

# MAINE STATE LEGISLATURE

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# PUBLIC DOCUMENTS OF MAINE

1913

BEING THE

## ANNUAL REPORTS

OF THE VARIOUS

# DEPARTMENTS AND INSTITUTIONS

For the Year 1912

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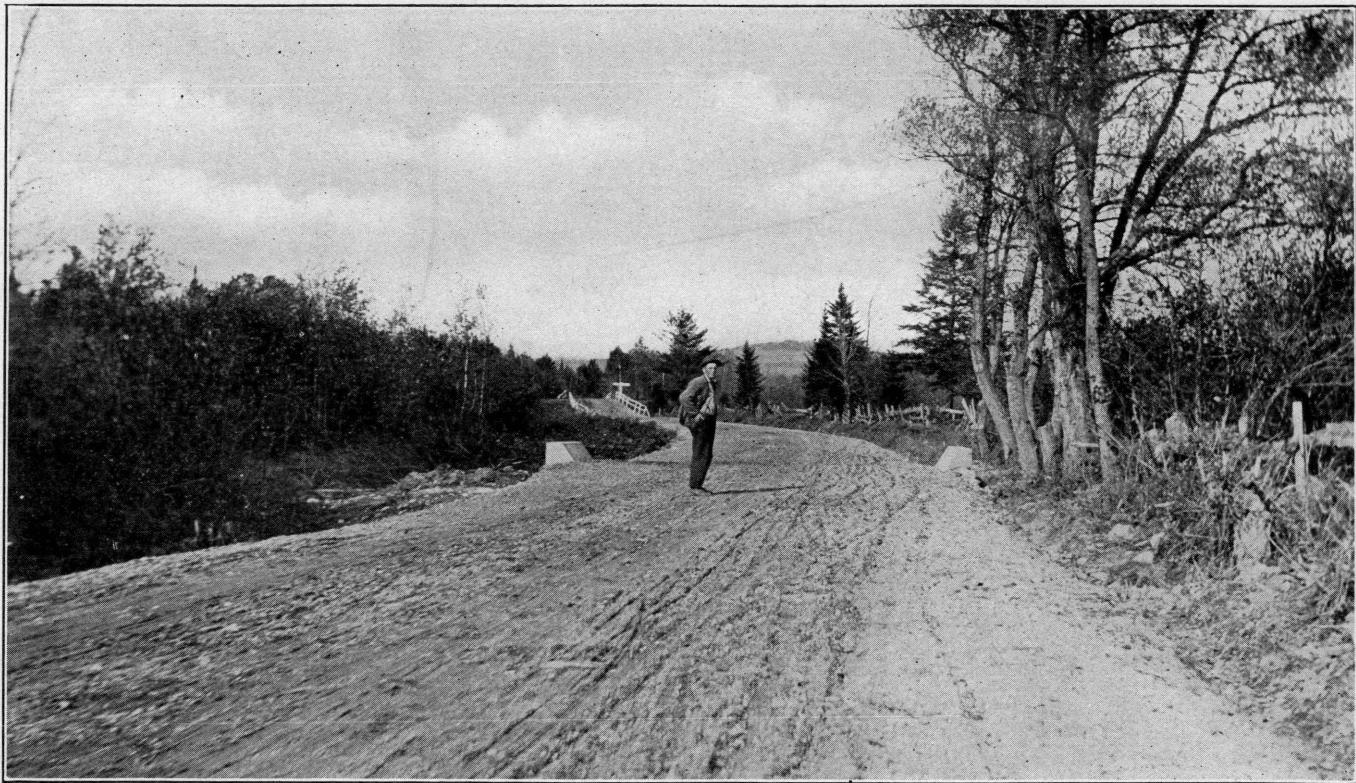
VOLUME II



WATERVILLE

SENTINEL PUBLISHING COMPANY

1914



Brooks. 1913 Section of State Road. Gravel.

EIGHTH ANNUAL REPORT

OF THE

COMMISSIONER OF HIGHWAYS

FOR THE

STATE OF MAINE

FOR THE YEAR

1912



WATERVILLE  
SENTINEL PUBLISHING COMPANY  
1913

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STATE OF MAINE.

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OFFICE OF COMMISSIONER OF HIGHWAYS,

AUGUSTA, FEB. 7, 1913.

*To His Excellency, William T. Haines, Governor, and the  
Honorable Council:*

I have the honor to present the eighth annual report of the  
Commissioner of Highways.

Very respectfully,

P. L. HARDISON,

*Commissioner.*

ORGANIZATION OF STATE HIGHWAY  
DEPARTMENT.

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PARKER L. HARDISON, Caribou.....Commissioner  
LUCIUS D. BARROWS, Foxcroft.....Asst. Commissioner  
S. FRANK PIERCE, Windorsorville.....Clerk  
ANNIE P. BIBBER, Augusta.....Stenographer  
LILLIAN W. CHUTE, Augusta.....Stenographer

## REPORT.

During the year 1912 a total expenditure of \$631,027.54 was made on account of state road work. Of this amount the State has furnished aid amounting to \$351,704.07.

The following is an itemized statement showing total costs and state aid paid:

	Cost.	State Aid.
Trunk lines.....	\$51,645 23	\$48,595 23
Kittery-Portland trunk line, maintenance.....	4,782 17	*4,782 17
Rockland-Rockport trunk line, maintenance.....	311 05	†311 05
1912 State roads.....	414,644 51	†199,243 53
1911 State roads completed in 1912.....	11,006 65	5,213 83
Augusta, special appropriation.....	4,247 78	4,247 78
Casco, special appropriation.....	1,233 08	600 00
Phippsburg, special appropriation.....	403 02	403 02
Brunswick, special appropriation.....	4,311 39	4,311 39
Indian Township, special appropriation.....	480 05	480 05
Bridge investigation.....	3,500 00	3,500 00
Inspection of State roads.....	8,123 94	8,123 94
Engineering and incidental expenses.....	888 99	888 99
Scarifier.....	500 00	500 00
Work paid wholly from automobile fund.....	120,874 68	66,428 09
Machinery, paid from automobile fund.....	4,075 00	4,075 00
<b>Totals.....</b>	<b>\$631,027 54</b>	<b>\$351,704 07</b>

\* Includes \$300.00 apportioned to Scarborough and \$2,376.50 apportioned from the automobile fund.

† Includes \$297.55 from the automobile fund.

‡ Includes \$8,435.08 from the automobile fund expended with the regular joint funds.

113.82 miles of 1912 state road and 3.29 miles of uncompleted 1911 state road have been completed. To this should be added 1.09 miles constructed with special appropriations.

The department also repaired 8.65 miles on the Kittery-Portland trunk line and 0.42 miles on the Rockland-Rockport trunk line.

With the money received from the registration and licensing of motor vehicles, 27.66 miles have been practically reconstructed and 25.25 miles repaired.

These figures do not include cases where the automobile apportionments were expended together with the regular joint funds.

A total of 490 applications for state aid was received as follows:

Cities .....	20
Towns .....	411
Organized plantations .....	34
County Commissioners for unincorporated townships...	25
	<hr/>
Total .....	490

Of the above number 17 cities, towns and plantations have been granted permission to allow their joint funds to lay over for expenditure in 1913. In these 17 cities, towns and plantations a total joint fund of \$14,118.40 will be available for expenditure in 1913. Upon satisfactory expenditure of this amount, state aid, which has been apportioned to these communities, amounting to \$7,667.51 will be approved and paid.

In four towns work has not been completed due to unfavorable weather conditions and scarcity of labor during the fall months. To these four towns state aid amounting to \$2,573.76 was apportioned and will be approved for payment after satisfactory completion of the work.

From the above figures it will be seen that state aid amounting to \$10,241.27 stands to the credit of 21 towns that applied for state aid in 1912 and to which no state aid has been paid.

By referring to the "Tabular Statement of State Road Work in 1911" in the 1911 report it will be found that work in Brighton plantation, Harpswell, Morrill and Trenton was not entirely satisfactory, but a part of the state aid was paid and the balance retained until the work was made satisfactory. In every case these towns have spent more than the joint fund and the work has been completed in a satisfactory manner. Of this work state aid amounting to \$304.37 has been paid.

Of the 1911 work 11 towns were paid in 1912, including six towns which completed work this year. State aid in these 11 towns amounting to \$4,531.18 has been paid. In the town of Brunswick the 1911 contract was not completed, but as all work

begun was completed a proportional part of the state aid was paid; the balance of the contract has been completed this year and state aid amounting to \$361.67 has been paid.

One town which laid over the 1912 joint fund expended the 1911 joint fund and one town expended its joint fund on trunk line work, so that a total of 469 towns constructed state roads in 1912.

The following are tabular statements of the 1912 state road work and the 1911 work completed in 1912.

A tabular statement of the work done with the money received from the registration and licensing of motor vehicle will be found in another part of this report.

## SUMMARY OF 1912 STATE ROAD WORK.

No. of towns.	NATURE OF IMPROVEMENT.	Square yards.	Length in feet.	Total cost of work.	1912 aid approved.	Aid from previous years approved.	*Aid approved from automobile fund.	Total aid approved.	Length in miles.	Cost per mile.	Cost per Sq. yard.
†384	††Gravel.....	-	521,891	\$293,648 43	\$137,300 54	\$7,466 48	\$4,775 00	\$149,542 02	98.843	\$2,865 02	-
8	Bituminous Macadam.....	17,235	5,499	22,609 67	6,935 13	800 00	600 00	8,335 13	1.041	21,719 18	\$1.31
22	†††Macadam.....	44,568	19,218	31,950 67	10,863 72	65 94	-	10,929 66	3.640	8,777 66	0.717
42	**Earth and drainage.....	-	46,221	24,670 91	12,113 79	1,237 38	-	13,351 17	8.754	2,818 24	-
6	Concrete pavement.....	21,128.18	7,693.5	31,933 92	8,550 12	1,406 24	3,060 08	13,016 44	1.457	21,817 58	1.51
1	Wood block pave ent.....	1,395.2	450	6,048 74	2,048 74	-	-	2,048 74	0.085	71,161 65	3.95
6	Culverts and bridges.....	-	-	3,782.17	1,220 37	800 00	-	2,020 37	-	-	-
\$469	Totals—actual State road constructed.....	-	600,972.5	\$414,644 51	179,032 41	11,776 04	8,435 08	199,243 53	113.820	-	-
1	State aid paid on trunk line work.....	-	-	-	447 48	19 52	-	467 00	-	-	-
470	Grand totals.....	-	600,972.5	\$414,644 51	\$179,479 89	\$11,795 56	\$8,435 08	\$199,710 53	113.820	-	-

Total number of miles 113.82. Average cost per mile \$3,517.85 (not including culvert and bridge work).

\* Includes only that automobile aid which was expended with the regular joint fund for State road work.

† Includes town of Rumford to which State aid was paid on an estimate of work completed.

†† Includes 12,539 feet of earth road. Costs not separated.

††† Includes 300 feet of gravel road. Cost not separated.

\*\* Includes 1900 feet of sand-clay road. Cost not separated.

§ One town which laid over 1912 joint fund expended the 1911 joint fund so that a total of 469 towns constructed State road during the past year.

‡ Includes a cost of \$10,460.81 for work in the town of Rumford for which no mileage is reported.

SUMMARY OF 1911 STATE ROAD WORK COMPLETED IN 1912.

COMMISSIONER OF HIGHWAYS.

No. of towns.	NATURE OF IMPROVEMENT.	Square yards.	Length in feet.	Total cost of work.	1911 aid approved.	Aid from previous years approved.	Total aid approved.	Length in miles.	Cost per mile.	Cost per Sq. yard.
10	†Gravel.....	-	13,969	\$7,030 56	\$3,282 39	\$36 19	\$3,318 58	2.65	\$2,653 06	-
1	Bituminous Macadam.....	600	360	559 87	361 67	-	361 67	0.07	7,995 57	\$0.93
1	Macadam.....	2,144	1,250	1,468 41	562 00	-	562 00	0.24	6,118 37	0.67
2	Earth and drainage.....	-	1,743	1,932 98	917 21	-	917 21	0.33	5,857 52	-
2	Culverts.....	-	-	14 73	54 37	-	54 37	-	-	-
16	Totals.....	-	17,322	\$11,006 65	\$5,177 64	\$36 19	\$5,213 83	3.29	-	-

† Length includes 1,300 feet of earth road. Cost not separated.



## FINANCIAL STATEMENT.

## STATEMENT OF UNAPPORTIONED BALANCE FROM YEARS PREVIOUS TO 1912.

Unapportioned balance, January 15, 1912.....	\$116,279 18
Unexpended balances transferred from previous apportionments.....	18,889 16
Over-apportionment to town of Burnham.....	100 0)
Net unapportioned balance for 1912, from previous years.....	\$135,268 4

## AMOUNTS PAID AND APPORTIONMENTS MADE FROM ABOVE BALANCE.

Trunk line apportionments.....	\$50,500 00	-
Apportioned to town of Casco.....	600 00	-
Apportioned to city of Augusta.....	4,247 78	-
Apportioned to town of Phippsburg.....	2,000 00	-
Apportioned to town of Eden.....	3,000 00	-
Apportioned to town of Brunswick.....	5,000 00	-
Apportioned for trunk line maintenance.....	2,200 00	-
Apportioned for bridge investigation.....	3,500 00	-
Apportioned to Indian Township.....	480 05	-
Apportioned for scarifier.....	500 00	-
Inspection of State roads, paid.....	8,123 94	-
Trunk line survey, Kennebunk-Biddeford, paid.....	115 42	-
Trunk line survey, Kennebunkport, paid.....	161 43	-
Trunk line survey, Saco-Portland, paid.....	412 54	-
Trunk line survey, Kittery-York, paid.....	184 55	-
Engineering, town of Belgrade, paid.....	36 48	-
Trucking, paid.....	1 00	-
John W. Gulliver, 1911, So. Portland, maintenance account, paid.....	131 75	-
Advertising, paid.....	7 25	\$81,202 19
Unapportioned balance, January 15, 1913, from years previous to 1912.....	-	\$54,066 15
Unapportioned balance from 1912 appropriation (see below)	-	54,836 00
Total unapportioned balance, January 15, 1913.....	-	\$108,902 15

COMMISSIONER OF HIGHWAYS.

STATEMENT OF EXPENDITURES OF ABOVE APPORTIONMENTS.

	App't.	Paid.	Unexpended.
Trunk line apportionments.....	\$50,500 00	\$47,966 80	\$2,533 20
Casco.....	600 00	600 00	-
Augusta.....	4,247 78	4,247 78	-
Phippsburg.....	2,000 00	403 02	1,596 98
Eden.....	3,000 00	-	3,000 00
Brunswick.....	5,000 00	4,311 39	688 61
Trunk line maintenance.....	2,200 00	2,119 17	80 83
Bridge investigation.....	3,500 00	3,500 00	-
Indian Township.....	480 05	480 05	-
Scarifier.....	500 00	500 00	-
Paid without council orders.....	9,174 36	9,174 36	-
Totals.....	\$81,202 19	\$73,302 57	\$7,899 62
Unapportioned balance.....	-	-	54,066 15
Unexpended balance apportioned and unapportioned.....	-	-	\$61,965 77

STATEMENT OF STATE ROAD APPORTIONMENTS PREVIOUS TO 1912.

Unexpended balance, January 1, 1912.....	-	\$20,527 38
Paid on 1911 work, not reported in 1911.....	\$5,213 83	-
Paid on 1912 work.....	11,795 56	17,009 39
Unexpended balance carried over to 1913.....	-	\$3,517 99

STATEMENT OF 1912 APPROPRIATION.

Appropriation.....	-	\$250,000 00
State aid apportioned and paid.....	\$179,479 89	-
Apportioned and unpaid.....	15,684 11	-
Total apportionment.....	-	195,164 00
Unapportioned balance of 1912 appropriation.....	-	\$54,836 00
Apportioned and unpaid.....	-	15,684 11
Unexpended balance of 1912 appropriation.....	-	\$70,520 11

TOTAL AMOUNT UNEXPENDED JANUARY 15, 1913.

Unexpended balance of appropriations previous to 1912.....	\$65,483 76
Unexpended balance of 1912 appropriation.....	70,520 11
Total unexpended balance apportioned and unapportioned.....	\$136,003 87

## SUMMARY OF EXPENDITURES.

AMOUNT RECEIVED FROM THE REGISTRATION AND LICENSING OF MOTOR VEHICLES.

Total amount received by Secretary of State.....	-	\$102,801 25
Paid for plates and office expenses.....	-	4,488 07
Amount transferred to credit of State Highway Dep't.	-	\$98,313 18
Apportioned to towns.....	\$89,163 57	-
Apportioned for maintenance, Kittery-Portland trunk line	2,376 50	-
Apportioned for maintenance, Rockland-Rockport trunk line	350 00	-
Apportioned for machinery.....	4,075 00	95,965 07
Unapportioned balance.....	-	\$2,348 11

## ITEMIZED STATEMENT OF ABOVE SUMMARY.

	Apportioned.	Expended.	Unexpended.
Towns.....	\$89,163 57	\$75,163 17	\$14,000 40
Kittery-Portland trunk line.....	2,376 50	2,376 50	-
Rockland-Rockport trunk line.....	350 00	297 55	52 45
Machinery.....	4,075 00	4,075 00	-
Totals.....	\$95,965 07	\$81,912 22	\$14,052 85

## TRUNK LINE WORK.

The trunk line work was confined to the Kittery-Portland road and contracts were let in five sections and detailed reports will be found elsewhere.

The first section, beginning on the easterly end, is in Kennebunkport and under the bids received it will be observed that the State furnishes the culverts and bitumen and under our proposal for bituminous macadam construction the additional bitumen would increase the cost of that class of construction on this job to \$17,657.10, as against \$19,745.87 for concrete.

In view of all the conditions after receiving an unfavorable report on the analysis of the only gravel which appeared to be available, the concrete construction was selected. Accordingly three of the other jobs were let on the bids for concrete. The fifth, at York Harbor, is a bituminous macadam job.

The scarcity of suitable gravel brought the bids beyond consideration for that class of construction. On the Wells section No. 1, comprising 13,300 lineal feet, the contract was let to the Shawmut Contracting Company for concrete construction for \$31,490.00. The bituminous macadam, at \$28,606.00, as per bid received, plus the additional bitumen required, would make the latter construction cost \$32,152.75.

It will be seen that there was some inequality in the bids for under ordinary conditions we would expect a better figure on the bituminous work.

The heavy auto travel during the summer season from Kittery to the various summer resorts along the coast to Portland makes it difficult to maintain a gravel road even under the most favorable conditions, without some form of binder.

The result of oil on gravel is only a temporary expedient and under heavy auto trucks and excessive auto travel will require constant attention.

The sections of the trunk line now under contract will undoubtedly be completed in season for the summer travel.

Plans will be completed and new work should be advertised early in the spring.

As previously mentioned the State purchased a steam roller and other outfit suitable for making repairs and this was employed in re-shaping and surfacing gravel sections in Kittery,

York and South Portland. These sections were in such condition that immediate repairs seemed imperative. A good surface was obtained, particularly in South Portland, but under the heavy traffic over that section, between Vaughan's bridge and Cash's Corner, it cannot be expected to be of a permanent nature, but gave very satisfactory results during the latter part of the summer and early fall. On the Kittery end of the gravel maintenance of the work the material was of inferior quality and no special binder was used; consequently, the surface pitted somewhat under the heavy travel, which will necessitate attention in the spring.

#### MEETINGS.

The usual county meetings were held in April, two in Aroostook county, making seventeen. The state highway commissioner also participated in the following meetings: One under the auspices of the Maine Automobile Association at Portland, February 20 and one at Rockland under the auspices of the Board of Trade; Farmers' Week at University of Maine, Orono, March 7; Kennebunk and Kennebunkport, and the Rural Mail Carriers' Annual Meeting at Bangor.

Such meetings are usually productive of good results as they afford all interested in road propositions to take part in the discussions. Your commissioner was also appointed a delegate by the Governor to attend the American Road Builders' Association at Cincinnati on December 3, 4, 5 and 6. About 1300 were registered during the four days' session representing a large majority of the states.

Discussions were held pertaining to all of the various phases of road construction.

#### RECOMMENDATIONS.

In view of the probable issuance of \$2,000,000.00 in bonds by the State for road construction it would appear to be a good business policy on the part of the State to procure machinery and equipment for road building as there are many sections of road where this system would work to advantage. This has been demonstrated the past season in the expenditure of our

automobile fund. The character of the work in many cases was such that it would not attract contractors.

With the consent of the Governor and Council a steam roller and other equipment was purchased. While this is merely a beginning in State ownership of road machinery it demonstrated the practicability of the proposition. Undoubtedly large jobs can be let to contractors more economically than the State can handle the work; depending upon the character of the work.

The taking of land and material for road construction will undoubtedly be provided for by the present Legislature, and it is to be hoped that authority will be extended for the maintenance of our roads through the highway department under the patrol system.

I would also recommend that work be done in locating and ascertaining the availability of road materials; some information was obtained the past season through the state road inspectors and analyses of the materials were made at the Office of Public Roads, Washington, and the reports placed on file for reference in the highway department.

#### PAYMENT OF BILLS.

Provision should be made for the payment of emergency bills at shorter periods than at present.

Under our present system individuals are from necessity obliged to assume bills which cannot consistently be deferred; this applies more particularly to payments for labor than to any other branch of our expenditures. If this matter could be corrected much better and more satisfactory results would be obtained in the employment of labor.

#### SURVEYS.

Surveys were completed in full the past season of the various sections which had been omitted on the trunk line between Kittery and Portland, so that data is in the office for the development of plans in view of extending the work.

The office work should be done in the winter season so that bids may be asked for early in the spring. If work is to be carried on in the various counties under the proposed bond issue surveys and plans should be carefully made and ample time

taken for the consideration of the various phases of the proposed work which would undoubtedly result in economy in the end.

#### MAINTENANCE.

Attention has been previously called to the necessity of the maintenance of the state roads, which under the present conditions receive but little attention after construction.

Legislation should be enacted so that the matter could be handled by the highway department. The adoption of the patrol system for the maintenance of the trunk line is recommended.

#### CHANGES OF LOCATION.

During the year of 1912 there have been received at the State Highway Department fourteen petitions for change of location of state road.

Eight of the fourteen petitions were granted; two of the hearings were cancelled; two were received too late in the season to be heard; one did not carry a majority of the voters and one was not granted.

*City of Auburn.* Former location of the state road in the city of Auburn was as follows:

"Road commencing at Turner line on river road via Turner street to Court street, to Minot avenue to Washington street, to Danville Junction."

The above designation was made by the County Commissioners of Androscoggin County on the eleventh day of August, 1908.

On the seventeenth day of July, 1912, the department received a petition to change the designation of the state road to the following designations:

"Road beginning at the junction of the Ricker Road, so-called, with the old road from Auburn to Danville Junction, near the Maine Central Railroad crossing, northerly of Danville Junction; thence southerly by said Ricker Road to the railroad stations at Danville Junction," also:

"Road beginning at the junction of Center street and the North River road; thence northerly by Center street to the vil-

lage of East Auburn; thence easterly by the Pettengill Road, so-called, to the North River road."

This petition was signed by the Mayor and a majority of the municipal officers.

The notices calling a hearing on this petition were issued on the nineteenth day of July, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, C. E. Williams, Mayor of the city of Auburn and Levi T. Williams, a County Commissioner from Kennebec County, met at the office of the Mayor, City Building, at one-thirty P. M., Saturday, July 27, 1912.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the Board constituted as above mentioned, decreed that the road as petitioned for should be designated as the state road.

*City of Bath.* Former location of the state road in the city of Bath was as follows:

"Road running through said city from Winnegance bridge, so-called, via High street to Center street; thence via Center street to Lincoln street; thence via Lincoln street to the Brunswick road, so-called; thence by said Brunswick road to the Cumberland County line."

The above designation was made by the County Commissioners of Sagadahoc county, upon the seventh day of November, 1905.

On the third day of May, 1912, the department received a petition to change the designation of the state road to the following designation:

"Beginning at the intersection of said Lincoln and North streets, thence along said North street to Ferry street, so-called; thence along said Ferry street to the People's Ferry."

This petition was signed by the Mayor and a majority of the municipal officers.

The notices calling a hearing on this petition were issued on the twenty-fourth day of May, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, Frank A. Small, Mayor of the city of Bath and Levi T. Williams, a County Commissioner from Kennebec County, met at the office of the Mayor at one-



thirty, P. M., on Saturday, June first, 1912, and immediately adjourned to the Court House.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the Board constituted as above mentioned, decreed that the road as petitioned for should be designated as the state road.

*Town of Bremen.* Former location of state road in the town of Bremen was as follows:

"Road leading from town line between the towns of Bristol and Bremen to Waldoboro town line, the same being the stage road and known as the River Road."

The above designation was made by the County Commissioners of Lincoln County upon the twenty-first day of June, 1904.

On the twenty-ninth day of April, 1912, the department received a petition to change the designation of the state road to the following designation:

"The road beginning at highway at Aumah Weston's corner; thence running south by the west side of Muscongus Pond to the bridge, being the dividing line between Bremen and Bristol."

This petition was signed by Charles E. Poole and eighty-two others, legal voters in the town of Bremen.

The notices calling a hearing on this petition were issued on the ninth day of July, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, W. L. Hilton, chairman of the municipal officers of the town of Bremen and C. H. Mason, a County Commissioner from the County of Sagadahoc, met in the town hall, in the town of Bremen, Maine, at one-thirty P. M., on Wednesday, July 17, 1912.

After a full hearing of the parties interested, and the witnesses upon the one side and the other, the Board constituted as above mentioned, decreed that the road as petitioned for should be designated as the state road.

*City of Gardiner.* Former location of the state road in the city of Gardiner was as follows:

"Road beginning on Cobbossee avenue, so-called, at the West Gardiner town line; thence via Cobbossee avenue, Central street, Water street and the River Road, to the Richmond town line."

The above designation was made by the County Commissioners of Kennebec County on the twentieth day of May, 1908.

On the seventh day of August, 1912, the department received a petition to change the designation of the state road to the following designation:

"Road beginning in Depot Square and running north to Farmingdale line, it being the main traveled road from Bangor to Portland."

This petition was signed by the Mayor and a majority of the municipal officers.

The notices calling a hearing on this petition were issued on the eighth day of August, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, B. E. Lamb, Mayor of the city of Gardiner, and W. W. Farrar, a County Commissioner from Androscoggin County, met at the office of the Mayor, Gardiner, Maine, at eleven A. M., Saturday, August 17, 1912.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the Board constituted as above mentioned, decreed that the road as petitioned for should be designated as the state road.

*Town of Harmony.* Former location of state road in the town of Harmony was as follows:

"Road commencing at the south line of Wellington on the road next west of Higgins' stream; thence southeasterly across said stream to the junction of the Cambridge road, thence southerly and westerly over the direct road to Skowhegan to the Athens line."

The above designation was made by the County Commissioners of Somerset County on the third day of June, 1902.

On the eighth day of May, 1912, the department received a petition to change the designation of the state road to the following designation:

"Road beginning at location of state road at north line of the town of Harmony; thence on location of state road to Harmony village; thence westerly on road leading to Athens via Higgins' bridge at Harmony village, and village church, to Athens town line."

This petition was signed by the three municipal officers of the town of Harmony and ninety-seven others, legal voters in the town of Harmony.

The notices calling a hearing on this petition were issued on the twenty-fourth day of May, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, W. E. Marble, chairman of the municipal officers and Peter Harmon, a County Commissioner from the County of Waldo, met at the town hall, in the town of Harmony, Maine, at one o'clock, P. M., on Monday, June 3, 1912.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the Board constituted as above mentioned, decreed that the road as petitioned for should be designated as the state road.

*Town of Montville.* Former location of state road in the town of Montville was as follows:

"Road leading from Morrill by Center Montville to South Freedom."

The above designation was made by the County Commissioners of Waldo County upon the twenty-ninth day of April, 1902.

On the twenty-ninth day of April, 1912, the department received a petition to change the designation of the state road to the following designation:

"Road beginning at the state road, as now located, near Volney Thompson's carriage shop; thence by the new county road, so-called, via Poland's Corner, Monroe's Corner and past C. M. Plummer's store to the Freedom town line, near the house of Arthur Watts."

This petition was signed by F. A. Myrick and one hundred thirty-four others, legal voters in the town of Montville.

The notices calling a hearing on this petition were issued on the thirty-first day of May, 1912.

The Board constituted to hear these petitioners, viz.: The State Commissioner of Highways, D. B. Plummer, chairman of the municipal officers of the town of Montville and Orin E. Libby, a County Commissioner from Somerset County, met at the town hall, Montville, Maine, at one o'clock, P. M., Saturday, June 8, 1912.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the Board constituted as above mentioned decreed that the road as petitioned for should be designated as the state road.

*Town of North Yarmouth.* Former location of state road in town of North Yarmouth was as follows:

"Road beginning at Gray line, near the residence of Charles Lane; thence over the Portland road to Cumberland line, near the late Seward Prince place."

The above designation was made upon the twenty-second day of May, 1906, by the County Commissioners of Cumberland County.

On the tenth day of June, 1912, the department received a petition to change the designation of the state road to the following designation:

"Road beginning at Cumberland line, following the state road as now designated, to a point between the residence of C. D. Loring and C. H. Mitchell, from there following the county or Hallowell road, so-called, past the Maine Central and Grand Trunk railroad stations, also past the Crockett's Corner cemetery, so-called, to the Pownal line, near the residence of one Charles S. Collie."

This petition was signed by C. R. Loring and one hundred and twenty-four others, legal voters in the town of North Yarmouth.

The notices calling a hearing on this petition were issued on the ninth day of July, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, J. L. Lowe, chairman of the municipal officers of the town of North Yarmouth and W. W. Farrar, a county commissioner from Androscoggin County, met in the town hall in the town of North Yarmouth, Maine, at one-thirty P. M., Tuesday, July 16, 1912.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the Board constituted as above mentioned decreed that the road as petitioned for should be designated at the state road.

*Town of Unity.* Former location of the state road in the town of Unity was as follows:

"Beginning on the north line of Albion on the old Augusta stage road; thence northerly to Unity village by the railroad station and across the new county road and by the J. L. Ames place to Troy line."

The above designation was made by the county commissioners of Waldo County, upon the twenty-ninth day of April, 1904.

On the twenty-third day of April, 1912, the department received a petition to change the location of the state road to the following designation:

“Road beginning on the westerly line of said town of Unity at the line of Unity plantation; thence easterly on the public highway to Unity village, in said town of Unity; thence southerly on the public highway to Sandy Stream bridge; thence easterly on the public highway to Jones’ Corner, so-called, in said Unity; thence easterly on the public highway to the town line of the town of Thorndike in said county of Waldo.”

This petition was signed by James Libby and one hundred fifty-four others, legal voters in the town of Unity.

The notices calling a hearing on this petition were issued the eleventh day of May, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, E. T. Reynolds, chairman of the municipal officers of Unity and Levi T. Williams, a county commissioner from the county of Kennebec, met at Adams Hall, Unity, Maine, at one P. M., on Monday, May 20, 1912.

After a full hearing of the parties interested, and the witnesses upon the one side and the other, the Board constituted as above mentioned, decreed that the road as originally designated should be designated as the state road.

*Town of West Gardiner.* Former location of the state road in the town of West Gardiner was as follows:

“The road leading from Gardiner city past Merrill’s Corner; thence past Spear’s Corner and ending at Litchfield town line at Potter’s bridge, so-called.”

The above designation was made by the county commissioners of Kennebec County on the seventh day of May, 1903.

On the twenty-seventh day of April, 1912, the department received a petition to change the designation of the state road to the following designation:

“Road beginning at Gardiner line and running to Litchfield line and generally known as High street.”

The petition was signed by Frank E. Towle, and one hundred and sixteen others, legal voters in the town of West Gardiner.

The notices calling a hearing on this petition were issued on the fourteenth day of May, 1912.

The Board constituted to hear these petitioners, viz: The State Commissioner of Highways, W. E. Fuller, chairman of the municipal officers of the town of West Gardiner, and W. W. Farrar, a county commissioner from Androscoggin County, met at the town hall, West Gardiner, Maine, at one o'clock, Wednesday, May twenty-second, 1912.

After a full hearing of the parties interested and the witnesses upon the one side and the other, the said Board constituted as above mentioned, deferred decision and went into executive session at 4.15 P. M., Friday, June 28, 1912, at which time it was decreed that the road as petitioned for should be designated at the state road.

## CONTRACTS.

### BANGOR.

Contract No. 40. Contractor, city of Bangor; work sub-let to John F. Grady and Sons; P. H. Coombs, engineer; nature of improvement, grading and wood block pavement; area, 1395.19 square yards; cost per square yard, \$3.95; work began October 7; completed November 9.

The section of state road improved is located on State street between Pine and Grove streets.

Quantities and unit prices estimated by the department: .

400 feet of grading, lump sum, \$400.00.

1400 square yards of wood block paving @ \$3.59.

311 square yards of block paved gutters @ \$1.74.

Lump sum amount of contract..... \$6,325 00

Details and cost items compiled from certificates of municipal officers:

Length 450 feet; width 52 to 54 feet.

Grading ..... \$498 30

Wood block paving, 1395.19 square yards..... 5,008 73

Block paved gutters, 311.33 square yards..... 541 71

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Total cost of work..... \$6,048 74

Amount appropriated by city ..... \$4,000 00

State aid apportioned, section 6..... 2,325 00

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Joint fund ..... \$6,325 00

Net cost of work..... \$6,048 74

Cost to city..... 4,000 00

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State aid approved..... \$2,048 74

Unexpended balance available for expenditure in  
1913 ..... \$276 26

BATH.

Contract No. 58. Contractor, city of Bath; Oscar F. Williams, street commissioner; Stephen Litchfield, engineer; nature of improvement, grading and macadam surface; area, 1416 square yards; cost per square yard, \$1.56; work began September 27; completed November 9.

The section of state road improved begins at the end of the 1911 work and extends northerly 850 feet.

Quantities and unit prices estimated by the department:

850 lineal feet of road graded @ \$.94.

1416 square yards of macadam surface with a surface treatment of bituminous material @ \$.98.

40 lineal feet of 18-inch vitrified tile pipe with concrete end-walls, \$75.00.

Lump sum amount of contract..... \$2,275 00

Details and cost items compiled from certificates of municipal officers:

Length 850 feet; width 25 feet.

Macadam surface (surface treatment not applied)

15 feet wide, including grading..... \$2,161 93

Vitrified tile culvert, 18 inches x 43 1-2 feet..... 58 25

Engineering ..... 46 70

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Total cost of work..... \$2,266 88

Amount appropriated by city..... \$1,300 00

State aid apportioned, section 6..... 975 00

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Joint fund ..... \$2,275 00

City's part of joint fund..... \$1,300 00

Retained for completion of work..... 107 24      1,407 24

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State aid approved ..... \$867 76

Unexpended balance of state aid..... \$107 24

This amount will be paid when the work is completed.

BERWICK.

Contract No. 41. Contractor, town of Berwick; Edgar Wentworth, chairman, board of selectmen; W. A. Grover, engineer; nature of improvement, grading, drainage and ma-



cadam surface; area, 1713 square yards; cost per square yard, \$0.56; work began September 3, completed October 31.

The section of state road improved begins at the end of the 1911 work and extends easterly.

Quantities and unit prices estimated by the department:

1000 lineal feet of road graded @ \$0.10.

1333 square yards of macadam surface @ \$0.63.

Repairs on old culverts, \$20.00.

40 lineal feet of 12-inch metal culvert @ \$1.00.

Lump sum amount of contract. . . . . \$1,025 04

Details and cost items compiled from certificates of municipal officers:

Length 1285 feet; width 21 to 23 feet.

Grading . . . . .	\$157 25
Macadam surface . . . . .	793 62
80 lineal feet of wood guard rail. . . . .	19 44
Cobble gutter, 25 feet x 5 feet. . . . .	4 50
40 lineal feet of 12-inch metal culvert. . . . .	29 56
Repairing stone culvert . . . . .	4 50
Engineering . . . . .	16 20

Total cost of work. . . . .	\$1,025 07
Amount appropriated by town. . . . .	\$500 00
State aid apportioned under section 6. . . . .	460 00
Unexpended balance from 1911. . . . .	65 04

Joint fund . . . . .	\$1,025 04
Additional amount furnished by town. . . . .	03

Net cost of work. . . . .	\$1,025 07
Cost to town . . . . .	500 03

State aid approved. . . . .	\$525 04
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#### BIDDEFORD.

Contract No. 38. Contractor, city of Biddeford; contract for surfacing sub-let to the Hassam Paving Company; W. T. Allen, engineer; nature of improvement, grading, drainage and concrete pavement surfaced with bitumen; area, 2006.33 square

yards; cost per square yard \$1.31; work began September 23; completed October 23.

The section of state road improved begins at station 0+00 and extends southwesterly.

Quantities and unit prices estimated by the department:

860 lineal feet of road graded.	
2006 square yards of concrete pavement surfaced with bitumen, including grading @ \$1.30.	
Lump sum amount of contract.....	\$2,625 00
Details and cost items compiled from certificates of municipal officers:	
Length 860.5 feet; width 21 feet.	
2006.33 square yards of concrete pavement.....	\$2,608 23
Other work .....	1 70
Engineering .....	30 70
	<hr/>
Total cost of work.....	\$2,640 63
Amount appropriated by city.....	\$1,500 00
State aid apportioned under section 6.....	1,125 00
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Joint fund .....	\$2,625 00
Additional amount furnished by city.....	15 63
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Net cost of work.....	\$2,640 63
Cost to town.....	1,515 63
	<hr/>
State aid approved .....	\$1,125 00

BINGHAM.

Contract No. 4. Contractor, town of Bingham; E. R. Taylor, in charge of work; E. E. Greenwood, engineer; nature of improvement, grading, drainage and gravel surface; area, 3035 square yards; cost per square yard, \$0.789; work began June 4; completed July 27.

The section of road improved begins at the M. C. R. R. tracks and extends northerly.

Quantities and unit prices estimated by the department:

3333 square yards of gravel surface including grading @ \$0.13.
1950 lineal feet of 15-inch vitrified tile pipe in place @ \$0.60.
252 lineal feet of 6-inch vitrified tile pipe in place @ \$0.30.

14 catch basins @ \$30.00.	
6 manholes @ \$40.00.	
Lump sum amount of contract .....	\$2,400 00
Details and cost items compiled from certificate of municipal officers:	
Length 1100 feet; width 38 feet.	
Grading .....	\$132 80
2000 lineal feet of 15-inch vitrified tile pipe in place, 14 catch basins and 6 manholes.....	2,013 44
Gravel surface, 1100 feet x 25 feet.....	230 05
Engineering .....	34 25
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Total cost of work .....	\$2,410 54
Appropriated by town in 1910.....	\$400 00
State aid apportioned in 1910.....	400 00
Appropriated by town in 1911.....	400 00
State aid apportioned in 1911.....	400 00
Appropriated by town in 1912.....	400 00
State aid apportioned in 1912.....	400 00
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Total joint fund for 1912.....	\$2,400 00
Additional amount furnished by town.....	10 54
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Net cost of work.....	\$2,410 54
Cost to town .....	1,210 54
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State aid approved .....	\$1,200 00

#### BREWER.

Contract No. 30. Contractor, city of Brewer; F. B. Fickett, in charge of work; R. E. Mullaney, engineer; nature of improvement, grading and macadam surface; area, 2868 square yards; cost per square yard, \$0.56; dates of beginning and completion not given.

The section of state road improved begins at the end of the 1911 work and extends southerly along Main street.

Quantities and unit prices estimated by the department:

800 lineal feet of road graded @ \$0.10.

1867 square yards of macadam surface @ \$0.66.

1 catch basin @ \$30.00.

Repairing stone culvert, 24 inches x 24 inches, \$25.00.	
Lump sum amount of contract.....	\$1,400 00
Details and cost items compiled from certificates of municipal officers:	
Length 890 feet; width 40 feet.	
Grading .....	\$355 74
Macadam surface, 890 feet x 29 feet.....	1,209 15
Engineering .....	62 00
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Total cost of work.....	\$1,626 89
Amount appropriated by city.....	\$800 00
State aid apportioned, section 6.....	600 00
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Joint fund .....	\$1,400 00
Additional amount furnished by town.....	226 89
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Net cost of work.....	\$1,626 89
Cost to city.....	1,026 89
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Amount of state aid approved.....	\$600 00

BRIDGTON.

Contract No. 18. Contractor, town of Bridgton; Edwin T. Murch, in charge of work; D. Eugene Chaplin, engineer; nature of improvement, grading, drainage and earth surface; area, 5833 square yards; cost per square yard, \$0.169; work began July 25; completed September 25.

The section of state road improved begins at station 25+00, 1912 plan, and extends toward Naples 2500 feet.

Quantities and unit prices estimated by the department:

Length, 2000 lineal feet.	
4666 square yards of earth road graded and surfaced @ \$0.22.	
26 lineal feet of cement stone masonry culvert @ \$2.00.	
Lump sum amount of contract.....	\$1,138 00
Details and cost items compiled from certificates of municipal officers:	
Grading .....	\$529 05
Surfacing .....	341 91
130 feet of iron guard rail.....	45 00

150 feet of stone base .....	100 00
1 cement-stone masonry culvert, 24 inches x 36 inches x 23 feet.....	
1 cement-stone masonry culvert, 24 inches x 24 inches x 23 feet.....	150 00
1 cement-stone masonry culvert, 18 inches x 18 inches x 23 feet.....	
Engineering .....	16 50
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Total cost of work.....	\$1,182 46
Amount appropriated by town, section 4.....	\$650 00
State aid apportioned under section 6.....	488 00
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Joint fund .....	\$1,138 00
Additional amount furnished by town.....	44 46
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Net cost of work.....	\$1,182 46
Cost to town.....	694 46
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State aid approved .....	\$488 00

## BRUNSWICK.

1911 work completed in 1912.

Contract No. 29. Contractor, town of Brunswick; Thomas E. Dolan, road commissioner; Stephen Litchfield, engineer; nature of improvement, grading, drainage and bituminous macadam surface; area, 600 square yards; cost per square yard, \$0.93; work began August 3; completed August 31.

Details and cost items compiled from certificates of municipal officers:

Length 360 feet; width 21 feet.

Grading .....	\$75 00
Bituminous macadam surface 360 feet x 15 feet...	484 97
	<hr/>
Total cost of work.....	\$559 97
Unexpended balance of state aid from 1911.....	\$361 67
Additional amount furnished by town.....	198 30
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Net cost of work.....	\$559 97
Cost to town.....	198 30

Amount of state aid approved..... \$361 67

For other details of this contract see page 33, 1911 report.

BRUNSWICK.

Contract No. 34. Contractor, town of Brunswick; Thomas E. Dolan, road commissioner; Stephen Litchfield, engineer; nature of improvement, grading, drainage and bituminous macadam surface; area, 1583 square yards; cost per square yard, \$1.08; work began August 31; completed October 12.

The section of state road improved begins at the end of the 1911 work and extends easterly.

Quantities and unit prices estimated by the department:

950 lineal feet of road graded @ \$0.10.

1583 square yards of bituminous macadam surface @ \$1.00.

2 leeching basins @ \$20.00.

Lump sum amount of contract..... \$1,750 00

Details and cost items compiled from certificates of municipal officers:

Length 950 feet; width 25 feet.

Grading .....	\$200 50
Bituminous macadam surface, 950 feet x 15 feet..	1,485 31
Vitrified tile culvert, 16 inches x 40 feet.....	43 50
Engineering .....	35 10

Total cost of work .....	\$1,764 41
Amount appropriated by town.....	\$1,000 00
State aid approved under section 6.....	750 00

Joint fund .....	\$1,750 00
Additional amount furnished by town.....	14 41

Net cost of work.....	\$1,764 41
Cost to town.....	1,014 41

State aid approved ..... \$750 00

## BUXTON.

Contract No. 51. Contractor, town of Buxton; F. W. Smith, in charge of work; R. Libby, engineer; nature of improvement, grading, drainage and gravel surface; area, 2042 square yards; cost per square yard, \$0.53; work began September 28; completed November 8.

The section of state road improved begins at the northerly line of Depot street and extends northwesterly.

Quantities and unit prices estimated by the department:

1200 lineal feet of road graded @ \$0.25.

2000 square yards of gravel surface @ \$0.24.

500 lineal feet of stone base @ \$0.40.

Extending stone culvert, 24 inches x 18 inches. . . . \$10 00

Lump sum amount of contract. . . . . \$1,010 00

Details and cost items compiled from certificates of municipal officers:

Length 1225 feet; width 23 feet.

Cleaning right of way. . . . . \$1 75

Grading . . . . . 150 00

Stone base, 300 feet x 12 feet x 8 inches and 300 feet x 15 feet x 8 inches. . . . . 240 00

Earth surface 1225 feet x 23 feet x 11 inches. . . . . 393 06

Gravel surface, 1225 feet x 15 feet x 6 inches. . . . . 250 00

Concrete masonry culvert, 24 inches x 18 inches x 8 feet . . . . . 15 00

Engineering . . . . . 12 50

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Total cost of work. . . . . \$1,087 31

Amount appropriated by town. . . . . \$550 00

State aid apportioned, section 6. . . . . 460 00

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Joint fund . . . . . \$1,010 00

Additional amount furnished by town. . . . . 77 31

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Net cost of work . . . . . \$1,087 31

Cost to town. . . . . 627 31

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State aid approved . . . . . \$460 00

CALAIS.

Contract No. 37. Contractor, city of Calais; work in charge of A. P. Gardner; C. F. Pray, engineer; nature of improvement, grading, drainage and macadam surface; area, 4089 square yards; cost per square yard, \$0.40; work began September 10; completed October 8.

The section of state road improved begins at station 65+00 on 1912 plan, about two miles from the Baring town line and extends northerly.

Quantities and unit prices estimated by the department:  
 1600 lineal feet of road graded @ \$0.10.

3733 square yards of macadam surface @ \$0.37.

Lump sum amount of contract..... \$1,575 00

Details and cost items compiled from certificates of municipal officers:

Length 1600 feet; width 26 feet.

Grading .....	\$241 00
Macadam surface, 1600 ft. x 23 feet.....	1,322 91
Engineering .....	51 50

Total cost of work..... \$1,615 41

Amount appropriated by city..... \$900 00

State aid approved, section 6..... 675 00

Joint fund .....

Additional amount furnished by city..... 40 41

Net cost of work..... \$1,615 41

Cost to city .....

State aid approved..... \$675 00

CAMDEN.

Contract No. 9. Contractor, town of Camden; Fred B. Annis, road commissioner; contract for tar-concrete surface was sublet to H. F. Howard, Rochester, N. H.; L. O. Norwood, engineer; nature of improvement, grading and tar-concrete surface; area, 3146 square yards; cost per square yard, \$1.14; work began September 6; completed October 15.



The section of state road improved begins at station 0+00 on the 1912 plan and extends along Main and Elm streets.

Quantities and unit prices estimated by the department:

725 lineal feet of road graded.

2780 square yards of tar-concrete, including grading, @ \$1.10.  
Lump sum amount of contract..... \$3,058 00

Details and cost items compiled from certificates of municipal officers:

Length 715 feet; width 39.6 feet.

Grading .....	\$366 33
Tar-concrete surface, 3146 square yards.....	3,146 00
Engineering and inspection.....	72 67
Catch basins .....	55 24

Total cost of work.....	\$3,640 24
Amount appropriated by town.....	\$850 00
State aid apportioned, section 6.....	637 00

Joint fund .....	\$1,487 00
Additional amount furnished by town.....	2,153 24

Net cost of work.....	\$3,640 24
Cost to town.....	3,003 24

State aid approved .....	\$637 00
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### CARIBOU.

Contract No. 23. Contractor, town of Caribou; S. E. Griffin in charge of work; Grover M. Hardison, engineer; nature of improvement, grading, drainage and macadam surface; area, 1727 square yards; cost per square yard, \$1.23; work began July 17; completed September 21.

The section of state road improved begins at the end of the 1907 work and extends easterly.

Quantities and unit prices estimated by the department:

450 lineal feet of road graded @ \$0.42.

1400 square yards of macadam surface @ \$0.60.

350 lineal feet of "V" drain @ \$0.75.

100 lineal feet of stone base @ \$0.75.

2 catch basins @ \$40.00.

Lump sum amount of contract.....	\$1,487 00
Details and cost items compiled from certificates of municipal officers:	
Length 555 feet; average width 33 feet.	
Grading .....	\$391 20
"V" drain, 555 feet x 16 feet x 1.5 feet.....	186 00
Macadam surface, 555 feet x 28 feet.....	1,486 55
Catch basins .....	100 00
Engineering .....	65 00
<hr/>	
Total cost of work.....	\$2,228 75
Amount appropriated by town.....	\$850 00
State aid apportioned, section 6.....	637 00
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Joint fund .....	\$1,487 00
Additional amount furnished by town.....	741 75
<hr/>	
Net cost of work.....	\$2,228 75
Cost to town.....	1,591 75
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State aid approved.....	\$637 00

DAMARISCOTTA.

Contract No. 2. Contractor, Clifford M. Willey, Bar Harbor; Stephen Litchfield, engineer; nature of improvement, grading, drainage and bituminous macadam surface; area, 2528 square yards; cost per square yard, \$0.906; date of contract, June 10; completed in August.

The section of state road improved begins at the iron bridge and extends along Main street.

Estimated quantities and unit prices:

- 686 lineal feet of road graded @ \$0.35.
  - 2528 square yards of bituminous macadam @ \$0.807.
  - 34 lineal feet of 10-inch metal culvert @ \$1.07.
  - 70 lineal feet of 12-inch metal culvert @ \$1.15.
  - 3 standard catch basins @ \$40.00.
  - 3 special catch basins @ \$27.50.
- |                                  |            |
|----------------------------------|------------|
| Lump sum amount of contract..... | \$2,600 00 |
|----------------------------------|------------|

## Details and costs:

Length, 686 feet.	
Lump sum price for above estimate.....	\$2,600 00
Cost of concrete retaining wall, engineering and for extra catch basins.....	632 14
Extra work allowed on curbs, etc.....	1,269 66
	<hr/>
Total cost .....	\$4,501 80
Amount appropriated by town in 1910.....	400 00
Amount appropriated by town in 1911.....	400 00
Amount appropriated by town in 1912.....	400 00
State aid apportioned in 1910, section 6.....	400 00
State aid apportioned in 1911, section 6.....	400 00
State aid apportioned in 1912, section 6.....	400 00
Special appropriation made by town.....	1,000 00
Apportioned by State from automobile fund.....	600 00
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Joint fund .....	\$4,000 00
Additional amount furnished by town.....	501 80
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Net cost of work.....	\$4,501 80
Cost to town.....	2,701 80
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State aid approved .....	\$1,800 00
Paid by State from apportioned fund.....	\$1,200 00
Paid by State from automobile fund.....	\$600 00

## DEXTER.

Contract No. 44. Contractor, town of Dexter; George D. Chandler, road commissioner; Walter B. Gould, engineer; nature of improvement, grading and gravel and macadam surface; area, 4044 square yards; cost per square yard, \$0.27; work began September 9; completed October 16.

The section of state road improved begins at the end of the 1911 work and extends northerly 700 feet.

Quantities and unit prices estimated by the department:

700 lineal feet of road graded @ \$0.20.	
1866 square yards of macadam surface @ \$0.34.	
550 lineal feet of "V" drain @ \$0.50.	
Lump sum amount of contract.....	\$1,080 00

Details and cost items compiled from certificates of municipal officers:

Length 1300 feet; width 33 feet.

Grading .....	\$21 50
"V" drain, 700 feet x 14 feet x 2 feet.....	241 25
Gravel surface, 300 feet x 28 feet.....	110 00
Macadam surface, 1000 feet x 28 feet.....	706 63
Engineering .....	7 75

Total cost of work.....	\$1,087 13
Amount appropriated by town.....	\$600 00
State aid apportioned, section 6.....	480 00

Joint fund .....	\$1,080 00
Additional amount furnished by town.....	7 13

Net cost of work.....	\$1,087 13
Cost to town .....	607 13

State aid approved .....	\$480 00
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DIXFIELD:

Contract No. 27. Contractor, town of Dixfield; work in charge of selectmen; Henry French, engineer; nature of improvement, grading and gravel surface; area, 8000 square yards; cost per square yard, \$0.24; work began August 19; completed November 12.

The section of state road improved begins at station 0+00, 1912 plan, in Dixfield village and extends northerly along the Weld road.

Quantities and unit prices estimated by the department:

2400 lineal feet of road graded @ \$0.15.	
4800 square yards of gravel surface @ \$0.32.	
24 lineal feet of 12-inch metal culvert @ \$1.00.	
2 cubic yards of concrete @ \$8.00.	
Lump sum amount of contract.....	\$2,002 40

Details and cost items compiled from certificates of municipal officers:

Length 4000 feet; width 23 feet.

Grading .....	\$740 94
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Road machine work.....	46 71
Gravel surface .....	1,138 28
Cobble gutter, 418 feet x 4 feet.....	53 47
Metal culvert, 8 inches x 36 feet.....	21 60
Metal culvert, 8 inches x 16 feet.....	9 60
Labor on culverts .....	8 10
Concrete masonry .....	15 52
Blacksmith work and lumber.....	25 50
Engineering .....	15 00
<hr/>	
Total cost of work.....	\$2,074 72
Amount appropriated by town in 1910.....	\$200 00
Amount appropriated by town in 1911.....	400 00
Amount appropriated by town in 1912.....	400 00
State aid apportioned in 1910.....	200 00
State aid apportioned in 1911.....	400 00
State aid apportioned in 1912.....	400 00
Unexpended balance of state aid from 1909.....	2 40
<hr/>	
Joint fund .....	\$2,002 40
Additional amount furnished by town.....	72 32
<hr/>	
Net cost of work.....	\$2,074 72
Cost to town .....	1,072 32
<hr/>	
State aid approved .....	\$1,002 40

## EAST LIVERMORE.

Contract No. 11. Contractor, town of East Livermore; George W. Dyke, road commissioner; I. T. Monroe, engineer; nature of improvement, grading and bituminous macadam surface; area 2255 square yards; cost per square yard, \$0.57; work began August 15; completed September 13.

This work was built in two sections; the first section is located on Main street and connects the 1911 work with the 1907 work. The second section is located on Depot street near the M. C. R. R. track. The total length is 615 feet.

Quantities and unit prices estimated by the department:  
300 lineal feet of road graded @ \$0.30.

1100 square yards of bituminous macadam surface @ \$0.80.  
 20 lineal feet of 12-inch metal culvert @ \$1.00.  
 2 catch basins @ \$30.00.

Lump sum amount of contract..... \$1,080 00

Details and cost items compiled from certificates of municipal officers:

Length 615 feet; width 34 feet.

Grading .....	\$45 00
Bituminous macadam surface, 615 feet x 34 feet...	1,232 50
<hr/>	
Total cost of work.....	\$1,277 50
Amount appropriated by town.....	\$600 00
State aid apportioned, section 6.....	480 00
<hr/>	
Joint fund .....	\$1,080 00
Additional amount furnished by town.....	197 50
<hr/>	
Total cost of work .....	\$1,277 50
Cost to town .....	797 50
<hr/>	
State aid approved .....	\$480 00

EASTPORT.

Contract No. 26. Contractor, city of Eastport; Angus Holmes, in charge of work; C. F. Pray, engineer; nature of improvement, grading, drainage and gravel surface; area, 3833 square yards; cost per square yard \$0.23; work began August 12; completed October 30.

The section of state road improved begins at the end of the 1911 work and extends northerly 1500 feet.

Quantities and unit prices estimated by the department:

- 1500 lineal feet of road graded @ \$0.30.
- 3000 square yards of gravel surface @ \$0.15.
- 24 lineal feet of 10-inch metal culvert, including concrete end walls, @ \$1.66.
- 1 reinforced concrete culvert, 2 feet x 2 feet x 30 feet with drop inlet, \$154.00.

Lump sum amount of contract..... \$1,138 00

Details and cost items compiled from certificates of municipal officers:

Length 1500 feet; width 23 feet.	
Clearing right of way.....	\$72 00
Road machine work.....	12 50
Grading .....	539 54
Gravel surface, 1500 feet x 23 feet.....	272 32
Metal culvert, 10 inches x 26 feet.....	} 96 00
Metal culvert, 18 inches x 26 feet.....	
Concrete culvert, 2 feet x 2 feet x 30 feet.....	161 79
Engineering .....	20 00
<hr/>	
Total cost of work.....	\$1,174 15
Amount appropriated by city.....	\$650 00
State aid apportioned, section 6.....	488 00
<hr/>	
Joint fund .....	\$1,138 00
Additional amount furnished by city.....	36 15
<hr/>	
Net cost of work.....	\$1,174 15
Cost to town .....	686 15
<hr/>	
Amount of state aid approved.....	\$488 00

## EDEN.

Contract No. 1. Contractors, Small & Ingalls; E. W. Hill, engineer; nature of improvement, grading, drainage and macadam surface; area, 2067 square yards; cost per square yard, \$0.89; work began May 13; completed June 13.

The section of state road improved begins at station 0+00 on the 1912 plan and extends southeasterly.

The contract for this work was awarded to Small & Ingalls of Bar Harbor for \$4,350 00.

Quantities estimated by the department and unit prices submitted by contractors:

775 lineal feet of road graded @ \$1.26.

2067 square yards of macadam surface @ \$0.79.

750 lineal feet of 10-inch vitrified tile pipe in place for side underdrain @ \$0.40.

735 lineal feet of side underdrain @ \$1.62.

30 lineal feet of 6-inch vitrified tile pipe in place @ \$0.50.

8 standard catch basins @ \$30.00.	
1 special catch basin @ \$25.00.	
Lump sum amount of contract.....	\$4,350 00
Details and cost items compiled from certificates of municipal officers:	
Length 775 feet; width 30 feet.	
Road machine work .....	\$36 87
Underdrainage and catch basins.....	2,647 20
Vitrified tile culvert, 18 inches x 33 feet.....	33 00
Macadam surface, 775 feet x 24 feet.....	1,632 93
Engineering .....	164 55
<hr/>	
Total cost of work.....	\$4,514 55
Amount appropriated by town.....	\$1,300 00
State aid apportioned, section 6.....	975 00
<hr/>	
Joint fund .....	\$2,275 00
Additional amount furnished by town.....	2,239 55
<hr/>	
Net cost of work .....	\$4,514 55
Cost to town.....	3,539 55
<hr/>	
State aid approved .....	\$975 00
The cost of drainage was not included in figuring the cost per square yard.	

ELLSWORTH.

Contract No. 5. Contractor, city of Ellsworth; Fred B. Marden, street commissioner; Ira B. Hagan, engineer; nature of improvement, grading, drainage and macadam surface; area, 1250 square yards; cost per square yard, \$0.995; work began June 13; completed August 16.

The section of state road improved begins at station 0+00 on the 1912 plan and extends to station 7+50.

Quantities and unit prices estimated by the department:

700 lineal feet of road graded @ \$0.30.	
1167 square yards of macadam surface @ \$0.86.	
26 lineal feet of 18-inch metal culvert @ \$1.50.	
3.1 cubic yards of concrete @ \$9.00.	
Lump sum amount of contract.....	\$1,312 00



Details and cost items compiled from certificates of municipal officers:

Length 750 feet; width 21 feet.	
Grading .....	\$319 12
Macadam surface, 750 feet x 15 feet x 8 inches....	894 50
26 lineal feet of 18-inch metal culvert.....	28 60
Concrete end walls.....	28 00
Gutter .....	10 00
Engineering .....	20 75
	<hr/>
Total cost of work.....	\$1,300 97
Amount appropriated by city.....	\$750 00
State aid apportioned under section 6.....	562 00
	<hr/>
Joint fund .....	\$1,312 00
Net cost of work.....	\$1,300 97
Cost to city .....	750 00
	<hr/>
State aid approved .....	\$550 97
Unexpended balance available for expenditure in 1913 .....	\$11 03

#### FAIRFIELD.

Contract No. 13. Contractor, town of Fairfield; George Roderick in charge of work; J. H. Burleigh, engineer; nature of improvement, grading, drainage and bituminous macadam surface; area, 1185 square yards; cost per square yard, \$2.81; work began July 22; completed October 8.

The section of state road improved begins at station 4+50, 1912 plan, and extends along Main street 245 feet to station 6+95.

Quantities and unit prices estimated by the department:

1185 square yards of bituminous macadam, including grading

@ \$1.25.

163 square yards of block paved gutters @ \$0.60.

1 catch basin @ \$30.00.

Lump sum amount of contract..... \$1,609 00

Details and cost items compiled from certificates of municipal officers:

Length 245 feet; width 56 feet.

Grading .....	\$310 00
1185 square yards of bituminous macadam.....	2,935 26
4 manholes .....	145 85
163 square yards of block paved gutters.....	116 50
Engineering .....	87 80
<hr/>	
Total cost of work.....	\$3,595 41
Amount appropriated by town .....	\$650 00
State aid apportioned under section 6.....	488 00
<hr/>	
Joint fund .....	\$1,138 00
Additional amount furnished by town.....	2,457 41
<hr/>	
Net cost of work.....	\$3,595 41
Cost to town.....	3,107 41
<hr/>	
State aid approved .....	\$488 00

FARMINGTON.

Contract No. 12. Contractor, town of Farmington; W. L. Butler, in charge of work; W. G. Mallett, engineer; nature of improvement, grading, drainage and gravel surface; area, 6844 square yards; cost per square yard, \$0.17; work began July 31; completed September 21.

The section of state road improved begins at station 0+00, 1912 plan, and extends northeasterly 2800 feet.

Quantities and unit prices estimated by the department:

2000 lineal feet of road graded @ \$0.15.

4667 square yards of gravel surface @ \$0.18.

30 lineal feet of 12-inch metal culvert @ \$1.00.

2 cubic yards of concrete @ \$8.00.

Lump sum amount of contract..... \$1,225 00

Details and cost items compiled from certificates of municipal officers:

Length 2800 feet; width 22 feet.

Grading .....

Gravel surface, 22 feet wide.....

Metal culvert, 12 inches x 32 feet.....

\$68 00

1,102 19

28 80

Metal culvert, 8 inches x 48 feet.....	28 80
Concrete end walls.....	16 00
<hr/>	
Total cost of work.....	\$1,243 79
Amount appropriated by town, section 4.....	\$700 00
State aid apportioned under section 6.....	525 00
<hr/>	
Joint fund .....	\$1,225 00
Additional amount furnished by town.....	18 79
<hr/>	
Net cost of work.....	\$1,243 79
Cost to town .....	718 79
<hr/>	
State aid approved .....	\$525 00

## FT. FAIRFIELD.

Contract No. 32. Contractor, town of Ft. Fairfield; C. J. Knight in charge of work; Grover M. Hardison, engineer; nature of improvement, grading, drainage and gravel surface; area, 3,200 square yards; cost per square yard, \$0.453; work began September 1; completed September 25.

The section of state road improved begins at the end of the 1909 work and extends northerly 1600 feet.

Quantities and unit prices estimated by the department:

1190 lineal feet of road graded @ \$0.10.

2644 square yards of gravel surface @ \$0.26.

375 lineal feet of "V" drain @ \$0.80.

30 lineal feet of 18-inch metal culvert complete with concrete end walls, \$67.50.

30 lineal feet of 14-inch metal culvert complete with concrete end walls, \$56.00.

450 lineal feet of stone base @ \$0.80.

Lump sum amount of contract..... \$1,662 00

Details and cost items compiled from certificates of municipal officers:

Length 1600 feet; width 30 feet.

Grading .....

\$425 00

Underdrainage, 1400 feet x 12 feet.....

472 75

Earth surface, 1600 feet x 30 feet x 6 inches.....

175 85

Gravel surface, 1600 feet x 18 feet x 8 inches.....

378 36

30 lineal feet of 18-inch metal culvert.....	34 50
30 lineal feet of 14-inch metal culvert.....	54 00
45 lineal feet of 30-inch metal culvert.....	103 50
Concrete end walls .....	31 72
<hr/>	
Total cost of work.....	\$1,675 68
Amount appropriated by town.....	\$950 00
State aid apportioned under section 6.....	712 00
<hr/>	
Joint fund .....	\$1,662 00
Additional amount furnished by town.....	13 68
<hr/>	
Net cost of work .....	\$1,675 68
Cost to town .....	963 68
<hr/>	
State aid approved .....	\$712 00

FREEPORT.

Contract No. 48. Contractor, town of Freeport; Harry Merrill, road commissioner; Stephen Litchfield, engineer; nature of improvement, grading, drainage and gravel surface; area, 1767 square yards; cost per square yard, \$0.60; work began September 18; completed November 1.

The section of state road improved begins at station 1+00 on the 1912 plan and extends towards Freeport.

Quantities and unit prices estimated by the department:

900 lineal feet of road graded @ \$0.20.	
1500 square yards of gravel surface @ \$0.17.	
900 lineal feet of "V" drain @ \$0.60.	
Lump sum amount of contract.....	\$1,017 00

Details and cost items compiled from certificates of municipal officers:

Length 1325 feet; width 21 feet.

Grading .....	\$486 95
325 lineal feet of "V" drain.....	88 40
Gravel surface .....	400 22
Other work .....	57 00
Engineering .....	20 00
<hr/>	

Total cost of work.....	\$1,052 57
Amount appropriated by town.....	\$550 00
State aid apportioned under section 6.....	467 00
<hr/>	
Joint fund .....	\$1,017 00
Additional amount furnished by town.....	35 57
<hr/>	
Net cost of work.....	\$1,052 57
Cost to town .....	585 57
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Amount of state aid approved.....	\$467 00

## GARDINER.

Contract No. 52. Contractor, city of Gardiner; work in charge of John W. Berry; L. M. Barnard, engineer; nature of improvement, grading and concrete pavement; area, 4166.17 square yards; cost per square yard, \$1.32; work began September 30; completed November 30.

The section of state road improved begins at station 0+00 in Depot Square and extends to the Farmingdale town line.

The contract for the concrete surface was sublet to John W. Gulliver, of Portland, Maine.

Quantities and unit prices estimated by the department:

1777 lineal feet of road graded.

4146.33 square yards of concrete surfaced with bitumen, including grading, @ \$1.29.

30 lineal feet of 12-inch vitrified tile pipe @ \$0.80.

1 cubic yard of concrete @ \$10.00.

1 catch basin @ \$40.00.

Lump sum amount of contract..... \$5,422 77

The city agreed to submit vouchers for extra work not specified in the above contract. Extra work amounting to \$1,422.60 has been approved.

Details and cost items compiled from certificates of municipal officers:

Length 1777 feet; width 21 feet.

Concrete surface, 4166.17 square yards..... \$5,374 36

78 lineal feet of 12-inch vitrified tile pipe..... 62 40

3 catch basins .....

120 00

Extra labor, laying paving blocks, grading, etc..... 283 90



Gardiner. 1913 State Road. Concrete.



2.65 cubic yards of concrete.....	26 50
Concrete retaining wall.....	14 11
1000 granite paving blocks.....	54 00
Paid L. A. & W. R. R. Co. for furnishing blocks and laying 169 square yards of block paved gut- ters and furnishing 1739 paving blocks.....	187 70
Engineering .....	121 55
<hr/>	
Total cost of work .....	\$6,845 37
Amount appropriated by city in 1910.....	\$937 50
Amount appropriated by city in 1911.....	937 50
Amount appropriated by city in 1912.....	1,000 00
Special appropriation made by city in 1912.....	1,000 00
State aid apportioned in 1910.....	703 12
State aid apportioned in 1911.....	703 12
State aid apportioned in 1912.....	750 00
Apportioned from automobile fund, 1912.....	2,000 00
<hr/>	
Joint fund .....	\$8,031 24
* Cost of maintenance work done in 1911, paid from automobile apportionment.....	1,039 92
<hr/>	
Available for 1912 state road.....	\$6,991 32
Net cost of work.....	\$6,845 37
Cost to city .....	3,875 00
<hr/>	
State aid approved .....	\$2,970 37
Unexpended balance available for expenditure in 1913 .....	\$145 95

\* For description of maintenance work see description of work done with the automobile fund.

### GORHAM.

Contract No. 28. Contractor, town of Gorham; work in charge of selectmen; D. R. Duran, engineer; nature of improvement, grading, underdrainage and gravel surface; area, 1000 square yards; cost per square yard, \$1.22; work began August 21; completed November 20.

The section of the state road improved begins at the end of the 1911 work and extends westerly.



Quantities and unit prices estimated by the department:

500 lineal feet of road graded @ \$0.30.

833 square yards of gravel surface @ \$0.66.

2234 lineal feet of 6-inch tile pipe @ \$0.20.

Lump sum amount of contract..... \$1,173 39

Details and cost items compiled from certificates of municipal officers:

Length 750 feet; width 23 feet.

Grading .....	\$184 68
Tile underdrainage .....	520 25
Road machine work .....	24 30
Gravel surface .....	273 90
Metal culvert 10 inches x 30 feet.....	21 00
Incidentals .....	198 18
Engineering .....	20 07

Total cost of work.....	\$1,242 38
Appropriated by town .....	\$650 00
State aid apportioned, section 6.....	488 00
Unexpended balance from 1911.....	35 39

Joint fund .....	\$1,173 39
Additional amount furnished by town.....	68 99

Net cost of work.....	\$1,242 38
Cost to town .....	718 99

State aid approved .....	\$523 39
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#### GRAND ISLE.

Contract No. 24. Contractor, town of Grand Isle; Z. Madore, road commissioner; Grover M. Hardison, engineer; nature of improvement, grading and reinforced concrete bridge; area, 2607 square yards; cost per square yard, \$0.17; work began August 27; completed November 11.

The bridge was constructed over Soucia brook. The clear span is 12 feet and the width of roadway is 24 feet.

Quantities and unit prices estimated by the department:

1000 lineal feet of road graded @ \$0.47.

Reinforced concrete bridge, \$700.00.

Lump sum amount of contract.....	\$1,200 00
Details and cost items compiled from certificates of municipal officers:	
Length 838 feet; width 28 feet.	
Grading .....	\$447 06
Reinforced concrete bridge.....	731 15
Engineering .....	49 00
<hr/>	
Total cost of work .....	\$1,227 21
Amount appropriated by town in 1911.....	\$200 00
Amount appropriated by town in 1912.....	200 00
State aid apportioned in 1911.....	400 00
State aid apportioned in 1912.....	400 00
<hr/>	
Joint fund .....	\$1,200 00
Additional amount furnished by town in excess of joint fund .....	27 21
<hr/>	
Net cost of work .....	\$1,227 21
Cost to town in 1912.....	503 35
<hr/>	
* State aid approved .....	\$723 86

\* This contract called for 1000 feet of grading. The length actually completed was 838 feet, or 162 feet less than the contract. The cost of 162 feet @ \$0.47 per foot, or \$76.14, has been deducted from the state aid and will be paid when the work is completed.

HOULTON.

Contract No. 17. Contractor, town of Houlton; George W. Small, in charge of work; P. N. Burleigh, engineer; nature of improvement, grading, drainage and macadam surface; area, 1777 square yards; cost per square yard, \$1.17; work began August 2; completed October 18.

The section of state road improved begins at station 55+70, 1912 plan, and extends to station 67+70.

Quantities and unit prices estimated by the department:

- 1000 lineal feet of road graded @ \$0.15.
- 2333 square yards of macadam surface @ \$0.58.

25 cubic yards of concrete masonry @ \$8.00.	
1500 pounds of steel reinforcement @ \$0.03.	
Lump sum amount of contract . . . . .	\$1,750 00
Details and cost items compiled from certificates of municipal officers:	
Length 1000 feet; width 24 feet.	
Grading . . . . .	\$417 50
Macadam surface, 1000 feet x 16 feet with gravel shoulders 4 feet wide . . . . .	1,629 00
Concrete culvert, 4 feet x 4 feet x 30 feet. . . . .	254 90
Engineering . . . . .	42 65
	<hr/>
Total cost of work . . . . .	\$2,344 05
Amount appropriated by town . . . . .	\$1,000 00
State aid apportioned under section 6. . . . .	750 00
	<hr/>
Joint fund . . . . .	\$1,750 00
Additional amount furnished by town. . . . .	594 05
	<hr/>
Net cost of work. . . . .	\$2,344 05
Cost to town . . . . .	1,594 05
	<hr/>
State aid approved . . . . .	\$750 00

## JAY.

1911 work completed in 1912.

Contract No. 55. Contractor, town of Jay; work in charge of Leroy Crafts; I. T. Monroe, engineer; nature of improvement, grading, drainage and macadam surface; area, 2144 square yards; cost per square yard, \$0.67; work began October 9, 1911; completed July 2, 1912.

This contract was divided into two sections:

Section No. 1 begins at the southerly end of the 1910 work and extends southerly 550 feet; section No. 2 begins at the northerly end of the 1910 work and extends northerly 700 feet.

Quantities and unit prices estimated by the department:

1250 lineal feet of road graded @ \$0.10.

2083 square yards of macadam surface @ \$0.52.

24 lineal feet of 10-inch metal culvert @ \$1.15.

24 lineal feet of 8-inch metal culvert @ \$1.00.	
4 cubic yards of concrete @ \$8.00.	
Lump sum amount of contract.....	\$1,312 00
Details and cost items compiled from certificates of municipal officers:	
Length 1250 feet; width 22 feet.	
Grading .....	\$204 76
Macadam surface .....	1,195 46
2 metal culverts, each 24 feet long, diameter 10 inches, with cement-stone masonry end walls....	55 69
Cement-stone masonry end walls for old stone culvert .....	7 50
Engineering .....	5 00
<hr/>	
Total cost of work.....	\$1,468 41
Amount appropriated by town.....	\$750 00
State aid apportioned under section 6.....	562 00
<hr/>	
Joint fund .....	\$1,312 00
Additional amount furnished by town.....	156 41
<hr/>	
Net cost of work.....	\$1,468 41
Cost to town.....	906 41
<hr/>	
State aid approved .....	\$562 00

JAY.

Contract No. 46. Contractor, town of Jay; C. L. Averill, in charge of work; I. T. Monroe, engineer; nature of improvement, grading, drainage and gravel surface; area, 4267 square yards; cost per square yard, \$0.28; work began September 11; completed November 13.

The section of state road improved begins at station 0+00 on the 1912 plan and extends southerly 2400 feet.

Quantities and unit prices estimated by the department:

- 1200 lineal feet of road graded @ \$0.20.
- 2000 square yards of gravel surface @ \$0.48.
- 24 lineal feet of 12-inch metal culvert @ \$1.10.
- 24 lineal feet of cement-stone masonry culvert, 18 inches x 24 inches, @ \$2.00.

2 cubic yards of concrete @ \$8.00.	
Lump sum amount of contract.....	\$1,312 00
Details and cost items compiled from certificates of municipal officers:	
Length 2400 feet; width 23 feet.	
Grading .....	\$91 80
Gravel surface, 2400 feet x 16 feet.....	1,118 40
Metal culvert, 12 inches x 24 feet.....	19 20
Metal culvert, 16 inches x 30 feet.....	30 00
3 cement-stone masonry culverts, 20 inches x 18 inches, laid over.....	44 70
Engineering .....	5 00
Blacksmith work .....	2 90
	<hr/>
Total cost of work .....	\$1,312 00
Amount appropriated by town.....	\$750 00
State aid apportioned, section 6.....	562 00
	<hr/>
Joint fund .....	\$1,312 00
Net cost of work .....	\$1,312 00
Cost to town .....	750 00
	<hr/>
State aid approved .....	\$562 00

## KENNEBUNKPORT.

Contract No. 57. Contractor, town of Kennebunkport; Ivory S. Ross, road commissioner; E. R. Keene, engineer; nature of improvement, grading, drainage and gravel surface; area, 2450 square yards; cost per square yard, \$0.46; work began October 10; completed November 30.

The section of state road improved is located about 3 1-2 miles from the Biddeford line and extends from station 60+00 to station 49+50, 1912 plan.

Quantities and unit prices estimated by the department:

1050 lineal feet of road graded @ \$0.20.

1750 square yards of gravel surface @ \$0.32.

1000 lineal feet of "V" drain @ \$0.30.

Lump sum amount of contract..... \$1,115 00

Details and cost items compiled from certificates of municipal officers:

Length 1050 feet; width 30 feet.

Grading .....	\$123 63
"V" drain, 1050 feet x 12 feet x 26 inches.....	208 30
Gravel surface, 1050 feet x 21 feet.....	647 57
Road machine work.....	135 50
<hr/>	
Total cost of work.....	\$1,115 00
Appropriated by town .....	\$600 00
State aid apportioned.....	480 00
Unexpended balance from 1911.....	35 00
<hr/>	
Joint fund .....	\$1,115 00
Cost to town .....	600 00
<hr/>	
State aid approved .....	\$515 00

LEWISTON.

Contract No. 16. Contractor, city of Lewiston; John J. Ryan, superintendent of streets; R. A. Swift, engineer; nature of improvement, grading, drainage and bituminous macadam surface; area, 3747 square yards; cost per square yard \$1.06; work began July 16; completed August 19.

The section of state road improved begins at the end of the 1911 work and extends along Main street.

Quantities and unit prices estimated by the department:

3152 square yards of bituminous macadam surface @ \$1.25.

2 catch basins @ \$35.00.

Lump sum amount of contract..... \$4,025 00

Details and cost items compiled from certificates of municipal officers:

Length 1054 feet; width 32 feet.

Bituminous macadam surface, 1054 feet x 32 feet,  
including grading ..... \$3,955 00

Itemized account, grading and surfacing.

Asphalt, 30 tons.....	\$600 00
No. 1 Tarite, 121 bbls.....	393 25
No. 2 Tarite, 33 bbls.....	123 70
Wood, 5 3-4 cords.....	43 13

Oil .....	5 10	
Tools .....	5 95	
Stone, 1276 1-8 tons.....	1,403 80	
Labor and teams .....	1,380 07	
Labor and material for 2 catch basins.....		70 00
		<hr/>
Total cost of work.....		\$4,025 00
Amount appropriated by city.....		\$2,300 00
State aid apportioned, section 6.....		1,725 00
		<hr/>
Joint fund .....		\$4,025 00
Net cost of work.....		\$4,025 00
Cost to city .....		2,300 00
		<hr/>
State aid approved .....		\$1,725 00

## LISBON.

Contract No. 39. Contractor, town of Lisbon; George H. McIntosh, road commissioner; Stephen Litchfield, engineer; nature of improvement, grading, drainage and gravel surface; area, 2333 square yards; cost per square yard, \$0.58; dates of beginning and completion not given.

The section of state road improved begins at station 116+50 and extends northerly.

Quantities and unit prices estimated by the department:

950 lineal feet of road graded @ \$0.20.

2216 square yards of gravel surface @ \$0.39.

40 lineal feet of 10-inch metal culvert @ \$0.80.

40 lineal feet of 24-inch metal culvert @ \$1.80.

5.2 cubic yards of concrete @ \$8.00.

300 lineal feet of guard rail @ \$0.40.

1 catch basin @ \$30.00.

Lump sum amount of contract..... \$1,400 00

Details and cost items compiled from certificates of municipal officers:

Length 1000 feet; width 25 feet.

Grading .....	\$739 64
Gravel surface .....	568 17
Concrete end walls .....	60 13
Guard rail .....	20 00

Underdrainage .....	24 60
Engineering .....	26 00
<hr/>	
Total cost of work.....	\$1,438 54
Amount appropriated by town.....	\$800 00
State aid apportioned, section 6.....	600 00
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Joint fund .....	\$1,400 00
Additional amount furnished by town.....	38 54
<hr/>	
Net cost of work.....	\$1,438 54
Cost to town.....	834 54
<hr/>	
State aid approved .....	\$600 00

MADISON.

Contract No. 25. Contractor, town of Madison; B. T. Burns, road commissioner; C. S. Humphreys, engineer; nature of improvement, grading, drainage, and gravel surface; area, 3500 square yards; cost per square yard, \$0.35; work began August 5; completed October 9.

The section of state road improved begins at the bridge near the Solon town line and extends southerly.

Quantities and unit prices estimated by the department:

650 lineal feet of road graded @ \$1.61.

1517 square yards of gravel surface @ \$0.15.

Lump sum amount of contract..... \$1,312 00

Details and cost items compiled from certificates of municipal officers:

Length 1050 feet; width 30 feet.

Grading and surfacing, 1050 feet x 30 feet..... \$1,133 26

Road machine work .....

15 00

Labor and material on driveway culverts.....

41 00

Engineering .....

32 73

Total cost of work..... \$1,221 99

Amount appropriated by town..... \$750 00

State aid apportioned, section 6..... 562 00

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Joint fund .....	\$1,312 00
Net cost of work .....	\$1,221 99
Cost to town.....	750 00
	<hr/>
State aid approved .....	\$471 99
Unexpended balance available for expenditure in 1913 .....	\$90 00

## MILLINOCKET.

Contract No. 54. Contractor, town of Millinocket; Fred M. Gates, road commissioner; F. C. Bowler, engineer; nature of improvement, grading, drainage and gravel surface; area, 2640 square yards; cost per square yard, \$0.41; work began September 30; completed November 20.

The section of state road improved begins at the end of the 1911 work and extends to the B. & A. Railroad track.

Quantities and unit prices estimated by the department:

792 lineal feet of road graded @ \$0.35.

2640 square yards of gravel surface @ \$0.25.

60 lineal feet of 15-inch tile culvert @ \$0.40.

2 cubic yards of concrete @ \$10.00.

Lump sum amount of contract..... \$1,080 00

Details and cost items compiled from certificates of municipal officers:

Length 792 feet; width 30 feet.

Grading .....	\$293 25
Gravel surface .....	717 41
Vitrified tile culvert, 15 inches x 60 feet.....	32 43
Incidentals .....	6 50
Engineering .....	52 90

Total cost of work .....	\$1,102 49
Appropriated by town.....	\$600 00
State aid apportioned, section 6.....	480 00

Joint fund .....	\$1,080 00
Additional amount furnished by town.....	22 49

Net cost of work..... \$1,102 49

Cost to town.....	622 49
	<hr/>
State aid approved.....	\$480 00

MT. DESERT.

1911 work completed in 1912.

Contract No. 53. Contractor, town of Mt. Desert; Edgar N. Walls and Shepard Richardson, road commissioners; C. P. Simpson, engineer; nature of improvement, grading and selected earth surface; area, 3033 square yards; cost per square yard, \$0.40; work began in 1911; completed in 1912.

The section of state road improved begins at the end of the 1910 work and extends northwesterly.

Quantities and unit prices estimated by the department:

1000 lineal feet of road graded.

2333 square yards of earth surface, including grading @ \$0.513.

26 lineal feet of 12-inch metal culvert @ \$1.10.

26 lineal feet of 20-inch metal culvert @ \$1.65.

5.4 cubic yards of concrete @ \$8.00.

Lump sum amount of contract..... \$1,312 00

Details and cost items compiled from certificates of municipal officers:

Length 1300 feet; width 21 feet.

Culverts .....	\$58 78
Materials .....	18 43
Teams and labor .....	1,110 88
Engineering .....	69 12

Total cost of work.....	\$1,267 21
Amount appropriated by town.....	\$750 00
State aid apportioned, section 6.....	562 00

Joint fund .....	\$1,312 00
Net cost of work.....	\$1,267 21
Cost to town .....	750 00

State aid approved .....	\$517 21
Unexpended balance .....	\$44 79

This unexpended balance has been included in the 1912 contract price.

## MT. DESERT.

Contract No. 53. Contractor, town of Mt. Desert; E. N. Walls, road commissioner; Charles P. Simpson, engineer; nature of improvement, grading, drainage and gravel surface; area, 2665 square yards; cost per square yard, \$0.41; work began October 21; completed December 20.

The section of state road improved begins at station 1+32 and extends to station 16+11, as shown on the plan. From station 16+11 a section was constructed extending northerly 520 feet.

Quantities and unit prices estimated by the department:

900 lineal feet of road graded @ \$0.30.	
1500 square yards of gravel surface @ \$0.50.	
48 lineal feet of 12-inch metal culvert @ \$1.10.	
24 lineal feet of 15-inch metal culvert @ \$1.30.	
7.4 cubic yards of concrete @ \$8.00.	
Stone culvert repaired 4 feet x 4 feet, \$50.00.	
Dry stone retaining wall, repaired, \$100.00.	
Lump sum amount of contract.....	\$1,356 79

Details and cost items compiled from certificates of municipal officers:

Length 1999 feet; width 21 feet.	
Grading .....	\$300 00
Gravel surface .....	718 34
225 lineal feet of wood guard rail.....	40 00
Metal culvert, 16 inches x 24 feet.....	24 00
Metal culvert, 12 inches x 24 feet.....	19 20
Concrete end walls and curb.....	84 63
Repairing stone culvert.....	50 00
Repairs to retaining wall.....	50 00
Engineering .....	67 95

Total cost of work.....	\$1,354 12
Appropriated by town.....	\$750 00
State aid apportioned, section 6.....	562 00
Unexpended balance of 1911 apportionment.....	44 79

Joint fund .....	\$1,356 79
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Net cost of work.....	\$1,354 12
Cost to town .....	750 00
	<hr/>
State aid approved.....	\$604 12
Unexpended balance available for expenditure in 1913 .....	\$2 67

NORWAY.

Contract No. 6. Contractor, town of Norway; J. A. Roberts, road commissioner; J. H. Stuart, engineer; nature of improvement, grading, drainage and gravel surface; area, 2939 square yards; cost per square yard, \$0.34; work began June 12; completed August 24.

This road was built in two sections. The first section begins at the end of the 1911 work and the second section begins at station 0+00 on the 1912 plan.

Quantities and unit prices estimated by the department, both sections included:

- 1000 lineal feet of road graded @ \$0.16.
- 1667 square yards of gravel surface @ \$0.25.
- 558 lineal feet of "V" drain @ \$0.65.
- 30 lineal feet of 12-inch metal culvert, including one concrete end wall @ \$1.50.

Price for extending stone culverts, \$10.00.

Lump sum amount of contract..... \$1,017 00

Details and cost items compiled from certificates of municipal officers:

Length 1150 feet; width 23 feet.	
"V" drain, 708 feet x 12 feet x 2 feet.....	\$245 37
Gravel surface, 1159 feet x 23 feet.....	746 10
Clearing right of way.....	9 55
Metal culvert, 28 feet x 12 inches, with end wall and extending old stone culverts.....	67 88
Engineering .....	12 20

Total cost of work.....	\$1,081 10
Amount appropriated by town.....	\$550 00
State aid apportioned under section 6.....	467 00

Joint fund .....	\$1,017 00
Additional amount furnished by town.....	64 10
	<hr/>
Net cost of work .....	\$1,081 10
Cost to town.....	614 10
	<hr/>
State aid approved .....	\$467 00

## OLDTOWN.

Contract No. 49. Contractor, city of Oldtown; E. T. Hartwell, street commissioner; H. Hilliard, engineer; nature of improvement, grading, drainage and macadam surface; area, 2821 square yards; cost per square yard, \$0.75; work began September 3; completed November 23.

The section of state road improved begins at the end of the 1911 work and extends southerly along Main street.

Quantities and unit prices estimated by the department:

1000 lineal feet of road graded @ \$0.35.	
2334 square yards of macadam surface @ \$0.43.	
27 lineal feet of 16-inch metal culvert @ \$1.30.	
300 lineal feet of 8-inch tile drain in place @ \$0.35.	
3 catch basins @ \$35.00.	
2 stone culverts repaired, \$30.00.	
Lump sum amount of contract.....	\$1,662 00

Details and cost items compiled from certificates of municipal officers:

Length 1058 feet; width 26 feet.	
Grading .....	\$407 40
Macadam surface, 1058 feet x 24 feet.....	1,410 00
Tile underdrain, 404 feet x 8 inches.....	298 20
Metal culvert, 16 inches x 38 feet.....	38 00
2 catch basins .....	39 67
Cement-stone masonry culvert, 18 inches x 24 inches x 27 feet .....	27 00
Cement-stone masonry culvert, 18 inches x 24 inches x 29 feet .....	29 00
	<hr/>
Total cost of work .....	\$2,249 27

Amount appropriated by city.....	\$950 00
State aid apportioned, section 6.....	712 00
	<hr/>
Joint fund .....	\$1,662 00
Additional amount furnished by city.....	587 27
	<hr/>
Net cost of work.....	\$2,249 27
Cost to city .....	1,537 27
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State aid approved .....	\$712 00

ORONO.

Contract No. 7. Contractor, town of Orono; work in charge of Ralph L. Perkins; R. E. Mullaney, engineer; nature of improvement, grading, drainage and gravel surface; area, 3819 square yards; cost per square yard, \$0.35; work began August 5; completed October 5.

The section of state road improved begins at the end of the 1911 work and extends towards Bangor.

Quantities and unit prices estimated by the department:

- 1350 lineal feet of road graded @ \$0.20.
- 3300 square yards of gravel surface @ \$0.075.
- 300 lineal feet of "V" drain @ \$0.50.
- 34 lineal feet of 10-inch metal culvert @ \$1.30.
- 130 lineal feet of wood guard rail @ \$0.25.
- 1 reinforced concrete culvert, \$230.00.

Lump sum amount of contract..... \$1,017 00

Details and cost items compiled from certificates of municipal officers:

Length 1375 feet; width 25 feet.

Grading .....	\$239 69
"V" drain .....	146 50
Gravel surface, 375 feet x 25 feet.....	855 20
130 feet of wood guard rail.....	11 80
Concrete end wall .....	3 09
Concrete culvert, 3 feet x 3 feet x 36 feet.....	263 62
Steel for reinforcing culvert.....	46 57
Lowering water pipe.....	165 46
Engineering .....	77 00
	<hr/>

Total cost of work .....	\$1,808 93
Amount appropriated by town.....	\$550 00
State aid apportioned, section 6.....	467 00
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Joint fund .....	\$1,017 00
Net cost of work.....	\$1,808 93
Paid by town.....	1,441 93
	<hr/>
State aid approved.....	\$367 00
Unexpended balance .....	\$100 00

This work was not entirely satisfactory and \$100.00 was retained. This will be paid when the work is made satisfactory.

### PARKMAN.

Contract No. 15. Contractor, town of Parkman; D. E. Smart, in charge of work; E. J. Smith, engineer; nature of improvement, reinforced concrete bridge, retaining wall and grading approaches; contract for concrete bridge sublet to Hiram Brawn of Foxcroft, Maine; work began August 8, completed November 12.

This bridge was constructed over Mill street, near the Cambridge town line.

It is the beam and slab type of construction with a clear span of 30 feet and a clear width of roadway of 18 feet.

The town contracted to construct the bridge for \$1,930.00 and to construct the approaches under the direction of the state road inspector for the remainder of the joint fund.

Details and cost items compiled from certificates of municipal officers:

Cost of bridge .....	\$1,930 00
Grading .....	176 74
187 lineal feet of iron guard rail.....	64 95
Dry stone masonry retaining wall.....	247 25
Painting guard rail.....	2 20
	<hr/>
Total cost of work.....	\$2,421 14
Appropriated by town in 1910.....	\$400 00
Appropriated by town in 1911.....	400 00
Appropriated by town in 1912.....	400 00
State aid apportioned in 1910.....	400 00

State aid apportioned in 1911.....	400 00
State aid apportioned in 1912.....	400 00
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Joint fund .....	\$2,400 00
Additional amount furnished by town.....	21 14
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Net cost of work.....	\$2,421 14
Cost to town .....	1,221 14
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State aid approved .....	\$1,200 00

PHIPPSBURG.

Contract No. 43. Contractor, town of Phippsburg; Charles V. Minott, Jr., in charge of work; Stephen Litchfield, engineer; nature of improvement, grading, drainage and gravel surface; area, 1333 square yards; cost per square yard, \$1.10; work began September 26; completed December 24.

The section of state road improved begins at station 15+50, 1912 plan, and extends northerly to station 5+50.

Quantities and unit prices estimated by the department:

1000 lineal feet of road graded @ \$0.70.	
1667 square yards of gravel surface @ \$0.306.	
23 lineal feet of 12-inch metal culvert @ \$1.10.	
23 lineal feet of 14-inch metal culvert @ \$1.25.	
4.5 cubic yards of concrete @ \$8.00.	
1000 lineal feet of wood guard rail @ \$0.25.	
Lump sum amount of contract.....	\$1,600 00

Details and cost items compiled from certificates of municipal officers:

Length 1000 feet; width 21 feet.	
Grading .....	\$1,207 61
Gravel surface, 1000 feet x 12 feet.....	217 00
Wood guard rail, 1000 feet.....	140 90
Metal culvert, 14 inches x 24 feet.....	20 40
Metal culvert, 12 inches x 24 feet.....	18 00
Concrete masonry end walls.....	15 70
Engineering .....	45 00
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Total cost .....	\$1,664 61
Appropriated by town in 1911.....	\$400 00



Appropriated by town in 1912.....	400 00
State aid apportioned in 1911.....	400 00
State aid apportioned in 1912.....	400 00
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Joint fund .....	\$1,600 00
Additional amount furnished by town.....	64 61
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Net cost of work.....	\$1,664 61
Cost to town .....	864 61
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State aid approved .....	\$800 00

## PITTSFIELD.

Contract No. 42. Contractor, town of Pittsfield; work was sublet to John W. Gulliver of Portland, Maine; O. E. Libby, engineer; nature of improvement, grading and concrete pavement surfaced with bitumen and sand; area, 4291 square yards; cost per square yard, \$1.32; work began September 11; completed October 21.

The section of state road improved begins at the M. C. R. R. track and extends northerly.

Quantities and unit prices estimated by the department:

4122 square yards of concrete pavement surfaced with bitumen and sand @ \$1.29.

Lump sum amount of contract..... \$5,480 00

Details and cost items compiled from certificates of municipal officers:

Length 745 feet; width 49 feet.

4291 square yards of concrete pavement, 5 inches thick, @ \$1.29 .....	\$5,535 39
Repair on curb .....	55 00
Engineering .....	100 00
Inspection, etc., not included in engineering.....	53 50

Total cost of work.....	\$5,743 89
Amount appropriated by town, section 4.....	\$600 00
Additional amount appropriated at annual meeting	200 00
Additional amount appropriated at special town meeting .....	2,100 00
State aid apportioned under section 6.....	480 00

Apportioned to town from automobile fund.....	2,100 00
Joint fund .....	\$5,480 00
Additional amount furnished by town.....	263 89
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Net cost of work.....	\$5,743 89
Cost to town .....	3,163 89
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State aid approved .....	\$2,580 00
Town received \$266.26 from M. C. R. R. for work on railroad property.	

PORTAGE.

Contract No. 18. Contractor, town of Portage; C. O. Ross, road commissioner; Grover M. Hardison, engineer; nature of improvement, grading, drainage and gravel surface; area, 6644 square yards; cost per square yard, \$0.13; work began August 5; work completed October 29.

The section of state road improved begins at station 0+00 on the 1912 plan and extends southerly.

Quantities and unit prices estimated by the department:

2300 lineal feet of road graded @ \$1.10.	
3833 square yards of gravel surface @ \$0.15.	
475 lineal feet of "V" drain @ \$0.50.	
24 lineal feet of 12-inch metal culvert @ \$1.10.	
21.6 cubic yards of concrete @ \$8.00.	
230 pounds of steel @ \$0.05.	
Lump sum amount of contract.....	\$1,283 73

Details and cost items compiled from certificates of municipal officers:

Length 2600 feet; width 23 feet.	
Grading .....	\$275 70
"V" drain, 475 feet x 16 feet x 2 feet.....	237 50
Gravel surface, 2600 feet x 23 feet.....	334 50
Metal culvert, 12 inches x 24 feet with concrete end walls .....	51 00
Concrete culvert, 36 inches x 30 inches x 24 feet...	284 78
Engineering .....	31 50
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Total cost of work.....	\$1,214 98

Amount appropriated by town in 1911.....	\$200 00
Amount appropriated by town in 1912.....	200 00
State aid apportioned in 1911.....	400 00
State aid apportioned in 1912.....	400 00
Unexpended balance of state aid from 1910.....	83 73
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Joint fund .....	\$1,283.73
Net cost of work.....	\$1,214 98
Cost to town .....	400 00
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State aid approved.....	\$814 98
Unexpended balance available for expenditure in 1913 .....	\$68 75

## PORTLAND.

Contract No. 8. Contractor, Hassam Paving Company of Worcester, Massachusetts; Bion Bradbury, Jr., Commissioner of Public Works; nature of improvement, grading, drainage and concrete pavement surfaced with bitumen; area, 7974.67 square yards; cost per square yard, \$1.40; work began July 11; completed October 5.

The section of state road improved begins at Gould street and extends along Washington avenue.

On July 2 the following bids were received:

Hassam Paving Co. ....	\$11,733 00
Murphy Brothers .....	\$11,842 00
Forgione & Romano Co.....	\$14,217 53
John W. Gulliver .....	\$12,911 83
Shawmut Contracting Co. ....	\$11,849 60

The contract was awarded to the Hassam Paving Company.

Estimated quantities and unit prices submitted by the contractor:

8092 square yards of concrete surfaced with bitumen, and including grading @ \$1.30.

826 lineal feet of 8-inch vitrified tile pipe, for underdrain @ \$0.60.

84 lineal feet of 8-inch vitrified tile pipe, for outlets to catch basins @ \$0.70.

105 lineal feet of 10-inch vitrified tile pipe, for surface drains @ \$0.80.

7.15 cubic yards of dry stone masonry @ \$5.00.

6 catch basins with traps @ \$90.00.

Lump sum amount of contract based on above estimate ..... \$11,733 75

Details and cost items compiled from certificates of municipal officers:

Length 3016.20 feet; width varies from 9 feet to 15 feet.

826 lineal feet of 8-inch vitrified tile pipe in place in underdrain .....	\$495 60
7974.67 square yards of concrete.....	10,367 07
6 catch basins .....	540 00
89 lineal feet of 8-inch vitrified tile pipe for catch basins .....	62 30
90 lineal feet of 10-inch vitrified tile pipe for surface drains .....	72 00
2.64 cubic yards of dry stone masonry.....	13 20
Engineering .....	188 98
Advertising .....	29 02
Photos and blue print paper.....	19 90
Signs .....	3 00

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Total cost of work .....	\$11,791 07
Amount appropriated by city.....	\$7,100 00
State aid apportioned, section 6.....	5,325 00

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Joint fund .....	\$12,425 00
Net cost of work.....	\$11,791 07
Cost to city .....	7,100 00

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State aid approved .....	\$4,691 07
Unexpended balance available for expenditure in 1913 .....	\$633 93

ROCKLAND.

Contract No. 36. Contractor city of Rockland; contract sublet to Fales & Simmons of Rockland, Maine; L. O. Norwood, engineer; nature of improvement, grading and bituminous concrete pavement; area, 2,131 square yards; cost per square yard, \$1.12; work began August 27; completed November 16.

The section of state road improved begins at the junction of Main and Front streets and extends along Camden street to Maverick square.

Quantities and unit prices estimated by the department:

1080 lineal feet of road graded @ \$0.20.  
 2700 square yards of bituminous concrete surface @ \$0.77.  
 Lump sum amount of contract ..... \$2,300 00

Details and cost items compiled from certificates of municipal officers:

Length 1022 feet; width 18 feet.

Contract price made by Fales and Simmons..... \$2,300 00  
 Extra work ordered ..... 97 87

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Total cost of work ..... \$2,397 87  
 Appropriated by city ..... \$1,200 00  
 State aid apportioned, section 6..... 900 00

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Joint fund ..... \$2,100 00  
 Additional amount furnished by city..... 297 87

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Net cost of work..... \$2,397 87  
 Cost to city ..... 1,497 87

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State aid approved ..... \$900 00

#### ROCKPORT.

Contract No. 29. Contractor, town of Rockport; John F. Knight, in charge of work; L. O. Norwood, engineer; nature of improvement, grading, drainage and gravel surface; area, 1725 square yards; cost per square yard, \$0.595; work began September 3; completed September 28.

The section of state road improved begins at the end of the 1911 work and extends westerly.

Quantities and unit prices estimated by the department:

650 lineal feet of road graded @ \$0.10.  
 1516 square yards of gravel surface @ \$0.22.  
 609 lineal feet of "V" drain @ \$0.90.  
 24 lineal feet of 15-inch metal culvert @ \$1.10.  
 2.5 cubic yards of concrete @ \$8.00.  
 Lump sum amount of contract..... \$1,017 00

Details and cost items compiled from certificates of municipal officers:

Length 675 feet; width 30 feet.

Grading .....	\$50 50
675 lineal feet of "V" drain.....	523 31
Gravel surface, 675 feet x 23 feet.....	407 27
Ditch, 650 feet x 3 feet x 14 inches.....	27 68
Metal culvert, 30 feet x 16 inches.....	28 50
Concrete end walls.....	33 73
Engineering .....	44 98
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Total cost of work.....	\$1,115 97
Amount appropriated by town.....	\$550 00
State aid apportioned under section 6.....	467 00
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Joint fund .....	\$1,017 00
Additional amount furnished by town.....	98 97
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Net cost of work.....	\$1,115 97
Cost to town .....	648 97
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State aid approved .....	\$467 00

RUMFORD.

Contract No. 56. Contractor, town of Rumford; the contract for grading, surfacing with gravel and installing culverts was sublet to James Kerr of Rumford for \$14,995.00; H. H. Hutchins, inspector; Henry Nelson, engineer.

The section of state road under contract begins at the end of the 1911 work and extends to the Hanover town line.

Quantities estimated by the department:

- 21,959 lineal feet of road graded.
- 36,598 square yards of gravel surface.
- 404 lineal feet of 12-inch metal culvert.
- 98 lineal feet of 16-inch metal culvert.
- 36 lineal feet of 8-inch metal culvert.
- 40 lineal feet of 18-inch metal culvert.
- 100 lineal feet of 6-inch vitrified tile pipe.
- 38.6 cubic yards of concrete masonry.
- 6 cement-stone masonry culverts, 2 ft. x 3 ft.

2 cement-stone masonry culverts relaid.	
1,770 lineal feet of side drain.	
3 miles approximately completed.	
Lump sum amount of contract.....	\$16,925 00
Cost of work to Jan. 1, 1913, reported by town:	
Payments on contract.....	\$9,500 00
Culverts .....	520 91
Inspection .....	189 50
Engineering .....	250 40
	<hr/>
Total payments .....	\$10,460 81
Net cost to town for 1912.....	6,860 81
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State aid approved.....	\$3,600 00
State aid paid.....	\$825 00
Paid from auto appor't.....	2,775 00
	<hr/>
	\$3,600 00
Unexpended balance from auto apportionment due on completion of work.....	\$2,225 00
Work not completed.	
Under the terms of the contract any unexpended balance re- maining after the contract is completed is to be expended on repairing the state road built in previous years.	
The town has already expended \$3,586.81 on repairs on the state road. Approximately 7,538 feet of macadam road was resurfaced.	

### SACO.

Contract No. 10. Contractor, city of Saco; George W. Scammon, in charge of work; R. W. Libby, engineer; nature of improvement, grading and macadam surface; area, 2411 square yards; cost per square yard, \$0.84; work began October 3; completed November 19.

The section of state road improved begins at Spring street and extends along Bradley street.

Quantities and unit prices estimated by the department:

650 lineal feet of road graded @ \$0.30.  
2022 square yards of macadam surface @ \$0.82.  
1 catch basin @ \$40.00.

Lump sum amount of contract..... \$1,925 00

Details and cost items compiled from certificates of municipal officers:

Length 775 feet; width 28 feet.

Grading .....	\$321 11
Stone underdrain, 100 feet x 4 feet x 2 feet.....	100 00
Macadam surface, 775 feet x 28 feet.....	1,546 25
Catch basin .....	40 00
Fuel for roller and repairs.....	48 52
Engineering .....	19 20

Total cost of work.....	\$2,075 08
Appropriated by city.....	\$1,100 00
State aid apportioned, section 6.....	825 00

Joint fund .....	\$1,925 00
Additional amount furnished by city.....	150 08

Net cost of work.....	\$2,075 08
Cost to town.....	1,250 08

State aid approved .....	\$825 00
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SANFORD.

Contract No. 20. Contractor, town of Sanford; Dennis Johnson, road commissioner; M. R. Stackpole, engineer; nature of improvement, grading, drainage and gravel surface; area, 4300 square yards; cost per square yard, \$0.45; date of beginning and completion not given.

The section of state road improved begins at the end of the 1911 work and extends southerly.

Quantities and unit prices estimated by the department:

- 1800 lineal feet of road graded @ \$0.12.
- 3600 square yards of gravel surface @ \$0.46.
- 24 lineal feet of 12-inch metal culvert @ \$1.00.
- 2 cubic yards of concrete @ \$8.00.

Lump sum amount of contract.....	\$1,934 01
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Details and cost items compiled from certificates of municipal officers:

Length 2150 feet; width 23 feet.

Grading .....	\$120 00
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Gravel surface, 2150 feet x 18 feet.....	1,816 81
Metal culvert .....	19 20
Engineering .....	15 50
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Total cost of work .....	\$1,971 51
Appropriated by town .....	\$1,000 00
State aid apportioned, section 6.....	750 00
Unexpended balance from 1911.....	184 01
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Joint fund .....	\$1,934 01
Additional amount furnished by town.....	37 50
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Net cost of work.....	\$1,971 51
Cost to town.....	787 50
	<hr/>
State aid approved.....	\$1,184 01

## SKOWHEGAN.

Contract No. 45. Contractor, town of Skowhegan; E. L. Ford, road commissioner; E. E. Greenwood, engineer; nature of improvement, grading, drainage, gravel and sand-clay surface; area, 3400 square yards; cost per square yard, \$0.50; work began August 26; completed October 31.

The section of state road improved begins at the end of the 1911 work and extends towards Skowhegan. 1000 feet of this road is surfaced with an artificial mixture of sand and clay and 700 feet is surfaced with gravel.

Quantities and unit prices estimated by the department:

1700 lineal feet of road graded @ \$0.529.

3400 square yards of gravel and sand-clay surface @ \$0.159.

84 lineal feet of 12-inch metal culvert @ \$1.10.

6 cubic yards of concrete @ \$8.00.

530 lineal feet of guard rail @ \$0.20.

Lump sum amount of contract..... \$1,750 00

Details and cost items compiled from certificates of municipal officers:

Length 1700 feet; width 28 feet.

Clearing right of way..... \$27 42

Grading ..... 1,478 09

Sand-clay surface, 1000 feet x 18 feet..... 84 82

Gravel surface 700 feet x 18 feet.....	70 00
3 metal culverts, 12 inches x 28 feet.....	103 50
Moving machinery and lighting work.....	12 50
Guard rail .....	68 35
Engineering .....	36 00
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Total cost of work.....	\$1,880 68
Amount appropriated by town.....	\$1,000 00
State aid apportioned, section 6.....	750 00
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Joint fund .....	\$1,750 00
Additional amount furnished by town.....	130 68
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Net cost of work.....	\$1,880 68
Cost to town .....	1,130 68
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Amount of state aid approved.....	\$750 00

SOUTH PORTLAND.

Contract No. 35. Contractor, city of South Portland; W. M. Burgess, in charge of work; A. E. Skillin, engineer; nature of improvement, grading, drainage and concrete pavement surfaced with bitumen; area, 1000.1 square yards; cost per square yard, \$2.10; dates of beginning and completion not given.

The section of state road improved is located on Summer street.

Quantities and unit prices estimated by the department:

Length 775 feet.

1205 square yards of concrete pavement, including grading, @ \$1.325.

175 lineal feet of stone base @ \$0.70.

Lump sum amount of contract..... \$1,750 00

Details and cost items compiled from certificates of municipal officers:

Length 643 feet; width 20 feet.

Stone base, 643 feet x 12 feet x 1.5 feet..... \$959 55

Concrete surface, 643 feet x 14 feet..... 1,140 00

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Total cost of work..... \$2,099 55

Amount appropriated by city.....	\$1,000 00
State aid apportioned, section 6.....	750 00
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Joint fund .....	\$1,750 00
Additional amount furnished by city.....	349 55
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Net cost of work.....	\$2,099 55
Cost to city.....	1,349 55
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State aid approved..... \$750 00

The contract for the concrete pavement was sublet by the city to Murphy Bros. of Portland.

It seemed advisable to change the location of this year's work after the contract was made out, making it necessary to construct a stone base under the entire length of the road. On account of this the entire amount of state aid has been allowed, notwithstanding the fact that the length of the concrete surface lacks 132 feet of equaling the amount specified in the contract.

#### WATERVILLE.

Contract No. 50. Contractor, city of Waterville; Sumner Rowe, street commissioner; J. H. Burleigh, engineer; nature of improvement, grading, drainage and gravel surface; area, 17,000 square yards; cost per square yard, \$0.38; work began September 21; completed December 4.

The section of state road improved begins at the end of the 1911 work and extends along College avenue to the Fairfield town line.

Quantities and unit prices estimated by the department:

4,000 lineal feet of road graded @ \$0.40.

13,333 square yards of gravel surface @ \$0.27.

Lump sum amount of contract..... \$5,287 94

Details and cost items compiled from certificates of municipal officers:

Length 5100 feet; width 35 feet.

Gravel surface, including grading..... \$6,444 80

Amount appropriated by city, section 4..... \$1,300 00

State aid apportioned, section 6..... 975 00

Unexpended balance from 1911..... 12 94

Special appropriation made by city.....	1,000 00
Apportioned by State from automobile fund.....	2,000 00
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Joint fund .....	\$5,287 94
Additional amount furnished by city.....	1,156 86
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Net cost of work.....	\$6,444 80
Cost to city .....	3,456 86
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State aid approved .....	\$2,987 94

WELD.

Contract No. 14. Contractor, town of Weld; I. H. Buker, road commissioner; W. R. Harmon, engineer; nature of improvement, grading, drainage and gravel surface; area, 4500 square yards; cost per square yard, \$0.17; work began August 26; completed October 17.

The section of state road improved begins about one-fourth mile from the Perkins plantation line and extends northeasterly.

Quantities and unit prices estimated by the department:

1600 lineal feet of road graded @ \$0.20.

2667 square yards of gravel surface @ \$0.16.

36 lineal feet of 36-inch metal culvert with concrete end walls, \$217.60.

24 lineal feet of 12-inch metal culvert with concrete end walls, \$40.00.

Lump sum amount of contract..... \$1,030 66

Details and cost items compiled from certificates of municipal officers:

Length 2700 feet; width 23 feet.

Grading .....	\$475 00
Gravel surface*.....	268 45
108 feet of wood guard rail.....	8 37
Metal culvert, 36 inches x 26 feet.....	154 53
Metal culvert, 12 inches x 35 feet.....	25 46
Metal culvert, 8 inches x 25 feet.....	22 57
Engineering .....	5 00
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Total cost of work..... \$959 38

Amount appropriated by town..... \$400 00

State aid apportioned, section 6.....	400 00
Unexpended balance of state aid from 1911.....	230 66
	<hr/>
Joint fund .....	\$1,030 66
Net cost of work.....	\$959 38
Cost to town .....	400 00
	<hr/>
State aid approved .....	\$559 38
Unexpended balance available for expenditure in 1913 .....	\$71 28

## WELLS.

1911 work completed in 1912.

Contract No. 52. Contractor, town of Wells; work in charge of L. R. Williams; survey made by department; nature of improvement, grading and gravel surface; area, 2730 square yards; cost per square yard, \$0.35; date of beginning and completion not given.

The section of state road improved begins at station 788+20 in Ogunquit and extends northerly.

Quantities and unit prices estimated by the department:

800 lineal feet of road graded @ \$0.26.

1333 square yards of gravel surface @ \$0.40.

34 lineal feet of 18-inch metal culvert @ \$1.40.

3 cubic yards of concrete @ \$8.00.

400 lineal feet of stone base @ \$0.50.

1 iron grate for drop inlet, \$4.20.

Lump sum amount of contract..... \$1,017 00

Details and cost items compiled from certificates of municipal officers:

Length 1638 feet; width 21 feet.

Grading, surfacing and stone base..... \$947 67

Metal culvert, 18 inches x 34 feet..... 49 81

Total cost of work..... \$997 48

Appropriated by town..... \$550 00

State aid apportioned, section 6..... 467 00

Joint fund .....

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\$1,017 00

Net cost of work.....	\$997 48
Cost to town.....	550 00
	<hr/>
State aid approved.....	\$447 48
Unexpended balance available for expenditure in 1913 .....	\$19 52

WESTBROOK.

Contract No. 22. Contractor, city of Westbrook; A. D. Woodbury, street commissioner; D. R. Duran, engineer; work sublet to the Hassam Paving Company; nature of improvement, grading and Hassamite pavement; area, 1690 square yards; cost per square yard, \$1.664; work began August 12; completed September 28.

The section of state road improved begins at the end of the 1911 work and extends westerly 651.6 feet.

Quantities and unit prices estimated by the department:

Length 514.37 lineal feet.

1272.73 square yards of Hassamite pavement @ \$1.65.

Lump sum amount of contract..... \$2,100 00

Details and cost items compiled from certificates of municipal officers:

Length 651.6 feet; width 21.8 feet.

1690 square yards of Hassamite pavement..... \$2,788 50

Engineering ..... 24 91

Total cost of work..... \$2,813 41

Amount appropriated by city..... \$1,200 00

State aid apportioned..... 900 00

Joint fund ..... \$2,100 00

Additional amount furnished by city..... 713 41

Net cost of work..... \$2,813 41

Cost to city..... 1,913 41

State aid approved..... \$900 00

## WINDHAM.

Contract No. 19. Contractor, town of Windham; work in charge of selectmen; D. R. Duran, engineer; nature of improvement, grading, drainage and gravel surface; area, 5556 square yards; cost per square yard, \$0.20; work began September 10; completed November 29.

The section of state road improved begins at the end of the 1911 work and extends northerly.

Quantities and unit prices estimated by the department:

2400 lineal feet of road graded @ \$0.10.

4000 square yards of gravel surface @ \$0.19.

1 cement-stone masonry culvert, 18 inches x 18 inches x 30 feet, \$30.00.

1 cement-stone masonry culvert, 18 inches x 18 inches x 26 feet, \$26.00.

Lump sum amount of contract..... \$1,093 31

Details and cost items compiled from certificates of municipal officers:

Length 3334 feet; width 23 feet.

Grading .....	\$420 62
Gravel surface .....	676 80
Cement-stone masonry culvert, 18 inches x 18 inches x 27 feet.....	27 83
Cost of extending old culvert.....	2 50
Cement .....	6 00
Incidentals .....	2 30
Engineering .....	28 15

Total cost of work.....	\$1,164 20
Amount appropriated by town.....	\$550 00
State aid apportioned, section 6.....	467 00
Unexpended balance from 1911.....	76 31

Joint fund .....	\$1,093 31
Additional amount furnished by town.....	70 89

Net cost of work.....	\$1,164 20
Cost to town.....	620 89

State aid approved..... \$543 31

WINSLOW.

Contract No. 47. Contractor, town of Winslow; work in charge of Fred H. Ellis; J. H. Burleigh, engineer; nature of improvement, grading, drainage and gravel surface; area, 4267 square yards; cost per square yard, \$0.59; work began September 26; completed November 12.

The section of state road improved begins at Seco corner, co-called, and extends southerly.

Quantities and unit prices estimated by the department:

- 2400 lineal feet of road graded @ \$0.20.
- 4000 square yards of gravel surface @ \$0.325.
- 48 lineal feet of 12-inch metal culvert @ \$1.10.
- 3300 lineal feet of underdrain, including a 5-inch tile pipe @ \$0.27.
- 4 cubic yards of concrete masonry @ \$8.00.

Lump sum amount of contract..... \$2,800 00

Details and cost items compiled from certificates of municipal officers:

Length 2400 feet; width 21 feet.

Grading .....	\$133 74
3300 lineal feet of underdrain.....	823 51
Gravel surface, 2400 feet x 16 feet.....	1,413 18
53 lineal feet of concrete culverts substituted for metal culverts, cost included in gravel surface.	
Steel for culverts.....	12 00
Crushed stone .....	6 00
Engineering .....	12 90
Foreman .....	96 00

Total cost of work .....	\$2,497 33
Amount appropriated by town in 1911.....	\$800 00
Amount appropriated by town in 1912.....	800 00
State aid apportioned in 1911.....	600 00
State aid apportioned in 1912.....	600 00

Joint fund .....	\$2,800 00
Net cost of work.....	\$2,497 33
Cost to town .....	1,600 00



State aid approved .....	\$897 33
Unexpended balance available for expenditure in 1913 .....	\$302 67

## WINTERPORT.

Contract No. 31. Contractor, town of Winterport; I. G. Young, road commissioner; R. E. Mullaney, engineer; nature of improvement, grading, drainage and gravel surface; area, 4333 square yards; cost per square yard, \$0.26; work began September 9; completed November 2.

This work was built in two sections: The first section begins at station 0+00, shown on the plan for section No. 1, and extends to the southerly end of the 1909 work; the second section begins at station 0+00, shown on the plan for section No. 2 and extends northerly.

Quantities and unit prices estimated by the department:

1300 lineal feet of road graded @ \$0.05.

2167 square yards of gravel surface @ \$0.222.

985 lineal feet of "V" drain @ \$0.60.

3 concrete culverts, 16 inches x 16 inches x 22 feet, \$140 00

Lump sum amount of contract..... \$1,327 40

Details and cost items compiled from certificates of municipal officers:

Length 2600 feet; width 22 feet.

Grading .....	\$276 97
Gravel surface, 2600 feet x 15 feet.....	472 50
"V" drain, 1760 feet x 12 feet x 25 feet.....	356 30
350 lineal feet of iron guard rail.....	60 98
1 concrete culvert, 18 inches x 18 inches x 22 feet	50 00
1 concrete culvert, 18 inches x 18 inches x 22 feet	48 50
1 concrete culvert, 16 inches x 16 inches x 23.5 feet .....	50 00
Engineering .....	29 05

Total cost of work.....	\$1,344 30
Amount appropriated by town.....	\$400 00
State aid apportioned, section 6.....	400 00
Unexpended balance of town appropriation in 1911....	127 40
State aid apportioned in 1911.....	400 00

Joint fund .....	\$1,327 40
Additional amount furnished by town.....	16 90
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Net cost of work.....	\$1,344 30
Cost to town .....	544 30
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State aid approved .....	\$800 00

WINTHROP.

Contract No. 55. Contractor, town of Winthrop; E. C. McLaughlin, road commissioner; E. E. Greenwood & Co., engineers; nature of improvement, grading, drainage and gravel surface; area, 2222 square yards; cost per square yard, \$0.44; work began October 7; completed November 29.

The section of state road improved begins at the end of the 1911 work and extends westerly.

Quantities and unit prices estimated by the department:

- 1000 lineal feet of road graded @ \$0.30.
- 1667 square yards of gravel surface @ \$0.187.
- 800 lineal feet of "V" drain @ \$0.60.
- 24 lineal feet of 12-inch metal culvert @ \$1.00.
- 2 cubic yards of concrete @ \$8.00.

Repairs on old stone culvert.....	\$10 00
Lump sum amount of contract.....	\$1,173 88

Details and cost items compiled from certificates of municipal officers:

Length 1000 feet; width 20 feet.

Grading .....	\$165 00
900 lineal feet of "V" drain.....	425 00
Gravel surfacing, 1000 feet x 20 feet.....	350 00
Metal culvert, 14 inches x 36 feet.....	28 80
Incidentals .....	13 67
Engineering .....	28 30

Total cost .....	\$1,010 77
Appropriated by town.....	\$600 00
State aid approved, section 6.....	480 00
Unexpended balance from 1911.....	93 88

Joint fund .....	\$1,173 88
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Net cost of work .....	\$1,010 77
Cost to town .....	600 00
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State aid approved.....	\$410 77
Unexpended balance available for expenditure in 1913 .....	\$163 11

## YARMOUTH.

Contract No. 59. Contractor, town of Yarmouth; Charles Johnson, in charge of work; F. B. Merrill, engineer; nature of improvement, grading, drainage and gravel surface; area, 2167 square yards; cost per square yard, \$0.43; work began September 10; completed October 25.

The section of state road improved begins at the end of the 1911 work and extends westerly.

Quantities and unit prices estimated by the department:

1100 lineal feet of road graded @ \$0.30.

1833 square yards of gravel surface @ \$0.26.

46 lineal feet of 30-inch metal culvert @ \$2.60.

60 lineal feet of 12-inch metal culvert @ \$1.00.

4 cubic yards of concrete @ \$8.00.

85 lineal feet of wood guard rail @ \$0.35.

Lump sum amount of contract..... \$1,080 00

Details and cost items compiled from certificates of municipal officers:

Length 1300 feet; width 24 feet.

Grading ..... \$325 00

Gravel surface, 1300 feet x 15 feet..... 610 74

74 feet of 30-inch metal culvert..... 162 80

92 lineal feet of 12-inch metal culvert..... 73 60

Engineering ..... 4 50

Total cost of work..... \$1,176 64

Amount appropriated by town..... \$600 00

State aid approved, section 6..... 480 00

Joint fund ..... \$1,080 00

Additional amount furnished by town..... 96 64

Net cost of work..... \$1,176 64

Cost to town.....	696 64
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State aid approved.....	\$480 00

YORK.

Contract No. 61. Contractor, town of York; Charles L. Grant, road commissioner; survey made by department; nature of improvement, grading, drainage and gravel surface; area, 8435 square yards; cost per square yard, \$0.15; date of beginning and completion not given.

The section of state road improved begins at the end of the 1911 work and extends easterly 3615 feet.

Quantities and unit prices estimated by the department:

- 2500 lineal feet of road graded @ \$0.173.
- 4166 square yards of gravel surface @ \$0.25.
- 52 lineal feet of 14-inch metal culvert, \$57.20.
- 52 lineal feet of 12-inch metal culvert, \$52.00.
- 4.5 cubic yards of concrete @ \$10.00.

Lump sum amount of contract..... \$1,662 00

Details and cost items compiled from certificates of municipal officers:

Length 3615 feet; width 21 feet.

Grading .....	\$273 00
Road machine work .....	48 00
Gravel surface, 3615 feet x 21 feet.....	958 23
5 metal culverts .....	227 53
Concrete end walls .....	11 00

Total cost of work.....	\$1,517 76
Appropriated by town.....	\$950 00
State aid apportioned, section 6.....	712 00

Joint fund .....	\$1,662 00
Net cost of work.....	\$1,517 76
Cost to town.....	950 00

State aid approved .....	\$567 76
Unexpended balance available for expenditure on this road in 1913 .....	\$144 24

## YORK.

1911 work completed in 1912.

Contract No. 48. Contractor, town of York; Charles L. Grant, road commissioner; survey made by W. L. Grover; nature of improvement, grading, drainage and gravel surface; area, 8167 square yards; cost per square yard, \$0.16; work began October, 1911; completed October, 1912.

The section of state road improved begins at station 382+00 on the Grover plan and extends southwesterly 1600 feet, thence along the York Beach road.

Quantities and unit prices estimated by the department:

2000 lineal feet of road graded @ \$0.15.

4667 square yards of gravel surface @ \$0.205.

78 lineal feet of 12-inch metal culvert @ \$1.10.

38 lineal feet of 18-inch metal culvert @ \$1.45.

38 lineal feet of 24-inch metal culvert @ \$1.90.

5.7 cubic yards of concrete @ \$8.00.

5 drop inlets complete with iron cover @ \$25.00.

Lump sum amount of contract..... \$1,662 00

Details and cost items compiled from certificates of municipal officers:

Length 3500 feet; width 21 feet.

Grading ..... \$48 00

Gravel surface, 3500 feet x 21 feet..... 1,221 30

Metal culverts ..... 392 28

Drop inlets ..... 30 62

Total cost of work..... \$1,692 20

Amount appropriated by town..... \$950 00

State aid apportioned, section 6..... 712 00

Joint fund ..... \$1,662 00

Additional amount furnished by town..... 30 20

Net cost of work..... \$1,692 20

Cost to town..... 980 20

State aid approved ..... \$712 00

TABLE OF COMPARATIVE COSTS.  
1912 State Road Contracts.

TOWN OR CITY.	Length of road improved—feet.	Width of surface—feet.	Total width of road—feet.	Number square yds. of finished surface.	Cost of macadam per square yard.	Cost of gravel per square yard.	Cost of earth per square yard.	Cost of bituminous macadam per square yard.	Cost of concrete pavement per square yard.	Cost of wood block pavement per square yard.
Bangor	450	-	53	1395.19	-	-	-	-	-	\$3.95
Bath	850	15	25	1416	\$1.56	-	-	-	-	-
Berwick	1285	12	21	1713	0.56	-	-	-	-	-
Biddeford	860.5	21	21	2006.33	-	-	-	-	-	-
Bingham	1100	25	38	3055	-	\$0.789	-	-	\$1.31	-
Brewer	890	29	40	2868	0.56	-	-	-	-	-
Bridgton	2500	21	21	5833	-	-	\$0.169	-	-	-
Brunswick	850	15	25	1583	-	-	-	\$1.08	-	-
*Brunswick	360	15	21	600	-	-	-	0.93	-	-
Buxton	1225	15	23	2042	-	0.53	-	-	-	-
Calais	1600	23	26	4089	0.40	-	-	-	-	-
Camden	715	39.6	39.6	3146	-	-	-	1.14	-	-
Caribou	555	28	33	1727	1.23	-	-	-	-	-
Damariscotta	686	-	-	2528	-	-	-	\$0.906	-	-
Dexter	1300	28	33	4044	0.27	-	-	-	-	-
Dixfield	4000	18	23	8000	-	0.24	-	-	-	-
East Livermore	615	34	34	2255	-	-	-	0.57	-	-
Eastport	1500	23	23	3833	-	0.23	-	-	-	-
Eden	775	24	30	2067	0.89	-	-	-	-	-
Ellsworth	750	15	21	1250	0.995	-	-	-	-	-
Fairfield	245	56	56	1185	-	-	-	2.81	-	-
Farmington	2800	22	23	6844	-	0.17	-	-	-	-
Fort Fairfield	1600	18	30	3200	-	0.453	-	-	-	-
Freeport	1325	12	21	1767	-	0.60	-	-	-	-
Gardiner	1777	21	21	4166.17	-	-	-	-	1.32	-
Gorham	750	12	23	1000	-	1.22	-	-	-	-
Grand Isle	838	28	28	2607	-	-	0.17	-	-	-
Houlton	1000	16	24	1777	1.17	-	-	-	-	-
Jay	2400	16	23	4267	-	0.28	-	-	-	-
*Jay	1250	15-16	22	2144	0.67	-	-	-	-	-
Kennebunkport	1050	21	30	2450	-	0.46	-	-	-	-
Lewiston	1054	32	32	3747	-	-	-	1.06	-	-
Lisbon	1000	21	25	2333	-	0.58	-	-	-	-
Madison	1050	30	30	3500	-	0.35	-	-	-	-
Millinocket	792	30	30	2640	-	0.41	-	-	-	-
Mt. Desert	1999	12	21	2665	-	0.41	-	-	-	-
*Mt. Desert	1300	21	21	3035	-	-	0.40	-	-	-
Norway	1150	23	23	2939	-	0.34	-	-	-	-
Old Town	1058	24	26	2821	0.75	-	-	-	-	-
Orono	1375	25	25	3819	-	0.35	-	-	-	-
Phippsbutg.	1000	12	21	1333	-	1.10	-	-	-	-
Pittsfield	745	49	49	4291	-	-	-	-	1.32	-
Portage	2600	23	23	6644	-	0.13	-	-	-	-
Portland	3016	9-15	9-15	7974.7	-	-	-	-	1.40	-
Rockland	1022	18	18	2131	-	-	-	1.12	-	-
Rockport	675	23	30	1725	-	0.595	-	-	-	-
Saco	775	28	28	2411	0.84	-	-	-	-	-
Sanford	2150	18	23	4300	-	0.45	-	-	-	-
Skowhegan	1700	18	28	3400	-	0.50	-	-	-	-
South Portland	643	14	20	1000.1	-	-	-	-	2.10	-
Waterville	5100	30	35	17000	-	0.38	-	-	-	-
Weld	2700	15	23	4500	-	0.17	-	-	-	-
*Wells	1638	15	21	2730	-	0.35	-	-	-	-
†Westbrook	651.6	21.8	21.8	1690	-	-	-	-	1.664	-
Windham	3334	15	23	5556	-	0.20	-	-	-	-
Winslow	2400	10	21	4267	-	0.59	-	-	-	-
Winterport	2600	15	22	4333	-	0.26	-	-	-	-
Winthrop	1000	20	20	2222	-	0.44	-	-	-	-
Yarmouth	1300	15	24	2167	-	0.43	-	-	-	-
*York	3500	21	21	8167	-	0.16	-	-	-	-
York	3615	21	21	8435	-	0.15	-	-	-	-
Averages	-	-	-	-	\$0.824	\$0.43	\$0.25	\$0.973	\$1.52	\$3.95

Cost per square yard is figured with grading, underdrainage and engineering included culverts, guard rails and other items are not included.

\* 1911 work completed in 1912.

† Hassam pavement.

‡ Average cost of bituminous macadam surface does not include Fairfield.

## CONTRACTS.

CITY OR TOWN.	Survey and plan made by	Work in charge of	Inspector.
Bangor	P. H. Coombs	J. F. Grady & Sons	P. H. Coombs.
Bath	Stephen Litchfield	O. F. Williams	S. Litchfield.
Berwick	W. A. Grover	Edgar Wentworth	G. A. Carpenter.
Biddeford	W. T. Allen	Hassam Paving Co.	Department.
Bingham	E. E. Greenwood	E. R. Taylor	Department.
Brewer	R. E. Mullaney	F. B. Fickett	R. E. Mullaney.
Bridgton	D. E. Chaplin	E. T. Murch	Department.
Brunswick	Stephen Litchfield	T. E. Dolan	S. Litchfield.
Buxton	R. Libby	F. W. Smith	A. J. Wiggins.
Calais	C. F. Pray	A. P. Gardner	C. F. Pray.
Camden	L. O. Norwood	H. F. Howard	L. O. Norwood.
*Cape Elizabeth	A. E. Skillin	Chas. E. Jordan	Department.
Caribou	G. M. Hardison	S. E. Griffin	G. M. Hardison.
Damariscotta	Stephen Litchfield	C. M. Willey	J. H. McLean.
Dexter	W. B. Gould	G. D. Chandler	A. A. Adams.
Dixfield	Henry French	Selectmen	H. W. Gilman.
E. Livermore	I. T. Monroe	G. W. Dyke	Department.
Eastport	C. F. Pray	Angus Holmes	C. F. Pray.
Eden	E. W. Hill	Small & Ingalls	Department.
Ellsworth	Ira B. Hagan, Jr.	Fred B. Marden	Department.
Fairfield	J. H. Burleigh	George Roderick	Department.
Farmington	W. G. Mallett	W. L. Butler	H. W. Gilman.
Ft. Fairfield	G. M. Hardison	C. J. Knight	G. M. Hardison.
Freeport	Stephen Litchfield	Harry Merrill	Department.
Gardiner	J. W. Berry	L. M. Barnard	Department.
Gorham	D. R. Duran	Selectmen	Department.
Grand Isle	G. M. Hardison	Z. Madore	G. M. Hardison.
Houlton	P. N. Burleigh	George W. Small	P. N. Burleigh.
Jay	I. T. Monroe	C. L. Averill	H. W. Gilman.
Kennebunkport	E. R. Keene	I. S. Ross	A. J. Wiggins.
Lewiston	R. A. Swift	J. J. Ryan	Department.
Lisbon	Stephen Litchfield	G. H. McIntosh	Department.
Madison	C. S. Humphreys	B. T. Burns	Department.
Millinocket	F. C. Bowler	Fred M. Gates	F. C. Bowler.
Mt. Desert	C. P. Simpson	E. N. Walls	Department.
Norway	J. H. Stuart	J. A. Roberts	Department.
Old Town	H. Hilliard	E. T. Hartwell	Department.
Orono	R. E. Mullaney	Ralph L. Perkins	Department.
Parkman	E. J. Smith	D. E. Stuart	A. A. Adams.
Phippsburg	Stephen Litchfield	C. V. Minott, Jr.	Department.
Pittsfield	O. E. Libby	John W. Gulliver	Department.
Portage	G. M. Hardison	C. O. Ross	G. M. Hardison.
Portland	Bion Bradbury, Jr.	Hassam Paving Co.	Bion Bradbury, Jr.
*Presque Isle	G. M. Hardison	Selectmen	G. M. Hardison.
Rockland	L. O. Norwood	Fales & Simmons	L. O. Norwood.
Rockport	L. O. Norwood	J. F. Knight	L. O. Norwood.
*Rumford	Henry Nelson	James Kerr	H. H. Hutchins.
Saco	R. W. Libby	G. W. Scammon	Department.
Sanford	M. R. Stackpole	Dennis Johnson	Department.
Skowhegan	E. E. Greenwood	E. L. Ford	Department.
So. Portland	A. E. Skillin	W. M. Burgess	Department.
Waterville	J. H. Burleigh	Sumner Rowe	Department.
Weld	W. R. Harmon	I. H. Buker	H. W. Gilman.
Westbrook	D. R. Duran	Hassam Paving Co.	D. R. Duran.
Windham	D. R. Duran	Selectmen	Department.
Winslow	J. H. Burleigh	Fred H. Ellis	Department.
Winterport	R. E. Mullaney	I. G. Young	Department.
Winthrop	E. E. Greenwood	E. C. McLaughlin	Department.
Yarmouth	F. B. Merrill	Charles Johnson	Department.
York	E. R. Keene	C. L. Grant	A. J. Wiggins.

\* Work not completed.

The following are descriptions of work done with special apportionments made from the unapportioned fund.

AUGUSTA.

Special apportionment made for the improvement of a part of State street.

This work is located on State street, extending from the southerly side of Union street to the northerly side of Capitol street and on a designated trunk line.

This work was in charge of J. A. McLean, and consisted of grading and the construction of a bituminous macadam surface and block paved gutters.

Details and cost items:

Length 700 feet; area 3561 square yards.	
45 tons of crushed stone @ \$1.10.....	\$49 50
695 loads of crushed stone @ \$2.00.....	1,390 00
136 loads of crushed stone @ \$1.00.....	136 00
Rent of steam roller, 33 1-2 days @ \$10.00.....	335 00
Rent of steam roller, 3 days @ \$5.00.....	15 00
Trucking .....	26 10
Labor .....	790 02
Lumber .....	5 62
Wood .....	50 50
Supplies .....	31 15
Blacksmith work .....	0 85
250 gallons of Tarite.....	21 35
4364 gallons of Tarvia-X.....	370 94
4517 gallons of Bermudez asphalt.....	618 83
Freight on Tarvia-X.....	59 00
Freight on tar kettle.....	2 40
Foreman .....	194 00
Engineering .....	31 70
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Total cost of work.....	\$4,127 96
Credit by sale of tar barrels.....	13 33
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Net cost of work.....	\$4,114 63



## BLOCK PAVED GUTTER.

190 square yards, labor .....	\$127 90
Cement .....	5 25
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Total cost of work on State street .....	\$4,247 78
Total apportionment .....	\$4,247 78
Cost of bituminous macadam per square yard.....	\$1 15
Cost of block paved gutter per square yard.....	\$0 70
(Blocks were furnished free by city of Augusta.)	

## BRUNSWICK.

Special apportionment made to Brunswick for the improvement of the Brunswick state road.

The section of state road improved is located on the main road from Brunswick to Freeport, beginning at the end of the regular 1912 state road work and extending towards Brunswick.

The work consisted of grading and surfacing with bituminous macadam.

Stephen Litchfield was engineer and T. E. Dolan was in charge of the work. Work began September 28.

Details and cost items:

Grading, 2235 feet.....	\$1,274 40
Bituminous macadam surface, 1250 feet x 15 feet ..	2,730 66
Road machine work.....	25 25
Retaining wall, 185 feet x 2 feet x 4 feet.....	317 71
Engineering .....	40 00
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Total cost of work to January 1, 1913 .....	\$4,388 02

## SUMMARY OF COST OF WORK.

Foreman .....	\$100 00
Labor and teams.....	1,890 45
1135 tons of crushed stone.....	964 80
87 tons of trap rock.....	87 05
3385 gallons, Bermudez asphalt.....	543 85
Material for fill.....	114 20
Incidentals .....	49 29
Rock for retaining wall.....	47 00

Lime and cement.....	43 60
Freight on crushed stone.....	547 78
<hr/>	
Total cost of work.....	\$4,388 02
Credit by sale of stone.....	76 63
<hr/>	
Net cost of work.....	\$4,311 39
Apportioned by State from unapportioned fund...	\$5,000 00
Unexpended balance .....	\$681 61

Work not completed.

Material on hand, 20 barrels of Bermudez asphalt and 12 carloads of crushed stone.

This work will be completed in 1913.

CASCO.

Special apportionment from unapportioned fund.

This section of road is on the Poland-Naples and Fryeburg road and extends to Webbs Mills; nature of improvement, grading, drainage and gravel surface. Contractor, David McLellan; engineering and inspection by the department.

Estimate of quantities:

Grading and surfacing, 5076 feet.

8 stone culverts.

30 lineal feet of guard rail.

Lump sum bid .....	\$1,174 73
Apportioned by State.....	\$600 00
Appropriated by town of Casco.....	300 00
Hiram Ricker & Sons .....	300 00
<hr/>	
Joint fund .....	\$1,200 00
Paid by State for advertising.....	\$13 08
David McLellan, on contract.....	586 92
Total payment by State.....	\$600 00
Paid by Hiram Ricker & Sons.....	300 00
Paid by town of Casco.....	333 08
<hr/>	
Total cost of work.....	\$1,233 08

## PHIPPSBURG.

Special apportionment from unapportioned fund.

This work is located in the "Sam Day Woods," so-called, and consists of grading, drainage and gravel surface. Chas. V. Minott, Jr., was in charge of work. The work began November 15, and it was found necessary to stop work on account of the cold weather, on December 18.

Apportioned by State.....		\$2,000 00
Cost of grading to Jan. 1, 1913.....	\$378 02	
Engineering .....	25 00	
	<hr/>	403 02
Unexpended balance .....		<hr/> \$1,596 98

## SPECIAL CONTRACTS.

Special contracts (not required under the state road law) made at the request of the municipal officers by the department.

## FRANKLIN.

Contractor, town of Franklin; engineer and inspector, H. M. Kenniston; work in charge of W. E. Abbott, road commissioner; nature of improvement, grading, drainage and gravel surface. Work began June 24; completed September 20.

The section of road improved begins at the westerly end of the 1910 section and extends westerly.

Quantities and unit prices estimated by the department:

1200 lineal feet of road graded @ \$0.125.

2000 square yards of gravel surface @ \$0.30.

24 lineal feet of 2 feet x 2 feet dry stone culvert @ \$2.00.

Lump sum amount of contract..... \$800 00

Details and cost items compiled from certificates of municipal officers:

Length 1200 feet; width 23 feet.

Clearing right of way..... \$22 00

Grading, 30 ft. of rock cutting and 350 feet earth filling ..... 415 00

Gravel surface, 1200 feet x 15 feet.....	315 00
1 split stone culvert, 26 feet x 2 feet x 2 feet .....	48 00
	<hr/>
Total cost of work.....	\$800 00
Amount appropriated by town.....	\$400 00
State aid apportioned under section 6.....	400 00
	<hr/>
Joint fund .....	\$800 00
Net cost of work.....	\$800 00
Cost to town.....	400 00
	<hr/>
State aid approved.....	\$400 00

RAYMOND.

Contractor, Bert Lombard; engineer, D. R. Duran; George A. Carpenter, inspector; work began August 28; completed October 29.

Nature of improvement, grading, drainage and earth surface. Length 3809 feet; width 21 feet.

- 1 stone culvert, 18 inches x 20 inches x 25 feet long.
- 1 stone culvert, 20 inches x 24 inches x 25 feet long.
- 1 stone culvert, 18 inches x 20 inches x 28 feet long.
- 1 stone culvert, 18 inches x 20 inches x 25 feet long.

The section of road improved begins at the end of the 1911 section and extends toward Raymond village.

On August 10 a contract was made with Bert Lombard of Raymond to build this piece of road for 21 cents per lineal foot, including all necessary culverts.

Details and cost items compiled from certificates of municipal officers:

Length 3809 feet; width 21 feet.	
Grading .....	\$400 00
Earth surface .....	275 00
1 split stone culvert, 18 inches x 20 inches x 25 feet long .....	25 00
1 split stone culvert, 20 inches x 24 inches x 25 feet long .....	25 00
1 split stone culvert 20 inches x 18 inches x 28 feet long .....	25 00

1 split stone culvert 18 inches x 20 inches x 25 feet long .....	25 00
1 split stone culvert 18 inches x 20 inches x 25 feet long .....	25 00
	<hr/>
Total cost of work .....	\$800 00
Appropriated by town.....	\$400 00
Apportioned by State.....	400 00
	<hr/>
Joint fund .....	\$800 00
Net cost of work .....	\$800 00
Paid by town .....	400 00
	<hr/>
State aid approved .....	\$400 00

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**TABULAR STATEMENTS**  
**OF**  
**STATE ROAD WORK**  
**AND**  
**1910 STATE ROAD WORK COMPLETED**  
**IN 1911**

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## TABULAR STATEMENT OF

NOTE:—In column showing material with which road is bituminous macadam, ° indicates concrete pavement, indicate gravel surface.

Town.	County.	Total length—feet.	Finished width—feet.	"Y" drain or stone base.	Macadam, gravel or earth surface—feet.
Abbot.....	Piscataquis....	2,029	24	929	2,029
Acton.....	York.....	1,200	21	525	1,200
Albany.....	Oxford.....	1,645	22	300	1,645
Albion.....	Kennebec.....	1,482	30	-	1,482
Alexander.....	Washington....	1,000	20	-	1,000
Alfred.....	York.....	1,975	22	50	1,975
Alna.....	Lincoln.....	842	21	842	842
Alton.....	Penobscot.....	2,900	21	-	2,900
Amherst.....	Hancock.....	1,200	21	370	1,200
Amity.....	Aroostook.....	700	21	700	700
Andover.....	Oxford.....	1,977	21	290	1,977
Andover No. S. Twp..	Oxford.....	660	21	-	660
Anson <sup>1</sup> .....	Somerset.....	640	32	194	640
Appleton.....	Knox.....	800	23	-	800
Argyle.....	Penobscot.....	1,081	21	-	1,081
Arrowsic.....	Sagadahoc.....	855	18 to 21	-	855
Ashland.....	Aroostook.....	2,850	24	1,050	2,850
Athens.....	Somerset.....	1,320	24	1,155	1,320
Atkinson.....	Piscataquis....	1,033	24	-	1,033
Auburn.....	Androscoggin..	212	40	-	212
Augusta <sup>2</sup> .....	Kennebec.....				
Aurora.....	Hancock.....	1,250	21	-	1,250
Avon.....	Franklin.....	1,250	21	-	1,250
Baileyville.....	Washington....	1,600	22	-	1,600
Bald Mt. Twp. 2, R. 3.	Somerset.....	800	21	-	800
Baldwin.....	Cumberland....	1,700	22	-	1,700
Bancroft.....	Aroostook.....	850	23	250	850
Bangor <sup>3</sup> .....	Penobscot.....	450	53	-	450
Baring <sup>4</sup> .....	Washington....	340	22	-	340
Bath <sup>5</sup> .....	Sagadahoc.....	850	25	-	*850

1 Anson: Put in five driveway culverts and two catch basins at a cost of \$63.14.

2 Augusta: No contract was made. City must carry over \$639.82 for use in 1913.

3 Bangor: For more detail on this work see write-up on contract towns.

4 Baring: Reinforced concrete slab bridge. Concrete abutments. Span 7 feet, height 5½ feet, width of roadway 24 feet. Cost of bridge not included in cost per lineal foot.

5 Bath: 18-inch vitrified clay pipe incased in concrete. \$107.24 held until road is finished with a surface treatment of tar as per contract.

§ Laid over.

STATE ROAD WORK IN 1912.

surfaced \* indicates macadam, † indicates earth, ‡ indicates  
 || indicates wood block pavement. Figures with no index

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—-inches.	Length—feet.	Cost.						
Metal.....	16	28	\$49 75	\$615 96	\$600 00	\$300 00	-	\$15 96	\$ 30
Stone.....	24 x 24	26	15 75	399 96	400 00	199 96	-	-	33
Metal.....	12	24	57 60	600 00	600 00	400 00	1 04	-	36
{ Metal.....	16	130	-	-	-	-	-	-	-
{ Metal.....	18	24	225 24	803 27	800 00	400 00	-	3 27	54
{ Metal.....	18	22	-	-	-	-	-	-	-
Stone.....	22 x 22	30	30 00	636 28	600 00	400 00	-	36 28	64
Metal.....	18	26	31 71	800 65	800 00	400 00	-	0 65	41
Concrete...	42 x 48	25	231 02	583 02	600 00	382 23	17 77	-	69
Metal.....	12	26	30 68	600 00	600 00	400 00	-	-	21
Metal.....	10	24	69 28	719 67	600 00	400 00	-	119 67	60
Metal.....	24	24	50 40	-	-	-	-	-	-
Metal.....	12	24	28 40	823 16	600 00	400 00	-	223 16	1 17
Metal.....	10	26	22 50	-	-	-	-	-	-
Metal.....	10	28	32 50	799 30	800 00	399 30	70	-	40
.....	-	-	-	79 00	79 00	39 50	-	-	12
Metal.....	21	42	65 71	800 91	800 00	400 00	-	91	1 25
Stone.....	32 x 32	23	42 83	-	-	-	-	-	-
Metal.....	16	26	36 70	816 26	800 00	400 00	-	16 26	1 02
{ Metal.....	8	24	-	-	-	-	-	-	-
{ Metal.....	12	24	58 51	454 13	450 00	300 00	-	4 13	42
.....	-	-	-	678 92	600 00	400 00	-	78 92	79
{ Metal.....	12	120	-	-	-	-	-	-	-
{ Metal.....	12	48	-	-	-	-	-	-	-
{ Metal.....	16	24	171 00	802 00	800 00	391 05	8 95	2 00	28
{ Metal.....	24	24	-	-	-	-	-	-	-
{ Metal.....	10	22	-	-	-	-	-	-	-
{ Metal.....	12	22	51 03	441 03	400 00	200 00	-	41 03	33
Metal.....	16	32	32 39	686 12	600 00	400 00	-	86 12	66
.....	-	-	-	1,505 31	2,625 00	645 13	479 87	-	7 10
{ Metal.....	16	26	-	-	-	-	-	-	-
{ Metal.....	18	26	88 30	615 39	600 00	400 00	-	15 39	50
Stone.....	24 x 26	24	-	-	-	-	-	-	-
Stone.....	24 x 26	24	103 05	585 67	600 00	355 89	44 11	-	47
Concrete...	12 x 18	24	75 00	950 00	900 00	450 00	-	50 00	60
.....	-	-	-	145 25	143 00	71 50	-	2 25	18
Stone.....	36 x 36	34	30 00	726 55	800 00	320 72	79 28	-	43
{ Metal.....	36	24	-	-	-	-	-	-	-
{ Metal.....	18	24	123 45	587 95	600 00	380 12	19 88	-	69
.....	-	-	-	6,048 74	6,325 00	2,048 74	276 26	-	13 44
Bridge.....	-	-	363 72	647 71	600 00	400 00	-	47 71	83
Tile.....	18'	43½	58 25	2,266 88	2,275 00	867 76	107 24	-	2 67



## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Beddington.....	Washington....	2,300	20	-	2,300
Belfast.....	Waldo.....	1,200	26	600	1,200
Belgrade.....	Kennebec.....				
Belmont.....	Waldo.....	1,250	27	1,050	†1,250
Benedicta.....	Aroostook.....	1,260	24	1,260	1,260
Benton.....	Kennebec.....	4,900	21	-	4,900
Berwick.....	York.....	1,285	21 to 23	-	*1,285
Bethel.....	Oxford.....	1,500	25	-	1,500
Biddeford.....	York.....	860½	21	-	860½
Bigelow Pl.....	Somerset.....	100	15	-	100
Bingham 1.....	Somerset.....	1,100	38	-	1,100
Blaine.....	Aroostook.....	600	22	325	600
Blanchard.....	Piscataquis....	600	21	-	600
Bluehill.....	Hancock.....	1,950	21	-	1,950
Boothbay.....	Lincoln.....	1,000	21	300	1,000
Boothbay Harbor....	Lincoln.....	900	27	400	900
Bowdoin.....	Sagadahoc.....	1,300	21	-	1,300
Bowdoinham.....	Sagadahoc.....	1,517	21	1,162	1,517
Bowerbank 2.....	Piscataquis....	415	22	-	415
Bradley 3.....	Penobscot.....	2,550	21	240	2,550
Bremen.....	Lincoln.....	905	21	540	905
Brewer.....	Penobscot.....	890	29	-	*890
Bridgewater 4.....	Aroostook.....	900	21	900	900
Bridgton.....	Cumberland....	2,500	21	150	2,500

1 Bingham: Expended joint funds for 1910, 1911 and 1912 together. 2000 lineal feet of 15-inch tile under drain, 14 catch basins and 6 man holes, cost \$2,013.44.

Cost of under drainage not included in cost per foot.

2 Bowerbank: Reinforced arched concrete culvert; span 8 feet, height 7 feet,

width 20 feet. Cost of culvert not included in cost per foot.

3 Bradley: Used 264 feet of 6-inch and 8-inch tile drain.

4 Bridgewater: \$50 of 1912 aid held for satisfactory completion.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size— inches.	Length— feet.	Cost.						
Metal.....	18	22	65 05	473 72	600 00	273 72	126 28	-	21
Metal.....	12	24	25 70	804 35	800 00	312 55	87 45	4 35	67
{ Stone....	16 x 16	23							
{ Stone....	24 x 24	8	15 50	600 19	600 00	400 00	-	19	48
{ Metal....	16	22	27 75	643 59	600 00	400 00	-	43 59	51
{ Metal....	16	22							
{ Metal....	18	22	132 00	802 52	800 00	400 00	-	2 52	16
{ Metal....	20	22							
Metal.....	12	20	14 78						
Metal.....	12	20	14 78	1,025 07	960 00	460 00	-	65 07	80
Metal.....	12	28	27 52						
Metal.....	12	28	27 53	1,007 14	960 00	460 00	-	47 14	67
.....	-	-	-	2,640 63	2,625 00	1,125 00	-	15 63	3 07
{ Metal....	10	22							
{ Metal....	10	22	35 80	111 80	78 00	39 00	-	33 80	1 12
{ Metal....	-	-	-	2,410 54	2,400 00	400 00	-	10 54	36
{ Metal....	16	24							
{ Metal....	16	24	59 60	696 59	800 00	296 59	103 41	-	1 16
Metal.....	14	24	50 79	305 65	300 00	200 00	-	5 65	51
{ Metal....	10	-							
{ Metal....	12	-	92 00	813 63	800 00	400 00	-	13 63	42
{ Metal....	14	-							
{ Metal....	8	23							
{ Metal....	10	34	69 17	790 02	800 00	390 02	9 98	-	79
.....	-	-	-	961 63	960 00	457 59	2 41	1 63	1 07
{ Metal....	10	23							
{ Metal....	16	23	57 10						
Concrete.	24 x 24	25	145 50	802 49	800 00	400 00	-	2 49	62
.....	-	-	-	1,281 48	800 00	400 00	-	481 48	84
Arch Culvert...	-	-	431 23	687 23	600 00	400 00	-	87 23	61
Metal.....	-	-	18 00	823 54	800 00	400 00	-	23 54	32
Metal.....	8	24							
Stone.....	30 x 36	23	41 00	600 10	600 00	399 17	83	10	66
.....	-	-	-	1,626 89	1,400 00	600 00	-	226 89	1 83
.....	-	-	-	840 05	800 00	350 00	50 00	40 05	92
{ Stone....	24 x 36	23							
{ Stone....	24 x 24	23							
{ Stone....	18 x 18	23							
{ Stone....	18 x 18	23	150 00	1,182 46	1,138 00	488 00	-	44 46	47
{ Stone....	18 x 18	23							
{ Stone....	18 x 18	23							

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	“V” drain or stone base.	Macadam, gravel or earth surface—feet.
Brighton Pl. <sup>1</sup> .....	Somerset.....	1,350	21	100	†1,350
Bristol.....	Lincoln.....	1,000	21	—	1,000
Brooklin.....	Hancock.....	1,100	24	280	1,100
Brooks.....	Waldo.....	2,050	24	1,200	2,050
Brooksville.....	Hancock.....	1,750	21	400	1,750
Brookton.....	Washington....	675	21	175	675
Brownfield.....	Oxford.....	1,500	21	—	1,500
Brownville <sup>2</sup> .....	Piscataquis....	446	21	246	446
Brunswick.....	Cumberland....	950	25	—	†950
Buckfield.....	Oxford.....	508	34	—	508
Bucksport.....	Hancock.....	450	25	—	450
Burlington.....	Penobscot.....	1,022	20	1,022	1,022
Burnham.....	Waldo.....	1,765	30	—	1,765
Buxton.....	York.....	1,225	23	600	1,225
Byron.....	Oxford.....	1,575	28	—	1,575
C Twp.....	Oxford.....	412	21	—	412
Calais.....	Washington....	1,600	26	—	*1,600
Cambridge.....	Somerset.....	740	28	325	740
Camden.....	Knox.....	715	44	—	†715
Canton.....	Oxford.....	956	30	—	956
Cape Elizabeth.....	Cumberland....	¶			
Caribou.....	Aroostook.....	555	28	555	*555
Carmel.....	Penobscot.....	2,600	24	—	2,600
Carroll.....	Penobscot.....	1,271	23	400	1,271
Carrying Place Twp....	Somerset.....	495	18	—	†495
Carthage.....	Franklin.....	1,415	21	—	1,415
Cary Pl.....	Aroostook.....	825	27	825	825

<sup>1</sup> Brighton Pl.: \$50 of 1912 aid held back to insure satisfactory completion.

<sup>2</sup> Brownville: Did not spend enough to obtain any state aid.

¶ Work not completed.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
{ Metal.....	16	22							
{ Metal.....	14	22	\$97 52	\$593 74	\$600 00	\$343 74	\$56 26	-	\$0 44
{ Metal.....	12	22		834 73	900 00	384 73	65 27	-	83
Metal.....	10	23	14 63						
Metal.....	12	62	47 12	600 37	600 00	299 95	05	\$ 37	55
Stone.....	18 x 18	40	42 00						
Stone.....	36 x 36	25	68 69						
Concrete.....	30 x 36	26	65 41	800 91	800 00	400 00	-	91	39
{ Metal.....	10	22							
{ Metal.....	10	22	99 93	800 36	800 00	400 00	-	36	46
{ Metal.....	10	22							
.....	-	-	-	613 02	600 00	400 00	-	13 02	91
Cast iron.....	10	146	131 40						
Tile.....	10	120	28 80						
Metal.....	10	240	168 00	813 23	800 00	400 00	-	13 23	54
Stone.....	6 x 18	30	5 35						
.....	-	-	-	394 95	800 00	-	400 00	-	88
Tile.....	16	40	43 50	1,764 41	1,750 00	750 00	-	14 41	1 86
Metal.....	12	79	66 50	537 95	500 00	250 00	-	37 95	1 06
.....	-	-	-	1,981 95	900 00	450 00	-	1081 95	4 40
.....	-	-	-	540 19	600 00	340 19	59 81	-	53
{ Metal.....	16	30							
{ Metal.....	12	30	84 00	399 63	400 00	198 62	1 38	-	23
Concrete.....	18 x 24	8	15 00	1,087 31	1,010 00	460 00	-	77 31	89
.....	-	-	-	600 00	600 00	400 00	-	-	38
Stone.....	18 x 18	23	15 00	332 00	332 00	166 00	-	-	80
.....	-	-	-	1,615 41	1,575 00	675 00	-	40 41	1 01
{ Metal.....	16	24							
{ Metal.....	16	24	89 28	628 77	600 00	400 00	-	28 77	85
.....	-	-	-	3,640 24	1,487 00	637 00	-	2153 24	5 09
Stone.....	18 x 18	32	13 75	400 00	400 00	200 00	-	-	42
.....	-	-	-	2,228 75	1,487 00	637 00	-	741 75	4 02
{ Metal.....	20	24							
{ Metal.....	20	24	69 00	800 25	800 00	400 00	-	25	31
{ Metal.....	18	46							
{ Metal.....	16	40	118 25	620 14	600 00	400 00	-	20 14	49
.....	-	-	-	171 50	117 00	58 50	-	54 50	35
Metal.....	10	24	22 00						
Stone.....	24 x 24	25	66 00	605 53	600 00	400 00	-	5 53	43
{ Metal.....	8	16							
{ Metal.....	8	16	31 20	599 20	600 00	399 20	80	-	73

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Casco.....	Cumberland....	3,100	21 to 23	-	3,100
Castine.....	Hancock.....	2,650	25	-	2,650
Costle Hill.....	Aroostook....	§			
Caswell Pl.....	Aroostook....	1,320	23	1,020	1,320
Centerville.....	Washington....	3,700	21	-	3,700
Chapman Pl.....	Aroostook....	1,600	22	300	1,600
Charleston 1.....	Penobscot....	1,734	21	500	1,734
Charlotte.....	Washington....	1,250	22	-	1,250
Chelsea.....	Kennebec.....	1,250	21	-	1,250
Cherryfield.....	Washington....	1,180	21	-	1,180
Chester.....	Penobscot....	900	24	-	900
Chesterville.....	Franklin.....	1,530	22	-	†1,530
China.....	Kennebec.....	1,950	21	-	1,950
Clifton.....	Penobscot....	700	28	-	700
Clinton.....	Kennebec.....	2,288	21	1,165	2,288
Columbia.....	Washington....	2,400	23	-	2,400
Columbia Falls.....	Washington....	1,162	23	-	1,162
Concord.....	Somerset.....	900	21	-	900
Connor Pl.....	Aroostook....	1,000	23	300	1,000
Cooper.....	Washington....	1,200	23	-	†1,200
Coplin Pl.....	Franklin.....	3,000	22	-	3,000
Corinna.....	Penobscot....	1,475	30	1,449	†1,475
Corinth.....	Penobscot....	1,320	22	-	1,320
Cornish 2.....	York.....	1,050	22	-	1,050
Crockertown Twp. 4,R.2	Franklin.....	368	18	-	†368
Crystal.....	Aroostook....	1,200	24	795	1,200
Cumberland.....	Cumberland....	1,075	21	1,000	1,075

1 Charleston: Cost of culvert includes 2 catch basins with grates.

2 Cornish: Used 210 feet of tile underdrain.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size— inches.	Length— feet.	Cost.						
Stone.....	18 x 24	24	\$20 00						
Stone.....	18 x 24	24	20 00	\$800 00	\$800 00	\$400 00	-	-	\$ 26
Stone.....	18 x 24	26	30 00						
{ Metal.....	12	26							
{ Metal.....	12	40							
{ Metal.....	12	24	176 33	800 00	800 00	400 00	-	-	30
{ Metal.....	18	22							
.....	-	-	-	519 51	600 00	319 51	\$80 49	-	39
{ Metal.....	20	24							
{ Metal.....	18	24	114 00	631 74	600 00	397 76	2 24	\$31 74	17
{ Metal.....	16	24							
.....	-	-	-	601 66	600 00	400 00	-	1 66	38
Metal.....	10	52	76 82	869 30	800 00	400 00	-	69 30	50
{ Metal.....	10	22							
{ Metal.....	14	22	43 58	602 70	600 00	400 00	-	2 70	48
Stone.....	48 x 48	24	100 00	400 00	400 00	200 00	-	-	32
{ Metal.....	18	26							
{ Metal.....	16	26	96 60	403 56	400 00	200 00	-	3 56	34
{ Metal.....	16	24							
{ Metal.....	16	24	63 30	323 05	300 00	200 00	-	23 05	36
{ Metal.....	10	24							
{ Metal.....	10	24							
{ Metal.....	10	24	61 56	505 71	500 00	250 00	-	5 71	33
{ Metal.....	10	24							
Metal.....	16	22	42 00	800 00	800 00	400 00	-	-	41
Stone.....	24 x 36	31	54 60	620 91	600 00	400 00	-	20 91	89
{ Metal.....	18	22							
{ Metal.....	24	22	149 80	769 10	800 00	369 10	30 90	-	34
{ Metal.....	24	22							
{ Metal.....	20	38							
{ Metal.....	14	28	120 94	532 04	600 00	332 04	67 96	-	22
Stone.....	22 x 24	23	142 28	580 61	600 00	380 61	19 39	-	50
Metal.....	14	24	32 50						
Metal.....	14	24	32 50	544 55	600 00	342 55	57 45	-	60
.....	-	-	-	300 04	300 00	200 00	-	04	30
Metal.....	16	22	31 15	612 65	600 00	400 00	-	12 65	51
{ Metal.....	10	24							
{ Metal.....	10	24	36 82	638 13	600 00	400 00	-	38 13	21
{ Metal.....	10	28							
{ Metal.....	18	24	148 33	762 77	800 00	297 84	102 16	-	52
{ Metal.....	18	28							
{ Metal.....	14	26	75 50	664 67	800 00	264 67	135 33	-	43
Tile.....	20	-	71 54	833 64	800 00	400 00	-	33 64	79
.....	-	-	-	105 60	106 00	46 55	6 45	-	29
.....	-	-	-	600 17	600 00	400 00	-	17	50
Stone.....	30 x 42	28	48 50	971 55	960 00	460 00	-	11 55	90

## TABULAR STATEMENT OF STATE

TOWN.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Cushing.....	Knox.....	1,365	20	-	1,365
Cutler.....	Washington....	§			
Cyr Pl.....	Aroostook.....	1,100	21	360	1,100
Dallas Pl.....	Franklin.....	2,200	21	-	2,200
Damariscotta 1.....	Lincoln.....	686	-	-	†686
Danforth.....	Washington....	1,000	23	900	1,000
Dayton.....	York.....	1,779	22	25	1,779
Dead River Pl.....	Somerset.....	1,250	23	-	1,250
Dedham.....	Hancock.....	855	23	-	855
Deer Isle.....	Hancock.....	3,600	28	-	3,600
Denmark.....	Oxford.....	1,200	21	-	1,200
Dennistown Pl.....	Somerset.....	2,000	19	-	2,000
Dennysville.....	Washington....	858	23 to 28	-	858
Detroit.....	Somerset.....	650	24	-	650
Dexter.....	Penobscot.....	1,300	33	700	*1,300
Dixfield 2.....	Oxford.....	4,000	23	-	4,000
Dixmont.....	Penobscot.....	1,386	24	1,386	1,386
Dover.....	Piscataquis....	476	43	-	*476
Dresden.....	Lincoln.....	1,475	21	-	1,475
Drew Pl.....	Penobscot.....	800	23	600	800
Durham.....	Androscoggin..	1,355	24	-	1,355
Dyer Brook.....	Aroostook.....	1,150	24	900	1,150
Eagle Lake.....	Aroostook.....	1,500	21	440	1,500
Eastbrook.....	Hancock.....	620	21	180	620
East Livermore.....	Androscoggin..	615	34	-	†615
East Machias.....	Washington....	606	23	-	606
East Millinocket.....	Penobscot.....	1,800	25	-	1,800

1 Damariscotta: Expended joint funds for 1910, 1911 and 1912 together. For more details of this work see under contract towns.

2 Dixfield: Expended joint funds for 1910, 1911 and 1912 together.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size— inches.	Length— feet.	Cost.						
Metal.....	10	24	19 05	612 40	600 00	400 00	-	12 40	44
Stone.....	15 x 24	14	6 85						
{ Metal....	16	26		299 65	300 00	199 65	35	-	27
Metal....	16	26	72 15						
{ Metal....	12	23		600 25	600 00	400 00	-	25	27
Metal....	10	23	62 23						
Metal....	10	23							
Metal.....	10	34	36 38	4,501 80	2,400 00	400 00	-	2101 80	6 56
Metal.....	12	35	40 25						
Metal.....	12	35	40 25						
Metal.....	12	154	149 19						
Metal.....	12	154	149 19						
Metal.....	18	26	55 22	811 65	800 00	400 00	-	11 65	46
Metal.....	10	24	23 00						
Stone.....	54 x 78	26	205 34	619 46	600 00	400 00	-	19 46	49
Metal.....	10	24	38 10						
Metal.....	12	30	31 25	800 00	800 00	400 00	-	-	22
Stone.....	18 x 18	32	40 00						
Stone.....	18 x 18	8	15 00	800 00	800 00	400 00	-	-	73
Stone.....	18 x 18	30	32 75						
Stone.....	48 x 48	12	25 00	875 18	800 00	400 00	-	75 18	07
Metal.....	8	22	13 20						
Metal.....	20	30	37 00	834 74	600 00	400 00	-	234 74	97
Cast iron.....	8	24	19 84						
.....	-	-	-	1,087 13	1,080 00	480 00	-	39 62	98
.....	-	-	-				-	7 13	84
{ Metal....	8	36	39 30	2,074 72	2,000 00	400 00	-	74 72	52
Metal....	8	16							
Concrete.....	24 x 24	6	15 52	2,074 72	2,000 00	400 00	-	74 72	52
Stone.....	20 x 20	24	35 00						
Stone.....	20 x 20	24	22 25	576 06	800 00	124 47	275 53	-	41
Stone.....	12 x 12	26	15 75						
.....	-	-	-	1,000 39	960 00	460 00	-	40 39	2 10
{ Metal....	16	26		799 25	800 00	399 25	75	-	53
Metal....	14	26	192 29						
{ Metal....	12	26		600 72	600 00	400 00	-	72	75
Metal....	12	26	88 30						
{ Metal....	16	26		446 79	400 00	200 00	-	46 79	33
Metal....	16	26	16 80						
Metal.....	10	24	16 80	446 79	400 00	200 00	-	46 79	33
Stone.....	48 x 48	12	165 00						
Concrete.....	26 x 36	22	150 00	656 91	600 00	400 00	-	56 91	57
Concrete.....	26 x 30	22	100 00						
Metal.....	20	28	106 21	832 14	800 00	400 00	-	32 14	55
.....	-	-	-						
.....	-	-	-	309 48	300 00	200 00	-	9 48	50
.....	-	-	-	1,277 50	1,080 00	480 00	-	197 50	2 08
.....	-	-	-	419 70	400 00	200 00	-	19 70	69
{ Metal....	10	26		988 88	800 00	400 00	-	188 88	55
Metal....	10	26	94 85						



## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	“V” drain or stone base.	Macadam, gravel or earth surface—feet.
Easton.....	Aroostook.....	1,200	24	850	†1,200
Eastport.....	Washington.....	1,500	23	-	1,500
Eddington.....	Penobscot.....	1,200	30	800	*1,200
Eden <sup>1</sup> .....	Hancock.....	775	30	-	*775
Edgecomb.....	Lincoln.....	500	23	500	500
Edinburg.....	Penobscot.....	1,932	20	-	1,932
Edmunds.....	Washington.....	700	23	-	700
Eliot.....	York.....	2,000	21	450	2,000
Ellsworth.....	Hancock.....	750	21	-	*750
Embden.....	Somerset.....	425	21	-	425
Enfield.....	Penobscot.....	750	26	750	750
Etna.....	Penobscot.....	995	24	960	995
Eustis.....	Franklin.....	2,300	23	-	2,300
Exeter.....	Penobscot.....	2,426	30	2,426	†2,426
Fairfield.....	Somerset.....	245	56	-	†245
Falmouth.....	Cumberland.....	1,400	23	800	1,400
Farmingdale.....	Kennebec.....	500	23	-	500
Farmington.....	Franklin.....	2,800	22	-	2,800
Fayette.....	Kennebec.....	600	24	-	600
Flagstaff Pl.....	Somerset.....	200	15	-	†200
Forest City.....	Washington.....	2,075	21	-	2,075
Fort Fairfield.....	Aroostook.....	1,600	30	1,400	1,600
Fort Kent.....	Aroostook.....	1,000	21	-	1,000
Foxcroft.....	Piscataquis.....	840	24	-	*840
Frankfort.....	Waldo.....	3,000	23	-	3,000
Franklin.....	Hancock.....	1,200	23	-	1,200
Freedom.....	Waldo.....	400	24	-	400
Freeman.....	Franklin.....	1,350	23	-	1,350
Freeport.....	Cumberland.....	1,325	21	325	1,325
Frenchville.....	Aroostook.....	1,200	26	500	1,200

<sup>1</sup> Eden: About 800 feet of side ditch 3 feet wide blasted through ledge and provided with vitrified tile drain pipe and catch basins. Cost \$2,647.20.

ROAD WORK IN 1912—Continued.

Kind.	CULVERTS.			Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
	Size— inches.	Length— feet.	Cost.						
{ Metal . . . . .	10	26	-	\$807 27	\$800 00	\$400 00	-	\$7 27	\$ 67
{ Metal . . . . .	18	26	\$96 00						
Concrete . . . . .	24 x 24	30	161 79	1,174 15	1,138 00	488 00	-	36 15	78
{ Metal . . . . .	18	28							
{ Metal . . . . .	16	28	58 53	654 57	600 00	400 00	-	54 57	55
Tile . . . . .	18	33	33 00	4,514 55	2,275 00	975 00	-	2239 55	5 83
{ Metal . . . . .	12	32	47 60	450 36	400 00	200 00	-	50 36	90
{ Metal . . . . .	20	22							
{ Metal . . . . .	20	22	139 77	644 09	600 00	400 00	-	44 09	33
{ Metal . . . . .	18	22							
{ Metal . . . . .	15	26		592 48	600 00	392 48	\$7 52	-	85
{ Metal . . . . .	26	26	88 93	1,100 83	800 00	400 00	-	300 83	55
{ Metal . . . . .	18	26	56 60	1,300 97	1,312 00	550 97	11 03	-	1 73
{ Metal . . . . .	16	24							
{ Metal . . . . .	16	24	123 54	496 51	400 00	200 00	-	96 51	1 17
{ Metal . . . . .	-	24		820 09	800 00	400 00	-	20 09	1 09
{ Metal . . . . .	36	24							
{ Metal . . . . .	12	24	82 48	625 07	600 00	400 00	-	25 07	63
{ Metal . . . . .	8	31							
{ Metal . . . . .	8	32	76 40	522 37	400 00	200 00	-	122 37	23
{ Metal . . . . .	8	31							
{ Metal . . . . .	20	26	91 96	801 24	800 00	399 01	99	1 24	33
{ Metal . . . . .	12	26	75 56						
{ Metal . . . . .	12	28	78 06						
{ Metal . . . . .	-	-		3,595 41	1,138 00	488 00	245 71	2457 41	14 67
Stone . . . . .	18 x 18	28	29 50	899 61	900 00	399 61	39	-	64
{ Metal . . . . .	12	32		806 79	800 00	400 00	-	6 79	1 61
{ Metal . . . . .	8	48	73 60	1,243 79	1,225 00	525 00	-	18 79	44
{ Metal . . . . .	18	30							
{ Metal . . . . .	14	30	223 72	1,675 68	1,662 00	712 00	-	13 68	1 05
{ Metal . . . . .	30	40							
{ Metal . . . . .	14	23							
{ Metal . . . . .	16	23	77 45	834 20	800 00	400 00	-	34 20	83
{ Metal . . . . .	-	-	40 00	933 15	900 00	450 00	-	33 15	1 11
{ Metal . . . . .	12	26	55 00						
{ Metal . . . . .	6	32	12 46	810 46	800 00	400 00	-	10 46	27
Stone . . . . .	24 x 24	26	48 00	800 00	800 00	400 00	-	-	66
{ Metal . . . . .	36	24	188 56	605 03	600 00	400 00	-	5 03	1 51
{ Metal . . . . .	-	-		600 63	600 00	400 00	-	63	44
{ Metal . . . . .	-	-		1,052 57	1,017 00	467 00	-	35 57	79
{ Metal . . . . .	10	40							
{ Metal . . . . .	16	48	79 00	600 00	600 00	400 00	-	-	50

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Friendship.....	Knox.....	630	22	320	630
Fryeburg.....	Oxford.....	1,800	21	—	1,800
Gardiner <sup>1</sup> .....	Kennebec.....	1,777	21	—	1,777
Garland.....	Penobscot.....	504	31	—	504
Georgetown.....	Sagadahoc.....	270	21	—	270
Gilead.....	Oxford.....	400	23	—	400
Glenburn.....	Penobscot.....	1,027	23	1,000	1,027
Gorham <sup>2</sup> .....	Cumberland.....	750	23	—	750
Gouldsboro.....	Hancock.....	1,000	22	—	1,000
Grafton.....	Oxford.....	1,200	21	—	1,200
Grand Isle <sup>3</sup> .....	Aroostook.....	838	28	—	838
Gray.....	Cumberland.....	1,300	24	300	1,300
Greenbush <sup>4</sup> .....	Penobscot.....	—	—	—	—
Greene.....	Androscoggin.....	1,850	26	—	1,850
Greenfield.....	Penobscot.....	2,640	24	—	2,640
Greenville.....	Piscataquis.....	780	24	—	780
Greenwood.....	Oxford.....	950	23	—	950
Guilford.....	Piscataquis.....	1,060	21	150	1,060
Hallowell.....	Kennebec.....	173	20	—	*173
Hamlin Pl.....	Aroostook.....				
Hammond Pl.....	Aroostook.....				
Hampden.....	Penobscot.....	1,237½	21	—	1,237½
Hancock.....	Hancock.....	952	21	60	952
Harmony.....	Somerset.....	600	24	—	600
Harpswell <sup>5</sup> .....	Cumberland.....	2,060	21	—	2,060
Harrington.....	Washington.....	450	22	450	450
Harrison.....	Cumberland.....	1,635	22	—	1,635

1 Gardiner: Expended joint funds for 1910, 1911 and 1912 together. Cost of culvert includes 3 catch basins complete. For full details of work completed, see under contract towns.

2 Gorham: Built 1700 feet of tile under drain. Cost \$520.25.

3 Grand Isle: Expended joint funds for 1911 and 1912 together. Cost of bridge not included in cost per foot. For details of this work, see report on contract towns.

4 Greenbush: Reinforced concrete bridge over Boom Brook. Concrete abutments, slab top, span 5 feet, height 8 feet, width of roadway 21 feet.

5 Harpswell: Completed concrete end walls unfinished in 1911.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
Stone.....	-	-	-	\$850 43	\$800 00	\$400 00	-	\$50 43	\$1 35
Tile.....	18 x 18	27	\$26 20	906 56	900 00	450 00	-	6 56	6 50
	12	78	182 40	6,845 37	5,031 24	604 05	\$145 95	1814 13	3 85
Metal.....	-	-	-	427 11	400 00	179 11	20 89	27 11	85
	-	21½	19 07	400 00	400 00	- 38	-	-	1 48
	-	-	-	318 83	300 00	200 00	-	18 83	79
Stone.....	24 x 30	26	18 75	599 05	600 00	398 48	1 52	-	58
Metal.....	10	30	21 00	1,242 38	1,138 00	488 00	-	104 38	1 66
Metal.....	12	24	30 45	815 08	800 00	396 83	3 17	15 08	81
Stone.....	24 x 24	28	54 63	600 05	600 00	400 00	-	-	50
Stone.....	24 x 30	28	44 95	600 00	600 00	323 86	76 14	05	53
Bridge.....	-	-	780 15	1,227 21	1,200 00	323 86	-	-	32
Metal.....	12	24	25 20	415 84	400 00	200 00	-	15 84	-
Bridge.....	-	-	600 00	600 00	600 00	400 00	-	-	-
{ Metal.....	12	28	78 42	780 47	800 00	380 47	19 53	-	42
{ Metal.....	12	28	-	-	-	-	-	-	-
{ Metal.....	12	28	-	-	-	-	-	-	-
Stone.....	24 x 24	-	9 37	635 59	600 00	400 00	-	35 59	24
Metal.....	24	26	78 42	834 52	800 00	400 00	-	34 52	1 07
Stone.....	24 x 16	24	23 60	598 88	600 00	398 88	1 12	-	63
Metal.....	16	24	39 75	827 32	800 00	400 00	-	27 32	78
	-	-	-	422 00	720 00	22 00	298 00	-	2 44
Metal.....	20	25	45 27	961 22	900 00	450 00	-	61 22	78
{ Metal.....	12	24	-	-	-	-	-	-	-
{ Metal.....	14	24	99 29	-	-	-	-	-	-
Metal.....	16	26	49 70	915 52	800 00	400 00	-	115 52	96
{ Metal.....	16	38	-	-	-	-	-	-	-
{ Metal.....	8	16	79 60	878 03	800 00	329 20	70 80	78 03	1 46
Metal.....	14	25	40 13	-	-	-	-	-	-
Metal.....	12	27	39 35	934 34	900 00	450 00	-	34 34	45
Metal.....	10	24	30 00	405 81	350 00	175 00	-	55 81	90
{ Stone.....	24 x 30	24	-	-	-	-	-	-	-
{ Stone.....	20 x 24	24	116 05	906 27	800 00	400 00	-	106 27	55

## TABULAR STATEMENT OF STATE

TOWN.	County.	Total length—feet.	Finished width—feet.	“V” drain or stone base.	Macadam, gravel or earth surface—feet.
Hartford.....	Oxford.....	1,404	21	200	1,404
Hartland.....	Somerset.....	534	27	446	†534
Haynesville.....	Aroostook.....	1,600	23	-	1,600
Hebron.....	Oxford.....	§			
Hermon.....	Penobscot.....	3,000	22	-	3,000
Hersey.....	Aroostook.....	420	24	-	420
Hiram.....	Oxford.....	750	24	-	750
Hodgdon.....	Aroostook.....	1,205	21	1,150	1,205
Holden.....	Penobscot.....	1,500	21	-	1,500
Hollis.....	York.....	1,135	23	-	1,135
Hope.....	Knox.....	548	21	-	548
Houlton.....	Aroostook.....	1,000	24	-	*1,000
Howland.....	Penobscot.....	2,500	22	-	2,500
Hudson.....	Penobscot.....	800	24	-	800
Industry.....	Franklin.....	3,000	21	200	3,000
Island Falls.....	Aroostook.....	1,750	26	1,250	1,750
Isle au Haut.....	Hancock.....	500	18	400	500
Isleboro.....	Waldo.....	900	25	785	900
Jackman Pl.....	Somerset.....	3,000	21	-	3,000
Jay.....	Franklin.....	2,400	23	-	2,400
Jefferson.....	Lincoln.....	1,075	21	900	1,075

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size— inches.	Length— feet.	Cost.						
Metal....	12	34							
Metal....	12	26							
Metal....	12	26							
Metal....	12	26	182 47	821 33	800 00	400 00	-	21 33	58
Metal....	24	24							
Metal....	8	18							
Cast iron.	10	60							
Cast iron.	6	24	68 60	684 89	600 00	296 05	3 95	84 89	1 28
Metal....	10	24							
Metal....	10	24							
Metal....	10	24							
Metal....	10	24	222 08	607 55	600 00	400 00	-	7 55	38
Metal....	14	24							
Metal....	14	24							
Metal....	30	28							
Metal....	10	28							
Metal....	10	28	173 40	849 92	800 00	400 00	-	49 92	28
Stone....	36 x 36	30							
Stone....	-	-		600 00	600 00	400 00	-	-	1 43
Metal....	8	60							
Metal....	10	16							
Metal....	10	12	72 00	396 90	400 00	196 90	3 10	-	53
Metal....	12	6							
Metal....	10	24							
Metal....	10	24	46 35	982 95	800 00	400 00	-	182 95	82
Metal....	16	24	43 17	606 47	600 00	400 00	-	6 47	40
Metal....	-	-		816 42	800 00	400 00	-	16 42	72
Metal....	10	28							
Metal....	10	26	47 16	401 29	350 00	169 26	5 74	51 29	73
Concrete.	48 x 48	30	254 90	2,344 05	1,750 00	750 00	-	594 05	2 34
Concrete....	-	-	56 54	797 98	800 00	397 98	2 02	-	32
Metal....	14	24	30 85	624 50	600 00	400 00	-	24 50	78
Stone....	20 x 24	24							
Stone....	14 x 18	24							
Stone....	14 x 18	24	190 71	626 35	600 00	400 00	-	26 35	31
Stone....	20 x 24	45							
Metal....	10	24	61 37						
Metal....	10	24	61 37						
Concrete.	12 x 18	26	54 03	877 17	800 00	400 00	-	77 17	50
Metal....	18	18	24 80						
Metal....	10	18	16 85	600 00	600 00	400 00	-	-	1 20
Stone....	24 x 24	25	18 55	942 75	900 00	450 00	-	42 75	1 05
Metal....	8	18	10 80						
Metal....	16	30	33 00	234 20	220 00	110 00	-	14 20	08
Metal....	20	24	32 40						
Metal....	12	24	19 20						
Metal....	16	30	30 00						
Stone....	18 x 20	24							
Stone....	18 x 20	24	44 70	1,312 00	1,312 00	562 00	-	-	55
Stone....	18 x 20	24							
Metal....	8	110	76 00						
Metal....	10	135	108 78	400 78	400 00	200 00	-	78	37

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	“V” drain or stone base.	Macadam, gravel or earth surface—feet.
Jerusalem Twp. ....	Franklin . . . . .	200	18	-	†200
Johnson Mt. Twp. 1 . . .	Somerset . . . . .	-	-	-	-
Jonesboro . . . . .	Washington . . . . .	650	22	-	650
Jonesport . . . . .	Washington . . . . .	1,400	21	-	1,400
Kenduskeag . . . . .	Penobscot . . . . .	1,650	27	850	1,650
Kennebunk . . . . .	York . . . . .	1,050	30	1,050	1,050
Kennebunkport . . . . .	York . . . . .	1,050	30	1,050	1,050
Kingfield . . . . .	Franklin . . . . .	3,200	21	-	3,200
Kingman 2 . . . . .	Penobscot . . . . .	1,500	23	-	1,500
Kingsbury Pl. . . . .	Piscataquis . . . . .	450	22	-	†450
Kittery . . . . .	York . . . . .	500	23	200	*500
Knox . . . . .	Waldo . . . . .	2,500	23	-	2,500
Lagrange . . . . .	Penobscot . . . . .	1,700	24	1,500	1,700
Lakeville Pl. . . . .	Penobscot . . . . .	1,300	23	-	1,300
Lamoine . . . . .	Hancock . . . . .	725	24	725	725
Lang Pl. . . . .	Franklin . . . . .	2,075	21	-	2,075
Lebanon . . . . .	York . . . . .	1,285	23 to 30	-	1,285
Lee . . . . .	Penobscot . . . . .	1,455	24	300	1,455
Leeds . . . . .	Androscoggin . . . . .	1,500	24	265	1,500
Letter E Twp. . . . .	Franklin . . . . .	25	18	-	†25
Levant . . . . .	Penobscot . . . . .	1,638	28	1,058	1,638
Lewiston . . . . .	Androscoggin . . . . .	1,054	32	-	†1,054
Lexington Pl. . . . .	Somerset . . . . .	900	21	-	900
Liberty . . . . .	Waldo . . . . .	1,205	24	1,205	†1,205
Limerick . . . . .	York . . . . .	625	22	-	625
Limestone . . . . .	Aroostook . . . . .	1,200	23	400	1,200
Limington . . . . .	York . . . . .	780	22	400	780

1 Johnson Mt. Twp.: No road built. Used money to put in culverts.

2 Kingman: Expend 1911 joint fund. Amount \$600. 1911 aid approved \$400.

1912 joint fund of \$600 laid over.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—Inches.	Length—feet.	Cost.						
Metal	8	16	-	\$83 00	\$83 00	\$41 50	-	-	\$ 42
Metal	10	16	-	-	-	-	-	-	-
Metal	10	18	\$91 60	91 60	80 00	40 00	-	\$11 60	-
Metal	10	16	-	-	-	-	-	-	-
Stone	66 x 72	24	520 00	606 27	600 00	400 00	-	6 27	93
Metal	12	24	38 40	808 78	800 00	399 44	\$ 56	8 78	58
	-	-	-	519 68	600 00	319 68	80 32	-	31
Metal	24	28	54 81	1,115 00	1,080 00	480 00	-	35 00	1 03
Metal	10	24	23 39	800 00	800 00	400 00	-	-	25
Metal	10	24	23 39	-	-	-	-	-	-
Metal	20	26	-	-	-	-	-	-	-
Metal	12	26	105 10	623 07	600 00	-	-	23 07	42
Metal	12	28	-	-	-	-	-	-	-
Concrete	24 x 24	21	68 86	144 66	144 00	96 00	-	66	32
	-	-	-	960 00	960 00	460 00	-	-	1 92
	-	-	-	618 85	600 00	400 00	-	18 85	25
Metal	10	16	-	-	-	-	-	-	-
Metal	10	16	-	-	-	-	-	-	-
Metal	10	16	68 50	832 23	800 00	400 00	-	32 23	49
Metal	10	16	-	-	-	-	-	-	-
Metal	12	22	-	-	-	-	-	-	-
Metal	14	22	47 06	610 06	600 00	400 00	-	10 06	47
Metal	10	22	-	-	-	-	-	-	-
Metal	11	22	51 50	-	-	-	-	-	-
Concrete	18 x 18	22	72 25	594 25	600 00	394 25	5 75	-	82
Metal	16	22	-	-	-	-	-	-	-
Metal	10	22	29 47	600 00	600 00	400 00	-	-	29
Metal	10	22	-	-	-	-	-	-	-
Stone	30 x 30	22	26 00	704 43	800 00	304 43	95 57	-	55
Metal	20	22	-	-	-	-	-	-	-
Metal	16	22	116 79	597 31	600 00	397 31	2 69	-	41
Stone	-	8	50 00	813 01	800 00	400 00	-	13 01	54
	-	-	-	104 20	51 00	25 50	-	53 20	4 16
	-	-	-	688 57	600 00	198 75	101 25	88 57	42
Metal	12	24	-	4,025 00	4,025 00	1,725 00	-	-	3 82
Metal	10	24	107 48	336 66	300 00	200 00	-	36 66	37
Metal	10	24	-	-	-	-	-	-	-
Metal	15	26	34 00	-	-	-	-	-	-
Stone	24 x 24	26	28 50	574 30	600 00	274 30	25 70	-	48
Stone	12 x 36	7	19 95	-	-	-	-	-	-
Tile	20	26	-	-	-	-	-	-	-
Tile	20	26	47 58	628 95	600 00	300 00	-	\$28 95	\$1 00
Metal	16	24	-	-	-	-	-	-	-
Metal	16	24	77 50	807 17	800 00	400 00	-	7 17	67
	-	-	-	400 00	400 00	200 00	-	-	51



TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Lincoln	Penobscot	1,350	28	1,000	1,350
Lincoln Pl.	Oxford	1,000	21	-	1,000
Lincolntonville	Waldo	240	21	-	240
Linneus	Aroostook	1,160	21	840	1,160
Lisbon	Androscoggin	1,000	25	-	1,000
Litchfield	Kennebec	1,460	24	575	1,460
Littleton	Aroostook	1,290	21	800	1,290
Livermore	Androscoggin	1,565	23	30	1,565
Lovell	Oxford	1,800	21	500	†1,800
Lowell	Penobscot	922	24	922	†922
Lubec	Washington	3,000	22	500	3,000
Ludlow	Aroostook	1,100	23	600	1,100
Lyman	York	1,675	22	-	1,675
Machias	Washington	1,500	23	-	1,500
Machiasport	Washington	2,100	19	-	2,100
Macwahoc Pl.	Aroostook	2,400	20	-	2,400
Madawaska <sup>1</sup>	Aroostook	825	24	-	†825
Madison	Somerset	1,050	30	-	1,050
Madrid <sup>2</sup>	Franklin	700	21	-	700
Magalloway Pl.	Oxford	520	23	-	520
Manchester	Kennebec	475	21	475	475
Mapleton	Aroostook	900	23	775	900
Mariaville	Hancock	1,000	21	-	1,000
Marion <sup>3</sup>	Washington	857	22	-	857
Marshfield	Washington	1,885	21	-	1,885
Mars Hill	Aroostook	1,000	22	175	1,000
Masardis	Aroostook	525	24	-	525
Mason	Oxford	1,200	21	-	†1,200
Mattawamkeag	Penobscot	1,600	23	-	1,600
Maxfield <sup>4</sup>	Penobscot	-	-	-	-

<sup>1</sup> Madawaska: Expended joint funds for 1911 and 1912 together.

<sup>2</sup> Madrid: Built concrete abutments 24 feet long, 3 feet wide and 10 feet high which cost \$652.97, in addition to work shown above. A steel I beam bridge with plank floor was put on by town. Cost not given. Cost of abutments not included in cost per foot.

<sup>3</sup> Marion: Expended joint funds for 1911 and 1912 together.

<sup>4</sup> Maxfield: Money used to put steel and concrete top on stone abutments built in 1911. Steel I beams and concrete floor. Span 20 feet, width 19 feet.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size— inches.	Length— feet.	Cost.						
{ Metal....	16	28							
{ Metal....	18	28	119 52	\$863 69	\$800 00	\$400 00	-	\$63 69	\$ 64
Metal.....	12	24	24 00	619 15	600 00	400 00	-	19 15	62
.....	-	-	-	419 57	400 00	200 00	-	19 57	1 75
Metal.....	6	32	19 20	806 47	800 00	400 00	-	6 47	69
.....	-	-	-	1,438 54	1,400 00	600 00	-	38 54	1 44
Metal.....	14	10	14 40	827 65	800 00	400 00	-	27 65	56
.....	-	-	-	830 15	800 00	400 00	-	30 15	64
Metal.....	12	24	19 20	603 94	600 00	300 00	-	3 94	38
Metal.....	10	24	16 80	866 15	800 00	400 00	-	66 15	48
.....	-	-	-						
Stone.....	24 x 24	24							
Metal.....	16	24	52 00	606 59	600 00	400 00	-	6 59	66
Concrete....	24 x 24	25	33 00	900 00	900 00	449 94	- \$ 06	-	30
Metal.....	14	24	34 52	636 64	600 00	400 00	-	36 64	58
Stone.....	12 x 18	28	15 89	793 84	800 00	393 84	6 16	-	47
{ Metal....	16	26							
{ Metal....	16	58	143 50	995 44	900 00	450 00	-	95 44	66
{ Metal....	30	24							
{ Metal....	16	20	128 75	609 95	600 00	400 00	-	9 95	29
Stone.....	18 x 24	24	29 00	600 00	600 00	400 00	-	-	25
Stone.....	20 x 24	24	30 00						
Stone.....	24 x 24	24	36 00						
Metal.....	24	60	145 25	897 85	800 00	160 01	39 99	97 85	1 09
.....	-	-	-	1,221 99	1,312 00	471 99	90 01	-	1 16
{ Metal....	10	24							
{ Metal....	10	24	40 82	1,256 40	600 00	400 00	-	656 40	86
Metal.....	12	24	36 90	800 00	800 00	400 00	-	-	1 54
Metal.....	8	26	17 83						
Stone.....	24 x 24	48	67 26	490 26	400 00	200 00	-	90 26	1 03
Concrete....	24 x 27	42	98 13	984 04	800 00	400 00	-	184 04	1 09
.....	-	-	-	608 95	600 00	400 00	-	8 95	61
.....	-	-	-	375 57	375 00	100 00	-	57	44
Metal.....	16	28	58 03						
Metal.....	24	23	85 09	634 11	600 00	304 99	95 01	34 11	34
{ Metal....	10	24							
{ Metal....	10	20	45 20	461 95	900 00	11 95	438 05	-	46
.....	-	-	-	296 50	300 00	196 47	3 53	-	56
Stone.....	15 x 18	27	16 75	315 62	300 00	200 00	-	15 62	26
{ Metal....	12	26							
{ Metal....	16	26	80 27	601 61	600 00	400 00	-	1 61	38
Bridge.....	-	-	518 37	518 37	600 00	318 37	81 63	-	-

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Mayfield Pl. <sup>1</sup> .....	Somerset.....	-	-	-	-
Mechanic Falls.....	Androscoggin..	1,600	23	-	1,600
Meddybemps.....	Washington....	3,000	22	-	3,000
Medford.....	Piscataquis....	610	21	600	610
Medway.....	Penobscot.....	1,600	23	82	1,600
Mercer <sup>2</sup> .....	Somerset.....	450	25	-	450
Merrill.....	Aroostook.....	500	24	300	500
Mexico.....	Oxford.....	2,100	23	-	2,100
Milbridge.....	Washington....	1,750	21	-	1,750
Milford.....	Penobscot.....	670	21	-	670
Millinocket.....	Penobscot.....	792	30	-	792
Milo.....	Piscataquis....	2,000	21	350	2,000
Milton Pl.....	Oxford.....	258	23	258	258
Minot <sup>3</sup> .....	Androscoggin..	600	28	-	†600
Monmouth.....	Kennebec.....	500	21	500	500
Monroe.....	Waldo.....	1,207	23	-	1,207
Monson.....	Piscataquis....	1,530	21	-	1,530
Monticello.....	Aroostook.....	1,325	24	1,325	1,325
Montville.....	Waldo.....	635	23	-	635
Moose River Pl.....	Somerset.....	1,188	21	-	1,188
Moro Pl.....	Aroostook.....	480	24	100	†480
Morrill <sup>4</sup> .....	Waldo.....	200	24	-	200
Moxie Gore.....	Somerset.....	250	21	-	250
Mt. Chase.....	Penobscot.....	706	24	-	706
Mt. Desert.....	Hancock.....	1,999	21	-	1,999
Mt. Vernon.....	Kennebec.....	2,550	23	-	2,550
Naples.....	Cumberland...	450	23	-	450

<sup>1</sup> Mayfield Pl.: No road built. Expended money to put in culverts.

<sup>2</sup> Mercer: \$100 of State aid held to complete work commenced but not completed. Amount reported is complete.

<sup>3</sup> Minot: Work which was begun in 1911 completed. Cost per foot includes cost of work done in 1911 which amounted to \$425.40. See 1911 report.

<sup>4</sup> Morrill: Reinforced arched concrete culvert, with stone end walls 16 feet high. Cost of culvert not included in cost per foot.

ROAD WORK IN 1912—Continued.

Kind.	CULVERTS.			Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
	Size—inches.	Length—feet.	Cost.						
Metal....	12	18							
Metal....	10	18							
Metal....	10	18	\$123 20	\$123 20	\$105 00	\$52 50	-	\$18 20	-
Metal....	10	18							
Metal....	20	26							
Metal....	36	26	143 60	975 54	900 00	450 00	-	75 54	\$ 61
Metal....	36	24							
Metal....	12	30	222 51	635 60	600 00	400 00	-	35 60	21
Metal....	12	24							
Metal....	12	24	94 21	538 26	600 00	281 27	\$118 73	-	88
Metal....	12	-							
Metal....	12	-	57 66	668 36	600 00	400 00	-	68 36	42
Metal....	12	-							
Metal....	8	50							
Metal....	10	20	59 50	614 28	600 00	300 00	100 00	14 28	1 36
Metal.....	12	24	30 75	702 11	600 00	400 00	-	102 11	1 40
Cast iron....	4	30	6 00						
Stone.....	42 x 42	27	82 00	1,549 42	800 00	400 00	-	749 42	74
Stone.....	36 x 48	21	129 89	617 19	500 00	250 00	-	117 19	35
Concrete....	36 x 36	25	200 35	799 36	800 00	399 27	- 73	-	1 19
Tile.....	15	60	32 43	1,102 49	1,080 00	480 00	-	22 49	1 39
.....	-	-	-	963 45	960 00	459 44	56	3 45	48
Stone.....	36 x 48	24	65 00	228 95	225 00	150 00	-	3 95	88
Stone.....	12 x 12	20	30 00	887 01	800 00	400 00	-	87 01	2 18
Metal.....	8	14	33 60	334 83	200 00	99 42	58	134 83	67
Concrete....	12 x 12	24	40 00	785 09	800 00	384 19	15 81	-	65
Metal....	20	24							
Metal....	20	24	114 30	829 61	800 00	352 94	47 06	29 61	54
Metal....	16	24							
Metal....	8	18							
Metal....	12	18	128 40	1,007 46	800 00	400 00	-	207 46	76
Metal....	24	18							
Metal.....	24	22	64 65	403 95	400 00	200 00	-	3 95	64
Metal.....	8	24	45 60	312 55	300 00	200 00	-	12 55	26
Metal.....	12	24	31 12	601 85	600 00	400 00	-	1 85	1 25
Concrete....	48 x 72	26	587 48	689 48	600 00	400 00	-	89 48	51
.....	-	-	-	183 00	183 00	91 00	50	-	73
Metal....	16	22							
Metal....	16	22	71 00	650 44	600 00	400 00	-	50 44	92
Metal....	16	24							
Metal....	12	24	127 83	1,354 12	1,312 00	559 33	2 67	42 12	68
Metal....	10	36							
Metal....	10	10							
Metal....	12	26							
Metal....	12	36	218 70	829 14	800 00	400 00	-	29 14	32
Metal....	10	20							
Metal....	12	35							
Metal....	16	90							
.....	-	-	-	443 67	400 00	200 00	-	43 67	98

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Newburg.....	Penobscot.....	2,887½	22	-	2,887½
Newcastle.....	Lincoln.....	1,300	24	800	1,300
New Gloucester.....	Cumberland...	2,275	24	983	†2,275
New Limerick.....	Aroostook.....	§			
Newport.....	Penobscot.....	1,178	35	-	1,178
New Portland.....	Somerset.....	1,900	21	850	†1,900
Newry.....	Oxford.....	2,100	22	-	2,100
New Sharon.....	Franklin.....	1,690	21	-	1,690
New Sweden.....	Aroostook.....	2,000	23	900	2,000
New Vineyard.....	Franklin.....	1,300	21	100	1,300
Nobleboro.....	Lincoln.....	1,895	21	-	1,895
Norridgewock.....	Somerset.....	1,120	23	1,120	†1,120
North Berwick.....	York.....	671	22	200	*671
Northfield.....	Washington....	1,050	21	-	1,050
Northport.....	Waldo.....	1,750	21	-	†1,750
North Yarmouth.....	Cumberland...	1,450	22	750	1,450
Norway <sup>1</sup> .....	Oxford.....	1,150	23	708	1,150
No. 6, No. of Weld....	Franklin.....	436	18	-	436
No. 8 Pl.....	Hancock.....	§			
No. 21 Pl.....	Hancock.....	1,000	21	300	1,000
No. 33 Pl.....	Hancock.....	700	21	700	†700
No. 31, Mid. Div. <sup>2</sup> ....	Washington....	2,000	18	-	2,000
Oakfield.....	Aroostook.....	2,000	23	-	2,000
Oakland.....	Kennebec.....	1,150	28	551	1,150
Old Orchard.....	York.....	1,275	21	-	1,275
Old Town <sup>3</sup> .....	Penobscot.....	1,058	26	-	*1,058
Orient.....	Aroostook.....	1,250	23	-	1,250
Orland.....	Hancock.....	4,000	23	-	4,000
Orneville.....	Piscataquis....	1,300	23	229	1,300
Orono <sup>4</sup> .....	Penobscot.....	1,375	25	225	1,375

<sup>1</sup> Norway: 1 stone culvert lengthened 3 feet; 2 stone culverts lengthened 4 feet.

<sup>2</sup> No. 31, M. D.: Expended joint funds for 1910, 1911 and 1912 together.

<sup>3</sup> Old Town: For detail statement of this work see report on contract towns.

<sup>4</sup> Orono: Work not entirely satisfactory. \$100 of 1912 aid held for satisfactory completion according to specifications.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
Stone.....	-	-	\$15 00	\$812 54	\$800 00	\$393 16	\$6 84	\$12 54	\$ 28
{ Metal.....	16	26							
{ Metal.....	16	26	61 35	898 80	800 00	400 00	-	98 80	69
{ Metal.....	10	28							
{ Metal.....	10	28	86 16	957 33	960 00	457 33	2 67	-	42
{ Stone.....	10 x 20	28							
.....	-	-	-	907 19	900 00	450 00	-	7 19	77
Metal.....	10	18	17 60	931 39	800 00	400 00	-	131 39	49
Metal.....	12	30	7 50						
Stone.....	36 x 48	31	250 00	898 98	800 00	400 00	-	98 98	43
{ Metal.....	8	24							
{ Metal.....	8	24	34 80	402 42	400 00	200 00	-	2 42	24
Metal.....	16	32	38 76	801 20	800 00	400 00	-	1 20	40
.....	-	-	-	594 45	600 00	394 45	5 55	-	46
Metal.....	12	30	44 25	689 83	800 00	289 83	110 17	-	36
Metal.....	10	23	31 69						
Metal.....	8	23	29 33	807 00	800 00	400 00	-	7 00	72
Metal.....	12	28	40 00						
Tile.....	10	60	18 00	902 03	800 00	400 00	-	102 03	1 34
Metal.....	10	44	44 08						
Metal.....	8	24	45 60	645 66	600 00	400 00	-	45 66	61
Stone.....	36 x 36	25	40 00						
Stone.....	24 x 24	23	20 67	622 11	600 00	300 00	-	22 11	35
Stone.....	20 x 24	30	51 39						
Metal.....	18	26	48 42	798 18	800 00	397 78	2 22	-	55
Metal.....	12	28	22 78						
{ Stone.....	-	-	45 10	1,081 10	1,017 00	467 00	-	64 10	94
{ Stone.....	-	-	-	164 27	84 00	42 00	-	80 27	37
.....	-	-	-	608 23	600 00	400 00	-	8 23	61
Stone.....	12 x 24	23	18 75	647 53	600 00	400 00	-	47 53	92
Stone.....	12 x 24	23	17 60						
.....	-	-	-	229 63	226 00	36 50	-	3 63	11
Metal.....	10	24	22 20	599 16	600 00	399 16	-	-	30
Metal.....	20	26	63 30	900 16	864 00	414 00	84	36 16	78
.....	-	-	-	963 51	925 00	425 00	-	38 51	75
Stone.....	18 x 24	27	27 00						
Stone.....	18 x 24	29	29 00	2,249 27	1,662 00	712 00	-	587 27	2 13
Metal.....	16	38	53 50						
{ Metal.....	16	24							
{ Metal.....	20	24	74 50	613 00	600 00	400 00	-	13 00	49
Metal.....	8	22	12 60						
Metal.....	8	24	15 00	833 68	800 00	400 00	-	33 68	21
Metal.....	18	24	44 38	602 05	600 00	400 00	-	2 05	46
Concrete.....	52 x 52	36	263 62	1,808 93	1,017 00	367 00	100 00	791 97	1 31

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	“V” drain or stone base.	Macadam, gravel or earth surface—feet.
Orrington.....	Penobscot.....	990	28	-	990
Otis.....	Hancock.....	1,000	27	-	1,000
Otisfield.....	Cumberland...	1,640	22	-	1,640
Oxford 1.....	Oxford.....	950	25	-	†950
Palermo.....	Waldo.....	750	24	255	750
Palmyra.....	Somerset.....	896	24	-	896
Paris.....	Oxford.....	1,200	21	-	1,200
Parkman 2.....	Piscataquis....	-	-	-	-
Parlin Pond, Twp. No. 3, R. 7.....	Somerset.....	1,000	21	-	†1,000
Parsonsfeld.....	York.....	3,558	22	-	3,558
Passadumkeag.....	Penobscot.....	1,940	22	-	1,940
Patten.....	Penobscot.....	733	33	464	733
Pembroke 3.....	Washington....	178	23	-	178
Penobscot.....	Hancock.....	2,830	23	-	2,830
Perham.....	Aroostook.....	1,850	23	1,600	1,850
Perkins Twp. 4.....	Franklin.....	-	-	-	-
Perry.....	Washington....	1,200	22	-	1,200
Peru.....	Oxford.....	580	21	-	580
Phillips 5.....	Franklin.....	1,143	50	200	1,143
Phippsburg 6.....	Sagadahoc.....	1,000	21	-	1,000
Pittsfield 7.....	Somerset.....	745	49	-	745
Pittston.....	Kennebec.....	900	21	-	900
Pleasant Ridge Pl.....	Somerset.....	100	15	-	100
Plymouth.....	Penobscot.....	630	32	630	630
Poland.....	Androscoggin..	1,500	21	250	1,500
Portage Lake 8.....	Aroostook.....	2,600	23	475	2,600
Porter.....	Oxford.....	800	40	-	†800

1 Oxford: Cost of culverts includes 850 feet of bank wall built of split granite.

2 Parkman: Expended joint funds for 1910, 1911 and 1912 together. For details of work completed see report on contract towns.

3 Pembroke: Concrete bridge; slab top, Luten Truss reinforcement, span 8 feet, width of roadway 21 feet, four concrete wing walls 8 feet long. Cost of bridge not included in cost per foot.

4 Perkins Twp.: No road built. Expended money to put in culverts.

5 Phillips: 284 feet and cobble side drain and 1 brick catch basin. Cost \$118.44.

6 Phippsburg: Expended joint funds for 1911 and 1912 together.

7 Pittsfield: For more detail statements of this work see report of contract towns.

8 Portage Lake: Expended joint funds for 1911 and 1912 together.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
Stone.....	54 x 60	29	\$115 95						
Stone.....	24 x 24	28	60 00	\$576 24	\$600 00	\$274 19	\$25 81	-	\$ 58
Metal.....	12	24	30 00	607 01	600 00	400 00	-	\$7 01	61
Stone.....	24 x 18	25							
Stone.....	18 x 18	25							
Stone.....	30 x 30	25	139 25	800 33	800 00	400 00	-	33	49
Stone.....	24 x 24	30							
Stone.....	24 x 36	25							
Stone.....	18 x 18	53							
Stone.....	24 x 24	23	241 45	800 00	800 00	400 00	-	-	84
Stone.....	24 x 24	30							
Stone.....	13 x 13	26	30 45	415 21	400 00	200 00	-	15 21	55
Metal.....	24	24	56 51	797 93	800 00	397 93	2 07	-	89
.....	-	-	-	990 00	990 00	440 00	-	-	82
Bridge.....	-	-	1930 00	2,421 14	2,400 00	400 00	-	21 14	-
.....	-	-	-	128 75	117 00	58 50	-	11 75	13
Stone.....	30 x 30	22							
Stone.....	30 x 30	24	44 00	828 83	800 00	400 00	-	28 83	23
Metal.....	12	24							
Metal.....	12	24	88 99	600 00	600 00	399 98	02	-	31
Metal.....	12	24							
.....	-	-	-	836 00	800 00	400 00	-	36 00	1 14
Bridge.....	-	-	283 61	792 38	800 00	391 72	8 28	-	2 85
Stone.....	30 x 30	23	134 46	822 42	800 00	400 00	-	22 42	29
Metal.....	12	26	63 05	800 99	800 00	400 00	-	99	43
Metal.....	10	24	27 86	27 86	19 00	9 50	-	8 86	-
Concrete.....	20 x 24	26	108 50	615 81	600 00	400 00	-	15 81	51
Metal.....	10	26	22 21	415 79	400 00	200 00	-	15 79	72
.....	-	-	-	791 89	800 00	391 89	8 11	-	69
Metal.....	14	24							
Metal.....	12	24	54 10	1,664 61	1,600 00	400 00	-	64 61	1 66
.....	-	-	-	5,743 89	1,080 00	480 00	-	4563 89	7 71
Metal.....	12	24	23 48	808 42	800 00	400 00	-	8 42	90
Metal.....	-	-	-	88 00	67 00	33 50	-	21 00	88
Metal.....	10	20	22 12	594 87	600 00	394 87	5 13	-	94
Stone.....	24 x 24	27							
Stone.....	12 x 15	27	83 75	898 96	900 00	448 96	1 04	-	60
Stone.....	48 x 60	10							
Metal.....	12	24	51 00						
Concrete.....	30 x 36	24	284 78	1,214 98	1,200 00	331 25	68 75	14 98	47
Tile.....	6	50							
Tile.....	6	45	41 06	422 73	400 00	200 00	-	22 73	53



## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Portland 1.....	Cumberland ...	3,016	12	-	3,016
Pownal.....	Cumberland ...	1,250	26	-	1,250
Prentiss.....	Penobscot.....	1,388	21	225	1,388
Presque Isle.....	Aroostook.....	¶ 1,000	18	1,000	1,000
Princeton.....	Washington....	2,100	21	-	2,100
Prospect.....	Waldo.....				
Randolph.....	Kennebec.....	1,050	21	-	1,050
Rangeley.....	Franklin.....	650	42	650	650
Rangeley Pl.....	Franklin.....	840	23	310	840
Raymond.....	Cumberland ...	3,809	21	-	†3,809
Readfield.....	Kennebec.....	1,590	28	1,370	1,590
Reed Pl.....	Aroostook.....	990	24	-	990
Richmond.....	Sagadahoc.....	1,175	27	975	1,175
Ripley 2.....	Somerset.....	630	30	630	†630
Robbinston.....	Washington....	1,500	23	-	1,500
Rockland.....	Knox.....	1,022	30	-	†1,022
Rockport.....	Knox.....	675	30	675	675
Rome.....	Kennebec.....	1,950	24	-	1,950
Roque Bluffs.....	Washington....	2,400	21	-	2,400
Roxbury.....	Oxford.....	1,025	21	-	1,025
Rumford 3.....	Oxford.....	-	-	-	-
Saco.....	York.....	775	28	100	*775
St. Agatha.....	Aroostook.....	1,000	24	700	1,000
St. Albans.....	Somerset.....	1,280	24	-	1,280
St. Francis Pl.....	Aroostook.....	700	24	-	†700
St. George.....	Knox.....	925	21	-	925
Salem.....	Franklin.....	500	23	-	500
Sandy River Pl.....	Franklin.....	\$			
Sandy Bay Twp. 5, R. 3	Somerset.....	1,000	21	-	1,000
Sanford.....	York.....	2,150	23	-	2,150
Sangerville.....	Piscataquis....	310	24	-	310
Scarborough.....	Cumberland ...	1,550	24	550	1,550
Searsmont.....	Waldo.....	1,516	21	1,516	†1,516

1 Portland: For more detail statement of this work see report of contract towns.

2 Ripley: \$50 dollars of State aid held back to insure completion of 600 feet of work not reported above.

3 Rumford: Work not completed. State aid paid on an estimate of work completed. See report on contract towns.

¶ Work not completed.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size— inches.	Length— feet.	Cost.						
.....	-	-	-	\$11791 07	\$12425 00	\$4691 07	\$633 93	-	\$3 91
Metal.....	12	24	\$19 20						
Metal.....	12	30	24 00	400 51	400 00	200 00	-	\$ 51	32
Stone.....	18 x 18	28	32 25						
{ Metal.....	18	24							
{ Metal.....	10	24	57 00	599 85	600 00	398 80	1 20	-	43
.....	-	-	-	799 00	800 00	399 00	1 00	-	80
Metal.....	12	28	77 03	645 35	600 00	400 00	-	45 35	31
.....	-	-	-	800 00	800 00	400 00	-	-	76
{ Metal.....	10	24		959 90	960 00	459 90	10	-	1 47
{ Metal.....	12	24	60 50	813 02	800 00	400 00	-	13 02	97
{ Stone.....	20 x 18	25							
{ Stone.....	20 x 24	25							
{ Stone.....	18 x 20	28	125 00	800 00	800 00	400 00	-	-	21
{ Stone.....	18 x 20	25							
{ Stone.....	18 x 20	25							
Metal.....	12	58	50 03	800 28	800 00	400 00	-	28	50
Metal.....	14	26	46 39	345 56	300 00	200 00	-	45 56	35
Metal.....	10	38	26 60						
Metal.....	8	44	26 40	1,055 90	960 00	460 00	-	95 90	90
.....	-	-	-	558 45	600 00	306 64	93 36	-	88
Concrete.....	24 x 30	25	62 90						
Concrete.....	24 x 24	25	45 00	553 66	600 00	344 56	55 44	-	37
.....	-	-	-	2,300 00	2,100 00	900 00	-	200 00	2 24
Metal.....	16	30	62 23	1,115 97	1,017 00	467 00	-	98 97	1 65
Metal.....	18	24	24 00						
Metal.....	18	26	26 00	601 87	600 00	400 00	-	1 87	31
{ Metal.....	12	24							
{ Metal.....	12	24	208 10	609 02	600 00	396 45	3 55	9 02	25
{ Metal.....	24	30							
Stone.....	20 x 20	27	21 15	600 14	600 00	400 00	-	14	59
.....	-	-	-	10460 81	1,925 00	825 00	-	-	-
.....	-	-	-	2,075 08	1,925 00	825 00	-	150 08	2 68
.....	-	-	-	601 50	600 00	400 00	-	1 50	60
Metal.....	24	-	62 00	502 09	500 00	250 00	-	2 09	39
Concrete.....	72 x 96	33	518 01	876 69	600 00	400 00	-	276 69	1 25
Stone.....	18 x 24	26	35 00						
Stone.....	15 x 20	24	25 00	904 17	800 00	400 00	-	104 17	47
Stone.....	24 x 24	26	30 00	301 25	300 00	200 00	-	1 25	60
.....	-	-	-	199 55	102 00	51 00	-	97 55	20
Metal.....	12	24	19 20	1,971 51	1,750 00	750 00	-	221 51	92
Metal.....	16	24	58 62	516 12	400 00	200 00	-	116 12	1 66
Metal.....	12	26	22 30	967 02	925 00	425 00	-	42 02	62
Stone.....	36 x 36	23	32 00	855 08	800 00	285 72	114 28	55 08	56

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Searsport.....	Waldo.....	1,158	32	810	1,158
Sebec.....	Piscataquis....	490	23	490	†490
Sedgwick.....	Hancock.....	1,600	21	—	1,600
Shapleigh.....	York.....	710	23	—	710
Sherman <sup>1</sup> .....	Aroostook.....	885	26	885	885
Shirley.....	Piscataquis....	¶			
Silver Ridge Pl.....	Aroostook.....	950	18	450	950
Skowhegan.....	Somerset.....	1,700	28	—	1,700
Smithfield.....	Somerset.....	§			
Smyrna.....	Aroostook.....	800	25	300	800
Solon.....	Somerset.....	825	22	83	†825
Somerville.....	Lincoln.....	2,500	21	—	2,500
Sorrento.....	Hancock.....	600	21	245	600
South Berwick.....	York.....	570	22	—	*570
Southport.....	Lincoln.....	825	21	140	825
**South Portland.....	Cumberland....	843	20	643	{ †200 *643
South Thomaston.....	Knox.....	900	24	500	900
Southwest Harbor <sup>2</sup> .....	Hancock.....	561	22 to 32	—	561
Springfield.....	Penobscot.....	480	24	—	480
Stacyville Pl.....	Penobscot.....	§			
Standish.....	Cumberland....	1,500	21	—	*1,500
Starks.....	Somerset.....	1,200	24	950	1,200
Stetson.....	Penobscot.....	950	27	650	950
Steuben.....	Washington....	1,700	23	100	1,700
Stockton Springs.....	Waldo.....	1,500	23	360	1,500
Stoneham.....	Oxford.....	1,006	23	—	†1,006
Stonington.....	Hancock.....	1,015	21	900	1,015
Stow.....	Oxford.....	2,000	25	—	2,000
Strong.....	Franklin.....	590	22	—	590
Sullivan.....	Hancock.....	1,400	20	350	1,400
Sumner.....	Oxford.....	2,350	22	—	2,350
Surry.....	Hancock.....	2,100	23	—	2,100
Swan's Island.....	Hancock.....	600	21	265	600

<sup>1</sup> Sherman: Metal culvert lengthened 2 feet and concrete end wall built.

<sup>2</sup> Southwest Harbor: Cost of culverts includes cost of two brick catch basins provided with iron grate and covers.

\*\* South Portland: Length reported includes 200 feet of earth road which cost \$200.

¶ Work not completed.

§ Laid over.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
Metal.....	-	-	-	\$759 00	\$800 00	\$359 00	\$41 00	-	\$ 65
Metal.....	16	24	\$47 69						
Metal.....	14	24	47 72	410 73	400 00	200 00	-	\$10 73	84
Metal.....	12	24							
Metal.....	12	24	47 03	756 20	800 00	320 43	79 57	-	47
Metal.....	12	22							
Stone.....	48 x 72	24	100 00	617 39	400 00	200 00	-	217 39	87
.....	-	-	-	820 50	800 00	400 00	-	20 50	93
Metal.....	14	36							
Metal.....	18	36	90 15	554 81	600 00	354 81	45 19	-	58
Metal.....	12	28							
Metal.....	12	28	103 50	1,880 68	1,750 00	750 00	-	130 68	1 11
Metal.....	12	28							
Metal.....	16	24	36 00						
Concrete.....	60 x 72	20	200 00	600 00	600 00	400 00	-	-	75
Metal.....	14	28	38 75	546 13	600 00	246 13	53 87	-	66
Metal.....	14	60	68 86	588 86	600 00	386 21	13 79	-	23
Metal.....	18	28	91 95	401 40	400 00	200 00	-	1 40	66
.....	-	-	-	1,010 99	960 00	460 00	-	50 99	1 77
Concrete.....	18 x 24	24	44 40	785 77	800 00	385 77	14 23	-	95
Metal.....	-	-	-	2,299 55	1,750 00	750 00	-	549 55	3 26
Metal.....	12	27	36 55	836 53	800 00	400 00	-	36 53	93
Metal.....	8	174	177 68	800 35	800 00	400 00	-	35	1 42
Stone.....	48 x 48	24	75 00	702 59	600 00	400 00	-	102 59	1 46
Metal.....	20	30							
Metal.....	12	26	61 30	911 50	900 00	450 00	-	11 50	61
Metal.....	16	26	34 00	607 39	600 00	400 00	-	7 39	51
Metal.....	48	28							
Metal.....	24	54	227 22	876 69	800 00	400 00	-	76 69	92
Tile.....	6	32							
Metal.....	18	24							
Metal.....	18	24	160 84	583 22	600 00	383 22	16 78	-	34
Metal.....	18	24							
Metal.....	18	26	37 00	588 35	600 00	288 35	11 65	-	39
Metal.....	-	-	68 45	578 41	600 00	378 13	21 87	-	57
Stone.....	36 x 48	25	50 00						
Stone.....	24 x 30	23	25 00	801 53	800 00	400 00	-	1 53	79
Stone.....	66 x 72	30	168 35	604 98	600 00	400 00	-	4 98	30
Metal.....	8	24	14 40	346 29	350 00	171 29	3 71	-	59
Metal.....	18	24							
Metal.....	15	24	129 96	822 90	800 00	400 00	-	22 90	59
Stone.....	36 x 60	26	85 00						
Stone.....	36 x 36	24	65 00	833 56	800 00	400 00	-	33 56	35
Stone.....	24 x 24	26	37 75						
Metal.....	8	22							
Metal.....	10	44	62 70	601 07	600 00	400 00	-	1 07	29
Metal.....	12	22							
Metal.....	16	23	63 47	604 00	600 00	400 00	-	4 00	1 00

## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Swanville.....	Waldo.....	2,800	22	-	2,800
Talmadge.....	Washington....	850	23	-	850
Temple.....	Franklin.....	925	21	925	925
The Forks Pl.....	Somerset.....	100	21	-	100
Thomaston.....	Knox.....	900	24	850	*900
Thorndike.....	Waldo.....	1,508	21	203	1,508
Topsfield.....	Washington....	3,855	21	-	3,855
Topsham.....	Sagadahoc.....	628	21	628	628
Tremont.....	Hancock.....	950	21	-	950
Trenton.....	Hancock.....	950	21	-	950
Trescott.....	Washington....	1,200	23	-	1,200
Troy.....	Waldo.....	1,336	20	544	1,336
Turner.....	Androscoggin..	1,822	23	1,242	1,822
Union.....	Knox.....	1,200	21	-	1,200
Unity.....	Waldo.....	2,250	24	750	2,250
Unity Pl.....	Kennebec.....	300	23	-	300
Upton.....	Oxford.....	850	21	300	850
Van Buren.....	Aroostook.....	1,012	30	1,012	1,012
Vanceboro.....	Washington....	2,150	23	-	2,150
Vassalboro.....	Kennebec.....	1,635	24	-	1,635
Verona.....	Hancock.....	2,100	23	250	†2,100
Vienna.....	Kennebec.....	1,400	24	-	1,400
Vinalhaven.....	Knox.....	570	21	-	*570
Wade Pl.....	Aroostook.....	530	21	430	530
Waite.....	Washington....	800	28	800	800
Waldo.....	Waldo.....	1,700	25	500	1,700
Waldoboro.....	Lincoln.....	§			
Wales.....	Androscoggin..	1,310	21	-	1,310
Waltham.....	Hancock.....	1,910	21	-	1,910
Warren.....	Knox.....	1,200	21	-	1,200
Washburn.....	Aroostook.....	1,300	23	1,300	1,300
Washington Twp.....	Franklin.....	§			
Waterboro.....	York.....	1,800	22	55	1,800

§ Laid over.



## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Waterford.....	Oxford.....	1,365	21	-	1,365
Waterville 1.....	Kennebec.....	5,100	35	-	5,100
Wayne.....	Kennebec.....	630	24	230	630
Webster.....	Androscoggin.....	980	26 to 40	100	*980
Webster Pl.....	Penobscot.....	325	21	-	325
Weld.....	Franklin.....	2,700	23	-	2,700
Wellington.....	Piscataquis.....	1,300	23	-	1,300
Wells 2.....	York.....	-	-	-	-
Wesley.....	Washington.....	880	21	-	880
West Bath.....	Sagadahoc.....	800	21	-	800
Westbrook.....	Cumberland.....	652	22	-	*652
Westfield Pl.....	Aroostook.....	800	23	800	800
West Forks Pl.....	Somerset.....	500	21	-	500
West Gardiner.....	Kennebec.....	1,385	23	400	1,385
Wetton.....	Aroostook.....	1,000	23	-	1,000
Westport 3.....	Lincoln.....	1,200	21	-	1,200
Whitefield.....	Lincoln.....	1,547	21	1,200	1,547
Whiting.....	Washington.....	1,400	22	-	1,400
Whitneyville.....	Washington.....	1,300	21	-	1,300
Williamsburg.....	Piscataquis.....	1,320	21	366	†1,320
Willimantic.....	Piscataquis.....	1,200	24	400	1,200
Wilton.....	Franklin.....	1,800	22	-	1,800
Windham.....	Cumberland.....	3,334	23	-	3,334
Windsor.....	Kennebec.....	2,330	21	600	2,330
Winn.....	Penobscot.....	575	24	550	575
Winslow 4.....	Kennebec.....	2,400	21	-	2,400
Winter Harbor.....	Hancock.....	500	20	-	500
Winterport.....	Waldo.....	2,606	22	1,760	2,606
Winthrop.....	Kennebec.....	1,000	20	900	1,000
Wiscasset.....	Lincoln.....	900	23	-	900

1 Waterville: Expended joint fund together with an apportionment from the automobile fund. For details see report on contract towns.

2 Wells: Joint fund paid in on Trunk Line work.

3 Westport: Expended joint funds for 1911 and 1912 together; \$25 of 1912 aid held to complete end walls on metal culverts.

4 Winslow: Expended joint funds for 1911 and 1912 together. Built 3300 feet of 5-inch tile underdrain, cost \$823.51. Size and cost of culverts not reported.

ROAD WORK IN 1912—Continued.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
.....	-	-	-	\$816 11	\$800 00	\$400 00	-	\$16 11	\$ 60
Metal.....	16	28	\$35 62	6,444 80	2,275 00	975 00	-	4169 80	1 26
Metal.....	12	28	30 03	350 00	350 00	175 00	-	-	56
.....	-	-	-	1,156 47	800 00	400 00	-	356 47	1 18
Metal.....	36	26	154 53	300 20	300 00	200 00	-	20	92
Metal.....	12	25	25 46	959 38	800 00	328 72	\$71 28	159 38	35
Metal.....	8	25	22 57	-	-	-	-	-	-
Metal.....	16	22	22 00	649 09	600 00	400 00	-	49 09	50
Metal.....	16	24	38 24	621 57	1,017 00	447 48	19 52	21 57	71
.....	-	-	-	602 28	600 00	400 00	-	2 28	75
.....	-	-	-	2,813 41	2,100 00	900 00	-	713 41	4 31
.....	-	-	-	661 08	800 00	256 09	143 91	-	83
Metal.....	12	32	32 00	299 00	119 00	59 50	-	180 00	60
Metal.....	12	24	23 25	812 15	800 00	400 00	-	12 15	59
Metal.....	42	26	230 69	602 15	600 00	400 00	-	2 15	60
{ Metal....	14	21	-	-	-	-	-	-	-
{ Metal....	8	21	69 83	728 48	750 00	153 48	46 52	28 48	61
{ Metal....	9	36	24 60	848 95	800 00	400 00	-	48 95	55
{ Metal....	16	24	-	-	-	-	-	-	-
{ Metal....	12	24	100 75	626 30	600 00	400 00	-	26 30	45
Metal.....	15	25	84 39	510 77	600 00	310 77	89 23	-	39
{ Metal....	14	24	-	603 88	600 00	400 00	-	3 88	46
{ Metal....	14	24	83 21	594 38	600 00	394 38	5 62	-	49
.....	-	-	-	894 47	960 00	394 47	65 53	-	50
{ Stone....	18 x 18	27	-	-	-	-	-	-	-
{ Stone....	18 x 18	30	36 33	1,164 20	1,017 00	467 00	-	147 20	35
{ Stone....	24 x 24	25	35 50	808 06	800 00	400 00	-	8 06	35
Stone.....	30 x 36	25	180 80	591 43	600 00	391 43	8 57	-	1 03
{ Concrete.	-	-	-	-	-	-	-	-	-
{ Concrete.	-	53	-	2,497 33	2,800 00	297 33	302 67	-	1 04
{ Concrete.	-	-	-	-	-	-	-	-	-
{ Metal....	24	26	-	-	-	-	-	-	-
{ Metal....	10	24	197 86	806 23	800 00	400 00	-	6 23	1 61
{ Metal....	10	23	-	-	-	-	-	-	-
Concrete...	18 x 18	22	50 00	-	-	-	-	-	-
Concrete...	16 x 16	22	48 50	1,344 30	800 00	400 00	-	544 30	52
Concrete...	18 x 18	23½	50 00	-	-	-	-	-	-
Metal.....	14	36	30 80	1,010 77	1,080 00	316 89	163 11	-	1 01
.....	-	-	-	827 54	800 00	400 00	-	27 54	92



## TABULAR STATEMENT OF STATE

Town.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Woodland.....	Aroostook.....	¶			
Woodstock.....	Oxford.....	1,500	21	550	1,500
Woodville.....	Penobscot.....	1,200	20	1,000	†1,200
Woolwich.....	Sagadahoc.....	1,400	23	-	1,400
Wyman Twp. No. 4, R.3	Franklin.....	330	18	-	†330
Yarmouth.....	Cumberland...	1,300	24	-	1,300
York <sup>1</sup> .....	York.....	3,615	21	-	3,615

<sup>1</sup> York: Work not completed. Mileage reported is complete, and the unexpended balance will complete work already begun. Reported 5 metal culverts.

¶ Work not completed.

ROAD WORK IN 1912.—*Concluded.*

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1912 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
{ Metal....	8	24	37 71						
{ Metal....	8	24	37 71						
Stone.....	24 x 24	26	32 63	802 44	800 00	400 00	-	2 44	53
Metal.....	18	24	48 50	624 10	600 00	400 00	-	24 10	52
{ Metal....	14	25	-						
{ Metal....	10	25	87 80	820 41	800 00	400 00	-	20 41	59
{ Metal....	4	60	-						
.....	-	-	-	61 55	62 00	30 00	1 00	-	19
Metal.....	30	74	162 80						
Metal.....	12	46	36 80	1,176 64	1,080 00	480 00	-	96 64	90
Metal.....	12	46	36 80						
Metal.....	-	-	238 53	1,517 76	1,662 00	567 76	144 24	-	42

TABLE II.

## Tabular Statement of 1911 State

TOWN.	County.	Total length—feet.	Finished width—feet.	"V" drain or stone base.	Macadam, gravel or earth surface—feet.
Baileyville.....	Washington....	1,600	23	-	1,600
Brighton Pl. <sup>1</sup> .....	Somerset.....	-	-	-	-
Brunswick <sup>2</sup> .....	Cumberland....	360	21	-	‡360
Harpwell <sup>3</sup> .....	Cumberland....	-	-	-	-
Hiram.....	Oxford.....	550	22	50	550
Jay.....	Franklin.....	1,250	23	-	*1,250
Jefferson.....	Lincoln.....	2,550	21	1,100	2,550
Morrill <sup>4</sup> .....	Waldo.....	-	-	-	-
Mt. Desert.....	Hancock.....	1,300	21	-	†1,300
Sidney.....	Kennebec.....	1,000	21	840	1,000
Smithfield.....	Somerset.....	731	24	731	731
Stow.....	Oxford.....	2,250	21	-	2,250
Swan's Island.....	Hancock.....	443	22	-	‡443
Trenton <sup>5</sup> .....	Hancock.....	150	21	-	150
Wells.....	York.....	1,638	21	450	1,638
York.....	York.....	3,500	21	-	3,500

1 Brighton Pl.: Constructed end walls on culverts placed in 1911.

2 Brunswick: Completed 1911 contract.

3 Harpswell: Completed end walls to metal culverts.

4 Morrill: Completed 1911 work. Mileage reported in 1911.

5 Trenton: Completed 1911 work for which \$100 of 1911 aid was retained. See 1911 report.

\*\* York: Reported 11 metal culverts. Sizes and lengths not given.

TABLE II.

Road Work Not Reported in 1911.

CULVERTS.				Cost of State road.	Joint fund for 1912 State road.	Amount of State aid approved.	Unexpended balance.	Expended in excess of 1911 joint fund.	Cost per lineal foot.
Kind.	Size—inches.	Length—feet.	Cost.						
.....	-	-	-	\$1132 55	\$900 00	\$450 00	-	\$232 55	\$ 71
.....	-	-	-	-	25 00	25 00	-	-	-
.....	-	-	-	559 97	361 67	361 67	-	198 30	1 55
Stone.....	18 x 18	24	\$9 50	14 73	29 37	29 37	-	-	-
Metal.....	10	24	31 27	465 66	140 00	70 00	-	325 66	84
Metal.....	10	24	24 42	1,468 41	1,312 00	562 00	-	156 41	1 17
{ Metal....	24	24	-	-	-	-	-	-	-
{ Metal....	24	24	65 80	816 29	800 00	399 81	\$ 19	16 29	32
.....	-	-	-	75 00	150 00	150 00	-	-	-
{ Metal....	12	26	-	-	-	-	-	-	-
{ Metal....	20	26	54 78	1,267 21	1,312 00	517 21	44 79	-	97
.....	-	-	-	791 06	800 00	391 06	8 94	-	79
{ Metal....	18	24	-	-	-	-	-	-	-
{ Metal....	18	24	56 60	381 62	400 00	162 04	37 96	-	52
{ Metal....	18	26	56 69	-	-	-	-	-	-
{ Metal....	12	30	56 69	-	-	-	-	-	-
Stone.....	24 x 24	30	30 00	628 70	600 00	400 00	-	28 70	28
{ Metal....	14	24	-	-	-	-	-	-	-
{ Metal....	14	24	252 55	665 77	600 00	400 00	-	65 77	1 50
{ Stone....	24 x 24	28	-	-	-	-	-	-	-
.....	-	-	-	50 00	100 00	100 00	-	-	33
Metal.....	18	34	49 81	997 48	1,017 00	447 48	19 52	-	61
**.....	-	-	392 28	1,692 20	1,662 00	712 00	-	30 20	48

TABLE III.

## Tabular Statement of 1912 State

COUNTY.	Total number of towns applying for State aid.	Amount appropriated by towns and plantations.	Amount apportioned by State.	† Total amount available for permanent improvement.	Total cost of work completed.	Total cost of bridges and culverts.
Androscoggin.....	14	\$8,850 00	\$7,580 00	\$16,430 20	\$14,608 92	\$689 58
Aroostook.....	59	19,067 89	24,452 00	43,994 26	41,308 90	5,299 26
Cumberland.....	25	20,300 00	16,694 00	37,502 97	36,219 39	1,495 23
Franklin.....	31	7,380 50	9,237 50	17,415 88	17,155 82	2,128 74
Hancock.....	37	12,630 00	14,809 00	28,286 84	31,176 38	2,674 42
Kennebec.....	29	16,275 00	14,655 24	31,375 43	34,754 07	1,978 41
Knox.....	13	6,225 00	5,769 00	12,073 06	15,011 62	462 62
Lincoln.....	17	7,100 00	7,870 00	15,227 70	15,289 92	1,275 05
Oxford.....	38	12,380 50	13,947 50	26,450 15	36,045 70	2,619 66
Penobscot.....	60	22,350 00	26,264 00	49,052 83	49,416 00	5,187 60
Piscataquis.....	21	6,698 00	8,366 00	15,426 36	14,558 66	3,164 46
Sagadahoc.....	10	4,900 00	4,860 00	10,160 38	10,489 41	495 22
Somerset.....	40	10,255 50	11,335 50	22,059 39	29,259 34	1,871 40
Waldo.....	25	8,377 40	9,262 00	18,454 79	16,518 94	2,316 06
Washington.....	45	11,713 00	17,600 50	29,650 84	27,898 96	4,336 28
York.....	26	15,500 00	13,340 00	29,144 45	24,932 48	881 61
Totals.....	490	\$190,002 79	\$206,042 24	\$402,705 53	\$414,644 51	\$36,875 60

† Includes all unexpended balances available from previous years.

TABLE III.

Road Work by Counties.

Total cost of work outside of bridges and culverts.	NUMBER OF MILES COMPLETED.					Total miles completed.	AVERAGE COSTS PER MILE.				
	Earth.	Gravel.	Macadam.	Bituminous macadam.	Concrete.		Earth.	Gravel.	Macadam.	Bituminous macadam.	Concrete.
\$13,919 34	.1136	2.5572	.1856	.3161	-	3.1725	\$7,808	\$2,840	\$6,231	\$16,775	-
36,009 64	.7657	10.6055	.2945	-	-	11.6657	5,761	3,048	15,527	-	-
34,724 16	1.1897	5.2689	.2844	.1799	.8164	7.7393	1,645	2,824	3,205	9,808	20,460
15,027 08	.4646	7.2469	-	-	-	7.7115	1,719	2,253	-	-	-
28,501 96	.5303	8.2377	.2888	-	-	9.0568	2,352	2,927	20,137	-	-
32,775 66	-	7.9498	.0328	.0401	.3366	8.3593	-	3,268	12,866	37,538	20,336
14,549 00	-	1.5612	.2784	.3290	-	2.1686	-	4,744	5,982	18,055	-
14,014 87	-	3.3833	-	.1299	-	3.5132	-	3,188	-	34,656	-
33,426 04	1.0901	7.6582	-	-	-	8.7483	2,737	2,951	-	-	-
44,228 40	3352	12.3741	.8424	-	*.0852	14.6369	2,542	2,686	6,669	-	-
11,394 20	.4281	2.7676	.2492	-	-	3.4449	2,708	3,268	7,759	-	-
9,994 19	-	2.3053	.1610	-	-	2.4663	-	3,567	14,080	-	-
27,387 94	1.5254	4.5718	-	.0464	.1411	6.2847	2,956	3,324	-	77,272	40,708
14,202 88	1.0835	5.7964	-	-	-	6.8799	5,216	2,393	-	-	-
23,562 68	.2273	11.0883	.3030	-	-	11.6186	2,708	2,315	5,331	-	-
24,050 87	-	5.4710	.7199	-	.1630	6.3539	-	2,983	8,297	-	16,200
\$377,768 91	8.7535	98.8430	3.640	1.0414	1.4571	113.820	-	-	-	-	-

\* Wood Block Paving built by city of Bangor. Cost \$71,162.00 per mile.

TABLE IV.

Statement Showing Amounts of Unexpended Balance of 1910-1911  
Aid Paid in 1912.

Albion	\$1 71	Jay	562 00
Alfred	0 65	Jefferson	416 48
Alna	0 79	Jonesboro	2 29
Amherst	93 73	Jonesport	9 34
Ashland	10 95	Kennebunkport	35 00
Athens	0 47	Kingman	400 00
Atkinson	2 89	Lagrange	1 47
Aurora	7 50	Levant	189 82
Avon	29 78	Lexington Pl.	17 90
Baileyville	450 00	Limerick	7 33
Baldwin	5 83	Lovell	32 11
Bancroft	7 83	Lubec	0 06
Belgrade	91 80	Machias	8 48
Berwick	65 04	Machiasport	2 13
Bingham	800 00	Madawaska	337 84
Bluehill	11 10	Manchester	89 12
Boothbay Harbor	4 04	Marion	150 00
Bowdoinham	400 00	Marshfield	129 12
Bradley	12 99	Masardis	0 03
Bremen	0 93	Medford	56 99
Brighton Pl.	25 00	Merrill	11 87
Brooklin	0 42	Milford	0 09
Brunswick	361 67	Milo	4 01
Bucksport	2 16	Monmouth	135 41
Burnham	1 01	Monroe	0 90
Carrying Place Twp.	1 00	Monson	76 67
Carthage	4 45	Morrill	150 00
Centerville	33 98	Moxie Gore	0 50
Chesterville	1 04	Mt. Desert	562 00
Concord	2 00	Newburg	19 38
Coplin Pl.	18 32	New Portland	115 17
Corinna	64 93	Newry	21 06
Crockerstown Twp.	6 05	Northfield	33 11
Damariscotta	800 00	Northport	3 63
Dead River Pl.	19 46	North Yarmouth	0 40
Denmark	21 27	No. 33 Pl.	11 98
Detroit	9 45	No. 31 M. D.	79 75
Dixfield	602 40	Orrington	2 05
Dixmont	51 59	Otis	0 23
Dyer Brook	10 00	Parkman	800 00
Eagle Lake	12 52	Passadumkeag	0 02
Eastbrook	2 02	Pembroke	0 66
East Machias	12 79	Penobscot	1 43
Edgecomb	24 18	Peru	12 60
Edinburg	41 77	Phippsburg	400 00
Etna	2 86	Pittston	7 44
Exeter	2 22	Portage Lake	483 73
Farmingdale	5 19	Prentiss	1 05
Forest City	0 42	Ripley	1 81
Friendship	13 91	Robbinston	9 10
Fryeburg	1 46	Roque Bluffs	12 57
Gardiner	1,406 24	St. George	6 71
Garland	48 00	Sanford	184 01
Georgetown	0 38	Sangerville	66 67
Gilead	3 24	Searsmont	169 36
Glenburn	0 57	Sedgwick	35 77
Gorham	35 39	Sidney	391 06
Gouldsboro	18 25	Smithfield	181 62
Grand Isle	400 00	Somerville	2 65
Harmony	148 83	Stoneham	0 28
Harpwell	29 37	Stow	400 13
Harrington	54 18	Sullivan	0 13
Hartland	88 84	Surry	0 16
Hiram	70 00	Swan's Island	400 00
Hodgdon	39 97	Trenton	100 00
Hope	57 03	Troy	31 26

TABLE IV—Concluded.

Unity.....	56 37	Westfield Pl. ....	4 99
Upton.....	13 55	West Gardiner.....	0 94
Vinalhaven.....	0 70	Westport.....	300 00
Waite.....	4 56	Windham.....	76 31
Warren.....	0 71	Windsor.....	6 76
Waterboro.....	12 42	Winslow.....	600 00
Waterford.....	11 74	Winter Harbor.....	0 96
Waterville.....	12 94	Winterport.....	400 00
Webster.....	0 20	Winthrop.....	93 88
Webster Pl.....	0 02	Woodstock.....	2 44
Weid.....	230 66	Wyman Twp.....	0 55
Wellington.....	49 09	York.....	712 00
Wells.....	467 00		
Wesley.....	20 80		17,009 39



TABLE V.

Statement Showing Towns Having an Unexpended Balance to 1913.

Acton.....	\$0 04	Garland.....	20 89
Addison.....	200 00	Georgetown.....	0 38
Alna.....	17 77	Glenburn.....	1 52
Andover.....	0 70	Gouldsboro.....	3 17
Ashland.....	8 95	Grand Isle.....	76 14
Auburn (laid over).....	1,125 00	Greene.....	19 53
Augusta.....	479 87	Greenwood.....	1 12
Avon.....	44 11	Hallowell.....	298 00
Baldwin.....	79 28	Hamlin Pl. (laid over).....	800 00
Bancroft.....	19 88	Hammond Pl. (laid over).....	66 00
Bangor.....	276 26	Hanover.....	3 40
Bath.....	107 24	Harmony.....	70 80
Beddington.....	126 28	Hartland.....	3 95
Belfast (laid over).....	712 00	Hebron (laid over).....	100 00
Belgrade.....	87 45	Hiram.....	3 10
Blaine.....	103 41	Hope.....	5 74
Boothbay.....	9 98	Howland.....	2 02
Boothbay Harbor.....	2 41	Jackson.....	5 20
Bradford.....	62 87	Jonesport.....	0 56
Bremen.....	0 83	Kenduskeag.....	80 32
Bridgewater.....	50 00	Kennebunk (laid over).....	637 00
Brighton Pl.....	56 26	Kingman Pl. (laid over).....	400 00
Bristol.....	65 27	Lamoine.....	5 75
Brooklin.....	0 05	Lebanon.....	95 57
Brownville.....	400 00	Lee.....	2 69
Burlington.....	59 81	Levant.....	101 25
Burnham.....	1 38	Lexington Pl.....	87 00
Cape Elizabeth.....	934 00	Liberty.....	25 70
Cary Pl.....	0 80	Lubec.....	0 06
Castle Hill (laid over).....	257 92	Lyman.....	6 16
Caswell Pl.....	80 49	Madawaska.....	39 99
Centerville.....	2 24	Madison.....	90 01
Clinton.....	30 90	Marshfield.....	95 01
Columbia.....	67 98	Mars Hill.....	438 05
Columbia Falls.....	19 39	Masardis.....	3 53
Concord.....	57 45	Maxfield.....	81 63
Corinna.....	102 16	Medford.....	118 73
Corinth.....	135 33	Mercer.....	100 00
Crockertown Twp.....	6 45	Millford.....	0 73
Cutler (laid over).....	1,000 00	Milo.....	0 56
Cyr Pl.....	0 35	Monmouth.....	0 58
Dixmont.....	275 53	Monroe.....	15 81
Dresden.....	0 75	Monson.....	47 06
Edmunds.....	7 52	Moxie Gore.....	0 50
Ellsworth.....	311 03	Mt. Desert.....	2 67
Exeter.....	0 99	Newburg.....	6 84
Falmouth.....	0 39	New Gloucester.....	2 67
Frenchville.....	141 75	New Limerick (laid over).....	400 00
Gardiner.....	145 95	New Vineyard.....	5 55

TABLE V—Concluded.

Nobleboro.....	110 17	Smithfield (laid over).....	237 06
North Yarmouth.....	2 22	Solon.....	53 87
No. 8 Pl. (laid over).....	60 00	Somerville.....	13 79
No. 10 So. Div.....	29 00	Southport.....	14 23
No. 14 Pl.....	27 50	Stacyville Pl. (laid over).....	400 00
No. 19 Ea. Div.....	33 00	Steuben.....	16 78
No. 24 Mid. Div.....	24 50	Stockton Springs.....	11 65
No. 29 Mid. Div.....	33 00	Stoneham.....	21 87
No. 30 Mid. Div.....	32 00	Strong.....	3 71
Oakfield.....	0 84	Swanville.....	1 89
Orono.....	100 00	Sweden.....	51 73
Orrington.....	25 81	Talmadge.....	0 05
Palmyra.....	2 07	Thorndike.....	29 02
Passadumkeag.....	0 02	Topsfield (laid over).....	400 00
Pembroke.....	8 28	Topsham.....	8 56
Phillips.....	8 11	Unity.....	29 05
Plymouth.....	5 13	Upton.....	13 26
Poland.....	1 04	Vinalhaven.....	1 01
Portage Lake.....	68 75	Waldoboro (laid over).....	668 63
Portland.....	633 93	Waltham.....	18 86
Prentiss.....	1 20	Washington Twp. (laid over)...	3 00
Presque Isle.....	733 72	Weld.....	71 28
Princeton.....	1 00	Wells.....	19 52
Rangeley.....	0 10	Westfield.....	143 91
Ripley.....	93 36	Westport.....	46 52
Robbinston.....	55 44	Whitneyville.....	89 23
Rogue Bluffs.....	3 55	Willimantic.....	5 62
St. John Pl.....	0 97	Wilton.....	65 53
Sandy River Pl.(laid over).....	400 00	Winn.....	8 57
Searsmont.....	114 28	Winslow.....	302 67
Searsport.....	443 86	Winthrop.....	163 11
Sedgwick.....	79 57	Woodland.....	400 00
Shirley.....	506 04	Wyman Twp.....	1 00
Sidney.....	8 94	York.....	144 24
Silver Ridge Pl.....	45 19		

## NAME OF INSPECTORS OF STATE ROAD WORK.

## Work Performed by Towns and Cost of Same. ]

## ALVIN A. ADAMS, Foxcroft, Maine, 26 towns.

Abbot.....	\$615 96	Kingsbury Pl.....	144 66
Alton.....	600 00	Lagrange.....	832 23
Atkinson.....	686 12	Medford.....	538 26
Blanchard.....	305 65	Milo.....	963 45
Bowerbank.....	687 23	Monson.....	829 61
Brownville.....	394 95	Orneville.....	602 05
Charleston.....	869 30	Parkman.....	2,421 14
Dexter.....	1,087 13	Sangerville.....	516 12
Dover.....	1,000 39	Sebec.....	410 73
Foxcroft.....	933 15	Wellington.....	649 06
Garland.....	427 11	Williamsburg.....	603 88
Greenville.....	834 52	Willimantic.....	594 38
Guilford.....	598 88		
Hudson.....	624 50		\$18,770 46

## H. H. ADAMS, Belgrade, Maine, 11 towns.

Belgrade.....	\$804 35	Readfield.....	800 28
Fayette.....	621 13	Rome.....	601 87
Litchfield.....	827 65	Vienna.....	600 80
Monmouth.....	334 83	Wayne.....	350 00
Mt. Vernon.....	829 14	West Gardiner.....	812 15
Oakland.....	900 16		
			\$7,482 36

## I. HOBART ALLAN, Dennysville, Maine, 17 towns.

Alexander.....	\$636 28	Meddybemps.....	635 60
Baileysville.....	950 00	Pembroke.....	792 38
Baring.....	647 71	Perry.....	615 81
Charlottesville.....	602 70	Princeton.....	799 00
Cooper.....	612 65	Robbinston.....	553 66
Dennysville.....	834 74	Trescott.....	600 60
East Machias.....	419 70	Whiting.....	626 30
Edmunds.....	592 48		
Lubec.....	900 00		\$11,195 18
Marion.....	375 57		

## A. J. AVERY, Jefferson, Maine, 25 towns.

Alna.....	\$583 02	Nobleboro.....	689 83
Arrowsic.....	678 92	Phippsburg.....	1,664 61
Boothbay.....	790 02	Richmond.....	1,055 90
Boothbay Harbor.....	961 63	Somerville.....	588 86
Bowdoin.....	802 49	Southport.....	785 77
Bowdoinham.....	1,228 48	Topsham.....	916 44
Bremen.....	600 10	West Bath.....	602 28
Bristol.....	834 73	Westport.....	728 48
Dresden.....	799 25	Whitefield.....	848 95
Edgecomb.....	450 36	Wiscasset.....	827 54
Georgetown.....	400 00	Woolwich.....	820 41
Harpswell.....	934 34		
Jefferson.....	1,217 07		\$20,708 28
Newcastle.....	898 80		

## E. M. CUNNINGHAM, Belfast, Maine, 11 towns.

Belmont.....	\$600 19	Searsmont.....	855 08
Frankfort.....	810 46	Stockton Springs.....	588 35
Lincolnville.....	419 57	Swanville.....	598 11
Morrill.....	689 48	Waldo.....	602 97
Northport.....	622 11		
Prospect.....	645 35		\$7,190 67
Searsport.....	759 00		

**NAMES OF INSPECTORS—Continued.**

**BOYDEN BEARCE, East Eddington, Maine, 22 towns.**

Bradley.....	\$823 54	Lincoln.....	863 69
Burlington.....	540 19	Lowell.....	606 59
Chester.....	323 05	Mattawamkeag.....	601 61
Clifton.....	620 91	Maxfield.....	518 37
East Millinocket.....	988 88	Medway.....	668 36
Edinburg.....	644 09	Milford.....	799 37
Eddington.....	654 57	Orrington.....	576 24
Enfield.....	820 09	Passadumkeag.....	600 00
Greenbush.....	600 00	Winn.....	591 43
Greenfield.....	635 59	Woodville.....	624 10
Holden.....	606 47		
Howland.....	797 98		
			<u>\$14,505 12</u>

**W. H. BITHER, Linneus, Maine, 12 towns.**

Amity.....	\$823 16	Littleton.....	830 15
Blaine.....	696 59	Ludlow.....	636 64
Bridgewater.....	840 05	Mars Hill.....	461 95
Cary Pl.....	599 20	Monticello.....	1,007 46
Easton.....	807 27	Westfield Pl.....	661 08
Hodgdon.....	982 95		
Linneus.....	806 47		
			<u>\$9,152 97</u>

**G. A. CARPENTER, Limerick, Maine, 21 towns.**

Alfred.....	\$800 65	Lyman.....	793 84
Baldwin.....	726 55	Naples.....	443 67
Berwick.....	1,025 07	North Berwick.....	902 03
Casco.....	800 00	Otisfield.....	800 33
Cornish.....	833 64	Parsonsfeld.....	828 83
Dayton.....	811 65	Raymond.....	800 00
Eliot.....	1,100 83	South Berwick.....	1,010 99
Harrison.....	906 27	Standish.....	911 50
Hollis.....	816 42	Waterboro.....	927 00
Lebanon.....	704 43		
Limerick.....	628 95		
Limington.....	400 00		
			<u>\$16,972 65</u>

**A. D. FESSENDEN, East Denmark, Maine, 32 towns.**

Albany.....	\$600 00	Mason.....	315 62
Andover.....	799 30	Mexico.....	1,549 42
Bethel.....	1,007 14	Milton Pl.....	228 95
Brownfield.....	813 23	Newry.....	898 98
Buckfield.....	537 95	Oxford.....	800 00
Byron.....	600 00	Paris.....	990 00
Canton.....	400 00	Peru.....	415 79
Denmark.....	875 18	Porter.....	422 73
Fryeburg.....	906 56	Roxbury.....	600 14
Gilead.....	318 83	Stoneham.....	578 41
Grafton.....	600 05	Stow.....	604 98
Greenwood.....	598 88	Sumner.....	833 56
Hartford.....	821 33	Upton.....	600 29
Hiram.....	396 90	Waterford.....	816 11
Lincoln Pl.....	619 15	Woodstock.....	802 44
Lovell.....	866 15		
Magalloway Pl.....	800 00		
			<u>\$22,018 07</u>

**A. C. FROST, Wales, Maine, 13 towns.**

Durham.....	\$446 79	Poland.....	898 96
Gray.....	415 84	Pownal.....	400 51
Greene.....	780 47	Turner.....	904 04
Leeds.....	813 01	Wales.....	401 65
Livermore.....	603 94	Webster.....	1,156 47
Mechanic Falls.....	975 54		
Minot.....	887 01		
New Gloucester.....	957 33		
			<u>\$9,641 56</u>

## NAMES OF INSPECTORS—Continued.

## H. W. GILMAN, West Farmington, Maine, 25 towns.

Avon.....	\$585 67	Madrid.....	1,256 40
Carthage.....	605 55	New Sharon.....	402 42
Chesterville.....	505 71	New Vineyard.....	594 45
Coplin Pl.....	638 13	Phillips.....	791 89
Dallas Pl.....	600 25	Rangeley.....	959 90
Dead River Pl.....	619 46	Rangeley Pl.....	813 02
Dixfield.....	2,074 72	Salem.....	301 25
Eustis.....	522 37	Strong.....	346 29
Farmington.....	1,243 79	Temple.....	649 44
Freeman.....	600 63	Weld.....	959 38
Industry.....	626 35	Wilton.....	894 47
Jay.....	2,780 41		
Kingfield.....	800 00		
Lang Pl.....	600 00		
			<u>\$20,771 95</u>

## J. E. GROSS, Orland, Maine, 15 towns.

Bluehill.....	\$813 63	Sedgwick.....	756 20
Brooklin.....	600 37	Stonington.....	801 53
Brooksville.....	800 36	Surry.....	601 07
Bucksport.....	1,981 95	Swan's Island.....	604 00
Castine.....	800 00	Verona.....	600 00
Deer Isle.....	800 00	Vinalhaven.....	799 69
Isle au Haut.....	600 00		
Orland.....	833 68		
Penobscot.....	822 42		
			<u>\$12,214 90</u>

## W. SCOTT KELLOGG, Patten, Maine, 16 towns.

Ashland.....	\$802 00	Moro Pl.....	601 85
Benedicta.....	643 59	Mt. Chase.....	650 44
Crystal.....	600 17	Oakfield.....	599 16
Dyer Brook.....	656 91	Patten.....	836 00
Hersey.....	600 00	Sherman.....	820 50
Island Falls.....	877 17	Silver Ridge.....	554 81
Macwahoc Pl.....	600 00	Smyrna.....	600 00
Marsardis.....	296 50		
Merrill.....	702 11		
			<u>\$10,441 21</u>

## H. M. KENNISTON, Amherst, Maine, 15 towns.

Amherst.....	\$719 67	No. 33 Pl.....	647 53
Aurora.....	615 39	Otis.....	607 01
Dedham.....	453 62	Southwest Harbor.....	800 35
Eastbrook.....	309 48	Trenton.....	600 00
Franklin.....	800 00	Tremont.....	884 78
Hancock.....	915 52	Waltham.....	581 14
Lamoine.....	594 25		
Mariaville.....	608 95		
No. 21 Pl.....	608 23		
			<u>\$9,745 92</u>

## D. H. LAMBERT, Old Town, Maine, 19 towns.

Argyle.....	\$454 18	Kenduskeag.....	519 68
Carmel.....	800 25	Levant.....	688 57
Corinna.....	762 77	Newburg.....	812 54
Corinth.....	684 67	Newport.....	907 19
Dixmont.....	576 06	Palmyra.....	797 93
Etna.....	625 07	Plymouth.....	594 87
Exeter.....	801 24	St. Albans.....	502 09
Glenburn.....	599 05	Stetson.....	876 69
Hampden.....	961 22		
Hartland.....	684 89		
Hermon.....	849 92		
			<u>\$13,478 88</u>

**NAMES OF INSPECTORS—Continued.**

**D. G. LANE, Topsfield, Maine, 19 towns.**

Bancroft.....	\$587 95	Prentiss.....	599 85
Brookton.....	613 02	Reed Pl.....	345 56
Carroll.....	620 14	Springfield.....	702 59
Danforth.....	809 90	Talmadge.....	449 95
Drew Pl.....	600 72	Vanceboro.....	605 58
Forest City.....	303 36	Waite.....	633 32
Haynesville.....	607 55	Webster Pl.....	300 20
Kingman.....	623 07	Weston.....	602 15
Lakeville.....	610 06		
Lee.....	597 31		
Orient.....	613 00		
			<u>\$10,825 28</u>

**F. O. LANDGRANE, New Sweden, Maine, 12 towns.**

Caswell Pl.....	\$519 51	Perham.....	800 99
Chapman Pl.....	601 66	Portage Lake.....	1,214 98
Connor Pl.....	300 04	Van Buren.....	857 96
Cyr Pl.....	299 65	Wade Pl.....	319 98
Limestone.....	807 17	Washburn.....	819 70
Mapleton.....	984 04		
New Sweden.....	801 20		
			<u>\$8,326 88</u>

**B. J. LIBBY, Oakland, Maine, 14 towns.**

Anson.....	\$800 91	Mercer.....	614 28
Athens.....	441 03	New Portland.....	931 39
Brighton Pl.....	593 74	Norridgewock.....	807 00
Cambridge.....	628 77	Ripley.....	558 45
Concord.....	544 55	Solon.....	546 13
Embden.....	496 51	Starks.....	607 39
Harmony.....	878 03		
Lexington Pl.....	336 66		
			<u>\$8,784 84</u>

**F. A. McALLISTER, Burnham, Maine, 13 towns.**

Brooks.....	\$800 91	Palermo.....	415 21
Burnham.....	399 63	Thorndike.....	770 98
Freedom.....	605 03	Troy.....	839 95
Islesboro.....	942 75	Unity.....	827 32
Knox.....	618 85	Unity Pl.....	227 00
Liberty.....	574 30		
Monroe.....	785 09		
Montville.....	403 95		
			<u>\$8,210 97</u>

**E. E. SMITH, Waterville, Maine, 11 towns.**

Albion.....	\$803 27	Pittston.....	808 42
Benton.....	802 52	Randolph.....	800 00
China.....	800 00	Vassalboro.....	1,030 71
Chelsea.....	400 00	Windsor.....	808 06
Clinton.....	769 10		
Detroit.....	639 62		
Farmingdale.....	806 79		
			<u>\$8,468 49</u>

**J. J. SPINNEY, Bath, Maine, 9 towns.**

Appleton.....	\$816 26	Thomaston.....	865 83
Cushing.....	612 40	Union.....	882 25
Friendship.....	850 43	Warren.....	986 56
Hope.....	401 29		
St. George.....	904 17		
So. Thomaston.....	836 53		
			<u>\$7,155 72</u>

**REMI THIBODEAU, Grand Isle, Maine, 7 towns.**

Eagle Lake.....	\$832 14	St. Agatha.....	601 50
Frenchville.....	600 00	St. Francis.....	876 69
Fort Kent.....	834 20		
Grand Isle.....	1,227 21		
Madawaska.....	897 85		
			<u>\$5,869 59</u>

**NAMES OF INSPECTORS—Concluded.**

## J. V. WHITTEN, Steuben, Maine, 21 towns.

Beddington.....	\$473 72	Milbridge.....	617 19
Centerville.....	631 74	Northfield.....	645 66
Cherryfield.....	403 56	Roque Bluffs.....	609 02
Columbia.....	532 04	Sorrento.....	401 40
Columbia Falls.....	580 61	Steuben.....	583 22
Gouldsboro.....	815 08	Sullivan.....	822 90
Harrington.....	405 81	Wesley.....	621 57
Jonesboro.....	606 27	Whitneyville.....	510 77
Jonesport.....	808 78	Winter Harbor.....	806 23
Machias.....	995 44		
Machiasport.....	609 95		\$13,115 07
Marshfield.....	634 11		

## A. J. WIGGIN, Kennebunk, Maine, 11 towns.

Acton.....	\$399 96	Old Orchard.....	963 51
Buxton.....	1,087 31	Scarboro.....	967 02
Cumberland.....	971 55	Shapleigh.....	617 39
Falmouth.....	899 61	York.....	1,517 76
Kennebunkport.....	1,115 00		
Kittery.....	960 00		\$10,297 29
North Yarmouth.....	798 18		

**Statement Showing Names of Inspectors, Number of Days Worked, Salaries and Expenses Paid, Cost of Work Inspected, and Comparative Percentage Cost of Inspection.**

	Time in days.	Beginning.	Ending.	Expenses.	Salary.	Amount.	Total cost of work.	Cost of inspection—Per cent.	Number of towns.
A. A. Adams . . . . .	77	Apr. 25	Dec. 30	\$161 98	\$231 00	\$392 98	\$18,770 46	2.1	26
H. H. Adams . . . . .	40	May 27	Dec. 4	80 66	120 00	200 66	7,482 36	2.7	11
*I. H. Allan . . . . .	26	Apr. 19	-	64 92	78 00	142 92	11,195 18	-	17
A. J. Avery . . . . .	62½	May 1	Dec. 23	205 98	187 50	393 48	20,708 28	1.9	25
Boyden Bearce . . . . .	47½	May 11	Nov. 16	153 72	142 50	296 22	14,505 12	2.04	22
W. H. Bither . . . . .	38	May 24	Nov. 22	77 41	114 00	191 41	9,152 97	2.1	12
G. A. Carpenter . . . . .	50	June 3	Nov. 30	172 43	150 00	322 43	16,972 65	1.90	21
E. M. Cunningham	29½	Aug. 14	Dec. 13	79 55	88 50	168 05	7,190 67	2.33	11
A. D. Fessenden . . . . .	55½	May 16	Nov. 3	167 35	166 50	333 85	22,018 07	1.51	32
A. C. Frost . . . . .	45	May 14	Nov. 26	130 31	135 00	265 31	9,641 56	2.75	13
H. W. Gilman . . . . .	104	May 2	Nov. 21	241 59	312 00	553 59	20,771 95	2.66	25
J. E. Gross . . . . .	38	Apr. 26	Nov. 30	69 65	114 00	183 65	12,214 90	1.50	15
W. Scott Kellogg . . . . .	64	May 27	Nov. 11	144 89	192 00	336 89	10,441 21	3.23	16
H. M. Kenniston . . . . .	60	May 16	Nov. 30	180 64	180 00	360 64	9,745 92	3.7	15
D. H. Lambert . . . . .	57	May 9	Nov. 21	146 44	171 00	317 44	13,478 88	2.36	19
F. O. Landgrane . . . . .	87½	May 10	Dec. 9	233 30	261 75	495 05	8,326 88	5.95	12
D. G. Lane . . . . .	50	May 28	Dec. 20	171 73	150 00	321 73	10,825 28	2.97	19
B. J. Libby . . . . .	32	May 29	Dec. 10	85 74	96 00	181 74	8,784 84	2.07	14
F. A. McAllister . . . . .	49	May 4	Nov. 30	105 00	147 00	252 00	8,210 97	3.07	13
E. E. Smith . . . . .	42½	Apr. 24	Dec. 31	85 77	127 50	213 27	8,468 49	2.5	11
J. J. Spinney . . . . .	31	Aug. 6	Nov. 9	76 65	93 00	169 65	7,155 72	2.37	9
Remi Thibodeau . . . . .	69	June 10	Nov. 30	85 65	207 00	292 65	5,869 59	4.99	7
John V. Whitten . . . . .	76	May 8	Dec. 11	352 04	228 00	580 04	13,115 07	4.42	21
A. J. Wiggin . . . . .	56	May 1	Dec. 13	132 93	168 00	300 93	10,297 29	2.92	11
Totals . . . . .	1,286½			\$3,406 33	\$3,860 25	\$7,266 58	\$285,344 31	2.54	397

\* Expense account for full season's work not received.



## EXPENDITURES OF OFFICE, 1912.

	Credit.	Debit.	Balance.
Salary of Commissioner.....	\$2,500 00	\$2,500 00	-
Salary of Assistant Commissioner.....	1,500 00	1,500 00	-
Salary of Clerk and Bookkeeper.....	1,300 00	1,300 00	-
Salary of Stenographer and extra clerk hire.....	3,700 00	2,552 13	\$1,147 87
Traveling expenses of Commissioner and Assistant Commissioner.....	2,500 00	1,191 17	1,308 83
Office furnishings and equipment.....	350 00	299 18	50 82
Printing reports, blank forms, stationery, supplies, express, telephone, postage, etc.....	3,500 00	2,768 87	731 13

## TRUNK LINE CONTRACTS.

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### CONSTRUCTION.

We present in the following, short description of each of the trunk line jobs undertaken this year. Contracts for 12.38 miles were let during the year and as a whole the work is approximately 33% completed. The specifications call for a concrete pavement surfaced with bitumen on 10.38 miles and a bituminous macadam surface on 2 miles.

In all cases the bituminous material and metal culverts were furnished by the State.

All surveys were made by the department. E. R. Keene, of Rockland, was in charge of all engineering and inspection work and the cement testing was done by Boardman & Beane of Orono.

The following are typical specifications for the trunk line construction:

### SPECIFICATIONS FOR CONCRETE PAVEMENT.

*Sub-grade:* The sub-grade shall be prepared and shaped as described in sections three and four of the General Specifications. The sub-grade shall be sprinkled with water before laying the concrete, if so required by the engineer.

*Materials:* The materials used in the construction of the concrete pavement shall be as follows:

*Cement:* The cement shall be some standard brand and must meet the requirements of the Standard Specifications adopted by the American Society for Testing Materials.

*Sand:* The sand shall be clean and sharp and of a quality approved by the engineer.

*Stone:* The stone shall consist of approved local stone or trap rock and shall be free from dust and dirt and in such sizes as to pass in every way through a two-inch ring.

*Concrete pavement:* On the sub-grade prepared as above specified shall be placed a layer of concrete consisting of one part Portland cement, two parts sand and four parts broken stone. All concrete shall be mixed in a mechanical batch mixer of a type to be approved by the engineer and all proportions shall be determined by actual measurements. A sack of cement (94-lbs.) shall be considered to have a volume of one cubic foot.

The concrete shall be so placed on the sub-grade that after thoroughly ramming in place it shall have a uniform thickness of six inches. The upper surface of the concrete shall be finished with a wooden float and roughened by brushing with a street broom as directed by the engineer. The surface shall be uniform and of the proper cross-section.

No section of pavement will be allowed to remain unfinished for a longer period than twenty minutes, if the work thereon has been started.

In the work of placing the concrete in position and in finishing the surface and in all other work done under this contract all foot and other traffic, both employees and otherwise, must be kept off the top of the concrete until it has thoroughly set and the contractor must provide such bridges and other devices as will effectually carry out the provisions of this contract.

*Expansion Joints:* A three-eighth inch expansion joint shall be placed across the road every twenty-five feet perpendicular to the axis of the road. All expansion joints shall extend through the entire thickness of the pavement and the upper edges shall be neatly rounded to a radius of one-half inch to prevent chipping and spalling. Expansion joints are to be filled with a bituminous paving filler of proper consistency and quality approved by the engineer and heated to the proper temperature.

The expansion joints shall be thoroughly filled to the top of the surface of the pavement.

All forms for expansion joints shall be made preferably of iron or steel and in the form of a template cut out to the required shape of the road. All mortar and dirt shall be removed from forms that have been previously used.

*Protection after laying:* After the concrete is laid and until it has thoroughly set, it shall be protected from the sun by a canvas or other suitable covering in a manner to be prescribed by the engineer. When in the judgment of the engineer the concrete is sufficiently hard to warrant, this covering shall be removed and the concrete covered with a layer of sand or gravel or other material, to be approved by the engineer, about one inch in depth. The surface shall be sprinkled and kept damp for at least seven days to prevent the surface of the concrete from drying out while setting. The sand, or other material, shall then be removed from the surface and disposed of in a manner satisfactory to the engineer.

*Wearing Surface:* After the concrete is thoroughly dry and set, it shall be carefully swept and cleaned. After the seven days have elapsed and when the surface is absolutely dry, an even coating of bituminous material, heated to not less than 200° F. or more than 300° F., shall be spread over the surface in a uniform layer by means of a suitable spreading device. Approximately one-half gallon per square yard shall be used. This shall be spread on the surface in two layers of not less than one-quarter of a gallon per square yard in each layer. As soon as the first application of bituminous material is made, it shall be covered with a uniform layer of pea-stone and rolled with a roller approved by the engineer. On the surface thus prepared, a second coat of bituminous material of not less than one-quarter of a gallon per square yard is to be made. The surface shall then be covered with pea-stone and rolled. Approximately one cubic yard of pea-stone shall be used to two hundred square yards of surface in each layer. A sufficient amount of pea-stone shall be left on the surface to protect the road while setting up.

The finished concrete surface shall have a crown of one and one-half inches as shown on the plan.

SPECIFICATIONS FOR BITUMINOUS MACADAM PENETRATION  
METHOD.

*First Course, No. 1 Stone.*

The first course of macadam construction shall consist of sound stone varying in size from three inches to two inches, no

piece having a dimension greater than three inches. No material is to be used which, in the opinion of the engineer, is not suitable for the work. If any such material is used it shall be removed immediately upon notice from the engineer and replaced by proper material.

The road-bed shall be prepared as specified under sections three and four of the General Specifications, before any stone is spread.

The broken stone is to be spread with shovels from a pile alongside of the road or from dumping boards, or directly from wagons especially constructed for the purpose and approved by the engineer. In no case shall the broken stone be dumped directly on the road-bed.

The first course of stone shall be spread to such a depth that when rolled with a steam roller weighing not less than ten tons, the stone shall have a compacted depth of four inches and a proper cross-section. The first course shall be filled with coarse, sharp sand, but no loose, fine material shall be left upon the surface.

Should any unevenness or depressions occur during or after rolling of this course, they are to be corrected immediately with broken stone and re-rolled until a firm and even surface is obtained.

*Second Course, No. 2 Stone.*

The second course shall consist of trap rock, or other equally satisfactory material varying in sizes from one and one-half inches to one inch, measured by the largest diameter. The stone of this course shall be spread from dumping boards or in a manner satisfactory to the engineer but in no case shall it be dumped directly on the first course.

This course shall be rolled with a steam roller until the individual fragments have keyed together only sufficiently to properly place the stone; the surface, while even and conforming to the required crown, being left open or porous in order to allow proper penetration of the bituminous material.

*Application of bituminous material.*

Upon the surface of the stone prepared as above specified an application of bituminous material shall be made at the rate of not less than one and one-half gallons per square yard, and in such a way as to coat the stone uniformly.

When refined tar is used it shall be heated to a temperature of from 250° F. to 300° F.

When road asphalt is used it shall be heated to a temperature of from 300° F. to 375° F.

At the time of application of the bituminous material the stone shall be in a bone-dry condition and in no case shall the bituminous material be applied when the stone is damp.

#### *Screenings.*

Immediately after the application of the bituminous material, clean, dry stone screenings passing a screen having circular openings of five-eighths of an inch in diameter and free from dust shall be spread thereon in such a quantity as will just cover and fill the voids in the surface. The surface shall then be thoroughly rolled and when finally compacted shall have a smooth surface and a uniform thickness of three inches.

If any unevenness or depressions appear during or after rolling the second course, suitable material shall be added to remove all such unevenness or depressions.

#### *Paint Coat.*

The excess of loose material shall be removed and the road swept clean after which a coating of bituminous material shall be applied to the surface at the rate of not less than one-half or more than three-quarters gallons per square yard. After it has been spread it shall be covered with screenings and rolled until the screenings are bonded with the bituminous material of the paint coat.

The finished road surface shall have a crown of three-eighths inch to one foot.

## KENNEBUNKPORT.

### CONTRACT "A."

Contractor, Clifford M. Willey, Bar Harbor; G. S. Cleland, inspector; nature of improvement, grading, drainage and concrete surface. Date of contract June 27.

The section under contract begins at the end of the 1911 state road work and extends towards Biddeford.

On June 6 the following proposals were received:

	Concrete.	Bituminous Macadam.	Macadam.	Gravel.
C. M. Willey, Bar Harbor.....	\$23,819 00	\$15,700 00	\$14,689 00	\$13,089 00
A. I. Berry Construction Co., Boston, proposal not regular	-	-	-	-

The width of the concrete surface was changed and the contract was awarded to C. M. Willey for concrete pavement.

The extra cost of bituminous material for bituminous macadam would amount to approximately \$1,597.10, making the total cost of bituminous macadam \$17,657.10.

The contract as awarded consists of the following items and unit prices:

7000 lineal feet of road graded @ \$0.23.	
7778 square yards of concrete @ \$1.37.	
3805 lineal feet of "V" drain @ \$1.25.	
112 lineal feet of 12-inch metal culvert @ \$0.48.	
50 lineal feet of 14-inch metal culvert @ \$0.48.	
200 lineal feet of 18-inch metal culvert @ \$0.48.	
34.6 cubic yards of concrete masonry @ \$10.00.	
28 lineal feet of cement-stone masonry culvert @ \$7.00.	
1890 lineal feet of stone base @ \$0.90.	
300 lineal feet of side-drain @ \$0.63.	
590 lineal feet of out-let ditch @ \$0.20.	
Lump sum amount of contract.....	\$19,745 87
Payments on contract.....	\$11,654 64
Advertising .....	13 75
Engineering and inspection.....	883 93
Culverts .....	346 37
Paving pitch .....	33 98
Testing cement .....	40 60
<hr/>	
Total payments .....	\$12,973 27
Total apportionments .....	\$13,000 00
Transferred from unapportioned fund and paid....	161 43
<hr/>	
Total amount, available.....	\$13,161 43
Total payments .....	12,973 27
<hr/>	
Unexpended balance of apportionments.....	\$188 16

Work not completed.

The grading on this contract is about 85% completed and 3800 lineal feet of concrete has been laid. This amounts to 4,309.44 square yards.

The concrete surface is ten feet wide and the shoulders are constructed of crushed stone five and five-tenths feet wide on each side of the concrete.

WELLS SECTION NO I.

CONTRACT "B."

Contractor, Hassam Paving Company, Worcester, Mass.; contract originally awarded to Shawmut Contracting Company, Boston, but was abandoned and taken over by the Hassam Paving Company; W. T. Allen and O. E. Libby, inspectors. Date of contract, July 5. Nature of improvement, grading, drainage and concrete surface.

The section under contract begins at station 800+00 of the trunk line survey at the end of the Wells 1911 state road work and extends northerly to station 933+00.

Under the new contract the Hassam Paving Company agreed to take over all work left uncompleted by the Shawmut Contracting Company for the difference between the amount paid the Shawmut Contracting Company and the original contract price.

	Concrete.	Bituminous Macadam.	Macadam.	Gravel.
Small & Ingalls, Bar Harbor..	\$42,423 00	\$32,609 00	-	-
Maine Trap Rock & Contracting Co., Portland.....	\$32,662 15	-	-	-
Shawmut Contracting Co., Boston.....	\$31,490 00	\$28,606 00	\$24,837 00	\$25,921 00

The contract was awarded to the Shawmut Contracting Company for concrete.

The extra cost of bituminous material for bituminous macadam would be approximately \$3,546.75 more than the lowest bid, making the cost of bituminous macadam \$32,152.75.

The contract as awarded consists of the following items:



13,300 lineal feet of road graded @ \$0.50.	
17,733 square yards of concrete @ \$1.274.	
335 lineal feet of "V" drain @ \$1.00.	
128 lineal feet of 18-inch metal culvert @ \$0.40.	
144 lineal feet of 14-inch metal culvert @ \$0.38.	
76 lineal feet of 12-inch metal culvert @ \$0.36.	
47.2 cubic yards of concrete masonry @ \$12.00.	
16.8 cubic yards of cement-stone masonry @ \$4.00.	
14 cubic yards of dry stone masonry @ \$2.00.	
700 lineal feet of wood guard rail @ \$0.25.	
320 lineal feet of wood guard rail repaired @ \$0.15.	
2,010 pounds of steel @ \$0.07.	
17 drop inlets @ \$15.00.	
1 concrete bridge complete, \$500.00.	
Lump sum amount of contract.....	\$31,490 00
Payments on contract.....	\$3,357 10
Engineering and inspection.....	690 89
Advertising .....	18 07
Culverts .....	377 60
Testing cement .....	43 58
	<hr/>
Total .....	\$4,487 24
Credit by discount on culverts.....	33 15
	<hr/>
Total payments .....	\$4,454 09
Work not completed.	

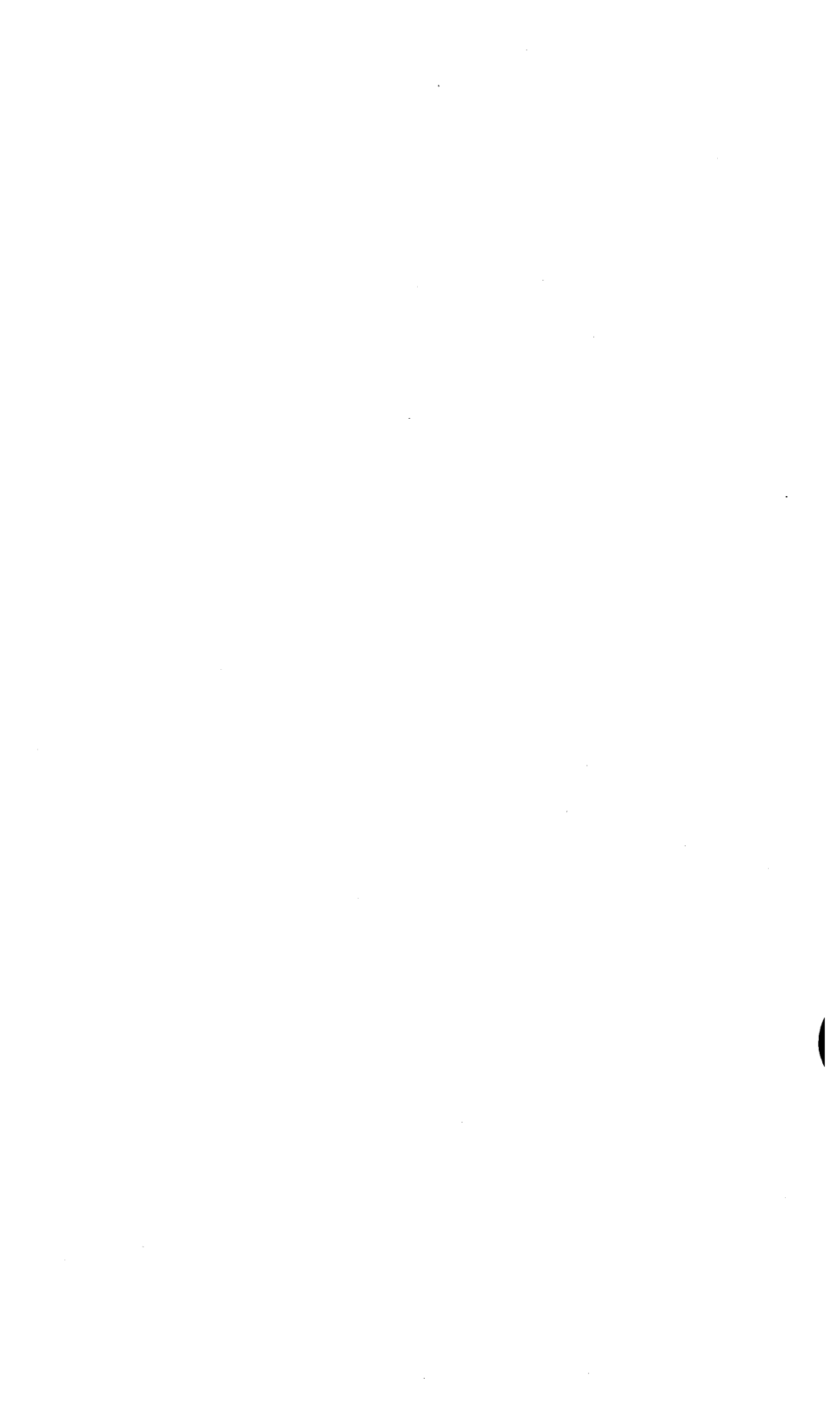
The grading on this section is about 46% completed and 3469 lineal feet of concrete has been laid amounting to 4625.32 square yards.

The apportionments for this section were made together with the apportionments for Wells section No. 2 and will be shown later.

## WELLS SECTION NO. 2.

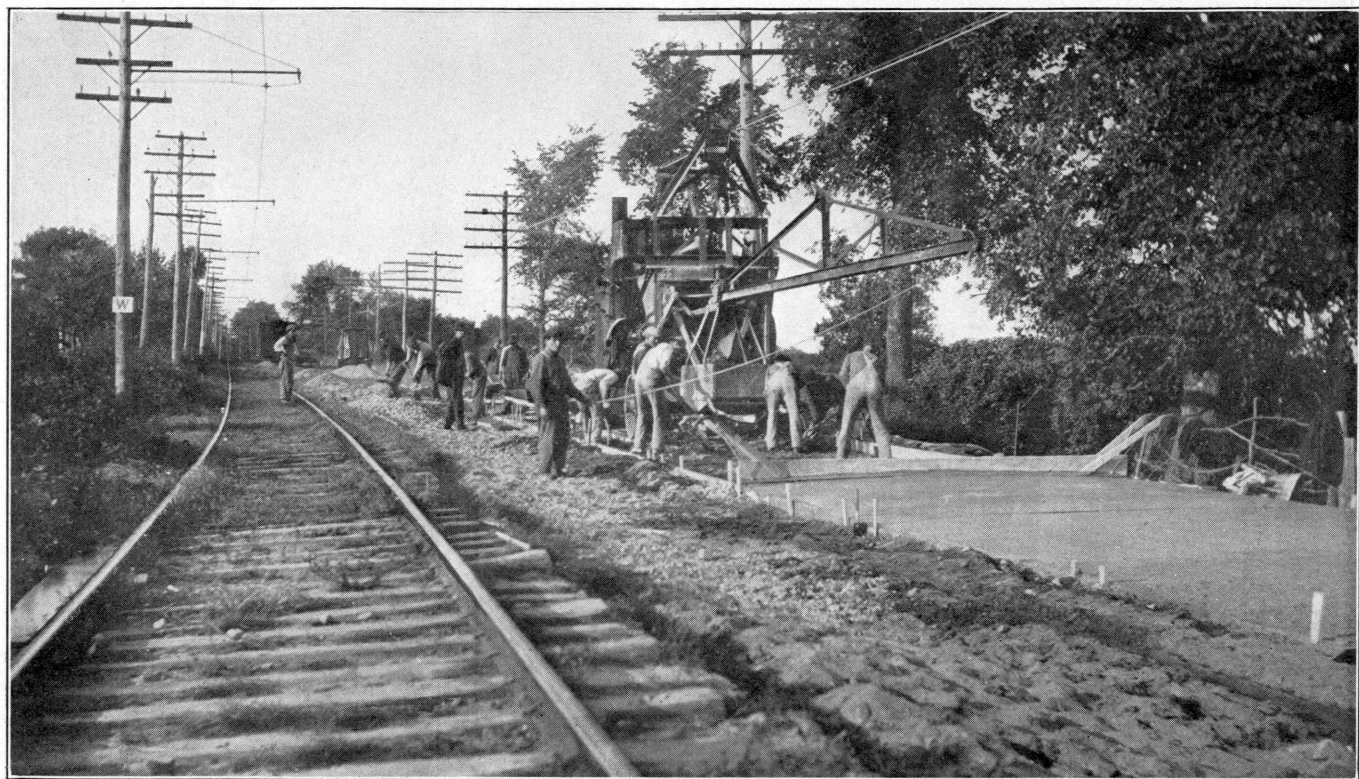
### CONTRACT "D."

Contractor, M. McDonough Company, Swampscott, Mass.; J. A. Carians and O. E. Libby, Inspectors; nature of improvement, grading, drainage and concrete surface. Date of contract, August 29.





Trunk Line State Road. Wells Section No. 1. Concrete.



Trunk Line State Road. Laying Concrete. Wells Section No. 1.



The section under contract begins at station 933+00, the end of contract "B," and extends to station 1038+60.

On August 14 the following proposals were received:

	Concrete.	Bituminous Macadam.
American Truck Co., Kittery.....	\$66,168 00	\$62,875 00
Forgione-Romano Co., Portland.....	\$65,505 50	\$50,385 50
Hassam Paving Co., Worcester.....	\$55,253 73	-
John W. Gulliver, Portland.....	\$53, 50 00	\$51,000 00
Maine Trap Rock and Contracting Company, Portland....	\$51,307 56	-
M. McDonough Co., Swampscott.....	\$47,557 00	\$36,757 00

The contract was awarded to the M. McDonough Company for concrete.

The extra cost of bituminous material for bituminous macadam would be approximately \$5,760.00 more than the lowest bid, making the cost of bituminous macadam \$42,517.00.

The above proposals were received for the construction of 21,600 feet. It was found necessary on account of funds, to decrease the length to 10,560 feet. The contract as finally awarded consists of the following items:

- 10,560 lineal feet of road graded @ \$0.346.
- 14,080 square yards of concrete @ \$1.25.
- 150 lineal feet of "V" drain @ \$1.00.
- 76 lineal feet of 12-inch metal culvert @ \$1.00.
- 148 lineal feet of 14-inch metal culvert @ \$1.00.
- 26 lineal feet of 16-inch metal culvert @ \$1.00.
- 401 lineal feet of 18-inch metal culvert @ \$1.50.
- 34 lineal feet of 24-inch metal culvert @ \$2.00.
- 19.1 cubic yards of 1-2-5 concrete masonry @ \$10.00.
- 49.9 cubic yards of 1-2-4 concrete masonry @ \$12.00.
- 625 lineal feet of wood guard rail @ \$0.40.
- 1 catch basin, \$40.00.
- 684 pounds of steel @ \$0.06.
- 12 drop inlets @ \$20.00.
- 1 iron grate, \$6.00.
- Lump sum amount of contract..... \$23,778 50
- Payments on contract from apportioned trunk line fund ..... \$8,928 14

Payments on contract by town of Wells .....	550 00
Payments on contract, 1912 state aid, town of Wells	467 00
Engineering and inspection.....	651 83
Culverts .....	597 04
Advertising .....	19 31
Paving pitch .....	69 12
Steel .....	112 70
Testing cement .....	77 97
<hr/>	
Total payments .....	\$11,473 11
APPORTIONMENTS, WELLS SECTIONS NO. 1 AND NO. 2.	
Total apportionments .....	\$17,500 00
Transferred to contract "C".....	3,283 64
<hr/>	
Balance .....	\$14,216 36
Transferred from contract "E" .....	693 84
<hr/>	
Balance .....	\$14,910 20
Town of Wells, 1912 joint fund .....	1,017 00
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Net balance available for sections 1 and 2 ..... \$15,927 20  
 Total payments on sections 1 and 2 ..... \$15,927 20  
 Work not completed.

The grading on this section is 90% completed. 6,205 lineal feet of concrete has been laid amounting to 8,273.33 square yards.

The concrete surface on Wells sections 1 and 2 is 12 feet wide, and the shoulders are constructed of crushed stone 4 1-2 feet wide on each side of the concrete.

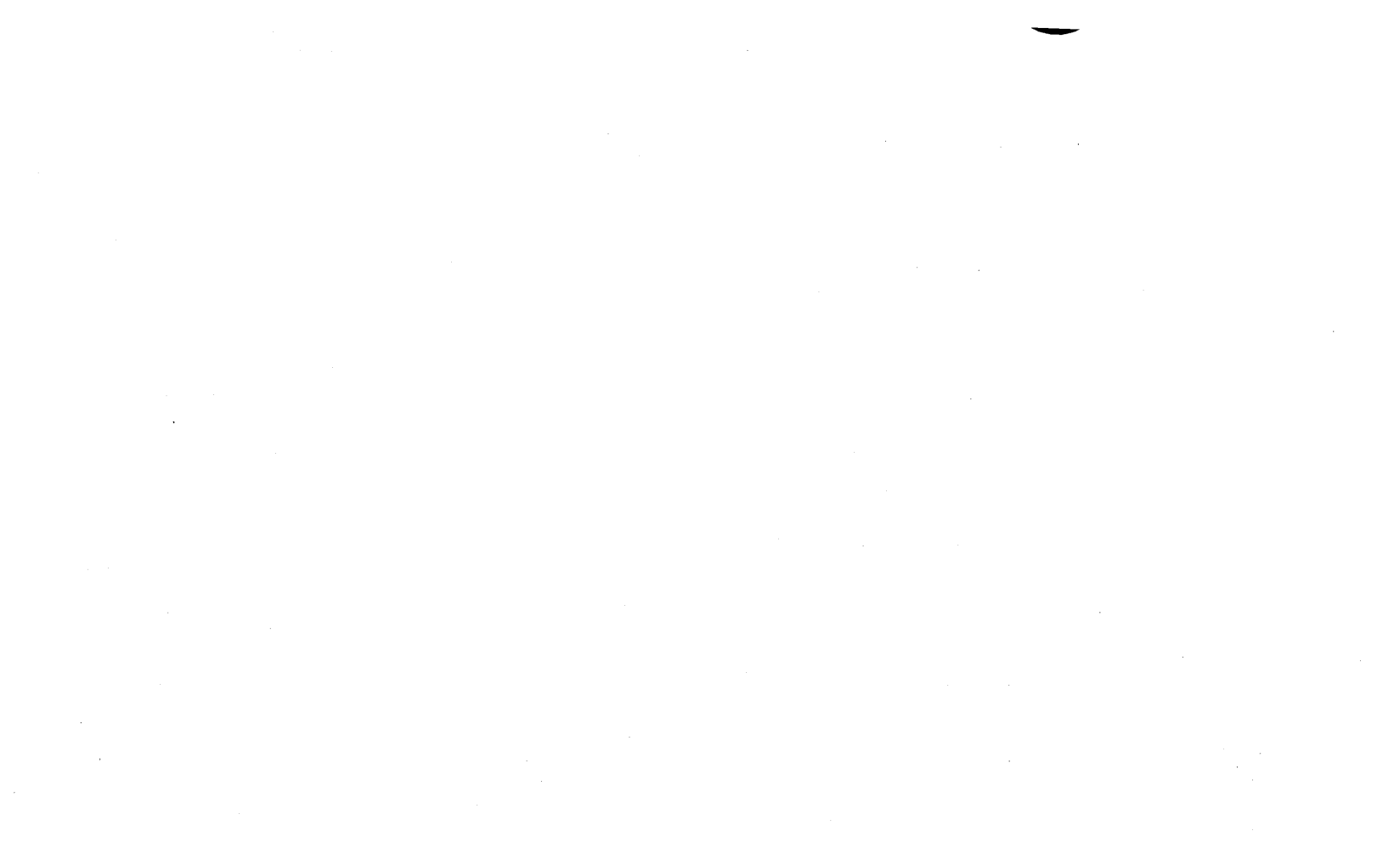
## YORK-WELLS.

### CONTRACT "C."

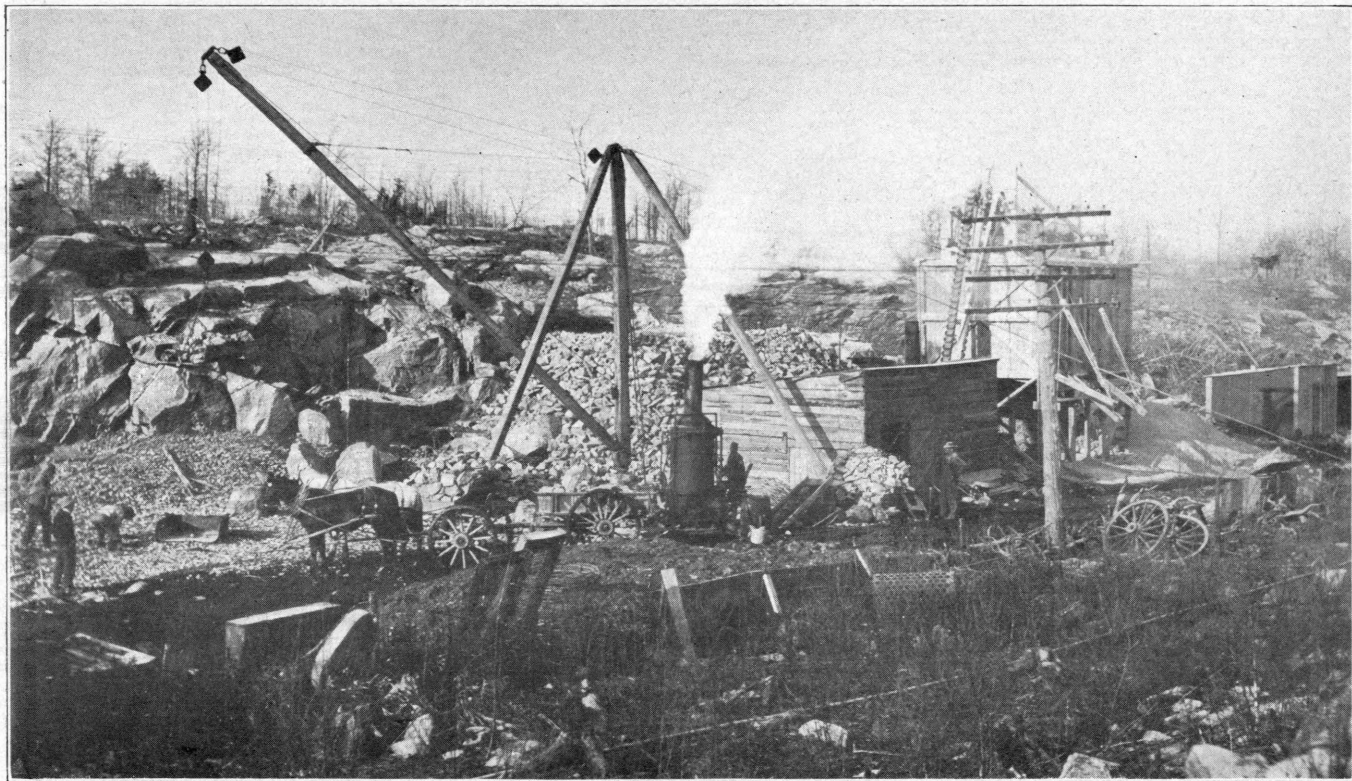
Contractor, Forgione-Romano Company, Portland; Harry U. Fuller, inspector; nature of improvement, grading, drainage and concrete surface. Date of contract, August 12.

The section under contract begins at station 545+40 south of Cape Neddick river and extends to station 785+00 in Ogunquit.

On July 29 the following proposals were received:



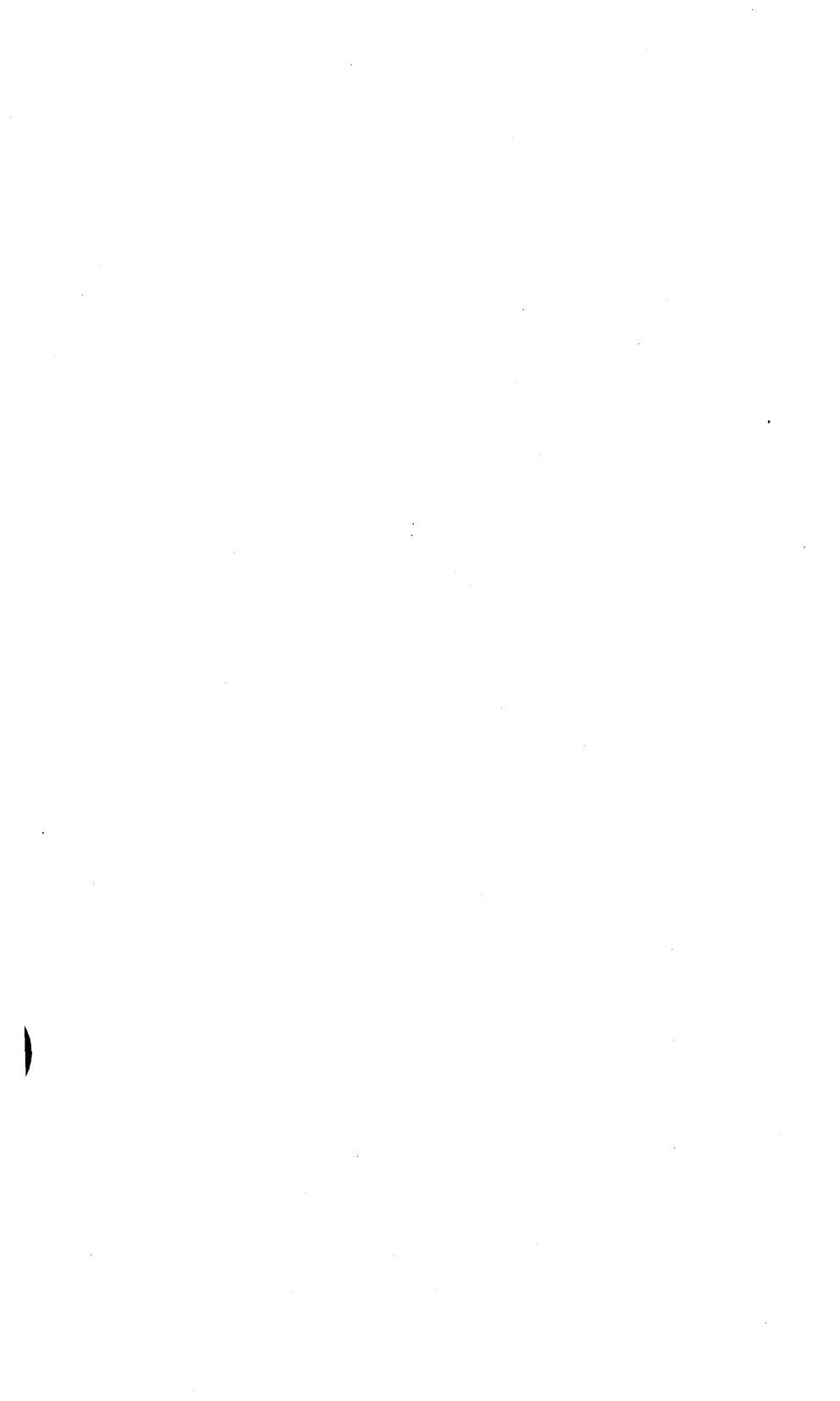




Quarry. Trunk Line Work. York Wells Section.



Trunk Line State Road. Grading. York Wells Section.



	Concrete.	Bituminous Macadam.
Field, Barker & Underwood, Philadelphia.....	\$116,000 00	\$85,000 00
John W. Gulliver, Portland.....	\$96,000 00	\$95,000 00
M. McDonough Company, Swampscott.....	\$81,000 00	\$65,000 00
American Truck Company, Kittery.....	\$69,842 00	\$62,842 00
Forgione-Romano Company, Portland.....	\$68,746 00	\$68,214 00

The contract was awarded to the Forgione-Romano Company for concrete.

The extra cost of bituminous material for bituminous macadam would be approximately \$6,123.10 more than the lowest bid, making the cost of bituminous macadam \$68,965.10.

The contract as awarded consists of the following items:

23,960 lineal feet of road graded @ \$0.60.	
26,622 square yards of concrete surface @ \$1.00.	
5,911 lineal feet of "V" drain @ \$1.25.	
326 lineal feet of 12-inch metal culvert @ \$0.75.	
176 lineal feet of 14-inch metal culvert @ \$0.75.	
172 lineal feet of 16-inch metal culvert @ \$0.75.	
98 lineal feet of 18-inch metal culvert @ \$0.75.	
48 lineal feet of 24-inch metal culvert @ \$0.75.	
86.3 cubic yards of 1-2-5 concrete @ \$8.00.	
48.9 cubic yards of 1-2-4 concrete @ \$9.00.	
235 cubic yards of cement-stone masonry @ \$6.00.	
902 lineal feet of wood guard rail @ \$0.40.	
920 pounds of steel @ \$0.04.	
7 drop inlets @ \$3.00.	
23,960 lineal feet of macadam shoulder 11 feet wide @ \$0.70.	
Lump sum amount of contract .....	\$68,746 00
Payments on contract .....	\$14,981 26
Engineering and inspection .....	874 60
Advertising .....	32 30
Steel .....	203 45
Culverts .....	741 67
Paving pitch .....	49 13
Testing cement .....	13 35
<b>Total payments .....</b>	<b>\$16,895 76</b>

Apportionments .....	\$13,000 00
Transferred from contracts "B" and "D" .....	3,283 64
Transferred from contract "E" .....	612 12
	<hr/>
Total amount available .....	\$16,895 76
Total payments .....	\$16,895 76
Work not completed.	

The grading on this section is about 70% completed. 1,275 lineal feet of concrete has been laid amounting to 1,417 square yards.

The concrete surface is ten feet wide and the macadam shoulders five and five-tenths feet wide on each side of the concrete.

## YORK.

### CONTRACT "E."

Contractor, American Truck Company, Kittery; Harry U. Fuller, inspector; nature of improvement, grading, drainage and bituminous macadam surface. Date of contract, October 10.

The section under contract begins at the northerly end of the bituminous macadam road in York Harbor and extends north-erly.

On September 11 the following proposals were received for bituminous macadam:

M. McDonough Company, Swampscott, Mass.....	\$25,000 00
American Truck Company, Kittery .....	\$21,120 00

The contract was awarded to the American Truck Company and consists of the following items:

10,560 lineal feet of road graded @ \$0.80.	
21,120 square yards of bituminous macadam @ \$0.524.	
26 lineal feet of 12-inch metal culvert @ \$0.50.	
38 lineal feet of 14-inch metal culvert @ \$0.50.	
80 cubic yards of 1-2-4 concrete @ \$15.00.	
1,280 lineal feet of wood guard rail repaired @ \$0.20.	
1,425 pounds of steel @ \$0.05.	
3 drop inlets @ \$35.00.	

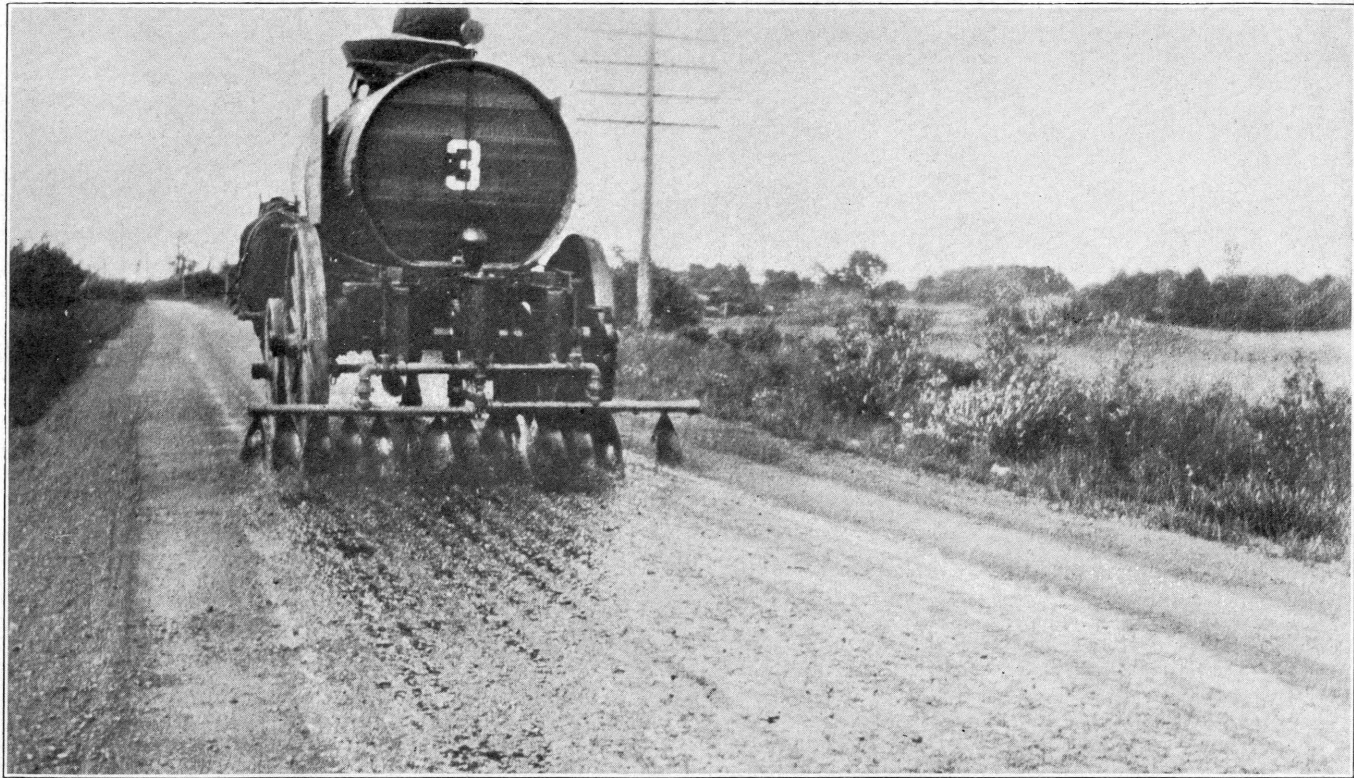
Lump sum amount of contract .....	\$21,120 00
Payments on contract .....	\$5,455 64





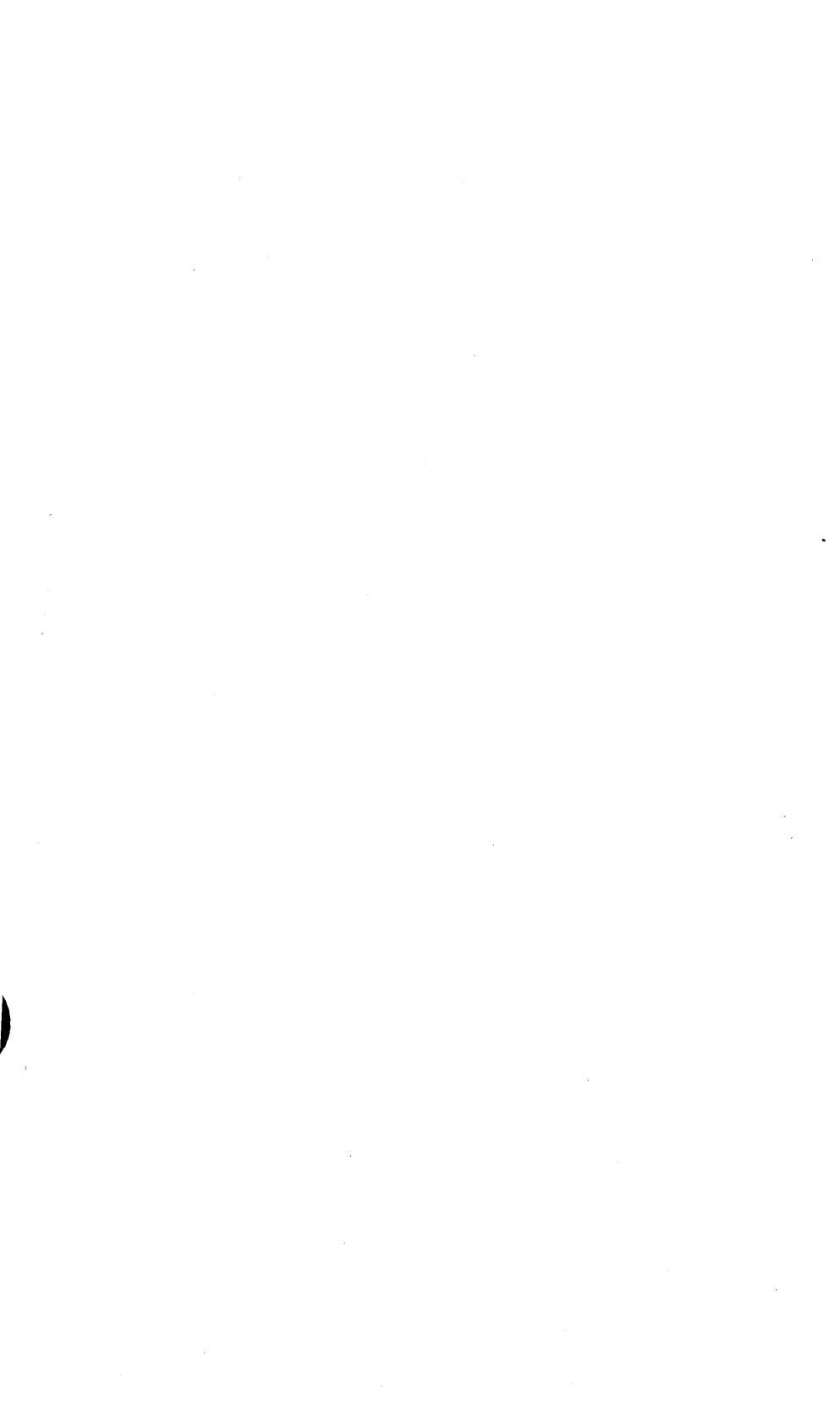
Trunk Line State Road. Laying Concrete. York Wells Section.





Maintenance. Applying Surface Treatment of Tar to Macadam Roads in Kittery.





Engineering and inspection .....		373	53
Advertising .....		19	83
		<hr/>	
Total payments .....	\$5,849	00	
Apportionments .....	\$7,000	00	
Payments .....	5,849	00	
		<hr/>	
		\$1,151	00
Credit by payment on contract by town of York ..		2,500	00
		<hr/>	
Balance .....	\$3,651	00	
Transferred to contracts "B" and "D" .....	\$693	84	
Transferred to contract "C" .....	612	12	1,305 96
		<hr/>	
Unexpended balance of apportionment .....	\$2,345	04	
Work not completed.			
No work except the grading has been done on this section.			

KITTERY-PORTLAND TRUNK LINE.

MAINTENANCE.

The following work was done under the direction of Mr. A. J. Wiggin of Kennebunk.

KITTERY SECTION NO. 1.

This macadam road was constructed in 1910 and was given a surface treatment of Tarvia—B during the summer of 1911. During the past summer a second application of Tarvia—B was made.

The length treated was 8,000 feet and the area, 13,333 square yards. The Tarvia was sprayed on to the road under pressure by means of a tank wagon equipped with a pumping device.

The Tarvia used amounted to 0.48 gallon per square yard and the cost was \$0.042 per square yard.

The itemized cost is as follows:

Supervision and inspection .....	\$44	04
Labor .....	80	20
6,495 gallons, Tarvia—B .....	334	65
Freight on Tarvia .....	72	75

Freight and rent of tar distributor .....	25 00
Demurrage .....	2 00
	<hr/>
Total cost .....	\$558 64

## KITTERY.

A section of gravel road between the northerly end of the macadam road, described above, and the York town line was scarified, re-shaped, new material added and rolled.

The length repaired was 5,200 feet and the cost was \$0,092 per lineal foot.

The following is the itemized cost of the work:

Supervision and inspection .....	\$123 38
Labor .....	330 53
Coal and wood .....	29 25
	<hr/>
Total .....	\$483 16

## KENNEBUNK.

A section of road on the trunk line in Kennebunk, extending from the iron bridge westerly, a distance of 4021 lineal feet, was given a surface treatment of Glutrin. 691 feet was macadam and 3330 feet was gravel. The total area covered was 5091 square yards and the cost per square yard was \$0.087.

Approximately 0.5 gallon per square yard was used on the macadam and 0.6 gallon per square yard on the gravel.

The following is the itemized cost:

Glutrin, 3,203 gallons .....	\$349 34
Freight .....	69 19
Expense of application .....	27 20
	<hr/>
Total .....	\$445 73

The above work was done under the direction of E. R. Keene.

## SCARBORO.

A section of gravel road in the town of Scarboro, extending southerly from the South Portland line, was scarified, re-shaped, material added and rolled.

The length repaired was 3,000 lineal feet and the cost was \$0.10 per lineal foot.

The following is the itemized cost:

Supervision and inspection .....	\$29 87
Labor .....	273 00
	<hr/>
Total .....	\$302 87

SOUTH PORTLAND.

A section of gravel road on the trunk line, extending from the bridge in South Portland southerly, was scarified, re-shaped, material added, rolled and oiled.

The length repaired was 10,100 feet and the cost was \$0.22 per lineal foot.

The following is an itemized cost of the work:

Supervision and inspection .....	\$217 59
Material and labor .....	1,661 24
Repairs on machinery .....	17 75
Rent of machinery .....	14 80
Freight on machinery .....	51 30
Standard oil, No. 4, 17,200 sq. yds. @ \$0.015....	258 00
Water .....	16 24
	<hr/>
Total .....	\$2,236 92

YORK.

A section of gravel road between the York town line and York Corner was scarified, re-shaped, material added and rolled. A part of this section, extending from Rice's bridge to York Corner, was oiled.

The length repaired was 8,300 feet and the cost was \$0.082 per lineal foot.

The following is the itemized cost of the work:

Supervision .....	\$147 00
Labor .....	323 74
9 barrels Tarvia—B .....	41 16
Freight on Tarvia .....	0 83
Standard oil, No. 4, 1,474 gallons .....	106 87

Road oil .....	19 68
Coal and wood .....	46 50
	<hr/>
Total .....	\$685 78

## KENNEBUNK.

A section of gravel road on the trunk line, built in 1910, was repaired with a split log drag. Length approximately one mile.

Cost .....	\$36 77
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## WELLS.

A section of gravel road on the trunk line extending from the Kennebunk line westerly, a distance of 1800 feet, was repaired with a split log drag.

Cost .....	\$6 50
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## MACHINERY.

Plow .....	\$25 80
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## SUMMARY OF EXPENDITURES.

## KITTERY-PORTLAND TRUNK LINE.

## MAINTENANCE.

Kittery section No. 1 .....	\$558 64
Kittery, gravel section .....	483 16
York .....	685 78
South Portland .....	2,236 92
Scarboro .....	302 87
Wells .....	6 50
Kennebunk, dragging road .....	36 77
Kennebunk, surface treatment .....	445 73
Road plow .....	25 80
	<hr/>
Total paid on Kittery-Portland trunk line .....	\$4,782 17
Paid on Rockland-Rockport trunk line .....	13 50
	<hr/>
Total .....	\$4,795 67

APPORTIONMENTS.

Apportioned from automobile fund .....	\$2,376 50
Apportioned to Scarboro from auto fund .....	300 00
Apportioned from unapportioned fund .....	2,200 00
<hr/>	
Total .....	\$4,876 50
Total payments .....	4,795 67
<hr/>	
Unexpended balance from unpaid fund .....	\$80 83

ROCKLAND-ROCKPORT TRUNK LINE.

MAINTENANCE.

During the past summer a great many complaints were received on account of the slippery condition of the bituminous macadam road constructed between Rockland and Rockport during the seasons of 1910 and 1911. An attempt was made to correct this condition on the grades by applying a cold mixture of Tarvia—B and sand to the surface in a thin layer. Up to the present time this method seems to have been successful.

The total length treated was 3,211 feet and the area, 3,568 square yards; cost per square yard, \$0.083. Amount of tar used per square yard, 0.27 gallon. The following is the itemized cost:

Tarvia—B, 976 gallons .....	\$68 32
Labor, sand and other material .....	225 90
1 1-2 tons crushed stone .....	1 13
Wood .....	2 20
<hr/>	
Total cost of sand-tar treatment .....	\$297 55
E. R. Keene, expenses on Rockland-Rockport trunk line, charged to Kittery-Portland trunk line appor- tionment .....	13 50
<hr/>	
Total .....	\$311 05
Apportioned from automobile fund .....	350 00
Transferred from Kittery-Portland app't .....	13 50
<hr/>	
Total amount available .....	\$363 50

Total cost of work .....	311 05
Unexpended balance auto appor't .....	\$52 45

### WORK DONE UNDER SPECIAL LEGISLATIVE ACTS.

#### RESOLVE IN FAVOR OF INDIAN TOWNSHIP.

The Legislature of 1911 appropriated one thousand dollars for the year 1911 and one thousand dollars for the year 1912 to be expended upon the road which extends through Indian Township to Danforth.

Work was in charge of Chaplin T. Greene, of Princeton. 400 feet was reconstructed and the balance of the distance, about twelve miles across the township, was repaired by removing rocks and filling bad places, together with levelling up Huntley Brook bridge and putting on a new railing.

Expended for labor .....	\$1,463 00
Gravel .....	5 00
Repair of road machine .....	12 05
Total expenditure .....	\$1,480 05
Appropriation .....	\$1,000 00
Apportioned by governor and council from highway fund .....	480 05
	\$1,480 05

There was reconstructed in 1911 two miles of road not reported for that year.

#### BRIDGE INVESTIGATION.

The following Order was passed by the Legislature of 1911: "Ordered, The House concurring, that the state commissioner of highways be and is hereby directed to make an investigation to ascertain the length, physical character and condition, original and annual cost of maintenance as he may deem pertinent or necessary concerning each and every bridge of six feet and over within the State. The result of the investigation shall be published as a part of the next annual report of the state commissioner of highways and one thousand copies of the result of the investigation shall be published in pamphlet form for the use of the next Legislature."

It will be seen that the above Order does not carry an appropriation for making the investigation which is somewhat of a handicap in work of that nature; however, the work was begun in 1912 by the regular highway inspectors, together with some additional help by the appointment of engineers, and in some cases the selectmen were employed to make the necessary inspection. As a result of this investigation returns are on file in the department for nearly all of the towns in the State.

Blanks were sent to the selectmen of the various towns requesting returns in regard to the original cost of the various types of bridges and the annual cost of maintenance for the years 1908, 1909, 1910 and 1911.

This part of the investigation has been very perplexing and the cause of much correspondence and delay in the final report, for the reason that it had not been the custom in the past for towns to separate the cost of repairs and maintenance of bridges from their expenditures on roads. This condition necessitated considerable time on the part of the municipal officers and in many cases unsatisfactory results to themselves and to the department, but on the whole much valuable data has been obtained and final tabulation is being made, but will not be completed in season for printing before the adjournment of the Legislature.

The municipal officers have been very courteous and accommodating in furnishing such data as could be obtained.

There has been apportioned and expended for this work \$3,500.00; estimated for work in progress and outstanding bills, \$1,000.00, exclusive of printing.

#### OLDTOWN BRIDGE.

The bridge work described below was authorized by the Governor and Council and a total appropriation of \$35,000 was made from any unexpended balance in the treasury in accordance with chapter 224, Resolves of 1911.

This bridge is in two sections and spans the Penobscot river between Oldtown and Milford. The westerly span extends from Oldtown to Treat and Webster Island and is about 208 feet in length. The easterly span extends from the island to the Milford side and is practically 339 feet in length. Both spans



are of the single lattice type and their construction dates back to 1846. They were reported to be in bad condition by E. E. Greenwood, C. E., in 1910, and also in 1911.

The matter was brought to the attention of the Legislature in 1911, but no definite action was taken. But through the urgent request of the municipal officers of Oldtown a meeting with the Governor and Council was arranged for October 17, 1912, at Oldtown together with W. H. Norris, engineer of the Maine Central Railroad, E. E. Greenwood, C. E., of Skowhegan and the state highway commissioner, for the purpose of making examination of both spans of the bridge.

A report was made to the Governor and Council by the engineers that the bridge, or spans, were unsafe for travel. Accordingly an Order was passed by the Governor and Council on October 18, authorizing repairs to put the spans in safe condition for travel and \$2,000.00 was appropriated for that purpose.

Oldtown bridge, easterly span:

Following is the detailed expenditure:

Union Iron Works .....	\$89 16
J. B. O'Connell .....	42 96
Queen City Granite Company .....	40 00
Jordan Lumber Company .....	335 45
A. F. Orr, photographs .....	15 50
Sawyer & Rand .....	2 36
F. A. Blanchard .....	5 05
George A. Gray .....	38 59
Rice & Miller .....	28 19
E. E. Greenwood, Skowhegan, engineering and su- perintendence .....	240 00
Labor .....	835 67

Total expenditure ..... \$1,672 93

The repairs made on this span in strengthening occupy one-half of the original width of the travel so that at the present time it is only a single track bridge; provision should be made for the construction of a new bridge at an early date.

We have charged to this account preliminary examination of both spans.

Paid W. H. Norris ..... \$50 00

Paid H. Hilliard, surveys for new location . . . . .	116 25
	\$1,839 18
Appropriation . . . . .	\$2,000 00
Unexpended balance . . . . .	\$160 82

A survey was also authorized by the Governor and Council of a proposed new location of bridge above the railroad bridge and plans of same are on file in the highway department.

WESTERLY SPAN OF OLDTOWN BRIDGE.

In connection with the report on the Oldtown bridge authority was given the highway commissioner to contract for the construction of a steel bridge on the Oldtown side of the Penobscot river with as little delay as possible. Accordingly proposals were asked for the furnishing of all material and erection of the superstructure of a steel span 208 feet in length, with a 30-foot roadway and a 6-foot sidewalk and a creosoted wood block floor.

The bridge is designed of sufficient capacity for an electric car.

The following bids were received on November 26:

Boston Bridge Company, Boston . . . . .	\$26,492 00
Canton Bridge Company, Attleboro, Mass., (conditional) . . . . .	\$25,400 00
Pennsylvania Steel Company, Boston, Mass. . . . .	\$29,400 00
United Construction Company, Albany, N. Y. . . . .	\$24,843 00
Penn Bridge Company, Beaver Falls, Pa. . . . .	\$21,490 00

The contract was awarded the Penn Bridge Company for \$21,490.00, to be completed April 15, 1913, with a conditional extension of time to May 1, 1913.

The contract for the concrete masonry work was let to Hartwell & Connors of Oldtown for \$9.50 per cubic yard; excavation under water at \$1.50 per cubic yard; work to be completed January 15, 1913.

As previously stated this bridge was designed for one 6-foot walk, but through the efforts of citizens living in the vicinity of the bridge the Governor and Council on December 19, 1912, authorized the placing of an additional walk on the bridge. As the contracts had been awarded and work begun on the substructure

ture it necessitated some changes in the plans, but an additional contract was made with the Bridge Company for an additional sidewalk 4 1-2 feet in width for \$1,300.00 and satisfactory arrangements were made with the contractors for the additional masonry work. The following expenditures have been made to date:

H. Hilliard, surveys .....	\$46 25
E. E. Greenwood, engineering .....	166 66
E. E. Greenwood, engineering .....	200 00
F. Patten, inspection .....	81 61
Hartwell & Connors, on contract .....	3,072 75
Advertising .....	9 62
	<hr/>
	\$3,576 89
Appropriation .....	\$33,000 00
Amount paid .....	3,576 89
	<hr/>
Unexpended balance .....	\$29,423 11

The following work was done with money received from the licensing and registration of motor vehicles. A statement of receipts and disbursements will be found in the Financial Statement in another part of this report.

#### AUBURN.

Work was performed by the city of Auburn in charge of George A. Field, street commissioner; R. A. Swift, engineer; nature of improvement, grading, drainage and gravel surface; work began August 8; completed December 7.

This section of road begins at the city of Auburn and extends on the state road to Danville Junction.

Details and cost items as compiled from certificates of municipal officers:

Total length of completed road, 8900 feet.

Earth cutting, length 3015 feet; width 35 feet; depth 3 feet.

Filling, length 3533 feet; width 30 feet; depth 3.5 feet.

Rock cutting, length 240 feet; width 12 feet; depth 5 feet.

Filling, length 200 feet; width 14 feet; depth 5 feet.

Surfacing with gravel, length 7500 feet; width 15 feet; depth 4 in.

Clearing right of way, length 10,000 feet; width 15 feet.

Wire fence, length 1221 feet.

Culverts, metal—length 60 feet; diameter 16 inches.

Culverts, metal—length 130 feet; diameter 24 inches.

Culverts, metal—length 96 feet; diameter 18 inches.

Culverts, metal—length 12 feet; diameter 20 inches.

Culverts, metal—length 308 feet; diameter 12 inches.

26 concrete headers, containing 46.11 cubic yards.

Labor, foreman, 188 days @ \$2.50 .....	\$470 00
Labor, 2,301 days @ \$2.00 .....	4,601 69
Labor, double teams, 677 1-2 days @ \$4.00 .....	2,710 00
Material .....	3,020 46
Engineering .....	78 00

Total cost of work .....	\$10,880 15
Paid by city .....	\$7,253 43
Paid by State .....	\$3,626 72
Appropriated by city .....	\$10,000 00
Apportioned by State .....	5,000 00

Total amount available .....	\$15,000 00
Balance carried over to be expended in continuing work in 1913, joint fund .....	\$4,119 85
City's part of unexpended balance .....	\$2,746 57
State's part of unexpended balance .....	\$1,373 28

### AUGUSTA.

This work consisted of applying a surface application of Tarvia-B to a section of macadam road 6189 feet in length and the scarifying and re-surfacing of a section of old macadam road 4487 feet in length. Tarvia-A was used on the re-surfaced work.

The work is located on the main road from Augusta to Winthrop, beginning at the Manchester town line and extending towards Augusta, a distance of 10,676 lineal feet.

The Tarvia-B was spread by hand and the Tarvia-A was spread with a tank wagon, under pressure.

The above work was in charge of J. A. McLean.

Area of surface treatment, 10,315 square yards; amount of

bituminous material used, 4476 gallons, or 0.43 gallon per square yard; amount of sand used, 61 cubic yards, or 0.16 cubic feet per square yard; cost per square yard, \$0.06.

Area re-surfaced, 7799 square yards; amount of stone used 669 cubic yards, or 0.085 cubic yard per square yard; amount of bituminous material used, 10,047 gallons, or 1.29 gallons per square yard; cost per square yard, \$0.53.

Total apportionments ..... \$4,725 59

Details and cost items; surface treatment:

4476 gallons, Tarvia-B .....	290 94
Freight on Tarvia-B .....	65 88
Sand .....	24 40
Trucking .....	29 35
Supplies .....	11 70
Foreman .....	32 00
Street sweeper .....	15 00
Labor .....	167 00

Total cost of surface treatment .....	\$636 27
Credit by sale of barrels .....	\$26 67

Net cost ....	\$609 60
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Details and cost items; resurfacing:

556 loads of stone @ \$1.85 .....	\$1,028 60
113 loads of stone @ \$1.00 .....	113 00
Rent of steam roller, 16 1-2 days @ \$10.00 .....	165 00
Rent of steam roller, 31 days @ \$5.00 .....	155 00
Repairs on rollers .....	8 96
10,047 gallons Tarvia-A .....	653 06
Freight on Tarvia-A .....	128 08
Rent of boiler for heating tank car .....	20 00
Demurrage on tank car .....	47 00
Sand .....	15 60
Lumber .....	1 00
Supplies .....	68 66
Blacksmith work .....	4 20
Coal .....	146 14
Repair on tank wagon .....	13 50
Rent of tank wagon and tank car .....	140 00
Freight on tank wagon .....	24 80

Freight on scarifier .....	2 30
Labor .....	1,182 09
Foreman .....	189 00
<hr/>	
Total cost of re-surfacing .....	\$4,105 99
Total cost of all work .....	\$4,715 59
Total apportionments .....	\$4,725 59
Unexpended balance .....	\$10 00

BELGRADE.

This section of road is at Belgrade Lakes and extends into the village. Work was in charge of Herbert Alexander; H. H. Adams, inspector.

Nature of improvement; grading, drainage, gravel surface.

Total length improved, 2000 feet.

Expenditures as follows:

Labor .....	\$831 62
Gravel, dynamite, cement and culverts .....	207 23
<hr/>	
Total cost .....	\$1,038 85
Apportioned by State .....	\$1,000 00
Paid by town .....	\$38 85

BENTON.

Work was done by the town of Benton; Otis C. Brown in charge; Elmer E. Smith, inspector. Nature of improvement, grading, drainage and gravel surface.

Total length improved, 2500 feet; gravel surface, 16 feet wide; depth, 12 inches.

Cost:

Labor .....	\$305 00
Gravel, 10c. per load .....	96 80
<hr/>	
Total .....	\$401 80
Apportioned by State .....	\$250 00
Appropriated by town .....	\$150 00
Additional cost to town .....	\$1 80

## BINGHAM AND THE FORKS.

This section of road begins about one mile north of the town line between Bingham and Moscow and extends up the river towards Caratunk village 6631 feet. Nature of improvement, grading, straightening, drainage and widening.

This improvement covers short sections for several miles. As this road contains many dangerous and narrow places they were selected for improvement. The work was necessarily heavy as the land is very abrupt contiguous to the road. A contract was made with C. E. Ulmer for ledge work at \$2.75 per cubic yard and 779.1 cubic yards were removed at a cost of ..... \$2,142 52  
Extras for gravel work ..... 32 59

\$2,175 11

The engineering work was confined to the rock work and was done by R. E. Mullaney. This includes additional surveys in view of further work which are on file in the department ..... \$142 50

Total ..... \$2,317 61

The road work was in charge of B. J. Libby with John W. Sterling as foreman.

210 feet of timber retaining wall from 3 feet to 5 feet high and 3911 feet of railing were constructed in connection with the other work.

The expenditures were as follows:

Labor .....	\$2,729 98
Lumber .....	393 11
Paid for culverts .....	139 05
Tools and miscellaneous .....	122 21
Inspection .....	101 37

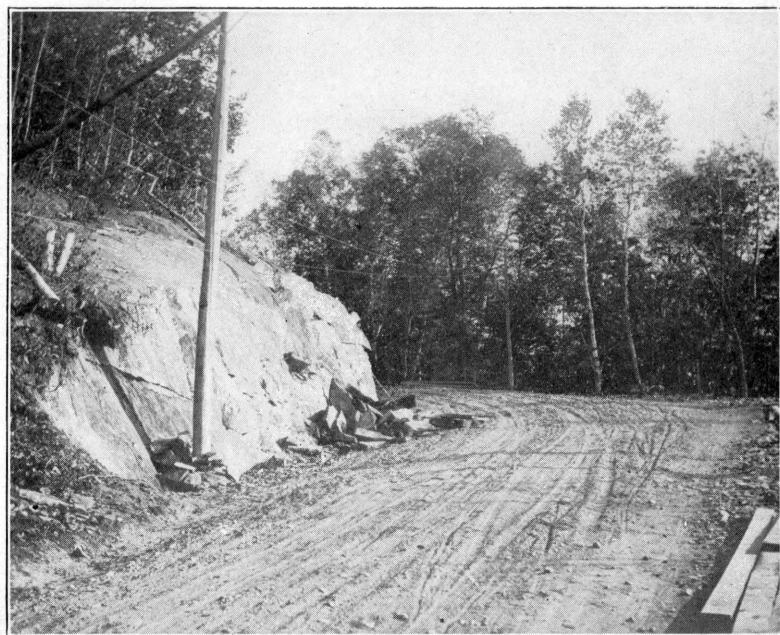
\$3,485 72

Paid C. E. Ulmer and R. E. Mullaney .....	2,317 61
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Total .....	\$5,803 33
Apportioned by State .....	\$5,803 33



Ledge Excavation. Bingham and The Forks. Before Improvement.



Bingham and The Forks Section after Improvement





BRIDGTON.

This section of road begins on the Fryeburg and Bridgton road at the town line between the two towns and extends 9020 feet towards Bridgton; nature of improvement, grading, drainage and gravel surface. The work in charge of E. C. Buzzell, with George H. Greene, as foreman.

The engineering work was done by J. H. Stuart. A decided improvement was made at the beginning of the section by cutting down a hill and making a fill over a stone culvert and straightening a dangerous point in the road of which a part on the westerly side was done at the expense of the town of Fryeburg. Ten hills were cut down in the length of the improvement varying in depth up to a maximum cut of 13 feet and the material used in making the fills and reducing grades.

Some of the material proved to be of good quality for surfacing, which facilitated the progress of the work.

The detailed costs of culverts are as follows:

I metal culvert, 42 ft. x 16 inches	}	.....	\$58 80
I metal culvert, 18 ft. x 8 inches			
I stone culvert, 27 ft. x 4 ft. x 4 ft.....			125 00
I stone culvert, 30 ft. x 2 ft. x 2 ft.....			50 00
I stone culvert, 27 ft. x 2 ft. x 2 ft.....			35 00
I stone culvert, 30 ft. x 18 inches x 18 inches...			40 00
I stone culvert, 30 ft. x 18 inches x 18 inches...			60 00
Stone masonry, 30 ft. x 2 feet x 2 feet.....			50 00
Bridge masonry, 44 ft. x 8 ft. high .....			200 00
Stone masonry, 27 ft. x 2 ft. x 2 ft.....			50 00
Culvert extension, 8 ft. x 2 ft. x 2 ft.....			15 00
Culvert extension, 10 ft. x 3 ft. x 3 ft.....			50 00
Stone masonry, 92 ft. x 16 inches—2 ft. to 13 ft. high	}	.....	300 00
Stone masonry, 100 ft. x 16 inches—2 to 4 ft. high			

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\$1,025 80

Total expenditure ..... \$6,761 56

Summary of costs:

Labor .....	\$5,932 73
Material .....	\$345 30
Engineering .....	\$270 68
Inspection .....	\$212 85

Apportioned by State .....	\$4,000 00
Town appropriation .....	\$2,000 00
Additional cost paid by town .....	\$761 56

## BYRON.

The section of road improved is located on the "River Road." Work in charge of E. G. Knapp; A. D. Fessenden, inspector.

Total length improved 1300 feet, which was graveled 12 feet in width, 6 inches in depth, including smoothing with split log drag.

Apportioned by State .....	\$150 00
Total expenditure .....	\$150 00

## CARROLL.

Work in charge of Gay F. Monroe; D. G. Lane, inspector. Section of road improved is on the Bangor and Calais road about one-fourth mile east of town line.

Details of improvement:

Total length completed 1320 feet.

Earth cutting, 250 ft.; width 20 ft.; depth 1 ft. to 3 ft.

Stone base, 300 ft.; width 23 ft.; depth 1 ft. to 2 ft.

Gravel surfacing, 1320 ft.; width 12 ft.; depth 10 inches.

Clearing right of way, 1320 ft.; width, 20 ft., each side.

2 metal culverts, 20 ft. x 16 inches . with concrete end walls

1 metal culvert, 20 ft. x 12 inches ..

Total cost of work .....	\$501 28
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Apportioned by State .....	\$500 00
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Additional amount furnished by town .....	\$1 28
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## CARY.

Work in charge of C. F. Farrar; W. H. Bither, inspector; nature of improvement, grading, underdrainage and gravel surface. Total length completed, 2000 feet.

Costs:

Clearing right of way .....	\$48 25
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"V" drain, 2000 feet .....	620 25
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Labor on culverts .....	41 00
Surfacing .....	710 70
	<hr/>
Total cost of labor .....	\$1,420 20
Cost of materials.	
Culvert, 48 feet .....	38 40
Cement .....	5 50
Lumber .....	2 00
426 loads of gravel @ 7c.....	29 82
Repairs on plow .....	5 50
Dynamite, fuse and caps .....	2 25
	<hr/>
Total cost .....	\$1,503 67
Apportioned by State .....	\$1,500 00
Additional cost to town .....	\$3 67

CONNOR PLANTATION.

Work in charge of Joseph A. Dumas; F. O. Landgrane, inspector.

This section of road is on the Caribou and Van Buren road; nature of improvement, grading, drainage and gravel surface.

Details of work:

Total length completed 5280 feet.

Earth cutting, 500 ft.; width 28 ft.; depth 5 ft.

Filling, 2000 ft.; width 23 ft.; depth 1 1-2 ft.

Stone base, 247 ft.; width 15 ft.; depth 1 ft.

Gravel surfacing, 5280 ft.; width 21 ft.; depth 6 inches.

Clearing right of way, 660 ft.; width 7 ft. each side.

2 metal culverts, 26 ft. x 16 inches.

Expenditure .....	\$872 09
Inspection .....	24 99

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Total expenditure .....	\$897 08
Apportioned by State .....	\$1,500 00
Unexpended balance .....	\$602 92

CARIBOU.

Carried over.

Apportioned by State.....	\$1,000 00
Appropriated by town .....	\$1,000 00

## CASCO.

This section of road begins at Cook's Mills on the Poland, Naples and Fryeburg road and extends easterly 11,500 feet. Nature of improvement, grading, drainage and gravel surface.

The section was divided into two parts; the first 4200 feet was in charge of S. F. Jordan under the payroll system. The widening necessitated the cutting of growing timber and grubbing to a width of 30 feet together with grading, drainage and gravel surface.

Length completed with gravel surface 15 ft. wide, 3000 feet.

"V" drain, 125 ft.

Clearing right of way, 4200 ft.

Guard rail, 90 ft.

## CULVERTS AND BRIDGES.

Split stone, 14 ft. x 7 ft. x 5 ft.

Split stone, 24 ft. x 1 ft. x 1 ft.

Split stone, 24 ft. x 16 inches.

Split stone, 24 ft. x 16 inches x 24 inches.

## LABOR.

Foreman, 40 days @ \$2.00.

Labor, 272 days @ \$1.75.

Double teams and drivers 122 1-2 days @ \$4.00.

Decker brook bridge was improved by widening with split granite and walls laid up of same material.

There has been expended on this section ..... \$1,055 33

The second section of 7300 feet was contracted to F. E. Tenney for 26c. per lineal foot, including culverts for a complete road, or a lump sum bid of..... \$1,898 00

Following is the estimate of quantities:

7300 feet of grading.

12167 square yards of gravel road complete.

## CULVERTS.

1 to extend 5 ft. north.

2 to be repaired.

1-16-inch metal, 24 ft.

- 1-16-inch metal, 22 ft.
- 1-8-inch tile, 40 ft.
- 1 stone culvert to be extended, 12 ft. 24 inches x 36 inches.
- 1 metal 12-inch, 24 ft.
- 1 metal 14-inch, 24 ft.

Split stone granite culverts with suitable end walls may be substituted for metal culverts.

3000 feet has been completed.

1000 feet, 55% completed.

Part payments have been made amounting to ..... \$784 55

Total expenditure to date, both jobs .....	\$1,839 88
Apportioned by State .....	\$2,000 00
Appropriated by town .....	1,000 00

Joint fund .....	\$3,000 00
Paid by State.....	\$839 88
Paid by town .....	\$1,000 00
Unexpended balance of State apportionment.....	\$1,160 12

DAMARISCOTTA.

See description of state road contract.

Apportioned by State .....	\$1,000 00
Apportioned by town .....	\$600 00

DETROIT AND PALMYRA.

The section of road improved is on the through line to Bangor. Work was in charge of L. R. Tuttle; E. E. Smith, inspector.

Nature of improvement, straightening, widening and removing rocks and cutting bushes, road machine work and installing three culverts. This was a bad section of road and much improvement resulted from the expenditure.

Total length completed, 4900 feet.

Clearing right of way for about 3 miles.

Labor .....	\$660 55
Material .....	92 49

Total expenditure ..... \$753 04

Apportioned by State .....	\$800 00
Appropriated by Detroit .....	200 00
	<hr/>
Joint fund .....	\$1,000 00
Paid by State .....	\$600 00
Paid by Detroit .....	\$153 04
Unexpended by State .....	\$200 00
Unexpended by town .....	\$46 96

## EDMUNDS.

Apportioned by State.....	\$300 00
No work has been reported.	

## ELLSWORTH.

Contractor, city of Ellsworth; work in charge of Fred D. Marden; inspected by the department.

The section of road improved begins at G. N. Black's southerly driveway and extends on the Surry road 8000 feet. Nature of improvement, grading, drainage and gravel surface 15 feet wide and 7 inches in depth.

125 cubic yards of ledge was removed and 14 culverts installed with concrete ends. The widening of the road to standard width and straightening necessitated considerable expense on account of removal of rocks and boulders in the right of way. The total expenditure was .....	\$4,004 06
State apportionment .....	\$2,000 00
Special appropriation by city .....	2,000 00
Appro'n by city by other means .....	4 06
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	\$4,004 06

## ETNA.

The section of road improved is at the Etna bog on the through line from Augusta to Bangor, although the prime object was for the improvement of the bog section, about 1150 feet easterly of the bog was also included. The most expensive part of the construction was about 925 feet in length, with water on either side of the narrow roadway the greater portion of the year. Some years previous the town of Etna filled a section of

about 350 feet in length with stone; the continuous sinking necessitated a fill of 25 feet in depth before bottom was reached.

The old roadway being narrow it was necessary to widen as well as raise the elevation. In widening a brush mattress was laid upon which was placed white birch and cedar logs from three to eight inches in diameter, first placing some, where necessary, parallel with the road and then at right angles extending into the shoulder of the old road, then filling with stone and gravel.

Following are the details:

Work in charge of L. B. Wheeler; inspected by department.

Total length completed, 2200 feet.

Earth cutting, length 500 ft.; width 30 ft.; depth 2 ft. to 3 ft.

Earth filling, length 650 ft.; width 33 ft.; depth 2 ft.

Earth filling, length 925 ft.; width 33 ft.; depth 2 1-2 ft. to 4 ft.

Gravel surface, length 2200 ft.; width 21 ft.

Clearing right of way, 1000 ft.; width 20 ft.

Cedar guard rail, 1850 ft.

Costs:

Foreman, 91 days .....	\$273 00
Labor, 706 1-2 days .....	1,229 72
Double teams, 340 1-2 days .....	1,355 60
Supplies .....	206 01

Total expenditure, apportioned by State ..... \$3,064 33

FORT FAIRFIELD.

This work was done by the town of Ft. Fairfield and is in three sections, viz: Main street to lower village, Caribou street and from the Easton line towards the Presque Isle road.

The two first sections were in charge of C. J. Knight and the other section in charge of E. Watson; Grover M. Hardison, engineer.

On the Main street sections 1400 feet has been completed, including 1 catch basin.

Details as follows:

Stone base and "V" drain, 1400 feet.

1 catch basin.

Gravel surface, 1400 feet.

Cost ..... \$1,261 55



## FORT FAIRFIELD.

This section was in charge of E. Watson and about 2000 feet was straightened, widened and improved generally. Included in this 2000 feet, 800 feet of stone base was built and properly graveled.

General repairs were made extending from this section to the Easton town line.

Total expenditure on this section .....	\$956 26
Expended on other sections .....	1,261 55
	<hr/>
Total cost all work .....	\$2,217 81
Apportioned by State .....	\$3,000 00
Appropriated by town .....	3,000 00
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	\$6,000 00
Unexpended, total .....	\$3,782 19
State's part carried over for 1913 .....	\$1,891 10
Town's part carried over for 1913 .....	\$1,891 09

## FRYEBURG.

This section of road begins on the Fryeburg and Bridgton road about 1500 feet east of the bridge across the Saco river and extends easterly towards Bridgton 6500 feet, including a short section about one-half mile west of the Fryeburg and Bridgton town line and a section at the town line; nature of improvement, grading, drainage and gravel surface.

The work was in charge of E. C. Buzzell and the engineering work was done by J. H. Stuart. The first 3000 feet was expensive construction on account of its being subject to overflow from the Saco river. After a careful examination of the surroundings it was not considered advisable to undertake to construct the road to an elevation above unusual flood conditions, but employ a type of construction which could be readily repaired and not be entirely destroyed by the action of water; consequently, a stone base 18 feet wide and one foot in depth was placed upon a carefully graded sub-grade and the shoulders of the road were protected with stone. Many yards of boulders were used in widening the road across ravines, thereby disposing of obstructions in the right of way.

The costs are as follows:

- Grading, 900 feet; width, 30 feet; depth 5 feet.
- Filling, 1000 feet; width 27 feet; depth 4 feet.
- Filling, 400 feet; width, 3 feet to 10 feet; depth, 3 feet to 15 feet.
- Stone base 2800 feet; width, 18 feet; depth, 1 foot.

SURFACING.

6500 feet; width, 21 feet; depth, 1 foot.	
Cobble slope, 1100 feet; width, 3 feet.	
Road machine work 3500 feet, sub-grade; width, 25 feet.	
Cost of above work .....	\$5,530 23
Guard rail .....	147 69
Culvert, 1 metal 32-ft. x 16 inches .....	29 80
Culverts, 1 metal 38-ft. x 12 inches, (furnished by town)	
Culverts, stone masonry extension, 12-ft. x 2-ft. x 2-ft.....	15 00
Culverts, stone masonry extension, 8-ft x 3-ft. x 2-ft.....	8 00
3000-ft. of retaining wall, height 2 1-2 ft.....	400 00
Inspection .....	212 85
Engineering .....	76 25
	<hr/>
Total cost .....	\$6,419 82
Apportioned by State.....	\$4,280 35
Appropriated by town .....	2,140 17
	<hr/>
Joint fund .....	\$6,420 52
Net cost of work .....	\$6,419 82
Paid by town .....	2,140 17
	<hr/>
State aid approved .....	\$4,279 65
Unexpended balance .....	\$0 70

GARDINER.

This work is located on Water street and consists of installing metal culverts and drainage. 336 cubic yards of gravel was used in grading and surfacing the road. All culverts were pro-

tected with concrete end walls. This work extended over a distance of 2450 feet.

The following is an itemized statement of the cost:

Engineering .....	\$110 50
Advertising .....	10 05
Foreman .....	90 57
Telephone charges .....	1 52
Metal culverts .....	271 36
Lumber .....	6 53
Supplies .....	7 12
Cast iron culvert .....	32 00
Gravel .....	201 60
Trucking .....	1 25
Labor .....	307 42

Total cost .....	\$1039 92
Apportioned by State from automobile fund.....	\$2,000 00

The remainder of the apportionment was expended on Main avenue with the regular state aid apportionment. See description of contract No. 52.

#### GRAY.

Work in charge of A. J. Wiggin. Section of road improved is on the Portland and Gray road; nature of improvement, grading, drainage and gravel surface. Steam roller and scarifier was used on this work. Total length completed 4500 feet.

#### COSTS.

Labor .....	\$1,742 26
Culverts .....	151 91
Supplies .....	24 81
Coal and wood .....	56 42
Lumber .....	67 69
Supervision .....	213 04
Total cost of work .....	\$2,256 13
Apportioned by State .....	\$2,000 00
Appropriated by town .....	1,000 00

Joint fund .....	\$3,000 00
Net cost of work .....	\$2,256 13
Cost to town .....	1,000 00
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State aid approved .....	\$1,256 13
Unexpended balance of State apportionment.....	\$743 87

GREENBUSH.

This work is located in the town of Greenbush on the main road from Oldtown to Mattawamkeag, beginning at a point near Greenbush station and extending northerly 4000 feet. The work consisted of grading and surfacing with gravel. The gravel was obtained near the Maine Central Railroad about 1 1-2 miles south of Olamon. The average haul was 2 1-2 miles. The natural soil was sandy and a sand-clay base was constructed for a distance of 2600 feet. Teams with drivers cost \$4.00 per day and labor cost \$1.75 per day.

Professor J. E. Kaulfuss of the University of Maine was in charge of the work.

Details and cost items:

4000 lineal feet of road graded, 21 feet wide ....	\$237 51
2600 lineal feet of sand-clay base, 18 feet wide..	663 00
4000 lineal feet of gravel surface, 15 feet wide x 5 inches thick, 6667 square yards .....	1,710 90
30 lineal feet of 10-inch metal culvert .....	21 00
45 lineal feet of 16-inch metal culvert .....	45 00
Labor on culverts .....	33 00
Concrete end walls .....	78 78
Standard wood guard rail, 100 feet long .....	21 63
Engineering .....	9 30
Supervision .....	142 75
Incidentals .....	131 86

Total cost of work .....	\$2,976 73
Cost per square yard, not including culverts, guard rails and end walls .....	\$0 42

Summary of total expense of work:

Amount of pay rolls .....	\$2,833 02
J. E. Kaulfuss, expenses .....	33 00

Culverts .....	63 00
Cement, steel, etc.....	20 78
Lumber, nails, etc.....	17 63
Engineering .....	9 30
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Total cost of work .....	\$2,976 73
Apportioned from automobile fund .....	\$3,000 00
Unexpended balance .....	\$23 27

### HOLDEN AND DEDHAM.

Work in charge of Martin Laughlin; Boyden Bearce, inspector.

This apportionment was made for work on the Bangor and Ellsworth road to the towns of Holden and Dedham jointly. This expenditure was made in the nature of general repairs and improvements where most needed, in straightening, widening, clearing ditches, surfacing and removing ledge and boulders at dangerous points.

This road is particularly noted for dangerous ledge projections which obstruct the line of sight and together with the narrow road at those points was the cause of much uneasiness to the traveling public.

While the apportionment was not sufficient to extend the improvement as desired it is felt that much effective work has been done.

About 9857 feet was improved in the two towns and the most of this distance received a light coat of gravel.

There was expended in Holden .....	\$964 81
There was expended in Dedham .....	958 06
Engineering and inspection .....	77 13
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Total .....	\$2,000 00
Apportioned by State .....	\$2,000 00

### KINGMAN.

The section of road improved begins at the 1911 road and extends towards Kingman.

Work was in charge of M. Winthers; D. G. Lane, inspector; nature of improvement, grading, drainage and gravel surface.

Grading and gravel surface, 700 feet x 23 feet.  
200 feet, "V" drain.

1 culvert, 26 feet x 16 inches.

Total expenditure .....	\$315 03
Apportioned and paid by State.....	\$300 00
Additional amount furnished by town .....	\$15 03

LAKE MOXIE.

This section of road is from The Forks to Lake Moxie Railroad station. The work was in charge of John W. Sterling; B. J. Libby, inspector; nature of improvement, repairs and maintenance.

About two and one-half miles have been improved by surfacing with gravel in various places and opening ditches.

Three culverts have been installed and there remain six on hand to be used in a continuation of the work in 1913. In addition to the above, general improvements have been made the entire length of the road from The Forks to Lake Moxie Railroad station, five and one-third miles, by removing rocks and filling bad holes with gravel.

Following are the expenditures:

Inspection, B. J. Libby .....	\$33 20
Culverts .....	113 40
Labor .....	574 02
Expense, team, etc.....	47 77
Camp supplies—groceries .....	167 22
Sharpening tools .....	6 90
Board .....	21 00
Scrapers, town of Concord .....	8 00
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Total expenditure .....	\$971 51
Apportioned by State .....	\$1,000 00
Unexpended balance .....	\$28 49

LINCOLN.

Work in charge of I. F. Warren; Boyden Bearce, inspector. Improvement was in the nature of repairs.

The section begins on the old stage road to Calais near "Cobb Hill" and extends easterly embracing about five and one-half

miles on which general improvements were made, consisting of removing stones, clearing ditches and filling bad holes.

Expenditures .....	\$340 25
Inspection .....	55 47
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Total .....	\$395 72
Apportioned by State .....	\$400 00
Balance unexpended .....	\$4 28

### LINCOLNVILLE.

Work in charge of W. J. Monroe; E. M. Cunningham, inspector.

The section begins on the Lincolnville and Belfast road at the Camden town line; also improvement on Duck Trap hill.

Total length improved, 2400 feet.

Costs as follows:

Clearing right of way .....	\$90 20
Blasting and ledge work .....	105 73
Tile drain, 150-ft., depth 3 1-2 ft. to 2 1-2 ft.....	35 18
"V" drain, 50 ft.....	15 72
Stone culverts, 50 ft. relaid .....	49 30
Surfacing, 2400 feet; width 18 ft., including gravel	253 78
Filling, 150 ft., depth 2 ft.....	78 69
Guard rail, 110 ft.....	6 81
Foreman, 38 days .....	114 00
Sundries .....	62
	<hr/>
Total cost .....	\$750 03
Apportioned and paid by State .....	\$750 00
	<hr/>
Paid by town .....	03

### MADISON.

Work in charge of B. F. Burns; nature of improvement, re-surfacing old tar macadam street from railroad to Maple street, about 2222 square yards.

COSTS.

Labor .....	\$472 10
5195 gallons Tarvia, 8 1-2c.....	441 58
Freight .....	128 70
Field stone, 257 yards @ 90c.....	231 30
Crushing .....	49 00
Tools and kerosene .....	8 20
	<hr/>
Total cost .....	\$1,330 88
Cost per square yard, about 60c.	
Apportioned by State .....	\$300 00
Appropriated by town .....	\$1,030 88

MARION.

Apportioned by State.....	\$1,700 00
No work reported.	

MORRILL.

Work in charge of A. W. Leonard; F. A. McAllister, inspector; nature of improvement, repairs and maintenance. Total length improved, four miles. Clearing right of way 3 miles, 21 ft. wide. Road machine work, 4 miles, 21 ft. wide. Using King drag removing rocks, etc.

COSTS.

Labor .....	\$395 60
367 loads gravel .....	8 35
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Total expenditure .....	\$403 95
Apportioned by State .....	\$400 00
Cost to town .....	\$3 95

MOLUNKUS AND MEDWAY.

The road improved extends across the corner of Molunkus plantation and Medway to Millinocket. Hosea B. Emery was in charge of work; D. H. Lambert, inspector; nature of improvement, widening, straightening, removing boulders, clearing ditches and improving culverts, together with 75 ft. of "V" drain.



Distance repaired in Medway, about 9700 feet  
 Distance repaired in Molunkus ..... 7112 feet

Total distance .....	16,812 feet	
Total expenditure, including inspection, (\$22.60)..		\$1,523 26
Total appropriation .....		\$1,523 26

### NAPLES.

Work was performed under the payroll system by the town of Naples, with Charles W. Proctor in charge of the work; J. H. Stuart, as engineer; nature of improvement, grading, drainage and gravel surface. Work began September 18; completed November 30.

This section of road begins at the junction of the Poland Springs road with the Portland and Naples road and extends westerly through Naples village.

Details as compiled from certificates of municipal officers:

Total length completed, 8900 feet.	
Earth cutting, 750 ft.; width 21 ft.; depth 2 ft.	
Earth filling, 6000 ft.; width 18 ft.; depth 1 ft.	
Rock cutting, 25 ft.; width 6 ft.; depth 3 ft.	
Earth surfacing, 550 ft.; width 21 ft.	
Gravel surface, 8350 ft.; width 21 ft.; depth 8 inches.	
Iron guard rail, 295 ft.	
Stone culverts, 156 ft. x 2 ft. x 2 1-2 ft.	
Stone culverts, 90 ft. x 2 ft. x 2 1-2 ft.	
Tile culverts, 26 ft. x 12 inches.	
5 split stone culverts relaid, total length 122 ft.	
Total cost of work, including engineering (\$85.63)	\$3,012 08
Amount apportioned by State .....	\$2,000 00
Amount appropriated by town .....	1,000 00
Additional cost to town .....	\$12 08

### NEW GLOUCESTER.

Some work was performed but no returns made by the municipal officers.

Paid Greenwood & Co. for engineering .....	\$62 44
Paid A. J. Wiggin, inspection .....	15 03

Total paid by State .....	\$77 47
Apportioned by State .....	\$2,000 00
Appropriated by town .....	1,000 00

Joint fund .....	\$3,000 00
Balance carried over .....	\$2,922 53
State's part unexpended .....	\$1,922 53
Town's part unexpended .....	\$1,000 00

NORTHPORT.

Work in charge of J. F. Priest; E. M. Cunningham, inspector. Section of road begins about one-half mile north of the Beech Hill road on the Northport and Belfast road; nature of improvement, grading, drainage and gravel surface.

Details from municipal officers:

Total length improved, 5800 feet.	
"V" drain, 135 ft.	
Stone base, 60 ft., width 15 feet.	
Gravel surface, 3390 ft., width 12 ft., depth 3 inches.	
Clearing right of way, 5800 ft.	
Wood guard rail, 165 ft.	
Stone culverts repaired.	
Total cost of work .....	\$834 20
Apportioned by State .....	750 00
Contributed by David Talbot for gravel work .....	\$10 00

Additional expenditure by town and Mr. Talbot.... \$84 20

(NOTE:) This apportionment was included in a joint apportionment of \$1500 for Lincolnville and Northport.

ORNEVILLE.

The section of road improved is on the Orneville and Bangor road and improvements were made as follows, under the direction of A. A. Adams:

Total length completed, 750 ft.
Stone filling, 710 ft.; width 24 ft.; depth 5 inches.
Earth filling, 210 ft.; width 20 ft.; depth 12 inches.
Earth filling, 500 ft.; width 24 ft.; depth 12 in. to 18 in.

Earth surfacing, 210 ft.  
 Gravel surfacing, 500 ft.; width 18 ft.; depth 18 inches.  
 Clearing right of way, 600 ft.; width 8 ft.  
 Road machine work, 760 ft.

## COSTS.

Labor .....	\$440 27
Culverts, cement and material .....	161 55
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Total expenditure .....	\$601 82
Apportioned by State .....	\$600 00
Cost to town .....	\$1 82

## ORRINGTON.

This section of road is on the Orrington and Bucksport road, between Snow's Corner and the town line at South Orrington, a distance of about four miles on which general repairs were made consisting of surfacing with gravel in places most needed, together with a rock fill near the railroad crossing at South Orrington.

W. O. Smith in charge of the work; Boyden Bearce, inspector.

Cost .....	\$497 56
Inspection .....	19 15
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Total cost .....	\$516 71
Apportioned by State .....	\$516 71

## ORLAND AND PENOBSCOT.

## ORLAND.

An apportionment was made by the State for the improvement of the Orland and Penobscot road in the above named towns.

In the town of Orland the work was under the direction of J. E. Gross and the following improvements were made:

Total length completed, 2000 feet.  
 Earth surfacing, 2000 ft.; width 23 ft.; depth 8 inches.  
 Gravel surfacing, 2000 ft.; width 15 ft.; depth 8 inches.

COSTS.

Labor .....	\$439 02
Material, etc.....	56 58
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Total expenditure .....	\$495 60

PENOBSCOT.

Work in charge of W. L. Heath; J. E. Gross, inspector. The following improvements were made:

- Total length of completed road, 1900 feet.
- Earth cutting and grading, 1900 feet.
- Surfacing, 1300 feet; width 12 ft.; depth 4 inches.
- Clearing right of way and blasting, 1900 feet.
- Road machine work, 1100 feet.
- Culverts—1 metal, 23 ft. x 10 inches.
- Culverts—1 metal, 23 ft. x 16 inches.

COSTS.

Labor .....	\$438 14
Material .....	60 95
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	\$499 09
Cost of work in Orland .....	495 60
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Expenditure on both sections .....	\$994 69
Inspection .....	22 50
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Total expenditure .....	\$1,017 19
Apportioned and paid to Orland .....	\$488 75
Apportioned and paid to Penobscot .....	488 75
Inspection .....	22 50
	<hr/>
Total paid by State.....	\$1,000 00
Paid by towns .....	\$17 19

POLAND.

This section of road is on the road from Poland to Webbs Mills and Naples and is 10,600 feet in length.

Nature of improvement, grading, straightening, drainage, gravel surface, including a section of new construction, in the process of shortening and straightening. Contractor, Hiram Ricker & Sons, through the town of Poland and State Highway Department. The engineering work was done by E. E. Greenwood & Company.

Estimate of quantities:

25,911 square yards of gravel surface.

200 lineal feet of "V" drain.

191 feet, 12-inch metal culvert.

80 feet, 8-inch metal culvert.

Stone culvert, 28 feet x 3 ft. x 3 ft.

Stone culvert, lengthened 16 feet.

25 feet, guard rail.

Some changes were made in the kind of culverts and split stone was substituted for metal and in some cases of a larger size than indicated. This road is nearly completed, but a certain amount is retained until completed.

Amount apportioned by State .....	\$2,000 00
Amount appropriated by town .....	\$1,000 00
Amount of contract .....	\$3,000 00
Paid by town .....	\$1,000 00
Paid by State .....	\$1,700 00
Unexpended balance of State apportionment.....	\$300 00

#### PITTSFIELD.

Apportioned by State from Automobile fund..... \$2,100 00

For details of this expenditure see description of state road contract.

#### ROCKLAND.

##### MAIN STREET.

This improvement is on North Main street and is on the designated state road. Nature of improvement, widening the street, excavation and concrete retaining wall.

The original cost of this work was estimated at about \$9100.00, exclusive of engineering; the principal cost being in the concrete retaining wall, which it was necessary to construct

in order to widen the street. The city finally decided to increase the proposed width, as a part of the improvement is on the through line of travel to Rockport, Camden and Belfast as well as in the city limits. This change increased the estimated cost to \$16,671.92.

The contract was awarded to Fales & Simmons; L. O. Norwood, engineer.

Unit prices:

Excavation per cubic yard, \$0.50.

Backfill per cubic yard, \$0.40.

Street fill, per cubic yard, \$1.00.

Concrete wall per cubic yard, \$7.10.

Pipe railing per lineal foot, \$0.50.

Sewer pipe per lineal foot, \$0.65.

Catch basin, \$55.00.

Inlets, \$25.00

1150 feet of wall completed, total expenditure . . . .	\$8,959 49
Apportioned by State and paid . . . . .	\$3,000 00
Appropriated by city and private subscriptions . . . .	\$5,959 49
Estimated cost to complete . . . . .	\$7,712 43

PARK STREET.

Contractor, C. M. Willey; L. O. Norwood, engineer. The section of road improved begins at Union street and extends along Park street to the Maine Central Railroad crossing, 2461 feet. Nature of improvement, grading and bituminous macadam surface; area, 4920 square yards. Cost per square yard, exclusive of engineering and extras, \$0.896 per yard. The bid was submitted as a lump sum bid.

Under the specifications 1 1-2 gallons of bituminous product was to be used on the No. 2 stone and 1-2 gallon on the top.

Lump sum bid . . . . .	\$4,410 50
Engineering and additional cost . . . . .	272 08
<hr/>	
Total cost . . . . .	\$4,682 58
State apportionment . . . . .	\$2,000 00
Balance by city and private subscriptions . . . . .	\$2,682 58

## ROME.

Work in charge of Edwin Kelley; H. H. Adams, inspector; nature of improvement, grading, drainage and gravel surface. Total length completed, 1700 feet.

Details and cost items:

Grading, 1700 feet; width 26 feet; depth 3 feet.

Filling, 1300 feet; width 26 feet; depth 2 feet.

Gravel surfacing, 1200 feet; width 26 feet; depth 10 inches.

Clearing right of way, 1700 feet; width 18 inches.

Metal culvert, 26 feet x 18 inches.

Labor .....	\$402 62
Culverts, etc.....	47 50
	<hr/>
Total expenditure .....	\$450 12
Apportioned by State .....	500 00
	<hr/>
Unexpended balance .....	\$49 88

## ROXBURY.

This improvement is on the river road and includes various sections for about six miles. Work was in charge of J. H. Huston; A. D. Fessenden, inspector, and consisted in making repairs where most needed, including surfacing 1000 feet with gravel 16 ft. wide, 6 inches deep.

Total expenditure .....	\$215 50
Apportioned and paid by State .....	150 00
	<hr/>
Additional appropriation by town .....	\$65 50

## RUMFORD.

Apportioned by State.....	\$5,000 00
See description of state road contract.	

## ST. ALBANS.

Apportioned by State .....	\$400 00
No work reported.	

SCARBORO.

Apportioned by State..... \$300 00  
 See description of trunk line maintenance.

SOUTH THOMASTON.

The road improved begins at the city of Rockland at Ingraham's Hill and extends to Owl's Head. As the Ingraham's Hill work comprised rock excavation it was thought advisable to ask for bids for this section and this was done in accordance with our usual regulations and the contract was awarded to the town of South Thomaston for \$1166.50, with L. H. Snow in charge of the work; L. O. Norwood, engineer.

Details as compiled from certificates of municipal officers and engineer :

Total length completed, 1000 feet.  
 Rock excavation, 731 cubic yards.  
 Filling, 902 cubic yards.  
 Gravel surface, 1000 ft. ; width 28 ft. ; depth 3 ft.  
 Total cost ..... \$1,228 10  
 Including \$61.60 for engineering.

The second section consisted of reconstruction, repairs and general improvements; W. J. Martin, in charge of work and David Talbot, acting as inspector; as a result of the expenditure a long line of road has been very much improved and much credit is due public spirited men of Rockland, South Thomaston and vicinity for liberal subscriptions to carry on the work as shown below.

Total length improved, 13510 feet.  
 Grading, 13510 feet.  
 "V" drain and stone base, 5185 feet x 18 feet x 12 inches.  
 Earth surface, 600 feet x 12 feet x 8 inches.  
 Gravel surface, 13510 feet x 10 feet x 8 inches.

COSTS.

Foreman .....	\$222 50
Labor .....	1,493 78
Teams .....	1,164 34
Gravel, 2606 cubic yards .....	260 60



Blasting .....	27 62
Sharpening tools .....	20 10
Lumber .....	5 18
Engineering .....	13 75
Labor donated .....	189 50

Total cost .....	\$3,394 37
Cost of work on Ingraham Hill .....	1,228 10

Cost of work on both sections .....	\$4,622 47
Apportioned by State .....	\$1,200 00
Appropriated by town and subscriptions .....	\$3,472 47
Paid by town .....	\$3,472 47
Paid by State .....	\$1,150 00
Unexpended balance of State apportionment.....	\$50 00

The work on Ingraham Hill was not entirely completed and \$50.00 was retained. This amount will be paid on completion of the work.

#### STOCKTON SPRINGS.

Work was performed by the town under the payroll system, with F. L. Blanchard, chairman of selectmen in charge of the work; E. M. Cunningham, inspector.

Total length of road improved 2100 feet to standard width, of which for 900 feet it was necessary to remove about 113 cubic yards of ledge for ditches, etc., on what is known as Marsh Hill on the Bangor road. A marked improvement has been made by opening ditches through the ledge diverting the water from the highway which by the natural contour of the surface of the rock caused it to follow the road.

The total expenditure was .....	\$999 47
wholly by the State.	
Unexpended .....	\$ 53

#### WATERVILLE.

Apportioned by State.....	\$2,000 00
See description of state road contract.	

WESTBROOK.

Contractor, Hassam Paving Company, Worcester, Mass.; D. R. Duran, engineer; nature of improvement, grading and Hassam concrete pavement; area, 15,472 square yards; cost per square yard, all items included, \$1.69.

The section of road improved begins at the end of the 1911 state road work and extends along the southerly side of Main street towards Portland.

Details and cost items compiled from certificates of municipal officers:

Length 7151 feet; width 19.4 feet.	
15,472 square yards of Hassamite Paving .....	\$25,528 80
Water for paving .....	25 00
Engineering and inspection .....	527 83
	<hr/>
Total cost of work .....	\$26,081 63
Paid by city of Westbrook .....	21,081 63
	<hr/>
State apportionment approved .....	\$5,000 00

WINDSOR.

Work done by the town on its designated state road; nature of improvement, gravel surface, 3810 feet, 15 ft. wide, 5 inches deep.

1 split stone culvert, 25 ft. x 2 ft. x 2 ft.

1 metal culvert relaid.

Total expenditure .....	\$235 57
State's part .....	\$185 57
Town's part .....	\$50 00
Apportioned by State .....	\$200 00
Appropriated by town .....	\$50 00
Unexpended balance of State apportionment .....	\$14 43

WOODSTOCK.

Work performed by the town of Woodstock; work in charge of G. W. Q. Perham; A. D. Fessenden, inspector; nature of improvement, grading, drainage and gravel surface. Work began August 21; completed September 30. The first section

begins about one-half mile from the junction of the Ricker road, so-called, and extends southerly.

The second section begins near the house of Charles McGinnis and extends easterly.

Cost items compiled from certificates of municipal officers:  
Total length completed, 1750 feet.

Earth cutting, 200 ft.; width 24 ft.; depth 2 ft. to 4 ft.

Filling, 500 ft.; width 24 ft.; depth 1 ft. to 2 ft.

Gravel surface, 1750 feet; width 24 ft.; depth 8 inches.

Clearing right of way, 16 ft. each side.

1 metal culvert, 28 ft. x 12 inches.

2 metal culverts, 28 ft. x 10 inches.

#### STONE CULVERTS.

Cement-stone masonry, 1-32 ft. x 4 ft. x 2 ft.

Cement-stone masonry, 1-35 ft. x 2 1-2 ft. x 2 ft.

Cement-stone masonry, 1-24 ft. x 18 inches x 18 inches.

Cement-stone masonry, 1-25 feet x 24 inches x 18 inches.

Cement-stone masonry, 1-25 feet x 2 1-2 feet x 18 inches.

Apportioned and expended by State .....	\$600 00
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Appropriated by town .....	300 00
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Additional appropriation by town .....	52 97
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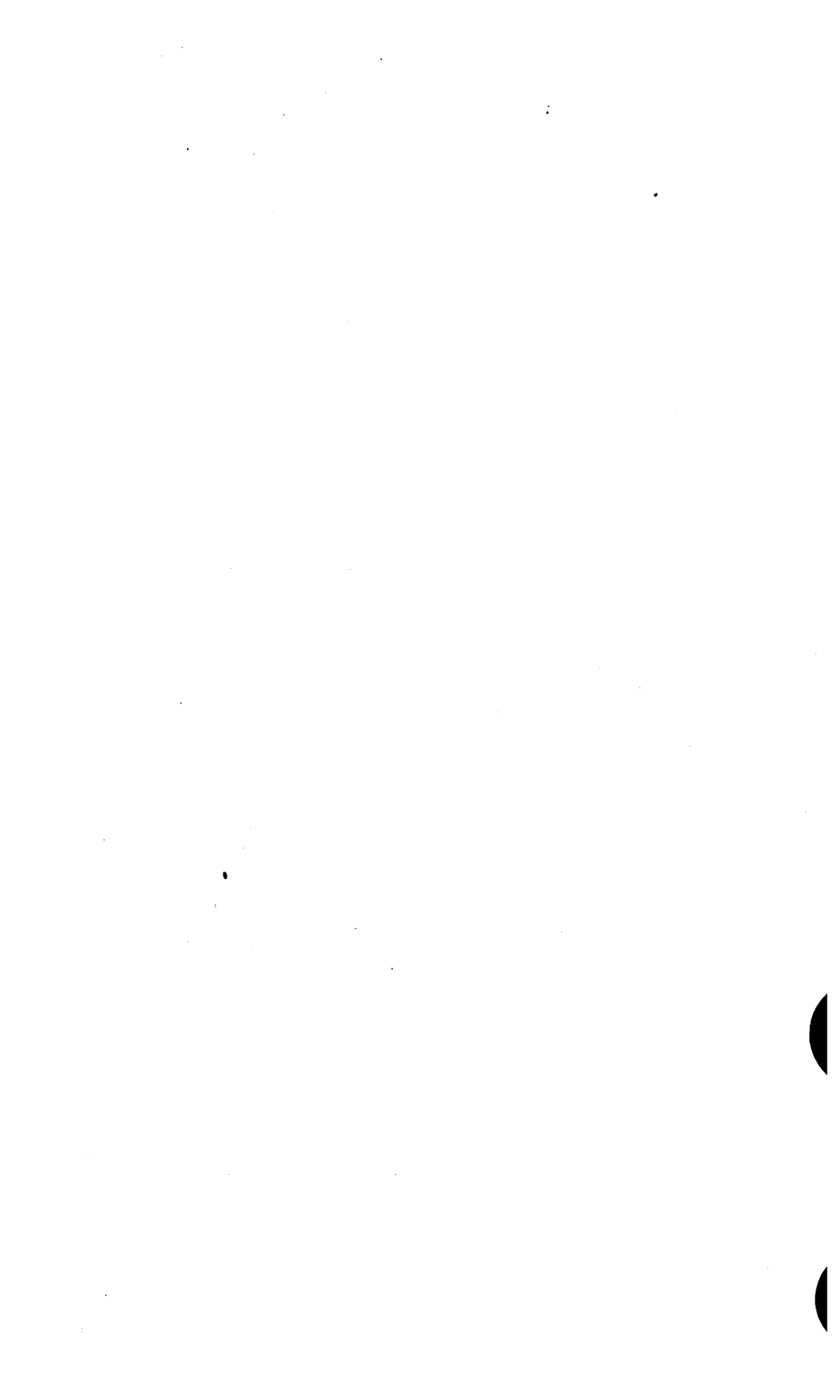
Total .....	\$952 97
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#### MISCELLANEOUS APPORTIONMENTS.

Kittery-Portland trunk line .....	\$2,376 50
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Rockland-Rockport trunk line .....	\$350 00
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Road machinery .....	\$4,075 00
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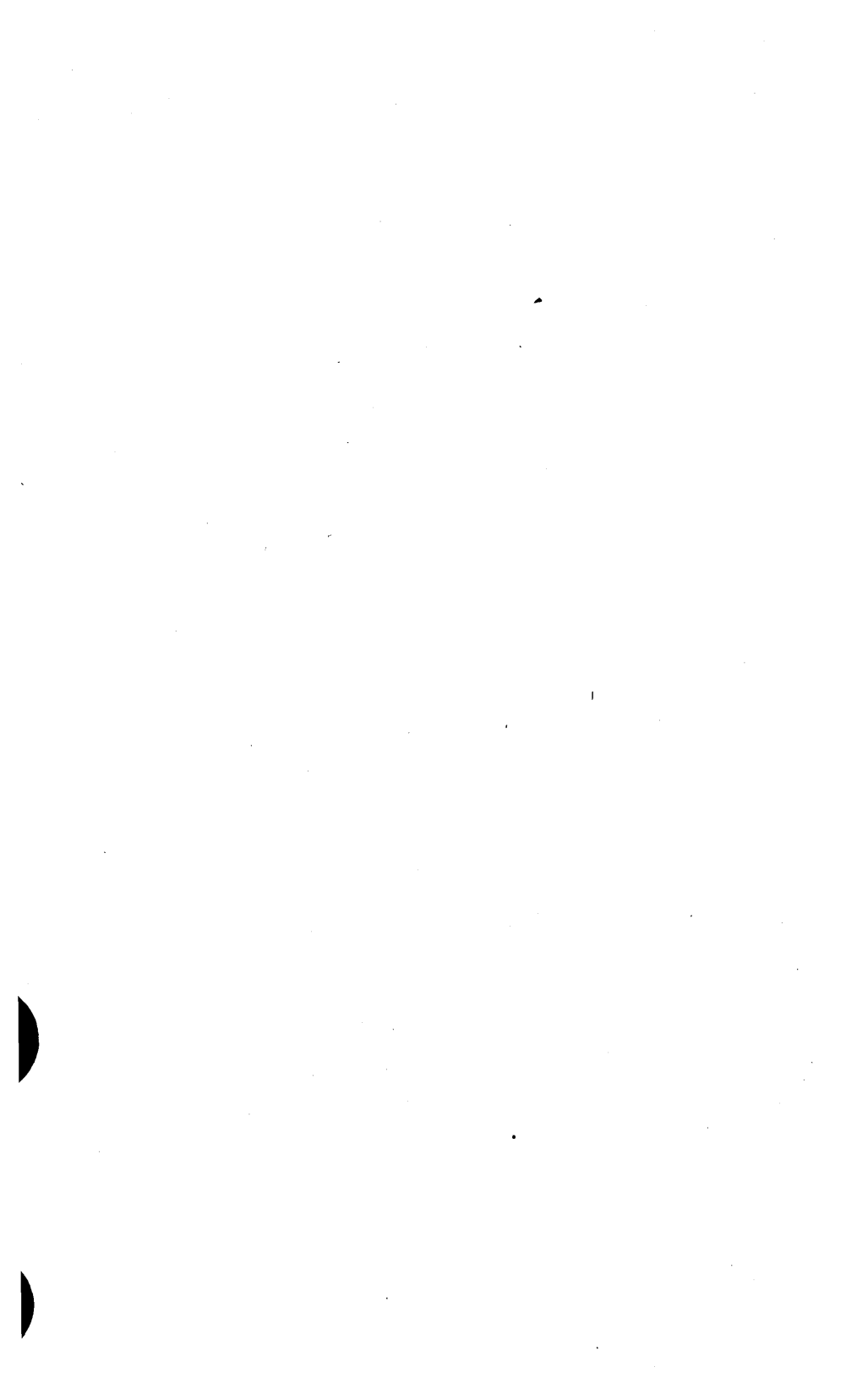


Tabular Statement of Expenditures Made with Money Received from the Registration and Licensing of Motor Vehicles.

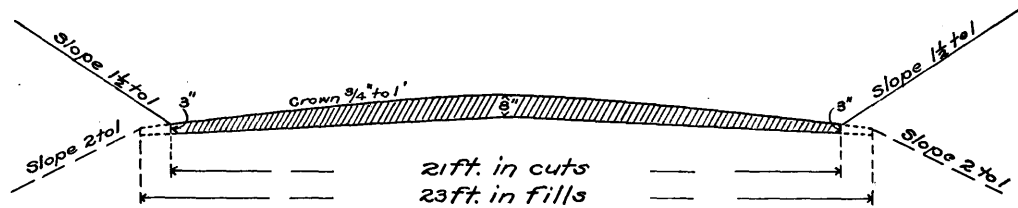
	State ap- portionment.	Town ap- portionment.	Cost of work.	Paid by State.	Unexpended bal- ance of State aid.	Town appor- tionment paid.	Unexpended bal- ance town ap- portionment.	Length re- constructed.	Length repaired.
Auburn.....	\$5,000 00	\$10,000 00	\$10,880 15	\$3,626 72	\$1,373 28	\$7,253 43	\$2,746 57	8,900	-
Augusta.....	4,725 59	-	4,715 59	4,715 59	10 00	-	-	-	6,189
Belgrade.....	1,000 00	38 85	1,038 85	1,000 00	-	38 85	-	2,000	-
Benton.....	250 00	151 80	401 80	250 00	-	151 80	-	2,500	-
Bingham and The Forks.....	5,803 33	-	5,803 33	5,803 33	-	-	-	6,631	-
Bridgton.....	4,000 00	2,761 56	6,761 56	4,000 00	-	2,761 56	-	9,020	-
Byron.....	150 00	-	150 00	150 00	-	-	-	-	1,300
Carroll.....	500 00	1 28	501 28	500 00	-	1 28	-	1,320	-
Cary.....	1,500 00	3 67	1,503 67	1,500 00	-	3 67	-	2,000	-
Caribou.....	1,000 00	1,000 00	-	-	1,000 00	-	1,000 00	-	-
Casco.....	2,000 00	1,000 00	1,839 88	839 88	1,160 12	1,000 00	-	6,000	-
Connor Pl.....	1,500 00	-	897 08	897 08	602 92	-	-	5,280	-
Damariscotta.....	500 00	1,501 80	-	600 00	-	1,501 80	-	-	-
Detroit and Palmyra.....	800 00	200 00	753 04	600 00	200 00	153 04	46 96	4,900	-
Edmunds.....	300 00	-	-	-	300 00	-	-	-	-
Ellsworth.....	2,000 00	2,004 06	4,004 06	2,000 00	-	2,004 06	-	8,000	-
Etna.....	3,064 33	-	3,064 33	3,064 33	-	-	-	2,200	-
Fort Fairfield.....	3,000 00	3,000 00	2,217 81	1,108 90	1,891 10	1,108 91	1,891 09	1,400	2,000
Fryeburg.....	4,280 35	2,140 17	6,419 82	4,279 65	0 70	2,140 17	-	6,500	-
Gardiner.....	2,000 00	1,000 00	1,039 92	2,000 00	2,000 00	1,000 00	-	1,000 00	2,450
Gray.....	2,000 00	1,000 00	2,256 13	1,256 13	743 87	1,000 00	-	4,500	-
Greenbush.....	3,000 00	-	2,976 73	2,976 73	23 27	-	-	4,000	-
Holden and Dedham.....	2,000 00	-	2,000 00	2,000 00	-	-	-	9,857	-
Kingman.....	300 00	15 03	315 03	300 00	-	15 03	-	700	-
Kittery and Portland T. L.....	2,376 50	-	-	2,376 50	-	-	-	-	-
Lake Moxie.....	1,000 00	-	971 51	971 51	28 49	-	-	-	26,400
Lincoln.....	400 00	-	395 72	395 72	4 28	-	-	-	29,040
Lincolnton.....	750 00	0 03	750 03	750 00	-	0 03	-	2,400	-

Madison.....	300 00	1,030 88	1,330 88	300 00	-	1,030 88	-	-	400
Marion.....	1,700 00	-	-	-	1,700 00	-	-	-	-
Molunkus and Medway.....	1,523 26	-	1,523 26	1,523 26	-	-	-	-	16,812
Morrill.....	400 00	3 95	403 95	400 00	-	3 95	-	-	21,120
Naples.....	2,000 00	1,012 08	3,012 08	2,000 00	-	1,012 08	-	8,900	-
New Gloucester.....	2,000 00	1,000 00	77 47	77 47	1,922 53	-	1,000 00	-	-
Northport.....	750 00	84 20	834 20	750 00	-	84 20	-	-	5,800
Orland and Penobscot.....	1,000 00	17 19	1,017 19	1,000 00	-	17 19	-	-	3,900
Orneville.....	600 00	1 82	601 82	600 00	-	1 82	-	-	750
Orrington.....	516 71	-	516 71	516 71	-	-	-	-	21,120
Pittsfield.....	2,100 00	2,100 00	-	2,100 00	-	2,100 00	-	-	-
Poland.....	2,000 00	1,000 00	2,700 00	1,700 00	300 00	1,000 00	-	10,600	-
Rockland, Main Street.....	3,000 00	5,959 49	8,959 49	3,000 00	-	5,959 49	-	-	-
Rockland, Park Street.....	2,000 00	2,682 58	4,682 58	2,000 00	-	2,682 58	-	2,461	-
Rockland and Rockport.....	350 00	-	-	350 00	-	-	-	-	-
Rome.....	500 00	-	450 12	450 12	-	-	-	-	1,700
Roxbury.....	150 00	65 50	215 50	150 00	-	65 50	-	-	1,000
Rumford.....	5,000 00	1,000 00	-	2,775 00	2,225 00	5,760 81	4,239 19	-	-
St. Albans.....	400 00	-	-	-	400 00	-	-	-	-
Scarboro.....	300 00	-	-	300 00	-	-	-	-	-
S. Thomaston.....	1,200 00	3,472 47	4,622 47	1,150 00	50 00	3,472 47	-	14,510	-
Stockton Springs.....	1,000 00	-	999 47	999 47	0 53	-	-	2,100	-
Waterville.....	2,000 00	1,000 00	-	2,000 00	-	1,000 00	-	-	-
Westbrook.....	5,000 00	21,081 63	26,081 63	5,000 00	-	21,081 63	-	7,151	-
Windsor.....	200 00	50 00	235 57	185 57	14 43	50 00	-	-	3,810
Woodstock.....	600 00	352 97	952 97	600 00	-	352 97	-	1,750	-
Road Machine.....	4,075 00	-	4,075 00	4,075 00	-	-	-	-	-

COMMISSIONER OF HIGHWAYS.



# ROAD SECTION A



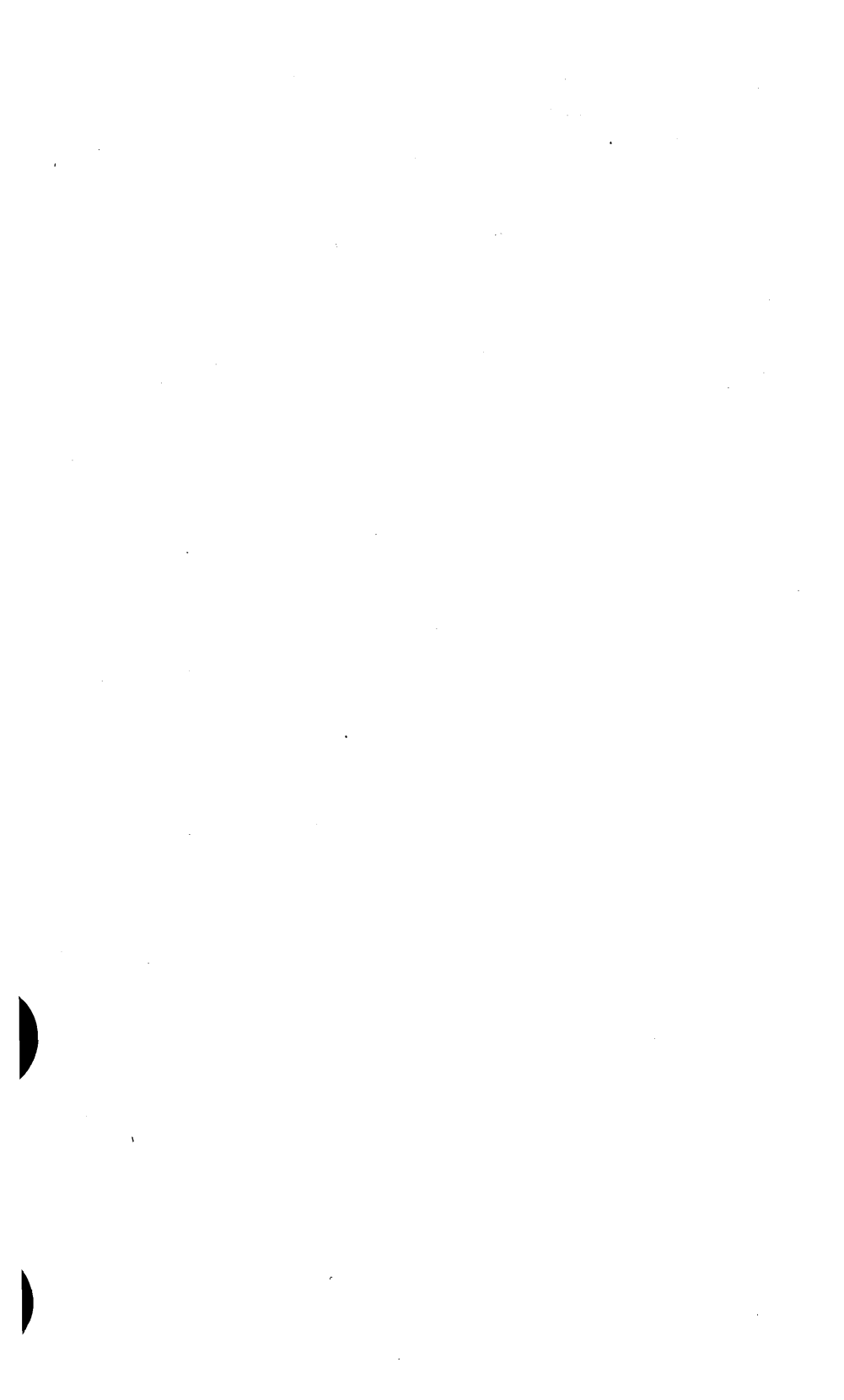
## Specification:-

Thickness of courses after rolling is completed.

For macadam surface placed in two courses, bottom course 5 inches at center gradually diminishing in thickness to the sides, top course 3 inches, Screenings or binder as called for.

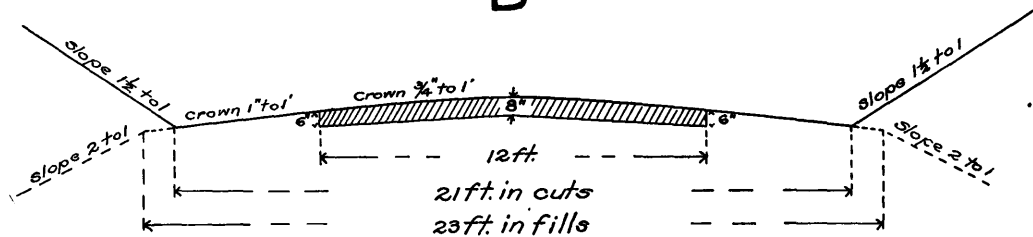
For gravel surface placed in two courses, same as for macadam.





# ROAD SECTION

## B



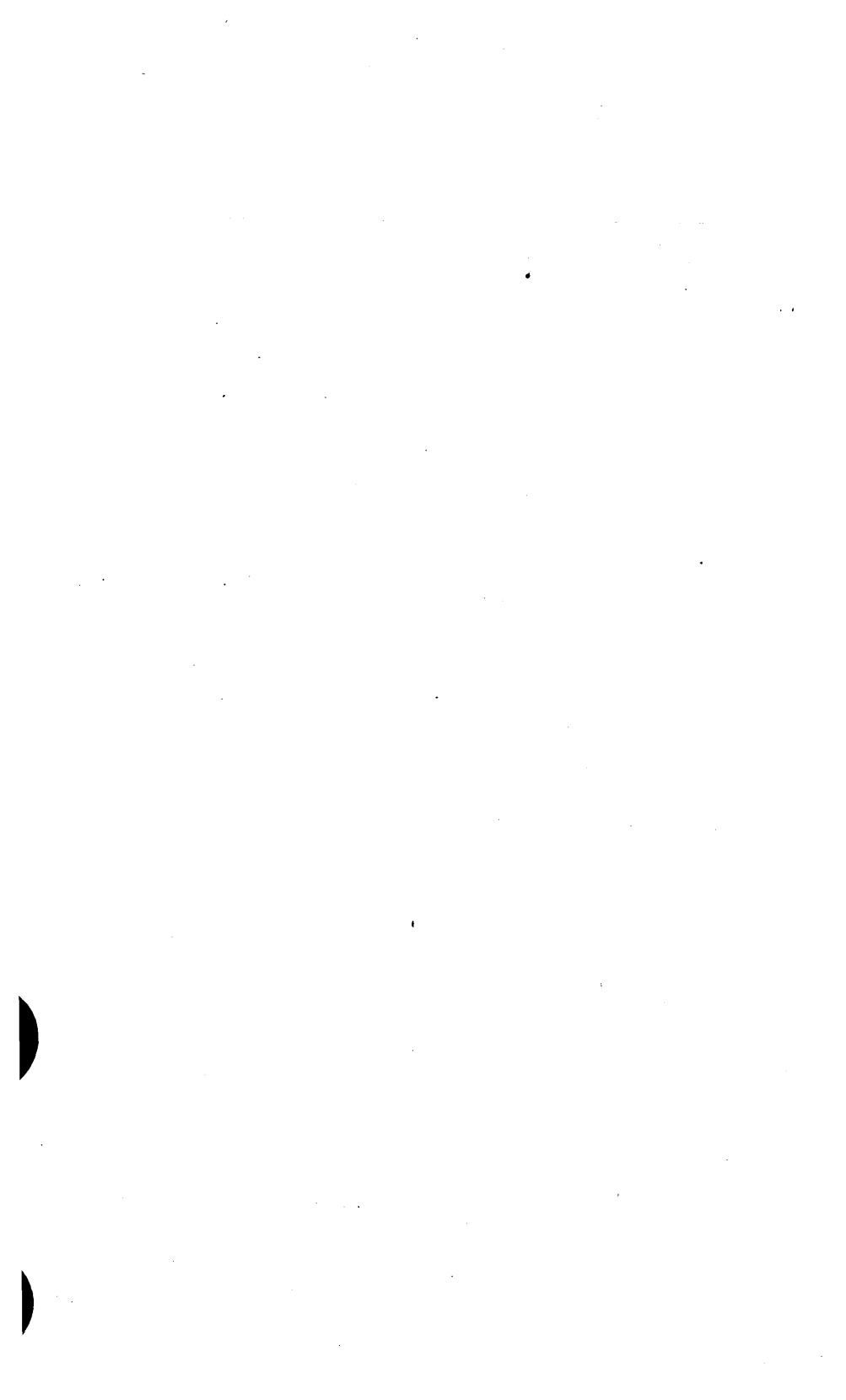
### Specifications:-

Thickness of courses after rolling is completed.

For macadam surface placed in two courses, bottom course 5 inches at center, 4 inches at sides, top course 3 inches at center, 2 inches at sides, screenings or binder as called for.

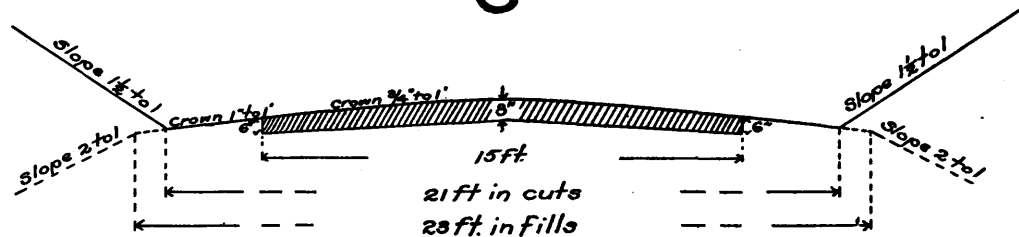
For macadam surface placed in three courses, bottom course 5 inches at center, 3 inches at sides, middle course 2 inches, top course 1 inch, screenings or binder as called for.

For gravel surface placed in two courses, bottom course 5 inches at center, 3 inches at sides, top course 3 inches, binder as called for.



# ROAD SECTION

## C



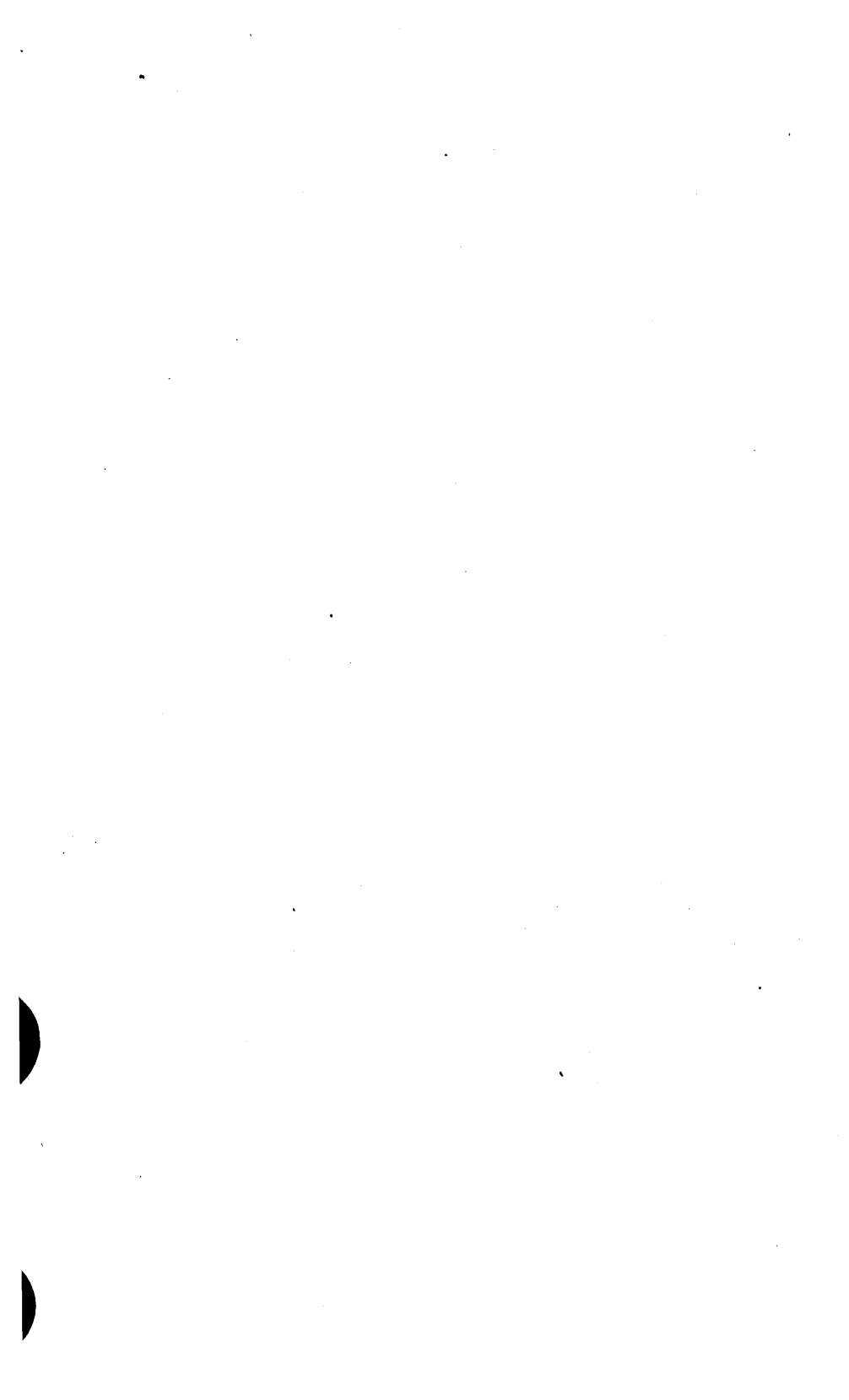
### Specifications:-

*Thickness of courses after rolling is completed*

*For macadam surface placed in two courses, bottom course 5 inches at center, 4 inches at sides, top course 3 inches at center, 2 inches at sides, screenings or binder as called for.*

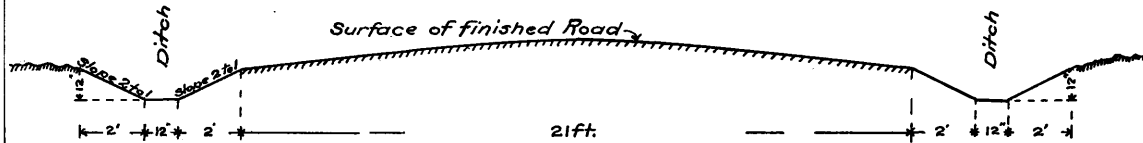
*For macadam surface placed in three courses, bottom course 5 inches at center, 3 inches at sides, middle course 2 inches, top course 1 inch, screenings or binder as called for.*

*For gravel surface placed in two courses, bottom course 5 inches at center, 3 inches at sides, top course 3 inches, binder as called for.*



# ROAD SECTION

## D

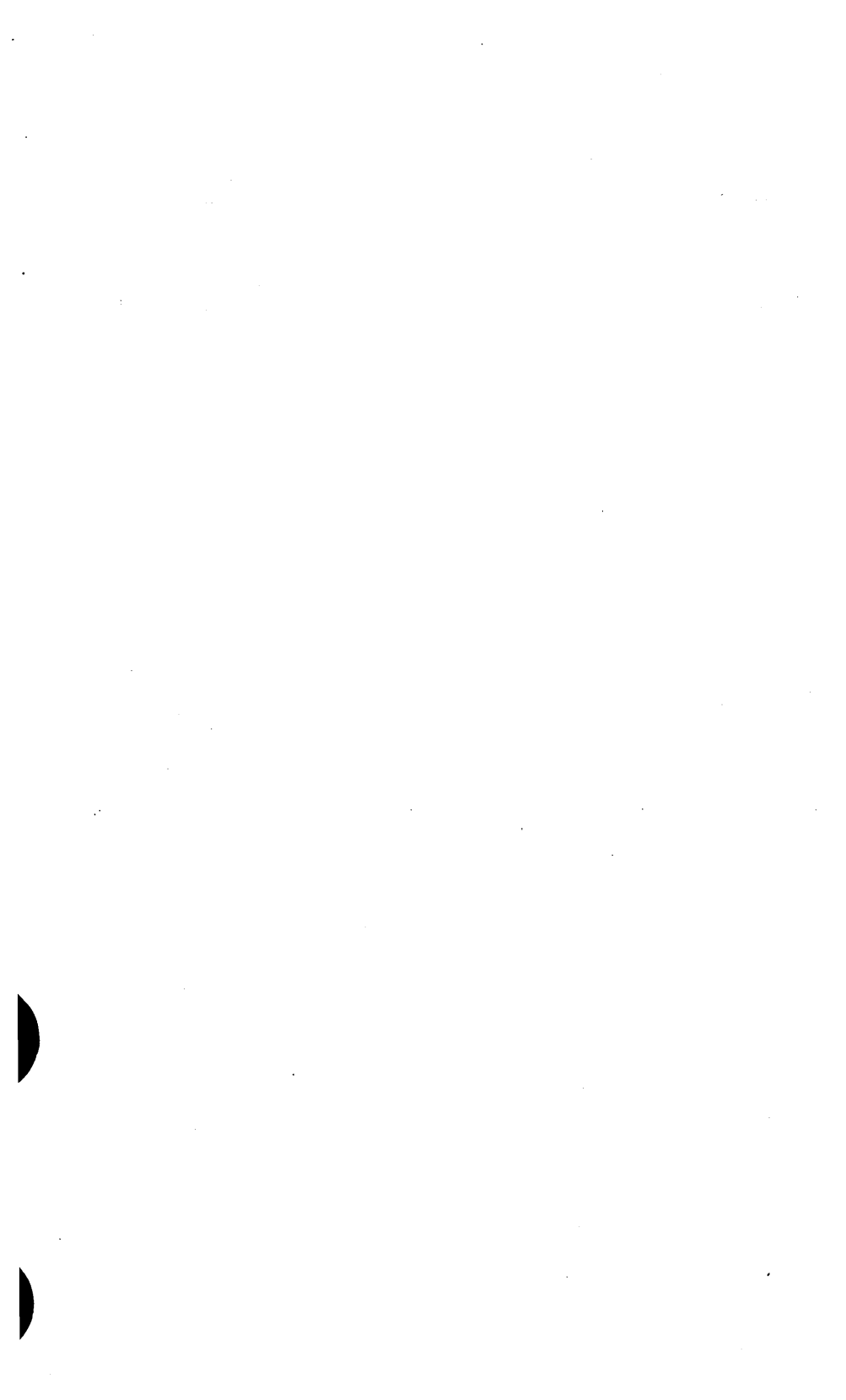


### Note:-

Where side ditches are needed the above cross-section may be taken as a standard, but should be varied to meet local conditions

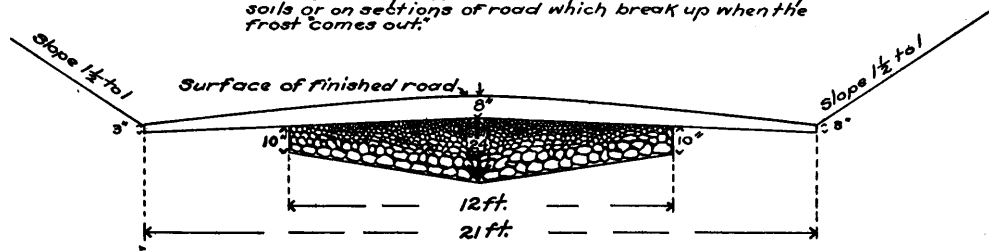
In wet, soggy soil, or where the drainage area of the ditches is large, the ditches should be made larger.

In sandy soil or on steep grades little ditching is necessary.



## "V" DRAIN FOUNDATION

*To be used only where road lays over wet and heavy soils or on sections of road which break up when the frost comes out.*



### Specification:-

*Excavate center of road to the depth, width and form shown above. Stones not exceeding eight inches in diameter shall be placed in the bottom of the trench, over these shall be placed stones gradually diminishing in size until at the top small pebbles and gravel shall be used*

*The surface of this foundation shall be finished with a crown and thoroughly compacted*

*Side outlets shall be provided about every 200 feet.*





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