire into violations of said section, and report the same to the county attorney, who shall prosecute therefor.

SECT. 8. Every owner, superintendent or overseer of any such manufacturing or mechanical establishment shall require and keep on file a certificate of the age and place of birth of every child under sixteen years of age employed therein, so long as such child is so employed, which certificate shall also state in the case of a child under fifteen years of age the amount of his school attendance during the year next preceding such employment. Said certificate shall be signed by a member of the school committee of the place where such attendance has been had, or by some one authorized by such committee; and the form of said certificate shall be furnished by the state superintendent of schools, and shall be approved by the attorney general. The deputy commissioner of labor hereinafter named, or either of his assistants, may demand the names of the children under sixteen years employed in such establishment, in the several cities and towns of the state, and may require that the certificates of age and school attendance prescribed in this section shall be produced for his inspection, and a failure to produce the same shall be *prima facie* evidence that the employment of such child is illegal.

SECT. 9. The governor, by and with the advice and consent of the council, shall appoint a deputy commissioner of labor, at a salary of one thousand dollars a year, who shall hold office for two years, or until his successor is appointed, unless sooner removed. It shall be the duty of the deputy commissioner of labor to inquire into any violations of this act, and also to assist in the collection of

statistics and other information which may be required for the use of the bureau of industrial and labor statistics; and said deputy commissioner shall, in addition to his salary provided by law, be allowed his reasonable expenses. Whenever the governor of this state shall be satisfied the deputy commissioner of labor cannot perform all the duties of his said office required by this section, in person, he shall, with the advice and consent of the council, appoint a sufficient number of assistant deputies to assist him in so doing. Said assistants shall hold their office for the term of two years, and act under the direction of said deputy commissioner of labor, and shall receive the sum of two dollars per day and reasonable expenses while actually engaged in duty. Said assistant may, at any time, be removed for cause by the governor. All bills for the expenses of the deputy commissioner of labor, and for the services and expenses of such assistant deputies, shall be audited by the council. For the purpose of inquiring into any violation of the provisions of this act, and enforcing the penalties thereof, such deputy commissioner and assistants may, at all reasonable times, enter any manufacturing or mechanical establishment and make investigation concerning such violations. Such investigation shall be conducted with as little interruption as possible to the prosecution of the business of such establishment. Whoever interferes with said deputy commissioner or his assistants in the performance of their duties as prescribed in this act shall be fined fifty dollars.

SECT. 10. Nothing in this act shall apply to any manufacturing establishment or business, the materials and product of which are perishable, and require immediate labor thereon to prevent decay thereof or damage thereto.

An Act to provide for the Fortnightly Payment of Wages.

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

SECT. 1. Every manufacturing, mining, quarrying, stone-cutting, mercantile, horse railroad, telegraph, telephone and municipal corporation, and every incorporated express and water company, any person or firm engaged in any of the above specified kinds of business, having in their employ more than ten persons, shall pay fortnightly each and every employe engaged in its business, the wages earned by such employe to within eight days of the date of said payment ; provided, however, that if at any time of payment, any employe shall be absent from his regular place of labor, he shall be entitled to said payment at any time thereafter on demand.

SECT. 2. Any corporation violating any of the provisions of this act, shall be punished by a fine not less than ten nor more than twenty-five dollars on each complaint under which it is convicted, provided, complaint for such violation is made within thirty days from the date thereof.

SECT. 3. When a corporation against which a complaint is made under this act, fails to appear after being duly served with process, its default shall be recorded, the allegations in the complaint taken to be true, and judgment rendered accordingly.

SECT. 4. When judgment is rendered upon any such complaint against a corporation, the court may issue a warrant of distress to compel the payment of the penalty prescribed by law, together with costs and interest.

SECT. 5. The provisions of this act shall not apply to municipal officers whose services are paid for by the day, or to teachers employed by municipal corporations.

SECT. 6. This act shall take effect May one, eighteen hundred and eighty-seven.

Act Establishing the Bureau of Industrial and Labor Statistics, as amended.

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

SECT. 1. There is hereby established a separate and distinct department, which shall be called the Bureau of Industrial and Labor Statistics.

SECT. 2. It shall be the duty of this department to collect, assort, systematize, and present in annual reports to the governor, to be by him transmitted biennially to the legislature, statistical details, relating to all departments of labor in the state, especially in its relations to the commercial, industrial, social, educational and sanitary condition of the laboring people ; and to the permanent prosperity of the productive industries of the state, and also to inquire into the immediate causes of strikes, lock-outs or other disturbances of the relations between employers and employees.

SECT. 3. The governor shall, with the advice and consent of the council, appoint immediately after this act goes into effect, and thereafter biennially, on the first Wednesday in February, some suitable person, who is identified with the industrial and labor interests, and who shall be designated commissioner of industrial and labor statistics, with an office in such place as shall be designated by the governor.

SECT. 4. The commissioner herein named, shall receive an annual salary of fifteen hundred dollars, and to aid in carrying out the provisions of this act, said commissioner is hereby authorized to employ such assistance and incur such expense, not exceeding fifteen hundred per annum, as shall be necessary to carry out the provisions of this act.

SECT. 5. The commissioner shall have power to take and preserve evidence, examine witnesses under oath, and administer the same, and in discharge of his duty, may enter any public institution of the state, and at reasonable hours when open for business, any factory, workshop, mine or other place where labor may be employed.

SECT. 6. All state, county, city and town officers, are hereby directed to furnish to said commissioner upon his request, all statistical information in reference to labor and labor industries, which

shall be in their possession as such officers, and said commissioner shall cause to be published and circulated in this state six thousand copies annually of the results of its labors, as to the objects for which commission is created.

SECT. 7. There is hereby appropriated out of any money remaining in the state treasury the sum of six thousand dollars for the ensuing two years for the purpose of carrying out the provisions of this act; the commissioner herein named shall receive his salary in quarterly instalments, and the expenses of the bureau shall be paid on the vouchers presented by the commissioner, after the same shall have been audited and approved by the governor and council.

SECT. 8. Chapter one hundred and one of the resolves of eighteen hundred and seventy-three, and all other acts and parts of acts inconsistent with this act, are hereby repealed.

An Act relating to Employment of Labor.

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

Whoever by threats, intimidation or force, alone or in combination with others, prevents any person from entering into or continuing in the employment of any person, firm or corporation, shall be punished by imprisonment not more than two years, or by fine not exceeding five hundred dollars.

An Act Relating to Hawkers and Peddlers.

SECT. 1. No person shall go about from town to town, or from place to place in the same town, exposing for sale or selling, any goods or chattels other than fruit grown in the United States, fruit trees, provisions, live animals, brooms, agricultural implements, fuel, newspapers, books, pamphlets, agricultural products of the United States, the products of his own labor or the labor of his family, any patent of his own invention, or in which he has become interested by being a member of any firm, or stockholder in any corporation which has purchased the patent, until he shall have procured a license so to do as hereinafter provided.

SECT. 2. The secretary of state shall grant a license, to go about exposing for sale and selling, any goods, wares or merchandise, to any citizen of the United States who files in his office a certificate signed by the mayor of a city, or by the majority of the selectmen of a town, stating to their best knowledge and belief that the applicant therein named is of good moral character; but such license shall be granted to no other person. The mayor or selectmen before granting such certificate, shall require the applicant to make oath, that he is the person named therein and that he is a citizen of the United States, and the mayor or said selectmen are hereby authorized to administer said oath.

SECT. 3. The secretary shall cause to be inserted in every such license the names of such cities and towns as the applicant selects, with the sums to be paid to the respective treasurers thereof, as provided in the following section, and shall receive from the applicant one dollar for each city and town so inserted. Every person so licensed may sell as aforesaid, in any city or town mentioned in his license, any goods, wares or merchandise, upon first paying the required sum to the treasurer of such city or town, who shall certify on the face of said license the sum so paid.

SECT. 4. Every person licensed under the two preceding sections, shall pay to the treasurer of each city or town mentioned in his license, the sums following: for every town containing not more than one thousand inhabitants, according to the United States census next preceding the date of his license, three dollars; for towns containing more than one thousand and less than two thousand inhabitants, six dollars; and for every thousand inhabitants in

excess of two thousand, two dollars, provided, that the sum so to be paid to any such treasurer shall in no case exceed twenty dollars.

SECT. 5. The secretary, upon conditions required in section two, may grant special state licenses, upon the payment by the applicant of fifty dollars for each license, and the person so licensed may expose for sale and sell, in any city or town in this state, any goods, wares or merchandise. He may also grant as aforesaid, upon the payment by the applicant of one dollar for each county mentioned therein, special county licenses, and the person so licensed, upon paying to the treasurer of each county mentioned in said license, the sum of five dollars, may expose for sale and sell, within such counties, any tin, brittania, glass, earthen, iron or wooden wares, manufactured in the United States. The respective county treasurers, upon receipt of the aforesaid sum shall certify on the face of said license the amount so received.

SECT. 6. Any soldier or sailor disabled in the war for the suppression of the Rebellion, or by sickness or disability contracted therein or since his discharge from service, shall be exempt from paying the license fees required by this chapter.

SECT. 7. The secretary of state and the treasurers of counties, cities and towns, shall severally keep records of all licenses upon which the sums herein provided have been paid to them, with the number of each, the names and residences of the persons licensed, and the sums received thereon, and all such records shall be open for public inspection.

SECT. 8. All sums paid to the secretary under this chapter shall be for the use of the state, and all sums paid to the treasurer of a county, city or town, shall be for the use of such county, city or town, provided, however, that the fee of one dollar paid for each license, shall be for the personal use of said secretary.

SECT. 9. Every person licensed to peddle, as hereinbefore provided, when his license is demanded of him by a mayor, alderman, selectman, sheriff or his deputy, constable or police officer, shall forthwith exhibit it, and if he neglects or refuses so to do, shall be subject to the same penalty as if he had no license. A synopsis of this chapter shall be printed on every license.

SECT. 10. Whoever goes from town to town, or from place to place in the same town, carrying for sale or exposing for sale, any goods, wares, merchandise, contrary to the provisions of this act,

shall be punished by a fine not exceeding two hundred dollars for each offense.

SECT. 11. All licenses granted under this chapter shall bear date the day on which they are issued, and shall continue in force one year.

SECT. 12. Sheriffs and their deputies, constables and police officers, shall arrest and prosecute every person within their jurisdiction whom they have reason to believe to be guilty of violation of any of the provisions of this act; and one-half of any fine recovered under section eleven of this act shall inure to the prosecutor, the balance to the town or city in which the offense was committed.

SECT. 13. Trial justices and judges of municipal and police courts shall have jurisdiction of all offences committed under this chapter.

SECT. 14. The provisions of this chapter are not applicable to commercial agents, selling goods by sample to dealers only.

SECT. 15. All acts and parts of acts inconsistent herewith, are repealed.

SECT. 16. This act shall not take effect until July fifteen, eighteen hundred and eighty-nine.

Approved March 12, 1889.

An Act to Prohibit the sale of Votes.

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

SECT. 1. Whoever shall offer, or promise, or agree to receive any money or other valuable consideration for giving in his vote at any election held under the provisions of the constitution or of the fourth chapter of the Revised Statutes of this state, and shall in accordance with such offer, promise, or agreement, give in his vote at such election, shall be fined not more than one hundred dollars, or imprisonment not more than one year, and shall be excluded from the right of suffrage for a term of ten years.

SECT. 2. It shall be the duty of the secretary of state to furnish the mayors of cities, the selectmen of towns and plantations with the copies of this law in a printed form suitable to be posted in conspicuous places in the voting precincts of every city, town and plantation, and it shall be the duty of the proper officers of the several municipalities of the state to carry the provisions of this law into effect.

PART V.

GENERAL STATISTICS.

GENERAL STATISTICS.

Section 7 of article 9, of the Constitution of Maine, is as follows: "While the public expenses shall be assessed on polls and estates, a general valuation shall be taken at least once in ten years." In accordance with this constitutional provision, a commission consisting of one commissioner for each county has been appointed under the following resolve passed by the last legislature: "*Resolved*, That the Governor is hereby authorized to immediately appoint a commission of sixteen persons, one of whom shall be taken from each of the counties of the State, to prepare a full, just and equal valuation of the estates, and an enumeration of the polls subject to be taxed, as a basis of taxation for State purposes, and to report the same to the legislature not later than the second Wednesday of January, eighteen hundred and ninety-one." The following statistics have been compiled from the valuation lists, verified by the oath or affirmation of the assessors of the several cities, towns and plantations, and transmitted to the valuation commissioners. While the returns of assessors are liable to changes by the commission now in session, especially in the numerous cases where the basis of valuation is less than the "full cash value," as required by law, much valuable information may be derived from the tables herewith given.

The Commissioner of the Bureau of Industrial and Labor Statistics desires to express his thanks to the several members of the Valuation Commission for the use of the lists in their possession, for the purpose of making the compilations.

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Auburn.....	2708	2688	2504	\$4,888,721	\$111,196 14	.0210
Durham.....	250	263	275	362,280	5,415 14	.0130
East Livermore.....	417	376	346	445,395	8,292 23	.0159
Greene.....	226	232	247	280,927	5,104 05	.0160
Leeds.....	282	281	272	297,962	5,622 59	.0153
Lewiston.....	4626	4529	3938	10,729,838	223,848 76	.0200
Lisbon.....	784	799	791	1,434,371	19,054 85	.0121
Livermore.....	365	342	359	389,660	5,575 12	.0123
Minot.....	379	371	384	723,608	11,421 01	.0150
Poland.....	497	522	460	962,511	13,834 33	.0140
Turner.....	499	495	497	684,847	12,610 63	.0169
Wales.....	129	127	145	183,673	5,248 92	.0265
Webster.....	260	245	265	389,960	6,067 20	.0134

COUNTY OF

Amity.....	95	103	98	35,484	1,077 10	.0250
Ashland.....	148	127	131	124,224	1,987 58	.0160
Bancroft.....	70	68	70	46,299	1,040 55	.0190
Benedicta.....	62	70	68	44,400	945 40	.0185
Blaine.....	155	159	143	122,666	1,927 24	.0270
Bridgewater.....	211	193	191	148,354	2,408 70	.0140
Caribou.....	796	729	725	493,745	13,788 66	.0230
Easton.....	192	202	186	127,170	2,506 67	.0170
Fort Fairfield.....	705	671	777	612,918	15,599 19	.0220
Fort Kent.....	344	323	250	113,250	1,816 55	.0130
Frenchville.....	450	447	385	129,294	2,267 95	.0150
Grand Isle.....	170	176	189	132,652	869 85	.0060
Haynesville.....	72	65	58	44,447	640 91	.0120
Hersey.....	37	42	43	36,156	562 65	.0130
Hodgdon.....	264	251	266	192,340	3,220 76	.0140
Houlton.....	974	933	897	989,638	29,642 23	.0270
Island Falls.....	47	43	48	61,156	1,132 92	.0170
Limestone.....	154	147	151	102,746	2,067 42	.0160
Linneus.....	194	192	184	154,161	2,387 87	.0136
Littleton.....	231	239	227	151,569	2,706 12	.0150
Ludlow.....	108	109	102	83,002	1,297 30	.0135
Madawaska.....	260	259	265	134,458	1,261 76	.0078
Mapleton.....	191	188	185	112,391	1,548 15	.0112
Mars Hill.....	148	150	163	152,234	1,520 34	.0085
Masardis.....	60	64	57	44,087	825 25	.0160
Monticello.....	276	287	268	138,434	3,242 01	.0194
New Limerick.....	152	152	156	83,182	2,085 40	.0205
Orient.....	56	54	59	31,451	297 65	.0080
Presque Isle.....	600	621	575	616,015	15,617 62	.0220
Sherman.....	202	189	188	128,519	2,780 38	.0160
Smyrna.....	75	68	70	25,704	1,052 73	.0380
Van Buren.....	223	216	213	181,992	2,250 00	.0105
Washburn.....	241	263	237	176,326	4,602 17	.0220
Weston.....	96	95	102	38,967	915 30	.0190
Woodland.....	213	211	193	117,789	2,632 49	.0170

ANDROSCOGGIN.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
Cash...	1264	38	70	68	124	221	346	385	1518	674	483
Cash...	313	8	11	20	89	62	142	215	445	577	98
Cash...	244	25	23	42	76	117	130	82	323	451	106
Cash...	233	28	18	29	94	134	143	187	516	615	134
Cash...	302	36	29	31	100	202	199	200	664	754	145
Cash...	1129	39	61	43	56	26	157	123	660	324	213
4-5	317	18	10	6	71	50	89	86	375	335	78
3-4	306	13	34	27	125	203	200	206	726	562	225
Cash...	295	14	15	18	78	120	141	177	505	332	77
Cash...	548	15	23	21	130	175	219	262	1085	287	243
Cash...	557	38	45	79	130	313	357	384	1298	478	277
Cash...	145	9	10	8	81	119	89	118	386	297	71
Cash...	164	4	17	15	100	104	119	106	327	435	90

AROOSTOOK.

1-3	105	11	13	25	8	18	63	183	121	400	20
-	218	21	29	34	16	52	83	92	151	403	72
Cash...	75	7	19	4	16	37	64	66	95	178	24
-	100	7	15	20	6	18	101	123	211	550	60
1-2	146	25	23	25	28	60	123	157	243	772	44
2-3	236	34	34	51	24	110	165	192	324	816	44
-	692	53	77	69	154	198	283	407	811	1853	288
17-20	273	25	33	44	103	216	325	285	367	1387	59
Cash...	756	93	113	106	109	173	441	508	1058	2483	273
Cash...	285	18	19	22	151	70	108	136	325	942	315
Cash...	363	61	40	57	274	139	232	313	627	2141	839
-	135	9	11	24	91	54	120	126	220	854	208
3-4	89	4	12	16	10	29	47	61	83	103	20
Cash...	105	1	15	12	24	45	101	108	137	450	46
2-3	366	42	65	57	30	147	225	234	495	1261	100
2-3	653	58	58	64	18	150	198	216	628	829	158
Cash...	49	11	9	9	23	17	46	51	80	289	16
Cash...	157	14	10	11	39	79	134	148	252	651	74
3-4	322	31	51	46	26	154	184	230	440	661	129
2-3	315	42	49	49	20	101	164	231	348	853	96
4-5	141	21	19	21	14	57	91	136	190	469	40
-	232	23	36	32	233	125	165	168	315	1609	462
Cash...	214	23	25	24	30	64	103	146	213	685	17
Cash...	166	15	47	22	89	99	178	246	289	1014	58
-	82	21	15	15	14	39	64	58	92	260	30
1-2	292	48	49	64	48	71	136	218	319	1014	82
2 5	139	14	21	17	4	47	73	100	158	368	33
2-3	73	6	11	9	4	36	57	64	104	290	22
3-4	717	98	120	131	97	324	503	508	839	2324	183
3-4	178	20	26	30	104	139	145	177	240	871	76
1 3	101	7	16	12	8	36	55	73	101	290	30
Cash...	134	24	9	18	66	45	83	106	196	528	184
Cash...	270	33	27	27	41	97	169	211	321	803	80
-	102	2	28	24	20	43	61	99	162	391	12
3-4	214	13	11	22	69	95	126	131	262	555	64

COUNTY OF

Plantations.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Cary	89	86	89	\$16,673	\$640 34	.0320
Castle Hill.....	111	119	120	57,736	994 02	.0150
Caswell.....	48	52	54	27,220	716 84	.0240
Chapman.....	45	39	40	22,840	315 75	.0125
Connor.....	99	93	106	39,904	265 00	.0080
Crystal.....	65	70	74	51,008	1,127 42	.0160
Cyr.....	71	70	66	34,911	890 60	.0250
Dyer Brook.....	54	55	57	30,745	484 23	.0140
Garfield.....	21	18	19	43,078	102 46	.0019
Glenwood.....	43	42	48	31,876	246 52	.0065
Hamlin.....	86	87	83	63,169	844 36	.0114
Maawahoc.....	60	57	58	28,992	726 65	.0130
Merrill.....	44	57	52	27,669	459 00	.0150
Moro.....	55	49	58	37,607	552 06	.0130
New Sweden.....	180	161	154	30,188	709 92	.0175
Oakfield.....	149	147	157	39,448	1,380 62	.0300
Perham.....	84	80	78	51,562	971 99	.0160
Portage Lake.....	40	35	36	24,326	200 00	.0067
Reed.....	47	40	41	64,393	651 17	.0084
St. Francis.....	83	-	-	14,578	290 50	.0163
Silver Ridge.....	60	61	59	17,365	385 30	.0170
Wade.....	32	27	24	31,788	604 22	.0170
Westfield.....	43	46	42	45,257	143 92	.0028

COUNTY OF

Baldwin.....	286	288	285	342,211	5,733 27	.0155
Bridgton.....	754	723	712	1,250,537	18,340 62	.0134
Brunswick.....	1299	1269	1325	3,252,910	55,867 10	.0155
Cape Elizabeth.....	1325	1251	1231	1,928,881	40,629 15	.0190
Casco.....	236	245	252	265,098	2,681 46	.0080
Cumberland.....	445	450	444	635,985	5,446 16	.0072
Deering.....	1303	1343	1312	2,818,640	54,644 52	.0180
Falmouth.....	402	402	395	842,420	10,685 11	.0107
Freeport.....	563	524	534	1,120,935	13,606 16	.0120
Gorham.....	741	722	763	1,228,779	20,616 68	.0150
Gray.....	367	362	353	436,585	7,690 90	.0153
Harpwell.....	452	445	455	572,545	8,325 46	.0120
Harrison.....	300	270	277	460,401	5,304 46	.0100
Naples.....	245	255	248	231,760	4,466 67	.0170
New Gloucester.....	303	317	316	861,346	12,385 67	.0135
North Yarmouth.....	229	225	209	335,991	4,983 34	.0137
Otisfield.....	203	211	212	248,680	3,925 58	.0135
Portland.....	9948	9944	9742	34,620,335		
Pownal.....	212	200	214	268,030	5,248 90	.0168
Raymond.....	251	244	240	201,815	5,477 39	.0140
Scarborough.....	406	420	432	763,241	12,094 18	.0143
Sebago.....	207	194	190	150,120	2,534 51	.0145
Standish.....	463	455	483	525,201	10,115 98	.0160
Westbrook.....	1633	1621	1518	2,864,681	62,192 62	.0200
Windham.....	488	514	525	829,086	11,607 20	.0140
Yarmouth.....	525	561	546	975,982	19,382 37	.0187

AROOSTOOK—CONCLUDED.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
Cash...	89	2	5	25	2	4	31	133	113	296	21
3 4	122	16	12	16	18	35	85	101	180	729	40
Cash...	23	1	1	6	41	17	32	11	51	106	9
Cash...	42	1	1	3	11	8	22	26	47	142	8
Cash...	49	1	3	2	17	-	12	34	71	75	24
Cash...	77	5	7	15	12	41	55	87	110	396	27
Cash...	71	8	8	13	40	21	41	53	103	368	97
2 3	56	-	30	-	8	25	58	76	77	238	39
Cash...	22	4	5	7	4	17	21	24	27	73	11
-	12	1	1	2	2	-	2	7	9	19	3
Cash...	75	18	6	9	71	21	55	85	138	436	100
Cash...	51	4	9	4	6	15	21	36	61	141	9
2 3	47	1	7	12	10	12	29	44	60	159	19
-	52	13	-	6	10	15	34	61	75	211	19
Cash...	172	1	6	26	44	3	26	177	258	418	34
1-2	139	14	23	16	51	73	115	129	189	751	39
Cash...	88	9	5	7	26	46	68	59	102	231	44
-	57	9	4	5	-	7	13	35	50	153	28
3-4	47	-	8	4	-	10	21	13	40	60	5
1-2	68	2	6	5	12	17	33	54	99	178	52
1-2	59	1	7	7	10	11	26	40	57	150	15
-	29	5	-	-	2	5	22	30	33	55	5
Cash...	54	-	5	14	11	3	36	41	63	123	7

CUMBERLAND.

Cash...	187	8	5	13	90	75	108	105	323	211	132
Cash...	522	24	40	19	173	112	222	204	694	209	190
Cash...	600	6	11	6	84	6	87	113	804	562	104
Cash...	518	2	2	6	82	-	-	1	624	-	100
Cash...	229	6	11	8	73	88	94	113	297	197	102
Cash...	258	9	7	10	62	20	90	127	568	235	41
Cash...	677	6	9	4	26	1	23	21	393	6	38
Cash...	327	7	7	8	74	55	87	154	697	189	44
Cash...	418	11	11	15	48	11	110	85	713	473	122
Cash...	691	12	21	26	112	45	164	270	1244	452	189
2-3	341	10	18	15	135	149	218	203	574	264	163
Cash...	152	1	7	9	105	31	55	38	330	824	62
Cash...	239	10	11	19	173	143	186	147	439	247	123
Cash...	213	9	11	17	102	95	133	139	323	69	111
Cash...	339	15	16	20	82	181	225	234	728	303	113
Cash...	235	14	11	8	55	76	87	107	402	293	91
Cash...	184	13	14	19	140	112	133	156	368	213	138
Cash...	236	2	5	12	54	102	119	120	400	208	64
Cash...	209	9	18	14	93	131	115	131	372	174	100
Cash...	404	1	6	2	138	89	102	81	728	206	155
Cash...	115	23	2	10	94	72	90	100	276	139	73
3-4	338	5	7	5	144	97	146	136	458	132	119
Cash...	404	12	17	10	19	-	36	65	516	41	85
2 3	525	15	12	11	64	165	166	205	702	358	209
3-4	241	-	1	5	24	2	2	17	349	152	7

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Avon.....	114	125	121	\$123,446	\$4,393 36	.0330
Carthage.....	93	101	96	79,064	2 419 04	.0280
Chester ville.....	184	192	197	265,176	7,505 58	.0260
Eustis.....	93	104	101	77,884	1,113 17	.0120
Farmington.....	860	868	888	1,490,090	25,821 75	.0155
Freeman.....	128	122	123	96,172	2,160 72	.0200
Industry.....	143	132	138	113,175	3,507 90	.0280
Jay.....	389	330	302	497,122	9,970 59	.0180
Kingfield.....	168	158	133	236,538	3,191 48	.0115
Madrid.....	115	108	118	58,164	1,625 21	.0220
New Sharon.....	304	317	309	404,698	9,410 66	.0210
New Vineyard.....	176	179	175	187,105	3,386 97	.0155
Phillips.....	350	337	342	469,656	7,390 35	.0135
Rangley.....	190	190	189	130,658	1,859 09	.0100
Salem.....	61	60	76	57,649	938 99	.0130
Strong.....	184	159	150	216,997	4,112 89	.0165
Temple.....	125	130	133	149,702	3,219 34	.0190
Weld.....	262	222	224	178,892	3,230 88	.0150
Wilton.....	478	477	468	615,497	9,127 71	.0125
Plantations.						
Coplin.....	18	18	19	26,866	325 00	.0101
Dallas.....	44	44	44	16,996	167 70	.0085
Greenville.....	12	13	13	10,960	75 00	.0051
Letter E.....	8	12	10	12,847	8. 43	.0062
Perkins.....	17	18	22	17,231	596 36	.0315
Rangley.....	12	14	10	15,794	30 00	.0020

COUNTY OF

Amherst.....	109	115	121	121,697	1,820 29	.0125
Aurora.....	63	63	65	38,185	636 25	.0145
Bluehill.....	533	491	454	479,725	7,875 33	.0130
Brooklin.....	274	270	281	145,835	3,325 86	.0184
Brooksville.....	328	322	337	177,513	3,851 11	.0180
Bucksport.....	651	645	665	1,042,364	26,344 32	.0234
Castine.....	225	219	223	300,345	5,931 04	.0175
Cranberry Isles.....	103	100	103	96,842	984 29	.0070
Deer Isle.....	813	793	753	408,301	14,772 57	.0265
Dedham.....	78	82	85	70,290	2,092 83	.0270
Eastbrook.....	63	65	69	40,263	953 17	.0210
Eden.....	712	667	603	5,633,267	54,704 94	.0093
Ellsworth.....	1275	1141	1299	1,644,874	40,890 91	.0225
Franklin.....	305	279	256	213,220	3,274 71	.0130
Gouldsborough.....	472	457	443	271,431	7,283 98	.0220
Hancock.....	289	284	279	243,108	5,003 77	.0180
Isle-au-Haut.....	51	-	-	46,444	1,021 76	.0220
Lamoine.....	181	188	182	185,594	2,649 71	.0120
Mariaville.....	89	94	95	66,612	2,383 53	.0320
Mount Desert.....	337	291	273	194,059	7,312 56	.0330
Orlande.....	381	381	385	275,446	6,790 03	.0205

FRANKLIN.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
Cash...	169	18	29	33	125	83	121	80	176	1661	48
Cash...	107	16	18	20	75	55	120	110	170	849	15
Cash...	174	22	27	19	122	123	145	116	307	1099	70
Cash...	93	11	10	14	31	25	47	46	74	63	30
Cash...	655	50	75	104	241	100	265	216	826	6149	158
2-3	124	16	26	27	157	66	89	88	180	3293	52
Cash...	122	14	13	19	74	61	73	62	163	3043	30
-	362	55	71	97	293	244	290	287	619	1754	135
Cash...	150	20	30	23	32	38	74	65	132	1422	30
-	91	12	16	17	85	75	96	102	155	673	22
Cash...	331	39	49	50	176	154	145	96	373	5580	109
Cash...	181	26	22	29	123	17	85	104	303	3727	65
Cash...	344	37	83	82	218	227	283	294	462	3507	97
Cash...	197	19	24	40	125	113	149	151	184	1966	46
Cash...	56	13	11	16	44	32	53	38	71	710	14
Cash...	141	15	25	18	105	44	74	75	235	2689	42
-	107	15	16	18	95	76	78	59	137	2293	39
Cash...	185	34	61	56	179	123	199	178	301	1896	39
Cash...	441	33	75	93	233	171	304	262	618	2945	262
3-4	50	1	5	4	16	19	31	22	33	167	11
2-3	33	2	3	4	30	35	28	41	47	400	10
Cash...	17	3	-	4	3	3	7	11	19	176	2
Cash...	3	1	1	-	12	1	6	10	13	16	2
Cash...	16	-	2	-	36	23	30	12	29	199	-
3-4	15	4	4	2	22	24	28	23	32	179	4

HANCOCK.

Cash...	95	6	4	3	27	12	32	41	104	277	16
Cash...	56	6	1	3	14	15	31	17	70	181	26
Cash...	235	14	27	14	129	73	125	100	368	936	83
Cash...	65	7	5	8	38	25	38	35	148	195	195
Cash...	115	9	9	12	75	57	77	67	270	792	41
Cash...	347	25	35	28	44	74	141	101	456	1014	98
Cash...	28	1	2	2	32	5	22	10	113	74	13
Cash...	5	-	-	-	5	1	12	8	43	46	1
-	144	-	-	-	115	72	82	78	450	1050	12
Cash...	68	3	4	7	14	39	38	41	110	300	30
2-3	52	-	-	-	8	12	25	26	82	166	25
Cash...	532	5	6	7	12	16	41	47	285	69	53
Cash...	552	-	-	-	6	-	5	39	648	570	28
2-3	154	13	8	7	18	6	40	46	220	329	16
Cash...	150	4	8	7	43	24	64	77	294	663	50
2-3	149	9	7	2	10	19	20	14	225	164	32
Cash...	1	-	-	-	12	-	11	28	65	1880	-
Cash...	118	1	1	1	4	7	22	22	146	168	-
Cash...	76	4	5	5	13	1	34	41	120	186	4
1-2	164	3	6	1	15	48	33	37	165	260	21
Cash...	246	23	25	35	76	101	126	162	300	824	104

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Otis	69	71	82	\$ 24,100	\$ 776 26	.0250
Penobscot.....	304	311	318	242,107	5,117 92	.0180
Sedgwick	273	298	285	171,478	4,265 85	.0217
Sullivan	358	363	291	279,265	4,941 88	.0143
Surry	254	255	258	175,040	3,578 06	.0163
Tremont.....	555	530	522	463,409	8,010 21	.0140
Trenton.....	133	125	130	95,365	1,515 97	.0133
Verona	85	77	82	59,619	991 05	.0130
Waltham	85	83	91	70,465	718 50	.0070
Long Island Pl.....	36	38	38	17,313	236 46	.0110
No. 7 Pl.....	17	17	16	14,358	209 90	.0130
Swan's Island Pl.....	141	142	147	41,230	1,663 05	.0330

COUNTY OF

Albion	252	259	283	355,160	4,055 70	.0100
Augusta.....	2291	2270	2166	4,918,410	118,989 17	.0230
Bellgrade.....	274	270	281	364,301	5,058 11	.0120
Benton	256	282	284	387,805	5,243 22	.0122
Chelsea	159	156	146	217,119	3,368 56	.0150
China	379	366	393	451,625	7,279 10	.0136
Clinton	364	368	370	544,562	7,771 23	.0136
Farmingdale	216	235	238	468,730	7,210 22	.0140
Fayette	169	168	160	192,159	4,368 18	.0200
Gardiner.....	1428	1503	1469	2,949,505	58,260 82	.0183
Hallowell.....	474	483	483	1,493,035	27,566 67	.0175
Litchfield.....	296	292	302	378,685	6,854 94	.0160
Manchester.....	138	136	137	229,205	3,599 25	.0145
Monmouth	369	372	386	673,980	9,193 16	.0120
Mt. Vernon.....	260	274	294	321,627	3,755 11	.0100
Oakland.....	548	554	509	557,338	12,964 26	.0148
Pittston	331	344	350	412,895	8,085 50	.0180
Randolph.....	322	308	313	296,319	5,532 23	.0160
Readfield.....	300	300	286	362,855	8,491 99	.0210
Rome	143	148	151	101,481	2,783 02	.0240
Sidney	318	322	211	400,612	5,106 98	.0118
Vassalborough.....	456	461	538	824,062	13,728 93	.0150
Vienna	125	132	133	135,836	2,362 51	.0150
Waterville.....	1733	1790	1533	3,933,951	66,900 97	.0164
Wayne.....	191	198	205	229,497	4,472 02	.0170
West Gardiner	214	221	225	274,220	5,084 40	.0160
Windsor.....	217	218	219	224,360	6,002 85	.0250
Winslow	388	374	373	565,663	7,563 98	.0120
Winthrop.....	634	578	578	1,041,095	15,737 06	.0134
Unity Pl.....	19	16	17	10,990	134 00	.0100

HANCOCK—CONCLUDED.

Basis	No. of horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
2 3	40	1	2	2	13	6	10	22	65	125	9
Cash...	160	10	16	17	66	56	118	101	310	1117	50
Cash...	126	5	6	5	62	45	103	76	180	709	65
3 4	184	5	5	5	40	8	26	12	132	162	30
3-4	134	9	7	12	28	44	56	86	207	538	27
Cash...	156	4	4	5	30	11	35	30	262	524	12
2-3	61	8	12	3	11	5	8	21	125	166	25
Cash...	22	2	2	2	12	14	13	16	55	180	7
Cash...	139	3	6	2	53	51	62	48	227	373	40
-	-	-	-	-	2	2	4	9	36	86	2
-	13	2	1	1	4	-	3	2	19	57	6
9-10	23	1	2	1	12	13	8	6	71	191	17

KENNEBEC.

Cash..	405	55	62	93	111	135	155	111	384	3094	252
Cash...	980	32	38	25	84	43	196	189	963	304	201
-	311	26	30	53	146	168	198	194	416	1690	168
Cash..	278	23	20	26	11	77	121	89	377	548	102
Cash...	141	5	7	8	31	18	83	65	258	153	41
9-10	466	52	78	73	133	109	185	143	657	2320	200
Cash...	448	37	60	64	65	70	146	183	675	1680	220
Cash...	133	5	3	8	6	15	26	41	231	54	24
Cash...	181	19	21	20	112	147	142	119	381	632	61
Cash...	586	33	13	11	37	3	29	32	400	146	76
Cash...	267	4	4	17	26	10	12	9	157	185	67
Cash...	331	27	25	33	113	101	154	123	532	716	146
Cash...	197	8	11	11	48	45	70	89	236	487	111
Cash...	369	29	34	41	154	184	152	206	746	650	168
4-5	257	27	42	24	215	112	140	146	433	1387	142
5-8	327	34	33	53	50	90	90	112	340	1181	156
Cash..	325	8	21	18	163	64	166	172	514	518	132
17-20	142	4	7	4	3	3	16	1	77	-	3
3-4	285	28	20	34	103	164	136	176	448	690	163
Cash...	108	9	11	16	92	81	91	75	178	1141	62
Cash...	380	31	50	47	109	123	167	162	483	2053	213
Cash...	504	55	58	82	86	172	200	214	617	1597	249
Cash...	127	9	17	16	129	87	98	89	203	994	55
-	547	18	31	35	4	6	26	39	251	532	62
Cash...	199	19	18	38	51	99	101	121	271	400	82
Cash...	275	14	14	15	45	94	114	83	378	382	105
4 5	268	29	35	40	129	164	174	140	392	777	171
Cash...	352	37	50	43	48	148	147	163	545	1359	178
9 10	390	39	22	34	62	193	189	251	647	508	222
2 3	25	1	1	6	9	5	12	13	28	59	15

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Appleton.....	263	280	288	\$ 250,608	\$ 5,162 24	.0185
Camden.....	1222	1254	1115	1,731,604	34,810 78	.0170
Cushing.....	204	204	208	121,766	2,907 72	.0200
Friendship.....	239	233	241	197,842	3,079 72	.0125
Hope.....	183	185	192	224,497	2,519 47	.0100
Hurricane Isle.....	115	168	88	33,855	950 00	.0180
North Haven.....	135	140	145	110,187	3,056 60	.0240
Rockland.....	2358	2208	2236	4,096,890	99,646 50	.0225
South Thomaston.....	424	435	426	302,539	6,793 03	.0185
St. George.....	676	590	617	415,110	8,449 98	.0162
Thomaston.....	604	630	626	1,571,387	28,526 80	.0170
Union.....	388	412	395	492,220	8,421 13	.0150
Vinalhaven.....	772	615	581	452,871	14,655 01	.0270
Warren.....	532	510	508	814,211	11,148 54	.0119
Washington.....	274	272	277	339,449	4,950 83	.0130
Matineus Isle Pl.....	64	64	67	24,324	280 79	.0090

COUNTY OF

Alna.....	154	152	162	150,889	3,103 81	.0175
Boothbay.....	474	905	907	474,634	9,016 15	.0160
Boothbay Harbor.....	420	-	-	638,057	10,192 80	.0140
Bremen.....	217	224	230	146,631	2,703 83	.0140
Bristol.....	708	701	747	497,077	16,041 96	.0280
Damariscotta.....	255	261	261	416,970	12,656 60	.0280
Dresden.....	275	303	285	390,058	4,873 61	.0105
Edgecomb.....	188	192	202	175,120	3,121 21	.0146
Jefferson.....	309	334	337	496,263	6,169 18	.0120
Newcastle.....	358	337	312	609,601	10,140 02	.0150
Nobleborough.....	237	228	234	221,504	4,587 32	.0175
Somerville.....	109	104	111	81,633	3,178 41	.0350
Southport.....	142	148	154	161,543	1,670 25	.0077
Waldoborough.....	941	924	933	983,130	21,648 28	.0190
Westport.....	117	123	129	89,043	3,750 00	.0400
Whitefield.....	308	311	314	295,017	6,381 87	.0185
Wiscasset.....	477	478	452	546,640	13,932 00	.0220
Monhegan Pl.....	31	-	-	-	-	-

KNOX.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
Cash...	253	16	22	33	130	105	161	138	351	644	94
2 3	630	10	11	10	78	45	94	89	714	195	176
Cash...	102	5	-	4	26	42	57	73	145	386	33
Cash...	51	4	3	9	36	2	35	39	114	134	23
Cash...	182	5	17	13	62	22	69	83	302	318	89
-	7	1	-	-	4	-	-	-	-	-	-
1-2	46	1	-	8	26	31	53	39	131	1695	25
Cash...	794	4	16	2	11	26	40	38	420	2	72
9-10	181	4	4	12	14	61	50	113	322	128	13
-	216	-	5	6	34	33	37	36	266	499	23
Cash...	317	-	15	1	10	2	33	48	301	25	41
Cash...	383	17	21	38	129	-	186	183	678	468	192
9-10	121	2	5	7	59	9	37	20	251	923	9
Cash...	415	15	14	13	102	148	228	216	654	746	129
Cash...	320	15	26	21	199	90	146	157	406	653	69
Cash...	-	-	-	-	13	6	3	6	38	401	1

LINCOLN.

2-3	135	3	9	9	117	44	95	78	217	238	38
Cash...	152	1	7	4	64	14	43	53	292	132	30
Cash...	100	-	4	5	7	12	9	12	109	17	4
Cash...	63	6	7	3	55	39	36	34	130	118	36
2 3	251	20	24	11	219	77	136	137	479	852	112
Cash...	159	12	6	7	46	34	27	24	178	168	63
Cash...	223	14	3	6	134	54	112	183	392	453	94
Cash...	120	3	10	2	83	31	68	90	190	467	54
Cash...	303	35	27	35	220	218	213	210	471	1428	160
Cash...	218	17	15	10	163	57	89	119	344	818	62
Cash...	163	10	7	19	144	84	127	124	266	467	109
Cash...	81	9	9	8	87	28	76	87	170	299	26
Cash...	10	-	-	-	4	3	2	2	39	175	2
4 5	495	28	39	39	313	198	266	274	801	697	175
Cash...	20	-	1	2	34	12	27	17	90	95	2
2 3	336	33	25	33	223	113	204	200	548	941	141
Cash...	180	12	4	-	128	73	54	36	309	444	89
-	-	-	-	-	2	-	-	-	7	255	-

COUNTY OF

Towns	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Albany.....	162	156	148	\$ 87,342	\$2,273 53	.0220
Andover.....	201	204	204	149,794	3,024 60	.0170
Bethel.....	543	548	546	724,740	12,829 80	.0160
Brownfield.....	293	285	302	312,648	4,629 20	.0120
Buckfield.....	317	317	304	361,742	6,478 75	.0155
Byron.....	52	52	50	33,443	653 97	.0180
Canton.....	322	364	329	382,250	11,145 68	.0260
Denmark.....	234	226	233	275,730	3,692 40	.0110
Dixfield.....	247	240	227	243,910	5,012 38	.0175
Fryeburg.....	428	428	440	658,740	14,439 24	.0205
Gilead.....	102	103	100	139,114	1,517 93	.0110
Grafton.....	22	20	20	31,532	517 02	.0150
Greenwood.....	193	188	197	138,758	3,743 07	.0230
Hanover.....	58	-	57	74,135	680 08	.0080
Hartford.....	183	190	186	257,793	3,754 27	.0132
Hebron.....	133	127	126	191,973	3,433 55	.0165
Hiram.....	351	302	307	332,672	5,166 21	.0138
Lovell.....	264	270	280	297,804	5,028 65	.0140
Mason.....	24	23	20	21,230	313 25	.0100
Mexico.....	96	98	92	87,730	2,279 22	.0240
Newry.....	114	101	93	94,346	1,962 52	.0190
Norway.....	704	735	809	1,039,389	16,512 40	.0135
Oxford.....	352	368	381	449,764	7,689 38	.0150
Paris.....	933	843	819	1,072,111	12,485 11	.0100
Peru.....	169	171	169	196,850	4,396 01	.0193
Porter.....	276	280	286	284,263	3,401 32	.0980
Roxbury.....	41	41	43	25,071	818 40	.0310
Rumford.....	241	230	230	286,354	4,702 06	.0150
Stoneham.....	96	91	96	67,032	1,897 76	.0150
Stow.....	82	84	88	84,205	2,772 15	.0300
Sumner.....	225	225	221	220,680	4,214 31	.0170
Sweden.....	120	120	121	111,542	1,210 27	.0090
Upton.....	66	68	70	45,049	672 54	.0149
Waterford.....	285	295	270	258,738	6,689 48	.0220
Woodstock.....	220	225	225	182,913	6,147 39	.0300
Franklin Pl.....	31	30	37	21,017	445 82	.0190
Lincoln Pl.....	19	19	17	27,395	349 19	.0128
Milton Pl.....	62	65	70	40,517	1,075 02	.0235

OXFORD.

Basis.	No. horses.	Three year old colts.	Two year old colts	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
1 2	123	12	18	20	167	100	166	162	208	434	39
Cash...	223	19	25	22	128	120	135	170	272	803	74
Cash...	546	56	59	63	164	264	402	425	606	1245	146
-	220	13	15	11	237	142	153	222	370	198	99
Cash...	246	39	46	45	169	183	113	148	408	618	147
Cash...	40	4	6	20	30	37	57	115	63	364	8
Cash...	249	43	36	43	86	118	157	169	359	373	109
Cash...	191	10	14	18	203	133	173	223	334	289	87
-	229	31	30	52	114	110	121	119	370	831	38
2-3	390	20	38	39	249	196	367	423	630	499	165
Cash...	86	9	7	9	63	33	101	127	132	209	19
3-4	39	-	4	3	10	26	26	29	32	141	12
Cash...	158	19	18	19	181	104	144	185	251	863	49
Cash...	62	7	7	5	36	49	62	54	68	181	41
Cash...	207	29	34	29	207	176	184	193	459	1488	90
Cash...	157	15	15	13	80	118	159	184	432	224	96
Cash...	230	10	17	21	194	158	187	230	391	237	92
3 4	206	22	33	40	229	181	224	213	363	293	96
Cash...	29	3	3	2	24	27	27	52	41	142	7
Cash...	108	13	17	17	97	89	99	80	185	422	41
Cash...	137	22	12	14	68	42	90	98	156	429	44
Cash...	473	32	43	35	187	208	273	314	657	750	279
Cash...	282	24	26	16	104	91	172	179	416	383	120
Cash...	564	50	76	65	349	314	419	447	969	1390	207
Cash...	195	31	25	39	130	198	171	207	373	1014	63
Cash...	198	16	17	24	245	143	168	194	336	240	114
Cash...	40	4	6	6	37	36	37	56	51	275	9
-	312	33	60	49	226	227	334	326	457	1098	124
Cash...	57	7	6	4	72	18	53	64	117	182	17
3 4	61	5	14	18	107	104	106	105	131	222	38
Cash...	206	21	39	31	295	238	245	237	425	1226	97
4-5	91	5	5	10	118	45	84	113	225	131	52
Cash...	86	8	5	4	38	36	43	56	65	244	15
2-3	273	18	27	23	208	106	230	257	541	833	139
Cash...	153	25	23	23	165	128	143	190	301	1711	77
Cash...	56	2	6	3	40	44	40	44	71	285	18
-	31	-	2	5	10	2	9	16	24	73	4
Cash...	58	7	11	13	38	16	8	49	74	275	11

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Alton.....	90	82	81	\$58,307	\$2,139 06	.0230
Argyle.....	89	84	77	49,183	900 00	.0156
Bangor.....	5074	4760	4663	9,955,102	238,220 63	.0225
Bradford.....	324	322	332	286,630	4,112 48	.0125
Bradley.....	223	206	206	133,766	4,867 88	.0310
Brewer.....	923	894	911	891,090	21,616 39	.0210
Burlington.....	130	128	120	89,614	2,052 28	.0200
Carmel.....	253	255	254	272,071	3,117 88	.0096
Carroll.....	158	139	144	114,235	1,795 77	.0140
Charleston.....	264	264	262	269,376	4,086 54	.0137
Chester.....	95	93	91	45,574	1,053 55	.0190
Clifton.....	81	76	87	47,006	914 04	.0160
Corinna.....	298	294	297	281,266	5,603 01	.0178
Corinth.....	324	326	327	374,256	5,201 62	.0126
Dexter.....	702	738	769	925,824	21,210 36	.0205
Dixmont.....	219	260	266	246,929	4,447 11	.0160
Eddington.....	175	181	175	117,766	2,953 82	.0210
Edinburg.....	15	15	15	14,970	195 40	.0120
Enfield.....	141	120	110	85,813	2,147 42	.0210
Etna.....	157	160	153	107,157	2,642 30	.0210
Exeter.....	242	246	258	316,140	5,118 58	.0155
Garland.....	272	277	269	306,911	5,930 49	.0180
Glenburn.....	155	155	162	95,716	2,971 54	.0270
Greenbush.....	150	163	148	58,950	3,041 99	.0430
Greenfield.....	74	72	62	17,857	1,726 20	.0640
Hampden.....	554	542	546	539,908	9,462 84	.0150
Hermion.....	325	322	325	271,147	4,929 40	.0165
Holden.....	161	170	169	142,996	2,834 00	.0170
Howland.....	55	46	46	35,152	988 80	.0250
Hudson.....	153	147	149	83,570	3,403 13	.0240
Kenduskeag.....	146	151	127	158,003	4,151 07	.0235
Kingman.....	159	160	167	98,404	1,848 29	.0147
Lagrange.....	198	192	195	194,596	2,119 33	.0092
Lee.....	242	239	241	112,110	2,571 37	.0170
Levant.....	264	244	249	233,016	4,443 03	.0178
Lincoln.....	458	472	450	298,811	8,110 67	.0222
Lowell.....	123	116	114	71,365	2,537 00	.0310
Mattamiscontis.....	19	19	16	8,422	177 25	.0154
Mattawamkeag.....	167	171	145	103,450	2,469 55	.0190
Maxfield.....	37	29	30	30,514	501 19	.0140
Medway.....	196	181	166	137,544	3,067 68	.0200
Milford.....	194	208	210	185,962	6,532 78	.0320
Mt. Chase.....	60	61	63	44,699	577 91	.0125
Newburg.....	233	228	242	199,687	3,244 96	.0145
Newport.....	316	308	313	368,670	5,988 24	.0141
Old Town.....	1113	1044	958	886,577	21,279 57	.0260
Orono.....	655	617	588	554,107	13,146 14	.0200
Orrington.....	355	353	381	348,490	5,804 46	.0136
Passadumkeag.....	78	84	80	29,904	1,111 62	.0300
Patten.....	252	228	230	405,291	3,474 85	.0120
Plymouth.....	177	185	189	162,230	2,641 44	.0141

PENOBSCOT.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
2 3	72	9	6	11	22	34	55	44	101	321	31
2-5	69	1	6	5	16	42	62	45	76	107	8
-	1706	-	-	-	-	-	-	-	935	291	-
Cash...	330	53	68	59	112	170	228	216	498	1827	141
-	98	7	7	8	3	7	23	27	103	113	63
Cash...	330	17	19	14	10	51	52	46	261	39	63
1 2	108	5	8	10	26	45	53	87	158	373	34
-	288	27	28	30	24	112	120	138	437	1288	115
Cash...	171	16	27	36	64	105	153	173	277	736	44
Cash...	339	38	52	61	155	127	200	243	453	2009	146
4 5	104	11	14	19	25	48	76	70	123	333	25
2 3	67	-	-	3	17	30	29	47	103	248	27
1 2	376	32	86	26	107	190	166	137	532	2404	314
Cash...	437	54	75	58	90	159	203	200	531	2749	189
2 3	549	27	42	41	73	151	177	166	536	2405	233
Cash...	239	20	31	38	187	139	126	156	393	2474	149
4-5	165	8	8	9	16	76	82	74	244	564	88
3-4	14	-	2	4	-	-	7	13	21	45	3
Cash...	105	12	5	13	10	31	47	50	138	170	25
Cash...	166	10	34	17	34	99	153	123	254	1146	55
Cash...	375	44	55	57	101	179	196	174	437	2415	247
-	330	25	38	36	109	166	174	203	612	2569	206
2-3	211	18	15	30	18	88	136	122	307	1001	77
4 5	102	1	9	6	30	28	77	70	170	297	25
-	57	4	8	8	35	55	68	59	91	287	38
Cash...	493	35	58	54	9	59	192	138	709	1056	193
3-5	399	37	51	46	13	146	183	200	566	1288	141
Cash...	213	16	14	17	36	30	59	86	336	778	82
Cash...	51	1	6	1	4	24	27	24	44	51	6
Cash...	139	11	20	19	33	37	70	68	247	863	62
Cash...	145	14	16	21	13	44	70	64	187	465	80
-	70	11	7	7	16	-	-	3	143	74	10
Cash...	216	69	-	-	21	63	110	99	207	506	53
4-5	172	21	27	34	86	91	115	138	245	739	64
3-4	292	16	58	48	33	139	116	172	441	1628	177
2 3	326	24	28	36	44	87	151	144	379	799	107
Cash...	95	2	9	5	14	20	47	66	112	282	16
Cash...	16	-	-	-	-	-	3	3	17	13	-
Cash...	105	3	5	3	14	10	25	44	114	174	36
Cash...	29	1	1	-	10	15	23	18	45	192	3
Cash...	124	5	8	11	18	19	67	64	170	327	28
Cash...	75	13	11	7	6	5	21	20	82	52	21
Cash...	54	5	7	6	12	8	52	63	95	279	25
3-4	286	38	43	57	28	139	156	153	450	1874	168
Cash...	326	34	33	38	86	59	143	137	509	1952	169
Cash...	345	3	14	12	8	9	86	54	302	205	61
3-4	228	10	12	8	4	14	57	63	221	86	49
Cash...	290	23	21	23	32	42	96	109	561	470	142
2 3	53	3	-	3	7	17	27	20	63	103	7
2 3	279	31	50	31	73	134	182	197	260	1143	44
Cash...	212	19	30	35	74	157	141	129	312	1774	109

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Prentiss	88	96	98	\$ 61,113	\$1,293 43	.0180
Springfield	167	171	160	107,739	1,978 34	.0160
Stetson	183	190	183	222,748	3,412 62	.0145
Veazie	160	151	182	108,889	2,497 78	.0200
Winn	238	272	256	188,711	5,054 36	.0230
Plantations.						
Drew	26	33	27	25,385	305 85	.0100
Lakeville	32	35	27	50,820	191 85	.0031
No. 2, Grand Falls	20	20	19	-	-	.
Stacyville	50	47	49	24,728	297 28	.0100
Webster	24	28	31	17,389	200 00	.0105
Woodville	51	56	50	33,434	964 41	.0250

COUNTY OF

Abbot	181	176	188	151,875	2,734 11	.0150
Atkinson	180	180	179	148,533	3,102 21	.0200
Blanchard	50	47	43	49,499	705 96	.0120
Brownville	236	233	231	235,038	3,262 16	.0155
Dover	549	514	470	609,360	13,799 20	.0200
Foxcroft	376	361	358	495,136	10,288 00	.0185
Greenville	196	215	187	175,626	3,141 39	.0150
Guilford	277	269	276	233,130	5,724 90	.0210
Medford	66	67	69	41,339	1,248 15	.0270
Milo	249	262	249	249,915	5,745 30	.0200
Monson	349	334	317	196,090	5,753 16	.0240
Orneville	139	121	126	72,066	3,291 64	.0400
Parkman	217	217	212	160,753	4,509 11	.0240
Sangerville	330	315	292	338,415	4,720 98	.0120
Sebec	181	181	182	155,478	4,274 47	.0240
Shirley	78	75	77	51,066	846 71	.0135
Wellington	129	133	133	113,475	2,198 64	.0357
Williamsburg	36	35	42	21,104	613 89	.0240
Willimantic	130	125	113	87,453	877 99	.0105
Kingsbury Pl	47	48	43	54,200	200 00	.0030

COUNTY OF

Arrowsic	54	55	58	70,322	2,452 47	.0310
Bath	2278	2299	2208	6,003,165	136,370 57	.0215
Bowdoin	239	236	238	303,617	5,631 25	.0165
Bowdoinham	395	385	385	429,666	8,935 99	.0176
Georgetown	213	199	215	136,560	4,336 11	.0270
Perkins	19	17	18	40,430	543 38	.0125
Phippsburg	355	345	350	318,026	12,196 06	.0350
Richmond	750	724	755	1,233,670	20,002 05	.0161
Topsham	369	361	378	651,414	10,226 79	.0140
West Bath	70	70	76	148,909	2,780 46	.0170
Woolwich	235	233	266	361,803	7,941 06	.0200

PENOBSCOT—CONCLUDED.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
3-5	116	20	16	15	50	62	81	114	152	478	31
Cash...	165	24	33	32	40	69	83	98	196	485	36
Cash...	251	13	57	46	78	129	154	150	337	1547	161
Cash...	82	5	12	4	2	9	13	17	86	12	15
Cash...	129	4	11	22	27	22	62	64	142	273	31
2 3	42	3	2	1	8	31	17	35	51	161	11
Cash...	40	7	4	5	6	2	22	35	46	167	12
-	17	1	3	3	2	1	5	7	22	56	
Cash...	72	5	5	12	10	23	49	43	81	159	29
-	23	3	4	5	6	18	23	25	27	119	8
2 3	46	-	4	3	16	17	36	36	72	163	19

PISCATAQUIS.

Cash...	185	22	33	29	74	137	156	143	256	1421	97
Cash...	242	19	56	70	65	122	139	132	286	1428	73
Cash...	59	4	8	7	-	11	42	21	43	128	18
Cash...	157	15	14	8	13	68	101	106	236	396	67
-	434	41	56	69	68	216	203	228	559	1788	163
Cash...	282	40	39	42	50	80	126	105	291	670	114
3 4	233	12	13	9	12	10	23	37	140	340	69
2-3	208	22	26	29	20	67	81	66	292	550	65
2-3	74	7	8	10	25	30	67	66	122	380	28
2-3	229	26	33	30	45	126	130	153	306	889	107
4-5	168	31	26	29	36	43	82	105	247	947	81
Cash...	112	21	17	6	40	45	52	71	121	412	41
2 3	244	30	40	53	109	107	160	169	388	2908	125
Cash...	296	31	38	37	98	156	210	181	474	2117	143
2-3	201	82	-	-	59	113	158	142	320	1465	111
Cash...	96	4	7	11	22	15	25	21	70	276	30
Cash...	103	10	26	21	169	128	119	98	288	1504	39
-	34	-	1	2	-	13	21	13	42	60	7
-	95	6	14	7	5	41	47	49	83	256	11
2 3	40	9	3	8	48	20	35	49	68	302	10

SAGADAHOC.

Cash...	24	3	-	-	32	19	23	19	68	124	
Cash...	344	-	-	-	10	-	-	-	237		
Cash...	251	18	15	13	182	97	140	115	420	765	120
2 3	347	13	25	20	92	124	124	180	451	617	143
2 3	52	5	1	4	50	39	52	35	170	225	
Cash...	20	-	-	-	4	10	10	10	27	18	13
Cash...	132	7	-	5	100	10	32	42	274	380	
Cash...	424	7	19	1	67	3	168	116	434	563	43
Cash...	224	8	9	5	122	51	80	57	358	730	57
Cash...	101	2	8	5	4	-	11	18	246	42	
Cash...	184	8	7	9	172	76	141	126	359	749	5

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Anson	417	419	385	\$622,431	\$19,923 93	.0310
Athens	299	301	295	355,233	5,012 47	.0120
Bingham	202	193	198	185,466	1,845 98	.0265
Brighton	124	126	124	76,613	1,948 40	.0230
Cambridge.....	115	120	129	80,215	1,555 64	.0180
Canaan.....	286	303	308	307,540	4,570 02	.0130
Concord	97	102	108	64,246	1,820 02	.0250
Cornville.....	248	245	250	340,094	3,989 79	.0105
Detroit	156	163	159	148,286	1,759 86	.0100
Embdon	151	154	156	145,489	13,106 40	.0920
Fairfield.....	977	905	898	1,209,260	16,035 40	.0122
Harmony	164	164	178	187,911	3,857 08	.0200
Hartland	275	277	273	309,564	6,254 46	.0180
Madison	484	550	508	669,665	9,079 30	.0113
Mercer	159	153	166	159,933	4,475 32	.0250
Moscow	130	125	123	73,970	1,513 83	.0186
New Portland..	290	303	306	397,565	4,904 64	.0100
Norridgewock.....	442	449	449	544,125	17,163 74	.0290
Palmyra	304	295	290	331,389	-	-
Pittsfield.....	573	534	527	637,735	11,349 76	.0160
Ripley	122	132	133	130,755	2,373 78	.0160
St. Albans	294	310	237	317,896	5,300 14	.0145
Solon	251	242	251	311,620	3,830 36	.0102
Skowhegan	1402	1272	1300	2,804,796	35,760 15	.0115
Smithfield.....	140	145	150	127,301	2,253 16	.0155
Starks.....	217	224	221	248,566	6,087 70	.0220
Plantations.						
Carratunk	47	43	40	44,191	-	-
Dead River	29	28	29	24,025	130 09	.0045
Highland	15	23	26	14,131	160 06	.0100
Lexington	61	68	73	50,585	800 00	.0133
No. 1, R. 2, W. K. R...	35	35	34	-	-	-
The Forks	53	47	42	-	-	-
West Forks.....	31	28	23	-	-	-

SOMERSET.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
Cash...	371	41	55	54	109	148	222	186	447	6332	153
Cash...	242	31	46	51	231	181	190	153	413	3912	114
Cash...	190	19	36	20	100	92	135	119	243	2290	70
Cash...	97	10	15	18	111	87	83	88	181	1239	35
2-3	114	-	-	53	68	93	87	89	214	918	71
-	283	59	66	64	76	34	105	94	458	2226	142
Cash...	90	8	13	10	70	97	131	101	133	1146	49
Cash...	298	47	70	59	169	163	126	82	366	3299	162
Cash...	153	29	11	8	48	46	72	97	247	669	59
Cash...	143	1	18	22	54	68	115	112	203	1772	59
Cash...	790	91	98	96	91	155	122	188	580	2771	232
Cash...	167	26	36	34	146	175	149	95	265	2207	85
3-4	222	38	49	31	39	60	99	84	234	861	110
Cash...	386	46	30	38	181	186	212	214	557	4896	191
Cash...	180	25	24	34	99	89	100	87	242	2175	99
Cash...	92	12	7	7	67	60	79	74	139	972	20
Cash...	313	-	61	63	176	4	210	252	553	5575	-
Cash...	403	28	43	49	59	92	112	107	416	4458	137
-	317	35	56	66	66	149	205	206	500	2571	201
Cash...	402	61	65	73	39	73	134	147	424	1480	155
Cash...	146	26	23	22	80	72	97	62	226	1437	94
9-10	345	44	57	66	110	196	221	208	536	2862	202
Cash...	256	22	47	38	230	160	190	132	363	3321	182
4-5	893	77	97	104	111	163	208	136	708	3613	295
Cash...	129	16	19	21	54	54	66	51	143	1103	61
Cash...	226	28	39	41	125	118	178	172	319	5101	90
-	47	5	8	4	22	5	9	33	67	150	1
Cash...	57	-	-	-	14	14	36	34	58	390	18
Cash...	11	1	3	2	6	19	23	21	25	143	2
Cash...	79	11	8	10	81	58	75	72	101	523	22
-	37	3	4	3	29	16	17	27	36	242	9
-	34	2	5	6	32	6	28	27	44	171	16
-	28	1	-	-	8	-	5	8	32	93	16

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Belfast.	1318	1346	1354	\$2,565,858	\$52,428 01	.0190
Belmont.	114	112	116	100,692	2,241 84	.0200
Brooks.	172	167	181	202,011	5,075 46	.0225
Burnham.	242	244	250	180,470	2,830 12	.0135
Frankfort.	267	271	276	182,240	5,357 00	.0250
Freedom.	150	156	159	166,222	2,186 21	.0122
Isleborough.	211	230	242	189,188	4,550 99	.0207
Jackson.	149	149	146	139,915	2,677 49	.0170
Knox.	181	173	184	244,472	3,326 60	.0120
Liberty.	214	199	210	213,090	3,677 85	.0150
Lincolntonville.	305	298	300	320,259	7,795 32	.0215
Monroe.	271	280	291	246,933	4,247 40	.0150
Montville.	309	290	298	161,128	6,587 36	.0380
Morrill.	114	117	114	138,774	1,668 27	.0107
Northport.	172	179	189	221,977	4,209 00	.0170
Palermo.	191	186	195	158,264	6,103 73	.0220
Prospect.	160	155	167	170,061	3,150 35	.0157
Searsmont.	308	288	-	319,761	4,441 47	.0110
Searsport.	375	357	398	803,207	13,985 61	.0169
Stockton Springs.	227	239	260	277,316	6,505 21	.0210
Swanville.	173	185	172	144,259	1,928 56	.0110
Thorndike.	135	130	142	199,872	2,535 21	.0113
Troy.	199	206	221	273,995	3,411 94	.0110
Unity.	232	226	213	271,892	4,267 65	.0137
Waldo.	134	138	136	146,415	2,172 06	.0130
Winterport.	507	500	494	557,149	7,525 46	.0130

WALDO.

Basis.	No. of horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
Cash...	567	37	41	26	27	74	100	77	403	318	78
Cash...	108	24	14	18	35	38	41	51	131	305	42
Cash...	206	33	27	37	55	78	118	93	201	1023	86
-	211	30	32	35	77	105	82	65	286	1070	106
Cash...	191	5	9	11	74	65	71	102	214	358	42
Cash...	169	17	24	23	97	50	75	50	179	1089	92
Cash...	78	4	17	5	9	26	28	29	161	455	
3-4	182	31	44	38	106	80	104	88	211	1407	40
Cash...	229	28	42	57	91	97	102	102	255	1355	120
Cash...	217	15	11	27	102	91	92	76	237	872	117
Cash...	262	17	35	46	111	98	114	149	371	465	110
2-3	341	45	49	45	64	155	167	165	450	1442	132
1-2	329	30	49	58	161	123	139	110	400	1599	132
Cash...	164	-	18	25	58	50	61	42	163	301	93
Cash...	119	3	16	8	29	66	71	50	184	426	48
9-10	257	35	37	56	137	161	117	93	340	1519	188
Cash...	151	16	10	10	32	59	72	65	193	494	70
Cash...	348	19	37	49	81	115	152	113	325	801	144
Cash...	221	5	6	12	22	54	80	74	263	451	91
Cash...	155	5	9	12	28	52	73	59	202	181	41
Cash...	179	15	19	27	46	85	98	121	188	621	55
Cash...	176	16	32	31	86	43	71	117	252	2195	106
Cash...	289	120	-	-	152	156	145	113	379	2760	152
3-4	294	42	55	73	147	145	103	90	339	2075	136
2-3	180	7	39	27	51	79	107	101	294	476	130
Cash...	411	32	40	55	22	102	160	171	554	1033	226

COUNTY OF

Towns.	Polls in 1889.	Polls in 1888.	Polls in 1887.	Total valuation—1889.	Total tax assessed.	Rate of tax.
Addison	271	287	282	256,572	4,007 12	.0240
Alexander	106	111	99	61,832	1,076 47	.0180
Bailleyville	66	63	60	39,427	1,242 88	.0300
Baring	58	69	72	53,795	1,283 15	.0206
Beddington	37	39	45	34,752	930 77	.0240
Brockton	92	100	99	92,924	1,711 43	.0169
Calais	1459	1374	1342	2,084,315	43,978 98	.0190
Centerville	30	30	32	33,055	729 21	.0200
Charlotte	91	88	89	75,464	1,119 37	.0120
Cherryfield	418	418	404	363,385	9,248 38	.0220
Columbia	150	147	153	97,768	2,070 33	.0180
Columbia Falls	165	159	161	91,763	3,257 30	.0310
Cooper	73	70	72	44,395	902 35	.0170
Crawford	43	43	47	23,759	1,223 80	.0470
Cutler	157	148	158	68,496	5,053 84	.0400
Danforth	264	230	233	163,324	4,037 79	.0230
Deblois			17			
Dennysville	106	102	95	155,596	2,523 81	.0142
East Machias	364	362	351	380,133	8,557 51	.0200
Eastport	1053	1042	926	852,037	26,163 99	.0270
Edmunds	76	81	76	49,649	2,061 99	.0400
Forest City	62	62	56	45,757	1,328 69	.0250
Harrington	291	299	298	169,109	4,269 17	.0200
Jonesborough	153	140	140	93,079	3,755 00	.0340
Jonesport	398	342	335	284,875	6,359 23	.0180
Lubeo	496	463	464	206,244	1,493 53	.0210
Machias	531	469	475	706,541	15,552 82	.0200
Machiasport	342	334	335	154,213	7,040 63	.0390
Marion	32	29	33	24,735	1,035 93	.0380
Marshfield	59	56	60	56,105	869 09	.0134
Meddybemps	50	48	47	19,950	199 50	.0150
Millbridge	474	447	459	371,343	9,500 44	.0220
Northfield	44	47	43	27,511	811 52	.0217
Pembroke	360	365	372	314,527	6,038 92	.0192
Perry	272	256	253	297,230	2,808 31	.0155
Princeton	225	224	210	168,343	4,236 73	.0225
Robbinston	170	181	183	98,967	2,491 43	.0210
Stouben	267	273	274	167,970	4,262 06	.0214
Talmadge	24	20	27	70,785	836 61	.0170
Topsfield	78	86	78	50,337	1,107 62	.0220
Trescott	127	118	112	41,670	1,818 67	.0370
Vanceboro'	201	200	194	203,296	-	-
Waite	40	42	42	26,499	802 47	.0272
Wesley	55	55	54	40,590	719 82	.0142
Whiting	83	84	84	50,196	1,722 62	.0290
Whitneyville	100	102	92	65,298	2,063 05	.0270
Codyville Pl	20	19	16	31,404	-	-
No. 14 Pl.	27	29	32	26,344	224 94	.0070
No. 21 Pl.	21	19	18	20,946	205 00	.0090

WASHINGTON.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep	Swine.
-	119	9	6	9	17	8	7	115	243	275	42
Cash...	84	7	6	7	2	52	82	107	215	223	45
2-3	61	6	4	3	6	30	40	83	134	202	36
2-3	42	4	3	2	-	7	3	16	61	47	7
Cash...	29	-	-	2	10	6	11	7	29	56	19
Cash...	58	2	6	6	-	7	13	20	55	54	10
3-4	440	5	7	22	4	2	21	31	341	45	1
1-2	27	-	3	-	10	4	25	41	52	49	14
Cash...	83	6	11	8	4	7	99	105	268	270	47
2-3	234	7	6	10	24	8	69	45	286	294	15
Cash...	90	3	7	1	11	8	82	97	179	275	53
1-2	80	1	8	3	24	7	113	97	161	118	41
3-4	53	5	6	3	14	31	77	59	182	256	44
Cash...	45	1	5	3	19	11	17	42	84	86	7
Cash...	52	7	5	2	10	7	37	29	134	350	3
Cash...	193	23	25	20	25	37	81	107	216	583	50
Cash...	82	1	7	4	7	-	41	49	139	174	44
Cash...	182	8	9	5	19	16	71	77	256	140	25
Cash...	136	1	2	2	-	-	2	-	144	17	8
-	36	-	3	2	11	28	16	27	90	85	14
-	38	-	2	1	-	-	-	4	33	10	2
2-3	126	2	3	4	4	2	36	65	228	302	35
Cash...	64	2	4	-	33	16	54	68	165	230	16
3-4	68	2	1	1	26	12	31	44	211	544	294
1-2	198	10	21	14	43	49	100	91	403	681	46
Cash...	235	6	11	12	-	11	48	63	237	107	49
-	69	3	2	3	14	17	44	36	182	415	10
Cash...	17	2	1	-	6	9	12	16	34	22	6
Cash...	29	1	4	3	-	2	15	24	96	31	14
2-3	32	2	3	2	4	11	38	49	98	102	11
-	168	2	9	10	11	8	14	42	220	421	22
-	36	-	1	2	18	6	27	46	64	26	8
-	206	19	18	17	20	24	91	141	421	430	90
1-2	204	11	19	2	14	-	63	92	519	341	84
Cash...	154	7	9	5	16	46	59	89	231	302	16
Cash...	155	10	11	15	21	56	94	75	267	259	44
Cash...	137	1	3	3	16	14	41	44	184	693	7
Cash...	22	3	-	1	-	6	33	42	46	59	6
2-3	91	14	17	8	15	33	61	70	109	226	40
3-4	60	7	10	7	26	49	105	97	161	489	34
-	61	-	-	11	2	-	17	13	87	59	19
Cash...	37	5	4	6	4	17	35	52	77	161	13
Cash...	46	2	2	3	30	23	59	49	90	113	10
3-4	74	5	7	4	8	11	35	47	112	111	7
Cash...	48	3	3	4	5	1	30	32	66	38	2
-	24	-	1	3	16	8	42	25	32	93	6
Cash...	14	1	1	2	2	10	20	26	43	47	9
Cash...	16	-	2	-	-	3	1	23	30	44	9

COUNTY OF

Towns.	Polls in 1869.	Polls in 1868.	Polls in 1867.	Total valuation—1869.	Total tax assessed.	Rate of tax.
Acton	223	214	231	295,250	5,663 27	.0201
Alfred	238	252	261	313,293	6,743 84	.0200
Berwick	516	516	538	906,535	12,253 74	.0117
Biddeford	3245	3206	3218	6,218,380	152,760 20	.0200
Buxton	554	547	533	613,990	8,876 17	.0125
Cornish	300	302	304	441,075	6,361 65	.0127
Dayton	159	164	154	193,990	2,671 68	.0114
Eliot	382	362	267	410,030	6,095 82	.0130
Hollis	331	320	336	287,577	5,307 02	.0165
Kennebunk	764	761	745	1,551,312	18,580 77	.0105
Kennebunkport	570	525	532	1,110,320	13,564 30	.0112
Kittery	665	626	621	521,743	10,069 19	.0167
Lebanon	334	338	335	335,632	6,763 50	.0172
Limerick	284	276	288	356,063	6,262 27	.0181
Limington	284	299	324	287,418	7,765 13	.0240
Lyman	184	191	192	228,935	4,237 43	.0165
Newfield	236	255	270	221,000	6,140 00	.0240
North Berwick	453	458	457	701,755	14,021 31	.0188
Old Orchard	188	172	167	515,597	6,744 66	.0120
Parsonfield	411	429	424	420,237	9,385 59	.0194
Saco	1649	1640	1775	3,309,051	71,128 02	.0200
Sanford	794	806	677	673,393	14,382 44	.0190
Shapleigh	242	241	247	242,228	-	-
South Berwick	854	782	829	928,578	17,336 18	.0158
Waterborough	329	331	-	372,329	7,163 32	.0175
Wells	502	482	521	421,220	14,107 64	.0310
York	575	589	577	1,081,069	15,939 68	.0135

YORK.

Basis.	No. horses.	Three year old colts.	Two year old colts.	Yearling colts.	Oxen.	Three years old.	Two years old.	Yearlings.	Cows.	Sheep.	Swine.
-	166	2	5	6	202	89	188	191	420	316	98
2-3	125	3	6	9	106	78	96	47	332	214	71
-	372	4	3	9	56	2	45	85	615	179	175
-	878	1	7	24	20	4	36	102	666	108	
Cash...	403	22	15	22	113	177	161	173	678	326	164
Cash...	224	9	16	17	198	130	203	191	292	159	124
3-4	169	9	9	9	34	8	82	99	427	248	99
Cash...	274	-	-	-	111	17	42	41	405	159	75
7-10	248	11	18	10	116	85	128	125	489	202	94
Cash...	428	3	3	12	65	-	-	-	485	191	7
Cash...	405	3	11	9	106	40	91	71	598	392	103
Cash...	222	2	8	2	99	29	21	32	347	139	25
Cash...	270	8	8	13	171	77	197	162	703	266	119
Cash...	14	175	8	16	210	157	201	219	386	311	106
Cash...	242	11	12	13	258	157	178	195	438	333	147
1-2	213	10	14	10	46	41	67	32	348	233	86
Cash...	152	9	8	12	194	117	170	141	266	107	64
Cash...	285	6	4	2	133	20	41	58	503	209	133
Cash...	55	2	-	1	15	-	-	-	67	-	15
3-4	349	19	23	36	431	326	438	461	691	170	185
2-3	728	4	21	4	111	20	121	6	938	4	25
2-3	367	4	6	3	160	32	76	97	436	206	116
-	156	1	4	5	197	56	87	129	378	185	70
3-4	350	8	11	6	124	-	46	87	529	439	139
Cash...	262	7	8	8	130	66	117	203	524	211	84
-	289	6	6	6	229	93	134	97	569	747	103
Cash...	383	11	6	2	309	69	42	40	571	449	98

RECAPIT

Counties.	Number of Polls.			Total Valuation in 1889.	Total Tax assessed in 1889.
	1889.	1888.	1887.		
Androscoggin.....	11,422	11,272	10,483	\$21,773,753	\$433,291
Aroostook.....	9,884	9,597	9,435	6,759,553	144,428
Cumberland.....	23,586	23,455	23,213	58,032,195	*103,985
Franklin.....	4,528	4,430	4,401	5,548,379	105,673
Hancock.....	9,642	9,257	9,261	13,349,164	231,928
Kennebec.....	13,267	13,398	13,033	23,317,084	437,514
Knox.....	8,453	8,200	8,010	11,179,360	235,359
Lincoln.....	5,720	5,725	5,770	6,373,810	133,187
Oxford.....	8,261	8,132	8,213	9,310,316	169,054
Penobscot.....	18,387	17,926	17,710	21,707,430	481,399
Piscataquis.....	3,996	3,908	3,781	3,639,551	77,038
Sagadahoc.....	4,977	4,924	4,947	9,697,582	211,416
Somerset.....	8,590	8,478	8,443	10,920,596	186,866
Waldo.....	6,920	6,824	6,708	8,615,410	164,785
Washington.....	10,085	9,777	9,599	8,857,431	206,912
York.....	15,265	15,084	14,923	22,958,000	450,325
Totals.....	162,983	160,387	157,930	\$242,039,614	\$4,072,160

*Not including Portland. The return from Portland also fails to show numbers of horses and neat stock.

ULATION.

Horses and Colts.				Neat Stock.					Sheep.	Swine.
Horses.	Three Years Old.	Two Years Old.	Yearlings	Oxen.	Three Years Old.	Two Years Old.	Yearlings.	Cows.		
5,817	285	366	407	1,254	1,846	2,331	2,431	8,828	6,121	2,240
9,994	1,052	1,314	1,417	2,419	3,590	5,974	7,664	12,830	34,855	4,913
8,602	230	280	291	2,246	1,858	2,798	3,072	13,322	6,147	2,675
4,104	476	696	789	2,652	1,932	2,820	2,548	5,659	46,208	1,332
4,410	183	216	197	1,043	862	1,465	1,466	6,371	14,372	943
9,604	717	836	988	2,375	2,730	3,536	3,550	12,218	26,237	3,847
4,018	99	159	177	933	705	1,231	1,278	5,093	7,217	989
3,009	203	197	193	2,043	1,091	1,584	1,632	5,092	8,161	1,197
7,012	684	847	873	5,125	4,360	5,722	6,475	11,363	20,615	2,783
2,824	969	1,323	1,269	2,223	3,892	5,427	5,583	15,820	47,044	4,552
3,492	432	456	477	956	1,548	1,977	1,955	4,577	18,197	1,389
2,103	71	84	62	835	429	781	718	3,044	4,213	381
7,544	843	1,098	1,157	2,901	2,933	3,841	3,568	9,472	70,918	3,151
6,034	631	712	811	1,900	2,247	2,543	2,374	7,175	24,571	2,580
4,563	216	298	276	565	720	2,186	2,623	7,711	9,955	1,434
8,161	192	240	266	3,944	1,890	3,008	3,084	13,101	6,503	2,525
101,291	7,283	9,122	9,650	33,414	32,634	47,224	50,021	141,676	351,334	36,931

NOTE.

The above tables include all the towns, cities and plantations in the State, except the small towns of Deblois and Kossuth, in Washington county, and four small plantations in Aroostook and Somerset counties. The aggregate number of polls in 1880, in these deficient towns and plantations was 199. A few plantations, organized for school and election purposes, are taxed as "wild lands." "Wild lands" are taxed for State and county purposes only, the valuations being fixed by the Valuation Commission. *It is probable* that the Valuation Commission, now in session, will somewhat increase the valuation of "wild lands" over that of 1880. The valuations of these lands must be added to the valuations of the several counties in which they are located. In 1880, these lands were valued at \$7,980,060.

The following is the "Recapitulation" table from the Report of the Valuation Commission, made in 1881.

Counties.	Polls.	Estates.	Wild Lands.	Total.
Androscoggin	10,312	\$20,776,973	-	\$20,776,973
Aroostook	7,734	5,225,834	\$2,339,098	7,564,932
Cumberland	21,539	51,530,510	-	51,530,510
Franklin	4,791	5,812,866	340,746	6,153,612
Hancock	9,560	7,897,488	377,478	8,274,966
Kennebec	13,252	23,292,164	-	23,292,164
Knox	9,087	10,878,736	-	10,878,736
Lincoln	6,750	6,634,693	-	6,634,693
Oxford	8,810	9,791,306	267,248	10,058,554
Penobscot	17,407	20,753,838	654,313	21,408,151
Piscataquis	3,622	3,342,236	1,913,510	5,255,746
Sagadahoc	5,182	10,297,215	-	10,297,215
Somerset	8,698	10,649,895	1,478,983	12,128,878
Waldo	8,563	9,577,834	-	9,577,834
Washington	9,758	9,145,108	576,684	9,721,792
York	15,504	22,423,965	-	22,423,960
Totals	160,569	\$228,030,656	\$7,948,060	\$235,978,716

COMPARISONS AND DEDUCTIONS.

The total number of polls in 1889, reckoning number in the deficient towns and plantations as in 1880, was 163,182; number of polls in 1880 was 160,569; increase in number of polls, 2,613; population in 1880, 648,936; ratio of polls to population in 1880, 1 to 4.041; at the same ratio the present number of polls indicate a population of 659,418, or a gain over the population in 1880 of 10.482.

The following counties show an increase in number of polls: Androscoggin, Aroostook, Cumberland, Hancock, Kennebec, Penobscot, Piscataquis, Washington.

The following counties show a loss in number of polls: Franklin, Knox, Lincoln, Oxford, Sagadahoc, Somerset, Waldo, York.

VALUATION.

Valuation in 1880, exclusive of "wild lands," \$228,030,656; valuation in 1889, as returned by assessors, \$242,039,614; increase over valuation of 1880, \$14,008,958.

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