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# DOCUMENTS <br> OF THE <br> <br> SCHOOL COMMITTEE <br> <br> SCHOOL COMMITTEE <br> OF THE <br> CITY OF BOSTON <br> FOR THE YEAR 1928 



CITY OF BOSTON PRINTING DEPARTMENT

## INDEX TO SCHOOL DOCUMENTS, 1928.

Doc.

1. Annual Report of the Business Manager.
2. Training the Emotions - Controlling Fear.
3. Supplement to A Guide to the Choice of a Secondary School.
4. A Supplement to Organization and Administration of Intermediate Schools in Boston.
5. Reappointments of Teachers and Members of Supervising Staff.
6. A Manual for Instruction of Immigrants.
7. Candidates Eligible for Appointment as Teachers.
8. Outline in Mérchandising and Retall Selling.
9. Special Syllabus in Art Education, Grades I., II., III.
10. Annual Statistics of the Boston Public Schools.
11. Annual Report of the Superintendent.
12. Spectal Syllabus - Shopwork, Revised.

## SCHOOL COMMITTEE OF THE CITY OF BOSTON

# anNual report of business manager ON COST OF PUBLIC SCHOOL EDUCATION 

for the

FINANCIAL YEAR 1927

## THE BUDGET <br> FOR THE

FINANCIAL YEAR IMMEDIATELY FOLLOWING THE YEAR FOR WHICH THIS REPORT IS MADE IS INCLUDED FOR REFERENCE PURPOSES AND SHOWN IN SUMMARIZED FORM

July, 1928


CITY OF BOSTON
PRINTING DEPARTMENT

## ANNUAL REPORT OF BUSINESS MANAGER.

> Office of the Business Manager of the School Committee, 15 Beacon Street, Boston, July 1, 1928.

## To the School Committee:

In compliance with the Rules governing the duties of the Business Manager, the following report for the financial year 1927 is submitted. The budget for the financial year immediately following the period for which this report is made, is included in summarized form only for reference purposes.

Your attention is respectfully directed to the following items of interest set forth in this report:
a. Table showing the appropriating power for maintenance of the school system beginning with the year 1916-17.
b. Digest of Acts of the Legislature showing appropriating and expending power for lands, plans and construction of school buildings from 1919-20 to 1928.
c. Summary of expenditures for maintenance and for lands, plans and construction of school buildings for the twelve financial years beginning with the year 1916-17 and ending with the year 1927. The increases for the year 1927 over the year 1916-17 are also shown.
d. Expenditures by the Schoolhouse Commission for lands, plans and construction of school buildings and for alterations and repairs, including furniture and fixtures.
e. Appraisals of Business Manager's report by authorities not connected with the school system.
$f$. Progressive report on the salvaging of books.
$g$. Progressive report on the results obtained by Engineer.

Respectfully yours,

> Alexander M. Sullivan, Business Manager.

## APPROPRIATING POWER

FOR

## APPROPRIATING POWER FOR MAINTENANCE OF THE SCHOOL SYSTEM.

The following table shows the growth in appropriating power per thousand dollars (exclusive of lands, plans and construction of school buildings) of the valuation on which appropriations are based for the fifteen-year period, beginning with 1916-17 and ending with 1930.

|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Financtal Year. | General School Purposes. | Alteration and Repair of School Buildings. | Physical Education. | School Physicians and Nurses. | Extended Use of the Public Schools. | $\begin{aligned} & \text { Pensions } \\ & \text { to } \\ & \text { Teachers. } \end{aligned}$ | Totals Allowed per $\$ 1,000$ of the Valuation. | Average Valuation for Three Years, Less Abatements on Which Appropriations are Based. | Total Amount Provided (Column 7 Applied to Column 8). |
| 1 | 1916-17... | \$3 40 | \$0 35 | \$0 04 | \$0 02 | \$0 02 | \$0 07 | \$3 90 | \$1,538,020,714 00 | \$5,998,280 78 |
| 2 | 1917-18.. | 340 | 35 | 04 | 02 | 02 | 07 | 390 | 1,568,290,365 00 | 6,116,332 42 |
| 3 | 1918-19. | 367 | 35 | 04 | 02 | 02 | 07 | 417 | 1,541,597,610 00 | 6,428,462 03 |
| 4 | 1919-20.. | 415 | 35 | 08 | 06 | 02 | 07 | 473 | 1,518,938,942 00 | 7,184,581 19 |
| 5 | 1920-21. | 541 | 84 | 10 | 08 | 02 | 07 | 652 | 1,490,343,142 00 | - 9,717,037 29 |
| 6 | 1921-22. | 634 | 84 | 11 | 09 | 03 | 07 | 748 | 1,526,365,955 00 | 11,417,217 34 |
| 7 | 1922-23.. | 634 | 84 | 11 | 09 | 03 | 07 | 748 | 1,557,388,410 00 | 11,649,265 31 |
| 8 | 1923-24. | 634 | 91 | 11 | 09 | 03 | 07 | 755 | 1,606,575,807 00 | 12,129,647 34 |
| 9 | 1924-25. | 634 | 91 | 11 | 09 | 03 | 07 | 755 | 1,651,200,431 88 | 12,466,563 25 |
| 10 | 1925. | 634 | 91 | 11 | 09 | 03 | 07 | 755 | 1,720,250,701 60 | 12,987,892 79 |
| 11 | 1926. | 690 | 91 | 15 | 11 | 04 | 07 | 818 | 1,780,945,466 16 | 14,568,133 91 |
| 12 | 1927. | 698 | 91 | 15 | 11 | 04 | 07 | 826 | 1,841,057,566 16 | 15,207,135 50 |
| 13 | 1928... | 700 | 91 | 15 | 11 | 04 | 05 | 826 | 1,882,009,566 67 | 15,545,399 02 |
| 14 | 1929. | 702 | 91 | 15 | 11 | 04 | 05 | 828 | - | - |
| 15 | 1930. | 703 | 91 | 15 | 11 | 04 | 05 | 829 | - | - |

Notes.- a. The amounts per $\$ 1,000$ for Americanization and Vocational Guidance are included in this table under the item "General School Purposes."
b. The above figures are based on statutory limitations in effect June 1, 1926.
c. In addition to the appropriating power per $\$ 1,000$ of the valuation on which appropriations are based, the School Committee is further authorized to appropriate each year the estimated income; the excess of income, if any; and the unexpended balances of the preceding financial year.
d. Pensions to teachers' appropriation covers pensions to those teacher retired before the establishment of the Boston Retirement System and to future retirements of teachers who did not become members of such system.
e. Prior to the year 1925 the period of the financial year covered twelve months, from February first of one year to January thirty-first of the following year. In 1925 the financial year period was changed to the calendar year period. (For details see Business Manager's report for the year 1925.)

## DIGEST OF ACTS OF THE LEGISLATURE SHOWING APPRO= PRIATING AND EXPENDING POWER FOR LANDS, PLANS AND CONSTRUCTION OF SCHOOL BUILDINGS FROM 1919-20 TO 1928.

| Acts of the <br> Legislature. | Tax Limits Per $\$ 1,000$. | Appropriation Limits. | How Raised by Taxation and Years Involved.* |
| :---: | :---: | :---: | :---: |
| Chapter 206 of the Special Acts of 1919. | \$0 65 | \$0 65 | In full or as required for year ending on January 31, 1920. |
| Chapter 524 of the Acts of 1920. | \$1 63 | \$1 63 | In full or as required for years ending on January 31, 1922, and January 31, 1923, respectively. |
| Chapter 488 of the Acts of 1923. | \$2 33 | Not to exe ed $\$ 3,500,000$ for years ending on January 31, 1924, and on January 31, 1925, respectively. | As required based on estimated expenditures for each year beginning with the year ending on January 31, 1924. |
| Chapter 327 of the Acts of 1925. | \$177 | Not to exceed $\$ 3,000,000$ for year ending on December 31, 1925. | One-half of $\$ 3,000,000$ to be raised in 1925 and the remaining one-half as required. |
| Chapter 314 of the Acts of 1926. | $\begin{aligned} & \$ 225 \\ & \text { and } \\ & \$ 168 \end{aligned}$ | Not to ex ceed $\$ 4,000,000$ for year ending on December 31, 1926 $\$ 3,000,000$ for year ending on December 31, 1927 $\$ 3,000,000$ for year ending on December 31, 1928. | Not less than $\$ 1,000,000$ and not more than $\$ 1,500,000$ for year ending on December 31, 1926 - not less than $\$ 3,500,000$ and not more than $\$ 4,000,000$ for 1927 - not less than $\$ 3,000,000$ and not more than $\$ 3,500,000$ for year ending on December 31, 1928, and in year ending on December 31, 1929, the balance of the sums not already raised by taxation. |

[^0]SUMMARY OF EXPENDITURES FOR MAINTENANCE AND FOR LANDS, PLANS AND CONSTRUCTION FOR THE TWELVE FINANCIAL YEARS BEGINNING WITH THE YEAR 1916-17 AND ENDING WITH THE YEAR 1927. THE INCREASES YEAR 1927 OVER THE YEAR 1916-17 ARE ALSO SHOWN.
 THE INCREASES YEAR 1927 OVER THE YEAR 1916-17 ARE ALSO SHOWN

| Iтемs. | 1916-17. | 1917-18. | 1918-19. | 1919-20. | 1920-21. | 1921-22. | 1922-23. | 1923-24. | 1924-25. | 1925.* | 1926. | 1927. | Increase 1927 Over 1916-17. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Salaries of principals, teachers, members of the supervising staff and others | \$4,334,492 97 | \$4,418,639 17 | 84,567,760 79 | 85,177,760 84 | \$6,643,665 03 | \$7,763,333 68 | \$8,297,755 32 | \$8,393,835 85 | \$8,843,667 91 | \$8,710,424 31 | \$10,422,971 10 | \$10,904,956 41 | 86,570,463 |
| Salaries of administrative officers, attendance officers, elerks stenographers, storekeepers and other employees | 149,845 16 | 150,527 11 | 7,393 00 | ,270 9 | 206,556 85 | 26,046 12 | 234,167 98 | 242,894 26 | 58,762 85 | 262,733 34 | 18,163 12 | 46,71983 | 96,874 |
| Salari | ,485 35 | 1,941 | ,64 | 3,22151 | 545,273 11 | 561,263 48 | 583,896 70 | 607,311 52 | 655,170 38 | 654,419 | 3,17 | 99,027 05 | 462,54170 |
| Fuel and light, including e | ,919 | 303,38 | 0,447 45 | 7,171 | 4,168 36 | 492,867 29 | 382,789 94 | 535,399 89 | 422,322 | 776,659 | 5,19 | 445,754 27 | 40,835 |
| Supplies and incidentals | 276,426 | 358,523 | 345,959 11 | 408,436 | 488,881 | 651,605 12 | 640,606 | 661,81 | 5,7 | 4,64 | 865,377 69 | 30,014 60 | 653,5 |
| Pensions to attendance officers | 8,203 13 | 8,001 | 7,439 10 | ,745 | 7,799 | 7,256 72 | 6,847 33 | 6,80 | 5,935 80 | 5,441 | 5,107 95 | 4,642 24 | *3,560 |
| Physical Education (salaries of teachers, members of the supervising staff and others, supplies and incidentals for day schools and playgrounds) | 83,413 54 | 92,186 18 | 91,346 05 | 5,410 27 | 48,569 60 | 167,993 40 | 175,080 69 | 176,014 19 | 184,965 84 | 193,044 28 | 261,115 49 | 284,507 53 | 01,0 |
| School physicians and school nurses, including members of super vising staff. | 61,037 16 | 63,830 26 | 67,824 24 | 85,720 51 | 113,643 82 | 132,158 23 | 140,049 32 | 136,587 54 | 4,814 62 | 6,176 48 | 168,515 28 | 189,299 04 | 128,261 88 |
| Pensions to teachers | 96,029 | 104,347 | 110,782 38 | 116,392 | 7,567 7 | 134,783 68 | 143,035 79 | 145,165 60 | 5,657 02 | 127,956 15 | 1,698 12 | 15 | 6,9 |
| Payments to permanent pension fund *** | 11,631 48 | 5,432 |  | 8,17 | 10,450 65 | 17,590 83 | 21,704 83 |  | 8,649 66 | 00 | 71,859 45 | 3,227 88 | 61,596 40 |
| Extended use of public schools | 30,084 91 | 32,888 99 | 24,723 90 | 39,133 6 | 29,800 21 | 59,309 92 | 52,536 95 | 54,012 30 | 59,796 51 | 55,079 70 | 71,911 91 | 82,130 63 | 52,045 7 |
| Repairs and alterations, protection against fire and fire hazard, and new furniture and furnishings for old buildings, including new lighting fixtures $\dagger$. | 443,556 91 | 471,322 83 | 572,801 00 | 518,194 62 | 1,011,551 51 | 953,712 71 | 1,099,999 84 | 1,461,983 61 | 1,468,809 68 | 1,420,455 35 | 1,623,411 55 | 1,675,124 10 | 1,231,567 |
| Totals for maintenance................................ <br> Expenditures for lands, plans and construction | $\begin{array}{\|r} 86,046,12663 \\ 439,99694 \end{array}$ | $\begin{array}{\|r\|} \hline 86,361,02153 \\ 1,040,93029 \end{array}$ | $\begin{array}{\|r\|} \hline 56,779,12162 \\ 616,48411 \end{array}$ | $\begin{array}{\|r} 87,412,63261 \\ 545,01532 \end{array}$ | $\begin{array}{r} 89,897,92824 \\ 1,210,82498 \end{array}$ | $\begin{array}{r} 811,167,92118 \\ 1,651,32269 \end{array}$ | $\begin{array}{\|r} 811,778,47100 \\ 2,329,90476 \end{array}$ | $\begin{array}{\|r} \text { \$12,421,826 } 16 \\ 3,219,28378 \end{array}$ | $\begin{array}{r} 813,131,30013 \\ 3,219,365 \end{array}$ | $\begin{array}{r} \$ 12,769,32305^{*} \\ 4,317,824 \\ 77^{*} \end{array}$ | $\begin{array}{\|r\|} \hline 815,111,50240 \\ 4,655,74921 \end{array}$ | $\begin{array}{\|r\|} \hline 815,878,41940 \\ 3,703,03941 \\ \hline \end{array}$ | \$9,832,292 77 $3,263,04247$ |
| Totals for maintenance and for lands, plans and construetion | 86,486,123 57 | \$7,401,951 82 | 87,395,605 73 | 87,957,647 93 | \$11,108,753 22 | \$12,819,243 87 | \$14,108,375 76 | \$15,641,109 94 | \$16,350,665 34 | 817,087,147 82* | \$19,774,251 61 | \$19,581,458 81 | 813,095,335 |
| N. B.- Prior to the year 1925 the period of the financial year covered twelve months, from February first of one year to January thirty-first of the following year. By City Charter amendment the financial year period was changed to the calendar year period (January first to December thirty-first). This change was effected in 1925 with the consequence that the expenditures for that year (1925) covered an eleven-month period instead of the usual twelve-month period. The period covered in order to effect the change was from February first to December thirty-first, 1925. Beginning with the year 1926, and for each year thereafter, expenditures will again cover a twelve-month period, taking in the calendar year liabilities from January first to December thirty-first. |  |  |  |  |  | * Eleven months of expenditures for 1925 which accounts for the decrease over the year immediately preceding, brought about by City Charter amendment changing the financial year period. See note for details. <br> $\dagger$ Expenditures for this item are made by the Schoolhouse Commission, a department under control of the Mayor. <br> ** Decrease. <br> *** Pensions to employees retired before the establishment of the Boston Retirement System or who did not become members of such system. |  |  |  |  |  |  |  |

## EXPENDITURES BY THE SCHOOLHOUSE COMMISSION FOR "LANDS, PLANS AND CONSTRUCTION OF SCHOOL BUILDINGS" AND FOR "ALTERATIONS AND REPAIRS, INCLUDING FURNITURE AND FIXTURES."

The School Committee secures its appropriating power direct from the Legislature for the purpose of conducting public school education in the city in all its phases. While the Committee makes appropriations for "lands, plans and construction of school buildings" and for "alterations and repairs of school buildings, including furniture and fixtures," the actual expenditure of the money for these purposes is made by the Schoolhouse Commission, an organization created by statute, and under the control and directly responsible to the mayor of the city. The Schoolhouse Commission consists of a chairman and two associates who are appointed by each succeeding mayor. There is, therefore, dual or divided control of school expenditures in Boston.

During the twelve financial years beginning with the year 1916-17 and ending with the year 1927 the Schoolhouse Commission has expended on the basis of appropriations made by the School Committee the sum of $\$ 12,720,923.71$ for "Alterations and Repairs of School Buildings, including Furniture and Fixtures"; and the sum of $\$ 26,949,741.47$ for "Lands, Plans and Construction of School Buildings." The total for these two items for the twelve-year period mentioned is \$39,670,665.18.

In other large cities in the country responsibility for the entire control of all school expenditures is vested in the Board of Education or School Committee. This type of organization would place the control of all school expenditures under the School Committee of the

City of Boston. At the present time about three-fourths of the total expenditures are controlled by the School Committee and about one-fourth by the Schoolhouse Commission.

The expenditures for the year by the Schoolhouse Commission, for which appropriations are made by the School Committee, are set forth below. The details of these expenditures covering "lands, plans and construction of school buildings" and "alteration and repair of school buildings, including furniture and fixtures" are not included in this report as all the accounts and data in connection with such items are under the control of the Schoolhouse Commission:
a. Lands, plans and construction of school buildings . . $\$ 3,703,03941$
b. Alterations and repairs, including furniture and fixtures

1,675,124 10
Total . . . . . . . . . . . $\$ 5,378,16351$

## APPRAISALS OF BUSINESS MANAGER'S REPORT BY AUTHORITIES NOT CONNECTED WITH THE SCHOOL SYSTEM.

From time to time it is advisable to invite outside experts to appraise accounting procedure and financial reports based on such procedure. Constructive suggestions are usually obtained from these experts with the consequence that improvements can be effected. It is as necessary to secure advice on accounting procedure and financial reports as it is to seek advice on purchase procedure, engineering procedure or other items.

The Business Manager has submitted his reports for appraisal to the Bureau of Education at Washington; Teachers College, Columbia University; the Research Division of the National Education Association; Patterson, Teele \& Dennis, Accountants and Auditors; and P. J. Moynihan \& Company, Certified Public Accountants. Suggestions have been made for improvement, but the following excerpts from the communications received are noteworthy:
a. United States Bureau of Education, Washington, D. C., from the Commissioner of Education, in communication dated June 22, 1928:
"As you no doubt know, it takes considerable time to read through a statistical report as complete as your school document . . . . I have had this report read independently by three different persons, all of whom are more or less skilled in the matter of city school statistics. Reports from all three are highly favorable and they report that your document contains about all that might be expected in a financial report of a city school system of the size of Boston
b. National Education Association of the United States, Educational Research Service, from John K. Norton, Director, Research Division, in communication dated October 18, 1927:
"I have looked over this report with much interest. It presents data as to the business affairs of the Boston Schools in much detail and in well organized form
c. Teachers College, Columbia University, New York, from Dr. N. L. Engelhardt, in communication dated December 5, 1927 :
"Dr. Carter Alexander and Dr. F. J. Pickell are very much interested in your reports and used them for class room work during the past summer. The kind of work which you have been doing in setting up costs for various departments has been exceedingly interesting to me because of your appreciation of the fact that budgets cannot be developed adequately without such accounts
d. Patterson, Teele \& Dennis, Accountants and Auditors, New York, Boston, Baltimore and Washington, in communication dated November 9, 1927:
"At the outset, we desire to congratulate you on the fund of valuable information contained in your report and on the clear and concise manner in which the tabulations are set forth. We believe it is a fair indication of the efficient manner in which the business affairs of the School Committee of the City of Boston are conducted
e. P. J. Moynihan \& Company, Certified Public Accountants, Boston, Mass., in communication dated December 19, 1927 :
"The excellence of this report is apparent to any reader. It is a document of useful information. The tabular arrangement in the appended schedules indicates the method by which the cost
per pupil hour was arrived at. This is in keeping with sound accounting priciples."
The detailed information obtained from the authorities mentioned will be found useful in outlining reports. A school financial report should be designed primarily to be of value to the school committee and public of the city for which such report is made. The cost accounts on which financial reports must be based should be organized in such a manner that the information required in questionnaires received from official sources may be furnished with the greatest degree of accuracy with respect to uniform terminology.

## PROGRESSIVE REPORT ON THE SALVAGING OF BOOKS.

The reports for the years 1924 and 1925 discuss at some length the results obtained by the employment of a bookbinder for the purpose of salvaging books. Attention was called to the fact that the free Text Book Law is in operation in Massachusetts and that an attempt should be made to do something along the lines of intelligent salvaging of books which it is desirable to continue in use.

There are now two bookbinders employed who are making minor repairs to books, maps and charts throughout the school system.

During the year 43,000 school books have been salvaged either through contract rebinding or through minor repairs made by the bookbinders employed. This salvaging shows a gain of 65 per cent over last year and a gain of 1,128 per cent over the year 1924 . The net result is a saving to the city of approximately $\$ 20,000$ for this year.

This result is very gratifying inasmuch as in 1924 and prior thereto about 3,500 books were rebound or repaired each year - less than one to a classroom.

The following is a summary of what has been accomplished with respect to number of books rebound or repaired:

| Year. |  |  |  |  |  |  |  |  | Number of Books. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1924 | - | - | - | - | - | - |  |  | 3,500 |
| 1925 | . | - | - | . | . | . | - |  | - 13,000 |
| 1926 | . | - | - | - | . | . | . | . | 26,000 |
| 1927 |  | - | . |  |  |  |  |  | - 43,000 |

It has been stated previously that many thousands of dollars have been wasted due to the fact that the ordering and discarding of books has not been properly controlled over a long period of years. In past years books were discarded hurriedly at the close of school
and in many instances without control by the principal. In a period of ten years approximately $\$ 1,500,000$ has been expended for books, and many thousands of dollars of this expenditure could have been saved for other purposes if intelligent salvaging had been adopted during the years preceding 1924.

The great majority of school principals have heartily cooperated with the bookbinders in the matter of salvaging books during the school year and at its close. Without this type of cooperation the results set forth could not have been achieved. From present indications the number of books salvaged for the coming year will exceed the number salvaged this year by a substantial amount. I am therefore taking this opportunity to express my great appreciation to those principals of schools who have cooperated to the fullest extent with me in obviating the sending of many thousands of books to the junk heap which through proper repairs have been continued in use. The sums saved at each school through either rebinding or minor repairs can be devoted when necessary by principals to the purchase of additional new books or to other projects which otherwise might have to be delayed.

## PROGRESSIVE REPORT OF THE RESULTS OBTAINED BY ENGINEER.

The following communication received from the Engineer indicates, as have his communications in previous reports, the constructive work that he has done and is still further evidence of the necessity for engineering control in a large school system.

The results already accomplished prompt the repetition of the following statement from the Report of the Business Manager for the year 1926:

Effective and intelligent control of all school expenditures simply provides additional funds for other necessary school purposes and has its effect on the tax rate of the city. There is no excuse for waste that can be eliminated through proper measures.

## Mr. Alexander M. Sullivan, Business Manager, Boston School Committee.

Dear Mr. Sullivan,- In compliance with your request, I respectfully submit for your consideration the following report:

During the financial year 1927 the policy of making frequent visits to school plants was strictly adhered to. During the summer months considerable time was given by me to supervising the delivery and storage of the year's supply of fuel in each of the school buildings. As a result of this supervision, we have not had in any school building during the entire year a single fire caused by the spontaneous combustion of bituminous coal. Previously, fires from this cause had frequently occurred, resulting not only in the interruption of school sessions but also in the expenditure of an appreciable amount of money to remove the burning coal from the bins.

Since my connection with your office, I have requested each of the custodians to furnish me with a fuel con-
sumption report. To make such records each custodian was requested to keep account of the daily fuel consumption in his building and at the end of the month to enter the data on a standard form furnished by this office. These reports were filed in our office and they have been found to be of great value. In gathering the information the custodians used great care and the results were quite accurate considering the fact that no measuring scales had been used. They show the quantity of fuel burned in each building month by month.

The following table shows the amount of money saved annually by using bituminous rather than anthracite coal in fourteen of the forty-five schools referred to in your last report. Similar savings have been made in the other thirty-one buildings but space will not permit me enumerating all in this table.

| Name of School. | Previous Average Annual Consumption of Anthracite Coal. | Present Consumption of Bituminous Coal. | Amount Saved During One Year. |
| :---: | :---: | :---: | :---: |
|  | Tons. | Tons. |  |
| Benjamin Dean. | 105 | 51 | \$1,088 07 |
| Benjamin Pope. | 63 | 33 | 63813 |
| Comins. | 114 | 124 | 76064 |
| Curtis Guild. | 80 | 66 | 66262 |
| Dante Alighieri. | 103 | 72 | 93266 |
| Dwight. | 93 | 119 | 51115 |
| Germantown | 69 | 63 | 53427 |
| Girls' High Annex. | 90 | 69 | 77763 |
| Louisa M. Alcott. | 69 | 76 | 45458 |
| Lucretia Crocker. | 65 | 56 | 52383 |
| Nathaniel Hawthorne. | 94 | 62 | 87390 |
| Quincy . | 123 | 131 | 83779 |
| Robert Swan. | 106 | 50 | 1,107 54 |
| William Cullen Bryant. | 69 | 59 | 57105 |
| Totals. | 1,243 | 1,031 | \$10,273 85 |

From the above it can be readily observed that in most of the buildings the number of tons of fuel consumed annually was greatly reduced and that in all of the schools there has been a large saving in dollars and cents.

In our efforts to reduce to a minimum the cost of fuel in the Boston schools, we have received the heartiest co-operation from the Schoolhouse Commissioner. The Engineering Division of that Commission has removed from many of the school buildings antiquated hot-air systems of furnace heating and ventilation. In their places they installed modern systems equipped with steam boilers. The boilers installed are of the type which allow the use of bituminous rather than the more expensive anthracite coal. The following table gives the names of these buildings so changed over by the Schoolhouse Commission and the annual savings resulting from these changes.

| Name of School. | Previous Average Annual Consumption of Anthracite Coal. | Present Consumption of Bituminous Coal. | Amount Saved During One Year |
| :---: | :---: | :---: | :---: |
|  | Tons. | Tons. |  |
| Benjamin Cushing. | 99 | 72 | \$879 30 |
| Charles C. Perkins. | 63 | 70 | 41132 |
| Old Edward Everett. | 57 | 60 | 39258 |
| Old Gibson. | 65 | 42 | 60964 |
| Parkman. | 68 | 54 | 57620 |
| Plummer *. | 212 | 125 | 1,917 96 |
| Trescott. | 133 | 57 | 1,424 81 |
| Wait | 61 | 61 | 43981 |
| Washington $\dagger$. | 351 | 233 | 85078 |
| Totals. | 1,109 | 774 | \$7,502 40 |

* Estimated consumption.
$\dagger$ In this building new boilers were installed.
It will be seen by the above table that because the Schoolhouse Commission has installed modern steam heating and ventilating systems in these nine buildings
and in which bituminous coal can now be burned, that an annual saving of approximately $\$ 7,502.40$ has been made.

During the past financial year considerable attention was given to all of the oil-burning plants with an idea of reducing the annual consumption in all of them. Much has been accomplished. In one year we have been able to reduce the total consumption of $1,210,182$ gallons to $1,205,620$ gallons in spite of the fact that in the Memorial High School for Girls, Donald McKay and Grover Cleveland Intermediate Schools oil was burned for the first time after the beginning of the financial year 1927. In these schools alone, approximately 195,000 gallons of oil were burned during part of the financial year 1927.

I am convinced that in many of the buildings equipped with oil burning apparatus that the consumption of fuel oil is still excessive and that large quantities are needlessly wasted. Oil burning equipment using the heavy grade of fuel oil must necessarily be regulated by hand as there is no mechanical thermostat which can be installed which will work efficiently in the regulation of room temperatures.

In order to obtain the greatest efficiency and economy in the burning of the heavy grade of fuel oil the operator of an oil burning plant should give the greatest care to keeping burners adjusted, clean and free from carbon. Furthermore, the issuing of black smoke from the chimney should be immediately stopped by providing at all times the proper mixture of air and oil at the burners as well as the proper temperature of the fuel oil as it is supplied for combustion. Then again intermittent firing should always be taken advantage of. In other words, the burners should be entirely shut down when the regulation temperature is obtained in all of the classrooms.

To illustrate how economical an oil burning plant can be operated by observing the few above-mentioned simple suggestions, I will refer to the plant which has
been in operation in the Winship School for the past three years. Since the installation of this equipment the custodian, Mr. Walter H. Bickford, has taken every means to obtain the greatest efficiency and economy in the operation of this plant. Mr. Bickford's records for the past three years, carefully compiled by him, are on file in this office. They show a very careful tabulation of classroom temperatures taken every two hours just before and during classroom sessions. Weather conditions and wind velocities were also noted on the records. In addition, outside temperatures were constantly obtained from a recording outside thermometer. A most careful daily record of the number of gallons of oil burned as well as the amount of electricity used in the pre-heating of oil and the operation of blowers was also made. Complete combustion of the fuel oil was obtained at all times by a strict observance of the flames inside the combustion chambers. Mr. Bickford found that in the operation of his plant it was possible after the regulation classroom temperatures were obtained to shut down his burners entirely for long periods during the day and to start these burners again when the classroom temperatures dropped below requirements. By means of this practice of intermittent firing, large quantities of oil were saved in the operation of the plant at the Winship School.

The following gives a summary of the results obtained in this plant during the three school years preceding this report.

|  | School Year 1924-25. | School Year 1925-26. | $\begin{aligned} & \text { School Year } \\ & \text { 1926-27. } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Fuel oil consumption in gallons | 22,782 | 24,777 | 19,510 |
| Number tons necessary if coal were used to heat the building | 157 | 157 | 182 |
| Bituminous coal would have cost | \$1,028 35 | \$971 83 | \$1,115 66 |
| Anthracite coal would have cost | \$2,245 10 | \$2,072 40 | \$2,427 88 |
| Cost of oil. | \$1,002 41 | \$1,214 07 | \$924 77 |
| Cost of electricity for power | 8400 | 7868 | 5490 |
| Cost of electricity for heating oil. | 507 | 507 | 438 |
| Total cost of oil and electricity | \$1,091 48 | \$1,297 82 | \$984 05 |
| Savings made by use of oil instead of anthracite coal. | \$1,153 62 | \$774 64 | \$1,443 83 |
| Contract-prices paid for fuel: |  |  |  |
| Anthracite coal per ton. | \$14 30 | \$13 20 | \$13 34 |
| Bituminous coal per ton. | \$655 | \$6 19 | \$613 |
| Heavy grade fuel oil per gallon. | \$0 044 | \$0 049 | \$0 0474 |
| Number cubic feet contained in building | 571,000 | 571,000 | 592,000 |
| Cost per 1,000 cubic feet heated per year | \$1 91 | \$2 10 | \$1 66 |

Reference to the above table will show the following results obtained from the tests conducted on the oilburning plant at the Winship School:
(1) That during the school year 1924-25 the total cost of oil and electricity used was only $\$ 63.13$ more than if bituminous coal were used as a fuel.
(2) That during the school year 1925-26 because of the advance in the price of oil and the low contract price obtained for bituminous coal, the difference in the cost of oil and bituminous coal was slightly higher or amounted approximately to $\$ 325.99$.
(3) That during the school year 1926-27 fuel oil and electricity for this building cost $\$ 131.61$ less than if bituminous coal were used.
It should be mentioned here, however, that before the introduction of fuel oil equipment in the Winship School anthracite coal was always used as a fuel.

Referring again to the above table it will be seen that during the last three school years the following savings were made by the use of fuel oil instead of anthracite coal. The savings are as follows:

School year 1924-25 . . . . . . . . . \$1,153 62
School year 1925-26
77464
School year 1926-27
1,443 83
Total savings of three school years
$\$ 3,37209$
In mentioning the above results obtained at the Winship School, I desire to express my deep appreciation of the great work performed by Mr. Walter H. Bickford, the custodian. At all times he has shown a fine spirit of co-operation and has done everything in his power to reduce to a minimum the cost of fuel in the building under his charge. He has given his time unstintingly in the proper care as well as the efficient and economical operation of the oil-burning equipment. Because of his deep personal interest and efficiency, this office is now in possession of most valuable records compiled by him and showing in detail the operation of the oil burning plant at the Winship School. If all school oil plants could be operated as economically as that in the Winship School, this office would be justified in recommending to the Schoolhouse Commission the installation of oil burning plants in many more buildings.

During the past year this office has taken charge of the repair and installation of various kinds of equipment used by the Department of Physical Education in schools and playgrounds. The preparing of specifications and bids together with the supervision of the work was placed by you in my charge at the beginning of this financial year.

For a number of years requisitions for this kind of work were sent to the Schoolhouse Commission by the Department of Physical Education. That Commission prepared specifications, let contracts and approved the bills, sending them through the Director of Physical Education to this office for your final approval for
payment from the special appropriation for "Physical Education." You decided that since the cost of the work was properly chargeable to the special appropriation mentioned, viz., "Physical Education," the expenditures under which are controlled by the School Committee, that this work should be directly supervised by someone in your office. You further decided that the former practice of sending requisitions for this kind of work to the Schoolhouse Commission be discontinued, that requisitions be sent directly to this office by the Director of Physical Education, contracts made and all necessary inspections in connection with the work be performed directly under your supervision.

It is my opinion that since this change has been made the work has been performed more speedily, at substantially less cost, and is more satisfactory to those in charge of Physical Education activities. Competitive bids have been called for and contracts awarded to the lowest responsible bidders.

During the past year I have been called upon many times to investigate complaints of heating and ventilating systems. Such complaints were made to the Superintendent of Schools and to the Director of School Hygiene. I have investigated all such cases and have reported the results of my investigations with recommendations to the proper authorities.

In closing this report, I desire to express to you my deep appreciation of your own spirit of co-operation shown to me. I greatly appreciate the many valuable suggestions which you have made from time to time in my work along fuel conservation lines. I sincerely hope this report will be found satisfactory to you.

Respectfully submitted,

James J. Mahar,<br>Engineer.

## FINANCIAL STATEMENT AND SUMMARY OF APPROPRIATIONS.*

On April 4, 1927, the School Committee made the following summarized appropriations "on account":
Salaries of Instructors (principals, teachers, members of the supervising staff and others)

$\$ 6,000,00000$
Salaries of Officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees)

$$
175,00000
$$

Salaries of Custodians (including matrons) ..... 410,000 00
Fuel and Light (including electric current for power) ..... 225,000 00
Supplies, Equipment and Incidentals ..... 450,000 00
Pensions to Attendance Officers and Custodians ..... 2,500 00Physical Education (salaries of teachers, members of thesupervising staff and others, supplies and equipment- day schools and playgrounds)
136,000 00
Salaries of School Physicians and Nurses ..... 95,000 00
Pensions to Teachers ..... 65,00000
Extended Use of the Public Schools (salaries, supplies, equipment and incidentals) ..... 45,000 00
Total ..... $\$ 7,603,50000$On June 13, 1927, the School Committee made thefollowing summarized appropriations "on account" inaddition to those appropriated at the meeting of April 4,1927 :
Salaries of instructors (principals, teachers, members of the supervising staff and others) ..... $\$ 757,00000$
Salaries of officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees) ..... 30,000 00
Salaries of custodians (including matrons) ..... 64,500 00
Supplies, equipment and incidentals ..... 10,000 00
Pensions to attendance officers and custodians ..... 50000
Physical education (salaries of teachers, members of the supervising staff and others, supplies and equipment - day schools and playgrounds) ..... 50,00000
Carried forward . ..... $\$ 937,00000$

[^1]

On June 21, 1927, the School Committee made the following final summarized appropriations in addition to those made "on account" at the meetings of April 4, 1927, and June 13, 1927:

Salaries of instructors (principals, teachers, members of
the supervising staff and others) . . . . . $\$ 4,477,56200$
Salaries of officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees)

153,343 73
Salaries of custodians (including matrons) . . . . 348,985 83
Fuel and light (including electric current for power) . . 264,95700
Supplies, equipment and incidentals . . . . . 558,98073
Pensions to attendance officers and custodians
2,000 00
Physical education (salaries of teachers, members of the supervising staff and others, supplies and equipment - day schools and playgrounds) .

113,997 06
Salaries of school physicians and nurses . . . . 63,93800
Pensions to teachers . . . . . . . . 50,87403
Extended use of the public schools (salaries, supplies, equipment and incidentals)

24,654 67
Total . . . . . . . . . . . \$6,059,293 05

The three preceding orders (April 4, 1927, $\$ 7,603,500$; June 13, 1927, $\$ 1,000,000$; June 21, 1927, $\$ 6,059,293.05$;) total $\$ 14,662,793.05$.

On March 21, 1927, the School Committee made the following appropriations on account, for the alteration and repair of school buildings, for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing schoolyards:
B. Major Educational Items. (For the following items calling only for work necessitated by educational requirements approved by the Superintendent.)

1. Productive work by pupils.
2. Teachers College of the City of Boston:
(a) Make entire Collins building available.
(b) Make entire basement of Collins building available for lunch room purposes, including 300 to 400 chairs and bulletin board.
3. Girls' Latin School:
(a) Equip science laboratory for chemistry.
4. English High School:
(a) Transform Room 252 into a general science room.
(b) Furnish adequate lighting for library.
5. Girls' High School:
(a) Refinish lunch room, corridors, dressing rooms and teachers' and pupils' toilet rooms.
(b) Furnish and equip Rooms 407 and 410 for general science with demonstration desks.
Cut door between rooms and build supply closet.
(c) Supply means for furnishing hot water independent of heating system.
(d) Replace wooden lockers in Room 409 with 12-inch steel lockers, 72 inches high.
(e) Renew lighting fixtures in chemical laboratory.
6. Mechanic Arts High School:
(a) Woodworking, forge shop and drawing room equipment.
(b) 1,000 gun racks.
(c) 75 steel lockers.
7. Boston Clerical School:
(a) Provide new lights in basement near lunch room only.
(b) Make the hall light dimmers safe.
(c) Furnish additional seating accommodations for lunch room.
(d) Prepare for Girls' Latin School group.
8. Trade School for Girls:
(a) Replace worn-out ice chests.
(b) Build storm corridor from Suite 1 to Suite 2.
9. Bigelow District:
(a) Make existing gymnasium usable for basketball and winter sports.
10. Edward Everett District:
(a) Equip standard intermediate science room.
11. Eliot District:
(a) Connect electric clocks in Eliot and Christopher Columbus buildings with master clock in office.
12. Everett District:
(a) Build bookcases in outer office.
13. Franklin District:
(a) Equip for standard intermediate science, Room 4.
14. Henry L. Pierce District:
(a) Equip science room with running water.
(b) Provide moderate equipment for lunch room.
15. Joseph H. Barnes Intermediate District:
(a) Standard intermediate drawing equipment library.
(b) Standard science equipment, Room 305.
(c) Standard intermediate furniture, Rooms 109, 205, 207, 211, 306.
(d) Additional furniture, Rooms 209, 210, toilet, rest room.
16. Lawrence District:
(a) Equip standard intermediate science room.
17. Longfellow District:
(a) Make standard classroom of old cooking room.
18. Martin District:
(a) Equip three rooms (one each for Grades I., II., III.) with movable furniture for experimental purposes.
19. Michelangelo Intermediate District:
(a) Change three suites of three rooms into three suites of two rooms.
(b) Alter and repair domestic science accommodations.
(c) Fit up new standard kitchen and new standard millinery room.
(d) Alter accommodations for boys' shops as needed.
20. Phillips Brooks District:
(a) Standard intermediate science equipment.
21. Rice District:
(a) Create new office without toilet, over Appleton street stairway, changing present office into supply room.
(b) Equip for standard intermediate science, Room 4.
22. Robert Gould Shaw District:
(a) Install full lunch room equipment for boys and girls, with seating.
(b) Gun racks for thirty-six rifles.
23. Robert Treat Paine District:
(a) Remodel kindergarten in accordance with present standard.
(b) Enlarge office without adding toilet.
(c) Create men's room on first floor.
24. Samuel Adams District:
(a) Enlarge anteroom.
25. Sherwin District:
(a) Standard intermediate science equipment.
26. Theodore Lyman District:
(a) Provide additional lighting, Room 101, Dante Alighieri School.
(b) Refurnish Lyman and Cudworth rooms as per requisition A and B , December 14, 1926.
27. Washington Irving Intermediate District:
(a) Substitute small platform for temporary stage in gymnasium.
28. Department of School Hygiene:
(a) For providing or altering sanitary facilities as requested by the Department of School Hygiene.
29. Department of Evening Schools:
(a) Evening Schools:

Furniture; electrical supplies, including installation.
(b) Day School for Immigrants:

Furniture - new and replacements.
(c) Day Practical Arts Classes:

Furniture, including replacements. Electrical supplies, including installation.
Repairs on furniture and equipment.
30. Department of Household Science and Arts:
(a) Six washing machines.
(b) Gilbert Stuart District:

Replace cooking equipment with new standard
Construct small demonstration suite.
(c) Lowell District:

Replace old cooking equipment with standard.
(d) Phillips Brooks District:

Equip portable as standard sewing room.
31. Department of Manual Arts (drawing):
(a) English High School:

Additional drawing tables and chairs and storage space for supplies and pupils' work.
(b) High School of Commerce:

Additional drawing tables and chairs and storage space for supplies and pupils' work.
(c) Equip seven intermediate schools with standard drawing equipment and supply cabinet.
(d) Equip five elementary and intermediate schools with storage space for supplies and pupils' work.
(e) Miscellaneous needs.
32. Department of Manual Arts (mechanical):
(a) Brighton High School:

Additional equipment for auto mechanics.
(b) Dorchester High School for Boys: Provide additional equipment.
(c) South Boston High School:

Additional equipment for present sheet metal shop
Equip room for mechanical drawing.
(d) Bennett District:

Substitute motor-driven machine in Winship machine shop.
(e) Edmund P. Tileston District:

Create and equip a room for printing.
Additional machinery for woodworking room.
(f) Frank V. Thompson Intermediate District:
Additional standard equipment for machine shop.
(g) Gilbert Stuart District:

Additional standard equipment for woodworking room.
(h) Henry L. Pierce District:

Equip room for printing.
(i) Hugh O'Brien District:

Create and equip a room for printing.
(j) Joseph H. Barnes Intermediate District:

Create and equip a room for printing.
Enlarge woodworking room and add new benches and standard equipment.
(k) Minot District:

Provide and equip portable for printing.
( $l$ ) Oliver Wendell Holmes Intermediate District:
Fit up basement room for print shop.
(m) Phillips Brooks District:

Provide and equip portable for auto mechanics.
(n) Quincy District:

New and additional woodworking equipment.
(o) Robert Gould Shaw District:

Provide and equip portable for auto mechanics.
Additional standard equipment, machine shop.
( $p$ ) Theodore Roosevelt Intermediate District:
Equip room for printing in George Putnam building.
(q) Incidental Repairs and Equipment:

Safety devices, etc.
33. School safes:
(a) Two standard high school safes with equipment (Girls High School and Jamaica Plain High School).
(b) One standard elementary school safe with equipment (Theodore Lyman District).
(c) Intermediate Safes, including one for Boston Clerical School.
34. Rifle racks.
35. Motion picture machines and installation.

Aggregating
$\$ 275,00000$
C. General alterations and repairs to school buildings, exclusive of major educational items . . . $1,000,00000$
Total . . . . . . . . . . \$1,275,000 00
On May 9, 1927, the School Committee made the following appropriations on account, for the alteration and repair of school buildings, for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards; in addition to the amounts appropriated at the meeting of March 21, 1927:
B. Major Educational Items:
36. Christopher Gibson District:
(a) Equip Room 4 as a standard intermediate science room
$\$ 80000$
C. General alterations and repairs to school buildings, exclusive of major educational items (additional),

250,000 00
Total
$\$ 250,80000$

On June 6, 1927, the School Committee made the following appropriations for the alteration and repair of school buildings, for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards; in addition to the amounts appropriated at the meetings of March 21, 1927, and May 9, 1927 :


AMENDMENTS TO APPROPRIATION ORDERS, ALTERATIONS AND REPAIRS.
On May 2, 1927, the School Committee passed the following order:

On motion, the Board voted, yeas 5, nays 0, to rescind that part of its action of March 21, 1927 (see pages 69-71), which approved the following item of the order making appropriations "to provide funds for the alteration and repair of school buildings, for furniture, fixtures and means of escape in case of fire and for fire protection for existing buildings and for improving existing schoolyards, during the financial year January 1 to December 31, 1927:
B. Major Educational Items:
19. Michelangelo Intermediate District:
(a) Change three suites of three rooms into three suites of two rooms.
(b) Alter and repair domestic science accommodations.
(c) Fit up new standard kitchen and new standard millinery room.
(d) Alter accommodations for boys' shops as needed.

The following was offered:
Ordered, That the following item is hereby substituted for Item B 19 of Major Educational Items of the order passed at the meeting of March 21, 1927, making appropriation "to provide funds for the alteration and repair of school buildings, for furniture, fixtures and means of escape in case of fire and for fire protection for existing buildings and for improving existing schoolyards, during the financial year January 1 to December 31,. 1927":
B. Major Educational Items:
19. Michelangelo Intermediate District:
(a) Change three suites of three rooms into three suites of two rooms.
(b) Remodel the domestic science suite.
(c) Remodel and equip Rooms 301 and 303 for sewing and millinery.
(d) Enlarge Rooms 107, 207 and 307.
(e) Equip Room 201 as a teachers' rest and study room.
(f) Equip Room 203 as a library.
(g) Remodel the basement for manual training purposes.

## TRANSFERS WITHIN APPROPRIATION FOR REPAIRS, ALTERATIONS, ETC.

## On November 7, 1927, the School Committee passed the following order:

Ordered, That of the sums appropriated at the meetings of March 21, May 2, May 9 and June 6, 1927 (see pages 69-71, 97-98, 103 and 141 respectively), "To provide funds for the alteration and repair of school buildings and for furniture, fixtures and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing schoolyards, during the financial year January 1 to December 31, 1927," the following-named sum is hereby transferred from Major Educational Items - (b) 1 to 36, inclusive, to Item (c) General Alterations and Repairs to school buildings, exclusive of major educational items:
From Item b.- Major Educational Items
$\$ 60,00000$
To Item c.-General alterations and repairs to school
buildings, exclusive of major educational items . . 60,00000

## On December 19, 1927, the School Committee passed the following order:

Ordered, That of the sums appropriated at the meetings of March 21, May 2, May 9 and June 6, 1927 (see pages 69-71, 97-98, 103 and 141, respectively), "To provide funds for the alteration and repair of school buildings and for furniture, fixtures and means of escape in case of fire,
and for fire protection for existing buildings, and for improving existing schoolyards, during the financial year January 1 to December 31, 1927," the following-named sums are hereby transferred from Item (a) Administration Expenses, Schoolhouse Department, and from Major Educational Items - (b) 1 to 36, inclusive, to Item (c) General Alterations and Repairs to school buildings, exclusive of major educational items:
From Item a.-Administration Expenses Schoolhouse Department
\$23,000 00
From Item b.- Major Educational Items
29,546 75
\$52,546 75
To Item c.-General alterations and repairs to school
buildings, exclusive of major educational items . . $\$ 52,54675$

CREDITS TO APPROPRIATION ITEMS.
To the item "Pensions to Teachers" was credited the sum of $\$ 77,369.67$, made available by chapter 289 of the Special Acts of 1916.

## SUMMARY OF THE FOREGOING MAINTENANCE APPRO= PRIATIONS, INCLUDING CREDITS AND TRANSFERS.

For general school purposes, including Americanization
and Vocational Guidance:
Salaries of Instructors (principals, teachers, members of
supervising staff and others) . . . . . . $\$ 11,234,56200$
Salaries of Officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees)

358,343 73
Salaries of Custodians (including matrons) . . . 823,485 83
Fuel and Light (including electric current for power) . 514,957 00
Supplies, Equipment and Incidentals . . . . 1,018,980 73
Pensions to Attendance Officers and Custodians . . 5,00000
Physical Education (salaries of teachers, members of the supervising staff and others, supplies and equipment day schools and playgrounds)

299,997 06
Salaries of School Physicians and Nurses . . . . 193,938 00
Pensions to Teachers . . . . . . . . 206,243 70
Extended Use of the Public Schools (salaries, supplies, equipment and incidentals)

84,65467
Repairs and alterations, protection against fire and fire hazard, and new furniture and furnishings for old buildings, including new lighting fixtures

1,675,362 39
Total amount appropriated
$\$ 16,415,52511$

## The expenditures for maintenance were as follows:

For general school purposes, including Americanizationand vocational guidance:
Salaries of Instructors (principals, teachers, members of the supervising staff and others) $\$ 10,904,95641$
Salaries of Officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees) ..... 346,719 83
Salaries of Custodians (including matrons) ..... 809,027 05
Fuel and Light (including electric current for power) ..... 445,754 27
Supplies, Equipment and Incidentals ..... 930,014 60
Pensions to Attendance Officers and Custodians ..... 4,642 24
Physical Education (salaries of teachers, members of thesupervising staff and others, supplies and equipment- day schools and playgrounds)284,507 53
Salaries of School Physicians and Nurses ..... 189,299 04
Pensions to Teachers ..... 133,015 82
Payments to Permanent Pension Fund ..... 73,22788
Extended Use of the Public Schools (salaries, supplies, equipment and incidentals) ..... 82,130 63
Repairs and alterations, protection against fire and fire hazard, and new furniture and furnishings for old buildings, including new lighting fixtures ..... 1,675,124 10
Total expenditures ..... $\$ 15,878,41940$
Total credits brought down ..... \$16,415,525 11
Total expenditures brought down ..... $15,878,41940$
Balance $\$ 537,10571$

The balance at the end of year was made up as follows:
For general school purposes, including Americanization and Vocational Guidance:
Salaries of Instructors (principals, teachers, members of supervising staff and others) ..... $\$ 329,60559$
Salaries of Officers, administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees) ..... 11,623 90
Salaries of Custodians (including matrons) ..... 69,202 73 ..... 88,966 13 ..... 35776
Physical Education (salaries of teachers, members of the supervising staff and others, supplies and equipment - day schools and playgrounds) ..... 15,489 53
Carried forward ..... $\$ 529,70442$
Brought forward . ..... \$529,704 42
Salaries of School Physicians and Nurses ..... 4,638 96
Pensions to TeachersExtended Use of the Public Schools (salaries, supplies,equipment and incidentals)2,524 04
Repairs and alterations, protection against fire and firehazard and new furniture and furnishings for oldbuildings, including new lighting fixtures23829
Balance $\$ 537,10571$
APPROPRIATION FOR NEW SCHOOL BUILDINGS, LANDS, YARDS, ETC.

Appropriation orders for lands and buildings from the tax levy for the financial year were passed by the School Committee as follows:

On February 7, 1927, the School Committee passed the following order:

Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926 , the following appropriations are hereby made for the purpose of meeting (a) the cost of new land and building items, (b) the additional cost of land and building items previously authorized, and (c) the cost of revisions of estimates:
(a) Appropriations for New Land and Building Items.

Item 3.- Agassiz-Bowditch District, Jamaica Plain: Land for elementary school
$\$ 20,00000$
Item 4.- Bennett District, Brighton: Land for intermediate school

50,00000
Item 5.- Edmund P. Tileston District, Mattapan: Plans
for thirty-classroom intermediate school. (Item 43,
1926)
Item 6.- Edmund P. Tileston District, Mattapan: Land for elementary school

30,00000
Item 7.- Edmund P. Tileston District, Mattapan: Plans for thirteen-classroom building (Grades I. to VI. and kindergarten). (Item 6, 1927)

10,00000
Item 8.- Grover Cleveland Intermediate District, Dorchester: Construction of six-classroom addition to Grover Cleveland Schoool building. (Item 45,1926 ) . 150,00000
Item 9.- Eliot District, North End: Addition to yard of Pormort School

71,00000
Carried forward . . . . . . . . . $\$ 372,00000$

## Brought forward .

$\$ 372,00000$
Item 10.- Robert Gould Shaw District, West Roxbury: Construction of thirteen room building (Grades I. to VI. and kindergarten), near Weld street and Russett road. (Item 18, 1925; Item 2, 1927)

222,00000
Item 11.- Washington Intermediate District, West End: Equipment of combination gymnasium-assembly hall and manual training and domestic science rooms. (Item 28, 1925)

20,000 00
Item 12.- Warren-Bunker Hill District, Charlestown: Land, or additions to and reconstruction of existing buildings, to provide additional intermediate school accommodations

200,000 00
Item 13.- Rent of hired accommodations
55,00000
(b) Appropriations for Land and Building Items Previously Authorized.

Item 14.- Elihu Greenwood District, Hyde Park. Land and construction of thirty-six classroom high school for boys and girls. (Item 37, 1925; Item 24, 1926)
Item 15.- Agassiz-Bowditch District, Jamaica Plain: Land for additional school accommodations. (Item 12, 1926)

26,015 50
Item 16.- Dearborn District, Roxbury: Horace Mann School, land and construction of twenty-classroom building, including auditorium, manual training and domestic science accommodations. (Item 31, 1925). 470,000 00
Item 17. - Longfellow District, West Roxbury: Land and construction of four-room unit (kindergarten and Grades I. to III.) of eight-room building adjoining Phineas Bates School (Item 25, 1925). (To cover change to a twelve-room building, kindergarten and Grades I. to VI.) (Item 47, 1926) 226,00000

## (c) Revisions of Estimates.

Item 18.- Phillips Brooks District, Dorchester: Land and plans for twenty-room intermediate school building. (Item 32, 1920; Item 14, 1923)

2,897 00
Item 19.- Shurtleff District, South Boston: Land and construction of eight-classroom unit (kindergarten and Grades I. to III). (Item 35, 1924, as amended April 6, 1925; Item 6, 1925)

1,10000
Item 20.- Bennett District, Brighton: Construction of four-room kindergarten-primary unit of eight-room building, corner of Corey road and Washington street. (Item 16, 1925; Item 21, 1926)

8,574 57
Total
$\$ 2,889,58707$

## On March 7, 1927, the School Committee passed the following order:

Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925, as amended by chapter 314 of the Acts of 1926 , the following appropriation is hereby made for the purpose of meeting the cost of a revision of an estimate.
Item 21.- Dearborn District, Roxbury: High School of Practical Arts, land and construction of nine-room addition, including domestic science rooms. (Item 21, 1925)
$\$ 42,000 \quad 00$
On May 27, 1927, the School Committee passed the following order:

Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926, the following appropriation is hereby made on account for the purpose of meeting the administration expenses of the Schoolhouse Department, in connection with land and buildings for schools appropriations:
Item 1, 1927.- Administration Expenses, Schoolhouse
Department (land and buildings appropriations)
$\$ 20,00000$

## On June 21, 1927, the School Committee passed the following order:

Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926, the following appropriation is hereby made on account for the purpose of meeting the administration expenses of the Schoolhouse Department, in connection with land and buildings for schools appropriations:
Item 1, 1927. - Administration Expenses, Schoolhouse
Department (land and buildings appropriations) . $\$ 39,00000$

## On July 18, 1927, the School Committee passed the following order:

Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919 , as amended by chapter 524 of the Acts of 1920 , as amended by chapter 488 of the Acts of 1923 , as amended by chapter 327 of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926 , the following appropriation is hereby made for the purpose of meeting the cost of a new land and building item:
Item 24, 1927.- Martin District, Roxbury: Public Latin
School, land for additional yard
\$29,412 93

TRANSFERS OF APPROPRIATIONS, NEW SCHOOL BUILDINGS, LANDS, YARDS, ETC.

In addition to above orders making appropriations for lands and buildings from the tax levy for the financial year, orders making transfers from appropriations made during this financial year and former financial years were passed by the School Committee as follows:

On January 10, 1927, the School Committee passed the following orders:

Ordered, That of the amount appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred to the 1925 item of schoolhouse accommodations as set forth below:

## From

Item 33, 1926.- Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)
$\$ 39,00000$

## To

Item 28, 1925.- Washington District, West End: Construction of combination gymnasium assembly hall and manual training and domestic science accommodations
$\$ 39,00000$

Ordered, That of the amount appropriated by the School Committee under date of May 18, 1925 (see page 82), the following amount is hereby transferred to the 1927 item of schoolhouse accommodations as set forth below:

## From

Item 18, 1925.- Robert Gould Shaw District, West Roxbury: Land and construction of four-room unit (kindergarten and Grades I. to III.), near Weld street and Russett road

## To

Item 2, 1927. - Robert Gould Shaw District, West Roxbury: Plans for thirteen-room building (Grades I. to VI. and kindergarten), near Weld street and Russett road

On March 21, 1927, the School Committee passed the following orders:

Ordered, That of the amount appropriated by the School Committee under date of March 15, 1926 (see page 46), the following amount is hereby transferred to the 1927 item of school accommodations as set forth below:
From
Item 14, 1926.- Bennett District, Brighton: Plans andconstruction of four-room addition to the AlexanderHamilton building (Grades I. to VI.)
$\$ 1,00000$
To
Item 22, 1927.- Prince District, city proper: Prepara- tion of lot on Scotia street for playground purposes ..... $\$ 1,000 \quad 00$
Ordered, That of the amounts appropriated by the School Committee under dates of March 19, 1923 (see page 24), June 19, 1923 (see page 101), May 18, 1925 (see page 82), June 29, 1925 (see page 124), September 14, 1925 (see page 163), February 15, 1926 (see page 29), March 1, 1926 (see page 36), and March 15, 1926 (see page 46), the following amounts are hereby transferred to the 1926 item of school accommodations as set forth below:
From
Items 2, 1923. - Administration Building (Item 3, 1921) . $\$ 900$
Item 40, 1923.- Robert Gould Shaw District, West Roxbury: Land and construction of four-room unit of eight-room building, kindergarten and Grades I. to VI., near Grove and Washington streets
1,85848
Item 3, 1925.- Robert Gould Shaw District, West Roxbury: Land and construction of four-room addition to Henry Vane School, kindergarten and Grades I. to VI. (Item 41, 1923)
5,807 10
Item 33, 1925.- Prince District, city proper. Mechanic Arts High School, remodeling and equipping of Scotia street building
8,00000
Item 35, 1925.- Abraham Lincoln District, city proper: Continuation School, remodeling and equipping of Oak street annex
3,49184
Item 36, 1925.- Lewis Intermediate District, Roxbury:
Remodeling and equipping first and second floors for
household science and arts, 7 Paulding street . . 32412
Item 4, 1926.- Agassiz-Bowditch District, Jamaica Plain High School, remodeling and equipping of Lamartine street annex (Item 34, 1925)
4800
Item 7, 1926. - Prescott District, Charlestown: Abram E. Cutter School, extension of school yard (Item 15, 1918)
2,093 00
Item 9, 1926. - Sherwin District, Roxbury: Boston Trade School, plans and construction of shop addition (Item 20, 1923; Item 34, 1923; Item 16, 1924; Item 14, 1925)
17,685 14
Item 14, 1926.- Bennett District, Brighton: Plans and
construction of four-room addition to the Alexander
Hamilton building (Grades I. to VI.) . . . . 68332 Total . . . . . . . . . . . $\$ 40,00000$

To
Item 43, 1926.- Edmund P. Tileston District, Dorchester:
Land for intermediate school
$\$ 40,00000$

Ordered, That of the amounts appropriated by the School Committee under dates of March 1 and 15, 1926 (see pages 36 and 46), the following amounts are hereby transferred to the 1927 item of school accommodations as set forth below:

## From

Item 9, 1926.- Sherwin District, Roxbury: Boston Trade School, plans and construction of shop addition (Item 20, 1923; Item 34, 1923; Item 16, 1924; Item 14, 1925)
$\$ 2,31486$
Item 14, 1926.- Bennett District, Brighton: Plans and construction of four-room addition to the Alexander Hamilton building (Grades I. to VI.)

7,685 14
Total . . . . . . . . . . $\$ 10,00000$
To
Item 5, 1927.- Edmund P. Tileston District, Mattapan: Plans for thirty-classroom intermediate school (Item 43, 1926). (To cover change to a forty-classroom intermediate school)
$\$ 10,000 \quad 00$

## On April 11, 1927, the School Committee passed the

 following order:Ordered, That of the amount appropriated by the School Committee under date of March 15, 1926 (see page 46), the following amount is hereby transferred to the 1927 item of school accommodations as set forth below:

## From

Item 14, 1926.- Bennett District, Brighton: Plans and construction of four-room addition to the Alexander Hamilton building (Grades I. to VI.)

## To

Item 19, 1927.- Shurtleff District, South Boston: Land and construction of eight-classroom unit (kindergarten and Grades I. to III). (Item 35, 1924, as amended April 6, 1925; Item 6, 1925)

On April 25, 1927, the School Committee passed the following order:

Ordered, That of the amount appropriated by the School Committee under date of March 15, 1926 (see page 46), the following amount is hereby transferred to the 1927 item of school accommodations as set forth below.

## From

Item 14, 1926.- Bennett District, Brighton: Plans and construction of four-room addition to the Alexander Hamilton building (Grades I. to VI.)
$\$ 30,000 \quad 00$

## To

Item 8, 1927. - Grover Cleveland Intermediate District, Dorchester: Construction of six-classroom addition to Grover Cleveland School building (Item 45, 1926). (To cover change to an eight-classroom addition)
$\$ 30,000 \quad 00$

## On May 9, 1927, the School Committee passed the following order:

Ordered, That of the amount appropriated by transfer by the School Committee under date of June 14, 1926 (see page 136), the following amount is hereby transferred to the 1927 item of schoolhouse accommodations as set forth below:

## From

Item 41, 1926. - Bennett District, Brighton: Construction of four-classroom addition to kindergartenprimary unit, corner of Corey road and Washington street
$\$ 12,00000$

## To

Item 20, 1927.- Bennett District, Brighton: Construction of four-room kindergarten-primary unit of eightroom building, corner of Corey road and Washington street (Item 16, 1925; Item 21, 1926)
$\$ 12,000 \quad 00$

## On May 16, 1927, the School Committee passed the following orders:

Ordered, That of the amounts appropriated by the School Committee under dates of June 19, 1923 (see page 101) and May 10, 1926 (see page 94), the following amounts are hereby transferred to the 1926 item of school accommodations as set forth below:

## From

Item 33, 1923.- Samuel Adams District, East Boston: Land and construction of intermediate school building, thirty classrooms and shops (Item 18, 1922, as amended June 19, 1923)
$\$ 9,00000$
Item 30, 1926.- Thomas Gardiner District, Brighton: Land and construction of four-classroom unit of sixteen-room building, kindergarten and Grades I. to VI. (Item 33, 1924; Item 10, 1925; Item 6, 1926),
Total

To
Item 35, 1926.- Dudley District, Roxbury: Land for twenty-four-classroom intermediate school building with combination gymnasium-hall, and shop accommodations for boys and girls
$\$ 10,00000$
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amounts are hereby transferred to the 1927 item of school accommodations as set forth below:

## From

Item 30, 1926.- Thomas Gardner District, Brighton: Land and construction of four-classroom unit of sixteen-room building, kindergarten and Grades I. to VI. (Item 33, 1924; Item 10, 1925; Item 6, 1926) .

Item 40, 1926.- Warren-Bunker Hill District, Charlestown: Plans and construction of two-story addition to Charlestown High School Annex

1,00000
Total
$\$ 7,000 \quad 00$
To
Item 23, 1927.- Chapman District, East Boston: Grading, fencing and shrubbery, East Boston High School yard,
$\$ 7,00000$

Ordered, That of the amounts appropriated by the School Committee under dates of March 19, 1923 (see page 25); May 18, 1925 (see page 82); September 14, 1925 (see page 162); March 15, 1926 (see page 46); May 10, 1926 (see page 94), the following amounts are hereby transferred to the 1924 item of school accommodations as set forth below:

## From

Item 26, 1923.- Prince District, city proper: Building, Trade School for Girls
$\$ 27407$
Item 4, 1925.- Everett District, South End: Land and construction of eight-room building for Grades I. to III. and kindergarten (Item 28, 1924).

8332
Item 5, 1925.- Thomas N. Hart District, South Boston:
South Boston High School, construction of elevenroom addition, including provision for Household Science and Arts (Item 27, 1924)
Item 14, 1926.- Bennett District, Brighton: Plans and construction of the four-room addition to the Alexander Hamilton Building (Grades I. to VI.)

41293
Item 40, 1926. - Warren-Bunker Hill District, Charlestown: Plans and construction of two-story addition to Charlestown High School Annex

9,729 68
Total . . . . . . . . . . $\$ 14,00000$

## To

Item 6, 192\%.- Charles Sumner District, West Roxbury (Washington Irving School, second unit): Land, plans and construction of twelve-room addition to intermediate school building (Grades VII. to XII.) (Item 21, 1923)
$\$ 14,00000$
On June 21, 1927, the School Committee passed the following order:

Ordered, That of the amounts appropriated by the School Committee under dates of March 15, 1926 (see page 46); May 10, 1926 (see page 94); and February 7, 1927 (see page 40), the following amounts are hereby transferred for the purpose of meeting the additional cost of a land and building item previously authorized, as reported by the Schoolhouse Department:

## From

Item 14, 1927.- Elihu Greenwood District, Hyde Park: Land and construction of thirty-six-classroom high school for boys and girls (Item 37, 1925; Item 24, 1926)
$\$ 50,00000$
Item 14, 1926.- Bennett District, Brighton: Plans and construction of four-room addition to the Alexander Hamilton building (Grades I. to VI.)
$6,587 \quad 07$
Item 31, 1926.- Warren-Bunker Hill District, Charlestown: Charlestown High School, land and construction of one-story shop unit of three-story annex (Item 26, 1924; Item 2, 1925)

2,142 61
Item 40, 1926.- Warren-Bunker Hill District, Charlestown: Plans and construction of two-story addition to Charlestown High School Annex

1,270 32
Total
$\$ 60,00000$
To
Item 10, 1926. - Francis Parkman District, West Roxbury: Land and construction of four-room unit of eight-room building, kindergarten and Grades I. to III. (Item 22, 1925). (To cover plans and construction and change to a five-room unit, kindergarten and Grades I. to VI. of future eleven-room building)
$\$ 60,00000$
On July 18, 1927, the School Committee passed the following order:

Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred to the 1927 item of school accommodations as set forth on page 40 :

From
Item 31, 1926. - Warren-Bunker Hill District, Charlestown: Charlestown High School, land and construction of one-story shop unit of three-story annex (Item 26,1924 ; Item 2, 1925)
$\$ 58707$
To
Item 24, 1927. - Martin District, Roxbury: Public Latin School, land for additional yard
$\$ 58707$
On November 21, 1927, the School Committee passed the following orders:

Ordered, That of the amounts appropriated by the School Committee under dates of May 18, 1925 (see page 82); March 15, 1926 (see page 46); May 10, 1926 (see page 94); June 14, 1926 (see page 136); February 7, 1927 (see pages 40, 41), the following amounts are hereby transferred for the purpose of meeting the additional cost of a land and building item previously authorized, as reported by the Schoolhouse Department:

## From

Item 9, 1925.- Minot District, Dorchester (Thomas J. Kenney School): Land and construction of eightclassroom unit (kindergarten and Grades I. to III.) of twenty-four-classroom intermediate school. (Item 31, 1924, as amended May 18, 1925)
$\$ 7,60385$
Item 14, 1926.- Bennett District, Brighton: Plans and construction of four-room addition to the Alexander Hamilton Building, Grades I. to VI.

1,38873
Item 31, 1926. - Warren-Bunker Hill District, Charlestown (Charlestown High School): Land and construction of one-story shop unit of three-story annex (Item 26, 1924; Item 2, 1925)

3,619 73
Item 40, 1926. - Warren-Bunker Hill District, Charlestown: Plans and construction of two-story addition to Charlestown High School annex

67133
Item 41, 1926.- Bennett District, Brighton (Harriet A. Baldwin School, second unit): Construction of fourclassroom addition to kindergarten-primary unit, corner of Corey road and Washington street

3,57035
Item 19, 1927. - Shurtleff District, South Boston (Michael J. Perkins School): Land and construction of eightclassroom unit (kindergarten and Grades I. to III.) (Item 35, 1924, as amended April 6, 1925; Item 6, 1925)

2876
Item 20, 1927. - Bennett District, Brighton (Harriet A. Baldwin School, first unit): Construction of fourroom kindergarten-primary unit of eight-room building, corner of Corey road and Washington street (Item 16, 1925; Item 21, 1926)
Total . . . . . . . . . . . $\$ 18,00000$

To
Item 28, 1925. - Washington Intermediate District, West End: Construction of combination gymnasiumassembly hall and manual training and domestic science accommodations (Item 11, 1927)
$\$ 18,00000$
The following was offered:
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred for the purpose of meeting the additional cost of a land and building item previously authorized, as reported by the Schoolhouse Department:

## From

Item 31, 1926. - Warren-Bunker Hill District, Charlestown (Charlestown High School): Land and construction of one-story shop unit of three-story annex (Item 26, 1924; Item 2, 1925)

To
Item 9, 1926. - Sherwin District, Roxbury (Boston Trade School): Plans and construction of shop addition. (Item 20, 1923; Item 34, 1923; Item 16, 1924; Item 14, 1925)
$\$ 41552$
The following was offered:
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred for the purpose of meeting the additional cost of a land and building item previously authorized, as reported by the Schoolhouse Department:

## From

Item 31, 1926. - Warren-Bunker Hill District, Charlestown (Charlestown High School): Land and construction of one-story shop unit of three-story annex (Item 26, 1924; Item 2, 1925)
$\$ 39096$

## To

Item 6, 1924.- Charles Sumner District, West Roxbury (Washington Irving School): Land, plans and construction of twelve-room addition to intermediate school building, Grades VII. to XII. (Item 21, 1923)
$\$ 39096$
The following was offered:
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred for the purpose of meeting the additional cost of a land and building item previously authorized, as reported by the Schoolhouse Department:

## From

Item 33, 1926. - Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)

To
Item 15, 1927.-Agassiz-Bowditch District, Jamaica Plain: Land for additional school accommodations (Item 12, 1926)
$\$ 34932$
The following was offered:
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred for the purpose of meeting the additional cost of a land and building item previously authorized, as reported by the Schoolhouse Department:

> From

Item 33, 1926. - Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)
$\$ 49728$

## To

Item 5, 1925.-Thomas N. Hart District, South Boston (South Boston High School): Construction of elevenroom addition including provision for household science and arts (Item 27, 1924)
$\$ 49728$

## On December 5, 1927, the School Committee passed

 the following order:Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred for the purpose of meeting the additional cost of land and building item previously authorized, as reported by the Schoolhouse Department:

## From

Item 33, 1926. - Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)

## To

Item 28, 1925.- Washington Intermediate District, West End: Construction of combination gymnasium assembly hall and manual training and domestic science accommodations (Item 11, 1927)

$$
\$ 26,77089
$$

## AMENDMENTS TO APPROPRIATION ORDERS FOR NEW SCHOOL BUILDINGS, LANDS, YARDS, ETC.

Orders making amendments to appropriation orders previously made were passed by the School Committee as follows:

On January 17, 1927, the School Committee passed the following orders:

On motion, the Board voted, yeas 5, nays 0 , to rescind that part of its action of December 6, 1926, which approved the transfer of the following amount from Item 5, 1925, to Items 43, 44 and 48, 1926:

## From

Item 5, 1925.- Thomas N. Hart District, South Boston (South Boston High School): Construction of elevenroom addition, including provision for household science and arts (Item 27, 1924)
$\$ 65,00000$
To
Item 43, 1926.- Edmund P. Tileston District, Dorchester: Land for intermediate school
$\$ 30,00000$
Item 44, 1926.- Agassiz-Bowditch District, Jamaica Plain: Addition to yard of Jamaica Plain High School, 20,00000
Item 48, 1926.- Martin District, Roxbury: Preparation of White lot for playground purposes . . . . 15,00000

Total . . . . . . . . . . $\$ 65,00000$
The following was offered:
Ordered, That of the amount appropriated by the School Committee under date of September 14, 1925 (see page 162), the following amount is hereby transferred to the 1926 items of school accommodations as set forth below:

## From

Item 5, 1925.- Thomas N. Hart District, South Boston (South Boston High School): Construction of elevenroom addition, including provision for household science and arts (Item 27, 1924)
$\$ 45,00000$
To
Item 43, 1926. - Edmund P. Tileston District, Dorchester: Land for intermediate school
$\$ 30,00000$
Item 48, 1926.- Martin District, Roxbury: Preparation of White lot for playground purposes

15,00000
Total
$\$ 45,00000$
Ordered, That of the amounts appropriated by the School Committee under date of March 15, 1926 (see page 46), the following amount is hereby transferred to the 1926 item of school accommodations as set forth below:

## From

Item 14, 1926.- Bennett District, Brighton: Plans and construction of four-room addition to the Alexander Hamilton building (Grades I. to VI.)
$\$ 20,00000$

## To

Item 44, 1926. - Agassiz-Bowditch District, Jamaica Plain: Addition to yard of Jamaica Plain High School

On May 16, 1927, the School Committee passed the following order:

On motion, the Board voted, yeas 5, nays 0, to rescind that part of its action of February 7, 1927 (see page 40), which approved the following item of the order making appropriations for the purpose of meeting (a) the cost of new land and building items, (b) the additional cost of land and building items previously authorized, and (c) the cost of revisions of estimates:
Item 3, 1927. - Agassiz-Bowditch District, Jamaica Plain:
Land for elementary school
$\$ 20,00000$
On December 5, 1927, the School Committee passed the following order:

On motion, the Board voted, yeas 5, nays 0 , to rescind that part of its action of February 7, 1927 (see pages 40-41), which approved the following items of the order making appropriations for the purpose of meeting the cost of new land and building items, the additional cost of land and building items previously authorized, and cost of revisions of estimates: Item 6, 1927.- Edmund P. Tileston District, Mattapan:

Land for elementary school
$\$ 30,00000$
Item 7, 1927. - Edmund P. Tileston District, Mattapan:
Plans for thirteen-classroom building (Grades I. to VI.
and kindergarten)(Item 6, 1927)
10,00000
The following was offered:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920 as amended by chapter 488 of the Acts of 1923 , as amended by chapter 327 of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926 , the following appropriations are hereby made for the purpose of meeting the cost of new land and building items:
Item 6, 1927.- Elihu Greenwood District: Land for elementary school

$$
\$ 30,000 \quad 00
$$

Item 7, 1927.- Elihu Greenwood District: Plan for thirteen-classroom building (Grades I. to VI. and kindergarten) (Item 6, 1927) .
$10,000 \quad 00$
The sums appropriated for new buildings, lands, yards, etc., totaled $\$ 3,000,000$.

In addition the sum of $\$ 297,966.03$ has been provided by transfer of unexpended balances of previous years as referred to in a foregoing statement.

This money is expended under the direction of the Schoolhouse Commission and is accounted for by them in their report.

## Summary.

appropriations, Credits to appropriations and transfers.
For general school purposes, including Americanization and vocational guidance:
Salaries of instructors (principals, teachers, members of supervising staff and others) . . . . . . $\$ 11,234,56200$
Salaries of officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees) . . . . . . 358,343 73
Salaries of custodians (including matrons), 823,48583
Fuel and light (including electric current for power) . . . . . . . 514,957 00
Supplies, equipment and incidentals . . 1,018,980 73
Pensions to attendance officers and custodians . . . . . . . 5,00000
Physical education (salaries of teachers, members of the supervising staff and others, supplies and equipment - day schools and playgrounds) . . . 299,997 06
Salaries of school physicians and nurses . . 193,938 00
Pensions to teachers . . . . . . 206,243 70
Extended use of the public schools (salaries, supplies, equipment and incidentals) . 84,654 67

- \$14,740,162 72

Alterations and repairs of school buildings, etc. . . 1,675,362 39
New school buildings, lands, yards, etc. (from the tax levy)
$3,000,00000$
New school buildings, lands, yards, etc. (by transfer of unexpended balances of previous years)

* 297,966 03
\$19,713,491 14

DETAILS OF EXPENDITURES FOR "LANDS, PLANS AND CONSTRUCTION OF SCHOOL BUILDINGS" AND FOR "ALTERATIONS AND REPAIRS, JNCLUDING FURNITURE, FIXTURES, ETC."
The details of expenditures under the two appropriation items, viz., "Lands, plans and construction of school buildings" and "Alterations and repairs, including furniture, fixtures, etc.," are not set forth in this report for the reason that while the School Committee

[^2]makes appropriations under existing statutes for such items, the actual expenditures are made by the Schoolhouse Commission, a department under the control of the mayor of the city.

It is therefore necessary to refer to the reports of the Schoolhouse Commission for the details of expenditures under these appropriations.

The expenditures are shown in the Report of the Business Manager by totals only, as follows:


INCOME RECEIVED DURING FINANCIAL YEAR.
Tuition of non-resident pupils:
Teachers College . . . . . . $\$ 11,20200$
Latin and high schools . . . . 20,945 74
Elementary schools . . . . . 57442
Boston Clerical School . . . . 66098
Trade School for Girls, day and extension classes

21,572 88
Boston Trade School . . . . . 18,872 27
Boston Trade School, evening classes . 1,108 20
Continuation School . . . . . 27,484 76
Day School for Immigrants . . . 1612
Training School for teachers of Mechanic
Arts . . . . . . . . 82800
Evening high schools . . . . . 29900
Evening elementary schools . . . 5930
Lip-reading classes . . . . . 21959
Tuition of rehabilitated pupils (from the
Commonwealth)
Speech improvement classes . . . 9368
Summer Review elementary schools . . 3500
Summer Review High School . . . 49400
State wards (from the Commonwealth) . 8,121 10
Tuition of deaf mutes (from the Commonwealth)

54,154 00
One half tuition charges paid for Boston pupils attending state-aided schools in other cities and towns (from the Commonwealth)

$$
1,08151
$$

Carried forward .
Brought forward ..... \$167,838 90
Salaries of instructors overpaid refunded ..... 1,912 28
Smith Fund ..... 32450
Stoughton Fund ..... 21200
Aid from the Commonwealth for industrial education:
Trade School for Girls (day and extensionclasses):
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 1926$\$ 38,32511$
Boston Trade School:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 192657,924 49
Boston Trade School, evening classes:One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 19266,75657
Continuation School, compulsory:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 192674,134 68
Brighton High School Co-operative Course:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 1926$4,065 \quad 55$
Charlestown High School, Co-operativeCourse:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 192620,80064
Dorchester High School for Boys, Co- operative Course:
One half the net cost of maintenance for the period September 1, 1925, to August 31, 1926 ..... 5,27994
East Boston High School, Co-operativeCourse:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 19265,526 11
Hyde Park High School, Co-operativeCourse:One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 19265,867 36
Carried forward $\$ 218,68045$
Brought forward ..... $\$ 218,68045$
$\$ 170,28768$
High School of Practical Arts, HouseholdArts Department:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 192652,328 61
Jamaica Plain High School, Vocational Agricultural Department:
Reimbursement for the period Septem-
ber 1, 1925, to August 31, 1926 ..... 4,33968
Evening Practical Arts Courses:
One half the net cost of maintenance forthe period September 1, 1925, toAugust 31, 192611,419 61
Day Practical Arts Classes:
One half the net cost of maintenance for the period September 1, 1925, to August 31, 1926 ..... 2,252 77
Traveling expenses of deaf mutes (from the Common-wealth)3,683 05
Reimbursement from the Commonwealth, promotion of Americanization (chapter 295, General Acts of 1919) ..... 23,128 68
Smith-Hughes Fund, allotment ..... 58,692 66
Light at polling places (from Election Department) ..... 43252
Sale of badges to licensed minors ..... 38875
Sale of books and supplies ..... 6,851 61
Sale of car tickets ..... 1,691 45
Transportation of pupils to dental infirmaries ..... 2,444 30
Registration fees for improvement courses ..... 7,005 00
Loan of musical instruments to pupils, and instrumental instruction to pupils ..... 17,802 12
Reimbursement from Commonwealth, conservation of eye- sight (chapter 229, General Acts of 1919) ..... 5,500 00
Electric current used ..... 6389
Fuel used for temporarily heating additions to existing school buildings before acceptance
Sale of manual arts materials (elementary schools) ..... 2,845 11
Manual arts, work done for Schoolhouse Commission ..... 2,183 75
Incidentals ..... 26683
Trade School for Girls:
Sale of products, etc. ..... 19,40591
Boston Trade School:
Sale of products ..... $\$ 3,87567$
Work done for Schoolhouse Commission ..... 4,730 30
8,605 97
Boston Trade School, evening classes, sale of productsContinuation School, Compulsory:Sale of products, etc.1,917 39
Carried forward ..... $\$ 622,21779$
Brought forward ..... \$622,217 79
Telephone charges ..... 57447
Forfeited advance payments:
Evening high schools ..... $\$ 4,47300$
Evening elementary schools ..... 1,879 50
Boston Trade School, evening classes ..... 1,112 00
Interest ..... 32805
Department of Physical Education, returns, etc., from games ..... 5,428 66
Extended Use of the Public Schools, receipts from school centers and from use of school accommodations ..... 7,474 45
Sale of second-hand furniture, etc., Schoolhouse Commis- sion ..... 1,04253
Cosmopolitan Trust Company, dividend on funds depos- ited ..... 28543
Conscience Fund ..... 2600
Barrels, etc., returned to dealers ..... 40019
Dog licenses ..... \$32,423 00
Less damages by dogs ..... 5,278 4527,144 55
Total income * ..... \$672,386 62
Income from Trust Funds.
Bowdoin Dorchester School Fund ..... $\$ 19126$
Eastburn School Fund ..... 44000
Franklin Medal Fund ..... 3500
Gibson School Fund ..... 3,627 02
Horace Mann School Funds ..... 33750
Peter P. F. Degrand School Fund ..... 1,174 26
Teachers' Waterston Fund ..... 14400
Charlestown School Fund ..... 22276
Comins School Library Fund ..... 1750
Latin School Prize Fund ..... 4100
Lawrence High School Fund ..... 8000
Lawrence Latin School Fund ..... 8000
Milmore Brimmer School Fund ..... 2000
Norcross School Library Fund ..... 4126
Sherwin School Graduates Fund ..... 4000
Devens Infant School Fund ..... 4000
Webb Franklin School Fund ..... 9600
Smith Fund $\dagger$ ..... 32450
Stoughton Fund $\dagger$ ..... 21200
Ensign David A. Hoffman Memorial Fund ..... 5000
Prince School Fund ..... 760

[^3]The income of each of the above funds is available for and limited to expenditures under the provisions of the bequest or donation.

Expenditures Under Trust Funds.
Bowdoin Dorchester School Fund, Income . . . . $\$ 7773$
Eastburn School Fund, Income . . . . . . 50000
Franklin Medal Fund, Income . . . . . . 4880
Gibson School Fund, Income . . . . . . . 2,413 11
Horace Mann School Fund, Income . . . . . 17822
Peter P. F. Degrand School Fund, Income . . . . 1,790 25
Teachers' Waterston Fund, Income
Total
$\$ 5,008 \quad 11$

AID FROM THE COMMONWEALTH FOR VOCATIONAL EDUCATION.
Under the provisions of chapter 471 of the Acts of 1911, chapter 106 of the Acts of 1912, chapter 805 of the Acts of 1913, and chapter 174 of the Acts of 1914 , the Commonwealth has paid over into the city treasury during the past financial year the sum of $\$ 289,021.12$.

This sum represents, in all instances except one (Jamaica Plain High, Vocational Agricultural Department), one half the net cost of maintenance of schools and classes established with the approval of the Department of Education. The amounts are included in the income statement preceding.

| Trade School for Girls (day and extension classes) : |  |
| :---: | :---: |
| From September 1, 1925, to August 31, 1926 . | \$38,325 |
| Boston Trade School: |  |
| From September 1, 1925, to August 31, 1926 | 57,924 |
| Boston Trade School, evening classes: |  |
| From September 1, 1925, to August 31, 1926 | 6,756 |
| Continuation School, compulsory: |  |
| From September 1, 1925, to August 31, 1926 | 74,1 |
| Brighton High Co-operative Course: |  |
| From September 1, 1925, to August 31, 1926 | 4,065 |
| Charlestown High Co-operative Course: |  |
| From September 1, 1925, to August 31, 1926 | 20,800 |
| Dorchester High School for Boys, Co-operative Course: |  |
| From September 1, 1925, to August 31, 1926 | 5,279 |
| East Boston High Co-operative Course: |  |
| From September 1, 1925, to August 31, 1926 | 5,526 |
| Carried forward . | 212,813 |

Brought forward$\$ 212,81309$
Hyde Park High Co-operative Course:
From September 1, 1925, to August 31, 1926 ..... 5,867 36
High School of Practical Arts; Household Arts Depart-ment:
From September 1, 1925, to August 31, 1926 ..... 52,328 61
Jamaica Pain High, Vocational Agricultural Department:From September 1, 1925, to August 31, 19264,339 68
Evening Practical Arts Courses (evening elementary schools):
From September 1, 1925, to August 31, 1926 ..... 11,419 61
Day Practical Arts Classes:
From September 1, 1925, to August 31, 1926 ..... 2,252 77
Total$\$ 289,02112$
NET EXPENDITURES.
Total expenditures (exclusive of new buildings, lands, yards, etc.) ..... \$15,878,419 40
Deduct total income (see income statement) ..... 672,386 62
Net expenditures $\$ 15,206,03278$
Add expenditures for new schoolhouses, additions, etc. (bythe Schoolhouse Commission)
3,703,039 41
Total net expenditures* . ..... $\$ 18,909,07219$
DISTRIBUTION OF EXPENDITURES.
The distribution of the total expenditures, exclusiveof lands and buildings, pensions, and repairs and altera-tions, in percentage of the whole sum, is as follows:

| Salaries of instructors (principals, teachers, members of the supervising staff and others). | \$10,904,956 41 | 77.9 |
| :---: | :---: | :---: |
| Salaries of officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees).... | 346,719 83 | 2.5 |
| Salaries of custodians (including matrons) | 809,027 05 | 5.8 |
| Fuel and light (including electric current for p | 445,754 27 | 3.2 |
| Supplies, equipment and incidentals | 930,014 60 | 6.6 |
| Physical education (salaries of teachers, members of the supervising staff and others, supplies and equipment - day schools and playgrounds). | 284,507 53 | 2.0 |
| Salaries of school physicians and nurse | 189,299 04 | 1.4 |
| Extended use of the public schools (salaries, supplies, equipment and incidentals) | 82,130 63 | 0.6 |
| Total. | \$13,992,409 36 | 100.0 |

[^4]
## COMPARISON OF EXPENDITURES.

The following statement shows the expenditures for the financial years 1927 and 1926, exclusive of lands and buildings, with the increases and decreases in the several items.

|  |  |  |  |
| :---: | ---: | ---: | ---: |

PENSIONS TO TEACHERS WHO WERE RETIRED BEFORE THE ESTABLISHMENT OF THE BOSTON RETIREMENT SYSTEM OR WHO HAVE NOT BECOME MEMBERS OF SUCH SYSTEM.
In 1908 and each year thereafter, up to and including 1914, the School Committee, under the authority of
section 4 of chapter 589 of the Acts of 1908, appropriated for the purpose of paying pensions and making payments to the Permanent Pension Fund the sum of five cents on each $\$ 1,000$ of the valuation of the city, upon which appropriations by the City Council are based.

During the year 1913-14 the sum so appropriated was found insufficient to pay pensions for the year, and the additional sum of $\$ 880.43$ was transferred from the accrued interest of the Permanent Pension Fund.

In 1914-15 a transfer of $\$ 7,628.60$ from the same fund was found to be necessary for the same reason.

Chapter 304 of the Acts of 1915 has made available from the tax levy seven cents on each $\$ 1,000$ of the valuation of the city, which, during the year 1918-19, amounted to $\$ 107,911.83$. This sum was found insufficient and it became necessary to transfer $\$ 2,870.55$ from the accrued interest of the Permanent Pension Fund, making a total of $\$ 110,782.38$ expended for the purpose during that year.

Chapter 289 of the Special Acts of 1916 provided that "The sums payable by the Commonwealth to the City of Boston, under the provisions of section 13 of chapter 832 of the Acts of the year 1913, being an act to establish a retirement system for public school teachers, as reimbursement for certain pensions paid by the city to retired school teachers, shall be put into the current pension fund held by the School Committee of the City of Boston and used in accordance with the provisions of chapter 589 of the Acts of the year 1908." Under this act the sum of $\$ 77,369.67$ paid over by the Commonwealth to the city became available during the financial year and was added to the appropriation from the tax levy for paying pensions to retired teachers.

Since the enactment of chapter 589 of the Acts of 1908, payments as pensions and to the Permanent Pension Fund have been distributed as shown in the table on page 56.

Pensions to Retired Teachers and Payments to Permanent Pension Fund.

| $\begin{aligned} & \text { Financial } \\ & \text { Year. } \end{aligned}$ | Pensions to Retired Teachers. |  |  |  | Payments to the Permanent Pen sion Fund from the Tax Levy. | Payments to the Permanent Pension Fund from the Fund Paid over by the Common- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | From the Tax Levy. | Transfers from Accrued Interest of the Permanent Pension Fund. | From Amount Paid over by the Commonwealth. | Total Pensions. |  |  |
| 1908-09.... | \$1,678 50 | - | - | \$1,678 50 | - |  |
| 1909-10... | 8,075 12 | - | - | 8,075 12 | \$119,181 08 |  |
| 1910-11... | 26,247 88 | - | - | 26,247 88 | 39,946 77 |  |
| 1911-12.. | 55,35031 | - | - | 55,350 31 | 12,420 53 |  |
| 1912-13.. | 64,510 76 | - | - | 64,510 76 | 5,681 66 |  |
| 1913-14... | 72,012 76 | \$880 43 | - | 72,893 19 | - |  |
| 1914-15.. | 73,854 36 | 7,628 60 | - | 81,482 96 | - |  |
| 1915-16... | 90,01187 | - | - | 90,01187 | 15,741 25 |  |
| 1916-17.. | 96,029 97 | - | - | 96,029 97 | 11,631 48 |  |
| 1917-18.. | 104,347 95 | - | - | 104,347 95 | 5,432 37 | \$24,321 96 |
| 1918-19... | 107,911 83 | 2,870 55 | - | 110,782 38 | - | 22,490 03 |
| 1919-20.. | 106,325 73 | - | \$10,066 86 | 116,392 59 | - | 18,175 03 |
| 1920-21.. | 104,324 02 | - | 23,243 77 | 127,567 79 | - | 10,450 65 |
| 1921-22.. | 106,845 62 | - | 27,938 06 | 134,783 68 | - | 17,590 83 |
| 1922-23... | 109,017 18 | - | 34,018 61 | 143,035 79 | - | 21,704 83 |
| 1923-24.. | 112,460 31 | - | 32,705 29 | 145,165 60 | - | - |
| 1924-25... | 115,584 03 | - | 30,072 99 | 145,657 02 | - | 85,649 66 |
| 1925. | 120,417 55 | - | 7,538 60 | 127,956 15 | - | 72,284 00 |
| 1926. | 124,666 18 | - | 7,031 94 | 131,698 12 | - | 71,859 45 |
| 1927. | 128,874 03 | - | 4,141 79 | 133,015 82 | - | 73,227 88 |
| Totals... | \$1,728,545 96 | \$11,379 58 | \$176,757 91 | \$1,916,683 45 | \$210,035 14 | \$417,754 32 |
| Grand total, twenty years (pensions and payments to Permanent Fund) |  |  |  |  |  | \$2,544,472 91 |

* Under chapter 289, Special Acts of 1916.


## SUPPLIES AND INCIDENTALS, GENERAL.

The expenditures for the year under the appropriation for supplies and incidentals are subdivided as follows:

Brought forward ..... \$208,462 72
Music sheets ..... 521.12
Globes ..... 21000
Maps ..... 6,000 66
Charts ..... 25995
Science apparatus, supplies and incidentals ..... 19,642 95
Kindergarten supplies and equipment ..... 8,920 07
Educational material for first three grades ..... 17,319 09
Postage expenses of principals ..... 3,203 98
Stationery for schools ..... 84,760 83
Other educational supplies and incidentals ..... 32,73262
Manual training supplies and equipment for elementary and intermediate schools and for gardening and recrea- tional handicraft classes ..... 61,104 20
Manual training supplies and equipment for Mechanic Arts High School ..... 4,495 48
Manual training supplies and equipment for Teachers College, Latin and high schools (exclusive of Mechanic Arts High School) ..... 18,90730
Manual training supplies and equipment for special and evening schools ..... 28,542 88
Manual training supplies, general stock ..... 15,770 98
Drawing supplies and equipment for elementary, inter- mediate, Teachers College, Latin and high schools ..... 36,65739
Drawing supplies and equipment for special and evening schools ..... 2,012 53
Sewing supplies and equipment for high schools (except High School of Practical Arts) ..... 62404
Sewing supplies and equipment for elementary and inter- mediate schools ..... 2,001 07
Sewing supplies for other schools and classes ..... 7,356 84
Sewing supplies, general stock ..... 4,896 45
Supplies for other practical arts classes ..... 11406
Commercial machines and typewriters: new and rentals for Teachers College, Latin and high schools ..... 24,304 70
Commercial machines and typewriters: new, rentals and repairs, elementary and special schools ..... 2,016 53
Commercial machines and typewriters: new and rentals for Continuation School ..... 54100
Commercial machines and typewriters: new and rentals for Boston Clerical School ..... 4,27996
Repairs to commercial machines and typewriters, Teachers College, Latin and high schools ..... 1,238 30
Repairs to commercial machines and typewriters, Con- tinuation School ..... 8802
Repairs to commercial machines and typewriters, Boston Clerical School ..... 19643
Military drill supplies and equipment, and expenses of annual parade ..... 10,889 47
Carried forward ..... $\$ 608,07162$
Brought forward \$608,071 62
Supplies and equipment for visual education ..... 11,884 86
Cookery supplies, elementary and high schools (except High School of Practical Arts) ..... 20,44300
Cookery supplies and equipment for special and evening schools and High School of Practical ArtsPianos, kindergartens1,625 00
Pianos, rooms ..... 5,205 00
Pianos, halls ..... 1,900 00
Silent piano keyboards ..... 1,980 00
Orchestral and band instruments and music stands ..... 5,477 96
Repairs on orchestral and band instruments ..... 1,33063
Piano player rolls ..... 4185
Orchestral and band music ..... 3,562 42
Piano covers and stools ..... 11432
Piano tuning and minor repairs ..... 2,112 00
Repairs, regulation and reconstruction of pianos ..... 39570
Moving pianos ..... 46000
Printing, stock for printing, and binding of documents and pamphlets ..... 43,676 32
Advertising examinations, etc. ..... 72600
Publishing proceedings of School Committee ..... 6,550 00
Office supplies ..... 5,324 15
Office equipment ..... 1,219 49
Office printing ..... 7,071 24
Office postage ..... 6,732 01
Printing and other expenses, Journal for Character Train- ing ..... 7,129 49
Expenses, examiners in music ..... 35200
Department of Investigation and Measurement, supplies, ..... 4,178 52
Custodians' supplies and equipment ..... 35,260 85
Express charges ..... 2,746 15
Tuition, wards of the city ..... 20,347 11
Tuition of pupils attending state-aided industrial schools and agricultural schools in other cities and towns ..... 3,247 73
Refunds of tuition charges ..... 28487
Transportation, Horace Mann School pupils (except street car tickets) ..... 1,299 63
Car tickets ..... 20,341 83
Transportation of pupils to dental infirmaries ..... 4,911 50
Diplomas and certificates ..... 4,703 17
Removing ashes and debris ..... 1,891 81
Surety bonds ..... 11700
School Committee contingent fund ..... 74760
Board of Superintendents contingent fund ..... 41181
Traveling expenses of officers, teachers and members of the supervising staff to conventions ..... 99446
Carried forward ..... $\$ 854,26511$
Brought forward$\$ 854,26511$
Traveling expenses of officers, teachers, and members of the supervising staff visiting candidates for appoint- ment or promotion ..... 2626
Assistance at teachers' examinations ..... 5,569 50
School exhibits ..... 54301
Telephone and telegraph ..... 21,211 01
Towels and soap for use of teachers and pupils ..... 4,245 59
Badges for licensed minors ..... 22096
Improvement and promotional courses for teachers ..... 18,052 21
72500Services of certified public accountants, auditing accounts,
Services of experts to Business Manager ..... 1,247 00
Automobile supplies, equipment, repairs, etc. ..... 2,446 46
Automobile (exchange) for Director of Physical Education, ..... 1,00650
1 automobile and 2 automobile trucks and accessories for the Department of Manual Arts ..... 5,104 25
Automobile and accessories, Supply Room ..... 99725
Sundries ..... 6,723 36
Automobile mileage for officers, supervisors and teachers ..... 3,214 70
Automobile hire44750
Administration Library; books and supplies ..... 1,108 41
Supplies and equipment for School Physicians and Nurses, ..... 2,860 52
Total ..... $\$ 930,01460$
Supplies and Equipment for Physical Education. Regular.
Athletic supplies and equipment ..... $\$ 16,10877$
Expenses of games and contests (umpires, referees, linesmen, etc.) ..... 8,620 63
Athletic certificates ..... 26195
Automobile mileage ..... 33608
Gymnastics: Games and play supplies and incidentals ..... 1,752 90
Apparatus, new and repairs ..... 1,826 83
Postage, printing, car tickets, office supplies and incidentals ..... 2,389 46
$\$ 31,29662$
Playgrounds.
Apparatus, new and repairs ..... \$13,420 13
Games and play supplies and incidentals ..... 9,921 32
Printing ..... 11380
Certificates ..... 784
Automobile mileage ..... 50436Total$\$ 55,264 \quad 07$


## Summary.

:Supplies, equipment and incidentals, general . . . \$930,014 60
Supplies, equipment and incidentals, physical education . 55,264 07
Supplies, equipment and incidentals, extended use of the public schools

12,974 74
Total
$\$ 998,25341$

FUEL AND LIGHT.
(Including Electric Current for Power.)
From January 1, 1927, to June 15, 1927, coal was purchased under contract as follows:

## Semi-Bituminous Coal.

Metropolitan Coal Company: $\$ 6.13$ per ton for entire city.
Anthracite Coal.
Standard Coal Company: $\$ 13.34$ per ton for entire city.
Beginning June 16, 1927, and until the end of the financial year, coal was purchased under contract as follows:

## Semi-Bituminous Coal.

Metropolitan Coal Company: $\$ 6.84$ per ton for entire city.
Anthracite Coal.
Standard Coal Company: $\$ 13.08$ per ton for entire city.
Fuel and Light (Including Electric Current for Power).

| $\begin{aligned} & \text { Semi- } \\ & \text { Bituminous } \\ & \text { Coal. } \\ & \text { Number } \\ & \text { of Tons } \\ & \text { Purchased. } \end{aligned}$ | American Anthracite Coal. Number Purchased. |  |  |
| :---: | :---: | :---: | :---: |
| 26,871.4725 | 4,070.27 |  | \$228,898 77 |
| Expenses, sampling, testing and expert advice on fuel |  |  | 2,131 00 |
| Carried forward |  |  | \$231,029 77 |

Brought forward

$\$ 231,02977$
Expenses moving coal . . . . . . . . 14701
$475 \frac{3}{4}$ cords of wood . . . . . . . . . 7,64294
Deduct penalties exacted from contractors on account of

quality of coal falling below contract requirements | $\$ 238,81972$ |
| ---: |
|  |

1,279,956.44 gallons fuel oil . . . . \$61,752 11
Add premium allowed contractor on account of quality of oil exceeding contract requirements

3923
Deduct penalties exacted from contractor on
account of quality of oil falling below
contract requirements . . . . .
Total
61,541 69
$\$ 298,44581$
Deduct amount charged to appropriation, Extended Use of the Public Schools, for cost of fuel used in school centers and other activities

$$
2,091 \quad 50
$$

$\$ 296,35431$

Light and Power.
Electric current for light and power . . \$139,417 03
Gas . . . . . . . . . 13,05260
Mazda lamps . . . . . . . 83883
Deduct amount charged to appropriation, $\$ 153,30846$
Extended Use of the Public Schools, for
cost of light used in school centers and
other activities . . . . . .
Net total, light and power . . . . . .

| Total net expenditures, fuel and light (including |
| :---: |
| electric current for power) | | $\$ 149,39996$ |
| :--- |
| $\$ 445,75427$ |

## METHODS OF APPORTIONING COSTS OF GENERAL، CONTROL, SUPERVISION AND OTHER ITEMS.

In the appended numbered tables will be found in detail the costs of schools and of all other activities in operation during the financial year.

The costs as shown on the other tables have been recapitulated on Table No. 1. The costs of general control, supervision and other items have been included thereon. Total and net costs may therefore be ascertained from Table No. 1.

The method of apportioning the costs of general control, supervision and other items is, briefly, as follows:

When the whole or part of the cost of an office or department could be charged directly against a school or group of schools, it has been so charged. For the purposes of apportioning residuary costs, the average number of teachers employed during the financial year has been used as the basis. In schools such as evening schools and summer schools the number of teachers has been reduced to a relative average, which takes into consideration the amount of service such teachers render during the year as compared with that rendered by teachers in the day schools.

Where it has been necessary to apportion the cost of supervision or professional control, the number of teachers coming under the supervision of the respective departments has been used as the basis. In some instances the cost has been divided on the basis of percentages furnished by the director of a department.

None of the cost of general control or the general account has been charged to playgrounds or extended use of the public schools.

The method of apportioning overhead costs, as described in the preceding paragraphs, is, of course, arbitrary. There are other methods just as satisfactory. There seems to be no uniform basis for apportioning costs of overhead charges. Each city apparently has a plan of its own.

## APPORTIONMENT OF INCOME.

Any part of the income which could be directly credited to a school or group of schools, office or department has been so credited, and the balance has been apportioned in proportion to the number of teachers in each such school or group of schools.

The result is as follows:
Direct Credits and Tuition Receipts.
Direct credits to each school, etc.
\$421,344 39
Tuition received from non-resident pupils
167,838 90
Total . . . . . . . . . . . $\overline{\underline{589,18329}}$

Group Credits and Balance Apportioned.

|  | Group Credits. | Balance Apportioned. | Total, |
| :---: | :---: | :---: | :---: |
| Teachers College. |  | \$569 17 | \$569 17 |
| Latin and high schools. |  | 10,434 82 | 10,434 82 |
| Elementary and intermediate school districts. . | \$8,064 33 | 32,679 96 | 40,744 29 |
| Speech Improvement classes. |  | 18973 | 18973 |
| Horace Mann School. |  | 18972 | 18972 |
| Trade School for Girls, day and extension classes. |  | 56917 | 56917 |
| Boston Trade School |  | 47431 | 47431 |
| Continuation School, compulsory |  | 52174 | 52174 |
| Boston Clerical School. |  | 18972 | 18972 |
| Boston Disciplinary Day School. |  | 4743 | 4743 |
| Day School for Immigrants. |  | 4743 | 4743 |
| Summer Review High School |  | 4743 | 4743 |
| Summer Review elementary schools. |  | 28459 | 28459 |
| Vacation schools. |  | 23716 | 23716 |
| Boston Trade School, evening classes |  | 4743 | 4743 |
| Evening high schools. | 30063 | 33202 | 63265 |
| Evening elementary schools. | 27,407 37 | 42688 | 27,834 25 |
| Evening school extension. |  | 4743 | 4743 |
| Day Practical Arts classes |  | 4743 | 4743 |
| Training School for Teachers of Mechanic Arts . |  | 4743 | 4743 |
| Totals. | \$35,772 33 | \$47,431 00 | \$83,203 33 |

## Summary.

Direct credits to each school, etc. . . . . . . $\$ 421,34439$
Tuition received for non-resident pupils . . . . 167,838 90
Group credits 35,772 33
Balance apportioned $. \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad 47,43100$
Total income
$\$ 672,38662$

# COST OF GENERAL CONTROL, SUPERVISION AND OTHER ITEMS. 

## GENERAL CONTROL.

Superintendent and Secretary.
Salary of Superintendent
$\$ 12,00000$

Salary of Secretary . . . . . . 5,66400
Salaries of clerks and stenographers . . . 24,518 73
Salaries of temporary clerical assistants . . 1,797 00
Salaries of pupil clerical assistants . . . 4380
Office supplies and equipment . . . . 1,226 18
Printing . . . . . . . . . 78675
Telephone switchboard charges . . . . 47305
Telephone (not connected with switchboard) 21785
Telegrams and messenger service . . . 527
Postage . . . . . . . . . 1,08120
Lunches for assistants . . . . . . 2330
Books and subscriptions . . . . . 200
Typewriters . . . . . . . 18500
Expenses in connection with distribution of manuals . . . . . . . . 1225
Mimeograph machine . . . . . . 16650
Surety bonds . . . . . . . 1950
Car fares for clerical assistants . . . . 670
Stenographic service at meeting of School Committee

1350
Incidentals . . . . . . . . 3179
$\$ 48,27437$
Newsboys' Trial Board.
Salaries of judges . . . . . . . $\$ 11700$
Salary of clerk . . . . . . . 3900
Printing . . . . . . . . . 2430

18030
$\$ 48,45467$

Business Manager.
Salary of Business Manager . . . . \$7,166 64
Salary of Assistant Business Manager . . 4,166 64
Salary of Domestic Engineer . . . . 4,166 64
Salaries of clerks and stenographers . . . 43,38889
Salaries of temporary clerical assistants . . 5,30650
Salaries of bookbinders . . . . . 2,49966
Salary of temporary bookbinder . . . 88200
Carried forward . . . . . $\$ 67,57697$
Brought forward ..... $\$ 67,57697$
Salaries of supply room assistants ..... 22,309 10
Salaries of chauffeurs, automobile trucks ..... 4,121 16
Salaries of temporary and emergency assistants, supply room ..... 4,776 00
Account books ..... 36405
Surety bonds ..... 7500
Typewriters (old machine in exchange) ..... 10250
Office supplies and equipment ..... 82287
Telephone switchboard charges ..... 47305
Printing and binding ..... 55754
Postage ..... 74018
Adding machine ..... 10250
Traveling expenses of Business Manager ..... 9500
Car fares, assistants ..... 340
Car tickets for bookbinders ..... 4800
Allowance for auto mileage, bookbinder ..... 12814
Time stamp (old machine in exchange) ..... 4500
Lunches for assistants ..... 3660
Telegrams and messenger service ..... 1239
Incidentals ..... 1734
$\$ 102,40679$
Automobile, Domestic Engineer.
Gasoline ..... $\$ 6492$
Lubricants ..... 1050
Repairs and miscellaneous parts ..... 13032
Registration fee ..... 1500
Garage rental ..... 18000
Supply Room.
General supplies ..... $\$ 92768$
Equipment ..... 36175
Car fares ..... 1555
Expressage ..... 99668
Telephone switchboard charges ..... 20592
Telephone (not connected with switchboard) ..... 12138
Printing ..... 7500
Postage ..... 14100
Office supplies and equipment ..... 4040
Car tickets ..... 6650
Lunches for assistants ..... 675
Account books ..... 4260
Incidentals ..... 26723,027 93Automobile and Automobile Trucks, Automobile (1), Trucks (2).Automobile$\$ 96500$
Tires and tire repairs (including inner tubes) ..... 24748
Gasoline ..... 21633
Carried forward ..... \$1,428 81 \$105,835 46
Brought forward ..... \$1,428 81 \$105,835 46

\$105,835 46
Lubricants ..... 275
Repairs and miscellaneous parts ..... 36262
Renewal of chauffeurs' licenses ..... 600
Registration fees ..... 900
Garage rental ..... 4500
Total
Salary of Schoolhouse Custodian ..... $\$ 4,60000$
Salary of clerk ..... 1,930 16
Salaries of temporary clerical assistants ..... 34350
Office supplies and equipment ..... 4531
Postage ..... 16083
Printing ..... 28550
Telephone switchboard charges ..... 13914
Telephone (not connected with switchboard) ..... 5450
Incidentals ..... 30
Automobile.
Tires and tire repairs (including inner tubes) ..... $\$ 5276$
Gasoline ..... 10875
Registration fee ..... 1000
Lubricants ..... 3005
Miscellaneous parts and repairs ..... 12004
Garage rental ..... 12150
Incidentals ..... -
Total$\$ 7,55924$
-

1,85418
$\$ 107,68964$



## Schoolhouse Custodian.

Schoolhouse Custodian.-


 ..... -
$\square$



$\$ 8,00234$

## Assistant Superintendents.

Salaries of Assistant Superintendents (6) ..... \$41,999 76
Salaries of clerks and stenographers ..... 12,379 64
Office supplies and equipment ..... 40760
Telephone switchboard charges ..... 53983
Postage ..... 23700
Printing ..... 14895
Telegrams and messenger service ..... 259
Traveling expenses, conventions, etc. ..... 64606
Car tickets ..... 2500
Typewriters (2 old machines in exchange) ..... 9250
Services of lecturers to directors, principals, etc. ..... 35000
Photographs of Memorial High School for use in World's Work ..... 2350
Services of lecturer at Administration Library ..... 1000
Books and subscriptions ..... 800
Carried forward ..... $\$ 56,87043$
Brought forward ..... \$56,870 43
Allowance for auto mileage ..... 13680
Incidentals ..... 539
Total ..... \$57,012 62
Board of Apportionment.
Salaries of clerks ..... $\$ 3,19520$
Office supplies ..... 1180
Postage ..... 1000
Printing ..... 3500
Incidentals ..... 420
Total

$\$ 3,25620$

The Board of Apportionment consists of the Superintendent, Assistant Superintendents and the Business Manager.

## Board of Examiners.


Incidentals ..... 32
Total ..... \$26,302 62

## Educational Investigation and Measurement.

## Salaries and Office Expenditures.

Salary of Educational Statistician (September 1 to December 31, 1927) . . . . . $\$ 1,48800$
Salary of Assistant Educational Research (January 1 to August 31, 1927) . . . 2,880 00
Salary of First Assistant Director . . . 3,910 80
Salary of Assistant Director . . . . 2,786 92
Salaries of clerks . . . . . . . 3,93447
Salaries of temporary clerical assistants . . 48500
Office supplies and equipment . . . . 19091
Carried forward . . . . . . $\$ 15,67610$
Brought forward ..... \$15,676 10
Postage ..... 8100
Printing ..... 475
Telephone switchboard charges ..... 20592
Car tickets ..... 3000
Traveling expenses ..... 10000
Allowance for auto mileage ..... 2280
Incidentals ..... 180Educational Measurement.
Printing ..... $\$ 16990$
Tests ..... 3,985 26
Incidentals ..... 5570
Total$\$ 20,33323$
Administration Library.
Salary of Librarian ..... $\$ 2,07656$
Salaries of pupil clerical assistants ..... 9000
Office supplies and equipment ..... 5473
Postage ..... 4000
Telephone switchboard charges ..... 7235
Books and subscriptions ..... 1,004 83
Membership in Massachusetts Civic League library ..... 100
Car fares for pupil clerical assistants ..... 1145
Printing ..... 2220
Binding ..... 6660
Incidentals ..... 1139
Total$\$ 3,45411$
General Control, Sundry Items.
Administration Building:
Salary of custodian ..... \$13,046 18
Fuel ..... 1,374 62
Electric current for light and power ..... 5,049 04
Towels ..... 30632
Custodians' supplies ..... 23632
Supplies for offices ..... 32934
Washing windows ..... 27500
Ice ..... 34399
Water cooler ..... 3500
Ice tank ..... 4500
Incidentals ..... 9145
Common Street Building (partly used foradministration purposes):
Salary of custodian ..... \$1,393 12
Fuel ..... 29260
Brought forward \$1,685 72

\$21,132 26 379* 94Electric current for light and power
2548
Custodians' supplies
2400
Ice
2700
Towels
Dartmouth Street:
Salary of custodian ..... $\$ 72687$
Fuel ..... 53360
Electric light ..... 10550
Towels ..... 4500
Custodians' supplies ..... 449
Ice ..... 4300
School Committee:
Salary of clerk (part time) ..... $\$ 57383$
Stationery and office supplies ..... 4528
Postage ..... 200
Printing ..... 2350
Books and subscriptions ..... 1300
Telephone and telegraph ..... 6757
Refreshments ..... 53790
Office equipment ..... 1192
Report of hearing on attendance officer ..... 20970
General Expense:
Auditing accounts of Business Manager and Secretary ..... $\$ 61625$
Automobile hire ..... 42770
Engrossing memorial on death of William F.
Merritt ..... 500
Custodians' Trial Board:
Attendance of custodian member at hearings, ..... $\$ 2100$
Salary, clerical assistant

$\qquad$
Administration Printing:
Minutes$\$ 7,34480$
Index to minutes ..... 73700
Binding minutes ..... 17000
Index to school documents ..... 1100
Binding documents ..... 49240
Teachers' examinations ..... 1,207 25
Manuals ..... 3,348 64Rules and regulations4,453 70
Amendments to rules and regulations ..... 17650
Book labels ..... 51365
Pay rolls and certifications ..... 78990
Bills and statements ..... 25905
Purchase order blocks ..... 48645
Carried forward

2,142 14

1,45846

1,484 70

1,048 95

2100

Brought forward
School and office requisition blocks
High schools
Teachers College, Latin and high, intermediate and elementary schools
Latin and high, intermediate and elementary schools
Latin, high, elementary, intermediate and trade schools
Latin and high schools . . . . . 29735
High and elementary schools
Intermediate schools
Elementary and intermediate schools . . -
Elementary schools . . . . . . 96925
Vacation schools . . . . . . 12855
Evening high schools . . . . . 18880
Evening elementary schools . . . . 13045
Evening elementary and evening trade
schools . . . . . . . .
7250
Evening high and evening trade schools .. 9305
Evening schools . . . . . . 2650
Evening and summer schools . . . . 2825
Summer Review high school . . . . 7285
Summer Review intermediate and ele-
mentary schools . . . . . . 22710
Summer Review schools . . . . . 8250
Summer Review and vacation schools . . -
Business Manager's report
Superintendent's report
Proposals for furnishing supplies to schools, 1,12566
Courses at Teachers College
15600
Circular of information on summer courses
at Teachers College . . . . .
Request for quotations, etc. . . . . 13340
Circular on rebinding and repairing of books, 1300
Course of study in household science and
arts . . . . . . . . . 40350
Curricula for general high schools . . . 16975
Educability of the emotions . . . 42300
Course in character building . . . . 1,009 20
Code of ethics for teaching profession . . 38920
Course of study for Grade IV. . . . 1,39626
Course of $\cdot$ study for Grade VI.
2,407 25
Course of study in mathematics for industrial curriculum in high schools

14950
School planning and trend of school popu-
lation . . . . . . . . 18400
Preliminary estimates, budget and annual appropriation order

47515
Carried forward

22500 42375

2,34525

## \$19,990 $34 \quad \$ 27,28751$

1,949 50
1,476 90
9000
48151

5

| Brought forward | \$37,779 52 | \$27,287 51 |
| :---: | :---: | :---: |
| Co-operative courses in high schools | 1200 |  |
| Inventory records for equipment | 33915 |  |
| Stationery schedule for schools | 5795 |  |
| List of authorized text books | 2,316 75 |  |
| Special purchase order for manual training supplies | 15720 |  |
| Circular of information in regard to books, and other supplies used in schools | 5380 |  |
| Reappointment of teachers and members of the supervising staff | 33390 |  |
| Schedule of teachers' salaries | 8400 |  |
| Annual statistics | 73787 |  |
| List of eligible candidates | 47150 |  |
| Stock for printing | 1,382 61 |  |
| Miscellaneous | 15705 |  |
|  |  | 43,883 30 |
| Total | . . . | \$71,170 81 |

SALARIES AND EXPENSES OF SUPERVISORS OF GRADES AND SUBJECTS.Practice and Training.
Salary of Director ..... $\$ 3,99010$
Salary of First Assistant Director ..... 3,617 05
Salaries of Assistant Directors ..... 11,484 53
Salaries of clerks ..... 1,778 50
Salaries of temporary clerical assistants ..... 9000
Office supplies and equipment ..... 10111
Printing ..... 19768
Postage ..... 10000
Telephone switchboard charges ..... 20592
Traveling expenses visiting candidates ..... 1631
Car tickets ..... 25660
Typewriter (old machine in exchange) ..... 8275
Allowance for auto mileage$\$ 21,92055$Primary Supervisors.
Primary supervisors (2) ..... $\$ 6,34505$
Office supplies and equipment
7235
Telephone switchboard charges
6000
Car tickets
1200
Printing
11325
Books
116
Incidentals
Total
Manual Arts.
Salary of Director ..... $\$ 5,04000$
Salary of Associate Director ..... 4,512 00
Salaries of Assistant Directors ..... 11,905 02
Salaries of First Assistant in Manual Arts ..... 5,891 85
Salaries of Assistants in Manual Arts ..... 28,377 76
Salary of Foreman shop work, assigned to de- partment (September 1 to December 31, 1927) ..... 99200
Salaries of temporary teachers at Museum of Fine Arts ..... 2,291 20
Salaries of clerks ..... 7,095 07
Salaries of temporary clerical assistants
35347
Office supplies and equipment ..... 35347
Printing ..... 1,065 00
Postage ..... 36692
Books and subscriptions ..... 2145
Telephone switchboard charges ..... 60662
Allowance for auto mileage ..... 34106
Car tickets ..... 54000
Drawing supplies ..... 1,063 76
Manual training supplies ..... 5428
Telegrams and messenger service ..... 188
Insurance on exhibits and textiles ..... 8603
Illustrated reference material ..... 20900
Incidentals ..... 1773
Automobile and Automobile Trucks.

Automobile (1)
Automobile trucks (2) (old truck in exchange), $\quad 3,79400$Tires and tire repairs (including inner tubes).4905
Gasoline ..... 7910
Lubricants ..... 1922
Repairs and miscellaneous parts ..... 10602
Installing shock absorbers ..... 17500
Registration fees ..... 1400
Garage rentals ..... 17900
Total ..... \$76,362 49
Music.
Salary of Director ..... $\$ 5,04000$
Salaries of Assistant Directors ..... 24,210 84
Salaries of Assistants ..... 30,974 35
Temporary Assistants ..... 9600
Salaries of Musical Instrument Instructors ..... 28,677 88
Supervisor of Drum and Bugle Corps ..... 2,440 00
Carried forward ..... \$91,439 07
Brought forward ..... \$91,439 07
Salary of clerk ..... 1,721 49
Office supplies and equipment ..... 22976
Car tickets ..... 60650
Printing ..... 31000
Postage ..... 16200
Telephone switchboard charges ..... 13914
Services in connection with outside study of music by pupils ..... 35200
Expenses in connection with music festival ..... 7050
Services of judges on musical instruments at drills ..... 2000
Transportation of musical instruments to musical demonstrations ..... 10990
Music supplies ..... 24622
Allowance for auto mileage ..... 78375
Services of judges of musical organizations in street parade ..... 2100
Total

## Kindergartens.

Salary of Director ..... \$3,930 70
Salary of Assistant Director ..... 3,160 00
Salary of clerk (part time) ..... 96508
Office supplies and equipment ..... 6986
Car tickets ..... 6000
Printing ..... 3995
Postage ..... 9328
Telephone switchboard charges ..... 7234
Incidentals-
Total\$8,391 21
Household Science and Arts.
Salary of Director ..... $\$ 3,96040$
Salaries of Assistant Directors ..... 6,080 00
Salary of First Assistant Manual Arts (assigned part time) ..... 65600
Salaries of clerks ..... 2,513 49
Salaries of temporary clerical assistants ..... 8100
Office supplies and equipment ..... 12961
Car tickets ..... 18000
Printing ..... 5730
Postage ..... 8950
Printing account sheets for inventory of equipment ..... 18220
Telephone switchboard charges ..... 13913
Incidentals
Total\$14,068 63

## Spectal Classes.

Salary of Director ..... $\$ 4,00000$
Salary of Assistant Director ..... 2,662 00
Salary of clerk (part time) ..... 96508
Salaries of temporary clerical assistants ..... 2850
Office supplies and equipment ..... 8387
Printing ..... 6555
Postage ..... 6825
Telephone switchboard charges ..... 7234
Car tickets ..... 14000
Telegrams and message service ..... 30
Incidentals ..... 34
Total \$8,086 23
Commercial Co-ordinator.
Salary of Commercial Co-ordinator ..... $\$ 4,17600$
Salary of clerk (part time) ..... 57383
Office supplies and equipment ..... 627
Printing ..... 3875
Postage ..... 1500
Telephone switchboard charges ..... 9709
Car tickets ..... 10000
Books and subscription ..... 600
Total
$\$ 5,01294$
Penmanship.
Salary of Director ..... \$3,654 40
Salary of Assistant Director ..... 3,051 85
Salary of Examiner ..... 2,275 52
Salary of clerk ..... 1,251 99
Salaries of pupil clerical assistants ..... 28036
Office supplies and equipment ..... 14050
Car tickets ..... 14050
Printing ..... 2650
Allowance for auto mileage ..... 3080
Slides, etc. ..... 2100
Postage ..... 8675
Telephone switchboard charges ..... 7234
Automobile hire ..... 1925
Incidentals ..... 48
Total$\$ 11,05224$
Evening and Summer Schools.
Salary of Director ..... $\$ 5,23200$
Salary of Supervisor of Division "C" Classes ..... 54000
Salaries of clerks ..... 7,616 81
Salaries of temporary clerical assistants ..... 11700
Carried forward ..... $\$ 13,50581$
Brought forward ..... \$13,505 81
Office supplies and equipment ..... 34219
Car tickets ..... 1800
Printing ..... 12667
Postage ..... 17912
Allowance for auto mileage ..... 11210
Telephone switchboard charges ..... 40626
Telephone (not connected with switchboard) ..... 6953
Telegrams and messenger service ..... 54
Typewriter ..... 7000
Incidentals ..... 552
Total
Modern Foreign Languages.
Salary of Director (part time) ..... $\$ 60000$
Salary of clerk (part time) ..... 37000
Printing ..... 575
Office supplies and equipment ..... 2649
Postage ..... 2400
Car tickets ..... 3500
Telephone switchboard charges ..... 7234
Telephone (not connected with switchboard) ..... 4882
Total
Physical Education.

|  |  |  |
| :---: | :---: | :---: |
| Salary of Director. | \$5,040 00 |  |
| Salary of Associate Director. | 4,896 00 |  |
| Salary of Assistant Director. | 4,176 00 |  |
| Salary of Supervisor in Charge of Playgrounds. | 2,752 00 |  |
| Salaries of temporary supervisors of playgrounds. | 4,550 00 |  |
| Salaries of clerks. | 3,118 99 |  |
| Salaries of temporary clerical assistants. | 13100 |  |
| Office supplies and equipment. | 8401 | \$128 45 |
| Printing. | 59880 |  |
| Surety bonds. |  | 1250 |
| Postage. | 24000 |  |
| Supplies for military drill. |  | 13879 |
| Telephone switchboard charges. |  | 27269 |
| Carried forward.. | \$25,586 80 | \$552 43 |

Physical Education. - Concluded.

|  |
| :--- | :--- |

## SCHOOL HYGIENE, VOCATIONAL GUIDANCE, COMPULSORY ATTENDANCE, ETC.

Supervision, School Hygiene.

|  |  |  |
| :---: | :---: | :---: |
| Salary of Director. | \$6,200 00 |  |
| Salaries of physicians assigned to certificating office. | 2,239 87 |  |
| Salary of Sanitary Inspector. |  | \$2,176 53 |
| Salary of Nutrition Specialist. . |  | 1,173 75 |
| Salaries of clerks. |  | 3,313 88 |
| Salaries of temporary clerical assistants. |  | 28500 |
| Office supplies and equipment. |  | 22876 |
| Transportation of pupils to dental infirmaries. |  | 4,911 50 |
| Postage. |  | 56600 |
| Messenger service and telegrams. |  | 5605 |
| Telephone switchboard charges. |  | 13913 |
| Printing. |  | 1,222 80 |
| Allowance for auto mileage. |  | 10830 |
| Car tickets. |  | 7000 |
| Traveling expenses of Director. |  | 15340 |
| Supplies for physicians and nurses |  | 14543 |
| Towels. |  | 1200 |
| Incidentals. |  | 300 |
| Salary of Supervising Nurse. | 2,800 00 |  |
| Salary of nurse assigned to certificating office. | 1,746 52 |  |
| Salaries of temporary nurses. | 41774 |  |
| Office supplies and equipment. |  | 2070 |
| Supplies for physicians and nurses |  | 28698 |
| Printing. |  | 29500 |
| Postage.. |  | 17200 |
| Car tickets. |  | 90000 |
| Incidentals. |  |  |
| Totals... | \$13,404 13 | \$16,256 29 |
| Total. |  | \$29,660 42 |

Vocational Guidance.
Salary of Director ..... \$3,979 60
Salaries of Vocational Instructors ..... 16,556 40
Salaries of Vocational Assistants ..... 22,526 16
Compensation for extra work and summer work, Vocational Instructors ..... 49200
Compensation for extra work and summer work, Vocational Assistants ..... 48400
Salaries of clerks ..... 2,918 49
Salaries of temporary clerical assistants ..... 2700
Salaries of pupil clerical assistants ..... 8400
Office supplies and equipment ..... 24971
Printing ..... 39480
Postage ..... 33000
Telephone switchboard charges ..... 33949
Car fares for pupil clerical assistants ..... 1370
Telephone (not connected with switchboard) ..... 24086
Car tickets ..... 10500
Allowance for auto mileage ..... 2604
Typewriters ( 2 old machines in exchange) ..... 7950
Incidentals ..... 124
Total$\$ 48,84799$
Compulsory Attendance.
Salary of Chief Attendance Officer ..... $\$ 3,64000$
Salaries of Attendance Officers ..... 77,073 85
Salaries of Temporary Attendance Officers ..... 31200
Salary of clerk ..... 1,864 40
Salaries of temporary clerical assistants ..... 8400
Office supplies and equipment ..... 4251
Printing ..... 40590
Postage ..... 38800
Allowance for auto mileage ..... 9990
Telephone switchboard charges ..... 7864
Badges ..... 4592
Car tickets ..... 1,449 00
Incidentals$\$ 85,48412$Superrisor of Licensed Minors.
Salary of Supervisor of Licensed Minors ..... $\$ 3,02400$
Salary of clerk ..... 1,825 83
Office supplies and equipment ..... 1519
Telephone ..... 5747
Printing ..... 4515
Postage ..... 6440
Car tickets ..... 11000
Badges and cards for licensed minors ..... 22200
Allowance for auto mileage ..... 3200
Total5,396 04\$90,880 16
General Account.
Salary allowed City Treasurer as Custodian ofTeachers' Retirement Fund\$1,500 00
Salaries of custodians, not otherwise charged ..... 34228
Sampling, testing and expert advice on fuel ..... 2,131 00
Tuning and care of pianos ..... 2,112 00
Heating and care of gymnasium for drill pur- poses and class day exercises, Hyde Park Municipal Building ..... 9200
Premium on fuel oil ..... 3923
Premium on fuel ..... -
Cost of moving and turning coal ..... 14701
Advertising ..... 72000
Diplomas and certificates ..... 4,122 80
Ribbon for diplomas ..... 44499
Supplies broken and lost in transit and at schools ..... 344
Moving supplies at Michelangelo School for drill purposes ..... 41280
Fuel for branch of the Public Library at the Memorial High School ..... 31750
Custodian's supplies for branch of the Public Library at the Memorial High School ..... 3868
Electric current for branch of the Public Library at the Memorial High School ..... 10775
Salary of custodian for branch of the Public Library at the Memorial High School ..... 3,128 56
Books, supplies, stamps and car tickets sold out of stock ..... 1,875 37
Supplies used as samples ..... 89
Exhibits ..... 55066
Removing ashes ..... 1,643 20
Permits to keep fuel oil and gasolene ..... 5800
Tuition, wards of the city ..... 18,742 34
Transportation, wards of the city ..... 1,668 79
Tuition, paid town of Winthrop ..... 26064
Transportation, paid town of Winthrop ..... 3620
Tuition, paid Massachusetts Agricultural Schools ..... 16666
Tuition, paid Massachusetts Industrial Schools ..... 38445
Tuition, paid for Continuation School pupils in other cities and towns ..... 2,335 76
Rebate on tuition charges ..... 28487
Printing and other expenses in connection with Journal of Character Training ..... 7,129 71
Supplies for bookbinder ..... 12348
Visual education supplies ..... 2405
Public library books lost at various schools ..... 19145
Carried forward ..... $\$ 51,13656$
Brought forward ..... \$51,136 56
Upkeep of Katherine Bowlker Public School loan collection ..... 29901
Expenses in connection with graduation exer- cises of Girls' High School at Tremont Temple ..... 3700
Discarded material ..... 11694
Moving and storage of piano during alterations at Washington School ..... 3150
Diplomas and certificates, military drill ..... 15200
Services of judges, use of armories, supplies, etc., for military drills ..... 1,183 40
Supplies purchased 1926, paid for 1927 ..... 10650
Use of tents, etc., annual parade of school cadets ..... 43975
Storage on films used in connection with visual instruction ..... 17625
Cleaning out oil tank at George T. Angell School ..... 7500
Transportation in connection with annual parade of school cadets ..... 1,77675
Use of equipment at North Bennet Street Industrial School by Eliot vacation school ..... 10000
Professional services in connection with injuries to custodians ..... 37100
Radiotone photographs for Memorial High School ..... 1,12500
Services of experts to the Business Manager on supplies, apparatus, etc. ..... 1,247 00
Short postage ..... 4779
Salaries of custodians, promotional and im- provement courses for teachers ..... 1,435 96
Conducting promotional and improvement courses for teachers ..... 18,052 21
Barrels, cans, etc. ..... 13150
Supplies not severally charged to schools and price adjustments ..... 4,298 48
Incidentals ..... 3074
Credits:Barrels, cans, packing cases, etc.Penalty exacted from contractors on accountof quality of fuel falling below standardrequirementsPenalties exacted from contractors on ac-count of quality of supplies falling belowstandard requirements95895
Cash discounts ..... 2,262 64$\$ 4300$2,165 25
$\$ 82,37034$
$\$ 4300$

25

SUPERVISION, EXTENDED USE OF THE PUBLIC SCHOOLS.

|  | Extended Use of the Public Schools Appropriation. | Regular Appropriation. |
| :---: | :---: | :---: |
| Salary of Director. | \$4,080 00 |  |
| Salary of clerk. | 1,617 16 |  |
| Office supplies and equipment | 7528 | \$34 90 |
| Printing and advertising. | 9995 | 1475 |
| Postage. | 8550 |  |
| Car tickets | 4000 |  |
| Allowance for auto mileage. | - |  |
| Telephone switchboard charges |  | 13913 |
| Incidentals................ | 1732 |  |
| Totals. | \$6,015 21 | \$18878 |
| Total. |  | \$6,203 99 |

Summary.- Cost of General Control, Supervision and Other Items.
Summary of Apportionment of Costs of General Control, Super-vision and Other Items to Schools, Groups of Schools andActivities.
Teachers College ..... \$16,179 46
Latin and high schools ..... 195,131 29
Elementary and intermediate schools ..... 601,942 31
Speech Improvement classes ..... 1,760 44
Boston Clerical School ..... 2,058 17
Boston Disciplinary Day School ..... 1,494 31
Horace Mann School ..... 2,040 90
Trade School for Girls ..... 6,569 35
Boston Trade School, day classes ..... 7,445 44
Continuation School, compulsory ..... 13,326 00
Day School for Immigrants ..... 1,148 67
Training school for teachers of Mechanic Arts ..... 1,145 07
Summer Review High School ..... 1,811 10
Summer Review elementary schools ..... 5,477 41
Vacation schools ..... 3,255 71
Recreational Handicraft Classes ..... -
Gardening
8,303 81
Evening high schools
11,586 47
Evening elementary schools
64831
Evening school extension
63288
Boston Trade School, evening classes
1,148 66
Day Practical Arts classes
6,747 84
Park playgrounds
5,082 19
Schoolyard playgrounds
5,273 39
School centers
93060
Use of school accommodations
Total ..... \$901,139 78
TELEPHONE SWITCHBOARD COSTS.
All items of telephone costs which could be chargeddirectly to the several offices have been so charged. Inaddition to such costs there is the cost of operation ofthe switchboard, which has been apportioned to therespective offices on the basis of the number of instru-ments thereon connected to the switchboard.

| Cost of | Telephone | Switchboard | Operation |
| :---: | :---: | :---: | :---: |
| Salaries of operators | . . . | . . . | \$2,240 65 |
| Switchboard rental |  |  | 9997 |
| Trunk lines | . . . | . . . | 26795 |
| Metallic circuits | . . . | . . . | 9805 |
| Telephone sets | . . . | . . . | 61807 |
| Carried forward | . . . | . . . | \$3,324 69 |

Brought forward ..... \$3,324 69
Listings ..... 969
Excess calls ..... 1,818 72
Toll calls and messages ..... 15847
Incidentals ..... 120
Miscellaneous service ..... 2987
\$5,342 64
Apportionment of Cost of Telephone Switchboard Charges.
Superintendent and Secretary ..... $\$ 47305$
Business Manager ..... 47305
Supply room ..... 20592
Schoolhouse Custodian ..... 13914
Assistant Superintendents ..... 53983
Board of Examiners ..... 27270
Administration Library ..... 7235
School Committee ..... 6678
Department of Practice and Training ..... 20592
Primary Supervisors ..... 7235
Department of Educational Investigation and Measurement ..... 20592
Department of Vocational Guidance ..... 33949
Department of Manual Arts ..... 60662
Department of Music ..... 13914
Department of Kindergartens ..... 7234
Department of Household Science and Arts ..... 13913
Department of Special Classes ..... 7234
Commercial Co-ordinator ..... 7234
Director of Penmanship ..... 7234
Department of Modern Foreign Languages ..... 7234
Department of Evening Schools ..... 40626
Department of Physical Education ..... 27269
Department of School Hygiene ..... 13913
Department of Attendance ..... 7234
Department of Extended Use of the Public Schools ..... 13913

STOCK BALANCE, 1927.

## Stock Balance, 1927.

Debit.
Inventory December 31, 1926:
Books . . . . . . . . . $\$ 6,79148$
Manual training supplies . . . . 6,294 24
Drawing supplies . . . . . . 6,275 26
Kindergarten supplies . . . . . 3,599 08
Custodians' supplies . . . . . 5,718 34
Miscellaneous educational supplies . . *37,069 32
Sewing supplies . . . . . . 1,22307
Educational material for first three grades . 2,731 43
Cookery supplies . . . . . . 19755
Science supplies . . . . . . 2296
Physical education supplies . . . . 5,19110
Supplies for extended use of the public schools . . . . . . . . 19282

Receipts 1927:
Purchases:
Books . . . . . . . . $\$ 7,51150$
Manual training supplies . . . . 15,83180
Drawing supplies . . . . . . 9,912 94
Kindergarten supplies . . . . . 7,900 07
Custodians' supplies . . . . . 27,07784
Miscellaneous educational supplies . . * 129,635 94
Sewing supplies . . . . . . 4,95247
Educational supplies for first three grades, 16,52013
Cookery supplies . . . . . . 1,365 95
Physical education supplies . . . 11,054 27
Science supplies . . . . . . 2460
Supplies for extended use of the public schools

10000

## From schools:

Books . . . . . . . . . $\$ 8515$
Manual training supplies . . . . 12980
Drawing supplies . . . . . . 475
Kindergarten supplies . . . . . 7250
Custodians' supplies . . . . . 775
Miscellaneous educational supplies . . *539 06
Physical education supplies . . . . 8725

## Overcharges:

Educational supplies for first three grades . $\$ 32727$
Kindergarten supplies . . . . . 28269

Total
$\$ 308,73038$
Note. - The items included in the above account are only those purchased for general distribution and do not include those purchased for any particular school. The latter are charged direct to the school.

[^5]
## Stock Balance, 1927.

Credit.Deliveries on requisitions:
Books ..... $\$ 8,59758$
Manual training supplies ..... 15,475 13
Drawing supplies ..... 9,429 44
Kindergarten supplies ..... 9,505 73
Custodians' supplies ..... 26,830 20
Miscellaneous educational supplies ..... * 128,127 40
Sewing supplies ..... 4,498 32
Educational material for first three grades ..... 16,926 78
Cookery supplies ..... 1,32380
Science supplies ..... 1021
Physical education supplies ..... 11,597 22
Supplies for extended use of the publicschools12550
Undercharges:
Miscellaneous educational supplies ..... * 1,83693
Manual training supplies ..... 1,057 15
Drawing supplies ..... 87059
Cookery supplies ..... 4109
Sewing supplies ..... 55231
Custodians' supplies ..... 53974
Physical education supplies ..... 1063
$\$ 232,44731$
Inventory December 31, 1927:
Books ..... \$5,790 55
Manual training supplies ..... 5,723 56
Drawing supplies ..... 5,892 92
Kindergarten supplies ..... 2,348 61
Custodians' supplies ..... 5,433 99
Miscellaneous educational supplies ..... * 37,279 99
Sewing supplies ..... 1,124 91
Educational material for first three grades ..... 2,652 05
Cookery supplies ..... 19861
Science supplies ..... 3735
Physical education supplies ..... 4,724 77
Supplies for extended use of the public schools ..... 16732Total\$308,730 38

Note. - The items included in the above account are only those purchased for general distribution and do not include those purchased for any particular school. The latter are charged direct to the school.

[^6]
## Summary of Costs Checking Total Expenditures.*


[^7]Per Capita Costs of Salaries of Instructors, Other Per Capita Costs and Total for Instruction, Based on Average Attendance.

Teachers College.

| SchooL. | Salaries <br> of In- <br> structors.* | Books. | Educational <br> Supplies <br> and <br> Incidentals. | Books and <br> Educational <br> Supplies <br> and <br> Incidentals. | Total for <br> Instruction. |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Teachers College................ $\$ 22054$ | $\$ 1000$ | $\$ 1344$ | $\$ 2344$ | $\$ 24398$ |  |

Latin and High Schools.

| Schools. | Salaries of Instructors.* | Books. | Educational Supplies and <br> Incidentals. | Books and Educational Supplies and <br> Incidentals. | Total for Instruction. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Public Latin. | \$111 77 | \$4 57 | \$3 59 | 8816 | \$119 93 |
| Girls' Latin. | 10676 | 507 | 386 | 893 | 11569 |
| Brighton High. | 11461 | 300 | 1183 | 1483 | 12944 |
| Charlestown High. | 13293 | 465 | 1276 | 1741 | 15034 |
| Dorchester High for Boys. | 11660 | 365 | 920 | 1285 | 12945 |
| Dorchester High for Girls.... | 11602 | 309 | 441 | 750 | 12352 |
| East Boston High . | 15567 | 311 | 1662 | 1973 | 17540 |
| English High . | 11871 | 275 | 608 | 883 | 12754 |
| Girls' High . | 12528 | 402 | 500 | 902 | 13430 |
| High School of Commerce. | 16459 | 253 | 717 | 970 | 17429 |
| High School of Practical Arts, | 19138 | 235 | 527 | 762 | 19900 |
| Hyde Park High. | 13062 | 322 | 549 | 871 | 13933 |
| Jamaica Plain High | 11771 | 339 | 525 | 864 | 12635 |
| Mechanic Arts High. | 16819 | 238 | 831 | 1069 | 17888 |
| Memorial High for Girls. | 10689 | 326 | 921 | 1247 | 11936 |
| South Boston High | 12444 | 303 | 612 | 915 | 13359 |
| Averages... | \$128 21 | \$3 42 | \$7 11 | \$10 53 | \$138 74 |

[^8]Elementary and Intermediate School Districts.

| Scrools. |
| :--- |

[^9]Elementary and Intermediate School Districts.- Continued.

| Schools. | Salaries of Instructors.* | Books. | Educational Supplies and Incidentals. | Books and Educational Supplies and Incidentals. | Total for Instruction. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Henry L. Pierce. . . . . . . . . . . . | \$81 29 | \$1 58 | \$4 49 | \$6 07 | \$87 36 |
| Hugh O'Brien. | 6819 | 103 | 234 | 337 | 7156 |
| Hyde. . | 8249 | 112 | 288 | 400 | 8649 |
| Jefferson-Comins. | 7059 | 109 | 209 | 318 | 7377 |
| John A. Andrew. | 5845 | 99 | 245 | 344 | 6189 |
| John Cheverus $\dagger$. | - | - | - | - | - |
| John Marshall. . . . . . . . . . . . . | 7350 | 110 | 217 | 327 | 7677 |
| John Winthrop. | 7135 | 112 | 319 | 431 | 7566 |
| Joseph H. Barnes Intermediate. | 10174 | 294 | 760 | 1054 | 11228 |
| Julia Ward Howe. | 6326 | 159 | 208 | 367 | 6693 |
| Lawrence. | 7550 | 79 | 345 | 424 | 7974 |
| Lewis Intermediate. | 9217 | 278 | 411 | 689 | 9906 |
| Longfellow. | 6321 | 102 | 188 | 290 | 6611 |
| Lowell. | 7622 | 122 | 318 | 440 | 8062 |
| Martin. | 9763 | 163 | 289 | 452 | 10215 |
| Mary Hemenway. | 7480 | 108 | 237 | 345 | 7825 |
| Mather. | 6805 | 119 | 169 | 288 | 7093 |
| Michelangelo Intermediate. | 9481 | 299 | 794 | 1093 | 10574 |
| Minot. | 7144 | 120 | 473 | 593 | 7737 |
| Norcross. | 8210 | 100 | 236 | 336 | 8546 |
| Oliver Hazard Perry . | 8367 | 122 | 240 | 362 | 8729 |
| Oliver Wendell Holmes Intermediate. $\qquad$ | 8724 | 183 | 436 | 619 | 9343 |
| Phillips Brooks. | 7064 | 130 | 304 | 434 | 7498 |
| Prescott. | 7656 | 138 | 336 | 474 | 8130 |
| Prince. | 7940 | 116 | 387 | 503 | 8443 |
| Quincy . | 9057 | 96 | 287 | 383 | 9440 |
| Rice. | 7659 | 106 | 290 | 396 | 8055 |
| Robert G. Shaw. | 7370 | 199 | 372 | 571 | 7941 |
| Robert Treat Paine. | 6440 | 95 | 174 | 269 | 6709 |
| Roger Wolcott. | 6296 | 116 | 168 | 284 | 6580 |
| Samuel Adams. | 5772 | 84 | 160 | 244 | 6016 |
| Sherwin. | 10259 | 82 | 466 | 548 | 10807 |
| Shurtleff. | 6857 | 159 | 342 | 501 | 7358 |
| Theodore Lyman. | 7296 | 131 | 242 | 373 | 7669 |

[^10]Elementary and Intermediate School Districts.- Concluded.

| Schools. | Salaries of Instructors.* | Books. | Educational Supplies and <br> Incidentals. | Books and Educational Supplies and Incidentals. | Total for Instruction. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Theodore Roosevelt Intermediate. $\qquad$ | \$80 98 | \$2 01 | \$3 15 | \$5 16 | \$86 14 |
| Thomas Gardner | 7071 | 106 | 193 | 299 | 7370 |
| Thomas N. Hart. | 8918 | 158 | 240 | 398 | 9316 |
| Ulysses S. Grant. | 5783 | 114 | 218 | 332 | 6115 |
| Warren-Bunker Hill. | 7664 | 100 | 238 | 338 | 8002 |
| Washington. | 10159 | 216 | 583 | 799 | 10958 |
| Washington Allston. | 8019 | 132 | 219 | 351 | 8370 |
| Washington Irving Interme diate. | 9370 | 195 | 674 | 869 | 10239 |
| Wells. | 7439 | 85 | 212 | 297 | 7736 |
| Wendell Phillips. . | 9548 | 141 | 303 | 444 | 9992 |
| William E. Endicott. | 7118 | 93 | 168 | 261 | 7379 |
| William E. Russell. | 7547 | 118 | 229 | 347 | 7894 |
| William Lloyd Garrison. | 6041 | 92 | 225 | 317 | 6358 |
| Averages. | \$74 88 | \$2 31 | \$2 84 | \$5 15 | \$80 03 |

* Includes principals, teachers of all ranks and clerks to principals.

Special Schools.

| Schools. | Salaries of Instructors.* | Books. | Educational Supplies and Incidentals. | Books and Educational Supplies and <br> Incidentals. | Total for Instruction. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Horace Mann. | \$357 02 | \$154 | \$23 75 | \$25 29 | \$382 31 |
| Boston Clerical. | 13081 | 347 | 1897 | 2244 | 15325 |
| Boston Disciplinary Day | 27314 | 530 | 2745 | 3275 | 30589 |
| Boston Trade, Day Classes. . | 23580 | 385 | 5422 | 5807 | 29387 |

* Includes principals, teachers of all ranks and clerks to principals.

[^11]
## TABLE NO. 1.

RECAPITULATION OF THE FOLLOWING TABLES NUMBERED FROM 2 TO 8B, INCLUSIVE; WITH COSTS OF GENERAL CONTROL, SUPER= VISION AND OTHER ITEMS ADDED TO SHOW TOTAL COSTS AND PER CAPITA COSTS BASED ON TOTAL COSTS; AND WITH TUITION RE= CEIVED FROM NONRESIDENT PUPILS AND APPORTIONED INCOME DEDUCTED TO SHOW NET TOTAL COSTS AND PER CAPITA COSTS BASED ON NET TOTAL COSTS.

TABLE NO. 1.- RECAPITULATION OF THE FOLLOWING TABLES NUMBERED FROM 2 TO 8B, INCLUSIVE; WITH COSTS OF GENERAL CONTROL, SUPER= VISION AND OTHER ITEMS ADDED TO SHOW TOTAL COSTS AND PER CAPITA COSTS BASED ON TOTAL COSTS; AND WITH TUITION RECEIVED FROM NONRESIDENT PUPILS AND APPORTIONED INCOME DEDUCTED TO SHOW NET TOTAL COSTS AND PER CAPITA COSTS BASED ON NET TOTAL COSTS.*

|  |  | Teachers College. | 2 <br> Latin and Hign Sciools. | $\mathbf{3}$ <br> Elementary <br> and <br> Intermediate <br> School <br> Districts. | 4 <br> Speech <br> Improvement <br> Classes. | 5 <br> Boston Clerical School. | 6 <br> Boston <br> Disciplinary <br> Day School. | 7 <br> Horace Mann School. | 8 <br> Trade School for Girls. $\ddagger$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Costs, with direct income deducted and exclusive of general control, supervision and other items. (See tables following, from 2 to 8B, inclusive.) | \$198,227 94 | \$2,959,841 47 | \$8,620,483 16 | \$38,691 66 | \$61,533 76 | \$21,501 49 | \$54,801 94 | \$54,925 86 | 1 |
| 2 | Average membership. | 781 | 21,715 | 103,733 |  | 377 |  | 145 |  |  |
| 3 | Cost per pupil, direct charges only (on average membership). | \$253 81 | \$136 30 | \$83 10 |  | \$163 22 | 831620 | \$377 94 |  | 3 |
| 4 | Average attendance. | 765 | 20,312 | 95,935 |  | 347 | $57$ | 133 |  |  |
| 5 | Cost per pupil, direct charges only (on average attendance) | \$259 12 | \$145 72 | \$89 86 |  | \$177 33 | \$377 22 | \$412 04 |  | 5 |
| 6 | Number of pupil hours | 794,653 | 21,501,405 | 87,836,117 |  | 361,176 | 54,030 | 126,473 | 567,300 | 6 |
| 7 | Cost per pupil hour. | \$0 249 | \$0 137 | \$0 098 |  | \$0 170 | \$0 397 | \$0 433 | \$0 096 | 7 |
| 8 | Above costs brought down <br> Costs of general control, supervision and other items | $\left\|\begin{array}{r} \$ 198,227 \\ 16,179 \\ \hline 16 \end{array}\right\|$ | $\left.\begin{array}{\|r} \$ 2,959,841 \\ 195,131 \end{array} \right\rvert\,$ | $\begin{array}{rr} \$ 8,620,483 & 16 \\ 601,942 & 31 \end{array}$ | $\left.\begin{array}{r} \$ 38,691 \\ \hline 1,760 \end{array}\right]$ | $\begin{array}{r} \$ 61,53376 \\ 2,058 \quad 17 \end{array}$ | $\begin{array}{r} \$ 21,50149 \\ 1,49431 \end{array}$ | $\begin{array}{r} \$ 54,80194 \\ 2,04090 \end{array}$ | $\begin{array}{r} \$ 54,925 \\ 66 \\ 6,569 \end{array}$ | 8 9 |
| 10 | Total costs. | \$214,407 40 | \$3,154,972 76 | \$9,222,425 47 | \$40,452 10 | \$63,591 93 | \$22,995 80 | \$56,842 84 | \$61,495 21 | 10 |
| 11 | Cost per pupil, total (on average membership) | \$274 53 | \$145 29 | \$88 91 |  | \$168 68 | \$338 17 | \$392 02 |  | 11 |
| 12 | Cost per pupil, total (on average attendance) | \$280 27 | \$155 33 | \$96 13 |  | \$183 26 | \$403 44 | $\$ 42739$ |  | 12 |
| 13 | Cost per pupil hour, total. | \$0 269 | \$0 146 | \$0 104 |  | \$0 176 | \$0 425 | \$0 449 | \$0 108 | 13 |
| 14 | Above total costs brought down | \$214,407 40 | \$3,154,972 76 | \$9,222,425 47 | \$40,452 10 | \$63,591 93 | \$22,995 80 | \$56,842 84 | \$61,495 21 | 14 |
| 15 | Deduct tuition received from nonresident pupils. | 11,202 00 | 22,558 23 | 6,788 67 | 9368 | 79350 |  | § 54,154 00 | 21,907 63 | 15 |
| 16 |  | \$203,205 40 | \$3,132,414 53 | \$9,215,636 80 | \$40,358 42 | \$62,798 43 | \$22,995 80 | \$2,688 84 | \$39,587 58 | 16 |
| 17 | Deduct income (group credits and balance apportioned) |  | 10,434 82 | $\begin{array}{r}40,74429 \\ \hline\end{array}$ | 18973 | 18972 | 4743 | 18972 | 56917 | 17 |
| 18 | Net total costs $\dagger$. | \$202,636 23 | \$3,121,979 71 | \$9,174,892 51 | \$40,168 69 | \$62,608 71 | \$22,948 37 | \$2,499 12 | \$39,018 41 | 18 |
| 19 | Net cost per pupil (on average membership) | \$259 46 | \$143 77 | \$88 45 |  | \$166 07 | \$337 48 | \$17 24 |  | 19 |
| 20 | Net cost per pupil (on average attendance) $\dagger$ | \$264 88 | \$153 70 | \$95 64 |  | $\$ 18043$ | \$402 60 | \$18 79 |  | 20 |
| 21 | Net cost per pupil hour $\dagger$. | \$0 254 | \$0 145 | \$0 104 |  | \$0 173 | \$0 424 | \$0 019 | \$0 068 | 21 |

$\ddagger$ That part of the total cost coming from the School Committee's share of the tax levy.
$\ddagger$ Including regular, summer and extension classes.
§ Receipts from Commonwealth for resident and nonresident pupils.
N. B.-Included in the above costs of general control, supervision and other items is the cost of tuition of Boston pupils, wards of the city and others, attending school in other cities and towns.

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 1.- RECAPITULATION OF THE FOLLOWING TABLES NUMBERED FROM 2 TO 8B, INCLUSIVE; WITH COSTS OF GENERAL CONTROL, SUPERVISION AND OTHER ITEMS ADDED TO SHOW TOTAL COSTS AND PER CAPITA COSTS BASED ON TOTAL COSTS; AND WITH TUITION RECEIVED FROM NONRESIDENT PUPILS AND APPORTIONED INCOME DEDUCTED TO SHOW NET TOTAL COSTS AND PER CAPITA COSTS BASED ON NET TOTAL COSTS.*

|  | Boston Trade School Day Classes. | 10 Continuation School, Compulsory | 11 <br> Day <br> School for Immigrants. | 12 <br> Recreational Handicraft Classes. | 13 <br> Gardening Classes. | 14 <br> Training School for Teachers of Mechanic Arts. | 15 <br> Boston <br> Public <br> School Symphony Orchestra. | 16 <br> Summer Review High School. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$86,379 78 | \$89,755 73 | \$6,499 74 | \$3,948 62 | \$16,769 79 | \$6,939 22 | \$3,601 31 | \$11,769 49 | 1 |
| 2 | 549 |  |  |  |  |  |  |  | 2 |
| 3 | \$157 34 |  |  |  |  |  |  |  | 3 |
| 4 | 507 |  |  |  |  |  |  | 933 | 4 |
| 5 | \$170 37 |  |  |  |  |  |  | \$12 61 | 5 |
| 6 | 694,689 | 596,700 | 85,858 | 33,603 |  | 21,396 |  | 149,280 | 6 |
| 7 | \$0 124 | \$0 150 | \$0 075 | \$0 117 |  | \$0 324 |  | \$0 078 | 7 |
| 8 | \$86,379 78 | \$89,755 73 | \$6,499 74 | \$3,948 62 | \$16,769 79 | \$6,939 22 | \$3,601 31 | \$11,769 49 | 8 |
| 9 | 7,445 44 | 13,326 00 | 1,148 67 |  |  | 1,145 07 |  | 1,811 10 | 9 |
| 10 | \$93,825 22 | \$103,081 73 | \$7,648 41 | \$3,948 62 | \$16,769 79 | \$8,084 29 | \$3,601 31 | \$13,580 59 | 10 |
| 11 | \$170 90 |  |  |  |  |  |  |  | 11 |
| 12 | \$185 06 |  |  |  |  |  |  | \$14 56 | 12 |
| 13 | \$0 135 | \$0 172 | \$0 089 | \$0 117 |  | \$0 377 |  | \$0 090 | 13 |
| 14 | \$93,825 22 | \$103,081 73 | \$7,648 41 | \$3,948 62 | \$16,769 79 | \$8,084 29 | \$3,601 31 | \$13,580 59 | 14 |
| 15 | 18,872 27 | 28,375 66 | 1612 |  |  | 82800 |  | 49400 | 15 |
| 16 | \$74,952 95 | \$74,706 07 | \$7,632 29 | \$3,948 62 | \$16,769 79 | \$7,256 29 | \$3,601 31 | \$13,086 59 | 16 |
| 17 | 47431 | 52174 | 4743 |  |  | 4743 |  | 4743 | 17 |
| 18 | \$74,478 64 | \$74,184 33 | \$7,584 86 | \$3,948 62 | \$16,769 79 | \$7,208 86 | \$3,601 31 | \$13,039 16 | 18 |
| 19 | \$135 66 |  |  |  |  |  |  |  | 19 |
| 20 | \$146 90 |  |  |  |  |  |  | \$13 98 | 20 |
| 21 | \$0 107 | \$0 124 | \$0 088 | \$0 117 |  | \$0 336 |  | \$0 087 | 21 |

[^12]TABLE NO. 1.- RECAPITULATION OF THE FOLLOWING TABLES NUMBERED FROM 2 TO 8B, INCLUSIVE; WITH COSTS OF GENERAL CONTROL, SUPER= VISION AND OTHER ITEMS ADDED TO SHOW TOTAL COSTS AND PER CAPITA COSTS BASED ON TOTAL COSTS; AND WITH TUITION RECEIVED FROM NONRESIDENT PUPILS AND APPORTIONED INCOME DEDUCTED TO SHOW NET TOTAL COSTS AND PER CAPITA COSTS BASED ON NET TOTAL COSTS.*

|  | $\begin{gathered} 17 \\ \text { Summer } \\ \text { Review } \\ \text { Elementary } \\ \text { and } \\ \text { Inter- } \\ \text { mediate } \\ \text { Schools. } \end{gathered}$ | $18$ <br> Vacation Schools. | 19 <br> Evening <br> High <br> Schools. | 20 <br> Evening Elementary Schools. | 21 <br> Evening School Extension. | 22 <br> Boston <br> Trade <br> School, <br> Evening <br> Classes. | 23 <br> Day <br> Practical Arts Classes. | 24 <br> Afternoon Lip-Reading Classes. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$34,595 70 | \$29,124 21 | \$82,170 25 | \$81,927 84 | \$1,017 98 | \$10,716 49 | \$899 90 | \$4,881 64 | 1 |
| 2 |  |  |  |  |  |  |  |  | 2 |
| 3 |  |  |  |  |  |  |  |  | 3 |
| 4 | 5,896 | 4,410 | 3,268 | 3,269 | 152 | 569 | 222 |  | 4 |
| 5 | 8587 | \$6 60 | \$25 14 | \$25 06 | \$6 70 | \$18 83 | \$4 05 |  | 5 |
| 6 | 707,520 | 529,200 | 508,652 | 451,386 | 4,550 | 74,542 | 20,910 | 11,150 | 6 |
| 7 | \$0 048 | \$0 055 | \$0 161 | \$0 181 | \$0 223 | \$0 143 | \$0 043 | \$0 437 | 7 |
| 8 | \$34,595 70 | \$29,124 21 | \$82,170 25 | \$81,927 84 | \$1,017 98 | \$10,716 49 | \$899 90 | \$4,881 64 | 8 |
| 9 | 5,477 41 | 3,255 71 | 8,303 81 | 11,586 47 | 64831 | 63288 | 1,148 66 |  | 9 |
| 10 | \$40,073 11 | \$32,379 92 | \$90,474 06 | \$93,514 31 | \$1,666 29 | \$11,349 37 | \$2,048 56 | \$4,881 64 | 10 |
| 11 |  |  |  |  |  |  |  |  | 11 |
| 12 | \$6 80 | \$7 34 | \$27 68 | \$28 61 | \$10 96 | \$19 95 | $\$ 923$ |  | 12 |
| 13 | \$0 056 | \$0 061 | \$0 177 | \$0 207 | \$0 366 | \$0 152 | \$0 097 | \$0 437 | 13 |
| 14 | \$40,073 11 | \$32,379 92 | \$90,474 06 | \$93,514 31 | \$1,666 29 | \$11,349 37 | \$2,048 56 | \$4,881 64 | 14 |
| 15 | 3500 |  | 31670 | 27889 |  | 1,108 20 |  | 1635 | 15 |
| 16 | \$40,038 11 | \$32,379 92 | \$90,157 36 | \$93,235 42 | \$1,666 29 | \$10,241 17 | \$2,048 56 | \$4,865 29 | 16 |
| 17 | 28459 | 23716 | 63265 | 27,834 25 | 4743 | 4743 | 4743 |  | 17 |
| 18 | \$39,753 52 | \$32,142 76 | \$89,524 71 | \$65,401 17 | \$1,618 86 | \$10,193 74 | \$2,001 13 | \$4,865 29 | 18 |
| 19 |  |  |  |  |  |  |  |  | 19 |
| 20 | \$6 74 | \$7 29 | \$27 39 | \$20 01 | \$10 65 | \$1792 | \$9 01 |  | 20 |
| 21 | 30056 | \$0 060 | \$0 176 | \$0 144 | \$0 355 | \$0 136 | \$0 095 | \$0 436 | 21 |
|  |  |  |  |  |  |  |  |  |  |

[^13]TABLE NO. 1.- RECAPITULATION OF THE FOLLOWING TABLES NUMBERED FROM 2 TO 8B, INCLUSIVE; WITH COSTS OF GENERAL CONTROL, SUPERVISION AND OTHER ITEMS ADDED TO SHOW TOTAL COSTS AND PER CAPITA COSTS BASED ON TOTAL COSTS; AND WITH TUITION RECEIVED FROM NONRESIDENT PUPILS AND APPORTIONED INCOME DEDUCTED TO SHOW NET TOTAL COSTS AND PER CAPITA COSTS BASED ON NET TOTAL COSTS.*

|  | 25 <br> Park <br> Playgrounds. | $26$ <br> Schoolyard Playgrounds. | 27 <br> School Centers. | ${ }^{5} 28$ <br> Use of School Accommodations. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$64,134 09 | \$60,017 19 | \$61,896 53 | \$6,804 43 |  |
| 2 |  |  |  |  | 2 |
| 3 |  |  |  |  | 3 |
| 4 |  |  | 6,235 |  | 4 |
| 5 |  |  | \$9 93 |  | 5 |
| 6 | 4,608,743 | 3,076,122 |  | ${ }^{1} 223,645$ | 6 |
| 7 | \$0 013 | \$0 019 |  | $2 \$ 0030$ | 7 |
| 8 | \$64,134 09 | \$60,017 19 | \$61,896 53 | \$6,804 43 | 8 |
| 9 | 6,747 84 | 5,082 19 | 5,273 39 | 93060 | 9 |
| 10 | \$70,881 93 | \$65,099 38 | \$67,169 92 | \$7,735 03 | 10 |
| 11 |  |  |  |  | 11 |
| 12 |  |  | \$10 77 |  | 12 |
| 13 | \$0 015 | \$0 021 |  | \$0 034 | 13 |
| 14 | \$70,881 93 | \$65,099 38 | \$67,169 92 | \$7,735 03 | 14 |
| 15 |  |  |  |  | 15 |
| 16 | \$70,881 93 | \$65,099 38 | \$67,169 92 | \$7,735 03 | 16 |
| 17 |  |  |  |  | 17 |
| 18 | \$70,881 93 | \$65,099 38 | \$67,169 92 | \$7,735 03 | 18 |
| 19 |  |  |  |  | 19 |
| 20 |  |  | \$10 77 |  | 20 |
| 21 | \$0 015 | \$0 021 |  | \$0 034 | 21 |

${ }^{1}$ Total attendance.
${ }^{2}$ Per capita cost.

[^14]
## TABLE NO. 2.

## TEACHERS COLLEGE, LATIN AND HIGH SCHOOLS.

COSTS EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)

TABLE NO. 2.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

TEACHERS COLLEGE.*
[For Total and Net Costs, See Tablf No. 1.]

|  |  |  |  |  | Exp | gses of Inst | ction. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |
|  |  | Salary of Head Master. | Salaries of Clerks. | Postage. | Telephone. | Salaries of Teachers. | Salaries of Physical Education Teachers. | Text Books. | Reference Books. | Rebinding Books. |  |
| 1 | Teachers College. | \$5,376 00 | \$3,821 57 | \$122 39 | \$225 56 | \$153,604 62 | \$5,907 56 | \$4,789 97 | \$2,747 67 | \$115 55 | I |

LATIN AND HIGH SCHOOLS.*
[For Total and Net Costs, Sel Table No. 1.]


* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 2.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES AND WITH DIRECT INCOME DEDUCTED.*

TEACHERS COLLEGE.*
[For Total and Net Costs, See Table No. 1.]


LATIN AND HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |  |
|  | Drawing Supplies and Equipment. | Shop Room Supplies and <br> Equipment. | Cookery Supplies and Equipment. | Sewing Supplies and Equipment. | Science Supplies and Equipment. | Music Supplies and Instruments. | Printing. | Commercial Supplies and <br> Equipment. |  |
| 1 |  |  |  |  | $\$ 9743$ | \$469 56 | \$226 75 | $\$ 9901$ | 1 |
| 2 |  | \$19 80 |  |  | 92696 | 26000 | 5810 | 12835 | 2 |
| 3 | \$352 04 | 87948 | \$173 02 | \$1833 | 27874 | 47922 | 16576 | 4,060 23 | 3 |
| 4 | 23906 | 6,148 16 | 18933 | 184 | 38700 | 11015 | 9586 | 84907 | 4 |
| 5 | 24566 | 4,265 07 |  |  | 1,784 86 | 33375 | 13506 | 2,299 86 | 5 |
| 6 | 28401 | 3625 | 8626 | 19253 | 33909 | 24124 | 10445 | 3,982 43 | 6 |
| 7 | 19545 | 6,685 45 | 17714 | 9578 | 99096 | 1,391 69 | 7350 | 61457 | 7 |
| 8 | 87145 | 67800 |  |  | 75715 | 29433 | 12425 | 1,416 56 | 8 |
| 9 | 51118 | 944 | 7397 | 6711 | 90139 | 1921 | 16980 | 4,173 29 | 9 |
| 10 | 50869 | 487 |  |  | 45938 | 45330 | 75713 | 1,401 47 | 10 |
| 11 | 42540 | 2252 | 59387 | 26555 | 47730 | 15116 | 9850 | 23356 | 11 |
| 12 | 28689 | 98780 | 10392 | 5515 | 90018 | 17800 | 6977 | 31211 | 12 |
| 13 | 15140 | 33889 | 150 | 45421 | 62529 | 9900 | 9760 | 1,038 48 | 13 |
| 14 | 75380 | 4,416 42 |  |  | 1,620 02 | 93972 | 14265 | 20827 | 14 |
| 15 | 1,687 58 | -38 39 | 27860 | 55312 | 56879 | 1,160 37 | 11145 | 7,406 41 | 15 |
| 16 | 11366 | 79642 | 16418 | 7938 | 53300 | 11898 | 4245 | 1,018 57 | 16 |
| 17 | \$6,626 27 | \$25,326 96 | \$1,841 79 | \$1,783 00 | \$11,647 54 | \$6,699 68 | \$2,473 08 | \$29,242 24 | 17 |

*EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.
rable no. 2.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

## TEACHERS COLLEGE.*

[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  | Operation of Plant. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |  |
|  | Incidentals. | Total for Instruc tion. | Number of Pupil Hours. | Cost per Pupil Hour of Instruc. tion. | Salary of Custodian. | Fuel. | Electric Current for light and Power. | Gas. |  |
| 1 | \$94 77 | \$186,643 82 | 794,653 | \$0 234 | $1 \$ 6,73016$ | \$2,705 53 | \$1,295 86 | \$117 13 | 1 |

${ }^{1}$ Including salary of matron.

## LATIN AND HIGH SCHOOLS.*

[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  | Opfration of Plant. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |  |
|  | Other Educational Supplies and Equipment. | Car <br> Tickets and Auto Mileage. | Physical Education Supplies and Equipment. | Incidentals. | Total for Instruction. | Number of Pupil Hours. | Cost per Pupil Hour of Instruc= tion. | Salaries of Custodians. |  |
| 1 | \$2,228 14 |  | \$2,015 55 | \$123 05 | \$181,445 10 | 1,562,966 | \$0 116 | \$7,829 39 | 1 |
| 2 | 1,731 59 |  | 21807 | 4756 | 105,968 57 | 950,468 | 111 | ${ }^{1} 6,76090$ | 2 |
| 3 | 1,831 47 | \$122 52 | 1,175 36 | 21953 | 108,091 98 | 854,960 | 126 | ${ }^{1} 6,87724$ | 3 |
| 4 | 1,088 47 | 25475 | 1,241 79 | 12245 | 130,192 71 | 894,688 | 145 | 17,26950 | 4 |
| 5 | 1,709 13 | 16991 | 2,787 03 | 4129 | 195,724 81 | 1,560,260 | 125 | 10,990 08 | 5 |
| 6 | 2,071 95 |  | 7948 | 1884 | 212,966 66 | 2,199,912 | 096 | ${ }^{1} 11,04373$ | 6 |
| 7 | 1,981 28 | 12550 | 2,494 58 | 25817 | 161,188 78 | 945,320 | 170 | ${ }^{1} 10,68941$ | 7 |
| 8 | 4,016 00 |  | 5,059 80 | 3910 | 302,009 11 | 2,446,194 | 123 | 8,855 87 | 8 |
| 9 | 2,802 66 |  | 27602 | 2475 | 248,053 34 | 1,948,184 | 127 | ${ }^{1} 10,56412$ | 9 |
| 10 | 1,768 28 |  | 1,677 91 | 3450 | 192,763 13 | 1,150,926 | 167 | 7,198 32 | 10 |
| 11 | 85271 | 16226 | 14835 | 11522 | 141,09014 | 728,741 | 193 | ${ }^{1} 9,29984$ | 11 |
| 12 | 65609 | 19455 | 1,035 76 | 8741 | 129,160 38 | 960,401 | 134 | 4,13337 | 12 |
| 13 | 1,403 82 | 18712 | 1,339 20 | 4126 | 143,914 25 | 1,177,012 | 122 | ${ }^{1} 9,08330$ | 13 |
| 14 | 2,153 20 |  | 1,372 34 | 2489 | 254,190 89 | 1,541,873 | 164 | 10,988 07 | 14 |
| 15 | 3,279 87 |  | 2931 | 20991 | 201,471 97 | 1,735,032 | 116 | ${ }^{1} 13,55975$ | 15 |
| 16 | 85882 |  | 1,244 08 | 927 | 110,876 58 | 844,468 | 131 | ${ }^{1} 77,87681$ | 16 |
| 17 | \$30,433 48 | \$1,216 61 | \$22,194 63 | \$1,417 20 | \$2,819,108 40 | 21,501,405 | \$0 131 | \$143,019 70 | 17 |

[^15]* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 2.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

## TEACHERS COLLEGE.*

[For Total and Net Costs, See Table No. 1.]

|  | Operation of Plant. |  | Promotion of Health. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |  |
|  | Custodians' <br> Supplies and <br> Equipment. | Total for Operation of Plant. | Salaries, School Physicians. | Nurses' Salaries. | Supplies and Equipment for School Physicians and Nurses. | Total for Promotion of Health. | Total. | Direct <br> Income <br> Credits <br> from all <br> Sources. |  |
| 1 | \$225 51 | \$11,074 19 | \$526 29 |  | \$10 00 | \$536 29 | \$198,254 30 | \$26 36 | 1 |

LATIN AND HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Operation of Plant. |  |  |  |  | Promotion of Health. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 26 <br> Fuel. | 27 <br> Electric Current for Light and Power. | 28 Gas. | 29 <br> Custodians' <br> Supplies and <br> Equipment. | 30 <br> Total for Operation of Plant. | 31 <br> Salaries, School Physicians. | $32$ <br> Nurses' Salaries. | 33 <br> Supplies and Equipment for School Physicians and Nurses. |  |
| 1 | \$3,030 26 | \$1,888 15 | \$128 69 | \$300 42 | \$13,176 91 | \$692 00 |  | \$4 40 | 1 |
| 2 | 2,857 04 | 1,754 67 | 11713 | 23951 | 11,729 25 | 52629 |  | 2534 | 2 |
| 3 | 2,515 20 | 1,508 69 | 19882 | 25447. | 11,354 42 | 59033 |  | 391 | 3 |
| 4 | 2,792 84 | 1,063 23 | 13272 | 23932 | 11,497 61 | 65726 |  | 1325 | 4 |
| 5 | 4,357 44 | 2,626 90 | 20510 | 70810 | 18,887 62 | 95986 |  | 124 | 5 |
| 6 | 5,324 35 | 2,112 50 | 21570 | 37744 | 19,073 72 | 83486 |  | 7484 | 6 |
| 7 | 3,939 18 | 3,430 53 | 28371 | 1,070 97 | 19,413 80 | 53619 |  | 565 | 7 |
| 8 | 4,099 65 | 3,010 86 | 28755 | 25602 | 16,509 95 | 1,234 86 |  | 1612 | 8 |
| 9 | 4,363 05 | 4,238 07 | 39732 | 35420 | 19,916 76 | 1,077 15 |  | 664 | 9 |
| 10 | 2,503 55 | 1,277 68 | 12687 | 27276 | 11,379 18 | 79577 |  | 102 | 10 |
| 11 | 3,260 56 | 2,104 92 | 66851 | 34321 | 15,677 04 | 51715 |  | 1059 | 11 |
| 12 | 2,851 64 | 1,241 71 | 24556 | 15144 | 8,623 72 | 56286 |  | 688 | 12 |
| 13 | 3,109 71 | 1,477 05 | 20473 | 39237 | 14,267 16 | 34686 |  | 1430 | 13 |
| 14 | 5,525 14 | 6,850 68 | 16062 | 22615 | 23,750 66 | 41934 |  | 605 | 14 |
| 15 | 7,422 86 | 2,434 59 | 29047 | 86411 | 24,571 78 | 57429 |  | 5140 | 15 |
| 16 | 1,743 10 | 1,563 06 | 31838 | 24993 | 11,751 28 | 66286 |  | 1933 | 16 |
| 17 | 859,695 57 | \$38,583 29 | 83,981 88 | \$6,300 42 | \$251,580 86 | \$10,987 93 |  | \$260 96 | 17 |

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

FABLE NO. 2.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

TEACHERS COLLEGE.*
[For Total and Net Costs, See Table No. 1.]


LATIN AND HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | 34 Total for Promotion of Health. | 35 <br> Total. | Direct Income Credits from all Sources. | 37 Net Total.* | 38 <br> Average <br> Membership. | 39 <br> Cost per Pupil, Average Member $=$ ship.* | 40 <br> Average Attendance. | 41 <br> Cost per Pupil, Average Attendance.* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$696 40 | \$195,318 41 | \$464 70 | \$194,853 71* | 1,580 | \$123 33* | 1,513 | \$128 79* | 1 |
| 2 | 55163 | 118,249 45 | 4985 | 118,199 60* | 954 | 123 90* | 916 | 129 04* | 2 |
| 3 | 59424 | 120,040 64 | ${ }^{2} 5,08420$ | 114,956 44* | 901 | 127 59* | 835 | 137 67* | 3 |
| 4 | 67051 | 142,360 83 | ${ }^{2} 24,23589$ | 118,124 94* | 927 | 127 43* | 866 | 136 40* | 4 |
| 5 | 96110 | 215,573 53 | 27,579 93 | 207,993 60* | 1,654 | 125 75* | 1,512 | 137 56* | 5 |
| 6 | 90970 | 232,950 08 |  | 232,950 08* | 1,870 | 124 57* | 1,716 | 135 75* | 6 |
| 7 | 54184 | 181,144 42 | 26,724 21 | 174,420 21* | 979 | 178 16* | 919 | 189 79* | 7 |
| 8 | 1,250 98 | 319,770 04 | 54125 | 319,228 79* | 2,556 | 124 89* | 2,368 | 134 81* | 8 |
| 9 | 1,083 79 | 269,053 89 | 8185 | 268,972 04* | 1,992 | 135 03* | 1,847 | 145 63* | 9 |
| 10 | 79679 | 204,939 10 | 51235 | 204,426 75* | 1,153 | 177 30* | 1,106 | 184 83* | 10 |
| 11 | 52774 | 157,294 92 | ${ }^{2} 63,35602$ | 93,938 90* | 770 | 122 00* | 709 | 132 49* | 11 |
| 12 | 56974 | 138,353 84 | ${ }^{2} 7,18617$ | 131,167 67* | 982 | 133 57* | 927 | 141 50* | 12 |
| 13 | 36116 | 158,542 57 | ${ }^{2} 5,33681$ | 153,205 76* | 1,196 | 128 10* | 1,139 | 134 51* | 13 |
| 14 | 42539 | 278,366 94 | 45537 | 277,911 57* | 1,492 | 186 27* | 1,421 | 195 57* | 14 |
| 15 | 62569 | 226,669 44 | 851 | 226,660 93* | 1,835 | 123 52* | 1,688 | 134 28* | 15 |
| 16 | 68219 | 123,310 05 | 47957 | 122,830 48* | 874 | $14054^{*}$ | 830 | 147 99* | 16 |
| 17 | \$11,248 89 | \$3,081,938 15 | \$122,096 68 | \$2,959,841 47* | 21,715 | \$136 30\% | 20,312 | \$145 72* | 17 |

${ }^{2}$ Includes aid from the Commonwealth and Smith-Hughes Fund Allotment.
EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 2.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

LATIN AND HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

[^16](

## TABLE NO. 3.

## ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.

(Abraham Lincoln to Frederic W. Lincoln, Inclusive.)

COST EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)

# TABLE NO. 3.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.* 

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  |  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | School Districts. | 1 | 2 <br> Salaries of Principals. | 3 <br> Salaries of Clerks. | 4 <br> Postage. | 5 <br> Telephone. | 6 <br> Salaries of̂ Teachers. | 7 <br> Salaries of Physical Education Teachers. | 8 <br> Text Books. |  |
| 1 | Abraham Lincoln. | $\left\{\begin{array}{c}\text { Kindergarten } \\ \text { Grades I-IX }\end{array}\right\}$ | \$3,939 84 | \$1,308 72 | \$25 29 | \$127 43 | \$114,368 41 | \$273 77 | \$1,159 19 | 1 |
| 2 | Agassiz.. | Kindergarten and $\}$ | 4,608 00 | 4319 |  |  | 55,236 89 | 15829 | 1,050 13 | 2 |
| 3 | Bennett. | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-IX. }\end{array}\right.$ | 4,608 00 | 1,338 96 | 2600 | 29322 | 170,326 17 | 42903 | 3,023 96 | 3 |
| 4 | Bigelow | \{ $\left.\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-IX. }\end{array}\right\}$ | 4,596 48 | 1,344 00 | 2984 | 10383 | 69,922 67 | 15954 | 1,878 01 | 4 |
| 5 | Blackinton $\dagger$ | $\begin{gathered} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{gathered}$ | 1,024 00 | 12396 | 300 | Cr. 593 | 14,293 22 | 9771 | 53535 | 5 |
| 6 | Blackinton-John Cheverus $\ddagger$ | \{ $\left.\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 3,392 00 | 1,048 95 | 464 | 10843 | 83,25557 | 16555 | 1,046 39 | 6 |
| 7 | Bowditch | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 4,608 00 | 21960 | 1100 | 12106 | 72,724 93 | 14265 | 89213 | 7 |
| 8 | Bowdoin. | \{ $\left.\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VI. }\end{array}\right\}$ | 4,60800 | 7020 | 426 | 12831 | 68,546 74 | 6886 | 51411 | 8 |
| 9 | Chapman | [ $\left.\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VI. }\end{array}\right\}$ | 4,080 00 | 54400 | 822 | 15706 | 69,057 01 | 16555 | 73727 | 9 |
| 10 | Charles Sumner. | \{ $\left.\begin{array}{c}\text { Kindergarten and } \\ \text { Grades } \mathrm{I}-\mathrm{VI} \text {. }\end{array}\right\}$ | 4,368 00 | 12960 | 1184 | 16302 | 67,006 49 | 11648 | 1,380 25 | 10 |
| 11 | Christopher Gibson. | $\left.\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,224 00 | 27564 | 1140 | 10256 | 72,720 07 | 9564 | 1,833 30 | 11 |
| 12 | Dearborn. | Kindergarten and Grades I-VIII. | 4,608 00 | 1,340 64 | 1837 | 26839 | 131,927 68 | 8533 | 1,365 86 | 12 |
| 13 | Dillaway | Kindergarten and Grades I-VIII. | 3,843 84 | 57528 | 1490 | 16849 | 78,390 70 | 11264 | 79018 | 13 |
| 14 | Donald McKay Intermediate. | Grades VII-IX.... | 4,608 00 | 1,344 00 | 2500 | 9199 | 81,596 89 | 22210 | 1,261 42 | 14 |
| 15 | Dudley | (Kindergarten and Grades I-VIII. | 4,608 00 | 54256 | 1200 | 13609 | 82,231 82 | 11842 | 1,130 64 | 15 |
| 16 | Dwight. | Kindergarten and Grades I-VIII. | 3,936 00 |  | 2660 | 15690 | 66,633 90 | 13122 | 43654 | 16 |
| 17 | Edmund P. Tileston. | Kindergarten and Grades I-VIII. | 4,608 00 | 54136 | 1992 | 11652 | 88,118 82 | 9564 | 2,065 14 | 17 |
| 18 | Edward Everett. | Kindergarten and) Grades I-VIII. | 4,608 00 | 79928 | 2600 | 32724 | 101,431 41 | 19777 | 1,439 93 | 18 |
| 19 | Elihu Greenwood. | Kindergarten and Grades I-VIII. | 4,512 00 | 54136 | 1289 | 23353 | 99,103 52 | 25525 | 1,059 84 | 19 |
| 20 | Eliot. | Kindergarten and Grades I-VI. | 3,936 00 | 1,338 96 | 1250 | 13535 | 137,553 27 | 18635 | 1,852 79 | 20 |
| 21 | Emerson. | Kindergarten and Grades I-VI. | 4,080 00 | 1,275 20 | 1200 | 19286 | 71,738 21 | 10667 | 1,182 04 | 21 |
| 22 | Emily A, Fifield. | $\left\{\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VI. } \end{array}\right.$ | 3,070 08 | 3120 | 2094 | 13980 | 57,092 55 |  | 74746 | 22 |
| 23 | Everett. | Kindergarten and Grades I-VIII. | 3,984 00 | 8310 | 1138 | 18192 | 60,294 00 | 6886 | 1,278 71 | 23 |
| 24 | Francis Parkman. | Kindergarten and <br> Grades I-VIII. | 4,608 00 | 6554 | 1000 | 9482 | 50,835 76 | 11648 | 1,068 98 | 24 |
| 25 | Franklin. | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,608 00 | 11940 | 1717 | 10338 | 65,23548 | 6602 | 82837 | 25 |
| 26 | Frank V. Thompson Intermediate. | Grades VII-IX... | 4,608 00 | 1,344 00 | 3114 | 5785 | 98,316 47 | 21127 | 2,321 27 | 26 |
| 27 | Frederic W. Lincoln. | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,224 00 | 2850 | 1220 | 12210 | 47,123 36 | 20286 | 75183 | 27 |
|  | Carried forward. . |  | \$112,506 24 | \$16,417 20 | \$421 85 | \$3,841 40 | \$2,175,082 01 | \$4,049 95 | \$33,631 09 |  |

$\dagger$ Opened as a district during year 1927.
$\ddagger$ Became two separate districts during year 1927 .

TABLE NO. 3.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELFMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rebinding Books. | $10$ <br> Reference Books. | 11 <br> Drawing Supplies and Equipment. | 12 <br> Shop and Manual Training Supplies. | Cookery Supplies and Equipment. | 14 <br> Sewing <br> Supplies and <br> Equipment. | 15 <br> Science Supplies and Equipment. | 16 <br> Kindergarten Supplies. |  |
| 1 | \$83 10 | \$70 14 | \$351 46 | \$550 72 | \$313 14 | \$79 05 | \$72 52 | \$38 68 | 1 |
| 2 | 6490 | 5067 | 19781 | 1,381 78 |  | 527 | 6766 | 4740 | 2 |
| 3 | 2555 | 5666 | 82788 | 1,060 79 | 70097 | 14380 | 5406 | 46659 | 3 |
| 4 | 11245 | 591 | 32410 | 82124 | ....... |  | 7275 | 6528 | 4 |
| 5 |  | 423 | 1374 | 6509 | 16505 | 5212 | 5406 | 5661 | 5 |
| 6 | 7276 | 1866 | 42216 | 30575 | 10049 | 2216 | 18 | 2914 | 6 |
| 7 | 5510 | 10012 | 27955 | 304 | 29562 | 5898 | 5829 | 12654 | 7 |
| 8 | 570 | 6919 | 37323 | 5571 | 1019 | 2584 |  | 10201 | 8 |
| 9 |  | 5997 | 24155 | 68568 |  | 7926 |  | 30283 | 9 |
| 10 | 4235 | 8834 | 22597 | 37604 |  | 5984 |  | 13086 | 10 |
| 11 | 17185 | 9406 | 30093 | 62005 | 23256 | 11210 | 8526 | 7403 | 11 |
| 12 | 5670 | 2766 | 39208 | 1,097 64 | 20902 | 24221 | 15019 | 15197 | 12 |
| 13 | 13965 | 4007 | 22345 | 368 | 34107 | 4084 | 5949 | 14179 | 13 |
| 14 |  | 5439 | 39198 | 2,415 07 | 70914 | 10600 | 8151 |  | 14 |
| 15 | 2310 | 8409 | 30904 | 1,166 23 | 1957 | 193 | 5406 | 10731 | 15 |
| 16 | 350 | 22798 | 29579 | 46648 | 17017 | 24250 | 5406 | 11183 | 16 |
| 17 | 9225 | 2165 | 44359 | 1,695 04 | 12598 | 16954 | 5406 | 10631 | 17 |
| 18 | 11130 | 13936 | 39528 | 36877 | 20396 | 1930 | 8535 | 9455 | 18 |
| 19 | 35770 | 16414 | 64449 | 1,217 13 | 20290 | 4452 | 9388 | 13156 | 19 |
| 20 |  | 3460 | 51066 | 59966 |  | 1000 | 5405 | 20614 | 20 |
| 21 | 2730 | 7506 | 32488 | 42900 | 72 | 12164 | 5405 | 9985 | 21 |
| 22 | 4480 | 1640 | 28023 | 65923 |  | 4230 |  | 4488 | 22 |
| 23 | 1715 | 7020 | 24946 | 2116 | 29330 | 8377 | 5405 | 4985 | 23 |
| 24 | 6895 | 8852 | 27210 | 31001 | 12051 | 3771 | 5495 | 12067 | 24 |
| 25 | 3605 | 2923 | 15775 | 6341 | 26412 | 7102 | 5405 | 9270 | 25 |
| 26 | 44730 | 10150 | 48920 | 1,655 19 | 66860 | 15458 | 6565 |  | 26 |
| 27 | 2695 | 10440 | 15078 | 46292 |  |  | 5405 | 5559 | 27 |
|  | \$2,086 46 | \$1,897 20 | \$9,089 14 | \$18,556 51 | \$5,147 08 | \$2,026 28 | \$1,488 23 | \$2,954 97 |  |

[^17]TABLE NO. 3.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]


* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING

FUND CHARGES.

TABLE NO. 3.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of In- |  |  | Operation | of Plant. |  |  | Promotion of Health |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |  |
|  | Cost per Pupil Hour of Instruction. | Salaries of Custodians. | Fuel. | Electric Current for Light and Power. | Gas. | Custodians' Supplies. | Total for Operation of Plant. | Salaries of School Physicians. |  |
| 1 | \$0 098 | 1 \$7,690 75 | \$1,679 42 | \$1,269 94 | \$33 29 | \$423 53 | \$11,096 93 | \$1,384 39 | 1 |
| 2 | 090 | 4,22357 | 1,444 53 | 60772 | 3873 | 9506 | 6,409 61 | 58794 | 2 |
| 3 | 084 | 18,736 47 | 7,190 92 | 1,912 70 | 12973 | 1,007 34 | 28,977 16 | 82983 | 3 |
| 4 | 081 | 5,913 92 | 2,102 56 | 1,230 23 | 4698 | 36841 | 9,662 10 | 54252 | 4 |
| 5 | 053 | 1,635 12 | 10298 | 15005 | 672 | 1073 | 1,905 60 | 17794 | 5 |
| 6 | 099 | 6,123 78 | 2,899 13 | 70657 | 3496 | 57406 | 10,338 50 | 51178 | 6 |
| 7 | 085 | 7,227 12 | 2,481 45 | 45765 | 5913 | 18547 | 10,410 82 | 63444 | 7 |
| 8 | 095 | 6,861 65 | 1,548 34 | 1,364 78 | 7528 | 46780 | 10,317 85 | 88046 | 8 |
| 9 | 076 | 5,930 59 | 2,533 60 | 62866 | 1887 | 25250 | 9,364 22 | 68939 | 9 |
| 10 | 076 | 7,161 03 | 2,200 23 | 37731 | 1216 | 33576 | 10,086 49 | 69253 | 10 |
| 11 | 077 | 5,643 51 | 2,006 38 | 51995 | 11176 | 31618 | 8,627 78 | 68514 | 11 |
| 12 | 094 | 9,846 07 | 5,064 11 | 1,270 64 | 23152 | 36687 | 16,779 21 | 1,214 39 | 12 |
| 13 | 083 | 7,394 72 | 2,436 57 | 84197 | 12451 | 24786 | 11,045 63 | 69384 | 13 |
| 14 | 101 | 5,372 38 | 2,617 10 | 2,373 74 | 20120 | 31129 | 10,875 71 | 64439 | 14 |
| 15 | 089 | 7,885 33 | 3,733 98 | 78778 | 9133 | 28422 | 12,782 64 | 68416 | 15 |
| 16 | 105 | 5,196 08 | 1,703 16 | 90237 | 5960 | 31094 | 8,172 15 | 61942 | 16 |
| 17 | 080 | 8,574 59 | 2,285 77 | 28233 | 3566 | 38583 | 11,564 18 | 58379 | 17 |
| 18 | 079 | 9,463 13 | 3,971 87 | 40769 | 5182 | 28495 | 14,179 46 | 68439 | 18 |
| 19 | 080 | 9,913 71 | 4,662 52 | 59011 | 9399 | 40983 | 15,670 16 | 1,264 68 | 19 |
| 20 | 077 | 7,394 51 | 2,559 67 | 2,254 43 | 4427 | 52432 | 12,777 20 | 80306 | 20 |
| 21 | 072 | 6,675 62 | 2,311 36 | 81187 | 6646 | 32076 | 10,186 07 | 69439 | 21 |
| 22 | 067 | 4,477 48 | 1,253 46 | 47332 | 8202 | 14503 | 6,431 31 | 68439 | 22 |
| 23 | 083 | 4,598 35 | 2,088 41 | 1,080 02 | 6725 | 22278 | 8,056 81 | 63402 | 23 |
| 24 | 079 | 5,226 79 | 1,872 43 | 73998 | 2255 | 20129 | 8,063 04 | 69929 | 24 |
| 25 | 084 | 5,517 77 | 1,844 94 | 1,170 27 | 11719 | 21635 | 8,866 52 | 70940 | 25 |
| 26 | 089 | 5,240 30 | 2,578 08 | 1,074 03 | 14419 | 13297 | 9,169 57 | 52399 | 26 |
| 27 | 095 | 3,974 12 | 1,142 21 | 52227 | 4284 | 19936 | 5,880 80 | 67720 | 27 |
|  |  | \$183,898 46 | \$68,315 18 | \$24,838 38 | \$2,044 01 | \$8,601 49 | \$287,697 52 | \$19,461 16 |  |

${ }^{1}$ Including salary of matron.

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 3.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  |  | Promotion | of Health. |  | Trans-PORtation. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 33 <br> Nurses ${ }^{\prime}$ Salaries. | 34 <br> Supplies and <br> Equipment School <br> Physicians and Nurses. | 35 <br> Bath Expenses, etc. | 36 Total for Promotion of Health. | 37 <br> Car <br> Tickets. | 38 Total. | 39 Direct <br> Income, Credits from all Sources. | 40 Net Total.* |  |
| 1 | \$1,997 22 | \$26 16 | \$889 37 | \$4,297 14 |  | \$140,572 10 | \$50167 | \$140,070 43* | 1 |
| 2 | 1,034 08 | 3427 |  | 1,656 29 | \$36 25 | 71,766 47 | 20446 | 71,562 01* | 2 |
| 3 | 2,622 66 | 2492 | 532 | 3,482 73 |  | 218,877 69 | 16720 | 218,710 49* | 3 |
| 4 | 1,037 22 | 631 | 36725 | 1,953 30 | 800 | 92,324 71 | 19044 | 92,134 27* | 4 |
| 5 | 20990 | 1341 |  | 40125 | 600 | 18,997 31 | 1260 | † 18,984 71* | 5 |
| 6 | 1,278 32 | 80 |  | 1,790 90 | 9900 | 103,296 36 | 33392 | $\ddagger 102,962$ 44* | 6 |
| 7 | 1,034 09 | 721 |  | 1,675 74 |  | 92,995 30 | 27011 | 92,725 19* | 7 |
| 8 | 74060 | 3708 | 1092 | 1,669 06 |  | 87,980 46 | 17826 | 87,802 20* | 8 |
| 9 | 1,099 52 | 790 |  | 1,796 81 |  | 89,116 77 | 15641 | 88,960 36* | 9 |
| 10 | 1,028 86 | 878 |  | 1,730 17 | 75 | 86,944 58 | 436 | 86,940 22* | 10 |
| 11 | 67562 | 579 |  | 1,366 55 | 1500 | 91,910 20 | 99400 | 90,916 20* | 11 |
| 12 | 1,929 26 | 991 |  | 3,183 56 | 2100 | 163,831 66 | 57547 | 163,256 19* | 12 |
| 13 | 1,033 04 | 942 |  | 1,736 30 |  | 98,852 27 | 218 | 98,850 09* | 13 |
| 14 | 84438 | 1289 |  | 1,501 66 |  | 107,544 58 | 12349 | 107,421 09* | 14 |
| 15 | 1,033 04 | 862 |  | 1,725 82 | 18500 | 106,775 82 | 46267 | 106,313 15* | 15 |
| 16 | 1,034 47 | 530 |  | 1,659 19 | 97500 | 84,831 71 | 4179 | 84,789 92* | 16 |
| 17 | 1,527 89 | 1328 |  | 2,124 96 |  | 113,280 94 | 29215 | 112,988 79* | 17 |
| 18 | 2,01192 | 3406 |  | 2,730 37 |  | 129,301 80 | 16630 | 129,135 50* | 18 |
| 19 | 1,942 59 | 2028 |  | 3,267 55 | 2700 | 129,867 14 | 64031 | 129,226 83* | 19 |
| 20 | 2,453 00 | 10) $4: 3$ |  | 3,266 49 |  | 164,605 16 | 5194 | 164,553 22* | 20 |
| 21 | 1,092 79 | 912 |  | 1,796 30 |  | 92,935 95 | 19945 | 92,736 50* | 21 |
| 22 | 1,033 04 | 384 | ......... | 1,721 27 |  | 71,64609 | 3178 | 71,614 31* | 22 |
| 2.3 | 1,03348 | 445 |  | 1,672 95 |  | 77,598 94 | 468 | 77,594 26* | 23 |
| 24 | 1,1025 57 | 504 |  | 1,733 20 |  | 68,547 73 | 436 | 68,543 37* | 24 |
| 25 | 9330 015 | 385 |  | 1,643 31 | 31150 | 83,722 91 | 654 | 83,716 37* | 25 |
| 26 | 70659 | 11.51 |  | 1,245 (9) |  | 123,440 02 | 35593 | 123,084 09* | 26 |
| 27 | 76.711 | 74 |  | 1,45204 |  | 61,30363 | 30760 | 60,996 03* | 27 |
|  | 6.33,2418 84 | \$:34.5 10 | \$1,272 815 | 854,280) 00 | \$1,684 50 | \$2,772,868 30 | \$6,280 07 | \$2,766,588 23* |  |

TOpmed as a dist rict during year 1927.
$\ddagger$ Beenme two septrate districts during year 1927.

* EXCLUSIVI: OF COSTS OF IBUILIDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 3.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]


[^18]TABLE NO. 3, CONTINUED.
ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.
(Gaston to Oliver Hazard Perry, Inclusive.)
COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)

# TABLE NO. 3, CONTINUED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION, AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.* 

## ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*

[For Total and Net Costs, See Table No. 1.]

|  | School Districts. | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | Salaries of Physical Education Teachers. | 8 <br> Text Books. |  |
|  |  |  | Salaries of Principals. | Salaries of Clerks. | Postage. | Telephone. | Salaries of Teachers. |  |  |  |
|  | Brought forward. |  | \$112,506 24 | \$16,417 20 | \$421 85 | \$3,841 40 | \$2,175,082 01 | \$4,049 95 | \$33,631 09 |  |
| 28 | Gaston. |  | 4,368 00 | 1,344 00 | 828 | 4180 | 67,913 12 | 31369 | 1,118 64 | 28 |
| 29 | Gilbert Stuart. | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 4,608 00 | 9240 | 1688 | 12167 | 54,737 04 | 9564 | 88945 | 29 |
| 30 | Grover Cleveland Intermediate. | Grades VII-IX.... | 4,60800 | 1,344 00 | 500 | 10888 | 58,346 42 | 14210 | 90022 | 30 |
| 31 | Hancock | $\left\{\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VI. } \end{array}\right\}$ | 4,608 00 | 1,340 64 | 900 | 13841 | 127,502 38 | 9040 | 1,583 54 | 31 |
| 32 | Harvard-Frothingham | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,262 40 | 54400 | 3050 | 24458 | 96,938 36 | 11274 | 78580 | 32 |
| 33 | Henry Grew | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 4,333 08 | 14960 | 440 | 12765 | 74,651 58 | 25526 | 1,790 23 | 33 |
| 34 | Henry L. Higginson |  | 3,936 00 | 21400 | 666 | 12047 | 66,106 12 | 2750 | 80327 | 34 |
| 35 | Henry L. Pierce | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-IV } \\ \text { and VII-IX. } \end{array}\right\}$ | 4,608 00 | 1,337 28 | 1604 | 27925 | 88,502 04 | 25644 | 1,717 45 | 35 |
| 36 | Hugh O'Brien. | $\left\{\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,608 00 | 1,320 48 | 2157 | 15095 | 117,137 45 | 15360 | 1,753 81 | 36 |
| 37 | Hyde. | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 4,227 84 | 8625 | 719 | 9181 | 55,338 32 | 15200 | 73230 | 37 |
| 38 | Jefferson-Comins. | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 4,368 00 | 59200 | 2024 | 21494 | 97,096 65 | 15200 | 1,225 40 | 38 |
| 39 | John A. Andrew. | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right.$ | 4,608 00 | 17726 | 730 | 11917 | 60,244 13 | 14176 | 88506 | 39 |
| 40 | John Cheverus $\dagger$ | $\left\{\begin{array}{c}\text { Kindergarten and } \\ \text { Grades I-VIII. }\end{array}\right\}$ | 1,216 00 | 12576 | 279 | 439 | 15,782 98 | 9772 | 37536 | 40 |
| 41 | John Marshall. | Kindergarten and Grades I-VI. | 4,608 00 | 27505 | 2953 | 21088 | 104,899 14 | 9564 | 1,161 99 | 41 |
| 42 | John Winthrop. | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-IX. } \end{array}\right\}$ | 4,596 48 | 1,290 88 | 2660 | 22693 | 112,086 12 | 46964 | 1,563 53 | 42 |
| 43 | Joseph H. Barnes Intermediate. | Grades VII-IX.... | 4,608 00 | 1,178 24 | 2416 | 10675 | 97,437 05 | 24460 | 2,671 37 | 43 |
| 44 | Julia Ward Howe. | $\left\{\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VI. } \end{array}\right\}$ | 4,080 00 | 19200 | 960 | 11131 | 68,801 09 | 18568 | 1,727 66 | 44 |
| 45 | Lawrence. | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,608 00 | 2940 | 630 | 21709 | 54,48001 | 14734 | 48674 | 45 |
| 46 | Lewis Intermediate | Grades V-IX..... | 4,608 00 | 1,328 88 | 1423 | 10505 | 76,391 85 | 34460 | 2,263 24 | 46 |
| 47 | Longfellow. | $\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VI. } \end{array}\right\}$ | 4,098 00 | 18547 | 1457 | 14456 | 86,052 36 | 11648 | 1,162 77 | 47 |
| 48 | Lowell . | $\left\{\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,608 00 | 59200 | 2620 | 17893 | 81,630 82 | 13056 | 1,294 05 | 48 |
| 49 | Martin. | Kindergarten and | 4,896 00 | 1,536 00 | 2640 | 9822 | 65,555 50 | 6613 | 1,090 10 | 49 |
| 50 | Mary Hemenway | Kindergarten and Grades I-IX. | 4,608 00 | 1,344 00 | 1067 | 28754 | 128,900 99 | 30160 | 1,847 66 | 50 |
| 51 | Mather. | $\left.\left\lvert\, \begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right.\right\}$ | 4,608 00 | 1,344 00 | 1410 | 16290 | 149,042 10 | 16427 | 2,601 24 | 51 |
| 52 | Michelangelo Intermediate. | Grades VII-IX.... | 4,608 00 | 99200 | 1600 | 8803 | 72,215 78 | 11460 | 2,311 94 | 52 |
| 53 | Minot. | $\left\{\begin{array}{l} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}$ | 4,080 00 | 8940 | 1210 | 10991 | 45,155 16 | 3985 | 72960 | 53 |
| 54 | Norcross | $\left\{\begin{array}{l}\text { Kindergarten }{ }^{\text {and }} \\ \text { Grades I-IX. }\end{array}\right.$ | 4,596 48 | 1,181 12 | 1680 | 9416 | 79,748 57 | 35459 | 95453 | 54 |
| 55 | Oliver Hazard Perry | $\left\|\left\{\begin{array}{c} \text { Kindergarten and } \\ \text { Grades I-VIII. } \end{array}\right\}\right\|$ | 4,608 00 | 4454 | 850 | 5915 | 54,224 94 | 19066 | 76891 | 55 |
|  | Carried forward. |  | \$234,684 52 | \$36,687 85 | \$833 46 | \$7,806 78 | \$4,432,000 08 | \$9,007 04 | \$70,826 95 |  |

$\dagger$ Opened as a district during year 1927

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9 | 10 | 11 |  | 13 | 14 | 15 | 16 |  |
|  | Rebinding Books. | Reference Books. | Drawing Supplies and Equipment. |  | Cookery <br> Supplies and Equipment. | Sewing Supplies and Equipment. | Science Supplies and Equipment. | Kindergarten Supplies. |  |
|  | \$2,086 46 | \$1,897 20 | \$9,089 14 | \$18,556 51 | \$5,147 08 | \$2,026 28 | \$1,488 23 | \$2,954 97 |  |
| 28 | 22435 | 7402 | 29394 | 37 | 38395 | 35231 | 7004 | 2991 | 28 |
| 29 | 5565 | 935 | 17881 | 55500 | 14388 | 20777 | 5405 | 11251 | 29 |
| 30 | 5950 | 40736 | 28089 | 2,567 49 | 60703 | 21322 | 7317 | Cr. 4020 | 30 |
| 31 |  | 15863 | 26457 | 5649 | 19340 | 31373 |  | 38912 | 31 |
| 32 | 24991 | 3736 | 38517 | 1,268 83 | 22681 | 4971 | 8987 | 12406 | 32 |
| 33 | 5124 | 10358 | 34963 | 1,100 49 | 14645 | 3200 | 6354 | 29586 | 33 |
| 34 | 3850 | 1270 | 41132 | 19544 | 78 | 1750 |  | 16474 | 34 |
| 35 |  | 12580 | 33004 | 1,808 36 | 36073 | 2201 | 6778 | 14310 | 35 |
| 36 |  | 9908 | 44965 | 1,277 10 | 36745 | 10442 | 8305 | 7378 | 36 |
| 37 | 3710 | 4040 | 27747 |  | 35081 | 8377 | 5405 | 28106 | 37 |
| 38 | 23260 | 11720 | 36554 | 62737 | 25068 | 5666 | 5405 | 12511 | 38 |
| 39 | 10095 | 12106 | 21979 | 70366 | 16308 | 2907 | 5405 | 2346 | 39 |
| 40 |  |  | 7086 | 1440 | 18973 | 3477 | 5405 | 9178 | 40 |
| 41 | 8975 | 38646 | 32100 | 79056 | 16422 | 5765 |  | 24892 | 41 |
| 42 | 19090 | 11279 | 51207 | 1,220 51 | 20181 | 8941 | 7592 | 13467 | 42 |
| 43 | 1155 | 30797 | 34146 | 3,822 34 | 80682 | 8126 | 12812 | 09 | 43 |
| 44 | 1050 | 10723 | 42030 | 32334 |  | 1903 |  | 5942 | 44 |
| 45 | 7720 | 5462 | 22722 | 1,042 98 | 314 | 843 | 5506 | 17475 | 45 |
| 46 | 1050 | 22169 | 29908 | 72498 | 48931 | 3712 | 8589 |  | 46 |
| 47 | 10305 | 19838 | 40164 | 27659 |  | 2062 |  | 20024 | 47 |
| 48 | 3220 | 6970 | 22040 | 1,432 48 | 20973 | 4850 | 5404 | 17040 | 48 |
| 49 | 2135 | 8996 | 21196 | 16000 | 32473 | 2459 | 6854 | 9238 | 49 |
| 50 | 5705 | 3920 | 43780 | 75417 | 31273 | 9421 | 5404 | 12274 | 50 |
| 51 | 1680 | 8959 | 59951 | 1,034 84 | 28065 | 22898 | 6453 | 20662 | 51 |
| 52 | 8410 | 6362 | 18151 | 1,762 28 | 89145 | 14609 | 9158 |  | 52 |
| 53 | 2100 | 7895 | 27014 | 1,322 94 | 29647 | 3846 | 8431 | 3329 | 53 |
| 54 | 3640 | 5214 | 27406 | 4519 | 32620 | 10228 |  | 10019 | 54 |
| 55 | 6320 | 3009 | 18784 | 27177 | 16831 | 2738 | 5404 | 2889 | 55 |
|  | \$3,961 81 | \$5,106 13 | \$17,872 81 | \$43,716 48 | \$13,097 43 | \$4,567 23 | \$3,022 00 | \$6,341 86 |  |

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.


## TABLE NO. 3, CONTINUED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

## ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*

[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Musical Instruments and Supplies. | 18 Printing. | 19 <br> Commercial Supplies and <br> Equipment. | 20 Other Educational Supplies and Equipment. | 21 <br> Physical Education Supplies and Equipment. | 22 <br> Incidentals. | 23Total <br> for <br> Instruction. | 24 <br> Number of Pupil Hours. |  |
| 28 | $\$ 3,59994$ 360 | \$239 52 | $\$ 841$ 73 92 | $\$ 33,65045$ 88367 | $\$ 1,056$ 42 42 | $\begin{array}{r} \$ 59268 \\ 477 \end{array}$ | $\begin{array}{\|r\|} \$ 2,429,176 \end{array} 21$ | $\begin{array}{r} 28,681,315 \\ 877,066 \end{array}$ | 28 |
| 29 | 2135 | 625 | 22849 | 77615 | 1300 | 3442 | 62,957 76 | 717,214 | 29 |
| 30 | 150 | 40 | 11285 | 1,345 79 | 18272 | 6745 | 71,333 79 | 671,608 | 30 |
| 31 | 6955 | 1200 | 2108 | 1,420 84 | 374 | 6588 | 138,241 40 | 1,568,117 | 31 |
| 32 | 1650 | 2383 | 11551 | 1,606 13 | 683 | 2491 | 107,143 81 | 1,053,961 | 32 |
| 33 |  | 3025 | 22917 | 1,352 73 | 3109 | 1399 | 85,111 82 | 1,048,865 | 33 |
| 34 | 2670 | 40 | 1168 | 1,200 08 | 2072 | 999 | 73,324 57 | 966,336 | 34 |
| 35 | 14987 | 3485 | 5175 | 1,779 43 | 9139 | 9828 | 101,779 89 | 939,030 | 35 |
| 36 | 3946 | 5482 | 2200 | 1,566 82 |  | 1799 | 129,301 48 | 1,643,465 | 36 |
| 37 |  |  | 258 | 93373 |  | 588 | 62,702 56 | 646,571 | 37 |
| 38 | 3927 |  | 94 | 1,260 66 | 56 | 1515 | 106,815 02 | 1,310,389 | 38 |
| 39 | 3428 | 870 | 472 | 1,351 62 |  | 1424 | 69,011 36 | 1,020,313 | 39 |
| 40 |  | 1525 | 454 | 18772 |  | 360 | 18,271 70 | 296,627 | 40 |
| 41 | 1405 | 725 | 778 | 1,219 00 | 16563 | 812 | 114,760 62 | 1,304,328 | 41 |
| 42 | 32178 | 3135 | 14839 | 2,194 50 | 9408 | 1433 | 125,602 78 | 1,513,913 | 42 |
| 43 | 5771 | 40) | 6315 | 1,916 00 | 28928 | 9022 | 114,186 54 | 1,050,311 | 43 |
| 44 | 8119 | 23450 | 1252 | 1,079 11 | 4169 | 1446 | 77,510 63 | 1,060,314 | 44 |
| 45 | 4030 |  | 1392 | 88715 |  | 3394 | 62,593 59 | 718,799 | 45 |
| 46 | 37892 | 20 |  | 1,340 56 | 12363 | 8766 | 88,855 39 | 863,493 | 46 |
| 47 | 2178 | 950 | 20894 | 1,332 89 | 4351 | 1785 | 94,609 20 | 1,275,878 | 47 |
| 48 | 31616 | 625 | 1704 | 83285 |  | 2525 | 91,985 56 | 1,020,410 | 48 |
| 49 | 15042 | 2422 | 1317 | 91731 | 479 | 1348 | 75,385 25 | 653,531 | 49 |
| 50 | 4507 |  | 2135 | 1,931 75 | 12799 | 7468 | 141,373 24 | 1,670,677 | 50 |
| 51 | 32.11 | 3925 | 4226 | 1,107 75 | 1200 | 1664 | 161,708 94 | 2,052,729 | 51 |
| 52 | 1,019 (0) | 111 | 29029 | 1,815 91 | 17124 | 5418 | 86,918 00 | 808,686 | 52 |
| 53 | 37956 | 850 | 2555 | 06718 |  | 2397 | 53,466 34 | 627,863 | 53 |
| 54 | 12176 | 2482 | 238 | 1,417 78 | 3125 | 2151 | 89,392 51 | 956,968 | 54 |
| 55 |  | 800 | 7313 | 80184 |  | 401 | 61,623 20 | 639,339 | 55 |
|  | 86, hi2 23 | \$320 91 | 82,147 83 | 365,777-49 | \$2,553 59 | \$1,469 53 | \$1,972,614 71 | 57,061,016 |  |

* EXCLUSIVE OF: COSTS OF BUIIDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 3, CONTINUED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | $\left\lvert\, \begin{aligned} & \text { Expenses } \\ & \text { of In- } \end{aligned}\right.$ |  |  | Operation | of Plant. |  |  | $\begin{aligned} & \text { Promotion } \\ & \text { OF Health. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |  |
|  | Cost per Pupil Hour of Instruc tion. | Salaries of Custodians. | Fuel. | Electric Current for Light and Power. | Gas. | Custodians' Supplies. | Total for Operation of Plant. | Salaries of School Physicians. |  |
|  |  | \$183,898 46 | \$68,315 18 | \$24,838 38 | \$2,044 01 | \$8,601 49 | \$287,697 52 | \$19,461 16 |  |
| 28 | \$0 088 | 5,129 66 | 2,898 19 | 46687 | 6607 | 25217 | 8,812 96 | 49752 | 28 |
| 29 | 087 | 5,738 92 | 2,032 06 | $436 \quad 54$ | 2525 | 26428 | 8,497 05 | 71039 | 29 |
| 30 | 106 | 4,401 00 | 2,051 27 | 66902 | 16660 | 18980 | 7,477 69 | 61125 | 30 |
| 31 | 088 | 8,632 11 | 2,175 62 | 1,899 44 | 6819 | 23186 | 13,007 22 | 1,325 61 | 31 |
| 32 | 101 | 9,806 21 | 3,007 75 | 1,413 55 | 12756 | 46664 | 14,821 71 | 71000 | 32 |
| 33 | 081 | 6,724 33 | 3,812 80 | 69627 | 14722 | 59615 | 11,976 77 | 81509 | 33 |
| 34 | 075 | 5,348 78 | 2,482 56 | 59187 | 1221 | 41843 | 8,853 85 | 68305 | 34 |
| 35 | 108 | 8,60157 | 3,395 55 | 56844 | 9432 | 28215 | 12,942 03 | 74419 | 35 |
| 36 | 078 | 9,373 26 | 3,067 43 | 66395 | 21008 | 23692 | 13,551 64 | 68305 | 36 |
| 37 | 096 | 4,562 27 | 1,392 60 | 27707 | 13257 | 20385 | 6,568 36 | 61440 | 37 |
| 38 | 081 | 9,008 89 | 3,130 63 | 86004 | 4546 | 34681 | 13,391 83 | 1,052 73 | 38 |
| 39 | 067 | 4,715 40 | 2,098 89 | 57974 | 4730 | 22958 | 7,670 91 | 57117 | 39 |
| 40 | 061 | 1,682 96 | 20797 | 18033 | 650 | 889 | 2,086 65 | 17795 | 40 |
| 41 | 087 | 9,615 61 | 3,863 32 | 74324 | 7485 | 23190 | 14,528 92 | 79467 | 41 |
| 42 | 082 | 8,622 45 | 3,102 82 | 73332 | 15822 | 33479 | 12,951 60 | 70052 | 42 |
| 43 | 108 | 4,589 67 | 1,668 32 | 2,403 30 | 27043 | 29073 | 9,222 45 | 57240 | 43 |
| 44 | 073 | 5,004 04 | 1,831 20 | 71106 | 2780 | 23540 | 7,809 50 | 65583 | 44 |
| 45 | 087 | 5,950 22 | 2,308 55 | 74168 | 12198 | 36506 | 9,487 49 | 52355 | 45 |
| 46 | 102 | 5,535 44 | 1,355 56 | 1,041 23 | 12130 | 28826 | 8,341 79 | 65583 | 46 |
| 47 | 074 | 7,955 87 | 2,895 91 | 87163 | 6221 | 25739 | 12,043 01 | 1,043 08 | 47 |
| 48 | 090 | 7,08022 | 2,287 78 | 1,045 70 | 15566 | 21949 | 10,788 85 | 80591 | 48 |
| 49 | 115 | 7,053 52 | 2,930 72 | 68974 | 2243 | 25397 | 10,950 38 | 60440 | 49 |
| 50 | 084 | 11,621 26 | 3,586 55 | 77468 | 15223 | 37355 | 16,508 27 | 75842 | 50 |
| 51 | 078 | 12,367 81 | 4,410 65 | 92223 | 7718 | 60173 | 18,379 60 | 91762 | 51 |
| 52 | 107 | 2,972 52 | 1,105 71 | 1,742 48 | 11841 | 17349 | 6,112 61 | 53573 | 52 |
| 53 | 085 | 4,793 31 | 1,560 99 | 51369 | 5452 | 57174 | 7,494 25 | 66170 | 53 |
| 54 | 093 | 6,597 97 | 2,833 16 | 1,037 76 | 13090 | 45349 | 11,053 28 | 52254 | 54 |
| 55 | 096 | 4,740 22 | 1,442 21 | 28751 | $\dot{3623}$ | 17761 | 6,683 78 | 48170 | 55 |
|  |  | \$372,123 95 | \$137,251 95 | \$48,400 76 | \$4,777 69 | \$17,157 62 | \$579,711 97 | \$38,891 46 |  |

[^19]
## TABLE NO. 3, CONTINUED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Promotion of Health. |  |  |  | Trans-PORTATION. | 38 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 33 | 34 | 35 | 36 | 37 |  | 39 | 40 |  |
|  | Nurses' Salaries. | Supplies and <br> Equipment, School Physicians and Nurses. | $\begin{gathered} \text { Bath } \\ \text { Expenses, } \\ \text { etc. } \end{gathered}$ | $\begin{gathered} \text { Total } \\ \text { for } \\ \text { Promotion } \\ \text { of Health. } \end{gathered}$ | Car Tickets. | Total. | Direct Income Credits from all Sources. | Net Total.* |  |
|  | \$33,200 88 | \$345 10 | \$1,272 86 | \$54,280 00 | \$1,684 50 | \$2,772,868 30 | \$6,280 07 | \$2,766,588 23* |  |
| 28 | 93705 | 540 |  | 1,439 97 |  | 87,724 48 | 1546 | 87,709 02* | 28 |
| 29 | 77604 | 1023 |  | 1,496 66 |  | 72,951 47 | 12021 | 72,831 26 * | 29 |
| 30 | 79764 | 668 |  | 1,415 57 |  | 80,227 05 | 10639 | 80,120 66* | 30 |
| 31 | 2,461 23 | 1338 | 46945 | 4,269 67 |  | 155,518 29 | 33240 | 155,185 89* | 31 |
| 32 | 1,303 36 | 1374 |  | 2,027 10 | 10000 | 124,092 62 | 4407 | 124,048 55* | 32 |
| 33 | 1,995 14 | 368 8t |  | 2,847 09 |  | 99,935 68 | 9962 | 99,836 06* | 33 |
| 34 | 1,734 54 | 703 |  | 2,424 62 |  | 84,603 04 | 25791 | 84,345 13* | 34 |
| 35 | 1,033 05 | 1214 |  | 1,789 38 | 500 | 116,516 30 | 32476 | 116,191 54* | 35 |
| 36 | 1,886 50 | 1101 |  | 2,580 56 | 11250 | 145,546 18 | 51628 | 145,029 90* | 36 |
| 37 | 98243 | 466 |  | 1,601 49 |  | 70,872 41 | 15409 | 70,718 32* | 37 |
| 38 | 1,701 74 | 1106 |  | 2,765 53 | 300 | 122,975 38 | 2681 | 122,948 57* | 38 |
| 39 | 76522 | 877 |  | 1,345 16 |  | 78,027 43 | 13621 | 77,891 22* | 39 |
| 40 | 20989 | 214 |  | 38998 | 5000 | † 20,768 26 | 7982 | $\dagger$ † 20,688 44* | 40 |
| 41 | 1,995 13 | 2212 |  | 2,811 92 | 1,625 00 | 133,726 46 | 54584 | 133,180 62* | 41 |
| 42 | 2,013 53 | 1088 |  | 2,724 93 |  | 141,279 31 | 10139 | 141,177 92* | 42 |
| 43 | 69720 | 593 |  | 1,275 53 | 1200 | 124,696 52 | 945 | 124,687 07* | 43 |
| 44 | 1,037 22 | 740 |  | 1,700 45 |  | 87,020 58 | 48886 | 86,531 72* | 44 |
| 45 | 1,033 04 | 998 |  | 1,566 57 |  | 73,647 65 | 17803 | 73,469 62* | 45 |
| 46 | 1,037 22 | 1269 |  | 1,705 74 |  | 98,902 92 | 772 | 98,895 20* | 46 |
| 47 | 1,066 01 | 1046 |  | 2,119 55 | 1500 | 108,786 76 | 73122 | 108,055 54* | 47 |
| 48 | 1,389 10 | 12434 | 5 65 | 2,325 00 |  | 105,099 41 | 49548 | 104,603 93* | 48 |
| 49 | 1,039 69 | 734 |  | 1,651 43 | 20000 | 88,187 06 | 42386 | 87,763 20* | 49 |
| 50 | 1,416:33 | 4022 |  | 2,214 97 | 2120 | 160,117 68 | 5907 | 160,058 61* | 50 |
| 51 | 2,102175 | 4404 |  | 2,986 41 | 1250 | 183,087 45 | 77841 | 182,309 04* | 51 |
| 52 | 1,0105, 21 | 1781 |  | 1,558 75 |  | 94,589 36 | 4214 | 94,547 $22^{*}$ | 52 |
| 5.3 | 77602 | 1159 |  | 1,449 31 |  | 62,409 90 | 10068 | $62,30922^{*}$ | 53 |
| 5.1 | 1,033 113 | 22107 |  | 1,776 64 | 4250 | 102,264 93 | 23441 | 102,030 $52^{* *}$ | 54 |
| 55 | 76739 | 7.71 |  | 1,256, 80 |  | 69,56378 | 7847 | 69,485 31* | 55 |
|  | 868.11 .568 | \$1,041 78 | \$1,747 96 | \$109,796 78 | \$3,88:3 20 | \$5,666,006 66 | \$12,769 13 | \$5,653,237 53* |  |

1 Opened as a district during year 1927.

[^20]TABLE NO. 3, CONTINUED. - COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]


[^21]

-1 T



TABLE NO. 3, CONCLUDED.
ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.
(Oliver Wendell Holmes Intermediate to William Lloyd Garrison, Inclusive.)

COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)

# TABLE NO. 3, CONCLUDED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN = ISTRATION, SUPERVISION, AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.* 

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]


* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.


## TABLE NO. 3, CONCLUDED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |  |
|  | Rebinding Books. | Reference Books. | Drawing Supplies and Equipment. | Shop and <br> Manual <br> Training <br> Supplies. | Cookery Supplies and Equipment. | Sewing Supplies and Equipment. | Science Supplies and Equipment. | Kindergarten Supplies. |  |
|  | \$3,961 81 | \$5,106 13 | \$17,872 81 | \$43,716 48 | \$13,097 43 | \$4,567 23 | \$3,022 00 | \$6,341 86 |  |
| 56 | 9380 | 5322 | 37894 | 1,614 12 | 44245 | 279 | 13356 | Cr. 3000 | 56 |
| 57 | 3220 | 17147 | 39540 | 2,118 86 | 38844 | 6223 | 13396 | 12720 | 57 |
| 58 |  | 20028 | 23088 | 1,008 74 | 13023 | 2393 | 5404 | 5755 | 58 |
| 59 | 4760 | 5272 | 32354 | 1,395 23 | 28028 | 15772 | 5404 | 13916 | 59 |
| 60 | 7420 | 2170 | 27678 | 84786 |  | 7288 | 7842 | 10319 | 60 |
| 61 | 7700 | $94 \quad 27$ | 25333 | 80529 | 25958 | 10687 | 5404 | 4690 | 61 |
| 62 | 31915 | 80472 | 70041 | 1,544 46 | 72193 | 10731 | 5404 | 33199 | 62 |
| 63 | 10010 | 6703 | 23536 | 7247 | 1296 | 2030 |  | 9668 | 63 |
| 64 | 5495 | 3585 | 58753 | 31399 |  | 7211 |  | 12568 | 64 |
| 65 |  | 5732 | 67394 | 36246 |  | 15111 |  | 36217 | 65 |
| 66 |  | 2101 | 21363 | 2,090 08 | 29330 | 1685 | 16045 | 12838 | 66 |
| 67 |  | 9688 | 43154 | 4129 | 27054 | 15731 | 5403 | 23089 | 67 |
| 68 |  | 13986 | 39286 | 1,217 30 | 611 | 6113 |  | 11812 | 68 |
| 69 | 12355 | 26708 | 24151 | 1,680 74 | 49314 | 4452 | 8738 | 7623 | 69 |
| 70 |  | 8253 | 33926 | 81443 | 27231 | 7131 | 7403 | 15091 | 70 |
| 71 | 16070 | 24787 | 22360 | 45533 |  | 228 | 8476 | 9171 | 71 |
| 72 | 10325 | Cr. 10938 | 30908 | 95528 | 5288 | 7334 |  | 13253 | 72 |
| 73 | 6770 | 12557 | 50514 | 90429 | 27325 | 12300 | 10805 | 17756 | 73 |
| 74 |  | 9665 | 26153 | 2,288 07 | 70920 | 5938 | 6334 | . | 74 |
| 75 | 6125 | 7222 | 29932 | 26496 | 26530 | 4039 | 5402 | 16233 | 75 |
| 76 | 20580 | 6128 | 42166 | 2,065 36 | 66228 | 9701 | 12453 | . ........ | 76 |
| 77 | 1225 | 10464 | 45190 | 11745 | 6284 | 13175 |  | 26901 | 77 |
| 78 | 875 | 11402 | 23906 | 1,539 86 |  | 1731 |  | 7560 | 78 |
| 79 | 6265 | 10582 | 36967 | 31729 | 60 | 5497 |  | 28321 | 79 |
| 80 | 2240 | 6763 | 21124 | 42035 | 23273 | 2571 | 5402 | 9816 | 80 |
| 81 | 7455 | 11161 | 35778 | 28044 |  | 971 |  | 6110 | 81 |
| 82 | \$5,663 66 | \$8,270 00 | \$27,197 70 | \$59,252 48 | \$18,927 78 | \$6,330 45 | \$4,448 71 | \$9,758 12 | 82 |

[^22]TABLE NO. 3, CONCLUDED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN= ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |  |
|  | Musical <br> Instruments and Supplies. | Printing. | Commercial Supplies and <br> Equipment. | Other Educational Supplies and Equipment. | Physical <br> Education Supplies and Equipment. | Incidentals. | Total for Instruction. | Number of Pupil Hours. |  |
|  | \$6,872 93 | \$820 91 | \$2,587 83 | \$68,777 49 | \$2,553 59 | \$1,469 53 | \$4,972,614 71 | 57,664,016 |  |
| 56 | 13527 |  | 882 | 1,250 76 | 8696 | 3263 | 88,477 60 | 979,299 | 56 |
| 57 | 34269 | 695 | 998 | 1,124 53 | 774 | 1866 | 121,153 87 | 1,487,135 | 57 |
| 58 | 589 | 1220 | 175 | 75566 | 1262 | 1571 | 59,024 69 | 667,709 | 58 |
| 59 | 26044 | 1830 | 306 | 1,288 08 | 2183 | 1081 | 90,585 87 | 988,932 | 59 |
| 60 | 11615 | 390 | 1121 | 1,193 50 |  | 2004 | 94,305 99 | 893,847 | 60 |
| 61 | 1340 | 1050 | 6006 | 1,119 38 |  | 767 | 78,056 83 | 899,802 | 61 |
| 62 | 69918 | 2290 | 3439 | 1,962 77 | 14983 | 6356 | 145,389 79 | 1,704,891 | 62 |
| 63 | 3146 |  | 12393 | 77028 | 3813 | 1214 | 58,630 54 | 791,040 | 63 |
| 64 | 6627 |  | 4211 | 1,947 85 | 1358 | 1304 | 130,537 65 | 1,769,124 | 64 |
| 65 | 870 | 675 | 18900 | 2,025 66 | 240 | 1271 | 153,224 75 | 2,280,109 | 65 |
| 66 | 3595 | 1220 | 2894 | 1,269 61 | 805 | 2099 | 102,447 09 | 856,542 | 66 |
| 67 | 98321 | 900 | 20974 | 1,156 82 | 1025 | 1004 | 81,092 07 | 1,006,994 | 67 |
| 68 | 3096 | 2922 | 651 | 1,063 34 | 4205 | 4240 | 103,619 93 | 1,209,827 | 68 |
| 69 | 2723 | 925 | 2300 | 1,139 61 | 25969 | 5584 | 120,236 13 | 1,350,146 | 69 |
| 70 | 2250 | 308.5 | 5 53 | 98125 | 300 | 5359 | 113,738 14 | 1,386,447 | 70 |
| 71 | 8513 | 3390 | 4811 | 91420 |  | 1220 | 83,003 33 | 805,365 | 71 |
| 72 | 3246 |  | 509 | 93196 | 4059 | 1912 | 75,634 46 | 1,108,098 | 72 |
| 73 | 800 | 950 | 240 | 1,587 52 | 1025 | 4682 | 135,070 89 | 1,526,330 | 73 |
| 74 | 17900 | 1730 | 2521 | 1,586 17 | 14775 | 4940 | 103,113 73 | 911,486 | 74 |
| 75 | 975 | 3210 | 979 | 1,342 51 | 13053 | 4922 | 107,313 82 | 1,223,754 | 75 |
| 76 | 33941 | 5775 | 3522 | 1,697 20 | 41292 | 4403 | 92,763 82 | 935,216 | 76 |
| 77 | 39060 | 2557 | 3881 | 1,617 51 |  | 3333 | 121,065 72 | 1,386,265 | 77 |
| 78 | (5)00 |  | 1311 | 80781 |  | 2620 | 95,130 60 | 882,825 | 78 |
| 79 | 12504 | 775 | 286 | 1,287 68 | 499 | 1224 | 114,445 79 | 1,369,699 | 79 |
| 80 | 3628 | 1275 | 5239 | 81969 | 1340 | 2546 | 74,283 49 | 843,340 | 80 |
| 81 | 1498 |  |  | 1,350 08 | 452 | 1934 | 63,523 03 | 907,879 | 81 |
| 82 | 810,878 888 | \$1,189 55 | 83,578 85) | \$101,768 92 | \$3,974 67 | \$2,196 72 | 87,578,484 33 | 87,836,117 | 82 |

[^23]TABLE NO. 3, CONCLUDED. - COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIREC' INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Inatruction | Operation of Plant. |  |  |  |  |  | Promotion of Health |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |  |
|  | Cost per Pupil Hour of Instruc= tion. | Salaries of Custodians. | Fuel. | Electric Current for Light and Power. | Gas. | Custodians' Supplies. | Total for Operation of Plant. | Salaries, School Physicians. |  |
|  |  | \$372,123 95 | \$137,251 95 | \$48,400 76 | \$4,777 69 | \$17,157 62 | \$579,711 97 | \$38,831 46 |  |
| 56 | \$0 090 | 5,319 10 | 1,730 39 | 56713 | 14925 | 31905 | 8,084 92 | 70790 | 5 |
| 57 | 081 | 7,918 07 | 2,800 99 | 61056 | 10653 | 32154 | 11,757 69 | 68035 | 5 |
| 58 | 088 | 4,633 99 | 2,347 40 | 46228 | 6792 | 19393 | 7,705 52 | 52920 | 5. |
| 59 | 091 | 5,909 96 | 1,474 62 | 96037 | 26681 | 32349 | 8,935 25 | 79304 | 5 |
| 60 | 105 | 7,114 26 | 2,022 09 | 1,625 71 | 6455 | 35043 | 11,177 04 | 63123 | $6{ }^{\text {r }}$ |
| 61 | 086 | 4,906 67 | 2,084 62 | 77148 | 24224 | 19214 | 8,197 15 | 71872 | 6 |
| 62 | 085 | 12,133 54 | 4,095 45 | 95112 | 11519 | 68626 | 17,981 56 | 82307 | 6 : |
| 63 | 074 | 4,739 13 | 88905 | 27378 | 2289 | 20845 | 6,133 30 | 54440 | 6. |
| 64 | 073 | 9,830 80 | 3,271 29 | 72548 | 10760 | 43011 | 14,365 28 | 66440 | 6. |
| 65 | 067 | 10,530 09 | 4,555 90 | 1,488 51 | 7009 | 45201 | 17,099 60 | 1,258 85 | 6. |
| 66 | 119 | 8,055 91 | 3,024 78 | 69566 | 17187 | 39619 | 12,344 41 | 61440 | 61 |
| 67 | 080 | 6,543 57 | 2,170 67 | 94584 | 11557 | 35178 | 10,127 43 | 57900 | 6 |
| 68 | 085 | 8,779 87 | 3,538 45 | 1,502 76 | 14174 | 33899 | 14,301 81 | 72440 | 6 : |
| 69 | 089 | 8,700 94 | 3,412 49 | 2,100 62 | 28025 | 43437 | 14,928 67 | 71101 | $6^{1}$ |
| 70 | 082 | 11,476 48 | 4,823 09 | 57208 | 6551 | 41543 | 17,352 59 | 72339 | 7 |
| 71 | 103 | 6,097 54 | 1,849 30 | 35967 | 5821 | 23896 | 8,603 68 | 48170 | 7 |
| 72 | 068 | 5,785 13 | 2,480 46 | 47515 | 5510 | 18690 | 8,982 74 | 79640 | 7. |
| 73 | 088 | ${ }^{1} 12,56517$ | 5,821 01 | 1,753 73 | 3228 | 55127 | 20,723 46 | 71160 | 7. |
| 74 | 113 | ${ }^{1} 6,75010$ | 1,358 07 | 3,291 79 | 12997 | 17432 | 11,704 25 | 66530 | 7. |
| 75 | 087 | 7,876 28 | 3,994 16 | 88000 | 5085 | 21812 | 13,019 41 | 69652 | 7. |
| 76 | 099 | 7,015 48 | 1,838 71 | 1,507 12 | 15293 | 40630 | 10,920 54 | 75640 | 7 |
| 77 | 087 | 10,339 43 | 2,852 62 | 2,429 58 | 27688 | 39423 | 16,292 74 | 80024 | 7 |
| 78 | 107 | 6,822 52 | 2,540 42 | 1,207 47 | 5634 | 40231 | 11,029 06 | 74202 | 7 |
| 79 | 083 | 7,536 57 | 2,444 23 | 93089 | 1250 | 32436 | 11,248 55 | 1,369 00 | 7 |
| 80 | 088 | 7,323 68 | 2,673 55 | 28175 | 9345 | 19924 | 10,571 67 | 57022 | 8 |
| 81 | 069 | 5,115 65 | 2,501 51 | 44409 | 7239 | 25915 | 8,392 79 | 70955 | 8 |
| 82 | \$0 086 | \$571,946 88 | \$209,847 27 | \$76,215 38 | \$7,756 60 | \$25,926 95 | \$891,693 08 | \$57,893 77 | 8 |

${ }^{1}$ Including salary of matron.

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING
FUND CHARGES.


## TABLE NO. 3, CONCLUDED.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMIN ISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*
[For Total and Net Costs, See Table No. 1.]


[^24]TABLE NO. 3, CONCLUDED. - COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

## ELEMENTARY AND INTERMEDIATE SCHOOL DISTRICTS.*

[For Total and Net Costs, See Table No. 1.]


[^25]TABLE NO. 4A.
SPECIAL SCHOOLS AND CLASSES, ETC.
COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES AND WITH DIRECT INCOME DEDUCTED.

HORACE MANN SCHOOL. BOSTON CLERICAL SCHOOL. BOSTON DISCIPLINARY DAY SCHOOL. TRADE SCHOOL FOR GIRLS.
(For Total and Net Costs, See Table No. 1.)

[^26]



Trade school for girls.


TABLE NO. 4B.
SPECIAL SCHOOLS AND CLASSES, ETC.
COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.

BOSTON TRADE SCHOOL, DAY CLASSES. DAY PRACTICAL ARTS CLASSES. AFTERNOON LIP=READING CLASSES. COMPULSORY CONTINUATION SCHOOL. SPEECH IMPROVEMENT CLASSES.
(For Total and Net Costs, See Table No. 1.)
$2-2+2+2+2$
TABLE NO. 4C.
SPECIAL SCHOOLS AND CLASSES, ETC. COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
DAY SCHOOL FOR IMMIGRANTS. BOSTON PUBLIC SCHOOL SYMPHONY ORCHESTRA.
CLASSES IN RECREATIONAL HANDICRAFTS. CLASSES IN GARDENING. TRAINING SCHOOL FOR TEACHERS OF MECHANIC ARTS.
(For Total and Net Costs, See Table No. 1.)
table no. 4c.- COSTS of SPECIAL SChools and Classes, ETC. (DAY), EXCLUSIVE of administration, SUPERVISIon and general charges, and with direct income deducted.* DAY SCHOOL FOR IMMIGRANTS.*
ffor Total and Net Costs, See Table No. 1.

|  | Exprnasg of Instrictron. |  |  |  |  |  |  |  |  |  |  |  | Opbnation or Planr. |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scrioor. |  |  | $\stackrel{3}{\substack{\text { Text } \\ \text { Books. }}}$ | $\underset{\substack{\text { Reference } \\ \text { Boosk. }}}{c^{2}}$ | $\begin{array}{\|c\|} \hline \mathbf{5} \\ \text { Postage. } \end{array}$ |  | $\begin{gathered} 7 \\ \text { Printing. } \end{gathered}$ | $\left\lvert\, \begin{gathered} 8 \\ \left.\begin{array}{c} \text { Commercial } \\ \text { Bupprien } \\ \text { Equid } \\ \text { Equipment. } \end{array} \right\rvert\, \end{gathered}\right.$ |  |  | $\begin{gathered} 11 \\ \substack{\text { Number } \\ \text { oupuri } \\ \text { Hours. }} \end{gathered}$ |  |  | 14 <br> Fuel. |  | 16 <br> Gas. | $\begin{gathered} 17 \\ \hline \begin{array}{c} \text { Custo- } \\ \text { disni } \\ \text { supplies. } \end{array} \\ \hline \end{gathered}$ | $\begin{gathered} 18 \\ \hline \left.\begin{array}{c} \text { Total for } \\ \text { Oporation } \\ \text { of Plant. } \end{array} \right\rvert\, \end{gathered}$ | $\begin{gathered} 19 \\ \text { Ticar } \\ \text { Tikets. } \end{gathered}$ | 20 <br> Total. |  | Net Total.* | $\begin{array}{\|c\|c\|} \hline 23 \\ \substack{\text { Number } \\ \text { of Pupi } \\ \text { Hours. }} \end{array}$ | $\begin{gathered} 24 \\ \begin{array}{c} \text { Cost per } \\ \text { Cuper } \\ \text { Pour. } \end{array} \\ \hline \end{gathered}$ | Scroous. |
| Day School for Immigrants. | \$14,471 17 |  |  |  |  | ${ }^{838} 74$ |  | 94613 | 89985 | 814,655 89 | 85,858 | \$0 170 | 81,12200 | 36354 | 83515 |  | \$10 18 | 81,230 87 | 31180 | \$15,988 36 | 80,398 62¢ | ${ }^{36,499} 74^{*}$ | , 58 | so 075* | Day School for Immigrants. |



| Cusasbs. |  | $\begin{array}{\|c\|} \hline 2 \\ \text { Telephone } \end{array}$ | Postage. |  |  | 6 <br> Miscellaneous Equipmes and Equipment |  |  |  | $\begin{gathered} \text { I0 } \\ \text { Total. } \end{gathered}$ | Cussess. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Classes in Gardening. | 811,470 00 | 81695 | \$500 | 939768 | \$4,385 04 |  | 8762 | \$187 50 |  | 816,769 79* | Clases in Curdening . |

training school for teachers of mechanic arts.*



## TABLE NO. 5.

SUMMER REVIEW SCHOOLS.
COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.

SUMMER REVIEW HIGH SCHOOL. SUMMER REVIEW ELEMENTARY AND INTERMEDIATE SCHOOLS.

VACATION SCHOOLS.
(For Total and Net Costs, See Table No. 1.)

TABLE NO. 5.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION,
SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME
DEDUCTED.*
SUMMER REVIEW HIGH SCHOOL.*
[For Total and Net Costs, See Table No. 1.]

|  | School. | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
|  |  | Salary of Principal. | Salaries of Clerks. | Postage. | Telephone. | Salaries of Teachers. | Text Books. | Reference Books. | Science Supplies and <br> Equipment. |  |
| 1 | Summer Review High School. | \$320 00 |  | \$32 64 | \$0 65 | \$10,246 00 | \$515 91 |  |  |  |

SUMMER REVIEW ELEMENTARY AND INTERMEDIATE SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Sczools. | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaries of Principals. | Salaries of Clerks. | Postage. | Telephone. | $5$ <br> Salaries of Teachers. | 6 <br> Text Books. | $7$ <br> Reference Books. | 8 <br> Commercial Supplies and Equipment. |  |
| 1 | Abraham Lincoln. | \$240 00 |  | \$8 40 | \$0 80 | \$3,560 00 | \$58 10 |  |  | 1 |
| 2 | Bigelow. | 24000 |  |  |  | 1,589 00 | 8790 | ... |  | 2 |
| 3 | Hugh O'Brien. | 24000 |  | 600 |  | 2,933 00 | 10340 |  | \$0 26 | 3 |
| 4 | Hyde Park. | 24000 |  | 219 | 130 | 1,533 00 | 7125 |  |  | 4 |
| 5 | Lewis Intermediate. | 24000 |  | 260 | -145 | 1,960 00 | 3380 |  |  | 5 |
| 6 | Oliver W. Holmes Intermediate. | 24000 |  | 678 | 310 | 2,660 00 | 4575 |  |  | 6 |
| 7 | Sarah Greenwood. | 24000 |  | 290 | 60 | 2,240 00 | 8585 | .......... |  | 7 |
| 8 | Shurtleff. | 24000 |  | 640 | 325 | 1,820 00 | 7445 |  |  | 8 |
| 9 | Theodore Roosevelt. | 24000 |  |  |  | 2,191 00 | 4790 |  |  | 9 |
| 10 | U. S. Grant. | 24000 |  | 1241 | 265 | 2,938 00 | 9130 |  |  | 10 |
| 11 | Warren. | 24000 |  | 405 | 65 | 1,816 50 | 5350 |  |  | 11 |
| 12 | Wells. | 24000 |  | 600 | 100 | 2,086 00 | 9305 |  |  | 12 |
| 13 | Totals. | \$2,880 00 |  | \$57 73 | \$1480 | \$27,326 50 | \$846 25 |  | \$0 26 | 13 |

VACATION SCHOOLS.
[For Total and Net Costs, See Table No. 1.]

|  | Schools. | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
|  |  | Salaries of Principals. | Postage. | Telephone. | Salaries of Teachers. | Salaries of Physical Education Teachers. | Manual <br> Training <br> Supplies. | Sewing Supplies and Equipment. | Printing. |  |
| 1 | Dearborn... | \$240 00 | ...... |  | \$4,046 00 |  | \$66 74 | \$10 80 |  | 1 |
| 2 | Eliot. | 24000 | \$2 76 | \$140 | 6,865 00 |  | 3444 | 853 |  | 2 |
| 3 | Frothingham. | 24000 |  |  | 2,838 50 |  | 10126 | 1058 | \$44 00 | 3 |
| 4 | Rice. | 21600 |  |  | 2,572 50 |  | 7004 | 436 |  | 4 |
| 5 | Theodore Lyman. | 23400 |  |  | 6,520 50 |  | 13494 | 1598 |  | 5 |
| 6 | Totals. | \$1,170 00 | \$276 | \$1 40 | \$22,842 50 |  | \$407 42 | $\$ 5025$ | \$44 00 | 6 |

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 5.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION,
SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME
DEDUCTED.*
SUMMER REVIEW HIGH SCHOOL.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  | Operation of Plant.$16$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9 | 10 | 11 | 12 | 13 | 14 | 15 |  |  |
|  | Printing. | Commercial Supplies and Equipment. | Other <br> Educational Supplies and Equipment. | Incidentals. | Total for Instruc= tion. | Number of Pupil Hours. | Cost per Pupil Hour of Instruc= tion. | Salary of Custodian. |  |
| 1 |  | \$51 51 | \$153 72 |  | \$11,320 43 | 149,280 | \$0 075 | $1 \$ 41573$ | 1 |

${ }^{1}$ Including salary of matron.
SUMMER REVIEW ELEMENTARY AND INTERMEDIATE SCHOOLS.* [For Total and Net Costs, See Table No. 1.]


VACATION SCHOOLS.
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  | Operation of Plant. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Physical Education Supplies. | 10 Other Educational Supplies and Equipment. | 11 <br> Total for Instruc= tion. | 12 <br> Number of Pupil Hours. | 13 <br> Cost per Pupil Hour of Instruction. | 14 <br> Salaries of Custodians. | 15 <br> Custodians' Supplies. | 16 Total for Operation of Plant. |  |
| 1 | \$31 84 | \$439 21 | \$4,834 59 | 70,680 | \$0 068 | \$284 20 |  | \$284 20 |  |
| 2 | 1305 | 67894 | 7,844 12 | 168,000 | 046 | 27516 | \$0 88 | 27604 | 2 |
| 3 | 2118 | 36794 | 3,623 46 | 71,040 | 051 | 24656 | 088 | 24744 | 3 |
| 4 | 1424 | 35847 | 3,235 61 | 62,640 | 051 | 39304 |  | 39304 | 4 |
| 5 |  | 67505 | 7,580 47 | 156,840 | 048 | 64176 | 268 | 64444 | 5 |
| 6 | \$80 31 | \$2,519 61 | \$27,118 25 | 529,200 | \$0 051 | \$1,840 72 | \$4 44 | \$1,845 16 | 6 |

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING

TABLE NO. 5.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

SUMMER REVIEW HIGH SCHOOL.*

[For Total and Net Costs, See Table No. 1.]

|  | Operation of Plant. |  | Promotion of Health. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |  |
|  | Custodians' Supplies. | Total for Operation of Plant. | Salaries of School <br> Physicians. | Nurses' Salaries. | Supplies and Equipment, School Physicians and Nurses. | Total for Promotion of Health. | Total. | Direct Income Credits from all Sources. |  |
| 1 |  | \$415 73 | $\$ 3333$ |  |  | \$33 33 | \$11,769 49 |  | 1 |

SUMMER REVIEW ELEMENTARY AND INTERMEDIATE SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Promotion of Health. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |  |
|  | Supplies and <br> Equipment, School Physicians and Nurses. | Total for Promotion of Health. | Total. | Direct Income Credits from all Sources. | Net Total.* | Number of Sessions. | Average Attendance. | Cost per Pupil, Average Attend $=$ ance.* |  |
| 1 |  | \$33 33 | \$4,191 55 |  | \$4,191 55* | 40 | 798 | \$5 25* | 1 |
| 2 |  | 3333 | 2,141 96 |  | 2,141 96* | 40 | 381 | 5 62* | 2 |
| 3 |  | 2857 | 3,627 54 |  | 3,627 54* | 40 | 645 | 5 62* | 3 |
| 4 |  | 2857 | 2,068 15 |  | 2,068 15* | 40 | 338 | 6 12* | 4 |
| 5 |  | 2857 | 2,482 56 |  | 2,482 56* | 40 | 358 | 6 93* | 5 |
| 6 |  | 2857 | 3,235 55 |  | 3,235 55* | 40 | 539 | 6 00* | 6 |
| 7 |  | 2857 | 2,791 13 |  | 2,791 13* | 40 | 504 | 5 54* | 7 |
| 8 | . . . . . . . . | 3334 | 2,310 48 |  | 2,310 48* | 40 | 377 | $613 *$ | 8 |
| 9 |  | 2858 | 2,722 68 |  | 2,722 $68{ }^{*}$ | 40 | 486 | 5 60* | 9 |
| 10 | . . . . . . . . . | 3333 | 3,727 01 | \$3 15 | 3,723 86* | 40 | 655 | 5 69* | 10 |
| 11 |  | 3334 | 2,468 39 |  | 2,468 39* | 40 | 365 | 6 76* | 11 |
| 12 |  | 3334 | 2,831 85 |  | 2,831 85* | 40 | 450 | 6 29* | 12 |
| 13 | . . . . . . . . . | \$37144 | \$34,598 85 | $\$ 315$ | \$34,595 70* |  | 5,896 | \$5 87* | 13 |

## VACATION SCHOOLS.

[For Total and Net Costs, See Table No. 1.]


* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING

FUND CHARGES.

「ABLE NO. 5.- COSTS OF DAY SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

SUMMER REVIEW HIGH SCHOOL.*
[For Total and Net Costs, See Table No. 1.]

|  | 25 | 26 | 27 | 28 | 29 | $\mathbf{3 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Total.* | Number <br> of <br> Sessions. | Average <br> Attend- <br> ance. | Cost per <br> Pupi1, <br> Average <br> Attend- <br> ance.* | Number <br> of Pupil <br> Hours. | Cost per <br> Pupil <br> Hour.* |  |
| $\mathbf{1} \mid \$ 11,76949^{*}$ | 40 | 933 | $\$ 1261^{*}$ | 149,280 | $\$ 0078^{*}$ | $\mathbf{1}$ |

SUMMER REVIEW ELEMENTARY AND INTERMEDIATE SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]


VACATION SCHOOLS.
[For Total and Net Costs, See Table No. 1.]

|  | 25 <br> Cost per Pupil, Average Attendance.* | $26$ <br> Number of Pupil Hours. | $27$ <br> Cost per Pupil Hour.* |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | \$8 74* | 70,680 | \$0 072* | 1 |
| 2 | 5 82* | 168,000 | 048* | 2 |
| 3 | 6 59* | 71,040 | 054* | 3 |
| 4 | 7 02* | 62,640 | 058* | 4 |
| 5 | 6 32* | 156,840 | 052* | 5 |
| 6 | \$6 60* | 529,200 | \$0 055* | 6 |

[^27] FUND CHARGES.
TABLE NO. 6A. EVENING SCHOOLS. COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.

## EVENING HIGH SCHOOLS.

EVENING ELEMENTARY SCHOOLS.
(For Total and Net Costs, See Table No. 1.)

## TABLE NO. 6A.- COSTS OF EVENING SCHOOLS, EXCLUSIVE OF ADMINISTRA-

 TION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*
## EVENING HIGH SCHOOLS.*

[For Total and Net Costs, See Table No. 1.]

|  |  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools. | 1 <br> Salaries of Principals. | 2 <br> Salaries of Clerks. | $3$ <br> Postage. | 4 <br> Telephone. | 5 <br> Salaries of Teachers. | 6 <br> Text Books. | 7 <br> Reference Books. | 8 <br> Drawing <br> Supplies and <br> Equipment. |  |
| 1 | Brighton Commercial High. | \$418 92 | \$183 00 | \$6 91 | \$1 40 | \$2,155 00 | 88295 | \$46 44 |  | 1 |
| 2 | Central High. | 65800 | 44700 | 3374 |  | 17,761 00 | 94957 |  | \$108 65 | 2 |
| 3 | Charlestown Commercial High | 53200 | 24000 | 1950 | 50 | 3,005 00 | 11715 |  |  | 3 |
| 4 | Dorchester Commercial High | 50400 | 26000 | 872 |  | 7,858 00 | 20100 |  |  | 4 |
| 5 | East Boston Commercial High | 53200 | 21900 | 1230 |  | 4,340 00 | 24608 |  |  | 5 |
| 6 | Girls' High. | 53200 | 27200 | 1090 | 235 | 5,283 00 | 3300 |  |  | 6 |
| 7 | Hyde Park Commercial High | 28646 | 13680 | 500 | 35 | 2,015 00 |  |  |  | 7 |
| 8 | Mechanic Arts High. | 53200 | 22200 | 200 | . ....... | 2,060 25 |  |  | 700 | 8 |
| 9 | Roxbury Commercial High. | 53200 | 26900 | 3400 | , | 8,784 00 | 16736 |  |  | 9 |
| 10 | South Boston Commercial High. | 52500 | 19600 | 1600 |  | 4,281 00 | 17198 |  |  | 10 |
| 11 | West Roxbury Commercial High . | 13192 | $\begin{array}{r}4200 \\ \hline\end{array}$ | 300 | ... | 1,145 00 | 48598 $\times$ | .... |  | 11 |
| 12 | Totals. | \$5,184 30 | $\$ 2,48680$ | \$152 07 | $\$ 460$ | \$58,687 25 | \$2,455 07 | \$46 44 | \$115 65 | 12 |

EVENING ELEMENTARY SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Schools. | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 <br> Salaries of Principals. | ; 2 <br> Salaries of Clerks. | 3 <br> Postage. | 4 <br> Telephone. | 5 <br> Salaries of Teachers. | Text <br> Books. | 7 <br> Reference Books. | 8 <br> Drawing <br> Supplies and <br> Equipment. |  |
| 1 | Bigelow. | \$438 00 | \$148 00 | \$9 00 | \$100 | \$2,582 00 | \$20 16 |  |  |  |
| 2 | Bowdoin. | 45600 | 4200 | 470 | 85 | 1,582 00 |  |  |  |  |
| 3 | Brighton. | 11308 | 4200 |  |  | 62650 |  |  |  |  |
| 4 | Comins. | 45600 | 13600 | 900 | 110 | 2,950 00 | 30635 |  |  |  |
| 5 | Dearborn. | 45600 | 14200 | 2800 |  | 3,345 50 | 8502 |  |  | 5 |
| 6 | Edward Everett. | 45600 | 12600 | 830 |  | 2,271 50 |  |  |  | 6 |
| 7 | Eliot. | 45600 | 15200 | 915 | 65 | 2,997 00 |  |  |  | 7 |
| 8 | Franklin. | 45600 | 15200 | 1000 |  | 6,932 50 | 17320 |  |  | 8 |
| 9 | Frederic W. Lincoln. | 45000 | 10800 | 270 |  | 1,904 00 | 12068 |  |  | 9 |
| 10 | Hyde Park Elementary | 24554 | 9120 | 488 |  | 1,400 00 | 8440 |  |  | 10 |
| 11 | Joseph H. Barnes. | 21000 | 7000 | 1700 |  | 1,773 50 |  |  |  | 11 |
| 12 | Oliver Wendell Holmes. | 45600 | 12600 | 1170 | 20 | 2,131 50 | 6312 |  |  | 12 |
| 13 | Phillips Brooks, | 45600 | 15000 | 2800 | 85 | 3,322 50 | 4112 |  |  | 13 |
| 14 | Roger Wolcott | 45600 | 12200 | 750 |  | 1,788 50 | 32432 |  |  | 14 |
| 15 | Theodore Lyman. | 24600 | 8200 | 1380 |  | 2,375 50 | 8100 |  |  | 15 |
| 16 | Theodore Roosevelt. | 45600 | 10800 | 560 | 50 | 1,970 50 | 6449 | \$4 00 |  | 16 |
| 17 | Washington. | 45600 | 29800 | 2421 | 150 | 4,805 00 | 10638 |  |  | 17 |
| 18 | Washington Irving. | 35908 | 11000 | 920 |  | 4,030 00 | 12.00 |  |  | 18 |
| 19 | Totals. | \$7,077 70 | \$2,205 20 | \$202 74 | \$665 | \$48,788 00 | \$1,482 24 | \$400 |  | 19 |

* EXCLUSIVE OF costs of building, depreciation, repairs, interest and sinkina fund charges.

TABLE NO. 6A.- COSTS OF EVENING SCHOOLS, EXCLUSIVE OF ADMINISTRA -
TION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.*

EVENING HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]


EVENING ELEMENTARY SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |  |
|  | Cookery Supplies and Equipment. | Sewing Supplies and Equipment. | Printing. | Other <br> Educational Supplies and <br> Equipment. | Incidentals. | Advertising. | Total for Instruction. | Number of Pupil Hours. |  |
| 1 | \$52 84 | \$250 | \$20 25 | \$33 40 |  | \$8 00 | \$3,315 15 | 25,282 | 1 |
| 2 |  | 3554 | 1700 | 1626 |  | 975 | 2,164 10 | 15,300 | 2 |
| 3 | 4007 | 1019 |  |  |  |  | 83184 | 6,854 | 3 |
| 4 | 5967 | 4075 | 1705 | 3910 | \$100 | 1000 | 4,026 02 | 29,888 | 4 |
| 5 |  | 1522 | 1750 | 4386 | 24 | 1150 | 4,144 84 | 28,248 | 5 |
| 6 | 8698 | 649 | 2025 | 1577 |  | 1050 | 3,001 79 | 19,972 | 6 |
| 7 | $\ldots . . . . . . .$. |  | 3125 | 2532 | . $\cdot$ - | 925 | 3,680 62 | 28,552 | 7 |
| 8 |  | 48 | 1685 | 9225 |  | 1500 | 7,848 28 | 60,928 | 8 |
| 9 |  | 5419 | 2015 | 4537 | 48 | 900 | 2,714 57 | 19,096 | 9 |
| 10 |  | 96 | 1700 | 2694 | $\ldots . . . .$. |  | 1,870 92 | 14,278 | 10 |
| 11 |  |  |  | 6936 | . . | 700 | 2,146 86 | 14,832 | 11 |
| 12 | 4798 | 830 | 1700 | 3203 |  | 700 | 2,900 83 | 22,752 | 12 |
| 13 | 33 | 74 | 1715 | 2972 |  | 1605 | 4,062 46 | 31,356 | 13 |
| 14 |  | 125 | 1950 | 2206 | 20 | 660 | 2,747 93 | 18,802 | 14 |
| 15 |  |  | 2225 |  |  |  | 2,820 55 | 22,532 | 15 |
| 16 | 6317 | 2800 | 1700 | 1854 | 10 | 1200 | 2,747 90 | 15,976 | 16 |
| 17 |  | 203 | 775 | 17983 | 138 | 1300 | 5,895 08 | 43,940 | 17 |
| 18 | 19261 | 12020 | 2100 | 3284 |  | 1080 | 4,897 73 | 32,798 | 18 |
| 19 | \$543 65 | \$326 84 | \$298 95 | $\$ 72265$ | \$3 40 | \$155 45 | \$61,817 47 | 451,383 | 19 |

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING


## TABLE NO. 6A.- COSTS OF EVENING SCHOOLS, EXCLUSIVE OF ADMINISTRA= TION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME

 DEDUCTED.*EVENING HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. | Operation of Plant. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 <br> Cost per Pupil Hour of Instruction. | $18$ <br> Salaries of Custodians. | 19 Fuel. | 20 <br> Electric Current for Light and Power. | $21$ <br> Custodians' Supplies. | 22 Total for Operation of Plant. | 23 <br> Total. | 24 <br> Direct Income Credits from all Sources. |  |
| 1 | \$0 207 | \$289 91 | \$129 96 | \$125 00 | \$27 92 | \$572 79 | \$3,631 97 | \$212 00 | 1 |
| 2 | 156 | 1,761 28 | 48222 | 99100 | 5584 | 3,290 34 | 23,959 52 | 1,094 00 | 2 |
| 3 | 154 | 42105 | 25992 | 17600 | 3114 | 88811 | 5,058 87 | 19900 | 3 |
| 4 | 127 | 88378 | 36480 | 38500 | 8145 | 1,715 03 | 10,878 69 | 86000 | 4 |
| 5 | 126 | 57474 | 27360 | 26500 | 12321 | 1,236 55 | 6,879 15 | 27700 | 5 |
| 6 | 140 | 81873 | 36480 | 35700 | 7660 | 1,617 13 | 8,144 46 | 41400 | 6 |
| 7 | 149 | 26714 | 18240 | 11300 | 875 | 57129 | 3,130 75 | 14800 | 7 |
| 8 | 215 | 63434 | 38988 | 8300 | 3890 | 1,146 12 | 3,995 95 | 14100 | 8 |
| 9 | 123 | 92339 | 36480 | 44700 | 2817 | 1,763 36 | 12,136 75 | 81200 | 9 |
| 10 | 116 | 65358 | 25650 | 22900 | 5361 | 1,192 69 | 6,588 72 | 31600 | 10 |
| 11 | 172 | 20166 | 5985 | 6300 | 4689 | 37140 | 2,238 42 |  | 11 |
| 12 | \$0 142 | \$7,429 60 | \$3,128 73 | \$3,234 00 | \$572 48 | \$14,364 81 | \$86,643 25 | \$4,473 00 | 12 |

EVENING ELEMENTARY SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  | Expenses of Instruction. | Operation of Plant. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $17$ <br> Cost per Pupil Hour of Instruction. | $18$ <br> Salaries of Custodians. | 19 <br> Fuel. | 20 <br> Electric Current for Light and Power. | $21$ <br> Custodians' Supplies. | 22 Total for Operation of Plant. | 23 Total. | 24 <br> Direct Income Credits from all Sources. |  |
| 1 | \$0 131 | \$755 14 | \$324 90 | \$199 00 | \$60 01 | \$1,339 05 | \$4,654 20 | \$102 50 | I |
| 2 | 141 | 59891 | 17328 | 11200 | 2065 | 90484 | 3,068 94 | 6000 | 2 |
| 3 | 121 | 11643 | 5985 | 10300 | 2792 | 30720 | 1,139 04 |  | 3 |
| 4 | 134 | 79655 | 24339 | 25400 | 5030 | 1,344 24 | 5,370 26 | 14950 | 4 |
| 5 | 146 | 1,153 75 | 49476 | 25500 | 6341 | 1,966 92 | 6,111 76 | 13300 | 5 |
| 6 | 150 | 90526 | 12996 | 21000 | 1834 | 1,263 56 | 4,265 35 | 11400 | 6 |
| 7 | 128 | 66008 | 25992 | 22500 | 6021 | 1,205 21 | 4,885 83 | 11450 | 7 |
| 8 | 128 | 1,374 43 | 45600 | 44100 | 3553 | 2,306 96 | 10,155 24 | 28200 | 8 |
| 9 | 142 | 75807 | 12825 | 15600 | 994 | 1,052 26 | 3,766 83 | 8450 | 9 |
| 10 | 131 | 29161 | 12768 | 11200 | 875 | 54004 | 2,410 96 | 4700 | 10 |
| 11 | 144 | 51836 | 24570 | 26000 | 4043 | 1,064 49 | 3,211 35 |  | 11 |
| 12 | 127 | 60306 | 30609 | 14600 | 5509 | 1,110 24 | 4,011 07 | 8050 | 12 |
| 13 | 129 | 74663 | 27360 | 26200 | 2674 | 1,308 97 | 5,371 43 | 11800 | 13 |
| 14 | 146 | 56182 | 17328 | 14700 | 2948 | 91158 | 3,659 51 | 8050 | 14 |
| 15 | 125 | 61343 | 24108 | 24600 | 3637 | 1,136 88 | 3,957 43 | 13050 | 15 |
| 16 | 172 | 67170 | 26571 | 14000 | 2362 | 1,101 03 | 3,848 93 | 8350 | 16 |
| 17 | 134 | 99849 | 49476 | 32800 | 4222 | 1,863 47 | 7,758 55 | 13100 | 17 |
| 18 | 149 | 67556 | 25992 | 30400 | 2345 | 1,262 93 | 6,16066 | 16850 | 18 |
| 19 | \$1) 136 | 812,79928 | \$4,658 13 | \$3,900 00 | \$632 46 | \$21,989 87 | \$83,807 34 | \$1,879 50 | 19 |
| - |  |  |  |  |  |  |  |  |  |

[^28]FUND CHARGES.

## TABLE NO. 6A.- COSTS OF EVENING SCHOOLS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME

 DEDUCTED.*EVENING HIGH SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]


EVENING ELEMENTARY SCHOOLS.*
[For Total and Net Costs, See Table No. 1.]

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Total.* | 26 <br> Number of Sessions. | $27$ <br> Average Attendance. | 28 <br> Cost per Pupil, Average Attend= ance.* | 29 <br> Number of Pupil Hours. | $30$ <br> Cost per Pupil Hour.* |  |
| 1 | \$4,551 70* | 75 | 169 | \$26 93* | 25,282 | \$0 180* | 1 |
| 2 | 3,008 94* | 76 | 101 | 29 79* | 15,300 | 196* | 2 |
| 3 | 1,139 04* | 35 | 98 | 11 62* | 6,854 | 166* | 3 |
| 4 | 5,220 76* | 76 | 197 | 26 50* | 29,888 | 174* | 4 |
| 5 | 5,978 76* | 76 | 186 | 32 14* | 28,248 | 211* | 5 |
| 6 | 4,151 35* | 76 | 131 | 31 69* | 19,972 | 207* | 6 |
| 7 | 4,771 33* | 76 | 188 | 25 38* | 28,552 | 167* | 7 |
| 8 | 9,873 $24^{*}$ | 76 | 401 | 24 62* | 60,928 | 162* | 8 |
| 9 | 3,682 33* | 75 | 127 | 28 99* | 19,096 | 192* | 9 |
| 10 | 2,363 96* | 76 | 94 | 25 15* | 14,278 | 165* | 10 |
| 11 | 3,211 35* | 35 | 212 | 15 15* | 14,832 | 216* | 11 |
| 12 | 3,930 57* | 76 | 150 | 26 20* | 22,752 | 172* | 12 |
| 13 | 5,253 43* | 76 | 206 | 25 50* | 31,356 | 167* | 13 |
| 14 | 3,579 01* | 76 | 124 | 28 86* | 18,802 | 190* | 14 |
| 15 | 3,826 93* | 41 | 275 | 13 92* | 22,532 | 169* | 15 |
| 16 | 3,765 43* | 76 | 105 | $3586 *$ | 15,976 | 235* | 16 |
| 17 | 7,627 55* | 76 | 289 | 26 39* | 43,940 | 173* | 17 |
| 18 | 5,992 16* | 76 | 216 | 27 74* | 32,798 | 182* | 18 |
| 19 | \$81,927 84* | . . . . . . . . . . | 3,269 | \$25 06* | 451,386 | \$0 181* | 19 |
|  |  |  |  |  |  |  |  |





TABLE NO. 6B.
EVENING SCHOOLS.
COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.

EVENING SCHOOL EXTENSION.
BOSTON TRADE SCHOOL, EVENING CLASSES.
(For Total and Net Costs, See Table No. 1.)

Nor


| Scroous. |  |  | Expenses of fresruccriox. |  |  |  |  |  | Oramation or Pams. |  |  |  |  |  |  |  |  |  |  |  |  | Hoor. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\substack{\text { Salaries. } \\ \text { oi Clierss. }}$ |  |  |  |  | Fuel. |  |  | $\left\lvert\, \begin{gathered} \text { Total } \\ \text { oporal } \\ \text { oporation } \\ \text { Plant. } \end{gathered}\right.$ | $\begin{gathered} 12 \\ \text { Totalal } \end{gathered}$ |  | $\underset{\substack{14 \\ \text { Total. }}}{\substack{\text { Tot. }}}$ | $\begin{array}{\|c\|c\|} \hline \text { Number } \\ \begin{array}{c} \text { Number } \\ \text { Sesionons. } \end{array} \end{array}$ | $\underset{\substack{\text { Average } \\ \text { stene } \\ \text { anaced }}}{16}$ |  | $\begin{gathered} 18 \\ \substack{\text { Number } \\ \text { Noupl } \\ \text { Hourif }} \end{gathered}$ | $\begin{gathered} 19 \\ \substack{\text { Cosit per } \\ \text { popr } \\ \text { hoif }} \end{gathered}$ |  |
| 1 | Franklio. |  | 00 | s580 50 |  | S870 50 | 4,550 | 147 | \$9600 | 870 95 | S158 10 | 81643 | 533748 | s1,017 88 |  | s1,077 $88^{*}$ | 15 | 152 | ${ }^{86} 70{ }^{\text {\% }}$ | 4.550 | s0 $223{ }^{*}$ | Fra |

TABLE NO. 7.
ACTIVITIES, EXTENDED USE OF PUBLIC SCHOOLS.

SCHOOL CENTERS. USE OF SCHOOL ACCOMMODATIONS.

COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)
[For Total and Net Costs, See Table No. 1.]

|  | School Centers. | 1 <br> Salaries of <br> Managers <br> Leaders, Etc. | Services of | 3 <br> Services of Motion Bureau. |  | 5 <br> Music Supplies and ment. |  | 7 <br> Printing and tising. | Telephone. | Incidentals. | 10 <br> Salaries of Custodians. | 11 <br> Fuel. | 12 <br> Light | 13 <br> Total. | 14 <br> Direct Income Credits from All | 15 <br> Net Total.* | 16 <br> Number <br> of | 17 <br> Average <br> Attendance. | 18 <br> Per Capita Average ance.* | School Centers. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 11 12 | Brighton............ <br> Charlestown....... <br> Dorchester. <br> East Boston.. <br> English High. <br> Fenway. <br> Michelangelo. <br> Roxbury. <br> Sarah Greenwood. <br> South Boston....... <br> Washington Irving. William Blackstone. | \$2,538 00 <br> 3,194 25 <br> 4,715 37 <br> 4,035 00 <br> 2,572 00 <br> 5,160 00 <br> 4,591 75 <br> 4,889 00 <br> 3,988 60 <br> 3,006 63 <br> 2.29300 <br> 2,692 00 | $\begin{array}{r} 812500 \\ 1000 \\ 1500 \\ \ldots \ldots \ldots \\ \cdots \ldots \ldots \\ 6500 \\ 5500 \\ 5500 \end{array}$ | $\$ 39563$ 52750 <br> 52050 <br> 56900 <br> 3500 <br> 19650 <br> 66100 <br> 55350 62387 <br> 55650 <br> 57912 | $\begin{array}{r} \$ 12140 \\ 450 \\ 450 \\ 2400 \\ \ldots \ldots \ldots \\ 450 \\ 1812 \\ 600 \\ 600 \\ 940 \\ \ldots \ldots \ldots \\ 4800 \end{array}$ | 81000 30700 $\ldots \ldots \ldots$ $\ldots \ldots \ldots$ $\ldots \ldots$ 700 300 | 88390 $\ldots \ldots \ldots$ 1075 |  | $\begin{array}{r} C r . \\ \$ 433 \\ 369 \end{array}$ | $\$ 933$ $\square$ <br> ....... $\qquad$ $\qquad$ <br> 125 $\qquad$ | $\$ 58047$ 59758 82646 85278 78186 1,19629 71200 1,21998 72660 49550 66373 571 $\|$ | $\$ 15000$ 15000 15000 10000 23000 15000 9950 32630 4450 17500 33000 9750 | 519419 14270 22500 28845 27600 44522 27352 47700 8743 16197 14336 10760 | \$3,989 02 4,616 53 6,566 83 5,879 23 3,915 86 7,459 51 6,351 56 7,632 22 5,546 85 4,422 75 3,730 09 4.10089 | $\$ 10131$ <br> 5450 <br> 19294 <br> 30755 <br> 6180 <br> 23228 <br> 14245 <br> 37637 <br> 24200 <br> 37590 <br> 23171 | $\begin{array}{\|rr\|} \hline \$ 3,887 & 71^{*} \\ 4,562 & 03^{*} \\ 6,373 & 89^{*} \\ 5,571 & 68^{*} \\ 3,858 & 06^{*} \\ 7,227 & 23^{*} \\ 6,209 & 11^{*} \\ 7,255 & 85^{*} \\ 5,304 & 85^{*} \\ 4,422 & 75^{*} \\ 3,354 & 19^{*} \\ 3,869 & 18^{*} \end{array}$ | $\begin{array}{r}70 \\ 56 \\ 63 \\ 86 \\ 76 \\ 96 \\ 100 \\ 97 \\ 89 \\ 66 \\ 85 \\ 68 \\ \hline\end{array}$ | $\begin{aligned} & 469 \\ & 478 \\ & 736 \\ & 629 \\ & 297 \\ & 298 \\ & 402 \\ & 755 \\ & 633 \\ & 655 \\ & 294 \\ & 589 \end{aligned}$ |  | Brighton. $\qquad$ <br> Charlestown....... <br> Dorchester. $\qquad$ <br> East Boston......... <br> English High....... <br> Fenway............. <br> Michelangelo. <br> Roxbury. $\qquad$ <br> Sarah Greenwood. <br> South Boston. . . . . <br> Washington Irving. <br> William Blackstone. |
| 13 | Totals, | 843,675 60 | \$270 00 | \$5,218 12 | \$246 42 | 862400 | 89465 | 82685 | Cr. 3064 | $\$ 1058$ | \$9,224 52 | 82,002 80 | \$2,822 44 | \$64,215 34 | \$2,318 8t | \$61,896 53* | 952 | 6,235 | S9 93* | Totals. |

USE OF SCHOOL ACCOMMODATIONS FOR MUNICIPAL CONCERTS, PARENTS' AND TEACHERS' MEETINGS, ALUMNI MEETINGS, ETC.*

*EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

TABLE NO. 8A.
SCHOOLYARD PLAYGROUNDS.
COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED. (For Total and Net Costs, See Table No. 1.)

TABLE NO. 8A.- COST OF PLAYGROUNDS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES.*
SCHOOLYARD PLAYGROUNDS.*
[For Total and Net Costs, See Table No. 1.]

|  | Schoolyards. | Teachers' Salaries. | 2 <br> Custodians' Salaries. | Apparatus. | 4 <br> Labor, Repairs and Teaming on Apparatus. | 5 <br> Supplies for Athletics and Games | $\begin{gathered} 6 \\ \substack{\text { Supplies } \\ \text { for } \\ \text { Quiet Play. }} \end{gathered}$ | (ncidentals. | Total.* | $\begin{gathered} 9 \\ \text { Number } \\ \text { of } \\ \text { Pupil } \\ \text { Hours. } \end{gathered}$ | 10 <br> Cost per Pupil Hour.* | Schoolyards. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Andrews. | \$713 25 | \$253 50 | \$26 02 | \$28 94 | \$35 49 | \$12 14 | \$2 72 | \$1,072 06* | 94,168 | \$0 011* | Andrews. |  |
| 2 | Beethoven | 13305 | 7200 | 7102 | 2894 | 296 | 650 | 372 | 318 19* | 12,750 | 024* | Beethoven. |  |
| 3 | Bowdoin. | 78140 | 42150 | 8102 | 2894 | 848 | 1636 | 457 | 1,342 27* | 63,790 | 021* | Bowdoin. |  |
| 4 | Choate Burnham | 71505 | 28950 | 6302 | 2894 | 2966 | 1499 | 272 | 1,143 88* | 67,821 | 016* | Choate Burnham |  |
| 5 | Comins | 70050 | 29574 | 6102 | 2894 | 1982 | 1499 | 522 | 1,126 23* | 49,467 | 022* | Comins. |  |
| 6 | Cudworth | 95100 | 27582 | 3852 | 2894 | 2046 | 1299 | 272 | 1,330 45* | 76,842 | 017* | Cudworth |  |
| 7 | Cyrus Alger | 49450 | 21108 | 6102 | 2894 | 3687 | 890 | 417 | 845 48* | 67,283 | 012* | Cyrus Alger. | 7 |
| 8 | Damon | 75665 | 29250 | 14937 | 2894 | 2796 | 1499 | 272 | 1,273 13* | 43,024 | 029* | Damon | 8 |
| 9 | Daniel Webster | 1,011 70 | 32550 | 16446 | 2894 | 1726 | 1576 | 522 | 1,568 84* | 110,880 | 014* | Daniel Webster. | 9 |
| 10 | Donald McKay | 15000 |  | 2602 | 2894 | 2960 | .... | 272 | 237 28* | 22,120 | 010* | Donald McKay | 10 |
| 11 | Edmund P. Tilestor | 65240 | 26016 | 2602 | 2894 | 4629 | 1499 | 517 | 1,033 97* | 54,590 | 018* | Edmund P. Tileston | 11 |
| 12 | Elihu Greenwood | 69530 | 29470 | 6602 | 2894 | 1569 | 1259 | 272 | 1,115 96* | 52,955 | 021* | Elihu Greenwood. | 12 |
| 13 | Elizabeth Peabody | 18700 | 6300 | 2602 | 2894 | 3574 | 320 | 392 | 347 82* | 6,015 | 057* | Elizabeth Peabody. | 13 |
| 14 | Ellis Mendell. | 53355 | 23100 | 6402 | 2894 | 1698 | 1498 | 742 | S96 89* | 60,395 | 014* | Ellis Mendell. | 14 |
| 15 | Emerson. | 78345 | 31494 | 6052 | 2894 | 5536 | 1464 | 686 | 1,264 71* | 69,696 | 018* | Emerson. | 15 |
| 16 | Everett | 71165 | 30808 | 2602 | 2894 | 6864 | 1443 | 347 | 1,161 $23 *$ | 46,681 | 024* | Everett | 16 |
| 17 | Fairmount | 52740 | 25560 | 7002 | 2894 | 2771 | 1298 | 272 | 925 37* | 39,561 | 023* | Fairmount | 17 |
| 18 | Farragut | 67475 | 26850 | 4602 | 2894 | 2211 | 1194 | 272 | 1,054 98* | 44,572 | 023* | Farragut. | 18 |
| 19 | Frothingham | 45855 | 24316 | 8402 | 2894 | 3293 | 1202 | 272 | 862 34* | 28,220 | 030* | Frothingham | 19 |
| 20 | Hancock | 80905 | 31140 | 7102 | 2894 | 2487 | 1154 | 272 | 1,259 54* | 76,438 | 016* | Hancock | 20 |
| 21 | Harbor View | 77980 | 28800 | 2602 | 2894 | $41 \dot{82}$ | 1530 | 312 | 1,183 00* | 64,305 | 018* | Harbor View | 21 |
| 22 | Helen F. Burgess. | 69870 | 28578 | 4702 | 2894 | 2525 | 1050 | 372 | 1,099 91* | 59,995 | 018* | Helen F. Burgess | 22 |
| 23 | Hillside | 45250 | 18750 | 72766 | 2894 | 2004 | 1259 | 496 | 1,434 19* | 27,468 | 052* | Hillside | 23 |
| 24 | Hobart | 56040 | 25950 | 9201 | 2894 | 3203 | 1499 | 92 | 988 79* | 34,390 | 028* | Hobart | 24 |
| 25 | James Otis | 1,101 20 | 32110 | 3601 | 2894 | 4566 | 1514 | 482 | 1,552 87* | 118,97\% | 013* | James Otis | 25 |
| 26 | John D. Philbrick | 57675 | 26226 | 7801 | 2894 | 1660 | 400 | 412 | 970 68* | 136,050 | 007* | John D. Philbrick | 26 |
| 27 | John J. Williams | 68245 | 28050 | 4101 | 2894 | 2367 | 1090 | 272 | 1,070 19* | 53,610 | 019* | John J. Williams | 27 |
| 28 | Lafayette | 78010 | 29400 | 2601 | 2894 | 2235 | 1050 | 272 | 1,164 62* | 57,295 | 020* | Lafayette | 28 |
| 29 | Lucretia Crocker. | 70155 | 29610 | 2601 | 2894 | 1743 | 1194 | 792 | 1,089 89* | 68,771 | 015* | Lucretia Crocker | 29 |
|  | Carried forward. | \$18,773 65 | \$7,462 42 | \$2,380 95 | \$839 26 | \$819 73 | \$346 79 | $\$ 11196$ | \$30,734 76* | 1,708,129 |  |  |  |

*exclusive of costs of buildina, depreciation, repairs, interest and sinking fund charges.

TABLE NO. 8A, CONTINUED. SCHOOLYARD PLAYGROUNDS.

## COSTS, EXCLUSIVE OF ADMINISTRATION,

 SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.(For Total and Net Costs, See Table No. 1.)

TABLE NO. 8A, CONTINUED.- COSTS OF PLAYGROUNDS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES.* SCHOOLYARD PLAYGROUNDS.*
[For Total and Net Costs, See Table No. 1.]

|  | Schoolyards. | I <br> Teachers' Salaries. | 2 <br> Custodians' Salaries. | 3 Apparatus. | 4 <br> Labor, Repairs and Teaming on Apparatus. | 5 <br> Supplies for Athletics and Games | $\begin{gathered} 6 \\ \text { Supplies } \\ \text { for } \\ \text { Quiet Play. } \end{gathered}$ | Incidentals. | Total.* | 9 <br> Number of Pupil Hours. | 10 <br> Cost per Pupil Hour.* | Schoolyards. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Brought forward. | \$18,773 65 | \$7,462 42 | \$2,380 95 | \$839 26 | \$819 73 | \$346 79 | \$11196 | \$30,734 76* | 1,708,129 |  |  |  |
| 30 | Mayhew . | 47360 | 19800 | 9201 | 2894 | 3599 | 609 | 392 | 838 55* | 41,695 | \$0 020* | Mayhew. | 30 |
| 31 | Michael J. Perkins. | 59695 | 23236 | 9201 | 2894 | 3457 | 1771 | 692 | 1,009 46* | 47,968 | 021* | Michael J. Perkins. | 31 |
| 32 | Michelangelo. | 48355 | 19050 | 6601 | 2894 | 1888 | 1210 | 272 | 802 70* | 56,640 | 014* | Michelangelo | 32 |
| 33 | Morrison. | 71005 | 21150 | 91996 | 2894 | 8378 | 1419 | 212 | 1,970 54* | 56,096 | 035* | Morrison. | 33 |
| 34 | Nathan Hale. | 55795 | 24600 | 6101 | 2894 | 1808 | 1034 | 272 | 925 04* | 45,465 | 020* | Nathan Hale. | 34 |
| 35 | Old Baker Street | 50630 | 20100 | 2601 | 2894 | 2099 | 954 | 342 | 796 20* | 18,558 | 042* | Old Baker Street | 35 |
| 36 | Oliver H. Perry. | 51540 | 21498 | 2601 | 2894 | 2433 | 544 | 412 | 819 22* | 48,370 | 016* | Oliver H. Perry | 36 |
| 37 | Peter Faneuil. | 73565 | 26850 | 8601 | 2894 | 3942 | 1339 | 272 | 1,174 63* | 38,095 | 030* | Peter Faneuil. | 37 |
| 38 | Philip H. Sheridan | 51675 | 22350 | 7601 | 2894 | 2543 | 1338 | 272 | 886 73* | 49,845 | 017* | Philip H. Sheridan. | 38 |
| 39 | Plummer | 71070 | 30150 | 3401 | 2894 | 1543 | 1338 | 272 | 1,106 68* | 81,300 | 013* | Plummer. | 39 |
| 40 | Prescott. | 15370 | 6150 | 6601 | 2894 | 120 |  | 272 | 314 07* | 18,070 | 017* | Prescott. | 40 |
| 41 | Quincy | 87575 | 32946 | 4401 | 2894 | 2137 | 1362 | 452 | 1,317 67* | 45,787 | 028* | Quincy. | 41 |
| 42 | Quincy E. Dickerma | 90265 | 30042 | 5202 | 5788 | 5034 | 1443 | 674 | 1,384 48* | 94,605 | 014* | Quincy E. Dickerman. | 42 |
| 43 | Robert Swan | 54520 | 22920 | 5601 | 2894 | 2948 | 1194 | 272 | 903 49* | 42,485 | 021* | Robert Swan | 43 |
| 44 | Roger Wolcott. | 53890 | 21232 | 1,077 76 | 2894 | 1875 | 650 | 272 | 1,885 89* | 90,477 | 020* | Roger Wolcott. | 44 |
| 45 | Samuel Adams. | 77200 | 30940 | 12259 | 2894 | 1616 | 1194 | 472 | 1,265 75* | 86,256 | 014* | Samuel Adams | 45 |
| 46 | Samuel G. Howe | 35720 | 13500 | 2601 | 2894 | 4063 | 1258 | 674 | 607 10* | 23,725 | 025* | Samuel G. Howe | 46 |
| 47 | Stoughton. | 60320 | 23850 | 6601 | 2894 | 4218 | 1514 | 272 | 996 69* | 37,884 | 026* | Stoughton. | 47 |
| 48 | Tappan. | 45605 | 16800 | 2601 | 2894 | 2938 | 609 | 392 | 718 39* | 19,249 | 037* | Tappan | 48 |
| 49 | Trescott. | 68570 | 28920 | 2601 | 2894 | 1682 | 1338 | 271 | 1,062 76* | 55,663 | 019* | Trescott | 49 |
| 50 | Ulysses S. Grant. | 43155 | 17400 | 9201 | 2894 | 3168 | 1259 | 391 | 774 68* | 34,220 | 022* | Ulysses S. Grant | 50 |
| 51 | Washington | 8950 | 3450 | 2601 | 2894 | 47 |  | 91 | 180 33* | 3,330 | 054* | Washington | 51 |
| 52 | Wendell Phillips | 40655 | 18000 | 9601 | 2894 | 1515 | 1283 | 271 | 742 19* | 35,078 | 021* | Wendell Phillips | 52 |
| 53 | William Blackstone | 53775 | 21600 | 10559 | 2894 | 2046 | 1233 | 271 | 923 78* | 53,316 | 017* | William Blackstone. | 53 |
| 54 | William Eustis, | 49805 | 23160 | 2953 | 2894 | 3764 | 1498 | 271 | 843 45* | 32,916 | 025* | William Eustis. | 54 |
| 55 | William H. Kent. | 68595 | 30000 | 12401 | 2894 | 4249 | 1074 | 91 | 1,193 04* | 74,508 | 016* | William H. Kent. | 55 |
| 56 | William E. Russell | 69185 | 28800 | 2601 | 2894 | 2912 | 890 | 271 | 1,075 53* | 68,794 | 015* | William E. Russell. | 56 |
| 57 | William L. Garrison | 42830 | 16500 | 9201 | 2894 | 4276 | 1259 | 211 | 771 71* | 34,890 | 022* | William L. Garrison | 57 |
| 58 | Winchell | 63440 | 25050 | 1,013 56 | 2894 | 4678 | 1259 | 491 | 1,991 68* | 32,708 | 060* | Winchell | 58 |
| 59 | Totals. | \$34,874 80 | \$13,862 86 | \$7,027 18 | \$1,707 46 | \$1,669 49 | \$665 52 | \$209 88 | \$60,017 19* | 3,076,122 | \$0 019* |  | 59 |

*exclusive of costs of building, depreciation, repairs, interest and sinkina fund charaes.


TABLE NO. 8 B . PARK PLAYGROUNDS.

COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)

TABLE NO. 8B.- COSTS OF PLAYGROUNDS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES.* PARK PLAYGROUNDS.*
[For Total and Net Costs, See Table No. 1.]

|  | Park Playgrounds. | Teachers' Salaries. | Custodianss Salaries. | Apparatus. | 4 <br> Labor, Repairs and Teaming Apparatus. | $\begin{array}{\|c} \text { Supplies } \\ \text { for } \\ \text { Athletics } \\ \text { and Games. } \end{array}$ | $\begin{gathered} \text { Supplies } \\ \text { for } \\ \text { Quiet Play. } \end{gathered}$ | Incidentals. | Total.* | Number of Pupil Hours. | 10 <br> Cost per Pupil Hour.* | Pari Playgrounds. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Almont. | \$513 75 |  | \$26 02 | \$28 95 | \$67 64 |  | \$393 | \$640 29* | 31,750 | \$0 020* | Almont. |  |
| 2 | Arthur McLean | 88835 | \$35 58 | 2602 | 2895 | 4701 | \$34 07 | 273 | 1,062 71* | 113,181 | 009* | Arthur McLean |  |
| 3 | Billings Field | 78065 | 570 | 2602 | 2895 | 10471 | 896 | 453 | 959 52* | 74,298 | 012* | Billings Field. | 3 |
| 4 | Boston Common | 43500 |  | 2602 | 2895 | 5315 |  | 273 | 545 85* | 33,370 | 016* | Boston Common. | 4 |
| 5 | Brookside | 83455 | 474 | 13699 | 2895 | 8360 | 1307 | 393 | 1,105 83* | 56,795 | 019* | Brookside. | 5 |
| 6 | Buckley Park Corner | 51285 |  | 2602 | 2895 | 5741 | 528 | 213 | 632 64* | 60,531 | 010* | Buckley Park Corner. | 6 |
| 7 | Carson Beach | 6250 |  | 2602 | 2895 | 1454 |  | 93 | 132 94* | 2,518 | 052* | Carson Beach. | 2 |
| 8 | Ceylon | 11250 |  | 2602 | 2895 | 2130 |  | 93 | 189 70* | 12,820 | 014* | Ceylon.. | 8 |
| 9 | Charlesbank (Boys) | 1,013 25 |  | 2652 | 2895 | 5321 | 791 | 273 | 1,132 57* | 66,868 | 016* | Charlesbank (Boys) | 9 |
| 10 | Charlesbank (Girls) | 84770 |  | 2602 | 2895 | 4198 | 1047 | 273 | 957 85* | 59,437 | 016* | Charlesbank (Girls). | 10 |
| 11 | Charlestown | 94640 | 1800 | 2602 | 2895 | 14545 | 48 | 393 | 1,169 23* | 70,047 | 016* | Charlestown | 11 |
| 12 | Charlestown Heights. | 90905 | 940 | 2602 | 2895 | 4855 | 1440 | 273 | 1,039 10* | 93,850 | 011* | Charlestown Heights. | 12 |
| 13 | Christopher J. Lee | 94715 |  | 2602 | 2895 | 11955 | 592 | 273 | 1,130 32* | 70,927 | 015* | Christopher J. Lee. | 13 |
| 14 | Columbus Park | 1,390 20 |  | 13141 | 2895 | 15106 | 520 | 273 | 1,709 55* | 108,720 | 015* | Columbus Park. | 14 |
| 15 | Commonwealth. | 12250 |  | 2602 | 2895 | 2457 |  | 93 | 202 97* | 6,169 | 032* | Commonwealth. | 15 |
| 16 | Fairmount Reservation. | 9500 |  | 2602 | 2895 | 2674 |  | 93 | 177 64* | 4,796 | 037* | Fairmount Reservation. | 16 |
| 17 | Fallon Field. | 89385 | 3306 | 2602 | 2895 | 8205 | 400 | 273 | 1,070 66* | 93,490 | 011* | Fallon Field. | 17 |
| 18 | Fenway | 21500 |  | 2602 | 2895 | 5591 |  | 93 | 326 81* | 9,124 | 035* | Fenway. | 18 |
| 19 | First Section | 21000 |  | 2602 | 2895 | 4681 |  | 93 | 312 71* | 12,250 | 025* | First Section. | 19 |
| 20 | Forsyth. | 16855 |  |  |  |  | 609 |  | 174 64* |  |  | Forsyth. | 20 |
| 21 | Franklin Field | 1,849 80 | 1850 | 2602 | 2895 | 27157 | 976 | 1053 | 2,215 $13^{*}$ | 192,683 | 011* | Franklin Field. | 21 |
| 22 | Franklin Park | 1,070 00 |  | 2602 | 2895 | 22846 |  | 93 | 1,354 36* | 70,322 | 019* | Franklin Park. | 22 |
| 23 | Franklin Square | 58660 | 3150 | 2602 | 2895 | 3566 | 384 | 273 | 715 30* | 32,876 | 021* | Franklin Square. | 23 |
| 24 | Frederic D. Emmons | 1,059 50 | 3558 | 2602 | 2895 | 10787 | 607 | 372 | 1,267 71* | 105,785 | 011* | Frederic D. Emmons | 24 |
| 25 | Frog Pond | 47775 |  | 2602 | 2895 | 801 |  | 632 | 547 05* | 188,260 | 002* | Frog Pond. | 25 |
| 26 | George H. Walker | 99785 |  | 2602 | 2895 | 10372 | 1666 | 343 | 1,176 63* | 83,862 | 014* | George H. Walker. | 26 |
| 27 | Glendon. | 9750 |  | 2602 | 2895 | 2851 |  | 92 | 181 90* | 10,164 | 017* | Glendon | 27 |
| 28 | Health Unit (East Boston) | 61865 | 888 | 2602 | 2895 | 3110 | 608 | 432 | 724 00* | 21,111 | 034* | Health Unit (East Boston) | 28 |
| 29 | Health Unit (North End). | 37900 |  | 2602 | 2895 | 3311 | 368 | 212 | 472 88* | 24,993 | 018* | Health Unit (North End) | 29 |
| 30 | Health Unit (South Boston) | 42270 | 1404 | 2602 | 2895 | 3590 | 609 | 212 | $53582{ }^{*}$ | 21,090 | 025* | Health Unit (South Boston) | 30 |
| 31 | Health Unit (South End) | 20925 |  | 2602 | 2895 | 1446 |  | 92 | 279 60* | 8,520 | 032* | Health Unit (South End) | 31 |
| 32 | Henry Grew | 11250 |  | 2602 | 2895 | 2127 |  | 92 | 189 66* | 4,568 | 041* | Henry Grew | 32 |
| 33 | James F. Healy | 1,211 25 |  | 12794 | 2895 | 10016 | 544 | 452 | 1,478 26* | 126,314 | 011* | James F. Healy | 33 |
| 34 | J. M. and J. J. Sullivan | 86105 |  | 2602 | 2895 | 2892 | 887 | 272 | 956 53* | 55,304 | 017* | J. M. and J. J. Sullivan | 34 |
| 35 | James L. Cronin. | 1,016 80 |  | 2602 | 2895 | 9337 | 1114 | 452 | 1,180 80* | 89,445 | 013* | James L. Cronin | 35 |
| 36 | Jefferson Lot | 8750 |  | 2602 | 2895 | 2162 |  | 92 | 165 01* | 4,260 | 038* | Jefferson Lot | 36 |
| 37 | John A. Doherty | 1,014 45 | 14025 | 2602 | 2895 | 9091 | 464 | 272 | 1,307 94* | 63,360 | 020* | John A. Doherty | 37 |
| 38 | John F. Holland. | 80960 | 3540 | 12918 | 2895 | 4472 | 536 | 272 | 1,055 93* | 57,964 | 018* | John F. Holland | 38 |
|  | Carried forward. | 824,780 55 | \$390 63 | \$1,384 68 | \$1,071 15 | \$2,544 58 | \$203 48 | \$102 97 | \$30,478 04* | 2,141,822 |  |  | . |

* EXCLUSIVE OF COST OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.


TABLE NO. 8B, CONTINUED. PARK PLAYGROUNDS. COSTS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES, AND WITH DIRECT INCOME DEDUCTED.
(For Total and Net Costs, See Table No. 1.)

TABLE NO. 8B, Continued.-COSTS OF PLAYGROUNDS, EXCLUSIVE OF ADMINISTRATION, SUPERVISION AND GENERAL CHARGES.* PARK PLAYGROUNDS.*
[For Total and Net Costs, See Table 1.]

|  | Park Playgrounds. | Teachers Salaries. | Custodians' Salaries. | Apparatus. | 4 <br> Labor, <br> Repairs and <br> Teaming <br> Apparatus. | $\begin{gathered} \text { Supplies } \\ \text { for } \\ \text { Athletics } \\ \text { and Games. } \end{gathered}$ | $\begin{gathered} \text { Supplies } \\ \text { for } \\ \text { Quiet Play. } \end{gathered}$ | Incidentals. | Total.* | Number of Pupil Hours. | 10 <br> Cost per Pupil Hour.* | Pare Playgrounds. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Brought foruard. | \$24,780 55 | \$390 63 | \$1,384 68 | \$1,071 15 | \$2,544 58 | \$203 48 | \$102 97 | \$30,478 04* | 2,141,822 |  |  |  |
| 39 | John H. L. Noyes | 89515 | 2880 | 20295 | 5789 | 8982 | 48 | 375 | 1,278 84* | 74,767 | \$0 017* | John H. L. Noyes. | 39 |
| 40 | John J. Connolly | 1,060 35 |  | 2602 | 2895 | 8590 | 743 | 272 | 1,211 37* | 73,518 | 016* | John J. Connolly. | 40 |
| 41 | John W. Murphy | 91745 |  | 2642 | 2895 | 10724 | 2116 | 422 | 1,105 44* | 91,759 | 012* | John W. Murphy . | 41 |
| 42 | John Winthrop | 1,158 10 | 2424 | 2602 | 2895 | 7539 | 11.53 | 452 | 1,328 75* | 149,091 | 008* | John Winthrop | 42 |
| 43 | Leslie A. Moore. | 12000 |  | 2602 | 2895 | 2844 |  | 92 | 204 33* | 7,256 | 028* | Leslie A. Moore | 43 |
| 44 | Lester J. Rotch' | 1,190 10 | 150 | 2602 | 2895 | 16123 | 1114 | 452 | 1,423 46* | 90,975 | 015* | Lester J. Rotch | 4 |
| 45 | Madison Park | 88050 | 14715 | 2602 | 2895 | 4950 | 848 | 272 | 1,143 32* | 87,380 | 013* | Madison Park. | 45 |
| 46 | Mary Hemenway Park. | 78805 | 2504 | 2932 | 2895 | 8992 | 240 | 572 | 969 40* | 32,102 | 030* | Mary Hemenway Park | 46 |
| 47 | Matthew J. Sweeney | 97635 | 408 | 2602 | 2895 | 5404 | 2147 | 272 | 1,113 63* | 137,990 | 008* | Matthew J. Sweeney | 47 |
| 48 | McConnell Park. | 80160 | 2700 | 2602 | 2895 | 3245 | 704 | 272 | 925 78* | 47,072 | 019* | McConnell Park | 48 |
| 49 | Metropolitan. | 11500 |  | 2602 | 2895 | 2577 |  | 92 | 196 66* | 4,986 | 039* | Metropolitan | 49 |
| 50 | Mission Hill. | 1,041 25 | 3300 | 2602 | 2895 | 10976 | 704 | 272 | 1,248 74* | 99,547 | 012* | Mission Hill | 50 |
| 51 | North End Park | 39000 |  | 2602 | 2895 | 13771 |  | 272 | 585 40* | 58,448 | 010* | North End Park | 51 |
| 52 | Orchard Park | 80770 | 15405 | 2602 | 2895 | 3507 | 1351 | 272 | 1,068 02* | 87,955 | 012* | Orchard Park | 52 |
| 53 | Paris Street | 10250 |  | 2602 | 2895 | 3091 |  | 92 | 189 30* | 12,600 | 015* | Paris Street | 53 |
| 54 | Portsmouth Street | 94210 | 2850 | 2602 | 2895 | 5405 | 1242 | 272 | 1,094 76* | 108,115 | 010* | Portsmouth Street. | 54 |
| 55 | Prendergast Camp | 47025 |  | 2602 | 2895 | 893 | 472 | 92 | 539 79* | 35,757 | 015* | Prendergast Camp | 55 |
| 56 | Readville Street | 56115 |  | 2932 | 2894 | 5794 |  | 392 | $681{ }^{27 *}$ | 32,194 | 021* | Readville Street | 56 |
| 57 | Ripley. | 80770 | 4816 | 3352 | 2894 | 5428 | 704 | 272 | 982 36* | 57,703 | 017* | Ripley | 57 |
| 58 | Rogers Park | 94280 | 804 | 2602 | 2894 | 8942 | 1370 | 452 | 1,113 44* | 74,477 | 014* | Rogers Park | 58 |
| 59 | Ronan Park. | 1,133 65 | 3810 | 3037 | 2894 | 12060 | 993 | 452 | 1,366 11* | 117,215 | 011* | Ronan Park | 59 |
| 60 | Savin Hill. | 10500 |  | 2602 | 2894 | 1718 |  | 92 | 178 06* | 4,880 | 036* | Savin Hill | 60 |
| 61 | Shawmut | 87510 | 14325 | 2602 | 2894 | 3828 | 848 | 272 | 1,122 79* | 82,343 | 013* | Shawmut | 61 |
| 62 | Smith Pond. | 11250 |  | 2602 | 2894 | 3428 |  | 92 | 202 66* | 5,922 | 034* | Smith Pond. | 62 |
| 63 | Stanley Ringer | 1,106 70 | 3000 | 2602 | 2894 | 9207 | 848 | 452 | 1,296 73* | 99,215 | 013* | Stanley Ringer | 63 |
| 64 | Trescott Field | 5000 |  | 2602 | 2894 | 11.92 |  | 92 | $11780 *$ | 5,205 | 022* | Trescott Field | 64 |
| 65 | Vincent Cutillo. | 1,580 70 |  | 2602 | 2894 | 3710 | 1800 | 780 | 1,698 56* | 163,649 | 010* | Vincent Cutillo | 65 |
| 66 | Wachusett Street | 85895 | 14752 | 2602 | 2894 | 6135 | 632 | 92 | 1,130 02* | 65,331 | 017* | Wachusett Street | 66 |
| 67 | Washington Park. | 95490 | 14335 | 2602 | 2894 | 2661 | 848 | 272 | 1,191 02* | 84,734 | 014* | Washington Park | 67 |
| 68 | Wellington Street. | 2500 |  | 2602 | 2894 | 49 |  | 92 | 81 37* | 1,300 | 062* | Wellington Street | 68 |
| 69 | West Third Street | 87685 | 4026 | 2602 | 2894 | 3013 | 1987 | 272 | 1,024 79* | 86,270 | 011* | West Third Street | 69 |
| 70 | William E. Carter | 1,023 45 |  | 2602 | 2894 | 13697 | 1354 | 272 | 1,231 64* | 66,137 | 018* | William E. Carter | 70 |
| 71 | William Eustis Park | 93585 | 1350 | 12793 | 2894 | 14308 | 384 | 272 | 1,255 86* | 84,802 | 014* | William Eustis Park | 71 |
| 72 | William Francis Smith | 83550 | 450 | 2602 | 2894 | 6404 | 544 | 272 | 967 16* | 66,851 | 014* | William Francis Smith | 72 |
| 73 | William H. Garvey | 64280 | 4164 | 2954 | 2894 | 5497 | 544 | 272 | 806 05* | 49,103 | 016* | William H. Garvey | 73 |
| 24 | William J. Barry | 53465 |  | 2602 | 2894 | 7992 |  | 212 | 671 65* | 60,090 | 011* | William J. Barr | 74 |
| 75 | World War Memorial Park | 70855 |  | 2652 | 2894 | 13735 | 384 | 452 | 909 72* | 60,182 | 015* | World War Memorial Park | 75 |
| 76 | Totals. | \$52,108 80 | \$1,522 31 | \$2,649 13 | \$2,171 04 | \$5,008 69 | \$464 70 | \$209 42 | \$64,134 09* | 4,608,743 | \$0 013* |  | 76 |

* EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.


THE BUDGET AND ANNUAL APPROPRIATION ORDERS IN SUMMARIZED FORM FOR THE FINANCIAL YEAR 1928, WHICH YEAR IMMEDIATELY FOLLOWS THE PERIOD FOR WHICH THE PRECEDING FINANCIAL REPORT IS MADE, ARE INCLUDED FOR REFERENCE PURPOSES AND ARE SHOWN ON THE FOLLOWING PAGES.

## BUDGET AND ANNUAL APPROPRIATION ORDER TO PROVIDE FOR THE COST OF MAINTENANCE OF THE BOSTON PUBLIC SCH0OLS; FOR THE COST OF ADMINISTRATION AND SUPERVISION; AND FOR THE COST OF SUNDRY OTHER SERVICES AND EXPENSES FOR THE FINANCIAL YEAR 1928.

Office of the Business Manager of the School Committee, 15 Beacon Street, Boston, June 25, 1928. To the School Committee of the City of Boston:

In compliance with the Rules of the School Committee, I submit herewith the budget and annual appropriation order, with detailed estimates, to provide for the cost of maintenance of the public schools; for the cost of administration and supervision; and for the cost of sundry other services and expenses of the public schools, for the financial year 1928, exclusive of the item "Alteration and repair of school buildings, and for furniture fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards;" for which provision is made in a separate appropriation order.

The average valuation of the city for the three years 1925, 1926 and 1927, with all abatements allowed up to December 31, 1927, as certified to his Honor the Mayor by the Board of Assessors, is $\$ 1,882,009,566.67$. This is the sum upon which all appropriations by the City Council and the School Committee for the financial year 1928 are based.

Under existing law the School Committee is authorized to appropriate the following sums:
(a.) Six dollars and ninety-four cents upon each one thousand dollars of the valuation of the city for general school purposes. (Chapter 206 of the Special Acts of 1919, chapter 249 of the Special Acts of 1919, chapter 641 of the Acts of 1920 , and chapter 309 of the Acts of 1925.)
(b.) Ninety-one cents upon each one thousand dollars of the valuation of the city for the alteration and repair of school buildings, and for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards. (Chapter 206 of the Special Acts of 1919, chapter 524 of the Acts of 1920, chapter 488 of the Acts of 1923, and chapter 153 of the Acts of 1926.)
(c.) Fifteen cents upon each one thousand dollars of the valuation of the city for organizing and conducting physical training and exercises, athletics, sports, games and play, and for providing apparatus, equipment and facilities for the same in buildings, yards and playgrounds under the control of the School Committee, or upon any other land which the committee may have the right to use for this purpose, under the provisions of chapter 295 of the Acts of 1907. (Chapter 206 of the Special Acts of 1919, chapter 249 of the Special Acts of 1919, chapter 641 of the Acts of 1920, chapter 309 of the Acts of 1925, and chapter 153 of the Acts of 1926.)
(d.) Eleven cents upon each one thousand dollars of the valuation of the city for the employment of one supervising female nurse and so many district female nurses as, in the opinion of said committee are necessary, in accordance with the provisions of chapter 357 of the Acts of 1907, and for the employment of such number of school physicians as, in the opinion of the School Committee, may be necessary, and for the care of the teeth of school children. (Chapter 206 of the Special Acts of 1919, chapter 249 of the Special Acts of 1919, chapter 641 of the Acts of 1920, chapter 309 of the Acts of 1925, and chapter 153 of the Acts of 1926.)
(e.) Four cents upon each one thousand dollars of the valuation of the city for the purpose of conducting educational and recreative activities in or upon school property under the control of the School Committee, and the use thereof by individuals and associations in accordance with the provisions of chapter 195 of the Acts of 1912 and chapter 86 of the Special Acts of 1916. (Chapter 206 of the Special Acts of 1919, chapter 641 of the Acts of 1920, and chapter 309 of the Acts of 1925.)
(f.) Five cents upon each one thousand dollars of the valuation of the city for the payment of pensions to members of the teaching or supervising staff of the public schools of the city, and to persons who were annuitants of the Boston Teachers' Retirement Fund at the time when chapter 589 of the Acts of 1908 took effect, and other teachers who had retired prior to said time, in accordance with the provisions of said chapter 589 , chapter 537 of the Acts of 1909 , chapter 617 of the Acts of 1910, chapter 569 of the Acts of 1912, chapter 206 of the Special Acts of 1919, and chapter 382 of the Acts of 1928.
(g.) Three cents upon each one thousand dollars of the valuation of the city for promoting the Americanization and better training for citizenship of foreign born persons. (Chapter 206 of the Special Acts of 1919, and chapter 309 of the Acts of 1925.)
(h.) Three cents upon each one thousand dollars of the valuation of the city for vocational guidance. (Chapter 206 of the Special Acts of 1919, and chapter 309 of the Acts of 1925.)
(i.) The unexpended balance for the financial year 1927.
(j.) The excess of income, if any, for the financial year 1927 over that estimated.
(k.) The estimated income for the financial year 1928.

Estimated Total Money Available for Maintenance, 1928.
The sums available under existing statutes for the financial year 1928 to provide for the cost of maintenance of the school system are as follows: $\$ 6.94$ per $\$ 1,000$ for general school purposes $\$ 13,061,14639$
.91 per $\$ 1,000$ for the alteration and repair of school buildings, and for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards

1,712,628 71
.15 per $\$ 1,000$ for physical education 282,301 43
.11 per $\$ 1,000$ for school physicians and school nurses 207,021 05
.04 per $\$ 1,000$ for extended use of the public schools 75,280 38
Brought forward ..... $\$ 15,338,37796$
$\$ 0.05$ per $\$ 1,000$ for pensions to teachers ..... 94,100 48
.03 per $\$ 1,000$ for promoting Americanization ..... 56,46029
. 03 per $\$ 1,000$ for vocational guidance ..... 56,46029
Unexpended balance, general appropriation, 1927 ..... 514,214 89
Unexpended balance, physical education, 1927 - \$15,- 489.53, less deficit in estimated income for 1927, $\$ 4,571.34$ ..... 10,918 19
Unexpended balance, extended use of the public schools, 1927 ..... 2,524 04
Unexpended balance, school physicians and school nurses, 1927 ..... 4,63896
Unexpended balance, appropriation for the alteration and repair of school buildings, and for furniture, fixtures, and means of escape in case of fire and for fire pro- tection for existing buildings, and for improving existing school yards, 1927 ..... 23829
Excess of income over amount estimated, general, 1927 ..... 84,483 51
Excess of income over amount estimated, extended use of the public schools, 1927 ..... 97445
Estimated income, general, including Smith-Hughes Fund, 1928 ..... 620,00000
Estimated income, physical education, 1928 ..... 18,000 00
Estimated income, extended use of the public schools, 1928, ..... 6,000 00
Total $\$ 16,807,39135$Deduct amount available for "Alteration and repair ofschool buildings, and for furniture, fixtures, andmeans of escape in case of fire, and for fire protectionfor existing buildings, and for improving schoolyards," for which a separate appropriation order ismade1,712,628 71
Estimated total amount available for maintenance, 1928, excluding the item "Alteration and repair of school buildings, and for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards," for which a separate appropriation order is made

Improved Budgetary Estimates for 1928 and Other Information.
This year the ranks and salaries of all permanent personnel in actual employment on December 1, 1927, are shown. The complete organization as at December 1, 1927, for each school and department is set forth by ranks and by salaries for the year 1928.

The cost of actual instruction is separated from the cost of supervision to the end that the relation may readily be determined. The salary costs of special activities are segregated for the purposes of study and comparison.

Items of supplies and incidentals are enumerated in greater detail. The allowance for supplies for each school, department or activity is set forth.

The vacancies reported by the Superintendent of Schools existing as at December 1, 1927, are shown separately as are the growth and other adjustments recommended by the Board of Apportionment and approved by the School Committee.

The budget now contains approximately 3,000 items, exclusive of totals, and affords the opportunity of studying school costs in great detail, as it presents a collection of facts properly organized and classified with the opportunity for presentation and discussion of all school problems on a financial basis. The classification by ranks and by salaries of all permanent personnel enables the Business Manager to give information on salaries to teachers and others which is being sought constantly by boards of education, educational associations and other agencies throughout the country.

From the budget as it is now organized the actual cost or the basis of cost of all activities may readily be ascertained.

It is most desirable to proceed during the financial year so that a balance may be expected for use the following year. Most assuredly it is better to expect a balance at the end of a financial year, amounting to at least three per cent of the total of the appropriations, than it is to come through without a balance for the reason that the appropriating power of the School Committee on each $\$ 1,000$ of the valuation on which appropriations are based applied to the increase in such valuation, one year over the other, does not produce sufficient funds to meet the normal increases in expenditures. It is not possible at the beginning of a financial year to forecast with accuracy the balance at the end of the year, nor is it possible to forecast the increase the following year in average valuation on which appropriations are based. It is evidently the intention of the Legislature, inasmuch as it is mandatory on the School Committee to appropriate its balances, that the committee endeavor to meet necessary increases in expenditures each year from balances remaining at the end of the year and from the increase in valuation on which appropriations are based. The School Committee does not petition for additional appropriating power unless it is obliged to because of unusual conditions, such as a general salary increase for teachers and others.

A balance of any substantial size under present conditions is largely due to several factors, to wit: The deferred filling of vacancies and the deferred appointments of teachers and others provided for on the basis of growth and expansion; in the case of fuel and light, absence of strikes in the coal regions and mild weather during the heating season; and in the case of supplies and incidentals, savings that may be made through careful purchasing and low prices that may be obtained because of intensive competition between dealers for school business.

I recommend the passage of the accompanying order appropriating the sum of $\$ 6,384,262.64$, being the amount necessary in addition to the amount ( $\$ 6,139,000$ ) appropriated "on account" at the meeting of April 16,1928 , and also in addition to the amount $(\$ 2,571,500)$ appropriated "on account" at the meeting of May 21, 1928; to provide for the cost of maintenance of the public schools; for the cost of administration and
supervision; and for the cost of sundry other services and expenses of the public schools, for the financial year 1928, exclusive of the maintenance item "Alteration and repair of school buildings, and for furniture, fixtures, and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards." The total of the appropriations for the year for the purposes mentioned is, therefore, $\$ 15,094,762.64$.

Respectfully yours,

Alexander M. Sullivan, Business Manager.

## Summary of Budget and Detailed Estimates.

The detailed estimates, as outlined in the budget, of the cost of maintenance of the public schools; of the cost of administration and supervision; and of the cost of sundry other services and expenses of the public schools for the financial year 1928, exclusive of the item "Alteration and repair of school buildings, and for furniture, fixtures and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards," call for appropriations as follows:
(For complete details, see pages indicated in budget on file.)
For general school purposes, including Americanization and Vocational Guidance:
Salaries of principals, teachers, members of the supervising staff and others
\$11,548,438 24 Pages 1-70
Salaries of administrative officers, clerks, stenographers, supervisors of attendance, and other employees,
Salaries of custodians and salaries of matrons
Fuel and light, including electric current for power
Supplies and incidentals
Pensions to supervisors of attendance and pensions to Custodians
Physical Education (salaries of teachers, members of the supervising staff and others, and supplies and incidentals - day schools and playgrounds)

378,258 55 Pages 71-74
845,710 04 Pages 75-87
521,865 00 Page 88
$1,099,48584$ Pages 89-105
4,50000 Page 106

311,219 62 Pages 107-109
Salaries of school physicians and school nurses, including members of the supervising staff
Extended Use of the Public Schools (salaries and supplies and incidentals)

206,406 00 Pages 110-111

84,778 87 Pages 112-113
Pensions to teachers
94,10048 Page 114

On April 16, 1928, the School Committee made the following appropriations "on account":
For general school purposes, including Americanization and Vocational Guidance:
Salaries of principals, teachers, members of the supervising staff and others
$\$ 4,800,00000$
Salaries of administrative officers, clerks, stenographers,
supervisors of attendance and other employees . . 160,00000
Salaries of custodians and salaries of matrons . . 363,00000
Fuel and light, including electric current for power . . 270,00000
Supplies and incidentals . . . . . . . 265,00000
Pensions to supervisors of attendance and pensions to custodians

1,70000
Physical Education (salaries of teachers, members of the supervising staff and others and supplies and incidentals - day schools and playgrounds)

90,00000
Salaries of school physicians and school nurses, including members of the supervising staff

86,50000
Extended Use of the Public Schools (salaries and supplies and incidentals)

44,00000
Pensions to teachers . . . . . . . . 58,80000
Total
$\$ 6,139,00000$
On May 21, 1928, the School Committee made the following appropriations "on account":
For general school purposes, including Americanization and Vocational Guidance:
Salaries of principals, teachers, members of the supervising staff and others
$\$ 2,000,00000$
Salaries of administrative officers, clerks, stenographers; supervisors of attendance and other employees . . 60,00000
Salaries of custodians and salaries of matrons . . 120,00000
Fuel and light, including electric current for power . . 20,00000
Supplies and incidentals . . . . . . . 175,00000
Pensions to supervisors of attendance and pensions to custodians

1,50000
Physical Education (salaries of teachers, members of the supervising staff and others, and supplies and incidentals - day schools and playgrounds)

100,000 00
Salaries of school physicians and school nurses, including members of the supervising staff

50,00000
Extended Use of the Public Schools (salaries and supplies and incidentals)

20,000 00
Pensions to teachers . . . . . . . . 25,00000
Total . . . . . . . . . . . $\$ 2,571,50000$
On June 25, 1928, the School Committee made the following final appropriations in addition to those made "on account" at the meetings of April 16, 1928 and May 21, 1928:
For general school purposes, including Americanization and Vocational Guidance:
Salaries of principals, teachers, members of the supervising staff and others
$\$ 4,748,43824$
Salaries of administrative officers, clerks, stenographers,
supervisors of attendance and other employees . . 158,25855
Salaries of custodians and salaries of matrons . . . 362,710 94
Fuel and light, including electric current for power . . 231,86500
Supplies and incidentals . . . . . . . 659,485 84
Pensions to supervisors of attendance and pensions to custodians
1,30000
Physical Education (salaries of teachers, members of the supervising staff and others, and supplies and incidentals - day schools and playgrounds)
121,219 62
Salaries of school physicians and school nurses, including members of the supervising staff
69,90600
Extended Use of the Public Schools (salaries and supplies and incidentals).
20,778 87
Pensions to teachers . . . . . . . . 10,300 48
Total . . . . . . . . . . . \$6,384,262 64

## Summary of Appropriations.

Appropriations "on account" on April 16, 1928 . . . $\$ 6,139,00000$
Appropriations "on account" on May 21, 1928 . . . $2,571,50000$
Final appropriations . . . . . . . . $6,384,262 \quad 64$

Total appropriations for maintenance, exclusive of
"Alterations and Repairs," etc.
\$15,094,762 64

## Alterations and Repairs to School Buildings.

On April 2, 1928, the School Committee passed the following order:
Ordered, That to provide funds for the alterations and repair of school buildings, and for furniture, fixtures and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards, during the financial year January 1 to December 31, 1928, the following sum is hereby appropriated on account:
C. General alterations and repairs to school buildings,
exclusive of major educational items
$\$ 1,000,00000$

On May 28, 1928, the School Committee passed the following orders:
Ordered, That to provide for the cost of alteration and repair of school buildings, and for furniture, fixtures and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards, during the financial year January 1 to December 31, 1928, the sum of $\$ 315,000$ is hereby appropriated for Item B., Major Educational Items.
B. Major Educational Items. (For the following items calling only for work necessitated by educational requirements approved by the Superintendent.)

1. Protective work by pupils . . . . . $\$ 15,00000$
2. Teachers College of the City of Boston:
(a) Partition, gymnasium
6,000 00
(b) Passageway between first and second floor,

10,00000
(c) 50 -foot cases, third floor corridor

1,50000
(d) Cupboards, Rooms 15, 25

80000
(e) Cases, Rooms 27, 28

60000
(f) One vertical filing cabinet each, Rooms
$28,43$.$\quad 8000$
(g) Enlarge case between Rooms 18 and 20 . 1,200 00
(h) Enclose bench, Room 33 . . . . 20000
(i) Provide shelving and ladder, Room 34 . 30000
(j) Build cabinet and shelving in passageway,
Room 43 . . . . . . . 30000
(k) Four tables and twenty-four chairs, li-
brary . . . . . . 60000
(l) Five tables and fifty chairs, lunchroom . 40000
(m) 100 tablet armchairs . . . . . 70000
( $n$ ) Art Department:
Two demonstration desks, Rooms 43, 44, two model stands . . .. .
(o) Electrical equipment, Rooms 34, 35, 42, switchboard and bench connections

1,00000
( $p$ ) Furnish nine desk lamps for existing outlets

1,80000
(q) Install four lantern screens $\quad . \quad . \quad . \quad 15000$
(r) White shades, Rooms 31, 32 . . . 40000
(s) Additional toilets, teachers' room . . 1,200 00
3. Charlestown High School:

Enlarge Rooms 26, 32 . . . . . . 5,00000
4. Dorchester High School for Girls:

Remodel Room 27 as biology laboratory
4,00000
(a) Partition off workroom.
(b) Equip workroom with work bench, shelving and sink.
(c) Equip laboratory with small demonstration table, eighteen standard biological laboratory tables and stoves.
5. East Boston High School:
(a) Improve the lighting of the shops for boys in the co-operative course

7500
(b) Install lighting on display boards . . 25000
(c) Provide lighting for paper storage room
in the basement and staircase
(d) Install a light in the telephone booth . 4000

Carried forward
Brought forward$\$ 51,72500$
(e) Provide suitable receptacles in the office practice room ..... 15000
(f) Relocate switch controls where necessary in the co-operative industrial shops and add additional receptacles where neces- sary. This should include connecting a new Springfield lathe, and the replace- ment of defective switches ..... 25000
(g) Additional facilities for drawing room and school corridors ..... 2,80000
6. Girls' High School:
Relight and refinish corridors, etc. ..... 6,00000
7. Hyde Park High School:
Remodel and refinish for intermediate school pur- poses. ..... 65,00000
8. Jamaica Plain High School:
Furnish for agricultural department:
One Spencer turbo compressor (in place of present blower) ..... 35000
One wall display board, 4 feet by 12 feet ..... 5000
Twenty wooden stools ..... 6000
One standard sheetmetal bench ..... 6000
One lumber rack, 4 feet by 12 feet by 6 feet ..... 10000
One floor stand rest for lathe ..... 2000
9. Mechanic Arts High School:Additional machine equipment2,000 00
10. South Boston High School:
Equip for projection work, Rooms 212, 216, 308, ..... 1,00000
11. Boston Trade School:(a) Repair machines60000(b) Bring into use two engines secured fromMechanic Arts High School (repairs,cost of connecting, remodeling floor) .(c) Additional equipment for printing depart-ment and lever cutter, linotype, cutcost cabinets13,25000
12. Trade School for Girls:
(a) Enlarge cookery classroom on the first floor to provide additional daylight, and prepare for use 1,50000
(b) Buttonhole machine ..... 30000
13. Gun racks:Public Latin, 200; Charlestown High, 150;* Brighton High, 100; Mechanic Arts, 400;Donald McKay, 100; Washington Allston, 75;Bennett, 1256,900 00
Carried forward ..... $\$ 157,61500$

[^29]Broughi forward$\$ 157,61500$
14. (a) High School safes:
Charlestown High ..... 1
Girls' High * ..... 1
(b) Intermediate School safes:
Thomas Gardner District ..... 45000
15. Dearborn School:
(a) Build fire escape link to annex ..... 3,500 00
(b) Door from basement to yard ..... 1,20000
16. Dudley District:
Nathan Hale School, remodel two rooms, first floor, to form kindergarten, one toilet ..... 4,00000
17. Elihu Greenwood District:
Create and equip nurse's room at Trescott School, ..... 2,00000
18. Lowell District:
Health room, Lucretia Crocker School ..... 3,00000
19. Martin District:(a) Supply additional shelving in Rooms 1, 2,3, 4, 5, 6, 8 and 12, Martin School.
(b) Supply maple floor in nurse's room, Martin School.
(c) Equipment of combination science and dressmaking room, Martin School1,30000
20. Prince School:
Wood floor in basement shop ..... 32500
21. Rice School:(a) Create new master's office on second floor.(b) Make of present office, storeroom withlavatory.(c) Refinish teachers' room on second floorfor health room.
(d) Refinish health room on third floor forteachers' room, providing lavatory insmall room adjoining3,50000
22. Robert Treat Paine School:
(a) Install toilet room in basement ..... 60000
(b) Move kindergarten from Room 106 to 102, and install toilet ..... 90000
(c) Build storeroom in health room ..... 1,00000
23. Theodore Lyman School:
Teachers' toilet ..... 2,50000
24. Washington Allston School:(a) Install and equip lunchroom for 300 chil-dren in present voting place2,50000(b) Remodel teachers' room to provide healthroom. (See plans submitted December,1926.)1,500 00
Carried forward ..... $\$ 186,79000$

[^30]
## Brought forward

$\$ 186,79000$
25. Washington Irving School:
(a) Change girls' sanitary on first floor of third unit to boys' sanitary

1,20000
(b) Cut a door into courtyard from the corridor in basement of scond unit

80000
(c) Prepare about 9,000 square feet on Haw-
thorne street side for play space . . $7,500 \quad 00$
26. Department of Evening and Summer Schools:
(a) Incidental repairs and equipment . . 4,000 00
(b) Remodel lighting in English High School, 8,000 00
27. Department of Household Science and Arts:

Incidental repairs and equipment
15,00000
28. Department of Manual Arts (mechanical):
(a) South Boston High School:

Locksmith work on drawing tables . . 25000
(b) Eliot District:

Manual training room . . . . . 2,500 00
(c) Henry L. Pierce District:

Bring Emily A. Fifield machine equipment
up to intermediate standard . . . 60000
(d) Michelangelo Intermediate District:

Bring sheet metal and auto mechanics' equipments up to intermediate standards

1,42500
(e) Prescott District:

Bring Abram E. Cutter electrical and woodworking equipments up to intermediate standards

3,00000
(f) Thomas N. Hart District:
Create and equip a room for printing . 3,00000
(g) Ulysses S. Grant District:

Bring woodworking equipment up to intermediate standards

1,40000
(h) Incidental repairs and equipment . . 10,500 00
(i) Electric light alterations and additions . 1,250 00
29. Department of Manual Arts (drawing):
(a) High School of Commerce:

Equip Room 302 as drawing studio . . 1,400 00
(b) Incidental repairs and equipment . . 6,000 00
(c) Dorchester High School for Boys, Room
$110:$
Create storage space and furnish chairs - 1,30000
(d) Joseph H. Barnes School . . . . 87500
(e) Michelangelo School . . . . . 96000
30. Department of Physical Education:

Nine playground shelters .
18,000 00
Carried forward . . . . . . . . $\$ 275,75000$
Brought forward ..... $\$ 275,75000$Donald McKay, James A. Garfield, John D.Philbrick, John J. Williams, Lafayette,Michael J. Perkins, Samuel G. Howe,Ulysses S. Grant, Harriet A. Baldwinschoolyards.
31. Department of School Hygiene:
(a) Miscellaneous repairs, adjustments and equipment ..... 4,000 00
(b) Rest and nutrition equipment ( 25 items), ..... 7,5000032. Lockers (steel):
(a) Michelangelo, 70 ..... 42000
(b) Teachers College, 50 ..... 30000
(c) Brighton High, 250 ..... 1,500 00
(Of such character that they may betransferred to new high school.)
(d) English High, 100 ..... 60000
(e) High School of Commerce, 400 ..... 2,400 00
(f) Mechanic Arts High School, 122 ..... 73200
(g) South Boston High School, 1 teacher's ..... 2400
(h) Girls' High School, 12 teachers' ..... 12000
33. Equip nine standard science rooms: Blackinton,Francis Parkman, John Cheverus, Norcross,Quincy, Prescott, Dwight, Hugh O'Brien andMather Schools7,200 00
Total of the foregoing items ..... $\$ 300,54600$
Reserve ..... 14,454 00
Total ..... $\$ 315,00000$

Ordered, That to provide for the cost of alteration and repair of school buildings, and for furniture, fixtures and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing school yards, the sum of $\$ 272,628.71$ is hereby appropriated for Item C, General Alterations and Repairs, exclusive of Major Educational Items, in addition to the sum appropriated "on account" at the meeting of April 2, 1928.

On July 9, 1928, the School Committee passed the following order:
Ordered, That to provide for the administration expenses of the Schoolhouse Department for the alteration and repair of school buildings, and for furniture, fixtures and means of escape in case of fire, and for fire protection for existing buildings, and for improving existing schoolyards, during the financial year January 1 to December 31, 1928, the following sum is hereby appropriated:
A. Administration expenses, Schoolhouse Department (alterations and repairs appropriations)
$\$ 125,00000$

## New School Buildings, Lands, Yards, Etc.

On February 6, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the

Special Acts of 1919 , as amended by chapter 524 of the Acts of 1920 , as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925, as amended by chapter 314 of the Acts of 1926, the following appropriations are hereby made for the purpose of meeting ( $a$ ) the cost of new land and building items, (b) the additional cost of land and building items previously authorized, and (c) the cost of revisions of estimates:
(a) Appropriations for New Land and Building Items.
Item 2.- Abraham Lincoln District, City Proper: (Continuation School): Equipment of first unit, for boys. (Item 20, 1926)
$\$ 100,00000$
Item 3.- Elihu Greenwood District, Hyde Park: Equipment of thirty-six-classroom high school for boys and girls. (Item 14, 1927)

125,00000
Item 4.- Francis Parkman District, West Roxbury: Henry Abrahams School, equipment of five-room unit. (Item 10, 1926)

4,00000
Item 5.- Grover Cleveland Intermediate District, Dorchester: Equipment of eight-classroom addition. (Item 8, 1927)

8,00000
Item 6.- Lewis Intermediate District, Roxbury: Memorial High School, equipment of thirty-six-classroom boys' unit. (Item 27, 1926)

95,00000
Item 7.- Longfellow District, West Roxbury: Equipment of twelve-classroom building. (Item 17, 1927) . .
Item 8.- Robert Gould Shaw District, West Roxbury:
Item 8.- Robert Gould Shaw District, West Roxbury:
Equipment of thirteen-room building, near Weld street and Russett roàd. (Item 10, 1927)

7,500 00
(b) Appropriation for Land and Building Item Previously Authorized.
Item 9.- Lewis Intermediate District, Roxbury: Land
and construction of twelve-classroom annex, Grades VII. to IX. (Item 30, 1924; Item 8, 1925)

10,500 00
(b) Arsar Previoutur Auphopized -

1,50000
(c) Revision of Estimate.

Item 10. - Longfellow District, West Roxbury: Land and construction of four-room unit (kindergarten and Grades I. to III.) of eight-room building adjoining Phineas Bates School. (Item 25, 1925.) (To cover change to a twelve-room building, kindergarten and Grades I. to VI.) (Item 47, 1926; Item 17, 1927) .

$$
49,21345
$$

Total
$\$ 400,71345$
On March 5, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919 , as amended by chapter 524 of the Acts of 1920 , as amended by chapter 488 of the Acts of 1923, as amended by chapter 327
of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926 , the following appropriations are hereby made for the purpose of meeting the cost of new land and building items:
Item 11.- Abraham Lincoln District, City Proper: Con-
tinuation School, construction of second unit, for
girls, with public library, shops, etc. (Item 42, 1926), $\$ 410,00000$
Item 12.-Agassiz-Bowditch District, Jamaica Plain: Jamaica Plain High School, extension of schoolyard. (Item 44, 1926) .

1,50000
Item 13. - Bowditch District, Jamaica Plain: Addition to
yard of Margaret Fuller School . . . . . 10,00000
Item 14. - Henry L. Pierce District, Dorchester: Dorchester High School for Boys, fencing. (Item 37, 1926)

2,00000
Item 15.- Michelangelo Intermediate District, North
End: Plans for shop and gymnasium-assembly hall
annex, with roof playground. (Item 9, 1927) . . 12,00000
Item 16.- Rent of hired accommodations
55,000 00
Total
$\$ 490,50000$
On March 19, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, chapter 488 of the Acts of 1923 , chapter 327 of the Acts of 1925, chapter 314 of the Acts of 1926, the following appropriations are hereby made for meeting the cost of new land and building items:
Item 17.- Bennett District, Brighton: Construction of thirty-six-classroom high school for boys and girls. (Item 35, 1923; Item 22, 1924; Item 12, 1925)
$\$ 1,286,00000$
Item 18. - Henry L. Pierce District, Dorchester: Dorchester High School for Girls, plans for nine-classroom addition

15,00000
Item 19.- Henry L. Pierce District, Dorchester: Site for forty-classroom intermediate school

100,00000
Item 20.- Robert Treat Paine District, Dorchester: Robert Treat Paine School, fencing and grading, additional play space, already property of the city
Item 21.- William Lloyd Garrison District, Roxbury: Plans and construction of addition to William Lloyd Garrison Building, kindergarten and five classrooms, Grades I. to VI.

$$
104,00000
$$

Total
$\$ 1,510,00000$
On April 2, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919 , as amended by chapter 524 of the Acts of 1920 , as amended by chapter 488 of the Acts of 1923 , as amended by chapter 327
of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926 , the following appropriations are hereby made for the purpose of meeting the cost of new land and building items:

Item 22.- Bennett District, Brighton: Plans for inter-
mediate school, forty classrooms, with combination
gymnasium-assembly hall, and shop facilities for boys
and girls. (Item 4, 1927) . . . . . . $\$ 50,00000$
Item 23. - Prince District, City Proper: Construction of eight-classroom building, kindergarten and Grades I. to VI. (Item 30, 1925; Item 49, 1926)

160,00000
Item 24.- Washington Irving Intermediate District, Roslindale: Site for intermediate or high school

$$
100,00000
$$

Total
$\$ 310,00000$

On April 9, 1928, the School Committee passed the following order:
Ordered, That to provide for the cost of the administration expenses of the Schoolhouse Department for land, plans and construction of school buildings, in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920 , as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925, as amended by chapter 314 of the Acts of 1926, the following sum is hereby appropriated:
Item 1, 1928. - Administration expenses, Schoolhouse
Department: Land, plans and construction of school buildings
$\$ 91,000 \quad 00$
On April 16, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925, as amended by chapter 314 of the Acts of 1926 , the following appropriation is hereby made for the purpose of meeting the additional cost of a land and building item previously authorized:
Item 25.-Elihu Greenwood District: Land for elementary
school. (Item 6, 1927) . . . . . . . $\$ 5,00000$
On July 9, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923 , as amended by chapter 327 of the Acts of 1925, as amended by chapter 314 of the Acts of 1926 , the following appropriation is hereby made for the purpose of meeting the cost of a revision of an estimate:
Item 26.- William Lloyd Garrison District, Roxbury: Plans and construction of addition to William Lloyd Garrison building, kindergarten and five classrooms, Grades I. to VI.
\$21,786 55

On July 24, 1928, the School Committee passed the following order:
Ordered, That in accordance with the provisions of chapter 206 of the Special Acts of 1919, as amended by chapter 524 of the Acts of 1920, as amended by chapter 488 of the Acts of 1923, as amended by chapter 327 of the Acts of 1925 , as amended by chapter 314 of the Acts of 1926, the following appropriation is hereby made for the purpose of reserve for such items of land, plans and construction of school buildings as are or may finally be approved:
Item 27, 1928.- Reserve for such items of land, plans and construction of school buildings as are or may finally be approved
$\$ 171,00000$

## Transfers of Appropriations, New School Buildings, Lands, Yards, Etc.

On February 6, 1928, the School Committee passed the following orders:
Ordered, That of the amounts appropriated by the School Committee under dates of April 7, 1924 (see page 54) and March 15, 1926 (see page 46), the following amounts are hereby transferred to the 1925 item of school accommodations as listed below:

## From

Item 15, 1924.-Agassiz-Bowditch Districts, Jamaica Plain: Jamaica Plain High School (originally West Roxbury High School), demolition of original structure and construction of eighteen-room addition. (Item 19, 1923, as amended June 19, 1923, and further amended November 5, 1923; Item 28, 1923, as amended November 5, 1923)
$\$ 2,40306$
Item 13, 1926.- Robert Gould Shaw District, West Roxbury: Plans, construction and equipment of threeroom addition to Robert Gould Shaw building, including accommodations for domestic science and drawing

22,596 94
Total . . . . . . . . . . . $\$ 25,00000$
To
Item 28, 1925.- Washington District, West End: Construction of combination gymnasium-assembly hall and manual training and domestic science accommodations
$\$ 25,00000$
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred to the items of school accommodations as listed below:

## From

Item 33, 1926. - Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)

## To

Item 9, 1925.- Minot District, Dorchester: Land and construction of eight-classroom unit (kindergarten and Grades I. to III.) of twenty-four classroom intermediate school (Item 31, 1924, as amended May 18, 1925)
$\$ 11800$
Item 9, 1926. - Sherwin District, Roxbury: Boston Trade School, plans and construction of shop addition (Item 20, 1923; Item 34, 1923; Item 16, 1924; Item 14, 1925)

1,90600
Item 35, 1926.- Dudley District, Roxbury: Land for twenty-four-classroom intermediate school building with combination gymnasium-hall, and shop accommodations for boys and girls

43046
Item 15, 1927.-Agassiz-Bowditch Districts, Jamaica Plain: Land for additional school accommodations (Item 12, 1926)

1,282 08
Total . . . . . . . . . . . $\$ 3,73654$
Ordered, That of the amounts appropriated by the School Committee under dates of May 8, 1922 (see page 57), April 7, 1924 (see page 54), and May 10, 1926 (see page 94), the following amounts are hereby transferred to the 1926 item of school accommodations as listed below:

## From

Item 17, 1922. - Martin District, Roxbury: Land and construction of sixteen or eighteen-room unit of a new central girls' high school, without laboratories, with gymnasium and lunchroom
$\$ 060$
Item 15, 1924.- Agassiz-Bowditch Districts, Jamaica Plain: Jamaica Plain High School (originally West Roxbury High School), demolition of original structure and construction of eighteen-room addition (Item 19, 1923, as amended June 19, 1923, and further amended November 5, 1923; Item 28, 1923, as amended November 5, 1923)

1,32455
Item 30, 1926.- Thomas Gardner District, Brighton: Land and construction of four-classroom unit of six-teen-room building (kindergarten and Grades I. to VI.) (Item 33, 1924; Item 10, 1925; Item 6, 1926),

2382
Item 33, 1926. - Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)

1,179 13
Total . . . . . . . . . . . \$2,528 10
To
Item 46, 1926. - Lewis District, Roxbury: Preparation of lot on Dunreath street for playground purposes
\$2,528 10

On April 9, 1928, the School Committee passed the following order:
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see page 94), the following amount is hereby transferred to the items of school accommodations as set forth below:

## From

Item 33, 1926. - Washington Irving District, West Roxbury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925)
$\$ 1,82930$

## To

Item 5, 1921. - Additional portable buildings
$\$ 86400$
Item 14, 1928. - Henry L. Pierce District, Dorchester:
Dorchester High School for Boys, fencing (Item 37, 1926)

20000
Item 44, 1923.- Wendell Phillips District, West End:
Grant School, enlargement of schoolyard
76500
$\$ 1,829 \quad 30$
On April 23, 1928, the School Committee passed the following order:
Ordered, That of the amounts appropriated by the School Committee under dates of July 31, 1922 (see page 110), June 19, 1923 (see page 101), April 7, 1924 (see page 54), May 18, 1925 (see page 82), May 3, 1926 (see page 87), May 10, 1926 (see page 94 ), December 6, 1926 (see page 279) and March 21, 1927 (see page 68), the following amounts are hereby transferred to the 1926 item of school accommodations as set forth below:

## From

Item 25, 1922.- Charles Sumner District, West Roxbury: Completion of intermediate school (Item 20, 1920; Item 13, 1921; Item 2, 1922) .
$\$ 17050$
Item 33, 1923.- Samuel Adams District, East Boston: Land and construction of intermediate school building, thirty classrooms and shops (Item 18, 1922, as amended June 19, 1923)

1,42223
Item 6, 1924.- Charles Sumner District, West Roxbury: Washington Irving School, land, plans and construction of twelve-room addition to intermediate school building, Grades VII. to XII. (Item 21, 1923)

86140
Item 19, 1925.- Robert Gould Shaw District, West Roxbury: Land and construction of four-room unit (kindergarten and Grades I. to III.) near Vermont street,

$$
16,00000
$$

Item 11, 1926.- Robert Gould Shaw District, West Roxbury: Land and construction of four-room unit (kindergarten and Grades I. to III.) near Wren street (Item 20, 1925). (To cover plans and construction and change to a five-room building, kindergarten and Grades I. to VI.)

2,861 08
Carried forward . . . . . . . . . $\$ 21,31521$
Brought forward ..... $\$ 21,31521$
Item 33, 1926. - Washington Irving District, West Rox- bury: Construction of third twelve-classroom unit (Grades VII. to XII.) (Item 27, 1925) ..... 1,09689
Item 48, 1926.- Martin District, Roxbury: Preparation of White lot for playground purposes ..... 1575
Item 22, 1927.- Prince District, City Proper: Preparation of lot on Scotia street for playground purposes ..... 500
Total \$22,432 85
ToItem 20, 1926.- Abraham Lincoln District: ContinuationSchool, land and construction of first unit, for boys,with hall, shops, ete. (Item 50, 1923) .\$22,432 85

On July 9, 1928, the School Committee passed the following orders:
Ordered, That of the amounts appropriated by the School Committee under date of May 10, 1926 (see pages 93, 94), the following amount is hereby transferred to the 1928 item of school accommodations as listed below:

## From

Item 26, 1926.-Henry Grew District, Hyde Park: Land and construction of eight-room unit (kindergarten and Grades I. to III.) of six-grade elementary building with hall (Item 23, 1925)
$\$ 5,33345$
To
Item 21, 1928. - William Lloyd Garrison District, Roxbury: Plans and construction of addition to William Lloyd Garrison building, kindergarten and five classrooms, Grades I. to VI. .
$\$ 5,33345$
Ordered, That of the amount appropriated by transfer by the School Committee under date of April 25, 1927 (see page 92), the following amount is hereby transferred to the items of school accommodations as set forth below:

## From

Item 8, 1927.- Grover Cleveland Intermediate District, Dorchester: Construction of six-classroom addition to Grover Cleveland School building. (Item 45, 1926). (To cover change to an eight-classroom addition) (Item 5, 1928)
\$21,593 82
To
Item 10, 1926.- Francis Parkman District, West Roxbury: Land and construction of four-room unit of eightroom building, kindergarten and Grades I. to III. (Item 22, 1925). (To cover plans and construction and change to a five-room unit, kindergarten and Grades I. to VI. of future eleven-room building) (Item 4, 1928)
$\$ 6,80000$
Carried forward . . . . . . . . $\$ 6,80000$


In addition to the above there was made available the sum of $\$ 82,454.06$ for new school buildings, lands, yards, etc., by transfers of unexpended balances of preceding years up to the time that this report went to press.

# SCHOOL DOCUMENT NO. 2-1928 BOSTON PUBLIC SCHOOLS 

## TRAINING THE EMOTIONS CONTROLLING FEAR

BOSTON
PRINTING DEPARTMENT
I 928

In School Committee, December 19, 1927.
Ordered, That the accompanying pamphlet, "Training the Emotions, Controlling Fear," is hereby adopted, and that six thousand $(6,000)$ copies be printed as a school document.

ELLEN M. CRONIN,<br>Secretary.

## COUNCIL ON THE EDUCABILITY OF THE EMOTIONS.

William F. Linehan, Chairman, .The Teachers College.<br>Eva B. Ammidown . . . The Teachers College.<br>Mary G. Cahill . . . Master's Assistant, Gilbert Stuart District.<br>Teresa R. Flaherty<br>Catherine G. Foley<br>Eliza D. Graham<br>Mary E. Hartnett . . . Master's Assistant, Eliot District.<br>Francis M. Morrissey . . Master, Phillips Brooks District.<br>Sidney T. H. Northcott . Master, Emerson District.<br>Elizabeth W. O'Connor . . Master, Gaston District.

The present document, seeking to aid pupils in the rational control of their fear impulses, has been prepared by the above-named council, appointed by Doctor Jeremiah E. Burke, Superintendent, to study the problem of training children's emotions.

The council wishes here to express its appreciation of the generous encouragement and assistance offered by the teachers, the principals, and the members of the Board of Superintendents.
"I recall that several years ago school men were accus= tomed to repeat the slogan, 'Send the whole child to school.' It was excellent pedagogy. The philosophy of the school men of those days was influenced by the teachings of the great educators who throughout the ages have differed little in their interpretation of the objectives of education. Invariably these masters of education have insisted that the training of children and youths should be not frag= mentary, but symmetrical. They never advocated an intellectual aristocracy. They exalted the training of the intellect because it is God=given, and hence should be developed to the highest possible extent. But they always maintained that the training of the intellect alone is insufficient. They always sounded a warning against the training of the intellect at the sacrifice of natural and spiritual endowments."
(From the Annual Report (1925) of Doctor Jeremiah E. Burke, Superintendent of Schools.)
" No education will function, if in your life there is not the kind thought and word and act. Your service may not be widely advertised; you, the world may not remember; but, if your name is graven on the hearts of those for whom you have made life a little easier, your service has functioned as service in knightly days of old. Of a very wonderful teacher in Columbia, it was said, 'She could put confidence into her students, imbuing them with a new belief in their knowledge and ability, and in this new faith her students rose to unexpected heights.' "
(From Commencement Address of Doctor Mary C. Mellyn, Assistant Superintendent of Schools, at the Teachers College, June 26, 1925.)

## CONTENTS.

Chapter ..... Page
I. Certain principles regarding fear ..... 9
II. The classroom discussion of fear; an outline ..... 14
III. Pupils' reports of their objective fears ..... 26
IV. Pupils' reports of their subtle fears ..... 46
V. Cases of fear, with supplementary questions ..... 57
VI. Reports of experiments in the classroom discus- sion of fear ..... 83
Supplement.- Instances of how teachers have aided fearful or timid pupils ..... 105

## CHAPTER I.- CERTAIN PRINCIPLES REGARDING FEAR.

1. Peculiar and objectionable conduct is often due partly to fear. In his confused effort at defense against fear, a child often becomes indifferent, insolent, or aroof.
2. In fear responses, as in all other responses, we shall expect wide individual differences due to variations in mental and physical constitution and in past circumstances.
3. In training emotions we are concerned not so much with the child's acute fears as with his subtle, vaguely felt fears. Frights, terrors, and acute fears are relatively infrequent. Subtle fears, including timidity, bashfulness, lack of confidence, undesirable inhibitions, are important and frequent.
4. The child's fears are specific, not general. Only after exhaustive study may we conclude that the child is in general a fearful or a timid child. In our guidance of children we shall declare the child to be not generally afraid, but afraid of a specified object or timid in a specified situation.

In Case VI, School Document No. 2, 1927, Boston Public Schools, we find a child excessively warned by her mother against losing her handkerchief. The child develops undue caution, amounting to senseless fear of losing her handkerchief. The child is not considered a fearful child, but rather a child harassed by this one fear. In time the fear extends itself to other articles. Through laws of association the impulse of fear attaches itself to similar objects and this little girl shows something approaching general fear of losing her possessions. Her fear has extended to one class of objects - those objects handled and from time to time laid aside. This child
shows no increased fear, for example, of animals, rough playmates, and the forces of nature.
5. Nearly all fears are acquired; few are inborn. Watson's experiments with infants indicate that children are born to fear only two stimuli:
(1) loud sharp noises, as, for example, the sound produced by loudly clapping the hands or by striking an iron bar;

- (2) sudden withdrawal of support, as occurred in experiments in which the infant was suddenly released from the hands of a nurse to be caught by an assisting nurse.
We may well include all pain-producing stimuli as causes of fear. In general, therefore, the child's fears are learned. Objects are feared in infancy through their association with such original fear stimuli as loud noises and pain.

Being frightened by the dog's bark, the child comes to fear the dog and probably later, through physical likeness, certain other four-legged, furry animals. The child falls in the dark room and strikes his head. Here the sudden loss of support and the physical bruises are accidentally associated with the dark. Through repetition of such incidents darkness may become a well established fear object to the child.

Such fears are inevitably developed, also, from imitation and suggestion. They may be intensified through sympathetic observation of other persons in fear experiences.

Our theoretical consideration of the origin of fear has deep significance. From such consideration we more keenly realize the possibilities of education. What is acquired, not native, may surely be controlled. A fatalistic acceptance of fear by either teacher or pupil is untenable.

Realizing, therefore, that fears are acquired, and frequently in pre-school days, the teacher uses all corrective or remedial measures. Realizing that fears may develop during school days, and often because of school conditions
and school environment, the teacher, like the modern physician, uses all anticipatory or preventive measures.
6. Fears produce in us physical reactions. Certain physical expressions of fear are obvious. In fear the infant catches his breath, suddenly closes his eyes, clasps his hands tightly, and cries. As soon as the young child has power of locomotion, he takes to flight. Such responses are essentially native. The child does not learn such responses merely through imitation.

Native, also, and very important, are the physiological accompaniments of fear. It has been proved that fear, anger, and deep anxiety stop the process of digestion, not only during the emotional state, but for some time after the emotion has passed; that the rate of the heart beat changes; that more blood is sent to the larger muscles, leaving less blood in the internal organs; that the blood content changes, more sugar being released into the blood from the liver during emotion; that the quantities of the secretions of the ductless glands are changed.

Can any significance be attached to these physiological changes? Probably they serve to benefit the individual. If, for example, a person is in danger, the emotion of fear is accompanied by the impulse to run away. The physiological changes which occur in the body as a result of the emotion are effective in meeting the extra strain due to the situation of danger. Running away requires the use of the larger muscles, and organic changes take place, thereby providing extra muscular activity.

The excess energy developed in emotion should be given outlet; it should be turned to good account, physically or mentally, by either the performance of useful labor or the direction of the attention to other matters. In his essay entitled, "What Strong Emotions Do to Us," Harper's Magazine, July, 1922, Dr. W. B. Cannon states:
" . . . since the bodily changes induced by strong feeling are preparatory for action, it is in accord with ages of past experience to let them be expressed in action.

There is no advantage to be gained by letting the body make ready for a supreme effort when there is no
effort whatever to be made. This is, to be sure, often a counsel of perfection, but there is no doubt that by taking one attitude emotional factors can be emphasized and elaborated to alarming proportions and by taking another attitude they can often be diverted and minimized to insignificance."
7. Without aid the child may control his fear by pure act of will. Thus he may boldly face his fear and overcome it. The danger, however, is great of his blindly repressing his fear. He may deny it or may try to forget it, not clearly overcoming it but rather trusting for his future action to circumstance or momentary impulse. Accordingly, the child requires aid in the control of his fear. Gradually he may be given insight into the more common means of controlling fear and may be led to apply these means in his own fear situations.

Among the more common means of controlling fear are the following:
I. Withdrawing the fear object. This means is often appropriate when the fear object is not likely to be met in the future.
II. Helping the child gradually to become used to the fear object.
III. Associating a pleasant object with the fear object.
IV. Bringing the child into group action with those in whom he has confidence and in whom he sees no trace of the fear in question. Thus, with resulting sense of conquest, he may be brought happily through the fear situation.
V. Explaining to the child so that he sees his fear to be groundless or excessive.
VI. Discussing the fear with the child. This discussion may include:
a. Reminding the child how natural and common fear is.
b. Helping the child to recall the origin of the fear.
c. Recalling the child's past successes in overcoming fear..
d. Assuring the child of future success.
$e$. Indulging in kindly humor. The child's laughter will help him to feel superior to his fear.
f. Making the child conscious of the injurious results of fear, and thus appealing to his instinct of self-preservation.
g. Quoting maxims and proverbs.
h. Quoting instances of courage and bravery in history and in literature.

## CHAPTER II.- THE CLASSROOM DISCUSSION OF FEAR.

 (AN OUTLINE.)"Fear is a driving force in human conduct. It makes us do things; it keeps us from doing them. It protects from danger, and without a reasonable amount of fear mankind could not live. It is useless to talk about eradicating fear, but in training the child every effort should be made to see that fear does not become a curse instead of a means of protection. A child should fear punishment, danger, loss of the approval of those he cares for, and, when he becomes old enough to appreciate it, loss of the approval of his own conscience. He should not have to spend his early years weighed down by fears which make him nervous and sleepless at times, afraid to play happily or work with enthusiasm, all because someone found it convenient to get him to obey through fear, or failed to help him, by wise understanding and explanation at the right time, to get rid of the scars of unpleasant experiences." (Dr. D. A. Thom, "Child Management," Bureau Publication No. 143. United States Department of Labor; Children's Bureau.)

## Preliminary Statements.

1. This program, as followed in any one grade, may consist of approximately ten discussion periods, each from twenty to thirty minutes in length. The introductory periods will be devoted to studying the control of objective fears; the greater part of the time, however, should be devoted to studying the control of subtle fears.
2. Fears may be thought of roughly as objective or as subtle. Objective fears tend to be concrete and tangible and are usually ascribable to some outside source.

Examples.- Fear of the dark; fear of the doctor.

Subtle fears are intangible and not easily ascribable to an outside source. Subtle fears are more closely dependent on subjective attitude. They are often fears of situations rather than of definite objects or of persons. They usually are not so cleary recognized either by one's self or by others. They are the cause of many evasions and show themselves in bashfulness, timidity, undue reticence, and undesirable inhibitions.

Examples.-Fear of facing the class; fear of expressing a dissenting opinion.
3. In the preparation of the present project, experimentation in the classroom discussion of fear has been carried on by at least one teacher in each of the following schools or school districts: English High School; Continuation School; Christopher Gibson School; Elihu Greenwood District; Eliot School; Emerson School; Gilbert Stuart School; Mary Hemenway School; Phillips Brooks School; Theodore Roosevelt School; Washington Allston School.
4. The contents of Chapter III and Chapter IV, presenting typical examples of pupils' work, have been selected from the written work done by pupils as a part of the aforementioned experimentation. The teachers' reports comprising Chapter VI are reports relating to this experimentation. The cases of fear comprising Chapter V have been selected from reports written by first year students in the Teachers College.
5. This program is intended for the fifth and successive grades. It would seem desirable that, at different stages of his school career, a pupil should have several opportunities for this discussion of his emotional nature. It is suggested that the discussion of fear occur in one grade of the elementary school, in one grade of the junior high school, and in one grade of the senior high school. Accordingly, this program may be tried in the fifth or the sixth grade, again, say, in the eighth grade, and finally in the tenth or the eleventh grade.
6. The present program in the classroom discussion of fear is in no sense to be followed inflexibly. It is offered as a suggestive, working outline. The teacher's ingenuity will suggest modifications according to the grade, the needs, the interests, and the environmental conditions of the pupils.
7. In the discussion of emotional nature fixed standards of attainment cannot be insisted upon. Teachers will be satisfied if pupils express their problems freely and sincerely.
I. Aim.

The classroom discussion of fear aims to lead the child to

1. Free discussion opening the way to the control of fear.
2. Knowledge of essential facts concerning the fear impulse. Such facts every teacher possesses from experience and professional training. Certain of these facts are outlined in Chapter I of this document. Among facts especially to be stressed are the following:
a. Fear is a problem to all persons.
b. Some fears protect; others stunt character and impede progress.
c. Fear is often the basis of peculiar or objectionable conduct.
d. In their responses to fear persons show wide individual differences.
e. Subtle fears are more frequent and more difficult to control than objective fears.
f. Fears are specific; persons tend to be not afraid in general but rather afraid of a specific object or afraid in a specific situation.
g. Nearly all fears are acquired; few are inborn.

## h. Fears produce physical reactions; brooding fear is physically injurious.

3. Knowledge and practice of helping himself and others better to redirect the fear impulses. The child should be taught not to deny a fear or to repress it, but squarely to face it. He should know and evaluate the means of controlling fear. These fears are outlined in Chapter I.
II. Material.

Material for discussion may be drawn chiefly from the following sources:

1. The child's fear experiences elicited by the teacher's questions.
2. The teacher's fear experiences narrated as a means of opening discussion or as an illustration.
3. The pupils' written stories of objective fears contained in Chapter III.
4. The pupils' written stories of subtle fears contained in Chapter IV.
5. The cases of fear, with supplementary questions, contained in Chapter V.
6. Incidents involving the conquest of fear in current events, history, and literature.
III. Organization.

The discussion will be organized in two series of exercises.

1. Series One.

Objective fears.
a. The approach.
b. Oral discussion.
c. The written report (optional).
d. The summary.
2. Series Two.

Subtle fears.
a. The approach.
b. Written reports and oral discussions.
c. The summary.

SERIES ONE.- OBJECTIVE FEARS.
I. The Approach.

The approach aims to engender an attitude of mutual understanding, favorable to the frank expression of the pupils' experiences. It will set pupils thinking about the part which fear plays in the lives of men. It may center about concrete incident, especially incident of fear overcome. This concrete incident may take one of the following forms:
a. A narrative by the teacher of a personal fear experience.
(This approach seems particularly effective. It is simple, sincere, and sympathetic.)
b. Reading or retelling, literally or with modifications, one of the pupils' incidents in Chapter III or a selected case in Chapter V.
c. Reference to familiar current events. Example.- In a reported instance pupils were so keenly interested and so well informed regarding Colonel Lindbergh's trans-Atlantic flight that they were readily brought to see the conquest of fear involved in his courage. The discussion sometimes included some consideration (1) of the distinction between caution and fear, and (2) of the benefits brought by his courage to him and to others.
d. Reference to familiar superstitions of present-day life and of history.
Examples.- To what was Henry Hudson's fate due?
Why did Columbus have such an unhappy time with his crew on his first voyage?
Do mariners have the same problems to combat today? Why not?
$e$. Reference to familiar literature.
In response to a question by the teacher as to what poems and stories illustrate the control of fear, pupils cited the following:
"The Charge of the Light Brigade."
"Opportunity," by Edward Rowland Sill.
"Barbara Freitchie."
Story of Captain John Smith.
Story of Nathan Hale. Story of Gulliver. Incidents of the American Revolution. Joan of Arc. David and Goliath. Abraham's Willingness to Sacrifice Isaac. Daniel in the Lion's Den. Story of William Tell.
II. The Oral Discussion.

The oral discussion will consist of anecdotes by pupils of their personal fear experiences. They will be guided to tell:
$a$. The manifestations of the fear.
b. Its cause.
c. Its cure.
III. The Written Report (optional).

As making for definite, orderly presentation the written report may well supplement the oral discussion, which may be correspondingly shortened. Pupils are held strictly to personal
experiences and are asked to relate only feelings vividly recalled. Pupils have been helped by such suggestions as:
a. Think of any striking instance of fear. How did you feel? What did you do? What should you have done?
$b$. How, in some striking instance, did some one help you to overcome your fear?
c. What have you done in a particular situation to help yourself or another to overcome a fear?
The reports may be submitted signed or unsigned. They are not to be graded. Certain papers which, because they are typical or possibly atypical, seem especially worthy of discussion will be chosen for use in the next step, the summary.
IV. The Summary.

During the second step, the oral discussion, incidental opportunities have arisen for making clear to pupils certain of the typical facts regarding fear. Now, in the summary, in connection with the reading of the few selected written reports, more deliberate, systematic note is taken of the signs, the causes, and the cures of fear. In considering the cures pupils are given some introductory grasp of such means of control as those suggested in Chapter I.
Throughout this series pupils tend to develop a strong determination not to cause others to be afraid but rather to aid any one else to control his fears.

## SERIES TWO. - SUBTLE FEARS.

The pupils have learned that many objective fears fear of things which can be seen or heard - are largely the fears of early childhood and are outgrown as the child learns the causes of the fear. The subtle fears or evasions, on the contrary, are more intangible and more difficult to relieve. Timidity, bashfulness, lack of confidence, undesirable inhibitions often accompany him into adult life, causing much unhappiness and impeding progress. Many children brood upon these fears without daring to seek help and direction. The future health, happiness and efficiency of the mature man or woman depend, to a large extent, upon the banishment or control of these fears. Since they are acquired, not native, and since what is acquired may be controlled and even conquered, we may give the child insight into the more common means of controlling this type of fear and we may lead him to apply these means to his own fear situations.

## I. The Approach.

Expressing briefly such thoughts as those in the preceding paragraph, the teacher will explain the difference between objective and subtle fears. The explanation may be illustrated by:
a. Anecdotes by the teacher.
b. Voluntary anecdotes by pupils.
c. Readings from the pupils' incidents contained in Chapter IV.
d. Readings from cases contained in Chapter V.
e. Reference to characters in history or in literature.
f. Reference to the course in Citizenship through Character Development.

Example.-A teacher reports:
Building on the reliability idea, I asked the children to think of the most reliable person of their acquaintance,
preferably a boy or a girl of their own age. They were questioned in some such manner as this:
"Why do you consider the boy you have chosen reliable?"
"Because he keeps his word, always tells the truth, is not a sneak, plays fair."
"As he's a real boy, he sometimes makes mistakes and gets into trouble, doesn't he?"

They agreed, of course, that he did.
"How does he act when he is in the wrong?"
"He owns up and takes his share of the blame."
"Why does he act so?"
"He's not afraid; he has courage. He takes the punishment due him like a man."
"How does the boy of the opposite type act under the same circumstances?"
"He lets the others take the blame, lies, says he knows nothing about the trouble."
"Why does he lie?"
"He's afraid of punishment, or of the poor opinion of the boys, or that they will laugh at his mistakes."
"What, then, is fear doing to the character of the people, grown-ups as well as children, of the second type?"
"Weakening it."
"We've all at some time or other been held back by fear from doing a thing we ought to do. We've evaded our duty, perhaps, through fear. Think of some time in your life when you reacted like the weaker character. What did you evade? Of what were you afraid? How did you act?"

I made the children realize that their papers this time were to be of a confidential nature. We were simply studying ourselves so that we might recognize that certain fears were dangerous ones, and were to be looked upon as danger signals in the road to building strong character.

## II. Written Reports and Oral Discussions.

Pupils are now well used to the discussion of fear. With increasing ease they will narrate their experiences, comment on the experiences of others, perceive causes, and
suggest possible means of control. The present step, accordingly, is a gradual widening of the pupils' perspective of emotional nature. This widened perspective will be evidenced in a quickened sympathy in the recognition of fear in others and an increased determination to aid others.

The present step will consist of several periods of class discussion. Material for this discussion may be based on:
a. Cases selected from Chapter V.
b. Papers written on topics such as those to follow or on topics which the teacher may compose. Papers will be selected and read anonymously for discussion. The following topics are obviously not, in general, to be given to classes literally. As the teacher deems best, they will be-adapted to the understanding of the class by rephrasing, subdivision, and amplification.
The number of cases selected from Chapter V
and the number of papers to be composed by pupils will, of course, be determined by the teacher.

1. Narrate an experience of subtle fear or evasion, which may illustrate one of the following:
a. Fear of punishment.
b. Fear of the unknown.
c. Fear of ridicule.
d. Fear of failure.
2. Tell how for a while you avoided some experience or hesitated in some activity and then entered into the experience or the activity easily and successfully. What seems now to have been the cause of your fear? Might the cause have been wrong suggestion, lack of information, a former failure, a former awkward experience? How did you overcome your fear?
3. How do some persons act in objectionable or illogical ways in the face of fear? Explain.

Examples. Making false excuses; blaming others.
4. Do persons ever fight or take on unusual boldness through fear? Give an instance.
5. Explain, with examples, the difference between good fears and bad fears or the distinction between fear and caution.
(For a suggestive diagram see Bolton's "Everyday Psychology for Teachers," Chapter X.)
6. Is prejudice against individuals or groups ever due, at least in part, to fear of those individuals or groups? How, to your knowledge, has such prejudice ever been shown in any competition in work or in games?
(Opportunity may arise here to show fear to be a possible basis of prejudice against those of another race, against newcomers, against those thought to be superior in ability.)
7. Using illustrations, show that success in various occupations necessitates the control of fear.
8. Drawing upon your knowledge gained in your study of hygiene, describe the physical accompaniments and the physical effects of fear.
9. Does fear ever take possession of a crowd? What causes such fear? How can such fear be controlled? How can it be avoided?
10. Giving what examples you can, show how embarrassing fear experiences may be prevented by giving others definite information as to how to act in a new situation, such, for instance, as a formal ceremony, a party or reception, a formal interview.
11. Can you give an example of how a peculiar fear may be rather easily accounted for as due, for instance, to a threat, to imitation, to principles of association?
12. What general rules would you give for treating the fears of others?
(Discussion may arise here of such general principles as not mentioning the fear and changing the person's attention.)
13. Are persons who seem conceited or aloof ever really suffering from fear? Can you give an example showing how to act toward such a person?
14. Why do some persons like to make others afraid?
(Emphasis may here be given to a possible desire to gain a temporary sense of superiority.)
15. How in a specific instance, say, in your home, in a new game, in a rather perilous situation, have you been able to allay a companion's fear?

A unified summary view of the salient principles accepted in the discussion of fear is obviously desirable.

For permanence in knowledge and practice it is also desirable that:

1. Pupils occasionally tell in class specific instances in which they have found the principles helpful.
2. Teachers recall the principles when, either individually or in groups, pupils are facing fear situations.
3. All teachers - especially those guiding dramatic, athletic, and other pupil activities - co-operate in enabling pupils, either individually or in groups, to apply the principles.

## CHAPTER III.-PUPILS' REPORTS OF THEIR OBJECTIVE FEARS.

## FEAR OF THE ELEMENTS.

1. Fear of the Dark.

Before I came to live in Boston I used to live in Lynn. Every night I would have to shovel coal. It was in a lonely cellar. I would always shudder and think that some one was behind me. I would shovel the coal, and then run upstairs as fast as I could. I used to whistle "Barney Google" to keep myself comfortable. I am cured now. I go down into the cellar without a fear. It has gradually worn off because I have made it a habit to go down the cellar against my will.

## 2. Fear of the Dark.

When my little nephew was old enough to have fear, he was afraid of the dark. Nobody was able to put him in a dark room alone. I've helped him overcome a little of that fear.

A little boy of his own age lives next door. My little nephew always thinks that he's smarter, stronger, braver and more of a big boy than his neighbor.

One day I thought of a plan to chase a little of that fear away. I said to him, "Leonard, please get a handkerchief for me in the top drawer of the dressing table." As this was at night and he couldn't reach the light, I knew he wouldn't go.
"Oh, don't bother me. Can't you see I'm reading?" he said as an excuse. "Oh, what a fraidy-cat you are! Larry isn't afraid to go in a dark room!" I said. This made him look up at me. "Will you go?" He hesitated, then he said, "All right!" He went and was back in a minute, as if something were chasing him.
"That's it!" I said, trying to encourage him. "You're not afraid. Are you?" "N-n-n-no!" he said hesitatingly.

I haven't wholly chased that fear out of him, but I notice that he isn't as afraid as he used to be. I don't think anyone could chase all the fear of the dark out of a child.

## 3. A Fear I Conquered.

When I lived in Dorchester, before I moved here, my bedroom was at the back of the house where a large empty lot was. At that time we didn't have electric lights and the gas light or candle light would throw the weirdest shadows over the room making it all the worse for the darkness coming from the lot. On the other side of the lot a house had electric lights which was not very common then around that neighborhood. This house had in one room facing my bedroom a large bulb that was so strong a light it shone into my room, making the place still worse.

Sometimes when my mother left a light I would be afraid something would catch fire.

Later when we got electric lights, my fears sort of drifted away and when we moved to Roxbury my bedroom was between the other two which sent all my fears away. Now I cannot stand a light in my bedroom if I want to sleep.

## 4. Fear of Water.

I used to be very much afraid of going into the water at the beach. However, as much as I protested, my father used to carry me in kicking and screaming. He showed me the motions and held me while I copied him. Never could he do much with me, except that I learned the strokes. When I went to camp, I saw other girls swimming and I was soon anxious to try. I can now swim as well as the average swimmer of my age.

## 5. Quelling a Fear of the Water.

I have a small cousin who was greatly afraid of the water. She liked to play with the sand on the shore of
the beach, but whenever she wanted some water to aid her in her play, she would ask her mother or someone else to get it for her.

One day last summer I resolved to try to get my cousin into the water and quell her fear forever.

I picked her up and asked her if she would enjoy a ride on a boat. She gladly consented and I carried her into the water. The little girl clung to me like a leech to a person's ankle, but she did not whimper. When I discovered a shallow spot, I got down on all fours and proceeded to crawl about in the water. I could feel my cousin's arms squeeze tighter around my neck, but she did not utter a sound as I knew she did not wish to be called a baby.

After I assured her that there was nothing in the water that could harm her, she agreed to be let down into the water. After she had discovered that there was no danger, she slowly but surely got down on her hands and knees and called for me to get on her back and she would give me a ride.

Thus I helped her to overcome her fear of the water.

## 6. A Fear I Conquered.

When I was small, or about eight or nine years old, my chief fear was the ocean. Whenever I went for a day at the beach the same thoughts ran through my mind. Here was the enormous ocean, large, powerful and deep, and here was I, small and weak compared with that great expanse of water. When I went into the water I would fall forward twice for every step I took, and go absolutely no further in than up to my waist. The way in which I overcame and conquered this fear was to learn to swim when I was twelve years of age. When I say "swim," I mean to take a few strokes and stay on top of the water. Now I stride far into the ocean fearlessly.

## 7. Lightning.

The only thing I am afraid of is lightning. I am afraid of lightning because I've heard that it often strikes houses
and sets the house in flames, and it sometimes strikes a person and it kills him immediately. When I am out at night alone and I watch the lightning, it seems as if the world is on fire.

These are the reasons I am afraid of lightning.

## FEAR OF INSECTS AND ANIMALS.

## 8. Fear of Bumblebees.

When I was very young, I used to have a fear of bumblebees. We used to go to the country for the summer and whenever I saw a bumblebee, whether on a flower or just buzzing around, I used to get so frightened that I would cling to my sister for dear life.

One day I came across some conversation in a book which caused me to overcome this fear. These were the words that interested me. "Oh, Tom, look at that big bumblebee! He'll surely sting us." "No," said Tom, "he won't touch you unless you bother him, and besides he isn't thinking of us now for he's too busy gathering honey."

I thought of these words, "He won't hurt you unless you bother him," every time I saw a bumblebee thereafter and thus gradually overcame this fear.

## 9. Grasshoppers.

When I used to visit my grandmother in the country I would always walk on the gravel road because the grasshoppers used to jump on me.

One day one of the grasshoppers jumped down my neck and ever since I was frightened of them.

One day a grasshopper jumped on the hem of my dress. I didn't move but kept staring at it and in a minute the grasshopper jumped down and went his way. Then I began to believe what I heard that they were harmless.

## 10. Fear of Dogs.

One bright day on walking home from school, I saw a young boy who wouldn't mind his mother. My dog
happened to be walking with me. The lady said that she would make the dog bite the boy. The child, hearing this, ran to his mother's side crying. I do not know why he did this, for my dog will not bite anyone. The woman did not know how she was hurting him by this remark, but every time I see this boy on the same side of the street as a dog, he runs and begins to cry.

## 11. Fear of Dogs.

My cousin Shirley is only five years of age. She had no fears save the fear of dogs. When she played in the street and saw a dog, she ran into the house to her mother.

One day Shirley's father brought home a dog which terrified the little child. My uncle saw that he would have to make Shirley overcome this fear if he wanted to keep the dog. He placed the animal on his lap and patted it. He then called his daughter to him. At first she did not want to come for fear she would get bitten but after seeing the dog on the lap of her father, she approached very slowly and carefully. When the child reached the dog she herself patted it and after a few minutes she was playing with her pet as she does with her play-mates. Since that day she never runs at the sight of a dog.

## 12. Bow Wow.

My little cousin, aged four, was afraid of dogs.
My Toodles, a Boston terrier, is the most affectionate dog in the world, playful, but harmless. When a visitor comes she wags her stub of a tail and showers the newcomer with kisses. By the way she does it one would think that the visitor hadn't washed his face for a week and she was trying to make up for lost time.

Time and time again would I tell my little cousin not to be afraid of dogs especially as Toodles was as foolish as a donkey trying to do the Charleston on a treadmill. All would go well until poor innocent Toodles was sighted. Then all the courage oozed out of Dorothy and she scurried to safety behind the stalwart form of her father. I
felt that as a joke this was going too far. There was nothing to be afraid of and I must convince the little tot of it.

The next time she visited my house I decided to try some experiments. Sure enough, when she first saw Toodles she cried and hid herself behind her father. By means of some candy and endless coaxing and wheedling I managed to get her to come out of her "haven of refuge."

I called over Toodles and grasped her by the collar. Dorothy gave a frightened jump backwards. I told her that I was holding Toodles and so he could not bite her. I stroked Toodles' head and shook her paw.
"Come," I said, "See, Toodles doesn't bite me. Neither will she bite you. Shake hands with her." She approached the dog. Toodles gave a short bark. Dorothy recoiled in terror. I calmly reassured her that it was all right and she just was trying to say "hello." Dorothy approached her again. This time she approached again, touched Toodles. The dog wagged her tail. Feeling encouraged the little tot patted the dog's head.
"Shake hands, Toodles," I said. Toodles put up her paw. Dorothy grasped it. "See, Dorothy, she's shaking hands with you. She wants to be friends," I told her.

That night Dorothy practiced making friends until poor Toodles could not lift her paw any longer.

## 13. Fears.

Mothers, wishing to cure their children of disobedience, sometimes go about it in the wrong way.

I knew a woman who chose the wrong way and this harmed her child although she did not know it.

When the child was three years old his mother was very much distracted because he was so disobedient and mischievous.

He grew so bad that she resolved to cure him no matter how difficult it would be.

She accomplished this by telling the child of fierce animals who took bad boys away into the lonely woods and ate them. She told him so many tales of this sort
that the poor child was afraid to play in the street for fear that a dog or even a harmless cat might bite him.

The mother was overjoyed when her son became less and less troublesome but she did not realize that she had aroused a fear in him that he would have to battle against vigorously to overcome.

## 14. A Fear I Helped Overcome.

I have a nephew who is now about eight years of age. When he was yet a small child he had a morbid fear of horses. Whenever he saw a horse he would cry and run into the house to hide. At times he was afraid to go into the street for fear of seeing these dreadful creatures.

My family and friends tried to cure him. They read to him stories about some of the most wonderful horses in history. They told him stories about the faithfulness of horses. All this was of no avail. He could not be cured of his morbid fear.

Two summers had passed and when my nephew was about six years old we were spending our vacation on a farm in New Hampshire. On this farm were cows and many horses. I remembered my little nephew's fear of horses and I decided to cure him.

I called my nephew to me and I went over to a horse and began to pat him. My nephew was amazed for he thought that horses would bite and kick when patted. I coaxed him nearer and told him to pat the horse also. Finally he did this and soon he and the horse were good friends. After this my nephew would sit on any horse's back without fear.

It was only misunderstanding and lack of reasoning that caused most fears such as that of my nephew's.

## 15. Conquering Fear.

When my sister was two years old she was very much afraid of cats. We tried everything so that she would like them instead of being afraid of them. We almost gave up hope when my mother had an idea. My mother was going to throw a piece of fur away when the idea came to her.

She sewed up the piece of fur and stuffed it so it would look like a cat. Then she gave it to my sister. She felt it all over and then began to play with it. After a while my mother got the cat and put it beside her. She was timid at first, but slowly raising her hand, she patted it. She kept on repeating this until she was accustomed to it. Today the cat is her pet.

## FEAR OF OMINOUS PERSONS OR THINGS.

## 16. Fear of the Ragman.

When I was about five years old I was afraid of the ragman. One day the ragman came into my house. I was so frightened I ran back into the bed room and hid there until he was gone.

The reason I was frightened was that I thought that he would put me into his bag and kill me.

One day I was playing on the street, when the ragman came. I started for the door but found it locked. Knowing I had to face it, I sat down at the door shaking with fear. He spoke kindly to me so I got courage enough to stay there.

After all I realized that it was just my imagination that scared me.

## 17. Fear.

In Somerville, where I came from, I knew a boy who always enjoyed frightening someone. He had a small brother that he frightened constantly. The little fellow would run and hide if he saw an officer. At night he wouldn't leave the lighted room, for fear of a bogieman seizing him, and carting him off. This went on for a long time till I decided to teach this big boy a lesson.

My father has a friend on the police force, and I told him about the boy frightening his brother. The officer told me to leave the case to him.

I was very much surprised when the next day the boy told me he had sworn off frightening people, and I never learned what happened to him the night before.

## 18. What I Used to be Afraid Of.

When I was young, around the age of six, I always was afraid of a policeman. When I would see him I would run and hide. I was frightened because they would tell me that the policeman would take away the bad children. Then when I would see one I would run and hide.

One day when my sister had an automobile accident, a policeman came to my house. He came to tell my mother about my sister's accident. He then came again to tell my sister she had to appear in court. Seeing him so many times at the house, I got used to seeing him, and from then on I was not afraid.

## 19. Ill Effects of Threatening a Child.

I know a little boy who is a little over two years old. This past winter he got a cold in his ears which required medical treatment.

There is a woman who rooms at this little boy's home. Sometimes his mother goes out and leaves the child with Mrs. X. When the child refuses to obey the lady, she threatens him by saying: "If you are not good the doctor man will come."

If this threat is continued the child will live in fear of a doctor until he becomes old enough to overcome it.

## 20. My Present Fear.

What I fear more than anything else is a doctor. I try to be brave about it, but by the time I get to a doctor's office, I have no control over myself. My mother tells me many times that he will not hurt me but it does not help. I have to grip my mother's hand when a doctor talks to me and I am shaky all over when I answer. I am sure that I have feared them since I was a small child.

## 21. Fear.

A little boy next door feared a doctor very much. One day he was very sick. The doctor whom the boy hated most came to cure him. The boy was crying louder
than ever now, and wouldn't let the doctor look in his mouth. "Ah!" said the doctor, "I will show you a trick."

The boy opened his mouth and there was a quarter which the doctor pulled out. The boy felt better and was very happy that the doctor came and cured him.

## 22. A Fear of Strangers.

I remember very distinctly when my younger brother was only three or four years old he used to fear a certain Mr. Brown who lived next door. Not knowing who or what Mr. Brown was he imagined all sorts of things. One day I brought in a gentleman called Mr. Brown.

My brother immediately drew back in terror and started to cry but Mr. Brown was the man who saved the day. He drew from his pocket a piece of candy and held it invitingly before the eyes of my brother. His desire to get the candy was even greater than his fear of Mr. Brown. The latter visited our house very often after that and it was not long before my brother thought of Mr. Brown as his best friend.

## 23. Forced to Face My Fear.

I used to be afraid of stout people, but not so much as I was about this lady I am now going to describe. She was tall and very stout. She lived on the same street that I did. My brother and I were very much afraid of her. On this particular day we happened to be outside playing when we saw her approaching us. We then sought our usual place of refuge, which was the hallway. It happened that my mother had locked the door and we could not get in. We stood on the door step as she passed without harming us. After that we were convinced that she would not harm us and were never afraid of her again. I was then four years old.

## 24. Fear of Fire Engines.

Many years ago when I was a little child, I used to be afraid of a fire engine. I always went to hide in a closet, closed the door, and came out when the fire was all out.

I was frightened when there was a fire, because the engine used to go so fast that I surely thought it would run over some one, and when the fireman would put up a ladder to go and rescue some one I thought he would fall and kill himself.

I overcame this fright when I grew older. I should say now that when a fireman goes up a ladder and rescues someone it is an heroic act. I am glad to say that I am no longer frightened by a fire engine or the fireman himself, for as soon as he puts the fire out, all the better, because it will cause less damage of property.

## 25. Fear of Feathers.

When I was about two years old I was afraid of a hen's feathers. If I would see one near me I would stand still and close my eyes and shiver.

When my uncle would come over to my house he would bring a feather over and have great fun with me. After awhile he put one in my hand and told me to pat it. He kept doing that until I got used to it. When I think of being afraid of a feather now I laugh.

## 26. How I Cured My Sister's Fear.

In my room I have several little radio sets and I listen in to the programs every night. Of course sets as small as I use are not sufficiently powerful to operate a loud speaker so consequently I use ear phones.

My baby sister, aged two, knows what the radio is and comes into my room and calls it "Radio," but she will not let me put the phones on her ears. I reasoned with her as much as possible and told her that she would be able to hear music which she loves dearly.

Only a few days ago she came into the room and I induced her to let me put one phone to her ear. I saw her smile and she turned to me and said "Music."

Now she is not afraid and I think that if everybody acted with timid children the way I did there would be no fear among children.

## 27. Fear of Fur.

What used to frighten me was fur. When I was about seven years old I was going out with my mother. It was a cold winter day so my mother thought she would put a fur piece around my neck so I would not catch cold. When she put it on I was frightened and shrieked and became blue. My mother took it off, then put it on again so I would get used to it. In about three days I was used to it and always wanted to wear it.

I was frightened because it had two heads on each side and when I pulled the chin the mouth opened, and that is what frightened me.

I overcame it by putting it on every day and getting used to wearing it.

## 28. Overcoming Fear.

One day after coming home from a ride my little sister, whose name is Rose, got frightened and began to cry. I asked her what she was afraid of and she said that there was a picture on the floor. I began to laugh because it was only her shadow, but she was still frightened (because she was only four years old).

I stood on a chair. I had my shadow on the floor and began chasing it and she began laughing. Since then every time she sees her shadow she chases it and tries to step on it.

## 29. My Present Fear.

One night as I lay in bed, quite uneasy as I couldn't sleep, I thought I saw a ball of light on one of my walls. I looked again, and I made sure that it was there. Every night when I was in bed, I would always see it. It looked to me as though someone wanted to spy on me. One night I got up courage and putting on my slippers crept to the window to see what it was. To my suprise it was a light reflecting from a house. No one in my house ever knew of that secret fear then, or knows it now.

It makes little difference whether that light ever shines on the wall now, as I know all about it.

## 30. Conquering a Fear.

Some time ago, my three year old cousin Paul came to visit us. He slept in one of the front rooms into which the street light shone. He was afraid of the gleaming glow and cried when he went to bed for the shades were up.

One night, I determined to help him overcome this foolish fear. I took him into my arms and asked him why he was afraid of it. He said, "I don't know." I asked him what he was going to be later on. He replied, "President." Did a president ever cry and say he was afraid of a harmless light? "No," said Paul. "If you want to be a great man some day, you'd better not be afraid of a lamp that will do as much harm as a dead kitten," I continued.

That night, when my mother came in to pull down the curtains, he called out, "Don't bother, Auntie. I am going to look at the lamp until I get used to it and I am going to become a big, brave man some day."

## 31. A Fear I Conquered.

When I was a little child I had a great fear. This fear was of shadows. On the corner across the street there was an arc light and it shone in the room where I slept. When an automobile, car, or even a team would pass the corner the shadow would pass slowly along the wall and seem to disappear out the window. I was dreadfully afraid of these shadows and could not go to sleep. After a while I finally heard the noise of a passing vehicle every time the shadow came. After a great deal of puzzling I came to the conclusion that it was the automobiles or cars passing the light that made the shadow. I overcame that fear when I knew what was causing the shadows.

## 32. A Nearly Broken Wall.

I once had a horrible fear that if I kicked a wall it would fall in and smother me. One day I was writing at
my desk when I accidently kicked the wall. I shuddered, expecting to see the wall break down and smother me. However, the longer I waited, the firmer the wall looked to me. I then said to myself "I guess I didn't kick it hard enough." I then was very inquisitive about the wall so I kicked it so hard that my foot ached. I was never so surprised before, when the wall did not fall down. I wondered and wondered, until I decided it wasn't true about the wall falling in.

## 33. When I Was a Little Girl.

When I was a little girl my mother would take me to my aunt's. She lived in Everett. When we used to cross the Charlestown Bridge, I used to hold on to my mother being afraid that the bridge would fall in. I always thought that the bridge was made of tin. When I was older and went to school, we were studying about iron. So my teacher told us that the Charlestown Bridge was built of very strong iron. I never again was afraid to cross the bridge, when I was in the elevated or when I walked across the bridge.

## 34. How I Helped a Friend Overcome a Fear.

I have a friend, a girl my own age, who, strange to say, was very much afraid to go out upon an open elevated platform such as the one at Dover Street. She thought that if she looked down she would fall off, and if she passed in front of some one he would push her off. One day while with her we had to get the elevated in an open platform in order that we might reach our destination. Luckily she did not know that it was an open landing, and so she climbed the stairs with me. After paying our fare she noticed where we were going, and wanted to go back, but I told her that after paying our fare it would not be advisable. She shuddered, and feared, while I argued, and explained. After a few minutes pause she decided to go on to it, because so many people were there, and they didn't fall off so she understood that if she were careful, she wouldn't either.

## 35. Fear I Still Possess.

I cannot think of anything I fear so much as the elevated trains. I have always dreaded this means of personal transportation. I would rather walk than ride in these trains and I avoid them as I would a snake.

On boarding these trains a feeling of nausea comes over me. I cannot find interest in the types of people before me and to my left and right as I do in the street cars. I cannot find pleasure in criticising the advertisements, and wondering how they could be improved and made more interesting.

My mind wanders to such horrible thoughts as I look out the window and in my mind attempt to measure the distance between the train and homes bordering the streets should the train topple over. I wonder if it would go crashing down to earth or would some nearby house keep it suspended in mid-air. Would I escape? How would I prevent myself from falling through the windows? How would I crawl to safety or would everyone be killed or horribly mangled? How lucky and relieved the people would be who had gone on the preceding train.

I cannot concentrate on the pleasures to come while riding in these cars. You would say, "What thoughts for a young girl to have!" I also experience the same feeling when I am in a train, going down grade in an automobile, or passing over water.

I am always relieved when I once more descend to solid ground.

## 36. What Frightened Me.

When I was younger I used to be afraid of drums. Every time there was a band or a parade I used to go and hide under the bed. I used to be afraid of them because they made noise. One Christmas my uncle gave my brother a drum for a present. He always played it. Sometimes I felt like getting it and putting it in the stove, but my mother always stopped me. One day when I was home alone I took the drum and I said to myself,
"I am going to play it, no matter if I get afraid of it." I started to play it and ever since then I am not afraid of them any more. That is how I overcame it.

## 37. The Whistle.

In the summer every night when I used to get ready to go to bed I always heard a whistle which frightened me terribly. One night the whistle blew louder. I was so frightened that I went over and woke my mother up and told her that I couldn't sleep on account of a whistle. My mother told me to forget about it and go to bed.

Instead of going to bed I went over and woke my father up. He asked me what I wanted. I told him all about it and when he heard this he gave such a laugh that I laughed with him. When he was all through laughing he told me that it was some banana boats that were coming in. When I heard this I went to bed and fell fast asleep. When the whistle blows every night it doesn't bother me any more.

## 38. My Fear of the Closet.

In the house I used to live in was a huge, dark, forbidding closet. I was very much afraid of it, and nothing would tempt me to go in it as I thought it was the general assembly hall of the evil spirits, ghosts and other fanciful horrors.

One day, however, I was exceptionally bold and I opened the door of the closet. I saw it was empty and slowly went inside. No evil dragon seized me, neither did a goblin eat me up. From that day on, I stayed in the closet for long intervals, until at last I played with my toy animals and soldiers right inside the closet.

My fear of the dark closet had been entirely overcome.

## SUPERSTITIONS.

## 39. Superstitions.

I am not afraid to have a black cat cross my path, but I was afraid to have a black cat with a little white on his
neck cross my path. I was told it was bad luck. Whenever I saw one, I ran so he couldn't cross my path. One day the cat beat me, and I was very much frightened. That night I didn't go to sleep till late, and the next day I was surprised nothing had happened to me. After a few days I was over my fear, as nothing happened to me. That day I let the cat cross my path as an experiment. Of course nothing happened to me. I was not afraid to do it after that.

## 40. A Childish Belief.

It seems so silly to us when we read of the old superstitions, but we also have superstitions and fears. My little brother had his fears also and one was that he would not grow if he was stepped over.

One day my little cousin had a quarrel with him. To get "even" he got up early one morning and stepped over him, for he also had that superstition. My brother was half awake so he cried pitifully for a while. We all tried to break him of this, but could not. That day I called my cousin and brother over as I was going away that day, and said, "You step over me and when I come back I will be grown bigger." They did that and had much fun. Two months later I came back and when my cousin and brother saw I had grown, they never believed it again.

## 41. A Fear of Eye Glasses.

When I was a child of seven or eight years of age, I had a fear which took me a long time to conquer. This fear was about eye glasses. I used to think that if I'd touch somebody's eye glasses I would become blind myself. One day one of the family left his glasses on the table. As I had to set the table for supper, I was forced to touch these glasses. I did so unwillingly but it did me good, for it conquered my fear.

## 42. The Red Devil.

When I was but six years old I had a foolish and silly fear. It was if I ever stepped on the line of a sidewalk I
would break the devil's dishes, and a Red Devil would come out after me. The Devil was described to me as big as a giant, with big red horns on its head. One day I stepped on the line by mistake. I was very much frightened when I thought of the Red Devil with the large horns coming to take me away with him. I looked around, but no Devil came, and this was the end of my foolish fear.

## 43. Fear,

When I was a very small girl my mother was a nurse and she used to work. I lived with my grandmother because my father was dead.

My mother got a girl to take care of me. She was a nervous girl and when my cousin died she was very much frightened for months afterwards. She would not go into a dark room at night unless all the lights were turned on. I became very much frightened of a dead person. Also, I thought they were all going to do me some great harm. I kept on that way for years.

Just a few years ago my chum's brother died and I was there when he died. I kissed him just before he died because he was only eight months old and he was the sweetest little thing, just like a doll. My chum and her parents were kissing him after he was dead so I said to myself I am not going to be afraid of the dead any longer. It is only foolish. From that day till this I was never afraid of a dead person again.

## 44. A Foolish Fear.

One day my friend and I were going under a bridge and a train was passing over. My friend said, "Hurry up! The train will give you bad luck!"

I said, "Don't be foolish," and I grabbed his coat and held him there.

He said, "Now we will have bad luck." After we walked a little farther, we found a half dollar. My friend said, "Let's go under the bridge again."

Ever since he never ran out from under a bridge.
45. My Foolish Fears.

One day as it was raining, I came in from outdoors with an umbrella. After it had dried, I opened it up and put it over my head. Just then I thought of bad luck and was afraid that something might happen. The next day while I was playing with my friends, I saw a black cat walking in front of me. I did not know what to do. I thought I would surely have bad luck. I have conquered these fears for I never had bad luck from them. It is just a pile of silly ideas which we inherited from a long, long time ago.

## 46. The Unlucky Beads.

I have a very beautiful string of wooden beads, hand painted and very long. I brought these beads from California. Any time I wear them some one makes fun of me and laughs, and says I look like King Tut. Once I had to wear these in a recital. I knew my piece all right until I was on the stage and I had my beads on. I went to say my piece but I had forgotten it. It seems every time I wear them something dreadful happens. I am afraid to wear them again.

## 47. War.

There is a war going on with two parts of my mind. This war is over a fear. One part said, "This fear is terrible, and something terrible is going to happen." The second part said, "Nonsense, this is all foolishness, and I am right." This fear is to walk under a ladder which is said to bring you bad luck. I have not declared peace, for I haven't decided who has won. I will have to let the fight go on till some day one side will win.

## MANIFESTATIONS OF FEAR.

48. Manifestations of Fear.

When I am afraid I experience many feelings. It seems to me as if there were a party of elves creeping in back
of me, ready to jump. To reassure myself I turn around and of course seeing nothing, I think that they have the power to become invisible. I feel that they mock me, my head reels, and my teeth chatter.

My feet falter in their steps. It seems that I have not enough strength to guide them. The sinking of my abdomen does not add to my comfort. I feel as if a snake is going down my spine. The thump, thump of my heart can be plainly heard. If I could cure myself of this affliction I would gladly do so.

## 49. Fear.

Fear comes in many forms and guises and has been experienced by everybody at some time or other. It is common in children as they do not reason. The emotions are different in different people. Many expressions have originated from fear such as "My heart was in my mouth," "I jumped out of my boots." These help to show the varied emotions.

When you are afraid perspiration often breaks out in a cold, clammy dampness and the body will not respond to the mind. Often the bottom of the stomach seems to have fallen out and a lump forms in the throat. Some people blink their eyes rapidly. Another means of expressing fear is the teeth chattering and legs weakening underneath you.

## 50. My Feelings When I Am Frightened.

When I am frightened my teeth chatter. A chill seems to wrap itself around me like a cloak and my whole body shakes as if with an ague.

My mouth refuses to open and no sound issues from my throat. Icy fingers clutch at my heart. My feet decline to move. All resistance leaves and I give way to fright.

## CHAPTER IV.-PUPILS' REPORTS OF THEIR SUBTLE FEARS.

## FEAR DUE TO PHYSICAL DEFECT OR LANGUAGE DIFFICULTY.

1. Shyness.

As I had had infantile paralysis, a fear of not being able to do things other girls do was very great when I was small. When a visitor came, I was conscious of my deformities and so I hung back. I could not run and jump and was shy with many people. As I grow older, I think less of my deformities because I have seen that people are thoughtful of me.

## 2. A Peculiar Fear.

When the sun is shining and I am outside, my eyes always water. If I meet friends, I blink my eyes hard, for I am afraid they will think that I am crying. Sometimes they ask, and when I tell them they think it is an excuse, because I do not want to tell them why I am crying. Although I try to overcome this fear, which I know is foolish, I cannot succeed. I fear this because I do not want my friends to think that I am deceiving them, when I tell them that I was not crying.

## 3. Fear of Ridicule.

The greatest fear in my school life is to be laughed at. When I first started school I knew very little English, because I came from Europe. When I gathered enough courage to say a few words in front of the class, they were badly pronounced and caused laughter.

I was told that if I talked frequently, I would learn to speak well, but after such occurrences I talked very little, unless I practiced what I was going to say at home.

An incident that I shall never forget occurred one day
when I was talking to a group of people and mispronounced a word, and one person in that group whom I most admired, made fun of my pronunciation, a lump rose in my throat, tears came to my eyes, and I felt I would much rather go back to Europe than speak English again.

I am five years in this country, and have not quite overcome that fear yet, but I hope in the years to come to be perfectly at ease in a group of people.

## FEAR EXPERIENCED IN ANTICIPATION OF EXCHANGING MERCHANDISE.

## 4. A Foolish Fear.

One day my mother sent me to the store for some tea. When I got home and took all the articles out of the bag, my mother said, "That is the wrong kind of tea." She wanted me to go back and exchange it. All the way to the store, I had a great fear. I went into the store trembling. I asked the clerk if he would please exchange it. He exchanged it in a very nice way. I said, "Thank you" and went home. I never feared after that.

## 5. A Strange Fear.

Two years ago I went into town to buy a football for my brother. He wanted a special kind and I got the wrong kind. He asked me to take it back and change it. Now I always experienced a strange fear in changing anything I had already bought. It seemed to me that if anybody saw me changing the article, he would think I was cheap. Anyhow my brother induced me to change the football. I went into the store and, to my surprise, I saw one of my friends there. I wished that I had asked my brother to change it himself. I was there and would have to face the music, although there wasn't any to face. I went up to the man and told him what my brother told me to tell him. My friend heard all and when we went out, he said to me, "That was a wise thing to do; the football you had was no good."

After that I completely got over this strange fear.

## LACK OF SELF-CONFIDENCE BEFORE AN EXAMINATION.

6. Tests.

I am very much frightened when there is a test coming.
Will I come out all right? Will I know my lesson well? Will I pass it? And all the questions come at once. I overcame this fright by really knowing my lesson and being sure I would pass this test.

## FEAR EXPERIENCED ON ENTERING A NEW GRADE.

## 7. Fear.

Each year as I was promoted I dreaded entering the next grade. What would happen in this next year? Should I be able to accomplish the work? Each term, however, I passed and nothing serious happened, so now, I am not afraid of entering the next grade.

I am glad that I overcame this fear because if I had not, perhaps I would always be afraid of attacking any new thing.

## FEAR EXPERIENCED ON GIVING A PUBLIC PERFORMANCE.

8. On Playing Before an Audience.

In truth, I do not fear the public, but somehow or other when I am before an audience, my presentation is not as good as I have hoped. Usually it is but a minute or so before I gain my composure.

One day a few years ago, I was to play at a recital. I had drilled and drilled and knew my piece well - and hoped to make my playing on the piano as fine as possible. Among the audience were several men and women who understood the art of music very well. Accordingly, I seated myself at the piano and commenced the selection. My fingers seemed to be chock-full of lead. I could not
bring out the tone that the piece claimed. Sweat stood out on my body. I gritted my teeth and resolved to forget that it was in front of an assembly that I was playing. Soon I regained my composure and performed my part fairly well. But that little heaviness that set my heart beating left an imprint. As time passes, it fades away slowly. It is not now nearly as pronounced as formerly. By reasoning with myself and endeavoring to forget the presence of people around, I help this failing considerably.

## 9. Fear of an Audience.

I have always evaded social gatherings, debating, oral compositions or anything calling for the attention of others. I am afraid of the staring eyes of the audience. My hands shake, I mumble my words, and my weight shifts from one foot to the other. I even feel a chill in my face and hands. I skip important words and sentences. After what seems to me ages I am motioned to my seat to my great relief and my teacher's utter disgust.

## FEAR EXPERIENCED IN APPLYING FOR AND IN BEGINNING NEW WORK.

## 10. Getting Work.

When I first started to look for a job I was frightened because I was afraid they would refuse as I am under age.

I used to read advertisements in the paper about jobs which did not say anything about age, but when I went to ask they refused and said, "You are under age; we can't bother." After a day's looking for some job I went home discouraged. The next day I went to look for a job and said to myself, "I'm not going to be afraid. I'll walk right up and ask for it." I came to the building where I am working now. I went up the stairs until I came to the third floor, opened the door and walked in. The boss came to me and asked what I wanted. I said, "Do you want any girls here?"
"What experience have you had?" he replied.
"On a stitching machine, button and buttonhole
machine." He called the fore-lady. We spoke to the fore-lady. The next day I went to work and ever since then I have changed my mind about being afraid to ask for a job.

## 11. Asking for Work.

I used to be afraid that I would never learn how to do any kind of work wherever I was hired.

The first time I inquired for work I was frightened and did not want to go to work the next day, but I gained courage and went. My fear was over by noontime. It was my imagination that gave me that fear. I now could inquire for any kind of work at all. It will not frighten me as it used to.

FEAR OF ATTRACTING ATTENTION BECAUSE OF WEARING APPAREL, PERSONAL APPEARANCE, HOME DUTIES, ETC.

## 12. What I Was Afraid to Wear.

I used to be afraid to wear a light suit. I thought the boys would call me a Percy. I wore the suit once and nobody called me a Percy. I wore the suit many times after that and never had any fear.
13. Why I Did Not Want to Go to the Party.

One day I was going to a party and I did not have a new dress. I had worn my best dress so much that I thought the children would make fun of me. I told my mother I did not want to go when, of course, I really did, but it was fear that made me hesitate. Of course, I went to the party and after I had found out that some of the other girls did not have new dresses I felt better about it.

Instead of trying to overcome their fears, people blame other people. Some people are afraid to play games because of getting hurt or of being defeated. Other people won't play because they are too conceited. If a girl has not a new dress to wear to a party, she must think, "If I behave well, what difference does it make about my dress?"
and if a person does not win in playing a game she must think, "I'll try it again." Whatever the fear is it takes a lot of will power to overcome it.

## 14. Foolish Fears I Have Had.

When I was about seven years old, I did not like to wear overshoes because I was afraid the boys would laugh at me and call me a baby. My mother would not listen to my entreaties but made me wear them. One morning she gave me those horrible overshoes and made me wear them to school. I went out the door and looked around to see if any boys were there, but I did not see any one. Soon I saw a crowd of boys coming behind me. I thought they would laugh at me so I wanted to go through a side street, but just then I heard the school bell ring and I knew I would be late if I went through a roundabout way, so I kept straight on. I started to run but I was soon tired and stopped to rest. The boys came up and even passed me without saying anything about my overshoes. More boys passed but said nothing, so I did not fear to wear them so much. As no one morked me, I soon got over that fear and wore the overshoes without my mother's begging.

## 15. What I Fear.

Last week my mother bought me a pair of long pants. I did not like the looks of them, but I wore them to school. When I arrived there, all the boys began to make fun of me and I did not wear them any more. My mother says it is because the other boys haven't any, but I don't think so.

## 16. My Haircomb.

A little while ago I used to comb my hair on the side. Later I thought I would change my mind and put it back nice and smooth. (In slang they call it the "Ra! Ra!") When I first started to put it back, it would not stay the way I wanted. All day I was saying to myself, "I hope nobody makes fun of my hair, and say it is sticking up in the air".

After a few days training of the hair it stayed back. I very soon overcame that fear.

## 17. My Spoiled Hair.

Since I had my hair cut for the first time, I never liked to go to the barber to get my hair cut. Therefore my father used to cut it. One week end my father was away. My hair was unusually long and I insisted that my mother should cut it. She finally tried and, as you can imagine, made a very bad job. Because she cut it when it was wet, there were many uneven places in it. I had to go to the barber then. He had to cut it very short to make it even. I was afraid to go to school Monday morning. I did not want them to see my hair. Wouldn't the children laugh when they saw my almost shorn head? If they asked me how I happened to have it so short, I would have to tell them. Then they would laugh at my mother. All these unpleasant thoughts, and many others just as unpleasant, went through my mind as I got ready for school that morning.

To my surprise no one said anything about it, unless I called their attention to it. Then they would say it was not very short. I thought it was, however, because I was not used to short hair and didn't like it. I was very glad when those few days were over and I became more used to my short hair.

## 18. A Foolish Fear.

My left eye was always bad and I could only see blurry. One day as I entered the schoolroom, the teacher said, "You will have to wear glasses."

I thought how I would hate to wear them. All that was in my mind was, "Will my friends laugh at them?"

The day came when I had to wear them. Nobody laughed. I then thought I was foolish to have such a fear, but I hated them. I hardly ever wore them till I got into the seventh grade. Now I wear them almost all the time. It was a fear I had to overcome.

## 19. How to Control Fear.

David was a boy who was in the fifth grade. He was a timid boy. He wore glasses and when he came out of school, he would run home. He ran home because he did not want the other boys to see him with glasses on.

One day he had to stay after school. The boy across from him said, "Why do you always run home and never play with the other boys?"

David was tempted to tell a lie, but he told the truth. The other boy, whose name was John, said, "After school you come out and play and the first boy that laughs at you for wearing glasses, I will make him stop quick!"

After school David played with the boys and he happened to make a mistake in the game. He expected to be laughed at, but the others kept on playing.

## 20. Helping Mother.

A boy who had a delicate mother took it upon himself to help her.

On Saturdays and after school he would always help her. He would wash dishes and do many other chores suitable for a girl. He was kept busy from the time he came home from school until he went to bed.

He did not want the boys in the neighborhood to know he was doing this work because he was afraid of being jeered at.

One day one of the boys happened to find it out. He laughed at him and told the other boys about him.

Instead of laughing at him, they were ashamed that they had not helped their mothers more.

This boy has overcome his fear of ridicule now and is not afraid to help his mother and have others see him.

## 21. My Foolish Fear.

When I was small, my fear was walking with my cousin. She is a very nice girl, especially to me. I was afraid some of my chums would see me and call me a little girl. I can now see how foolish I was, because they didn't
even mention it. Gordon, my best chum, asked me why I didn't speak to him when I was walking with my cousin, I told him my fear and his reply was that he had the same fear.

## 22. The Fear to be Overcome.

Just one day recently, I left home for school at what I thought to be the usual time. As I came from the station I saw no one on his way so I thought that our clock was fast and that I was too early. I strolled leisurely up the street and went in the store on the corner to get some candy. Oh! Can you imagine that feeling of genuine dismay that surged through my being when my eye fell upon a clock? Why, it was nine o'clock! I was late! I could feel my heart beat a wild tattoo upon my ribs, and I vowed over and over again that I would not go in school so late. I tried to turn to go home, but my feet seemed glued to the spot and my eyes glued to the clock. My insides seemed to take a coast down to the floor, and my throat seemed to close - a gasp came to my lips. Of course, this only took a few minutes truthfully, but it seemed as though I was in that position forever and a day, so as to say.

I grabbed my books from the counter and made a dash for the schoolhouse. Where were my resolutions concerning the return home? Scattered to the winds. My one desire was to reach my schoolroom before 9.10 o'clock.

I then put my things in my locker and fairly flew up the stairs. When I was outside of my home room door, the teacher had just finished reading the Scripture so I came into the room and took my seat.

I have yet to overcome that terrible fear. "What is the fear?" you might ask. I cannot explain just what it is, but I suppose it is the fear that every one will turn around to see who the late scholar is.

## FEAR OF FAILURE TO ATTAIN A DESIRED GOAL.

## 23. The Thing That I Most Fear.

The greatest fear I have is a fear for the future. There is a famous old saying, "He who would find pearls
must dive below." I fear that maybe I will find stones instead of pearls, and instead of diving, I will just take what I receive.

I sometimes wonder if I will be a "follower," and in the background, or a leader, fine and prosperous. I loathe to depend on anybody and I aim, with all my energy and persistence, to be "somebody."

I want to do something to help humanity and not be useless, worthless, and forgotten when I pass away. I want to progress, and have a useful, helpful, clean, and independent life.

## FEAR CAUSING EVASIONS.

## 24. A False Excuse.

Once a friend asked me to go with him to his cousin's house. I didn't want to go because I was afraid there might be a dog there, so I said, "I'll go ask my mother." After what I considered time enough to ask my mother in, and the necessary pleading to be done and also the necessary, "Go ask your father," and "Go ask your mother," I came out and said I couldn't go. It happened that there was no dog at his cousin's house, and that they went to the movies and did several other things. So by giving a false excuse I missed the joy of a trip.

I was trying to evade going to my friend's cousin's house when I made the false excuse.

## 25. Fear of Climbing Trees.

One day a group of boys was going to try to climb a cherry tree to see who could get the highest. As I am afraid to climb trees because of the height I sent my brother in to ask my mother to call me. I had an electric bell out on the porch for calling my brothers and me.

I had succeeded in evading climbing a tree.

## CHAPTER V.-CASES OF FEAR WITH SUPPLEMENTARY QUESTIONS.

GENERAL QUESTIONS.
(Applicable to each case.)

1. Give Your Opinion of the Truth of the Story.
2. Does It Remind You of Any Incident Which You Have Observed or Experienced?
3. What Can You Suggest as a Better or a Different Method of Controlling Fear?

## CASE 1.

Fear of Thunder.
When I was a very young child, I was very much afraid of thunder storms. The lightning rather amused me, but the sound of thunder frightened me so that I was forced to hide under the table and put something in my ears so that I could not hear the loud noise of thunder. I thought that I would never overcome this fear, for it seems that my fear increased with every storm.

My sister, however, came to my aid and I gradually overcame the fear. She used to try to attract my attention to other things rather than the storm. For example, when I was very young she would give me a picture book and we would look at the pictures together. As I grew older, she found other interests for me, and I gradually forgot the thunder. When my sister could not interest me in other things, she would take me out on the piazza during the thunder storm, and she would interest me in the color of the sky or something else connected with the storm. In this way I soon realized that there is nothing to be afraid of in a storm. Now all fear of thunder has left me and thunder storms have no special meaning for me as they did when I was young.

## Questions.

1. Why are so many persons afraid of thunder?
2. How would you distract a younger sister or a brother from fear of thunder?

## CASE 2.

## Fear of Thunder.

As a young child I was always greatly afraid of a thunder storm. I was accustomed to shut myself up in the house, and fearfully await the end of the storm. When I was about ten years of age, my elderly uncle came to live with my family and, finding out my fear, he began to remedy it. Being a young child, I was, of course, dominated by the "play instinct." Working on this, my uncle taught me a game to be played on the porch during a thunder storm. The game consisted of awaiting a clap of thunder, and then counting between the clap of thunder and the flash of lightning. If exactly twelve were counted between thunder and lightning, the storm was supposed to be coming to an end. This was a very simple game, but it contrived to take my mind off the fearful elements of the storm, and finally to overcome my fear entirely.

## Question.

Can you cite other specific ways in which a person may be distracted from fear by play, games, or competitive impulses?

## CASE 3.

## Fear of the Dark.

For many years it seemed to me that children were naturally afraid of the dark, and of many other things. When I was about four years old, I was afraid of the dark. Nothing could persuade me to go into a dark room alone. I had an uncle of whom I was very fond. On one occasion I remember that he and I were sitting on the porch one summer night. He was telling me about a box which he had left on his bureau. This aroused my curiosity and I wanted to know what was in it. He told me that, if I went upstairs, I could find out for myself what was in the box. To do this I had to go through a dark kitchen, dining room, and hall, ascend a dark flight of stairs, go along the upstairs hall, and into his room.

I was terrified by the silence and the darkness, but I decided that the box might be worth the danger. I can remember that I made the trip up and back just as fast as I could. I returned with the prize in my hand. It proved to be a steel mechanical top which my uncle immediately began to demonstrate. My interest in the top soon blotted out the unpleasant experience which I had just undergone. My uncle very wisely said nothing about the dark. For my own part, I learned that nothing terrible was hidden in the dark, but that, on the other hand, there might be something pleasant in it.

At various times after this my uncle would send me on other trips through the house. After I had become accustomed to going about the house in the dark alone, I had lost all fear of the dark.

Questions.

1. What was the value of having this boy play immediately after his return to the porch?
2. What method of cure was used here?

## CASE 4.

Fear of The Dark.
My brother had a very interesting case of fear. He was extremely afraid of the dark. For a long time he was obsessed by this fear, but now it has quite disappeared. He is now fourteen years old and is in the first year of high school. Frank is really a brave lad and a leader among his friends.

When we were little children, my mother and father would go out one evening a week to the theatre or to a friend's house. Not wishing to leave us alone, my mother would ask my cousin Grace to come and stay with us. Grace was sixteen and possessed a remarkable imagination. We would make candy and would sit down all ready for the stories that Grace would tell. She would tell stories about goblins and witches and ghosts, and such things as were bound to stir a child's imagination. As I was four years older than Frank, the stories were bound to have less effect upon me, but on him they had a great effect. When bedtime would arrive, necessitating our remaining in a dark room, the goblins and ghosts danced anew in Frank's imagination. Gradually he became afraid and did not want to sleep in the dark room. My mother became aware of this fear and could not imagine how such a brave little fellow could have been overcome by this fear, and she set about to eliminate it.

We have an attic in our house that is unfinished and is not lighted. Here my mother keeps her preserves. She made a point of sending Frank to the attic just before dusk nearly every evening. He would take ten or fifteen minutes to look for what he wanted so that it was dark before he came down. At first he would come running down, but by degrees he began to realize that darkness was nothing to be afraid of any more.

I feel that the ghost stories told to very young children are often the cause of making them afraid of the dark.

## Questions.

1. Do you agree with the final remark about ghost stories?
2. How are the time and the manner of telling these stories important?

## CASE 5.

Fear of Water.
Charles is a boy twelve years old. Ever since he was a child he has had a great fear of the water. I believe this fear was due to the fact that, when Charles was a small child, he was nearly drowned. His parents spent the summer at a beach every year, but Charles could not be induced to enter the water. In vain they reasoned with him. His older brother often teased him and tried to force him to go into the water. Of course, this only added to the child's terror and he often became panicstricken.

One summer one of the boys Charles played with asked him to go to camp with him. As Charles's parents were very much interested in outdoor activities for boys they consented to his going. Here the boys participated in all the outdoor games, and swimming played a very important part. The instructor soon became aware of the child's fear and endeavored to help him. After much kindly advice he persuaded the boys to help Charles overcome his fear, and he found them to be very willing helpers. Day by day he persuaded Charles to stay in the water for a little longer period. He introduced many games to be played in the water, and Charles became less afraid to remain in the water. He never became a very good swimmer, but his fear of the water was entirely overcome.

## Questions.

1. If an athletic instructor were to ask you confidentially what fears boys in general have in sports, what would you tell him?
2. How would you suggest that he could help the boys overcome their fears?

## CASE 6.

## Fear of Water.

When John was thirteen years of age, he went with a crowd of friends to an indoor swimming tank. They had been in the water and were fooling on the edge of the tank. One fellow, to start a game of tag, gave John a push and shouted, "It." The push threw John, who was unable to swim, into the deepest end of the tank. He sank to the bottom and was so frightened that he made no effort to move, but stayed there. The other boys, realizing he could not swim, dived in after him and brought him out. Until he was twenty he never went near the water. At that time his crowd made so much fun of him that the next time they went in a motor boat, he went with them. The boat was hit by another boat and had to be towed into the harbor. This made him more than ever determined not to venture near the water, and since then he has avoided it.

Questions.

1. What was the cause of John's first fear of the water?
2. How could a friend help John now?
3. Is there danger that early fear will last?
4. Have you had any experience like this?

## CASE 7.

Fear of Water.
I have a little niece about six and one-half years old who is terribly afraid to go swimming. She is in the first grade of the primary school. She has a pleasant, happy disposition, but if any one tried to take her in the water, you would doubt this fact. Various people have coaxed her and tried to take her in, but she would kick and scream and would absolutely refuse to go in. This fear was caused by the fact that she was on board a ship on a stormy night and the ship came near being wrecked. Her mother saw that it would be useless to force or to try to persuade her to go in; accordingly, Ann was left playing with the sand while the other children had a wonderful time in the water. After a while Ann envied the good time these children were having and decided to venture in. At first she would just go to the edge of the water, but gradually she got more courage and went in further. She is now fairly fond of the water, but has not as yet entirely got over her fear.

## Questions.

1. Note gradual method used here.
2. What other methods are sometimes used?
3. Note how the assurance and self-confidence of other children increased this child's confidence.

## CASE 8. <br> Fear of Fire.

This little girl was very much afraid of fire, matches, and especially of the gas heater. Perhaps this was due to the fact that when she was younger, while attempting to light the gas heater, she let too much gas flow in. When she struck the match, all the gas burst into flame, causing a small explosion. This had frightened her very much. Since that time she has been afraid to light the gas.

Recently her mother was quite ill, and some hot water was required in a very short time. Since there was nobody else who could get the water, she was forced to get the water herself. Now she lights the gas whenever necessary without the least bit of fear. This shows how force of circumstances made her lose her unwarranted fear.

## Question.

Can you tell how you overcame a fear when you had to do so?

## CASE 9.

## Fear of Fire Engines.

Joey, a child of seven, was very much afraid of the fire engines, especially when he saw them hastening to a fire. Although he was only in the second grade, he was ashamed of his weakness; hence he did all he could to conceal it. Nothing else seemed to frighten him more than the fire engines. No one at home had any special fear of any particular thing, except Joey's sister who, like the majority of her sex, feared mice. Joey's father, a sturdy policeman, was very brave and could not understand Joey's fear.

His mother, realizing that the boy was so timid, purposely used to send him to a store which was near a firehouse, a few streets away. Joey, although he knew that his mother did this to relieve him of his fear, defeated her purpose by taking a roundabout way in order to avoid passing the fire station.

The young man who lived in the second floor of Joey's house was a fireman. Try as he would, Tom could never induce Joey to come to visit him. Many a time did Tom try to bribe the boy to slide down the pole or sit in the fire chief's car, but all was of no avail.

One day, however, Joey's house caught fire while he was alone in it. In trying to escape he found every exit blocked by clouds of smoke. Finally, hearing the engines coming, the boy got weak and fainted. When he awoke, a burly fireman was holding him tightly. Upon being asked as to his opinion about fire engines, Joey replied, "Well, I guess they're all right. I kinda think it's a good thing for people to know that the fire-engines are there to help us."

## Questions.

1. Why is it said here that the others at home have no particular fears?
2. What did Joey really learn about fire engines?
3. Have you ever similarly learned that something or some person that you feared was really for your own good?

## CASE 10.

## Fear Due to a Trick Played Upon Betty.

Betty was eight years old, and in the third grade. One day the teacher came up to Betty's desk, and placed on it a number of small-sized cards and a box of rubber bands. She asked Betty to place the cards in stacks of ten, and to place a rubber band about each pack. Betty diligently counted the cards, and arranged them in piles all over her desk, but she did not put on the rubber bands. She sat back in her chair. The teacher asked her if she had finished. Betty rather doubtfully answered, "No." The teacher came up to the desk and offered to help. Still Betty sat back in the chair. The teacher became alarmed, and asked if she were ill. The tears began to flow. The little girl insisted that she wasn't ill, but stubbornly refused to explain her actions.

After the rest of the class had been dismissed, the teacher had a long talk with Betty. She discovered the reason Betty had not finished her work was that she was afraid to touch the rubber bands. The cause of the fear the teacher found out after much questioning. When Betty was only four years old, some little boys had frightened her by teasing her with a worm made of rubber. Ever since that time, the sight of elastics caused Betty to have a "funny feeling," as she expressed it. She is now ten years old, and nothing can break her of this fear. It still persists.

## Questions.

1. Do you believe Betty could have had such a fear?
2. How should she have tried to help herself?

## CASE 11.

## Fear of a Group of Boys.

Whenever I chance to meet this little friend of mine, he is either by himself or in the company of only one other boy. At first this did not seem strange to me, but after a while I began to notice it. He is only six years old and his chum is eight years old.

One day he came to see me and as he was alone, I decided to question him about his association with only one boy instead of numerous chums. I started by asking, "Why do you always go with Jimmie or why is it when Jimmie isn't around that you are alone?"

At first he began to evade my questions by saying that Jimmie lived near him or he met him coming from school. However, this did not discourage me and I continued asking questions. Finally he told me his trouble.

One day a group of boys were teasing a dog, tying a can to his tail and abusing him in every way possible. Walter, being a lover of dogs, although he was younger than the rest, asked them to let the dog alone. Of course, as is always the case, the big boys hated to be told by a younger child that they were doing wrong. They refused his request, but this did not suffice. Walter would not go until they let him alone. One of the boys, then, started to tease the dog and then turned the attention of the dog to Walter so as to anger the dog against him. When they saw that the dog was sufficiently enraged against Walter, they let the dog go and he immediately ran at Walter. Walter ran and the dog followed. He was thoroughly frightened, but somehow managed to escape from the dog. This is not all, however. Now whenever these boys see Walter, they tease him, calling him all sorts of names until he is so afraid of them he refuses even to associate with other boys except his own pal. Although I have tried to tell him that only that crowd of boys was mean, it seems to make no difference to him and he still remains by himself or with his chum.

## Questions.

1. Is this typical?
2. What actions in this story are especially typical?
3. Is this boy, Walter, getting a settled attitude of an undesirable sort?
4. Would your crowd have acted as these boys did?
5. If you were to tell them this true story, would they believe it?

## CASE 12.

## Surprise Causing Fear.

Paul is seven years old and in the second grade. He is a very thoughtful child and usually quiet. However, he is not timid or shy once he knows a person. One day when he was out playing with some boys, he happened to think of something. He stopped playing and soon was lost in his own thought. Suddenly one of the boys pounced upon him and began to punch Paul as hard as he could. Paul is not usually afraid to fight and often quarrels in fun with the other boys. This time, however, he was so dazed that he did nothing but look at the other boy. Suddenly a look of fear came into his face and he ran away as fast as he could. The other boy chased him, but Paul succeeded in getting away. The trouble is this:Paul was frightened because he was roused so quickly from his deep thoughts. At any other time he would defend himself as any normal boy would. Now he often plays alone in the house rather than go out to play with others. When he feels lively, he enjoys playing; but when he feels thoughtful, he keeps by himself because he is afraid the boys will hurt him. His mother says he used always to be willing to play. How can he overcome his fear?

## Questions.

1. Do you believe this case? (Bring out the significance of shock here. Emphasize suddenness.)
2. How can his "pals" help him?
3. Have you ever had an experience at all resembling this?

## CASE 13.

## Fear of the Schick Test.

John, five years old, was attending the kindergarten of one of the public schools. He was a happy little boy, who, to his parents' satisfaction, had liked school. He was always ready to go each morning and eager to tell his mother about his experiences when he reached home at noon. His mother was, therefore, greatly surprised when he suddenly acquired a strong dislike for school. She began to have great difficulty in sending him to school each morning. Finally, she had to accompany him to the doors of the school in order to make sure that he went.

One morning, soon after this sudden change, John asked his teacher if he could leave the room. He went and failed to return to the classroom. The teacher became alarmed and went to his home. Here she found the little boy in tears. At first he refused to tell them the reason for his distress, but they finally discovered that John was afraid of the Schick test. An older boy had told him about it in a cruel way and John was living in the fear that the doctor would give him the Schick test. His mother talked to him and the following morning the little boy set out bravely with his mother to visit the doctor. The doctor gave him the Schick test and John's fear was banished. Now John goes to school readily each morning and he is interested and happy in the kindergarten work once more.

## Questions.

1. What do you think the older boy said to John in regard to the Schick test?
2. Is the right attitude toward the doctor important to each of us?
3. What should be our attitude toward a physician?

## CASE 14.

Sensitiveness Due to Physical Weakness.
My father, who is a physical instructor in a settlement house, told me the following story.

One day the head of the house brought to him a little boy ten years old, who had recently moved into the neighborhood. The boy was thin, round-shouldered, and hollow-chested because of illness and poor air.

Placed in a class of forty boys about his own age, he was not able to play the games. Since he was very sensitive of his physical appearance, he refused to play at all for he feared the boys would ridicule him. This was perhaps due to some outside incident. At first the boys said, "Come on," but when he started they began to jeer at him. He always stood in the corner watching them, a pitiful little figure.

One day the little boy did not come to his classes. Noticing this, the teacher talked to the boys and told them their little classmate had not had a chance up to this time and that more than an ordinary chance should be given him now. The teacher saw to it that the little boy came to class next time.

At first the class played games a little easier than usual, passing the ball, running and the like. Then they played group games in which the child was able to participate. As each day the games grew a little harder, the child found himself succeeding and lost his fear.

Ten years have elapsed since that time and the little boy is now a very popular young man. Being of excellent build, he is now a fine baseball player, a jumping center, and captain of a basket ball team. He achieved all this simply because his fear was not allowed to get the better of him.

## Questions.

1. Do you believe this story?
2. Was the experience here narrated a critical one for this boy? From the point of view of health? From the point of view of becoming a sociable fellow?
3. Can you give instances of how some people become so unsociable and so inclined to stand off?

## CASE 15.

## Sensitiveness Due to Lameness and Thoughtlessness

 of Companions.George, about six years old, had had infantile paralysis, which had left him so lame that he had to wear a brace on his leg. He was extremely sensitive of this fact.

One day when he was playing with some perfectly normal children, something went wrong in the game, and one of the children made a remark regarding George's lameness. He came to his mother in tears and from that day on avoided all the children in the neighborhood.

Since he had reached the school age, his mother wanted him to attend school. George thoroughly disliked this idea because he felt the boys would make fun of him. Although George desired companionship, he was deprived of it through the fear he had of meeting children. George became listless and seemed to have little tendency to play.

The mother in desperation tried to have him go to school, explaining that among the boys that he would meet there were children who also were suffering from such deformity. But because she had such pity for her child she disliked to force him to do something that might prove distasteful to him.

During the summer the mother took him to the country where he was to stay with his aunt. The aunt had a young son, John, whom George had never met before. When George first saw his cousin, he showed no friendliness for him. But gradually his reserve broke down and the two young boys became the best of friends. When his mother saw this, she was delighted and she tried to point out to him that there were other boys in the world who were just as nice and friendly as John.

When George returned home in September, his mother again introduced the subject of school, because George was now seven years old. This time the suggestion met with George's approval and he began to attend school. Today he is about twelve years old, and he mingles with all the boys. The boys now do not look down upon him because he enters into almost all the games; in many cases his mother says they show due consideration for his deformity, but not in such a manner that George resents it. Thus, through the kindness of one boy, George's life has become happier.

## Questions.

1. What do you think of John's actions toward George in their early acquaintance?
2. Do you think John really understood George?
3. Did this show John to be a bright boy? A manly boy?

## CASE 16.

## An Example of Tactfulness.

James has just passed his twelfth birthday. He is in the seventh grade of grammar school. Unfortunately he is not as fully grown as the other boys of his own age whom he knows. As a result of this, James does not venture into the strenuous games in which his friends take part. He is very conscious of his abnormality and is afraid to be ridiculed by other people. He thinks that if he played with the other boys and made errors in their games, he would be laughed at. Then, too, he is afraid of being hurt. He has seen several of his friends receive cuts or bruises in their play; so he is afraid that he would be worse off than they in a rough game. Yet James will not associate with boys of his own size who are younger. He is always with those of his own age, but when a game is to be started, he retreats to one side to watch. Several times I have heard the boys coaxing him to enter some simple game. Once when he made an error, it was pointed out that a worse one had been made by the biggest of the group. In this way the boys are gradually getting James to enter their games. As he becomes more acquainted with them, he plays more with them, but, not, however, in the schoolyard where so many children are around.

## Questions.

1. Are these boys acting in the right way toward James?
2. Can you imagine how James feels?
3. What would you suggest to these boys regarding helping James to overcome his timidity?
4. Can you tell of any similar case in your own experience?

## CASE 17.

## Fear Overcome by Group-Appreciation.

Joseph was fourteen years of age and in the eighth grade. He was not a very strong boy and so was not very popular with the boys.

One night after school, when talking to Joseph, the teacher discovered that he was very much interested in writing. He showed the teacher a few little stories he had written. In reading these the teacher saw that Joseph had talent along this line. The next day she had him read one of these stories to the class. The story was interesting and amusing, so the class was delighted with it. Joseph, however, not knowing what they were thinking, was flustered and nervous since he thought the boys would consider him a "sissy." When he saw how they liked the story, his composure returned. The other boys now were very much interested in him and his writing. Whenever there was time, the teacher allowed Joseph to read one of his stories and finally Joseph became very natural and not a bit self-conscious in his manner. He was now a great favorite with the boys, who overlooked his weakness, so interested were they in Joseph himself and in his writing.

## Questions.

1. Was it a good thing for Joseph that he was so gifted?
2. Was the attitude of the class important in his progress?
3. Do you believe that writing stories or poems is unmanly? How about drawing, painting or playing a musical instrument?
4. Do men look upon these accomplishments as being unmanly?

## CASE 18.

## Interest in Study Overcomes Fear.

Edna was very much afraid of ghosts when she was ten years old. Every time she was in a room by herself, she imagined that she heard ghosts knocking at the doors and peeking in through the windows. Finally she became so overcome by this fear that she never would remain in a room unless some one else was with her. Edna continued to have this fear for two years.

When Edna was thirteen years old, she became a freshman at high school. She took an academic course and consequently had many home lessons each night. It thus became necessary for Edna to study in a room by herself every night, for it was impossible for her to study in the living room on account of the noise caused by the younger members of the family.

Being a good student, Edna was very much interested in her work and concentrated deeply when she studied. This concentration was a very good thing for Edna, for by concentrating on her work when she studied alone every night she gradually forgot about her fear of ghosts.

## Questions.

Give examples of fear overcome by wholesome change of attention and by concentration?

## CASE 19.

## Fear Engendered by Unwholesome Reading.

I know a boy, about thirteen years old, who until very recently had a very odd fear. He is in the seventh grade, and he always enjoyed reading. In the evening, he would sit for hours reading adventure and detective stories while his mother and father read or listened to the radio. He was all right while there was some one in the room with him, but the minute he found himself alone he would become very much frightened. This happened only at night. In the daytime he was all right. The following is an account of his actions when he found himself alone.

The child would be reading or, perhaps, studying. His parents would suddenly for some reason go into the kitchen, upstairs or to the store. The boy would not notice for a while that he was alone. Suddenly he would stop and look around. Immediately he would stop reading or studying and sit perfectly still in his chair. He would be so frightened that he would be afraid to turn his head. If a board suddenly creaked, the child trembled with fright. He would sit motionless, not turning his head until someone came into the room and sat near him.

His parents were unaware of this feeling of the child. They noticed, of course, his peculiar actions, but sometimes attributed these to the fact that perhaps he was tired.

One evening, however, the mother left the room and went upstairs. Suddenly she called the boy and received no answer. Knowing that he was downstairs, she called again and again. Finally, she went down, and found the child intensely frightened. She tried to make him tell her what the matter was, but he only said that he was afraid to go to her. She tried to reason with him, but it was of no use. She watched him carefully, however, every night and she_tried to think of a way to cure him of his fright.

One day as she was fixing his room, she looked over the books he had. Most of them were detective stories, telling of terrible murders. Immediately she thought that perhaps the books were the cause of the fear. She took them all away and packed them in a box. That evening the boy went to his room and, not finding his books, asked for them. His mother told him that he had better not read any more for a while because his eyes were getting bad on account of strain. This was very true.

Every evening she left the room for a while and watched him from the next room. She came back immediately if she saw the boy becoming frightened. Sometimes she went upstairs directly overhead of the room where he was, and called him until he came upstairs to her. Gradually, with the absence of the books and his mother's talking to him about how foolish he was to be frightened, the child began to act naturally. He is not yet thoroughly cured, but he is fast improving. His mother keeps all reading of murders and the like away from him because this is perhaps the real reason for his fright as he is naturally a very timid and sensitive child.

## Questions.

1. What advice would you have given this boy regarding his reading, if you were his chum?
2. If you knew the efforts his mother was making, how would you have tried to help him?

## CASE 20.

## Fear of Reciting at the Blackboard.

Mary is nine years old and is a student in the fourth grade. She has a fear of being called to the blackboard. Although she does well in her school work, she always stammers and does very poorly at the board. She trembles all over and seems to lose her head entirely. However, Mary doesn't mind answering from her seat. Sometimes the teacher has Mary come in before school and put her work on the blackboard. When alone, Mary seems to do much better. This seems to have lessened Mary's fear, but the same self-consciousness and timidity arise when she is before the class. Evidently Mary has been subjected to ridicule at a previous time. What can be done for Mary?

> Questions.

1. Have you ever experienced a like fear?
2. Who helped you overcome your fear?

## CASE 21.

## Fear of Criticism.

Anna is about eight years old and is a pupil in the third grade. The little girl is of a very sensitive nature and has a fear of making a mistake. As a result of this she does not speak out in class because she is afraid of ridicule and of not answering correctly. Evidently at some time she had been criticized so harshly that it has impressed her. In all her written work she does very well. The same thing occurs with her study of music. If she makes a mistake, she will immediately burst into tears and will not stop. Her mother, her school teacher, and her music teacher all are doing their best to cure her of this habit. It is rather difficult, for they want to secure her best work at the same time.

In the schoolroom the teacher sometimes carries on class discussions and allows the children to criticize each other in a friendly way. However, all the criticism must be constructive rather than destructive. The teacher sometimes reads stories of great people who have subjected themselves to much criticism, but who have been successful. The teacher reads stories, also, of people who have profited by their mistakes. When the child fails in music, the teacher immediately points out the construction, and the parts, and emphasizes the subject rather than the fact that the child has made an error. Whenever there is an opportunity, the child is encouraged to take part in musicales, school plays, and other activities in which criticism is involved. The child is beginning to improve in her timidity and fear of making a mistake because of ridicule.

## Questions.

1. How will this child be handicapped in later life unless she overcomes her timidity?
2. Do you think her teacher is kindly and skillful? Explain.

## CASE 22.

## Shyness Confined to the Classroom.

John is a boy of twelve years in the sixth grade at school. He is one in a family of eight. Because he is the oldest of the family, he has been accustomed to rule the other children. One would think that this fact would keep him from being shy before the children of his class, but, on the contrary, he is afraid to recite although he does not mind taking part in the athletic activities or games.

One day I talked with him for a while, and tried to draw out the reason for his fear, but without success. His mother said that he seemed to do his homework rather well and that the teacher did not think him a disobedient boy. Still, after the teacher and his mother had talked with him, they could not seem to make him less afraid, but they thought they had found the reason. During the conversation he had betrayed the fact that he was made uncomfortable by making a mistake in public. His papers which had mistakes on them did not hurt him, but to stand up and give a wrong answer made him turn scarlet and feel humiliated.

The teacher asked the mother to cooperate to rid the boy of that overwhelming sense of humiliation. She asked her to explain to the boy how one makes mistakes to be corrected and to learn.

With the mother's aid the teacher started gradually to give John more confidence in himself by having him answer questions in subjects he liked. Then she showed him by comparison how the other children made mistakes without getting so upset. Finally she managed to rid him of that fear of making a mistake, for now he recites as best he can without becoming upset upon making a slight mistake.

## Questions.

1. Are children often afraid just in one particular situation?
2. If we find a person afraid in one situation, have we any right to speak of him as a fearful or a timid person?
3. How did John have the wrong attitude regarding making a mistake?
4. Do you think the teacher did right?

## CASE 23.

A Case of Self-Consciousness.
A friend of mine is now in her first year of college. She is termed shy and withdrawing by her friends, yet the basis of her self-consciousness seems to be composed of subtle fears. She fears to meet new friends or to speak to strange people whom she must meet in her college life. For example, if this girl is asked to order theatre tickets over the telephone, she passes through a state of fear and nervous anxiety. It would appear that she lacks confidence in her ability to express herself clearly. Many times she has written messages and then has delivered them over the phone by reading them. This lack of confidence characterizes all the girl's social activities and is the cause of much unhappiness in her life. How can this girl be helped?

## Questions.

1. Is it usual for a college student to lack confidence to such a degree?
2. What elements in her training and school experience may account for this lack of confidence?

## CASE 24.

A Problem.
John X., aged seven, would never play baseball. He had a profound fear of getting hit with the ball. Although his father provided him with a mask, he could not seem to overcome his fear. Like the other boys, he became very much interested in the adventures of "Babe" Ruth and other prominent players. His father took him to see many of the big games. Still he could not cure his son's fear. What would you have done in such a situation?

## CHAPTER VI.- REPORTS OF EXPERIMENTS IN THE CLASSROOM DISCUSSION OF FEAR.

## REPORT ONE.

This is a report of discussion with fifth and sixth grade classes. The cases discussed were the following four themes written by ninth grade pupils in another district.

## A.

My brother used to be afraid in the dark. One night my mother knew my father would be late in getting home, so she said she would go out shopping.

Laddie, my brother, had been to a party and insisted on playing with the things he got there. Mother told me to put the light out and come with her, which I did. All of a sudden we heard a scream. It was my brother. He ran out of the dining room.

Mother asked him what was the matter. Laddie answered, "Oh, I heard a noise. I think some one is hiding under the table."

Mother knew that there was no one there, so she made Laddie go and put the light on himself and see.

He kicked and screamed for a long time, but finally he went and put the light on.

Since that Saturday night he has never been afraid in the dark.

## B.

I have always been afraid of doing a certain dive since the day that I struck my head on a rock and split it. I can do other dives harder than this one, yet when I come to do it the fear of the result of the last one comes over me and I decide not to. When I am out of the water, I always say that I'll do it next time, but when next time comes it's the same thing. It's not the dive, but the result that I am afraid of.

## C.

When my sister was about five years old she came from the hospital after having been very ill with diphtheria. She was afraid of her doctor who wore glasses. After that every man who came to my house and who wore glasses would frighten her as she thought they were doctors and were going to take her to the hospital. It took a very long time to make her believe that not all men who wore glasses were doctors coming to take her away to the hospital.

## D.

I know a little boy who was very much afraid of dogs. It was caused by his parents. They used to tell him when he was younger not to go near or touch a dog, because the dog would bite him very hard. I still see this little lad, and he is just as much afraid of dogs now as he was when he was smaller. We are trying to get him away from that fear now, because he is getting older. We are now encouraging him to pat dogs that come to his house, and not to run from them, and to play with friendly dogs, if they are playful.

## Approach.

I had already had discussions with the class of girls on the subject of fear this year which made it easy to introduce this new piece of work. When I told them I had a few papers upon which I wanted them to give their opinions, they greeted my plan with great pleasure and interest. Before I started to read the cases to be discussed, I tried to refresh their memories of their childish fears which had been related to me by them and of how they in many instances had overcome their fears.
"Now," I said, "I shall read about a boy who was afraid of the dark, and I would like you to listen attentively as I shall ask you those questions which you see written on the board."

The following questions I wrote on the board in front so all might see and follow while I read the case.

1. Do you think that a boy or girl could be so afraid of the dark as that?
2. Do you believe this particular story?
3. How would you help your little brother or sister to overcome the fear of the dark, for instance?
4. Can you believe a child can help himself to overcome his fears?
5. Were you ever afraid of the dark as this boy was?

## Discussion.

The case was read. The class unanimously agreed that a boy or girl could be so scared and that the story could be true.

The different methods of aiding a brother or sister to overcome fear were much alike. They would do just as the mother did, or they would take the child into the dark room and turn on the light to show him there was nothing in the room to hurt him; another way mentioned was to ask the child to get some article from the dark room.

The fourth question, "How can a child help himself?" was answered in various ways by the children. One girl said, "He should learn to face his fear because, if he doesn't, he will always be afraid."

Another pupil answered, "When his parents ask him to go to the store when it is dark, or into a dark room, he should go. Then he'll forget his fear."

When the question was asked about having similar fears, many said they had them. This was followed by interesting cases told by the individuals who had overcome their fears of the dark. The cases of childish fears were practically the same as has been quoted.

The case of Fred and his fear of a certain dive was read. As they are young children, this subject of diving was too difficult for them to discuss as a few of them are just beginning to swim.

They could, however, relate stories that they had heard about boys and girls taking dives and having had serious mishaps. Also they could repeat a case they had wit-
nessed - a girl diving which resulted in death to her. This case made an impression on some so that they are reluctant to learn how to dive.

The case of the little girl afraid of the doctor was more familiar. On this one, conversation was not lacking as to the truth of the story nor how they could help such a girl. There were similar cases related.

One grade five girl gave this method of curing a little girl in such a position. I shall write as she told it.
"I am referring to the case where the child became afraid of all men who wore glasses, after she came out of the hospital where a doctor attended her who wore them.
"I would help her by putting a pair of glasses on her father. She would know that he was not a doctor and in that manner she would overcome her fear."

Another girl related a story similar to the previous case, saying she had been afraid of men who wore glasses since she had been to the hospital. Later an uncle was obliged to wear glasses for defective eyesight. As she knew he was not a doctor, she reasoned that perhaps others were not either. Later she was forced to wear them herself, which, of course, has destroyed that fear.

The case of the little boy afraid of a dog was also familiar to the class.

The story was not doubted as to its truth.
Under the discussion of how to help another child so situated I had many suggestions.

One suggested that the parents get a little dog for the boy to have as a pet. He would then learn to overcome his fear by playing with this pet. Also he would learn to understand a dog and his ways.

Another girl said she would explain in this manner to the boy: "If we are kind to dogs, they will be so to us. When a dog wags his tail, he means to be friends. We should talk kindly to them. Then they know we are friends of theirs and so will not hurt us. When we are cross and ugly, then they bite because they think we aim to hurt them. Dogs are our friends. If you run, they
think you mean to play. So you must pat them and be gentle. Then you will see how good they are to you."

This case, which I shall give, was given by a pupil as a means of overcoming in her sister, fear of a kitten which had scratched her.
"One day I put a kitten in her lap and took her hand and patted the kitten. The little thing began to purr and curl up to go to sleep. When my sister saw this, she was happy. She forgot her fear and soon laughed at herself for being afraid of such a helpless little creature.
"Now she will handle any cat she sees because she has learned to love them."

## Conclusion.

In the short time I have taken up this subject, fear, with the small children - grades five and six, whose ages run from nine to eleven, mostly, I find that they enjoy discussing their fears and how to overcome them.

At first they were a little timid in expressing their fears before the class because they feared ridicule. This, of course, was not allowed for one instant. To set them at ease I related my own little fears. They soon learned we all had fears which we are not ashamed of having overcome, either by facing them squarely, or associating something pleasant with them and thus gradually forgetting the original fear; or by talking the matter over with some older, sympathetic person - thus finding the nothingness of that particular fear.

Grades five and six children have not much experience in helping others to overcome childish fears unless it is a case within their comprehension. Those who have younger brothers and sisters are able to understand and see reasons for these fears when they have experienced just such fears.

Many agreed on this: that whistling or singing when entering a dark cellar or room was good to keep up one's courage and to forget fear.

We also agreed that there are things which we should rightfully fear, such as fire, careless crossing of the street,
shifting about in a boat or canoe while on the water, going in bathing too soon after eating, or diving in shallow water.

If the subject is kept within their experience and comprehension, much good can be done in training the children for good citizenship. Also, good material may be had by those who have their eyes and ears open.

## REPORT TWO.

An eighth grade teacher has submitted the two following reports (A and B).

## A.

I opened the discussion with the following:
"This morning we are going to consider our topic of fear from the viewpoint of two real stories of children's fears.
"Let us first listen to this story: 'Paul is seven years old and in the second grade, etc.' (See Case 12, Chapter V.)
"Do you believe this story a true one?"
The pupils of grade eight disagreed. Some believed it would happen once in a while. Others felt the case was not an average everyday case.
"How many pupils know children of seven years of age?"

Practically all knew many.
"How do these children act compared with Paul's actions?"

The pupils replied in this way:
"My little brother is seven years old, but is almost never thoughtful. He climbs fences, climbs trees, plays continually. He only seems to ponder a little when he is absolutely alone with none of his playmates or brothers or sisters near him."
"I know a little boy of Paul's age who runs, jumps, plays. My mother is always afraid he'll get run over. He doesn't remain still long enough to ever be thoughtful."
"I have a little brother of Paul's age who never stops playing long enough to be very thoughtful. He is very active, jumps on other boys' backs, wants us to wrestle, plays cowboy and Indian and knows much about the world. He knows about horses, aeroplanes, racing autos, by just playing and observing."
"My little cousin is seven. His mother keeps him in most of the time. He takes private lessons in French. He knows no boys of his age. He is quiet and thoughtful."

Many cases were cited. From them the pupils decided that Paul's case was the exception rather than the rule.

However, he could get over this fear which was the result of shock.

The pupils agreed that it was all well and good for a boy to get lost in his thoughts, but not when playing actively with a group of boys.

One pupil said, "Most little boys of seven only think when they are alone, and generally when they are in the house, not when playing with companions. Yet, if he must stop playing to think, he could let the other boys in on his thoughts, and let them think of the thing together."

Another said, "His pals will have to help get him out of this feeling of fear which they got him into. One way would be to pay no attention to him when he acts afraid or runs."

Another objected saying, "Yes, but the other boys will make his life miserable if they think he is a coward. His mother will have to explain to him that there is nothing for him to fear and that he should play with his companions. He'll gradually forget this fear as he gets playing again."

Another said, "His mother or a friend or a sister or brother could get a neighbor's child of seven to play with Paul and entice him to play with the group again. He would have such a good time he would be his old self again."

Another said, "Paul could share his deep thoughts with his playmates."

I asked at this point, "How could he share his thoughts?"
The pupil said, "By telling the others what he is thinking of. By showing the others how he happened to be thinking."

Another pupil: "Tell Paul when he should think and when not. When playing, if he is strong and healthy, he should put his whole self in his play."

One boy of grade eight suggested a rather harsh way in which his pals could help Paul. He said, "Paul was afraid due largely to the shock he received. If the boys pounce on him often enough, it will knock the fear out of him."

Another boy suggested, "In the war, many soldiers received shell shock. Some have recovered since the war by receiving a severe shock. Perhaps Paul may have an experience like this. He may be frightened and shocked so many times, as the boys will pick on him now, knowing his weakness, that it will serve to deaden this unnecessary fear."

A girl of grade eight then suggested the following:
"Why not shame or tease Paul out of the feeling? His mother or playmates could do this."

At this point various responses were given: "Paul's playmates are not going to cater to him. He is just one of the group. Now that they know he is afraid, they may try to bully him. Or else they may just let him alone and ignore him. Or, some one may take his side and be his real pal and help him overcome his fear by fighting it. This one pal might show Paul that it is no harm to be afraid, that he was often afraid of other boys, but that he must face the fear, must play with the boys and that he can think when not playing with the gang."
"Paul could be shown by his mother or by a pal that there is nothing for him to run away from, that he can have a good time with the boys and that he can go with boys that he trusts and has confidence in. He could be shown that there is no ground for fear. He could see, thus, that all people feel afraid at times. He was not afraid once, and he doesn't need to be now. They could remind Paul how he used to fight in fun with other boys, wasn't afraid then, and therefore shouldn't be afraid now."
"Paul is just at the age where he has reached the age of reason. He was frightened badly, but his pals or mother could put a feeling of confidence in him and show him how he can gain success and happiness if he loses this feeling."
"Boys of seven forget quarrels. Paul's pals pounced
on him and punched him in a spirit of fun, just to rouse him and get him in action with the group. Now that he shuns the group they will want him back. Gradually, perhaps one by one, they will win Paul back."
"The gang will laugh Paul out of his fear."
"My mother had an experience similar to this one of Paul's. My little brother used to run in crying every little while and tell Mother how another little boy hit him, or took his toys. My mother sent him out every time and told him he was a boy and must take care of himself. She watched him to see that the other boys were not really hurting him. Gradually he fought for his rights. This might help Paul, after he has been encouraged."
"Let Paul alone. He'll work this out for himself."
I then asked the class if they ever had an experience similar to Paul's. One bright boy of grade eight said that he did: "I've often been playing base-ball. In a crucial moment I have seen an aeroplane, have forgotten the game and watched the machine, and gotten so wrapped up in my thoughts, thoughts of the air, of flying, of the thrill of sailing way above the earth, that it was a real shock when I found the whole team yelling at me."

Another pupil: "I had a feeling of real fear come over me one day. I was watching men clear away the wrecks of two automobiles that had collided. One by one the other children left so as not to be late for school. I was in deep thought puzzling out how the parts of the engines could be repaired when a boy yelled 'Come on to school.' I jumped a foot. It startled me so for a moment that I could feel my heart beat faster."

Another girl of grade eight said, "I was deeply immersed in a most interesting story. I forgot everything and was living in the story, when my mother tapped me on the shoulder. The shock of coming out of the part I was living in the book and coming back 'to earth' gave me a real fright."

Another replied: "I can understand how Paul felt. I had a feeling similar to his once. I was to meet my father. He was to walk from the car towards our home.

I was to walk from home towards the car. He came, however, by a different route. He came up in back of me. I expected that he would be walking toward me. When he tapped me on the shoulder, I screamed and turned around suddenly. I never realized one could be so frightened. It was the unexpected sudden shock."

Many other pupils gave interesting accounts of such experiences.

The classes agreed that Paul had a really significant sudden shock which caused him fear. They agreed that such a case could happen, though it was not common. They agreed that it was serious enough to discuss and that it would help them to help other children of Paul's age.

## B.

We next considered another case. I opened the discussion by reading the following story:
"I have a little niece about six and one half years old who is terribly afraid to go swimming, etc." (See Case 7, Chapter V.)

I then said, "What method did Ann's mother use to try to overcome Ann's fear of the water?"

One pupil said, "I think that Ann's mother used good sense. The mother understood why the child was afraid of swimming. The mother realized that Ann had been scared frightfully when Ann was on board a ship on a stormy night and that the ship had been nearly wrecked. Ann had a real fear, not a foolish one. Almost any one of us would have been well frightened if it had happened to us. No one wants to go down with a ship at sea. Ann's mother realized that to overcome this fear she would have to work slowly and gradually."

Another responded, "Ann was solving the problem for herself. I think the best thing to do was just to leave her alone. She played in the sand while others went into the water. She was slowly getting used to the water. If she was left alone, she would follow the other children into the water."

I then said, "What else could be done to help Ann forget her experience and thus to make her love the water?"

A pupil said, "Show her how the other little girls and boys learn to swim."

Others gave these suggestions:
"Never remind her or let any one suggest any fear or dread of a ship or of the water."
"Get her some toys that float and let her play with these in the water."
"Get her some water-wings."
"Take her for a boat ride on a good day. This will take away some of the fear she received on the boat on the stormy day at sea, and, as she gets older, she will understand that her experience was not one likely to happen as a rule."
"Tell her that she needn't be afraid unless she goes out too far."
"Have other children play games with her in the water, as ball, tag, etc."
"Show her how children smaller than she are not afraid."
"Do not remind her of any fear. Say there is nothing to be afraid about."
"Let her gradually forget to be afraid."
"Never force her to go in the water. You often see parents forcing little children to get wet all over in the water. This often frightens children so that they never lose a fear for the water as long as they live."

This last remark led to a discussion of fear of the water caused by trying to force children to like it. These remarks were made:
"I was carried out to a raft when I was very young. Then I was thrown off. I struggled, but could not swim. The other boys yelled, 'Sink or swim.' My lungs filled up with water. At last a man grabbed me. I am still afraid to swim out very far, but I am old enough now to see that I must get over this feeling."
"My father fell off a dock when a little boy and was nearly drowned. We go to the beach every summer, but he has never gone into the water since he had that experi-
ence. Last summer my mother told him that the salt water might help his health. We almost got him to buy a bathing suit. We hope he will this summer."

All agreed that the method of using force to make Ann like the water would only aggravate the case and make matters worse. We agreed that she was on the right track. She was gradually overcoming her fear. She was gaining confidence by having others assure her that she need not fear the water. She was gaining confidence gradually. Other methods could be used, but, instead of hastening the overcoming of her fear, would probably delay it. She is now fairly fond of the water. This is sufficient for the present.

The class agreed that the right methods were being used. Ann was beginning to associate pleasantness with the water, which she had feared. She was gaining confidence by getting into group action, by play with children in whom she had confidence and who had no fear of the water, except a good cautionary fear. She was being taught that her fear was groundless. As she gets older, she will understand that her first fear of the water was very natural, a fear any one might have under such conditions. As the pupils said, Ann was gradually becoming successful in facing and overcoming her fear, and in the future would by all means be more successful.

## REPORT THREE.

A ninth grade teacher reports discussion of fear with classes by submitting reports written by class secretaries. Printed below are first (marked 1,2 , and 3 ) the cases used in the discussion. Following these cases are printed (marked A, B, and C) reports by the class secretaries.

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Edward, although only four years old, has always been terrified when any dog has come near him. He used to scream and tremble all over. He is a very affectionate child and has a genial disposition. He is rather shy when in the presence of older people. He does not go to school yet.

The cause of his fear lies in an incident which took place when he was about a year and a half old. His older brother was teasing a dog one day. The dog snapped at him and then snapped at the baby who was sitting on the grass nearby.

To conquer this child's fear, his father bought a very tiny puppy which was hardly able to walk. The other children in the family played with it and fed it. Edward would not touch it at first, but after seeing how helpless and quiet it was, he patted it. He was encouraged to feed it and pick it up gently, being told all the time to be careful not to hurt the little dog. This warning was uppermost in his mind and led to his forgetting himself.

Now Edward loves the dog, although it has grown considerably. He is now very much less afraid of all dogs.

## 2.

There was a little boy who lived in the cottage next to ours at the beach last summer. Charlie was a fine little chap of six years. He loved the outdoors, and would spend his entire day playing in the sand, building tunnels, houses and castles. Charlie, however, possessed a great
fear of the ocean. No one could get him even to walk up to his knees in the water, and he would scream helplessly if any one made an attempt to force him into the water. Now Charlie liked to play ball very much. His older brother, anxious that Charlie overcome this dread, took advantage of this fact. He would play ball on the sand with his little brother and once in a while would purposely throw the ball near the water so that Charlie would have to go into the water. At first Charlie would draw back and hesitate before going after the ball. The older brother would say nothing, but get the ball himself, and the youngster would feel ashamed.

One very hot day, the two brothers were playing ball on the burning sand. James, the older, threw the ball in such a way that it bounced into the water. Charlie ran for the ball, and when his feet touched the cool water, he liked the feeling. The ball was at such a distance that the child had to go up to his waist to get it. From that time on, Charlie gradually became accustomed to the ocean and finally grew to like it.

## 3.

Eleanor, who is ten years old, is in the sixth grade in school. Her parents are well educated and refined, and the home atmosphere is very wholesome. She is a very shy and sensitive child. Her parents have tried for some time to rid her of this bashfulness by having young folks of her own age invited to the house, and attempting to have her mingle with them. The reason for her extreme sensitiveness was discovered by her teacher.

Eleanor's history and English compositions and tests which she wrote in school were remarkable for a child of her age. However, when asked to read one before the class or to tell about something she had seen or read, she would become greatly embarrassed and if pressed at all, would burst into tears. The teacher tried to find out what the trouble was.

One day, she asked her to remain after school a moment. Having gained the child's confidence, she asked her why
she disliked reciting before the class. Eleanor told her that, if she hurried at all when speaking, she was apt to lisp a little. An acquaintance of her mother's, who had been visiting the family two years before, had carelessly remarked that she liked to hear her speak fast, as it sounded so odd. It had impressed the child, and ever since then her fear of being ridiculed by her classmates and acquaintances had caused her to withdraw from them.

## A.

Miss -- opened the lesson with a talk on "Fear." She said that fear is acquired and imposed and not inherited.

The teacher read us a true story about a boy who had a seemingly inherited fear of dogs. Other than that he was a normal healthy child. When the child was a baby, a dog had snapped at him in his carriage. His father, by having him fondle and caress a wee puppy, more helpless than the baby, gradually rid him of his acquired fear.

Through this and other stories, Miss - showed us the different methods of conquering acquired and imposed fears. They are through kindness, silent contempt, proving that what one has been afraid of is really pleasure, by showing foolishness of the fear, and by co-operation of friends and listeners. Some people try to overcome their children's fears by force. This method is unsuccessful because it only makes the fearful one more afraid. Sometimes a fear may be overcome by the courage of the victim.

Fear is caused by accidents when young, by a natural dislike which is allowed to increase until it becomes a fear, by ridicule, and by fancy and the workings of the imagination.

> B.

Miss - opened the lesson by reading three stories based on psychology.

The first story was about a girl, ten years old, who was in the sixth grade. Bashfulness was her greatest impediment, and her parents, who were both highly educated,
tried in every possible way to overcome it, without satisfactory results. Her composition work at school was so good that the teacher wanted her to read it aloud, but strangely, she couldn't seem to, and usually ended with an outburst of tears. The teacher, by talking with her confidentially, found the reason why. A visitor had once said that she liked to hear Elinor talk fast because she lisped. The teacher helped the girl to overcome her sensitive ways. How? The class answered in the following way:

When Elinor left the room, the teacher could tell the pupils to help by not making fun of her outbreaks, and by listening attentively. In other words, she could be helped by the cooperation of teacher and class because her shyness was caused by fear of ridicule.

The next story was about a boy named Charlie who was six years old. He lived near the beach and could enjoy himself immensely while building tunnels in the sand, but the water terrified him, and nobody could induce him to go into it.

His older brother, James, tried to overcome this by playing ball with the child on the sand. Sometimes, purposely, he would throw the ball near the water, and if Charlie didn't get it, he would bring it back himself. One day, it landed in the water. Charlie ran up to his ankles, but soon he was up to his waist, for the ball was out that far. Much to his brother's surprise, he brought the ball in. Soon he really enjoyed the water.

Why was this possible? The class volunteered the following ideas:

1. Perhaps he forgot.
2. Accidentally.
3. The sand may have been hot.
4. Confidence in James.
5. Confidence in himself.

The class offered no response concerning a similar case.
The third story we considered was about Edward, a four-year old boy, very affectionate and shy, but whenever a dog came near him, he would scream hysterically. His
father bought a tiny puppy, allowed the children to play with it, and cautioning them, especially Edward, not to hurt the wee dog. The boy soon learned to love it, and learned not to fear any dogs, though they might be strange. How did he overcome this fault? By forgetting himself.

The different ways by which each child was helped are listed as follows:

> No. 1. By self-confidence. No. 2. By intelligent handling. No. 3. Kindness - forgetfulness of self.

The lesson closed at 10.20.

## C.

The main topic of the lesson was "Fear."
A question was asked by the teacher which was: "Name several ways of helping a person to overcome any fear that he might have which you derived from any of the stories read Tuesday." The following replies were given. 1. Kindness on the part of the person trying to assist another. 2. Intelligence on his part, also.

An illustration of "intelligence" was given concerning a woman who had a child who was afraid of cats. She devised a plan of stuffing some fur with rags and make it resemble a cat. She introduced it into his play and he became accustomed to the feeling of the fur. Eventually she gave him a real cat and he did not notice the difference very readily.

A story was then read to us about a boy, named Fred, who was afraid to go to the dentist. His class was making a drive for a $100 \%$ record for clean teeth and Fred's sole aim was to avoid the trip to the "Forsyth." Every Friday he was absent. . Finally he was the only member in his class who had not visited the dentist.

The teacher tried several methods in an effort to make him go. First she coaxed. It didn't do any good. Fred had an "iron will." Next she asked his mother to cooperate with her, but she received no assistance.

Finally she showed him the list of pupils in the class, and he, alone, lacked a check mark. He realized, then, that he was failing in his loyalty to his class. He mumbled, "I'll go Friday."

These questions were asked, "How was his fear continued?"

Answers given were: 1. Evasion by pseudo sickness on each Friday. 2. Aided by his mother.

How was he helped? Answer: Intelligence of his teacher.

## REPORT FOUR.

A twelfth grade teacher read Cases 11 and 17 (see chapter V) to his home room pupils. The teacher writes:
"The short stories were read to the home-room boys, and the questions were asked. They wrote their answers, and handed in the papers with no names signed. They were very much interested in the experiment."
The following is a summary of the written answers made by these pupils to the supplementary questions appended to each of the cases read. (See supplementary questions in Cases 11 and 17 in Chapter V).
The responses of the high school seniors to the questions regarding Case 11:

Question I.- Nine boys answered in the negative, ten boys in the affirmative.
Question II. - The boys referred to teasing dogs and cats; resenting suggestions from a younger boy; "making a goat of one boy in the gang;" "the setting of the dog on the boy who was trying to save the dog."
Question III.- Most boys believed that Walter was developing a settled attitude. "I think that Walter is getting a bad idea. He may keep away from people when he grows up."
Question IV.- The boys believed that their companions would stop teasing the dog if the boy asking them to do so were a boy generally respected by the gang, a boy of prestige. "In my bunch they would apologize after they had done the wrong thing."
Question V.- Most boys doubted that their companions would be sympathetically impressed by the story.

In general the answers revealed an unsentimental and wholesome attitude of sympathy.

The responses of the high school seniors regarding Case 17:

Question I.- The boys answered "yes" unanimously, many adding that by his gift he made friends. "If he didn't care about sports and could do nothing, he would soon be a quitter in the crowd. He had to have some ability. Every fellow in a crowd likes to excel in something."
Question II.- Answering affirmatively, the boys added such remarks as these:
"Yes, it is important because it gave him some courage."
"Very important as it was the pivot of his popularity."
"The attitude of the class toward his progress proved to be the turning point in his career."
"Their attitude helped to make Joe."
Question III.- Unanimously negative. Typical replies were:
"These are accomplishments."
"I think that if one wishes to write or draw and then likes it, it is just as good as playing ball or swimming."
"No, we are gradually getting away from those ideas."
Question IV.- Certain boys declared that grown men often do consider such talent unmanly. Practically all the boys, however, asserted these accomplishments to be admirable and manly.
"No, they would like to be able to do these things themselves."
"No, if the men are really intelligent, not grossminded."
"No, men who have a fair knowledge always welcome a person so gifted."

## SUPPLEMENT

INSTANCES OF HOW TEACHERS HAVE AIDED FEARFUL OR TIMID PUPILS

## CASES OF OBJECTIVE FEAR.

## 1.

Fear of darkness made George, a third grade youngster, so miserable that his mother told me he had to have the light in his room all night, for if he awoke in the dark he would scream and become hysterical. My piano is in a slanting position in one corner of the room. I tried a speech game in which one boy would go behind the piano while another member of the class would say his name. Then the boy behind would guess who the speaker was.

George hesitated about going into the dark corner, so I went to the piano with him, and he stepped behind.

The next lesson we varied the game, using the dressing room. Then we finally used my closet, with the door closed. George has been "It" several times and not once has he been timid about entering. He told me he "wasn't scared" and I feel he is losing a little of his fear.
2.

Some years ago my little nephew, a boy of three, would hesitate about going upstairs to his room on account of seeing no light in the hall or room.

He used to ask, "Why is it dark?" and many times would add, "I am afraid of the dark."

In his case John Martin's poem, "The dark will pat my pillow. He's good to children, etc.," proved most helpful.

One starry night, wrapping the little fellow in a blanket, I took him out on the piazza, and showed him the beautiful stars. Told him they were "God's Lights." If the dark did not come, we would never see them, for they were always there, and it was only because of the dark that we could look at the wonderful stars.

For nearly two years after that the little fellow often would say, "I am never afraid to go upstairs when it's dark." Upon being asked why, and the question was
often put to him, he would always answer, "When I get up there, I see God's Lights."

Today he is a boy seventeen years old, and a youth of unusual daring. Rides, swims, handles a car, volunteers services in many emergencies.

Fear is an unknown quantity in his make-up. This year he has been specially commended by the President of his college for courage in tackling with success a most difficult Latin theme. Other boys of his class hesitated for fear of failure.

We strongly feel his very first lesson in overcoming fear and gaining courage dates from the days when, a boy of three, he was "afraid" of the dark.

## 3.

Edith, aged four, was a particularly mature, bright, sensible child. Being an only child, she had associated largely with her mother and was consequently more appreciative of the adult point of view. She was interested and pleased with her work, giving absolutely no disciplinary trouble.

Yet one day Edith flew into a rage, a serious rage, so to speak, for it was very vehement and to all appearances fraught with nervous tension and fear. The circumstances were these: a small boy had been repeatedly and deliberately troublesome. Warnings and pleadings were in vain; he would push, he would pinch, he would trip and annoy his neighbors. Finally, in sheer desperation, the teacher said, "Jacob, if you cannot care for yourself in school, you must stay after school and learn to do so."

Immediately upon hearing the words, "stay after school," Edith flew into a rage, in turn threatening and imploring the teacher not to keep Jacob after school. The child was so evidently distressed that the matter was disposed of by granting Jacob "another chance."

Puzzled, the teacher determined to try an experiment. The next day, when for the purposes of experimentation, a child was told that he might be obliged to "stay after," Edith's reaction was the same as that of the previous day.

The problem faced the teacher squarely. What was the cause of the child's terror; how was it to be overcome?

Patient questioning elicited the information that there were "things" in the cellar of the school. Invitations to investigate, reiterations that there was nothing to cause alarm, were fruitless. Finally, a general invitation to investigate the lower regions of the school was issued. Fortunately for the teacher one or two brave souls accepted and the ranks were finally swelled to four, Edith making the hesitant fifth.

The custodian very kindly took a hand in the project, acting as guide and host. Edith clung to the teacher, but went bravely forth to the boiler room, the fan room, etc., the custodian very kindly opening all doors to demonstrate the fact that no enemies of mankind were secreted behind them.

The results were most gratifying. A free and full discussion of the "Janica's" premises followed the next day. Edith, strangely enough, became a heroine in the eyes of the children, accepted the honor "thrust" upon her, and seemed very happy.

Subsequent experiments proved that Edith had conquered her fear, and the experiment proved one of the most valuable bits of the year's work.

## 4.

George was seven years old and in the second grade. Every time the school nurse came to the room to look at the children's teeth, George became very unruly and would not allow the nurse to examine his teeth. Several methods were tried to see if he would submit to the examination, but he refused and, in fact, caused so much trouble that the teacher and nurse finally decided to let the matter rest for awhile to see how the affair would turn out.

The other pupils in the class, at the suggestion of the teacher, formed a dental club. All members of this club promised to brush their teeth at least three times a day and to accompany the nurse to the clinic nearby when-
ever it was necessary. A great deal of enthusiasm was aroused by this club and George began to feel that he was left out. He asked the teacher if he might join, but hestitated about complying with the rules. A few days after his request, he approached the teacher and told her that he was quite ready to conform to the rules. He went to the clinic and took such an interest in the club that he was made president.

Through communication with his mother, the teacher learned that previous to his entering school, George had gone to a dentist who had hurt him. After that he would not allow anyone to touch his teeth, and he thought the school nurse meant to do so. However, his interest in the club overcame his timidity in this matter.

## 5.

The supervisor of art arrived as the kindergarten children were pouring into school, many of them filled with terror because of the stories older children told them about what the Chinamen might do to them at the laundry at the corner.

To quiet their fears the supervisor began quickly to draw on the blackboard, then on paper. First he drew and painted Chinese lanterns in gay colors, then Chinese costumes, then the peculiar Chinese face. Fear in the children was turned into amusement. He then suggested to the teacher that she should take the children on an excursion across the great sea to the land where these strange people lived.

One day the kindergartners built from their blocks, boards, and available material in the room, a great ship into which they climbed and played going to China.

Another day they drew, cut and painted Chinese costumes, after having seen exhibits loaned from personal sources and the museums. They even costumed themselves in some of these creations.

Another day they painted the gay lanterns, fans, and other articles used by the Chinese people.

Other days they spent in drawing the Chinese faces
and comparing the location and attitude of the features with the English features so familiar to most of them.

These are the high points in the story stated briefly, but the result was confidence in, rather than fear of, the Chinese laundry man at the corner.

## 6.

Upon calling at the home of a child one day a teacher was surprised and interested to see her small pupil advance cordially and surely down the stairs to greet her, and then, for no apparent reason, scream with terror and retreat up the stairs.
"Oh, that's nothing," said the mother, "Come, dear, it's only a bad feather; mother will throw it away." And she did, the child accepting the situation and advancing the full length of the stairs.
"She's awfully afraid of feathers," said the mother, "any time I don't want her to go into a room, I just put a feather duster in the middle of the floor, and she wouldn't go in for any money."

The teacher remonstrated with the mother, in an attempt to show her the inadvisability of her course of action, but in vain. "There's no harm in it, and it saves me bother," was her answer.

So the solution was attempted in the school room. First a single feather was left on the sand table. Sadie was quick to see it and retreat. The teacher intervened, calling the children together and allowing them to comment on the incident.

Various children held the feather in their hands. Finally Sadie plucked up courage and did likewise.

Feathers were present in that kindergarten for several days, and although our small friend Sadie never failed to remark on one, she lost her fear of them.

## 7.

It is only natural to expect some little trouble when the large southern grasshopper is presented for dissection for
the first time. However, the matter was very carefully planned and the class as a whole kept its feelings very much in check.

One girl was so frightened that after ten minutes it seemed best to allow her to leave the class for that period. She returned after school and explained that the thought of a grasshopper made her almost ill with terror. We traced this back to an incident in early childhood when she was playing with one and it jumped to her neck. She was unable to brush it off and became panic-stricken. Since that time she had hated and feared grasshoppers.

We told her that the only way to conquer that was to face it. She understood the unreasonableness of the thing and really wished to overcome it, but found the emotional strain most trying.

We first persuaded her to carry a bottle in which a grasshopper was preserved. Next she carried one on a dissecting pan. On the next day she was surprised to find that she did not feel such strong emotions against it. Therefore, she touched it with forceps and scalpel until that action inspired no fear. Finally, she began drawing a lateral view of the animal and before long was actually enjoying the work.

In fact, it resulted in a real enthusiasm for biology in general.

At the last lesson, she said, "How silly I was to let a little thing like that bother me, but it seemed awful then."

## FEARS CAUSED BY PHYSICAL HANDICAPS OR DIFFERENCES.

## 8.

About five months before the close of school last year, I received a pupil into an industrial class (all boys). He was defective in speech and deformed in body.

When he talked, his eyes seemed fixed upon something just above your head. His hands were not developed beyond those of a two year old child. Unable to grasp
any object (even a pencil) without using both hands, he was the center of curiosity of others. Whenever he met the gaze of another, his head would lower as if in shame of something beyond his control. He did not like to talk in class or to associate with other boys, probably through fear of being the subject of an unkind remark. His backwardness was greatly increased by a report card bearing only " $D$ " and " E " ratings from a teacher in another district who probably did not understand him.

After talking with him privately, I learned that he had knowledge beyond that of other pupils in the theory of automobile mechanics. I utilized this in science lessons and made him feel that he alone could tell us some things which we needed to know. He was given charge of the tool room in the machine shop, and assisted from time to time there by answering questions.

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Dominic was sensitive of his height. He was nearly sixteen and the smallest boy in the class. His brothers were all large. One was on the high school football team. He was tired of being teased and felt inferior to all associates.

I had been reading a new biography of Napoleon and was thrilled anew at the power of the "little corporal." I told part of the story each day, stressing the fact of his small stature.

The class loved the story and when we decided to play the story, Dominic was chosen Napoleon. From that time he seemed to gain confidence in himself that was observed at home and in school.

## 10.

P —— is a bow-legged and unattractive child. It is said that a physical infirmity makes one either sweeter tempered than most of one's fellows or very much more bitter. P- had the misfortune to allow the latter to happen to her. She was very grouchy and cross in school and refused to go to the blackboard or to answer questions
orally. She was, as her written papers proved, not a bright child either. On the rare occasions when she did answer orally, she mumbled her answer so that the teacher was obliged to have her repeat the answer more than once, a fact which called P - - to the attention of her classmates and irritated her so much that she became very disagreeable. It was a case of sensitiveness because of a physical defect, of lack of ability, and of laziness in which she had probably indulged because of her infirmity.

The teacher obviously did not make a class problem of her, but continued to treat her as she did the other pupils. In an unobtrusive way she moved P - - to the row of seats which was near the wall and the blackboard so that P-was very near the teacher's desk and only a step from the board, and so was not in the public eye in reaching it. She allowed P - - to sit while answering, but, without comment, she insisted that every other pupil stand while reciting. P- discovered that she was making herself conspicuous by being the only one to keep her seat when reciting and corrected this herself. The teacher chose questions which she thought suited P -_'s intelligence and found that she answered these without the mumbling with which she had covered up her mistakes before.

P - is losing her grouchy and uncooperative manner in class and seems to be becoming a little sweeter and more content.

## 11.

A girl, a member of the third-year class, had, some time in her childhood, infantile paralysis. Her left hand and arm are undersized and, probably because of lack of proper exercise, the rest of her body is decidedly large, so that her appearance is not the best. Of course, she is conscious of it. In the English class each pupil is expected to talk for about five minutes every two weeks, being introduced by the chairman and standing in the front of the room.

At first this girl could not be persuaded to take any more active part in the class than to listen. Then she
agreed to act as the secretary of the day. This necessitated her going to the front of the room to read the report. The teacher had a talk with her, and discovered that what she had suspected was true; the girl was too conscious of her appearance to do as her classmates did. She agreed to give a talk the next time standing at her desk. The talk was interesting, the class appreciative, and the girl gained a little self-confidence. The teacher asked her if she would try to stand at the front of the room the next time. She consented, and ever since has taken her turn with the rest of the class, comfortable, at ease.

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Boy was surly and would not talk - found it was because he was ashamed of his changing voice. Told him all boys' voices changed - perfectly natural occurrence - nothing strange or unusual about it. Had him sit in the room when I had a higher grade with older boys. He seemed quite happy and content when he found that most of the boys had the same difficulty he had in trying to keep their voices from cracking. They did not mind in the least - so he decided he would not and changed his whole attitude.

## FEAR OF RIDICULE BECAUSE OF DIFFERENCE IN LANGUAGE OR NATIONALITY.

13. 

John comes from an Italian family. They don't speak English at home; therefore John is not as yet very familiar with the language.

His parents are honest, hard working people, trying to the best of their means to educate their children. His mother is very sympathetic and helpful. At first I thought John had no reading ability, but when I started to keep him after school to help him, he showed a wide knowledge of phonics and a profound understanding of the subject matter. He has wonderful power of correlation.

The reason why he reads so poorly when reading out loud before the entire class is because of his sensitiveness, and timidity. He is afraid of not reading correctly. When I once asked him why he didn't read out loud, he answered very sweetly and shyly, "I am afraid I will not talk nice and then the boys will laugh."

In order to overcome this fear of not reading correctly, I had to promote in him the knowledge of his own power in reading. In this project I also employed the help and cooperation of the boys in the class. Besides praising his reading myself, very often one of the boys will raise his hand and say, "Hasn't John read nicely?" Of course, that makes the situation of reading out loud very pleasant to John, and naturally he is beginning to show marked improvement in oral reading.

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## Case.

A large boy in this country only a short time, and sensitive because of his speech and size as compared with others in the class. Although he needed practice in reciting more than the others, he hesitated about trying to make a full recitation, and was willing to be overlooked.

## Treatment.

First, a talk to the class, when he was not present, about helping the new arrivals in this country and calling attention to our predicament should we be transplanted to a foreign land.

Second, the study in geography of the country from which he came, stressing the point that all of us were fortunate in having some one who could give us first-hand information about the country. This, as I hoped, seemed to please him. Here was something he knew more of than the rest of us, even myself.

Standing at the map and using a pointer, he showed us where he came from and traced his journey here. I allowed the children to ask him questions. These he
answered. Gradually he lost his self-consciousness when he found that he could make himself understood. Each day he told us something more about his former home.

At recess the children crowded about him, being impressed with his unusual experiences. No longer was he the sensitive, diffident boy who came to us.

## 15.

I- was a fifth grade pupil, fifteen years of age. Besides being over-age, he was very much over-size. He had been in this country only two years and, due to his lack of knowledge of English, he was among a group much younger and smaller than himself.

This boy disliked taking part in any of the oral work or in anything where his size was prominent. I had made it clear to the members of the class in his absence that they must never do anything to embarrass this boy as he was very sensitive about his age and size. I explained that he had a very good reason for being in the grade, and that after he had learned more English he would travel much faster. I gave him duties of such a nature that he could be apart as much as possible from the regular formation of the smaller ones. I managed to have something for him to do before school, after school, and at recess. He sat where he would be the least conspicuous. By these little considerations he seemed very much happier and seemed to forget after a while that he was overage and over-size.

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Individual cases of fear need careful thought and care on the part of teachers. The following is an interesting case.

A girl was admitted to my home-room, grade eight class from Canada. She was almost seventeen years old. The average age in my class was thirteen years.

She had missed much schooling in Canada. She looked much older than the pupils in this class and acted as if she knew much less. I said nothing to her for a few weeks, giving her time to adjust herself. She was excel-
lent in conduct, but acted in her lessons as if she were completely frightened.

I spoke with her after school. She had an admirable character. She told me frankly that she wanted more education, but that she guessed she had better leave school as she was too old. She said she was afraid to recite, afraid of making a fool of herself, afraid she would fail, afraid others were laughing to themselves at her. She was afraid in the mathematics class, as different methods were used in Canada. She had had no American history. Her English was poor as she spoke French in Canada. This last fact gave me a cue.

I have a great love of French. I talked French with her a little, but she soon surpassed me in fluency and facility. She had a fine accent of real French, not of Canadian French. My home-room class was studying French.

I told this girl to forget all her fears and to give up all idea of leaving school. I went over each fear she mentioned and showed her how both of us could meet and conquer them. I showed her how she might not be as capable in certain subjects as were other pupils, but that she was superior to them in other subjects.

She began to take courage and quoted a poem which she said she often said over to herself when frightened:
> "La vie est brève Un peu d' amour, Un peu de rêve, Et puis bonjour. La vie est vaine, Un peu d' espoir, Un peu de peur, Un peu d' haine Et puis bonsoir.

La vie est belle
Elle nous sourit
Et telle qu'elle Elle nous suffit."

She said she often said a little prayer to herself.
I explained that she should be able to conquer the world with such thoughts.

Then I did my part. Much rests in the hands of a teacher. I spoke to her mornings in French. How the children began to admire her ability! She began to feel her own power.

She graduated after a happy year with commendable marks in all subjects.

## FEAR BASED ON UNFORTUNATE HOME CONDITIONS.

17. 

Home conditions in which children are brow-beaten by their elders sometimes develop an inferiority complex which completely undermines initiative.

I remember the pathetic case of a first year girl who never recited without an interrogative inflection at the end, and would steadfastly say, "I don't know," if an opinion were required. In writing, however, she showed independence of thought and real capability. When questioned on this subject, she said, "It is different when I am writing; no one is going to tell me I am wrong." I then found out that three older brothers and sisters always discarded her opinion as worthless, and frequently made fun of her ideas. I tried to convince her that, if her ideas were worth writing, they were worth speaking, and I assigned her a topic to look up and report to the class. It was a new topic for the class, so she spoke firmly and confidently, conscious of her superior information. This one assignment really gave her back her self-respect as far as that class was concerned, and she improved greatly and later showed initiative and selfconfidence.
18.

A_ was a well-mannered, quiet pupil. Her written work was splendid, yet she never volunteered in class, never asked a question. When called upon she would
become so embarrassed as to sway, twist her dress, make several beginnings, choke, and then a quick breathless, "I don't know."

Her written work was so fine and her oral work so poor that I could not understand why there should be such a difference. I never scolded her; the class never gave her any reason for this show of timidity. It wasn't that she didn't pay attention. Her eye test proved that the trouble could not be her vision. There was no question of her copying her written work. It was honestly hers. She had no speech impediment. I could not place her difficulty.

Then, one day I walked to school with her. I asked A- - if she would like to come in and help with an Honor Roll Poster I was making. I said I hoped her name would be on it. Her reply was, "If I were my cousin, I would be on without a doubt. He is just as smart as I am dumb."

I wondered at that answer, and decided to put her name on for her lovely papers. She was so surprised and pleased that she seemed to take new heart. She looked at the poster with such wonder that I decided to pin up her good papers.

She told me that no one had ever thought her "smart" before. I gathered that her cousin was the pride of the family, as boastful as she was shy. She was fairly starved for praise. Since then I have just showered her with compliments. They are building up her self-confidence and she has begun to show sparks of initiative. She has overcome that feeling of inferiority.

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This boy had never given an oral composition in class. Frequently said "Don't know" to avoid pain of making a recitation. Written work revealed mentality of high average. Had been "given up" by teachers of previous grade as hopeless in English classes. After several months of rather unsuccessful study, boy's mother called upon me - casual visit - had been sent for by brother's
teacher. Result of visit - discovery that cause was home treatment. Mother told of violent punishments for small boyish misdemeanors. This gave clue as to boy's trouble. Began process of giving boy an idea of the kindness in hearts of others. Class club was used (without knowledge of members) to get boy into friendly attitude. Boy given small duties, carefully encouraged, and appreciation of each act stimulated. Finally the test came. P - - was called upon in his regular turn for oral composition. (Previously, boy had refused to come forward.) Amazed all by coming to front of room promptly; with flaming face and rather indistinct voice, a title came, followed by a single (opening) sentence - then breakdown. It was impossible for him to go on. The most generous girl in class was purposely called upon to offer criticism. She rose to the occasion in superb fashion.

To quote her, "I think P- deserves more praise than any of us because it is so hard for him to recite. Can we not give him excellent for his effort?" Class agreed heartily (teacher too). This was the opening wedge.

For the rest of the year P - - took his turn in all recitations, occasionally having a hard fight with the old attitude (due to difficulty at home at the time) but actually winning. He will never be a brilliant public speaker, but he will recite in class.

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J-_ lived with grand parent and relatives. The rigid, Puritanical form of discipline used in the preceding generation was enforced by the grandmother. "To be seen but not heard" was enforced to the letter. A silent gloom and little laughter pervaded the atmosphere.

Seeming indifference during the music periods necessitated giving the boy a low mark. A relative complained and argued the fact, stating that the boy loved music and possessed a fine soprano voice, but was timid due to his training at home; also that it was the custom for him to lead a Sunday home concert.

Therefore, using the information as a basis, I asked for groups of girls to volunteer in singing songs for review.

The boys were asked to compete with them. Our good soprano offered with the third group of boys. Later he sang solos and gradually became a leader in the musical activities of the school.

He became interested in orchestral music and is now an excellent clarinetist in high school.

## 21.

G - is a dear little fellow who was born in Scotland. His mother is an elderly Scotch woman with a very broad accent. She seems to have a very timid, retiring nature herself.

G- is an only child, and mother loves him so much, I think she just keeps him all to herself and does not encourage him to go out to play with the other children.

The first day of school, he clung to his mother, screamed when she tried to leave him and actually fought when I tried to take him away from her. He is afraid to do anything unless mother is with him. He would not go to the Forsyth with the nurse to have his teeth fixed, unless mother went also.

He is so timid and nervous in school that even though he is a bright boy, it was impossible at times to get him to read. I have seen him turn white when I have called upon him. Then he would bury his head in his book, and read so low I could scarcely hear him.

I call him as often as I can in a reading lesson, and urge him to make his voice as big as possible. I stand as far away from him as I can and ask him to make me hear him. Gradually he is getting accustomed to the sound of his own voice and praise is helping him to gain more confidence. He plays more with the children, which is helping him greatly.

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22 .
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When little Rose was asked to come forward in school to recite or take part in any activity, she would always hang back, and when pressed, would respond in a rather
sullen manner. For a time, the teacher wondered at this attitude; the child seemed to be actually afraid to appear in front of the class.

The teacher knew that ignorance or laziness was not the cause, for Rose's written work was always satisfactory. Finally, the teacher questioned the girl's chum, who revealed the fact that Rose was afraid of being laughed at by the children because of her shabby and old fash-ioned-clothes. (She was of a poor family of immigrants who had not been in this country very long). In the first school she attended, she had been ridiculed for her funny "get up" as the other children had called it. Now, on coming to this school, Rose developed a fear that if she were called upon to stand in the front of the room, the same thing would happen. She feigned sullenness when in reality she was genuinely afraid.

The teacher devised a plan to overcome the child's fear. She chose Germany for her next topic in social study. Now Rose was German, and the pupils unanimously elected Rose to head the activities in this line of their work. They now looked up to her in a new light; she could tell them things that they didn't know anything about. Rose responded beautifully; she told them many interesting stories of her early life in Germany; she brought in dresses that had been brought from there, and forgot herself completely. Reading and dramatization followed, Rose taking a prominent part in both. Her popularity gave her confidence in herself; she now felt the children were her friends and not her enemies.

## MISCELLANEOUS.

23. 

I have a specific example in the case of a little girl who entered the eighth grade in September. Her previous teacher warned me that she was subject to attacks of violent weeping, if criticised or corrected for any reason.

When she appeared, I found a highly nervous child of thirteen years, with a brusque, rather unpleasant manner when addressed, and pitifully embarrassed attitude in recitations.

As the work in English progressed, she objected to standing before the class to give her oral compositions, but was willing to recite from her seat in the rear of the room. This concession could not be made for her, as the power and poise gained by this exercise would be lost.

I waited a few days and then asked all the pupils in the class to write me a letter, telling me their school troubles, at the same time assuring them that their confidence would be respected.

In Mary's letter I found what I had already deduced from the behavior; self-consciousness and sensitiveness to such a degree that it was an obsession. She could hardly express herself on paper.

When we were a little better acquainted, I had a talk with her, assuring her of my sympathy and understanding, but also stating that it was my duty to help her overcome this abnormal condition and that she must do her part.

Much to my surprise, she said she loved her school, but was afraid of all the experiences that are a part of the routine, and she always had been.

I then talked with her mother and we planned to help her.

Throughout the year she has been given little tasks, such as passing books and material which brought her before the class, also little commissions to other rooms when a verbal message was required.

Gradually she has gained confidence in herself, has done the work of the grade without weeping and without objecting to any phase of it.

She is still sensitive and always will be, but she is delightfully responsive, and she is no longer "afraid."
24.

Children are sensitive of the judgments of their peers, and most of them do not want to be considered different.

American boys are especially sensitive about being considered lovers of the beautiful or poetic. They fear that it might detract from their manliness.

I knew a boy who had a notebook full of fairly good verses mostly on abstract and introspective subjects. Some one in the class told of the book and the boy at first denied that he had written the verses and, of course, refused to read or to have them read. In private, however, he finally acknowledged their authorship and admitted that he liked to write poetry and poetic themes. I went over these poems with him and picked out some especially good sentiments and expressions. Then we talked of poets and artists who had been the manliest of men and finally he came to see that a man is the more complete for having a love of beauty, of literature and art, and most fortunate in having the power and the desire to express himself in them. Then this would-be football captain selected some of his verses and read them to the class, and was pleased and surprised to find that the boys felt admiration instead of derision for his poetic effusions.

He wrote songs for them and verses to celebrate victories and events, and lost all sensitiveness over his poetic capabilities.

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25 .
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I recall the case of a timid boy. He came to me for third year history. He seemed incapable of reciting or passing a test. Before the end of the first month I grew to expect his failure and to observe him carefully. He used to steal furtive glances at me when he expected to be called and showed signs of nervousness and of fear of the result.

Sometimes when he tried to talk, he stammered. When he failed he showed no resentment but seemed crushed and hopeless; occasionally there were traces of tears.

I invited him to speak with me after school early in October and asked him if he found any difficulty in the subject. He said he did not; he could understand the work easily, but when the time came to recite, he remembered none of it. I suggested that I should not call on
him for two weeks, but that once every day he recite to himself, as he chose, as he would recite to me if I had called him. When the time had expired, I spoke to him again to tell him when called to get up slowly and deliberately, take all the time he needed, make his recitation as brief as he pleased, and, at the first feeling of confusion to sit down.

I advised him further to make his test answers brief and clear as he could. For three months it was impossible to regard his work as in any fair way satisfactory; for the next three months it was worth C ; for the last three months of the year the boy earned a full honest C . He had conquered his fear of failure.
26.

A great many children are subject to conditions which breed in them timidity, and consequently undermine their initiative.

I had a child in my room who had a fear of grown-ups. When any other teacher or I spoke to her, she was shy and answered in monosyllables. On observing her in the yard, I found that when there was no teacher in the yard she was one of the ring leaders. When a teacher approached, she would break from the group and stay by herself in the corner of the yard. I found on questioning her mother, that N - - was never near when older people visited. If asked to come into the room, she would almost have to be dragged in.

To develop in her initiative and ease of manner with her elders, I began to send her on errands to different teachers' rooms. She was asked to repeat a question and return with the answer. At first she dreaded this and often came back with incorrect answers, hoping she would not be sent out again.

Later she was anxious to go and has overcome her fear of grown-ups, especially teachers.
27.

Edward, the only boy in a large family of girls, was often given his sister's out-grown shoes. The children
often remarked that he wore girls shoes and, although the subject was always changed as quickly as possible, he showed that he was sensitive, and was always delighted when he could wear overshoes.

One morning he came in crying, hugging a cast-off rain cape. Boys had laughed at him on the way to kindergarten and he had taken it off. At the time, the game of traffic cop was very popular and, when someone asked to play it this stormy morning, we talked about the kind of coat the traffic officer wore on stormy days. Several of the children knew that the officer's coat had a cape, but none of the boys had that kind of coat. The desired coat was made by using Edward's cape and another boy's rain coat.

Every stormy day that followed Edward arrived gaily announcing that he had brought "the traffic cop's cape."

## SCHOOL DOCUMENT NO. 3-1928 BOSTON PUBLIC SCHOOLS

## SUPPLEMENT TO

## A GUIDE TO THE CHOICE OF A SECONDARY SCHOOL



MARCH, 1928

CITY OF BOSTON
PRINTING DEPARTMENT
I 928

In School Committee, March 12, 1928.
Ordered, That the accompanying pamphlet "A Supplement to a Guide to the Choice of a Secondary School" is hereby authorized as a school document, and that ten thousand $(10,000)$ copies be printed. Attest:

ELLEN M. CRONIN, Secretary.

## LIST OF LATIN. HIGH AND VOCATIONAL SCHOOLS.



## ACTIVITIES COMMON TO ALL HIGH SCHOOLS OF BOSTON

Courses of Study of the various high schools differ one from the other because of the varying purposes of these schools, but the high schools have in common the following activities, intended to contribute to the all-round development of the pupils and to make school life more interesting.

All high schools attended by boys have work intended to build up physical stamina. Of this work military drill is required. Athletics and play of a physical nature, under careful supervision of coaches and teachers, are elective activities taking place after the school session has closed for the day.

High schools attended by girls offer gymnasium drills in place of military drill; interclass athletics instead of competitive athletics and similar play hours under the same sort of careful guidance as exists in schools attended by boys.

Music is taught in all the schools. Musical activities include opportunities to gain experience in choral practice, orchestra, band, fife and drum corps, as well as class instruction on various musical instruments. Not all of these activities are represented in every school, but some of them are to be found in each school.

Many of the schools publish their own monthly magazine and give opportunities for the forming and conducting of literary, science, dramatic, athletic, social and musical clubs under the management of the pupils themselves. These various clubs contribute much to the educational and social life of the pupils.

All schools furnish lunches in convenient and sanitary lunch rooms, at cost prices.

## PUBLIC LATIN SCHOOL (Boys)

This school, the first and for nearly half a century the only public school in the town of Boston, was established April 23, 1635.

Its purpose is to prepare boys for college through the medium of the Greek and Latin classics and it is, therefore, open only to boys whose parents or guardians present a written statement of their intention to give such pupils a college education.

The course of study, which is arranged with the requirements of the best colleges distinctly in view, includes English; Greek or German, Latin, French, History, Mathematics, and Physics. The boy who is expecting to enter one of the learned professions, such as law, education, medicine, theology, or any other occupation in which the literary note is dominant, will find his needs well served in this school. The aim of the school is to give real mastery of a very few fundamentals, and the power to think and to work. The boy who completes his course knows how to study.

The school has two distinct courses, one four years in length for boys who have completed the eighth grade, and the other six years in length for boys who have completed the sixth grade. Boys who have completed the ninth grade are expected to undertake the work of Grade X.

Boys are admitted to the six-year course without examination, if their record for Grade VI shows an average not lower than B in English, Arithmetic, History and Geography. Examinations for admission to the six-year course are held in the school building on the first Friday in June and on the day preceding the opening of school in September.

Boys are admitted to the four-year course without examinations, if they have a yearly mark of A or B in each of the four subjects, English, Mathematics, History and Geography. Examinations for admission to this course are held in the building of the Teachers College on the day preceding the opening of school in September.

The school is in session from 9 to 2.30 o'clock.

## THE GIRLS LATIN SCHOOL

According to the regulations of the School Board, candidates for admission to the Girls Latin School must present a written statement from their parents or guardians of their intention to give their daughters a college education. This makes it clear that the Girls Latin School is maintained for the express purpose of fitting girls for admission to college.

There are two regular courses of study; one covering a four-year-period open to pupils who have completed the eighth grade of the elementary school; the other covering a six-year period open to pupils who have been promoted to the seventh or a higher grade. These courses consist of Latin, Greek, French, German, History, Mathematics and Science. There are no commercial or practical arts courses. The emphasis as the name of the school implies is placed on Latin. The work of both courses has been so planned as to be within the grasp of pupils of average ability who enter fully prepared and fully resolved to subordinate other interests to their school duties.

Examinations for admission to the six-year course are held in the Girls Latin School building on the first Friday in June and on the day preceding the opening of school in September, but girls promoted to the seventh or higher grade who present evidence of satisfactory scholarship in the school last attended will be admitted without examination. The scholarship requirement is met by a general average during the year preceding admission of at least $B$ in the following essential subjects: Reading and Literature, English, Spelling, Arithmetic, Geography and History.

Examinations for admission to the four-year course are held in Teachers College building on the day preceding the opening of school in September, but graduates of an elementary or intermediate school and girls promoted to the ninth grade of an intermediate school who present evidence of satisfactory scholarship in the school last attended will be admitted without examination. The scholarship require-
ment is met by an average of at least $B$ in the following essential subjects of the eighth grade: English, History and Civics, Foreign Language, Mathematics, Science, Physiology and Hygiene, and Geography.

If a girl wishes to enter college or an institute of technology the Girls Latin School is a natural and proper school for her to choose. Only those girls who have some reason to believe that they will be successful in the study of Languages, Mathematics, Science and History should attempt the work of the Girls Latin School. Their ability in the study of English Literature, Grammar and Composition; of American History and of Arithmetic, should be at least average, for the demands made upon the pupil by the Latin School Course are considerable.

The school is in session from 9 to 2.30 o'clock.

## BRIGHTON HIGH SCHOOL (Boys and Girls)

The Brighton High School was founded in 1841 and is one of the oldest public high schools in the United States. Its purposes are to fit pupils for college, normal school, or scientific school, to give a thorough secondary education, to prepare for business, and to train boys to enter the automobile industry.

The courses offered are:

College Preparatory
Technology Preparatory Normal School Preparatory Auto Mechanics (Co-operative)

An opportunity is given in most of these courses for girls to elect Cooking and Sewing.

The Co-operative Industrial Course in Auto Mechanics affords students an opportunity of taking a very carefully planned course of training. The proximity of many of the most important service stations in the city affords unusual opportunities for part-time employment. The course is open to qualified pupils from all parts of the city.

Graduates of the school have attended Harvard College, Harvard Engineering School, Boston University, Tufts, Brown, Dartmouth, Massachusetts Institute of Technology,

Massachusetts Agricultural College, New Hampshire State College, Wellesley, Jackson, Simmons, Smith, Mount Holyoke, Vassar, Wheaton, and several other colleges.

The school is in session from 8.45 to 2.19 o'clock.

## CHARLESTOWN HIGH SCHOOL (Boys and Girls)

The school prepares girls to enter the Teachers College of the City of Boston, and both boys and girls to enter other institutions of college grade.

The courses offered are the:
College Preparatory
Commercial
Electrical (Co-operative)
The Co-operative Industrial Course receives into its ninth grade only boys who reside in Charlestown. It receives into the tenth grade boys who have completed their ninth grade instruction in electricity in some intermediate school which conducts an electrical course approved by the Board of Superintendents for entrance to the tenth grade of the Charlestown High School. This is a five-year course which aims to give trade training in electrical work by a combination of school instruction and actual training on the job. According to the demands of industry, as many boys as possible are placed out to work with co-operative employers during the tenth, eleventh, and twelfth grades. During these grades each boy attends one week of straight academic instruction and spends the alternate week with a co-operative employer or in the school shop. The fifth year is spent at work with an outside employer, or in case of dullness in outside employment a boy reports to the school shop steadily until outside employment is found for him.

The Spencer Memorial Annex is a building set apart for advanced academic and shop instruction in electrical work for the tenth, eleventh, twelfth and thirteenth grades.

The Commercial Course gives a thorough preparation for those business pursuits, which demand a preliminary school training. Typewriting is offered in the tenth grade.

The school is in session from 8.58 to 2.30 o'clock.

## DORCHESTER HIGH SCHOOL FOR BOYS

The purpose of the school is to prepare pupils for entrance to colleges, technical schools, or other institutions of higher learning. It also prepares for business life in the various forms of accounting, secretarial work, and merchandising; and those whose tastes are manual rather than academic, for industry.

The following courses are offered:

| College Preparatory | General |
| :--- | :--- |
| Technology Preparatory | Woodworking (Co-operative) |
| Commercial |  |

Boys preparing for college or technical schools are offered the usual courses in preparation for institutions which admit by certificate and also for those which admit by College Entrance Board Examinations.

The Commercial Course prepares boys for the various phases of commercial life. In this connection many of the pupils are offered opportunities for practical experience in salesmanship in the large retail stores of the city and for inspection of production in mills. This course also prepares pupils for admission to colleges of business administration.

The Co-operative Industrial Course offers instruction in wood-working, the particular feature being cabinetmaking and furniture construction. This course prepares boys in drafting, designing, machine operating, bench work, and finishing in connection with cabinet-making and furniture construction.

The school is in session on each school day from 9 to 2.30 o'clock.

## DORCHESTER HIGH SCHOOL FOR GIRLS

This school was established to meet the needs of Dorchester girls of high school ability and is open to all girls of the district, properly prepared, and to girls in adjacent
districts when there is room. It is a general or comprehensive high school and offers a variety of courses suited to different types of girl.

It affords the people throughout the district an opportunity to give their daughters a high school education to meet their needs without sending them outside the district or into the City.

The College Preparatory Course prepares for all colleges throughout the country, including the Teachers College of the City of Boston; the Normal Course prepares for the normal schools of the City and the State; the General Course offers a liberal academic foundation for pupils who are undecided whether or not they will continue their education. The school has a very efficient and well developed Commercial Course which prepares girls for secretarial, accounting, or salesmanship positions. It has a highly organized Art Department which offers a course in Art and Design. It has a practical arts course in sewing, dressmaking, costuming, and millinery, and a course in domestic science.

The school is in session from 8.40 until 4.30 o'clock.

## EAST BOSTON HIGH SCHOOL (Boys and Girls)

The East Boston High School is a general high school which aims to serve the community in which it is placed by giving its pupils adequate training for entrance to higher institutions of learning or for vocations, according to their needs, interests, and aptitudes; its program of character education cultivates the spirit of co-operation expressed in its slogan, "Every-Body Helps," and in its motto, "This school a better school because I am here." The fine situation of the school and its unsurpassed arrangement and equipment are such as to appeal to parents in offering exceptional and up-to-date advantages for physical, mental, and moral training.

The courses offered are:
College, Technology and Normal School Preparatory
Commercial
Metal-working (Co-operative)
Household Science and Arts
General

The College, Technical and Normal School Preparatory Courses are so planned as to fit pupils successfully for such institutions as Harvard, Radcliffe, Boston University, Massachusetts Institute of Technology, Teachers College and the State normal schools.

The Commercial Courses fit for business and furnish adequate preparation for those who wish to become bookkeepers, stenographers, and clerks. A course in Office Practice offers special training for office occupations other than stenography; while a course in Salesmanship offers exceptional opportunities to pupils who are interested in department-store work, advertising, or other fields of selling.

The Course in Household Science and Arts is intended for girls interested in home-making and includes cooking, household accounts, menus, sewing, care of the home.

The Co-operative Industrial Course prepares boys for the metal-working trades and includes machine-shop practice, pattern making and foundry practice, and drafting.

The General Course is a combination of studies intended for those whose needs are not met by the courses indicated above.

The highest value of the school is the healthy moral atmosphere the home and the school have always united to maintain, and under the influence of which the "art of living" is placed above the "art of gaining a living."

The school is in session from 8.45 to 2.25 o'clock.

## THE ENGLISH HIGH SCHOOL (Boys)

The English High School is a general high school for boys, and receives pupils from all parts of the city. It was established by the School Committee in 1821.

The following courses are now offered:

| College Preparatory | Commercial |
| :--- | :--- |
| Technology Preparatory | General |

Approximately fifty per cent of the student body take either the College Preparatory, or the Technology Course.

These courses meet college entrance requirements, so that on the completion of the four years, a pupil by doing work of proper standard should be able to enter any college or school of technology.

Approximately fifty per cent of the graduates of the school enter the business world immediately, and the commercial courses give adequate preparation for secretarial, accounting and salesmanship positions. In all courses, promotion is by subject, so that a pupil passing in a portion of the year's work and failing in the other portion, is promoted in those subjects which he passes and ordinarily repeats the work in which there is a failure.

## College Preparatory Course

First Year.- Hygiene, English, Ancient History, French, Mathematics.
Second Year.- English, Latin, French, Mathematics.
Third Year.- English, Latin, French, Mathematics, Physics.
Fourth Year - English, American History, Latin, French, Mathematics, and Chemistry.

## Technology Preparatory Course

First Year.- Hygiene, English, Ancient History, French, Mathematics.
Second Year.- English, French, German, Mathematics.
Third Year.- English, French, German, Mathematics, Physics.
Fourth Year.- English, American History, Mathematics, Chemistry, French or German.

## Commercial Courses

First Year.- Hygiene, English, Community Civics, Mathematics, and any two of the following: French, Spanish, General Science, Clerical Practice.
Second Year.- English, and a choice of four of the following subjects: History of Commerce, French, German, Spanish, Bookkeeping, Commercial Geography.

Third Year.
Accountancy.- English, and a choice of four of the following: Chemistry, Bookkeeping, French, Spanish, Commercial Law.
Merchandising.-English, and a choice of four of the following: Chemistry, Bookkeeping, Drawing, French, Spanish, Commercial Law.
Secretarial.- English, and a choice of four of the following: Phonography and Typewriting, Drawing, French, Spanish, Commercial Law.
Fourth Year.
Accountancy.- English, American History, Economics, Bookkeeping, and a choice of French, Spanish, or Commercial Law.
Merchandising.- English, American History, Economics, Salesmanship, French or Spanish, and Commercial Law.
Secretarial.- English, American History, Economics, Shorthand and Typewriting, French or Spanish, and Commercial Law.
The school is in session from 9 to 2.34 o'clock.

## GIRLS HIGH SCHOOL

The Girls High School is a general high school furnishing instruction in all regular high school subjects. It offers preparation for college, for the Teachers College of the City of Boston and for the Normal Schools. It lays an excellent foundation for success in commercial and secretarial activities and in home economics.

The courses offered are:
College Preparatory
Teachers College and Normal School Preparatory

Secretarial
Accounting Merchandising

Office Practice
The College Preparatory and Teachers College Preparatory Courses are laid out to meet the needs of girls who intend to pursue their education beyond high school and to enter some profession.

The Secretarial Course equips a girl to become a stenographer or secretary in business and professional offices. Accounting opens the way to positions of bookkeeping, cost accounting and like clerical activities. Office Practice broadens the equipment of girls taking the Secretarial or Accounting Courses and teaches the pupils to manipulate the various machines in use in modern offices.

The course in Merchandising teaches retail selling and through the co-operation of certain business houses, offers a limited amount of actual selling experience at a nominal wage. This experience often leads to permanent positions after graduation.

In Grades IX and X an opportunity is offered to elect Sewing and Cooking.

Election of work and promotion are by subjects and not by course, thus greatly increasing

The flexibility of the pupil's program
Opportunities of success
Accommodation to the needs of the individual.
The school is in session from 9 to 2.30 o'clock.

## HIGH SCHOOL OF COMMERCE (Boys)

The distinctive aim of the High School of Commerce is to train boys for business life. To accomplish this end, the school works in two ways. First, it provides instruction in the history, conditions and principles of business; second, it provides opportunity for practical experience through aiding the boy to secure work at the Christmas season, during the summer vacations and at various other periods of the year.

During the first year a boy studies the following subjects: English, modern language (German, Spanish, or French) elementary bookkeeping, general science, mathematics (commercial arithmetic and algebra). During the second year he continues all these studies with the exception of general science. In its place he takes economic history and geography. He also begins typewriting.

In order that each individual may be specially fitted to take a definite place in the world of commerce, the pupil is asked to choose, at the end of the second year, one of three courses. These courses are

> Merchandising (Buying and Selling)
> Clerical (emphasizing Stenography)
> Accounting

Separate programs of study have been provided for these different courses, so that a boy will be well fitted to take up the particular department of business activity for which he chooses to prepare. Throughout the four years, regular class work is supplemented by talks given weekly by business men. Thus at the end of four years a boy knows a great deal about the essentials of business; he knows enough about some side of business activity to be of immediate use to his employer; and he has had sufficient practical experience to enable him to make an intelligent choice of the type of career for which he is best fitted, thus guarding against the mistakes so likely to attend complete inexperience.

The school is not narrowly vocational. Here, as in the general high school, the pupil is taught to appreciate the higher ideals and developments of modern civilization; he is trained to be not only a business man but an educated and useful citizen.

The opportunities in business are many and varied. There is always a great demand for boys with good school records who have specific business training. The constant aim of the school is to make it of as much value as possible to its pupils and to the business men of the city.

Any elementary or intermediate school graduate who desires either to enter business life directly from high school or to continue his study of business in higher institutions, should consider the aim, resources, and advantages of the High School of Commerce.

The session is from 9 to 2.32 o'clock.

## HIGH SCHOOL OF PRACTICAL ARTS (Girls)

The High School of Practical Arts offers a course in general academic studies together with highly specialized vocational training. During the first year the course is the same for all the pupils. At the end of this year the pupils are required to choose one of the following courses:

| Domestic Science | Art |
| :--- | :--- |
| Dressmaking | Retail Selling |
| Millinery |  |

In Domestic Science instruction is given in selecting, purchasing and preparing foods; food values; invalid cookery; the planning and furnishing of a house; the care of a home, and laundry work. This course gives excellent preparation for employment immediately after graduation in supervisory work in lunch rooms and food shops.

In Dressmaking the students are taught cutting, fitting and finishing clothing. In Millinery they are taught the processes of making and trimming hats. These courses give excellent preparation for work immediately after graduation in dressmaking and millinery shops.

The course in Art is closely related to all of the other courses. It offers very complete preparation for higher schools of art. Many of the graduates of this course, however, find employment directly after graduation in designing and decorating.

A course in co-operative Retail Selling is also offered. This course aims to give thorough training to girls who expect to seek employment in the large stores. During the last two years in this course the girls spend one week in school and one week in the store, alternating throughout the year. They are paid a regular wage for their work in the store.

Graduates of the High School of Practical Arts are admitted to all of the Massachusetts State Normal Schools, Physical Training Schools, Kindergarten Training Schools, Boston University College of Practical Arts and Letters and Training Schools for Nurses.

The school is also directly related to the home by a plan of home project work; that is, all pupils are expected to
perform at home regular and useful tasks, the selection of which is left to them, with the limitation that they must be of practical value. These tasks receive credit points for graduation.

The school is in session from 8.45 to 2.15 o'clock.

## HYDE PARK HIGH SCHOOL (Boys and Girls)

The new high school building to be opened in September 1928 is located on Central and Metropolitan avenues, near Greenwood square.

In addition to the usual classrooms for academic subjects, there are shops for sheet metal working, pattern-making and moulding, and for machine shop practice. There are two rooms for machine and architectural drawing, a printing shop, a model suite for household arts, a millinery and dressmaking shop, a gymnasium for boys and one for girls.

Eight courses are offered as follows:

> College Preparatory (for boys)
> College Preparatory (for girls)
> Technology Preparatory
> Normal School and Teachers College Preparatory Commercial (for boys)
> Commercial (for girls)
> $\left.\begin{array}{l}\text { Machine Shop } \\ \text { Drafting }\end{array}\right\}$ Co-operative
> General (for girls)

The Commercial Course for boys, in addition to commercial studies may include some work with tools, patternmaking, drafting and printing. The Commercial Course for girls prepares for shorthand, typewriting and other office work. If desired, it may include printing, cooking, dressmaking, millinery and work in the art department. The Part-Time Industrial Course is intended for boys who wish to learn the trade of machinist or draftsman. After the first year, boys work at their chosen trade on alternate weeks. The General Course for girls includes studies and work in practical arts and vocational art.

The school is in session from 8.20 to 2.20 o'clock.

## JAMAICA PLAIN HIGH SCHOOL (Boys and Girls)

The school offers the following courses:
College Preparatory
Teachers College and Normal School Preparatory
Technology Preparatory
Commercial
Agricultural (Co-operative)
The subjects taught in the first four courses are those laid down by the Boston School Committee for all general high schools.

The Agricultural Course given in Jamaica Plain High School is the only such course given in a Boston high school. The pupils in this course are trained in the fundamentals of Agriculture. The subjects studied during the three-year course are Vegetable Gardening, Poultry, Horticulture, and Landscape Gardening. Opportunities are given for practice on nearby estates, Franklin Park, Arnold Arboretum and the farm of the Boston State Hospital. Vacations are spent working under progressive agriculturalists gaining experience. An opportunity is given for preparation to enter the Massachusetts Agricultural College and other similar colleges.

The school is in session from 9 to 2.45 o'clock.

## MECHANIC ARTS HIGH SCHOOL (Boys)

The Mechanic Arts High School is a technical high school and is intended to prepare boys to enter those vocations which require some mechanical experience. It does not fit pupils for any particular trade, but it does give a training in shop work and drawing that forms a good preparation for many mechanical pursuits. Only boys with considerable mechanical ability should select this school.

The courses offered are:
Course A (Shop or Mechanical Course)
Course B (Technology Preparatory)
It should be noted that boys may enter Northeastern University or Wentworth Institute from either course.

The same subjects are taken by all pupils during the first year, after which a choice is offered between Course A and Course B.

Course A includes in the first three years Applied Mathematics, English, Science, Civics, Industrial History, Woodworking, Pattern Making, Forging, Sheet Metal Work, Machine Shop Practice, and Mechanical Drawing. In the fourth year, in addition to Surveying, Economics, Chemistry, and English, a boy may specialize in one kind of shop work, or in advanced electrical laboratory work, and in machine design, architectural drawing, or industrial design.

Course B includes Mathematics, English, History, French, German, Physics, Chemistry, and the same kinds of shop work and drawing as in Course A. Less time, however, is spent on shop work and drawing and both are omitted in the senior year.

Military Drill is now required in both courses as in other boys' high schools of the city.

Pupils are admitted to Grade IX from Boston Public Elementary Schools and from other approved schools. Graduates of intermediate schools may enter Grade X provided they have had Mathematics, including Algebra, in Grade IX.

The school is in session from 9 to 3.20 o'clock, but some boys are dismissed at 2.40 o'clock on certain days.

## MEMORIAL HIGH SCHOOL FOR BOYS

Offers the following courses:
College Preparatory Merchandising
Technology Preparatory Salesmanship
Accounting
Secretarial
General
Printing (Co-operative)
The Co-operative Industrial Course in Printing, which is open to boys from all parts of the city, includes instruction in hand composition, linotype and monotype operation, and in platen and cylinder presswork. After the first year each boy in the printing course will be given an opportunity to work every other week in commercial printing establishments.

A branch of the Boston Public Library, situated in the same building, co-operates with pupils and teachers in reference helps to classroom study and in choosing suitable books for leisure reading.

A 75-foot swimming pool and a rifle range are included in the equipment of the school.

School is in session from 9 to 2.30 o'clock.

## MEMORIAL HIGH SCHOOL FOR GIRLS

Memorial High School prepares pupils for college, for teacher training institutions, and for the business world.

The courses offered are:
College Preparatory
Teachers College
General
Preparatory Course for Art Schools and State Normal Schools Commercial

Bookkeeping
Secretarial
Office Practice
Merchandising
Co-operative Salesmanship
Household Science and Arts
Domestic Science
Millinery
Dressmaking
Both Merchandising and Salesmanship include a course in art that adapts the study of color and appreciation of design to the student's line of work.

Household Science and Arts are not confined to any one course, but are meant to give all girls instruction in home-making.

The Co-operative Salesmanship Course represents a new departure in vocational education in this school. Girls are selected from the Salesmanship Course and organized into a special group to do part-time work in the retail stores of the city. These pupils attend school daily from 8.15 to 11.30 o'clock and work in the stores from 12 to 3 o'clock.

A unique feature of the school is the access to a branch of the Boston Public Library housed in the school building.

The school is in session from 8.45 to 2.15 o'clock.

SOUTH BOSTON HIGH SCHOOL (Boys and Girls)
The South Boston High School offers preparation for life work in all lines approved for secondary schools.

The courses offered are:

> Sheet Metal (Co-operative)
> Commercial
> General
> Teachers College Preparatory College Preparatory

The latest additions have been the four year Industrial Course for boys and a corresponding Domestic Science Course for girls.

The Industrial Course, now in its second year, is in sheet metal work. It is of the part-time variety - the boys in their third and fourth years working one week and going to school the next. In an industrial district of the character of South Boston this course should prove a decided success. The choice of a line of trade where there is still a lively demand for men is especially fortunate.

Domestic science subjects may be elected in connection with the regular courses. This work has the advantage of being housed in the new wing of the building built for this purpose, and will undoubtedly appeal to those girls who do not care to follow the courses leading to business, teaching, or college.

The Commercial Course proceeds along solid lines leading to ability to take places in the business world in the three customary groups,-bookkeeping, stenography and typewriting, and salesmanship. As a supplement to the second group, an adequate equipment in office machines aids those who show talent to perfect themselves in this line also.

The General Course for those wishing simply a high school education still holds a place in our school.

Normal school preparation for those planning to enter Teachers College is offered to a large number of girls, and college preparatory work has again been given a place in the curriculum.

The school is in session from 9 to 2.45 o'clock.

## BOSTON CLERICAL SCHOOL (Girls)

The Boston Clerical School offers to girls of Boston without expense to them, courses preparatory to the higher types of office positions, where the responsibilities and requirements demand unusual character, capability, and training.

To a considerable extent, the pupil's progress is individual, and graduation is attained when the work of a particular course is completed, regardless of the time of the year.

The courses offered are:

| Business | Secretarial |
| :--- | :--- |
| Shorthand | Accountancy |

Pupils who have secured forty diploma points above the eighth grade are accepted in the Business Course to prepare to become bookkeepers and general clerical workers. Those who have secured sixty points above the eighth grade are accepted for the Shorthand Course, while the Secretarial and Accountancy Courses are offered to graduates of four year high schools. Over 90 per cent of the pupils are in the last two courses.

Enrollment may be made on any school day in September or on any Monday thereafter when the school is in session.

Pupils desiring to pursue the Business or the Shorthand Course should consult the Head Master of this school before severing their connections with their high schools. A pamphlet describing the school can be obtained by application.

The school is in session from 8.45 to 2.15 o'clock.

## BOSTON TRADE SCHOOL (Boys)

The purpose of the school is to train boys who are to enter industrial life in the essentials of the trade; to instruct them in those subjects closely related to the trade and to give them such general instruction as shall make for efficiency, self-improvement, and good citizenship.

The school offers courses of two, three and four years in any one of the following trades:

| Auto Mechanics | Masonry |
| :--- | :--- |
| Cabinet-Making | Painting |
| Carpentry | Plumbing |
| Electricity | Printing |
| Machine Practice | Sheet Metal Work |

Besides acquiring trade knowledge, the student gets a broad, well balanced education of secondary school grade in subjects shown in the following schedule:


The academic instruction is applied, specific, and strongly for vocational efficiency. It is true that the Boston Trade School does not fit for college, but graduates of the four-year courses may enter Wentworth Institute, Lowell Institute for Industrial Foremen, Co-operative Engineering Schools, such
as are conducted by Northeastern University and Tufts College, and other institutions of like purpose and character. There is really no restriction to the boy's advancement if he has ábility and ambition.

To be admitted to Boston Trade School a boy must be at least fourteen years of age, should have an elementary school education, should be mechanically inclined, and should have no mental or physical handicap.

The Federal Board for Vocational Education gives the following in its "Statement of Policies": "The Federal Board desires to emphasize the fact that vocational schools and classes are not fostered for the purpose of giving instruction to the backward, deficient, incorrigible, or otherwise subnormal individuals; but that such schools and classes are to be established and maintained for the clearly avowed purpose of giving thorough vocational instruction to healthy, normal individuals, to the end that they may be prepared for profitable and efficient employment. Such education should command the best efforts of normal boys and girls."

There is a large demand for men who know the trades and who in addition possess an adequate knowledge of applied mathematics and science and a skill in drawing that enable them to read and make plans and direct others in their work. Such men are much.sought after as foremen, inspectors, and superintendents, and the opportunity for success and promotion are increasing in the ever-widening industrial field of this country.

The session is from 8.30 to 4 o'clock.

## TRADE SCHOOL FOR GIRLS

This school welcomes any girl who wishes to become sufficiently skilled in some handicraft to assure her a position in industry at a reasonable wage, provided she has completed the sixth grade and is fourteen years of age or over.

Each girl may select the trade in which she feels best fitted to succeed, the instruction being so specialized that she may advance from project to project as rapidly as her ability
permits without being held back by her classmates, some students being able to accomplish in a month what others will require three months to complete.

The many different skills taught may be grouped under the major headings of

| Dressmaking | Millinery |
| :--- | :--- |
| Power operating | Catering |
| Commercial Art | Design |
| Embroidery | Management |

While two-thirds of the school day is given to trade training, the remainder is given to related work of academic type: English language and literature, elementary accounting, historical and geographical studies and home-making arts.

Particular attention is given to the physical welfare and habits of these girls, who must be regular in attendance and in prime condition for work every day and all day before they can be recommended to an employer.

Students may remain in the school for two years, but the average length of time required to prepare for a position in the business world is one year. Longer training and increased skill bring higher pay, especially in the machine trades.

As soon as a student is fitted for a position she is placed by the school and followed up until her advancement in responsibility and compensation is assured. Large numbers of Trade School girls are placed each year in the industries of Boston and surrounding cities and towns.

The school is in session from 8.30 to 4 o'clock, five days in the week, twelve months in the year.

## SCHOOL DOCUMENT NO. 4 - 1928 BOSTON PUBLIC SCHOOLS

# A SUPPLEMENT TO <br> ORGANIZATION AND ADMINISTRATION OF INTERMEDATE SCHOOLS IN BOSTON 

[SCHOOL DOCUMENT No. 3, 1925.]

CITY OF BOSTON PRINTING DEPARTMENT 1928

In School Committee, March 19, 1928.
Ordered, That the accompanying pamphlet, "A Supplement to School Document No. 3, 1925-Organization and Administration of Intermediate Schools in Boston," is hereby authorized as a school document, and that twentyfive hundred $(2,500)$ copies be printed.

ELLEN M. CRONIN,
Secretary.

## FOREWORD.

Appointed to consider the revision of School Document No. 3, 1925, the members of the committee unanimously believe any extensive revision unnecessary. They feel, however, that a rearrangement, with certain needed changes and additions, of the tables of subjects, time allotments, and diploma points will be of value.
James A. Crowley, Chairman . Robert Gould Shaw School.
Archer M. Nickerson . . Frank V. Thompson School.
Rose A. Carrigan . . Shurtleff School.

## EXPLANATORY NOTES.

To avoid duplication of statement for each curriculum and to give opportunity for more complete explanation than is possible in footnotes, these notes are placed at the beginning.

Board of Superintendents' Circular, No. 45, 1922-23.
This circular was concerned with the method of arranging the No. 400 card when "D" as a rating received halfcredit. With the action of the Board of Superintendents, which abolished half-credit for "D" as a rating, the effect of this circular ceased.

With promotion by subject - which may be arranged for any organization, no matter how small, by having at least two teachers of each major subject - any case of pupil failure in a major subject can be cared for. Where conditions impel a principal to promote a pupil on probation in a subject, credit for the work of the preceding year should be given to that pupil at the close of December, the end of the probationary period, if he is to be continued in the new year's work beyond that time. The No. 400 card should not be sent to the office of the Superintendent showing a passing mark in one year of a continuous subject and failing marks in any preceding year of the same subject.

## Notes.

(A figure at the right of the name of a subject refers to the following notes as numbered.)

1. "No foreign language" and "modern foreign language" curricula of seventh and eighth grades. The ten minutes in parenthesis opposite "manual training" are taken from the time for recess or physical education, making a total of 90 minutes.
2. All curricula - all grades.

The fifty minutes in parenthesis opposite "opening exercises," etc., are taken ten minutes per day, as seems best in the judgment of each principal for his district, making a total of seventy-five minutes.

Suggestive Methods:
a. Five minutes from each of first two periods. (Applicable to all schools.)
b. Two minutes from each of first four periods and recess. (Particularly applicable to twosession schools.)
c. One minute from each of seven periods, two minutes from recess, and one minute from physical education time. (Particularly applicable to one-session schools.)
3. "Mechanic arts" and "practical arts" curricula all grades.
One-half the recess time shall be added to the class period immediately preceding or immediately following recess.
The afternoon physical training time shall be added to the sixth or seventh periods.
4. In Grades IX, X, XI, and XII an additional point may be earned each year for satisf actory improvement in physical education or for approved participation in athletics under the direction of the coach, play teacher, or physical education teacher.
At any time during the four years above Grade VIII one point may be credited for swimming.
The total number of points in physical education obtainable from Grade VII to Grade XII, inclusive, is ten.
5. Foreign language - ninth grade.
a. Pupils who have passed in the work of the seventh and eighth years must elect the second year of the same language in the ninth grade.
b. No pupil may begin more than one foreign language in any one year.
6. Commercial curriculum - ninth grade.

Boys planning to enter the High School of Commerce are advised to elect mathematics.
7. From the minutes of the Board of Superintendents May 12, 1927 :
"At the discretion of the principal, a period of forty minutes per week may be devoted to extra curricula activities. The teacher in charge may count this period as the equivalent of a regular teaching period."
8. All curricula - ninth grade.

Assembly and club activities are placed under "Required Subjects" because both become a part of the organization of the school at the option of the principal.
9. In addition to the requirement of the minimum of points (seven for the seventh grade, fifteen for the eighth grade, and thirty-one for the ninth grade) necessary for promotion to the next grade, no pupil shall be promoted who has not passed in two major subjects, at least one of which must carry a value of two and one-half points in Grade VII or VIII and five points in Grade IX.
10. The point values of this supplement shall apply to the seventh grade records of pupils who begin their eighth grade work in September, 1928.

## SEVENTH AND EIGHTH GRADES.

(Each table following is identical for each grade.)
NO FOREIGN LANGUAGE.

| Subjects. | Minutes. | Periods. | Points. | Prepared Periods. | Unprepared Periods. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English | 280 | 7 | $2 \frac{1}{2}$ | 4 | 3 |
| Mathematics. | 200 | 5 | $2 \frac{1}{2}$ | 3 | 2 |
| History . | 120 | 3 | 1 | 2 | 1 |
| Geography . | 160 | 4 | 121 | 2 | 2 |
| Science. | 80 | 2 | ${ }^{\frac{1}{2}}$ |  | 2 |
| Art Education. | 80 | 2 | $\frac{1}{2}$ |  | 2 |
| Hygiene. . | 40 | 1 | $\frac{1}{2}$ |  | 1 |
| Music. | s0 | 2 | $\frac{2}{5}$ |  | 2 |
| Penmanship. | 40 | 1 | $\frac{1}{4}$ |  | 1 |
| Manual Training ${ }^{1}$. | 80 (10) | 23 | $\frac{1}{2}$ |  | $2{ }^{2}$ |
| Physical Education. | 75 | $1 \frac{7}{8}$ | $\frac{1}{2}$ |  |  |
| Study . | 120 | 3 |  |  |  |
| Guidance (Educational and Vocational), | 40 | 1 |  |  |  |
| Assembly. | 40 | 1 |  |  |  |
| Club Activities ${ }^{7}$. . | 40 | 1 |  |  |  |
| Recess. | 100 | $2 \frac{1}{2}$ |  |  |  |
| Opening Exercises and Character Educa- | 25 (50) | $1 \frac{7}{8}$ |  |  |  |
|  | 1,600 |  | $10^{\frac{1}{2}}$ |  |  |

MODERN FOREIGN LANGUAGE.

| Subjecta. | Minutes. | Periods. | Points. | Prepared Periods. | Unprepared Periods. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English. | 280 | 7 | $2 \frac{1}{2}$ | 4 | 3 |
| Mathematics. | 200 | 5 | $2 \frac{1}{3}$ | 3 | 2 |
| Modern foreign language . | 200 | 5 | $2 \frac{1}{2}$ |  | 5 |
| History . | 120 | 3 | 1 | 2 | 1 |
| Geography . | 160 | 4 | 1) | 2 | 2 |
| Science. | 40 | 1 | $\frac{1}{4}$ |  | 2 |
| Art Education. | 40 | 1 | $\frac{1}{4}$ |  | 1 |
| Hygiene. . | 40 | 1 | $\frac{1}{2}$ |  | 1 |
| Music. | 80 | 2 | $\frac{1}{6}$ |  | 2 |
| Penmanship. | 40 | 1 | 1 |  | 1 |
| Manual Training ${ }^{1}$. | 80 (10) | $2 \frac{1}{6}$ | $\frac{1}{2}$ |  | $2 \frac{1}{6}$ |
| Physical Education. | 75 | 18 | $\frac{1}{2}$ |  |  |
| Assembly . | 40 | 1 |  |  |  |
| Club Activities ${ }^{\text {7 }}$. | 40 | 1 |  |  |  |
| Guidance (Educational and Vocational), | 40 | 1 |  |  |  |
| Recess. | 100 | 21 ${ }^{\frac{1}{2}}$ |  |  |  |
| Opening Exercises and Character Educa- | 25 (50) | $1{ }^{\frac{7}{8}}$ |  |  |  |
|  | 1,600 |  | $12^{\frac{1}{2}}$ |  |  |

MECHANIC ARTS (FOR BOYS).

| Subjects. | Minutes. | Periods. | Points. | Prepared Periods. | Unprepared Periods. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English. | 280 | 7 | $2!$ | 4 | 3 |
| Mathematics. | 200 | 5 | $2!$ | 3 | 2 |
| Geography.. | 120 | 3 | 1 | 2 | 1 |
| History. | 120 | 3 | 1 | 2 | 1 |
| Art Education. | 40 | 1 | $!$ |  | 1 |
| Science. | 40 | 1 | $!$ |  | 1 |
| Hygiene. | 40 | 1 | $\frac{1}{2}$ |  | 1 |
| Music. | so | 2 | $?$ |  | 2 |
| Penmanship.. | 40 | 1 | ! |  | 1 |
| Mechanic Arts ${ }^{3}$. | 320 | 8 | 13 |  | $\delta$ |
| Physical Education. | 75 | 13 | 1 |  |  |
| Assembly . | 40 | 1 |  |  |  |
| Club Activities ${ }^{7}$. | 40 | 1 |  |  |  |
| Guidance (Educational and Vocational), | 40 | 1 |  |  |  |
| Recess. | 100 | $2 \frac{1}{2}$ |  |  |  |
| Opening Exercises and Character | 25 (50) | $1 \%$ |  |  |  |
|  | 1,600 |  | $10{ }^{3}$ |  |  |

PRACTICAL ARTS (FOR GIRLS).

| Subjects. | Minutes. | Periods. | Points. | Prepared <br> Periods. | Unprepared Periods. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English. | 280 | 7 | 2年 | 4 | 3 |
| Mathematics. | 200 | 5 | $2 \frac{1}{2}$ | 3 | 2 |
| Geography. . | 120 | 3 | 1 | 2 | 1 |
| History.. | 120 | 3 | 1 | 2 | 1 |
| Art Education. | 40 | 1 | $\frac{1}{4}$ |  | 1 |
| Science. . | 40 | 1 | ${ }^{\frac{1}{4}}$ |  | 1 |
| Hygiene.. | 40 | 1 | $\frac{1}{2}$ |  | 1 |
| Music... | 80 | 2 | $\frac{1}{4}$ |  | 2 |
| Penmanship. | 40 | 1 | $\frac{2}{4}$ |  | 1 |
| Practical Arts ${ }^{3}$. | 320 | 8 | $1{ }^{\frac{3}{1}}$ |  | 8 |
| Physical Education. | 75 | $1 \frac{7}{8}$ | ${ }^{\frac{1}{2}}$ |  |  |
| Assembly . | 40 | 1 |  |  |  |
| Club Activities ${ }^{\text {7 }}$. | 40 | 1 |  |  |  |
| Guidance (Educational and Vocational), | 40 | 1 |  |  |  |
| Recess.. | 100 | $2 \frac{1}{2}$ |  |  |  |
| Opening Exercises and Character | 25 (50) | $1 \frac{7}{8}$ |  |  |  |
|  | 1,600 |  | $10 \frac{3}{4}$ |  |  |

TIME ALLOTMENT AND POINT ALLOWANCE FOR ADMISSION OF PUPILS FROM PAROCHIAL SCHOOLS.

| Subjects. | $\begin{gathered} \text { Grade } \\ \text { VII. } \end{gathered}$ | $\begin{aligned} & \text { Grade } \\ & \text { VIIII. } \end{aligned}$ | Total Time Allotment for Grades VII and VIII Combined. | Diploma Points. |
| :---: | :---: | :---: | :---: | :---: |
| English. | 400 | 390 | 790 | 6 |
| Arithmetic. | 220 | 220 | 440 | 6 |
| Geography. | 150 | 140 | 290 | 3 |
| History, Civics. | 120 | 140 | 260 | 2 |
| Physical Education. | 75 | 75 | 150 | 1 |
| Penmanship. | 90 | 90 | 180 | $\frac{1}{2}$ |
| Drawing. | 60 | 60 | 120 | 1 |
| Music. | 60 | 60 | 120 | $\frac{1}{2}$ |
| Hygiene... | 30 | 30 | 60 | 1 |
| Total. |  |  |  | 21 |

## NINTH GRADE.

COLLEGE CURRICULUM.

| Required Subjects. | Minutes. | Periods. | Points. |
| :---: | :---: | :---: | :---: |
| Physical Education ${ }^{4}$. | 80 | 2 | 1 |
| Choral Practice. | 40 | 1 | $\frac{1}{2}$ |
| Hygiene. | 40 | 1 | 1 |
| English | 200 | 5 | 5 |
| Latin I. | 200 | 5 | 5 |
| French, German, Spanish, or Italian II *. | 200 | 5 | 5 |
| Guidance (Educational and Vocational). | 40 | 1 |  |
| Assembly . | 40 | 1 |  |
| Club Activities ${ }^{7}$. | 40 | 1 |  |
| Opening Exercises and Character Education ${ }^{2}$ | 25 (50) | $1 \frac{7}{8}$ |  |
| Elective Subjects (at least one). |  |  |  |
| Mathematics. | 200 | 5 | 5 |
| Ancient History. | 200 | 5 | 5 |
| Art Education (Appreciation). | 40 | 1 | $\frac{1}{2}$ |

* Only for pupils who have passed in foreign language of seventh and eighth grades.

CURRICULUM PREPARATORY TO TEACHERS COLLEGE.

| Required Subjects. | Minutes. | Periods. | Points. |
| :---: | :---: | :---: | :---: |
| Physical Education ${ }^{4}$. | 80 | 2 | 1 |
| Choral Practice . | 40 | 1 | $\frac{1}{2}$ |
| Hygiene. | 40 | 1 | 1 |
| English | 200 | 5 | 5 |
| Latin I..... . . . . . . . . . . . . . . . . . . . . . . $)^{\text {5 }}$ |  |  |  |
| French, German, Spanish, or Italian I. . | 200 | 5 | 5 |
| French, German, Spanish, or Italian II.) |  |  |  |
| Mathematics.. | 200 | 5 | 5 |
| Ancient History. | 200 | 5 | 5 |
| Guidance (Educational and Vocational). | 40 | 1 |  |
| Assembly. | 40 | 1 |  |
| Club Activities ${ }^{7}$. | 40 | 1 |  |
| Opening Exercises and Character Education ${ }^{2}$. | 25 (50) | $1{ }^{\frac{7}{8}}$ |  |
| Elective Subject. |  |  |  |
| Art Education (Appreciation). | 40 | 1 | ${ }^{\frac{1}{2}}$ |

TECHNICAL PREPARATORY CURRICULUM.

| Reoulred Subjects. | Minutes. | Periods. | Points. |
| :---: | :---: | :---: | :---: |
| Physical Education 4. | 80 | 2 | 1 |
| Choral Practice. | 40 | 1 | $\frac{1}{2}$ |
| Hygiene. | 40 | 1 | 1 |
| English. | 200 | 5 | 5 |
| French or German I ${ }^{5}$ | 200 | 5 | 5 |
| French or German II |  |  |  |
| Mathematics. | 200 | 5 | 5 |
| Guidance (Educational and Vocational) . | 40 | 1 |  |
| Assembly . | 40 | 1 |  |
| Club Activities ${ }^{7}$. | 40 | 1 |  |
| Opening Exercises and Character Education 2 | 25 (50) | 15 |  |
| Elective Subjects (at least one). |  |  |  |
| General Science... | 160 | 4 | 3 |
| Ancient History . . | 200 | 5 | 5 |
| Latin I. | 200 | 5 | 5 |
| Mechanical Drawing. | 160 | 4 | 2 |
| Art Education (Appreciation). | 40 | 1 | $\frac{1}{2}$ |

GENERAL CURRICULUM.

| Required Subjects. | Minutes. | Periods. | Points. |
| :---: | :---: | :---: | :---: |
| Physical Educations ${ }^{1}$. | 80 | 2 | 1 |
| Choral Practice | 40 | 1 | $\frac{1}{2}$ |
| Hygiene. | 40 | 1 | 1 |
| English | 200 | 5 | 5 |
| French, German, Spanish, or Italian I French, German, Spanish, or Italian II | 200 | 5 | 5 |
| Ancient History . | 200 | 5 | 5 |
| Guidance (Educational and Vocational) | 40 | 1 |  |
| Assembly | 40 | 1 |  |
| Club Activities ${ }^{\text {P }}$. | 40 | 1 |  |
| Opening Exercises and Character Education ${ }^{2}$ | 25 (50) | $1{ }^{\frac{7}{6}}$ |  |
| Elective Subjects (at least one). |  |  |  |
| Mathematics. | 200 | 5 | 5 |
| General Science | 160 | 4 | 3 |
| Art Education (Special Art) | 160 | 4 | 3 |
| Household Science and Art. | 160 | 4 | 2 |
| Art Education (Appreciation). | 40 | 1 | $\frac{1}{2}$ |

COMMERCIAL CURRICULUM.

| Required Subjects. | Minutes. | Periods. | Points. |
| :---: | :---: | :---: | :---: |
| Physical Education ${ }^{4}$. | 80 | 2 | 1 |
| Choral Practice. | 40 | 1 | $\frac{1}{2}$ |
| Hygiene. | 40 | 1 | 1 |
| English | 200 | 5 | 5 |
| Clerical Practice | 200 | 5 | 5 |
| Guidance (Educational and Vocational) | 40 | 1 |  |
| Assembly | 40 | 1 |  |
| Club Activities ${ }^{7}$ | 40 | 1. |  |
| Opening Exercises and Character Education ${ }^{2}$ | 25 (50) | $1 \%$ |  |
| Elective Subjects (at least one). |  |  |  |
| French, German, Spanish, or Italian I \| ${ }^{5}$ |  |  |  |
| French, German, Spanish, or Italian II ${ }^{\text {a }}$. | 200 | 5 | 5 |
| Mathematics ${ }^{6}$. | 200 | 5 | 5 |
| General Science | 160 | 4 | 3 |
| Community Civics | 120 | 3 | 3 |
| Art Education (Special Art) | 160 | 4 | 3 |
| Household Science and Art | 160 | 4 | 2 |
| Art Education (Appreciation) | 40 | 1 | $\frac{1}{2}$ |

MECHANIC AND PRACTICAL ARTS CURRICULUM.

| Required Subjects. | Minutes. | Periods. | Points. |
| :---: | :---: | :---: | :---: |
| Physical Education ${ }^{4}$. | 80 | 2 | 1 |
| Choral Practice | 40 | 1 | 1 |
| Hygiene. | 40 | 1 | 1 |
| English | 240 | 6 | 5 |
| Mathematics | 240 | 6 | 5 |
| General Science | 160 | 4 | 3 |
| Shop or Household Science and Arts ${ }^{3}$ | 320 | s | 4 |
| Art Education (Special Art), Grrls. | 80 | 2 | 1 |
| Drafting, Boys. |  |  |  |
| Art Education (Appreciation) | 40 | 1 | $\frac{1}{2}$ |
| Guidance (Educational and Vocational) | 40 | 1 |  |
| Assembly | 40 | 1 |  |
| Club Activities ${ }^{7}$. | 40 | 1 |  |
| Opening Exercises and Character Education ${ }^{2}$ | 25 (50) | 17 $\frac{7}{6}$ |  |

## SCHOOL DOCUMENT NO. 5-1928 BOSTON PUBLIC SCHOOLS REAPPOITTMENTS OF TEACHERS AND MEMBERS OF SUPERVISING STAFF



CITY OF BOSTON PRINTING DEPARTMENT
$+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$ $1 \cdot(2 \cdot 12$ 10

# REAPPOINTMENTS OF TEACHERS AND MEMBERS OF SUPERVISING STAFF. 

In School Committee, July 9, 1928.

To the School Committee:
In accordance with Section 272 of the Regulations, I herewith submit a list of reappointments for the school year 1928-29, together with a statement of the number of teachers to which each school and school district is entitled, and the number of pupils upon which the quota of teachers is based. All reappointments are made subject to the provisions of the Regulations governing promotional examinations.

All reappointments of high school teachers are based upon the provisions contained in Section 302 of the Regulations. The computation is based upon a report received from each head master as of October 1, 1927. The quota of teachers appointed to day high and Latin schools is based upon the standard number of teaching units of instruction, i.e., 704 pupil hours for women and 768 pupil hours for men.

All reappointments of elementary and intermediate school teachers are made on the basis of one teacher for every thirty-five pupils in Grades VII, VIII, and IX, and one teacher for every forty pupils in all other grades. The appointment of new teachers during the current school year has been made on the basis of forty pupils in the first grade, thirty-five pupils in the seventh, eighth, and ninth grades, and forty-two pupils in grades from the second to the sixth. In consequence of this difference in the basis of appointment of new teachers and the reappointments of teachers for the ensuing school year, the reports which follow indicate a considerable number of elementary school vacancies, but these are technical rather than actual vacancies, that is, they are vacancies on the basis of forty pupils for Grades I to VI,
inclusive, and thirty-five pupils for Grades VII, VIII, and IX. Except as hereinafter explained, there are no teachers in excess of the Regulations.

## Excess Teachers.

In the High School of Commerce there are three teachers in excess of the number allowed under the Regulations. I recommend that these teachers be allowed to remain in the school until the fall, at which time the membership may warrant their retention; if not, their transfer may be effected.

In the Dearborn District there is one teacher in excess of the number allowed under the Regulations. I recommend that this teacher be allowed to remain in the school until the fall, at which time the membership may warrant her retention; if not, her transfer may be effected.

In the Gilbert Stuart District there is one teacher in excess of the number allowed under the Regulations. I recommend that this teacher be allowed to remain in the school until the fall, at which time the membership may warrant her retention; if not, her transfer may be effected.

In the Hancock District there is one elementary teacher in excess of the number allowed under the Regulations. I recommend that this teacher be allowed to remain in the school until the fall, at which time the membership may warrant her retention; if not, her transfer may be effected.

In the Prescott District there is one teacher in excess of the number allowed under the Regulations. I recommend that this teacher be allowed to remain in the school until the fall, at which time the membership may warrant her retention; if not, her transfer may be effected.

In the Quincy District there is one teacher in excess of the number allowed under the Regulations. I recommend that this teacher be allowed to remain in the
school until the fall, at which time the membership may warrant her retention; if not, her transfer may be effected.

In the Wendell Phillips District there are three teachers in excess of the number allowed under the Regulations. I recommend that these teachers be allowed to remain in the school until the fall, at which time the membership may warrant their retention; if not, their transfer may be effected.

## Submasters.

In the following-named district a submaster is employed in excess of the Regulations:

Elihu Greenwood.- One. This submaster has been allowed in previous years for assignment to the Fairmount School, in which are several upper grades. I recommend that a teacher of said rank be continued in the foregoing district during the school year ending August 31, 1929.

In each of the following-named districts there is one additional submaster in charge of the pupils above the third grade as authorized by the School Committee:

Abraham Lincoln.
Christopher Gibson.
Dearborn.
Donald McKay Intermediate.
Frederic W. Lincoln.
Joseph H. Barnes Intermediate.
Lewis Intermediate.
Mary Hemenway.
Oliver Wendell Holmes Intermediate.
Phillips Brooks.
Sherwin.
Thomas Gardner.
Thomas N. Hart.
Warren-Bunker Hill.
Washington Intermediate.
Washington Allston.
Washington Irving Intermediate.

## Master's Assistants.

In each of the following-named districts there is one master's assistant in excess of the number authorized by the Regulations:

Bennett.
Dearborn.
Donald McKay Intermediate.
Harvard-Frothingham.
Henry L. Pierce.
Jefferson-Comins.
Joseph H. Barnes Intermediate.
Lawrence.
Mather.
Michelangelo Intermediate.- Two.
Oliver Wendell Holmes Intermediate.
Quincy.- Two.
Sherwin.
Warren-Bunker Hill.- Two.
Washington Intermediate.
Wendell Phillips.

## Teachers Taken from Tenure.

There are two teachers in the service who were once appointed to serve during the pleasure of the School Committee but who have since been taken from tenure. These teachers have been reappointed for the school year ending August 31, 1929.

Boston Trade School.- One.
Department of Manual Arts.- One.

## Conservation of Eyesight Classes.

I hereby re-establish conservation of eyesight classes in the following-named districts for the year 1928-29:

Blackinton-John Cheverus.- One.
Dudley.- One.
Eliot.- One.
Franklin.- Two.
Harvard-Frothingham.- One.

Martin.- One.
Norcross.- One.
Theodore Lyman.- One.
Wells.- One.

Lip-Reading Centers.
I hereby re-establish lip-reading centers in the follow-ing-named districts for the year 1928-29:

Emerson.- One.
Horace Mann.- One.
Hyde.- One.
Martin.- One.
Prince.- One.
Wells.- One.
Special Classes.
I hereby re-establish special classes in the followingnamed districts for the year 1928-29:

Abraham Lincoln.- Two.
Agassiz.- One.
Bennett.- Two.
Bigelow.- One.
Blackinton.- One.
Bowdoin.- Three.
Chapman.- One.
Dearborn.- One.
Dillaway. - Two.
Dudley.- Two.
Dwight.- Six.
Edmund P. Tileston.- One.
Edward Everett.- Two.
Elihu Greenwood.- One.
Eliot.- Four.
Emerson. - Two.
Emily A. Fifield.- One.
Everett. - Two.
Franklin.- One.
Hancock.- Seven.
Harvard-Frothingham.- Three.

Hugh O'Brien.- One.
Hyde. - One.
Jefferson-Comins.- One.
John Cheverus.- One.
John Marshall.- Eight.
John Winthrop.- One.
Julia Ward Howe.- One.
Lawrence.- One.
Longfellow. - One.
Lowell.- Two.
Mary Hemenway.- One.
Mather.- Two.
Norcross.- One.
Oliver Hazard Perry. - One.
Prescott.- One.
Quincy.- Three.
Rice.- One.
Robert Gould Shaw.- One.
Robert Treat Paine.- One.
Roger Wolcott.- Two.
Samuel Adams. - Three.
Sherwin.- Twelve.
Shurtleff.- One.
Theodore Lyman.- Eight.
Theodore Roosevelt Intermediate.- Two.
Thomas Gardner.- Two.
Thomas N. Hart.- One.
Ulysses S. Grant.- Three.
Warren-Bunker Hill.- Two.
Wells.-Six.
Wendell Phillips.— Six.
William E. Endicott.- One.
William E. Russell.- One.
Speech Improvement Centers.
I hereby re-establish speech improvement centers in the following-named districts for the year 1928-29:

Abraham Lincoln.- One.
Charles Sumner.- One.

Dudley.- One.
Dwight.- One.
Franklin.- One.
Hancock.- One.
Harvard-Frothingham.- One.
John A. Andrew.- One.
Longfellow.- One.
Lowell.- One.
Mary Hemenway.- One.
Quincy.- One.
Roger Wolcott.- One.
Ulysses S. Grant.- One.
Washington Allston.- One.
Wells.- Two.
Open-Air, Ungraded and Special English Classes.
I recommend that the same policy be pursued regarding the establishment of open-air, ungraded and special English classes as in 1927-28 and that no action concerning the re-establishment of these classes for the year 1928-29 be taken at the present time. Action should be postponed until after the opening of schools in September, when orders will be presented to the School Committee regarding the establishment of all such classes on the basis of registration at that time. I recommend that all open-air, ungraded and special English classes at present authorized be discontinued at the close of the current school year and that such classes be re-established only by special order of the School Committee.

Disciplinary Day Classes.
I hereby re-establish disciplinary day classes in the following-named district for the year 1928-29:

Henry L. Higginson.- Four.

## PART I.

## REAPPOINTMENT OF PRINCIPALS AND MEMBERS OF THE SUPERVISING STAFF.

Appointed: To serve during the pleasure of the School Committee. Charlestown High School.- Head Master, Chester M. Grover. Girls' High School.- Head Master, John E. Denham.
Memorial High School (Girls).- Head Master, Myrtle C. Dickson.
Chapman District.- Master, Leroy K. Houghton.
Dwight District.- Master, Vincent A. Keenan.
Eliot District.- Master, James E. Lynch.
Henry L. Higginson District.- Master, Elizabeth V. Cloney.
Phillips Brooks District.- Master, Francis M. Morrissey.
Samuel Adams District.- Master, Raymond H. Young.
Ulysses S. Grant District.- Master, Anna M. Niland.
Director, Speech Improvement Classes, Theresa A. Dacey.
Assistant Director, Educational Investigation and Measurement, Olivia C. Penell.
Assistant Director, Department of Household Science and Arts, Mary W. Cauley.

Assistant Directors, Music, H. Dana Strother, Joseph F. Wagner.
Associate Director, Physical Education, Frederick J. O'Brien.
Assistant Director, Physical Education, James H. Crowley.
Assistant Directors, Practice and Training, Eunice C. Hearn, Anne R. Mohan.
Assistant Director, Special Classes, Katherine C. Coveney.
Educational Statistician, Louis J. Fish.
Commercial Co-ordinator, Edward J. Rowse.
Assistant, Music, Agnes F. McCarthy.
Vocational Assistants, Department of Vocational Guidance, Viola M. I. Clark, Bertha Shepard.
Vocational Instructor, Department of Vocational Guidance, Curtis Peckham.
Assistant Supervising Nurse, Mary Callaghan, Sadie G. Reynolds, Marion C. Sullivan.
School Nurses, Anna E. Donovan, Della V. Egan, Madeline A. Mahoney, Rose A. Meade, Anna M. Phalan.
Appointed: To serve for the term ending August 31, 1929.
Memorial High School (Boys).- Head Master, Robert B. Masterson.
Blackinton District.- Master, Edward J. Carroll.
Charles Sumner District.- Master, John A. O'Keefe, Jr.
Everett District.- Master, Bertha L. Mulloney.
Gaston District.- Master, Elizabeth W. O'Connor.
Henry Grew District.- Master, Joseph E. Lynch.

Jefferson-Comins District.- Master, James T. Donovan.
Longfellow District.- Master, Emma B. Harvey.
Wells District.- Master, Anna A. Maguire.
Examiner, Philip J. Bond.
Director, Manual Arts, C. Edward Newell.
Director, School Hygiene, John A. Ceconi, M. D.
Assistant Director, Preactice and Training, Clarissa E. Prouty.
Assistant Director, Music, Fortunato Sordillo.
Assistants, Music, Elsie M. Eckman, Helen J. Lynch, Alice G. Mason. Supervisor, Drum and Bugle Corps, Harry B. Roche.
Supervisors of Bands and Orchestras, Carleton E. Gardner, Frederick R. Whitehouse, Mary M. McLaughlin.

Vocational Assistant, Department of Vocational Guidance, Ella L. Bresnehen.
Vocational Instructors, Department of Vocational Guidance, Harold B. Foye, Francis J. Murphy, Archibald Taylor.
School Nurses, Louise H. Best, Marguerite L. Carney, Ivy B. Chase, Mary A. Clifford, Madaline K. Dolan, Sally Givner, Helena V. Maloney, Gladys H. Miller, Mary C. Mullaney, Anna A. Ramsey, Helen M. Riley, Mabel C. Sheridan, Agnes J. Trainor.

## PART II.

## REAPPOINTMENT OF SUBORDINATE TEACHERS.

Note.- Physical education teachers in The Teachers College of the Cityof Boston, day High and Latin Schools are given under Part III.
THE TEACHERS COLLEGE OF THE CITY OF BOSTON.
Largest number of pupils belonging at any one time between September 1, 1927, and April 1, 1928 ..... 798
Teachers. - Entitled to 45 regular teachers ..... 45
Now serving on tenure ..... 32
Appointed: To serve during the pleasure of the School Commit- tee.- Master, Henry L. Gerry; Junior Masters, Joseph A. Hennessey, Francis P. O’Meara; Assistants, Frances W. Given, Marion A. Guilford, Grace S. Mansfield, Mary J. Quigley ..... 7Appointed: To serve for the term ending August 31, 1929.- FirstAssistants, Katharine E. Barr, Edith M. Gartland; Assist-ants, Alice M. Kerrigan, Eleanore E. Hubbard, Teresa A.Regan5
In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two temporary teachers.
PUBLIC LATIN SCHOOL.
Teachers.- Entitled to 57 regular teachers ..... 57
Now serving on tenure ..... 29Appointed: To serve during the pleasure of the School Commit-tee.- Masters, Heads of Departments, John J. Cadigan,Henry R. Gardner; Junior Masters, Gerard B. Cleary,Robert B. Drummey, Charles S. FitzGerald5Appointed: To serve for the term ending August 31, 1929.-Junior Masters, Edward F. Brickley, James A. S. Callanan,Thomas Campbell, Francis P. Carroll, Francis C. Cleary,John E. Collins, John F. Cray, John F. Dobbyn, ThomasE. Fitzpatrick, Frank A. Gilbert, William F. Goodale, HenryLucey, Thomas F. Mahan, Philip Marson, Cornelius J.Murphy, William J. Reycroft, Mark F. Russo, Benjamin C.Scully, Richard H. Tuson19
In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two temporary teachers.

## GIRLS' LATIN SCHOOLL

Teachers.- Entitled to 34 regular teachers
Now serving on tenure ..... 19
Appointed: To serve during the pleasure of the School Commit- tee.- First Assistant, Head of Department, Adeline G. Simmons ..... 1
Appointed: To serve for the term ending August 81, 19.29.- Master, Head of Department, Raymond S. Tobey; Assist- ants, Helen A. Austin, Ida A. Cohen, Janet Crawford, Elinor J. Fowle, Blanche W. Harding, Helen G. Holland, Dorothea R. Jones, Marion L. Lithgow, Katharyn E. MacNamara, Helen S. Miller, Zabelle D. Tahmizian ..... 1234
In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two junior assistants serving in accordance with the plan adopted by the Board of Superintendents.
BRIGHTON HIGH SCHOOL.
Teachers. - Entitled to 38 regular teachers
Now serving on tenure ..... 17
Appointed: To serve during the pleasure of the School Commit- tee.-Assistant, Winifred A. Dowd; Co-operative Instructor, Percy A. Brigham ..... 2
Appointed: To serve for the term ending August 31, 1929.- First Assistant, Head of Department, Elvira B. Smith; Junior Masters, John T. Gibbons, Martin H. McInerney, William J. Murphy; Assistants, Mildred P. Cummings, Ethel C. Lomasney, Margaret W. Lynch, Marjory F. Marshall, Jane R. Woods; Co-operative Instructors, Edward A. Burns, Thomas M. Dowell, William M. Rogers, Samuel R. Romano; Industrial Instructor, Jean McKissock ..... 1438
In addition to the above-named staff of permanent teachersthere were during the school year 1927-28: One temporaryteacher and one junior assistant serving in accordance withthe plan adopted by the Board of Superintendents.
CHARLESTOWN HIGH SCHOOL.
Teachers.- Entitled to 35 regular teachers35
Now serving on tenure ..... 20Appointed: To serve during the pleasure of the School Com-mittee.- Co-operative Instructors, Matthew F. Durgin,Harrie S. Goodwin2
Appointed: To serve for the term ending August 31, 1929.-First Assistant, Head of Department, Margaret C. Cotter;Junior Master, Bryan L. Carpenter; Assistants, MarionC. Gilman, Gladys E. Heyl, Madelon A. Kelley, KatherineC. Kelly, Alma M. Wolf; Co-operative Instructors, John

Knight, John D. McLaughlin, Walter F. Perry; Assistant
Instructors, Commercial Branches, Constance Tenney,
Gertrude P. Twombly . . . . . . . . . 12
In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two temporary teachers.

## DORCHESTER HIGH SCHOOL FOR BOYS.

Teachers.- Entitled to 63 regular teachers
Now serving on tenure . . . . . . . . . 23
Appointed: To serve during the pleasure of the School Committee. - Master, Head of Department, Ambrose B. Warren; Junior Master, Joseph M. Sullivan; Co-operative Instructors, Harold P. Johnson, Frederick E. Rau
Appointed: To serve for the term ending August 31, 1929.Junior Masters, Peter A. Alemi, Gerard J. Deeley, Robert F. Denvir, Edward C. Donahue, Walter T. Durnan, Joseph T. Evans, Edward F. Fogarty, Francis L. Ford, Abram E. Freeman, Julian Goulston, William L. Hughes, Walter J. Kelliher, William A. Mahaney, John J. McGrath, George L. McKim, Charles L. Milward, James H. Mullins, Cornelius A. O'Keefe, William F. Phelan, Francis C. Ramisch, George A. Reardon, Allan A. Sandberg, Robert C. Schimmel, Walter J. Shea, Francis J. Sullivan, Thomas L. Sullivan, William F. Walsh, Robert W. Watts, Ralph E. Wellings, Louis R. Welsh; Instructor, Commercial Branches, Edward M. Balfe; Co-operative Instructors, Carl G. E. Engborg, Stewart J. Shaw

In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two temporary teachers.

DORCHESTER HIGH SCHOOL FOR GIRLS.
Teachers.- Entitled to 78 regular teachers
Now serving on tenure42

Appointed: To serve during the pleasure of the School Com-mittee.- Assistant, Mary L. Barlow

Master, Head of Department, Charles T. Wentworth; Junior Master, Edward E. Hunkins; Assistants, Charlotte L. Adams, Helen L. Barry, Margaret E. Burke, Elizabeth M. Carty, Margaret A. Callaghan, Katherine A. Connell, Alice W. Dinegan, Elizabeth M. Douglas, Grace A. Evans, Catherine L. Haight, Alice J. Healy, Rose F. Hickey,
Ruth E. Lane, Christina B. Locke, Mary E. Lynch, Hazel Catherine L. Haight, Alice J. Healy, Rose F. Hickey,
Ruth E. Lane, Christina B. Locke, Mary E. Lynch, Hazel W. Macdonald, Marion L. McCarthy, Catherine M. McElroy, Hope Hearn Moulton, Alice Reynolds, Eleanor M. Ryan, Grace E. Ryan, Bertha M. Swift, Florette E. A. Tremblay,

Appointed: To serve for the term ending August 31, 1929.-

Virginia E. Turnbull, Mary M. P. Twomey, Irene P. Zahn; Assistant Instructor, Commercial Branches, Mary M. Gainard; Industrial Instructor, Margaret K. Templeton

In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Four temporary teachers and four junior assistants serving in accordance with the plan adopted by the Board of Superintendents. However, one of the regular teachers was absent on leave and her program was divided among the other teachers.

## EAST BOSTON HIGH SCHOOL.

Teachers.- Entitled to 47 regular teachers
Now serving on tenure . . . . . . . . . 27
Appointed: To serve during the pleasure of the School Com-mittee.-Assistants, Miriam W. Crowley, Theresa A. Fitzpatrick, Anna E. Scott; Co-operative Instructors, John A. Lane, Arthur R. Nelson
Appointed: To serve for the term ending August 31, 1929.Junior Masters, William J. Dee, Paul A. Saunders; Assistants, Elizabeth C. Ferguson, Regina D. Madden, Mary F. Sullivan, Mary M. Sullivan, Katherine F. McAndrew; Co-operative Instructors, Abraham S. Burnes, Francis J. Lee; Industrial Instructor, Margaret F. Lane

In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two temporary teachers and two junior assistants serving in accordance with the plan adopted by the Board of Superintendents.

## ENGLISH HIGH SCHOOL.

Teachers.- Entitled to 85 regular teachers .
Now serving on tenure
Appointed: To serve during the pleasure of the School Commit-tee.-Junior Masters, Lawrence R. Atwood, Ralph G. Gilbert, Francis P. Glavin, Nathaniel J. Hasenfus, Albert I. Maguire, Thomas J. McCabe, Charles E. McCool, Robert G. Simmons, John H. Ward
Appointed: To serve for the term ending August 31, 1929.Junior Masters, Edward F. Bell, William J. Carey, Charles F. Coveney, Charles J. Hamlin, William J. Hayes, Arthur F. Leary, Fridolf H. Peterson, Francis X. Renehan, John D. Shore

In addition to the above-named staff of permanent teachers there was during the school year 1927-28: One temporary teacher.

GIRLS' HIGH SCHOOL.
Teachers.- Entitled to 73 regular teachers
Now serving on tenure . . . . . . . . . 64
Appointed: To serve during the pleasure of the School Commit-tee.-Assistants, Eveline B. Cook, Mary M. Mallard . . 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Agnes G. Doggett, Florence M. Fischer, Mary M. Lee, Mildred B. Mitton, Charlotte L. Rogers; Assistant Instructor, Salesmanship, Dore M. Gentz; Industrial Instruc- tor, Julia M. H. Fanning ..... 7
In addition to the above-named staff of permanent teachers there were during the school year 1927-28: One temporary teacher and one junior assistant serving in accordance with the plan adopted by the Board of Superintendents.
HIGH SCHOOL OF COMMERCE.
Teachers.- Entitled to 46 regular teachers ..... 46
Now serving on tenure ..... 47
Appointed: To serve during the pleasure of the School Commit- tee. - Master, Head of Department, John V. Barrett; Junior Master, Joseph F. Kelley ..... 2
HIGH SCHOOL OF PRACTICAL ARTS.
Teachers. - Entitled to 38 regular teachers38
Now serving on tenure ..... 30
Appointed: To serve during the pleasure of the School Commit- tee.-Assistant, Helen L. P. Pollycutt; Industrial Instructor, Jessie M. Howard

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2
$$ ..... 2

Appointed: To serve for the term ending August 31, 1929.-First Assistant, Head of Department, Mary M. Giblin;Assistants, Frances R. Bacharach, Olive C. Hill, CatherineM. Keegan; Industrial Instructor, Jessie Guttentag; HomeNursing Assistant, Blanche Wildes649
n addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two junior assistants serving in accordance with the plan adopted by the Board of Superintendents.

## HYDE PARK HIGH SCHOOL.

Teachers.- Entitled to 34 regular teachers.34
Now serving on tenure ..... 23Appointed: To serve during the pleasure of the School Commit-tee.- Masters, Heads of Departments, Henry W. B. Arnold,George A. Cushman2
Appointed: To serve for the term ending August 31, 1929.-First Assistant, Head of Department, Mary K. Tibbits,Junior Master, Clarence W. Lombard; Assistants, ConstanceR. Dowd, Agnes A. Hurley, Marion H. Kidder, BlancheR. Levy, Sylvia M. Murray; Senior Instructor, ManualArts, William P. Grady; Industrial Instructor, Agnes H.Benander9In addition to the above-named staff of permanent teachersthere were during the school year 1927-28: One temporaryteacher and one junior assistant serving in accordance withthe plan adopted by the Board of Superintendents.
In addition to the above-named staff of permanent teachers teacher and one junior assistant serving in accordance with the plan adopted by the Board of Superintendents.

## JAMAICA PLAIN HIGH SCHOOL.

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\begin{aligned}
& \text { Teachers. - Entitled to } 48 \text { regular teachers . . . } \\
& \text { Now serving on tenure } \\
& \text { Appointed: To serve during the pleasure of the School Commit- } \\
& \text { tee. Assistants, Katharine M. Schubarth } \\
& \text { Appointed: To serve for the term ending August 31, 1929.- } \\
& \text { Junior Master, Thomas F. Gately; Co-operative Instructor, } \\
& \text { Henry G. Wendler; Assistants, Margaret G. Connelly, Mary } \\
& \text { B. Dee, Anne C. Donlan, Rosanna N. Dowd, Sara B. } \\
& \text { Dreney, Marion A. Driscoll, Anna M. Flaherty, Marie C. } \\
& \text { Flanelly, Grace M. Fogarty, Emma L. Grandfield, Esther } \\
& \text { Hennessey, Nora E. Lyons, Margaret M. Maguire, Louise P. } \\
& \text { O'Malley, Mary J. Sloan . . . . . . . }
\end{aligned}
$$48

In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Three temporary teachers and one junior assistant serving in accordance with the plan adopted by the Board of Superintendent.
MECHANIC ARTS HIGH SCHOOL.
Teachers. - Entitled to 63 regular teachers ..... 63
Now serving on tenure ..... 45
Appointed: To serve during the pleasure of the School Commit- tee.- Master, Head of Department, James W. Dyson; Junior Masters, John J. Brennan, Eugene J. O'Neil; Instruc- tor, Mechanic Arts, Joseph Hackett ..... 4
Appointed: To serve for the term ending August 31, 1929.- Junior Masters, Samuel Avin, Gerald F. Coughlin, James J. Daley, George J. Kearns, Albert A. LaPlante, Joseph A. Moran, Fred W. Nichols, James E. O'Dowd, Emmett J. Reardon, David N. Rubin, Harry M. Webster; Senior Instructors, Mechanic Arts, William J. Doherty, Frank L. Ogilvie, Louis A. VanHam ..... 14
MEMORIAL HIGH SCHOOL (BOYS).
Appointed: To serve for the term ending August 31, 1929.- Masters, Heads of Departments, Frederick H. Dole, Andrew R. McCormick, Louis A. McCoy ..... 3
MEMORIAL HIGH SCHOOL (GIRLS).
Teachers.- Entitled to 76 regular teachers76
Now serving on tenure ..... 39Appointed: To serve during the pleasure of the School Commit-tee. - First Assistant, Head of Department, Mabel E.Bowker; Junior Masters, Ralph B. DeLano, William E.O'Connor; Assistants, Louise A. Forrest, Monica L. Hall,Gertrude L. Ward6Appointed: To serve for the term ending August 31, 1929.-First Assistant, Head of Department, Lena G. Perrigo;Junior Masters, Joseph P. Casey, Edward C. Dullea; Assist-

ants, Marion E. Anthony, Wanda H. Blinstrub, Margaret T. Crowley, Margaret L. Cunningham, Mary A. Grandfield, Alice M. Hicks, Eva M. Little, Lillian D. McCarthy, Mary A. McInnis, Julia V. Morrissey, Margaret L. O'Connor, Alice V. Rice, Henrietta T. Scott, Margaret F. Shea, Josephine J. Sullivan, Mary R. Torpey, Marion S. Williams; Industrial Instructors, Mary C. Gaudrault, Helen R. Smith; Assistant Instructor, Manual Arts, Mary L. Eaton

In addition to the above-named staff of permanent teachers there were during the school year 1927-28: Two temporary teachers and four junior assistants serving in accordance with the plan adopted by the Board of Superintendents.

## SOUTH BOSTON HIGH SCHOOL.

Teachers.- Entitled to 32 regular teachers
Now serving on tenure
Appointed: To serve for the term ending August 31, 1929.Assistants, Alice P. Hennessey, Florence J. Hughes, Leonora C. Murray, Dorothea M. Rice, Helen I. Whitlock, Helen A. Wilson, Helen H. Wollahan; Co-operative Instructor, Hugh J. Cox

# In addition to the above-named staff of permanent teachers there were during the school year 1927-28: One temporary teacher and one junior assistant serving in accordance with the plan adopted by the Board of Superintendents. 

## BOSTON CLERICAL SCHOOL.

Teachers.- Entitled to 18 regular teachers ..... 18Now serving on tenure . . . . . . . . . 6Appointed: To serve for the term ending August 31, 1929.-Head Instructor, Rufus Stickney; Senior Instructor,Ernest L. Sullivan; Senior Assistants, Hannah R. Bayard,Grace L. Eyrick, Helen R. O'Brien, Marie G. O'Brien;Assistants, Alice L. Beatty, Gertrude B. Byrne, Anna R.Moylan, Vera A. Sexton10
CONTINUATION SCHOOL.

Now serving on tenure
Appointed: To serve during the pleasure of the School Com-mittee.- Division Foreman, George E. Shepherd; Senior Instructor, Phillip F. Mackey; Instructors, Walter J. Byrnes, Edward C. Keller; Senior Assistants, Jeannette Ascolillo, Julia A. Barrett, Beatrice C. Blanchard, Clara H. Franke, Mary Kelly, Alice D. Murley
Appointed: To serve for the term ending August 31, 1929.Shop Foreman, Charles A. Bossi; Shop Instructor, Charles W. Stahl; Senior Instructors, George H. Carey, Charles P. York; Instructor, Frederick J. Murray; Assistant, Beatrice E. Drake
BOSTON TRADE SCHOOL.
Now serving on tenure ..... 14
Appointed: To serve during the pleasure of the School Com- mittee.-Shop Foremen, Alanson O. Dawes, John A. England ..... 2
Appointed: To serve for the term ending August 31, 1929.-Shop Superintendent, Henry D. Fallona; Division Head,Charles. M. McKenzie; Senior Instructors, Robert E.Baker, Julius G. Finn, Andrew L. Gemmel, Arthur Green,John J. May, Cecil D. Mcllroy, Leonard O. Merrill; TradeInstructors, Charles F. L'Hommedieu, Reinhold L. Swan;Shop Foremen, Edwin L. Carpenter, Edward J. Fickett,Garrett J. P. Flanagan, Daniel J. Galvin, George H. Hey,Ralph F. Morrison; Shop Instructors, Harold E. Atkinson,Arthur A. Capitell, William T. Hanigan, Anthony F. Mayr,James M. Macintyre, Joseph Morello23
TRADE SCHOOL FOR GIRLS.
Now serving on tenure
Appointed: To serve during the pleasure of the School Com- mittee. - Head of Department, Bertha D. Tucker; Trade Assistant, Magdalena C. Columbus ..... 2
Appointed: To serve for the term ending August 31, 1929.- Trade Assistants, Jennie M. Carlson, Anna C. Craft, Mary T. Doyle, Ulla G. Karlsson, Catherine Kelliher, Rose Mirabile, Elizabeth M. Upton ..... 727

## ABRAHAM LINCOLN DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 36 in special classes; 62 in open-air classes; 822 in Grades I to VI; 512 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 36 grade teachers; 2 teachers of special classes; 2 teachers of open-air classes ..... 40
Now serving on tenure ..... 33
Appointed: To serve during the pleasure of the School Com- mittee.-Assistant, Elementary, Maude A. Nelson ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, Irvin D. Reade ..... 1
Kindergartens.- Teachers. - Number entitled to ..... 235
Now serving on tenure ..... 2

## AGASSIZ DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 15 in special classes; 522 in Grades I to VI; 215 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 743
Teachers.- Entitled to 19 grade teachers; 1 teacher of a special class ..... 20
Now serving on tenure ..... 15
Appointed: To serve for the term ending August 31, 1929.-Assistant, Special Classes, Doris Ragolsky; Assistant,Elementary, Ellen J. McGowen; Re-entrant temporaryassistant, Lillian G. Holland3
Kindergartens.- Teachers. - Number entitled to18
Now serving on tenure ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistant, Dorothy M. Tracy. ..... 1
BENNETT DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 29 in specialclasses; 1,721 in Grades I to VI; 676 in Grades VII to IX.
Average number of pupils belonging for the period September1, 1927, to April 1, 19282,409
Teachers.- Entitled to 62 grade teachers; 2 teachers of special classes ..... 64
Now serving on tenure ..... 51
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Intermediate, Mildred V. Lavelle; Assist- ants, Elementary, Mary G. English, Marion G. MacKay, Mary G. O'Doherty ..... 4
Appointed: To serve for the term ending August 31, 1929.- Assistants, Intermediate, Mae P. Burns, Mildred M. Fitz- gerald, Gertrude F. Hughes, Helen M. MacFarland; Assist- ants, Elementary, Anna T. Barry, Ethel C. Collier, Julia I. Mulledy, Gertrude M. Sullivan, Anna J. Toomey ..... 9
Kindergartens.- Teachers.- Number entitled to .64
Now serving on tenure ..... 7Appointed: To serve for the term ending August 31, 1929.-Assistants, Adelaide C. Maginnis, Gladys F. Michelman,Mary M. Rourke310
Note. - Five of the kindergarten teachers served two sessions, so that the kindergartens were operated with the equivalent of fifteen teachers.

## BIGELOW DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 17 in special classes; 796 in Grades I to VI; 284 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 28 grade teachers; 1 teacher of a special class ..... 29
Now serving on tenure ..... 18
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Intermediate, Sarah M. Everett; Assist- ants, Elementary, Helen G. Buckley, Mary A. O'Connell, Margaret A. Thompson ..... 4
Appointed: To serve for the term ending August 31, 1929.- Assistant, Intermediate, Angela M. Perron; Assistants, Elementary, Elizabeth Holm, Mary E. McGovern, Harriet A. Mitchell, Mary F. O'Connell, Grace Sullivan . . . 6
Kindergartens.-Teachers.- Number entitled to ..... 4
Now serving on tenure ..... 1
Appointed: To serve for the term ending August 31, 1929.— Assistant, Ruth E. Minton ..... 1Note. - The two kindergarten teachers served two sessions sothat the kindergarten was operated with the equivalent offour teachers.
BLACKINTON DISTRICT.Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 16 in specialclasses; 617 in Grades I to VI; 238 in Grades VII to VIII.
Average number of pupils belonging for the period September1, 1927, to April 1, 1928841
Teachers.- Entitled to 21 grade teachers; 1 teacher of a special class ..... 22
Now serving on tenure ..... 13
Appointed: To serve during the pleasure of the School Com- mittee.-Assistant, Elementary, Ellen C. Rooney ..... 1
Appointed: To serve for the term ending August 31, 1929.- Master's Assistant, Mary T. Gallagher; Assistants, In- termediate, Lucy H. Hearne, John P. Maloney, Alice E. Mullen; Assistants, Elementary, Florence A. Agnew, Gertrude Slater ..... 6
Kindergartens.- Teachers. - Number entitled to ..... 420
Now serving on tenure ..... 1Appointed: To serve for the term ending August 31, 1929.-
Assistant, Dorothy J. Page ..... 1 ..... 1

Note. - The two kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of four teachers.

## BOWDITCH DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 27 in open-air classes; 812 in Grades I to VI; 195 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,029
Teachers.- Entitled to 25 grade teachers; 1 teacher of an open-air class ..... 26
Now serving on tenure ..... 25
Appointed: To serve for the term ending August 31, 1929.- Assistant, Elementary, Margaret E. Cleary ..... 1
Kindergartens.- Teachers.- Number entitled to .....
Now serving on tenure ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistant, Edna A. Weierich ..... 1
Note.- The four kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of eight teachers.
BOWDOIN DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-17 inungraded classes; 49 in special classes; 151 in open-airclasses; 610 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 801
Teachers.- Entitled to 16 grade teachers; 3 teachers of special classes; 5 teachers of open-air classes ..... 24
Now serving on tenure ..... 18
Appointed: To serve during the pleasure of the School Com- mittee.- Master's Assistant, Harriet E. Ells ..... 1
Appointed: To serve for the term ending August 31, 1929.-Assistants, Special Classes, Susan W. MacDonald, Sarah V.Regan; Assistants, Elementary, Mary G. Farley, MabelE. Leonard, Katherine I. McKenna5
Kindergartens.- Teachers. - Number entitled to .24
Now serving on tenure ..... 3
Appointed: To serve for the term ending August 31, 1929.-15
Assistant, Agnes C. Brine4
Note.- One of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of five teachers.

## CHAPMAN DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 18 in special classes; 1,084 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 27 grade teachers; 1 teacher of a special class ..... 28
Now serving on tenure ..... 14
Appointed: To serve during the pleasure of the School Com- mittee. - Master's assistant, Mary F. Roome; Assistants, Elementary, Alice K. Cummings, Ida Feldman ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Mary P. A. Deely, Mary E. Forrest, Florence E. Murphy, Mary R. Plunkett, Abigail H. Riordan, Roberta Selig, Elvira L. Vecchione ..... 7Kindergartens. - Teachers.- Number entitled to .24
Now serving on tenure ..... 5
Appointed: To serve for the term ending August 31, 1929.- Assistant, Muriel Rossman ..... 1
Note.- Two of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of eight teachers.
CHARLES SUMNER DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 1,087 inGrades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,077
Teachers.- Entitled to 27 grade teachers ..... 27
Now serving on tenure ..... 17
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Margaret M. Hughes ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, Robert G. O'Connell; Master's Assistant, Mary C. Rogers; Assistants, Elementary, Mary J. Browne, Helen L. Doyle, Eleanor V. Fallon, Monica Murphy, Mildred C. Phillips, Isabel A. Phillips ..... 8
Kindergarten. - Teachers. - Number entitled to26Now serving on tenure4
Appointed: To serve for the term ending August 31, 1929.-
Assistant, Frances A. McManus ..... 1Note. - Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof seven teachers.
CHRISTOPHER GIBSON DISTRICT.Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-819 inGrades I to VI; 372 in Grades VII to VIII.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,179
Teachers.- Entitled to 31 grade teachers ..... 31
Now serving on tenure ..... 18Appointed: To serve during the pleasure of the School Commit-tee.- Submaster, John W. Corcoran; Assistant, Elementary,Alice L. Kenney2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Pauline V. Byrne, Eleanor F. Clancy, Claire V. Daley, Mary E. Daley, Catherine G. Donahue, Marie A. Dwyer, Beatrice P. Eaton, Mary M. Hale, Catherine M. Hartnett, Elizabeth V. Hinds, Helen M. Moriarty ..... 11
Kindergartens.- Teachers. - Number entitled to31
Now serving on tenure ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistant, Mildred L. Manning ..... 1
Note. - The two kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent offour teachers.
DEARBORN DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 43 in un-graded classes; 10 in special classes; 1,220 in Grades I to VI;388 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,646
Teachers.- Entitled to 42 grade teachers; 1 teacher of an ungraded class; 1 teacher of a special class ..... 44
Now serving on tenure ..... 40
Appointed: To serve during the pleasure of the School Commit-tee.- Assistants, Elementary, Marion R. Boland, Helen C.MacLean2
Appointed: To serve for the term ending August 31, 1929.-Submaster, Edward J. Gill; Assistant, Intermediate,Katherine H. Collins; Assistant, Elementary, Theresa L.Monahan345
Kindergartens.- Teachers. - Number entitled to ..... 6
Now serving on tenure ..... 4Note. - Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
DILLAWAY DISTRICT.Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 33 in specialclasses; 847 in Grades I to VI; 227 in Grades VII to VIII.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,098
Teachers.- Entitled to 27 grade teachers; 2 teachers of special classes ..... 29
Now serving on tenure ..... 25
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Mary M. O'Gara ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Margaret E. Hannon, Ellen G. White ..... 2
Kindergartens.- Teachers. - Number entitled to28
Now serving on tenure ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Marguerite V. Archibald, Mary L. O'Neil ..... 2
Note.- The four kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of eight teachers.
DONALD McKAY INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-1,031 inGrades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,000
Teachers.- Entitled to 29 grade teachers ..... 29
Now serving on tenure ..... 19
Appointed: To serve during the pleasure of the School Com- mittee. - Master's Assistant, Florence M. Murphy ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, Francis P. Frazier; Assistants, Intermediate, Francis T. Carron, Esther M. Crook, Katherine A. Foley, Sadie N. Ginsberg, Anna M. Killion, Edward S. Murphy, Catherine G. Murray ..... 8

## DUDLEY DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 33 in special classes; 13 in classes for conservation of eyesight; 861 in Grades I to VI; 235 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,048
Teachers.- Entitled to 28 grade teachers; 2 teachers of special classes; 1 teacher of a class for conservation of eyesight ..... 31
Now serving on tenure ..... 20
Appointed: To serve during the pleasure of the School Com-mittee. - Submaster, Francis E. Winch; Assistant, Elemen-tary, Mildred T. Barron2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Kathryn Acton, Mary A. Colleran, Doris A. Knight, Thelma Knight, Olive C. Taylor ..... 5
Kindergartens.- Teachers. - Number entitled to ..... 6
Now serving on tenure ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistant, Doris E. Dillingham ..... 1
Note.- Two of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of six teachers.
DWIGHT DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 92 inspecial classes; 61 in hospital classes; 580 in Grades I to VI;161 in Grades VII to VIII.
Average number of pupils belonging for the period Septembet 1, 1927, to April 1, 1928 ..... 868
Teachers.- Entitled to 19 grade teachers; 6 teachers of special classes; 1 teacher of a hospital class ..... 26
Now serving on tenure ..... 22
Appointed: To serve during the pleasure of the School Com- mittee. - Assistant, Elementary, Margaret V. O'Connor ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistant, Elementary, Josephine E. Allen ..... 124
Kindergartens. - Teachers. - Number entitled to ..... 4
Now serving on tenure ..... 2
Note.- Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof four teachers.
EDMUND P. TILESTON DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,-17 in special classes; 31 in hospital classes; 1,219 in Grades I to VI; 265 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,452
Teachers.- Entitled to 38 grade teachers; 1 teacher of a special class; 2 teachers of hospital classes ..... 41
Now serving on tenure ..... 24Appointed: To serve during the pleasure of the School Com-mittee.-Assistant, Special Class, Catherine L. Dugan;Assistant, Intermediate, Mary E. Vaughan; Assistants,Elementary, Kathryn A. Holland, Esther E. Kusmo4Appointed: To serve for the term ending August 31, 1929.-Assistant, Intermediate, Edna Starnfield; Assistants,Elementary, Esther G. Baker, Esther R. Bass, Rose M.Connelly, Margaret C. Crimmins, Sarah Gorovitz, Anna C.McNair, Sara I. Silverman, Miriam Wilson9
Kindergartens.- Teachers.- Number entitled to ..... 6
Now serving on tenure ..... 3
Appointed: To serve during the pleasure of the School Commit- tee.-Assistant, Marguerita V. Pierce ..... 1
Note.- Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
EDWARD EVERETT DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 31 inspecial classes; 1,174 in Grades I to VI; 300 in Grades VIIto VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,492
Teachers.-Entitled to 38 grade teachers; 2 teachers of special classes ..... 40
Now serving on tenure ..... 30
Appointed: To serve during the pleasure of the School Commit- tee.- Master's Assistant, Leona J. Sheehan; Assistant, Intermediate, Mary G. Bellamy ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistant, Special Class, Olive E. Robinson; Assistant, Intermediate, Alice Rosenthal; Assistants, Elementary, Katherine P. Crowley, Vera Leaf, Julia E. Matthes, Alice S. Vincent ..... 6
Kindergartens.- Teachers. - Number entitled to ..... 6
Now serving on tenure ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Catherine B. Day, Francis L. Quinn ..... 2
Note.- Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
ELIHU GREENWOOD DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 16 in special classes; 1,190 in Grades I to VI; 380 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,548
Teachers.- Entitled to 40 grade teachers; 1 teacher of a special class ..... 41
Now serving on tenure ..... 23
Appointed: To serve during the pleasure of the School Commit- tee. - Assistants, Elementary, Jessie A. M. Smith, Mildred R. Smith ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Dorothy M. Buck, Lucy M. Chittick, Edith E. Corchemny, Sarah A. Demask, Madeleine C. Dwyer, Blanche E. Fitzpatrick, Helen Judge, Lucy R. MacDonald, Mary I. MacGibbon, Gertrude A. O'Toole, Josephine A. Ryan, Thomas J. F. Teehan ..... 12
Kindergartens. - Teachers. - Number entitled to ..... 937
Now serving on tenure
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Pauline F. Smith ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistants, Alice M. Dias, Helen W. Maiers ..... 2
Note.- Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof nine teachers.
ELIOT DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 57 inungraded classes; 66 in special classes; 31 in hospital classes;12 in classes for conservation of eyesight; 1,811 in GradesI to VI.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,932
Teachers.- Entitled to 45 grade teachers; 2 teachers of ungraded classes; 4 teachers of special classes; 1 teacher of a hospital class; 1 teacher of a class for conservation of eyesight ..... 53
Now serving on tenure ..... 44
Appointed: To serve during the pleasure of the School Commit-tee.- Assistant, Special Class, Esther M. Sheehan; Assist-ants, Elementary, Anna E. McFarland, Margaret E. Power,Mary C. Redican4
Appointed: To serve for the term ending August 31, 1929.-Assistant, Special Class, Frances G. Kershlis; Assistants,Elementary, Anna J. Copell, Grace F. Jeffrey3
Kindergartens. - Teachers. - Number entitled to . ..... 1051
Now serving on tenure ..... 2Appointed: To serve for the term ending August 31, 1929.-First Assistant, Elizabeth A. Millerick; Assistants, Hattie E.Fisher, Grace A. E. McGowan, Mary D. Sullivan .4

Note. - Four of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of ten teachers.

## EMERSON DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 37 in special classes; 1,225 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,220
Teachers.- Entitled to 30 grade teachers; 2 teachers of special classes ..... 32
Now serving on tenure ..... 16
Appointed: To serve during the pleasure of the School Commit- tee.- Assistants, Elementary, Margaret M. Shea, Agnes M. Sullivan ..... 2
Appointed: To serve for the term ending August 31, 1929.- Submaster, John F. Gorman; Master's Assistant, Gertrude V. Nugent; Assistants, Special Classes, Abbie I. Kilroy, Helen Z. Kimball; Assistants, Elementary, Dorothea E. Coleman, Helen F. Dardis, Mary C. Draper, Mary G. Keliher, Madeline J. Park, Helen F. Murphy, Anne P. Roe ..... 11Kindergartens.- Teachers. - Number entitled to5
Now serving on tenure ..... 2
Appointed: To serve during the pleasure of the School Commit- tee.-Assistant, Laura M. Lewis ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistants, M. Dorothy Dallas, Miriam M. Maloney ..... 2
EMILY A. FIFIELD DISTRICT.
Elementary Grades. - Largest number, of pupils belongingbetween September 1, 1927, and April 1, 1928,- 13 in specialclasses; 1,044 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,030
Teachers.- Entitled to 26 grade teachers; 1 teacher of a special class ..... 27
Now serving on tenure ..... 12
Appointed: To serve for the term ending August 31, 1929.-Submaster, William F. Barrett; Master's Assistant, FlorenceM. Miller; Assistants, Elementary, Etta Bell, Mary F.Canning, Marion L. Carnegie, Catherine A. Coffey, Mary T.Lynch, Marion V. Mahan, Laura E. Preble, Alice G. Roulston,Grace M. Sweeney, Louise M. Stalker, Genevieve Wakeling;Assistant, Special Class, Marjorie C. Bailey14
Kindergartens. - Teachers. - Number entitled to ..... 26
Now serving on tenure ..... 1Appointed: To serve for the term ending August 31, 1929.-Assistant, Geraldine P. Hennessey1
Note. - The two kindergarten teachers served two sessions sothat the kindergartens were operated with the equivalent offour teachers.

## EVERETT DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 34 in special classes; 761 in Grades I to VI; 161 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 887
Teachers.- Entitled to 23 grade teachers; 2 teachers of special classes ..... 25
Now serving on tenure ..... 14
Appointed: To serve during the pleasure of the School Commit- tee. - Assistants, Elementary, Helen M. Leonard, Dorothy E. Newton ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistant, Special Class, Alice L. Burke; Assistant, Inter- mediate, Gladys E. Shevlin; Assistants, Elementary, Evelyn M. Brattin, Gertrude C. Cadogan, Gertrude V. Hadley, Alice M. Nolan, Margaret M. Rafferty. ..... 7
Kindergartens. - Teachers. - Number entitled to . ..... 223
Now serving on tenure ..... 2
FRANCIS PARKMAN DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 634 in Grades I to VI; 182 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 809
Teachers.- Entitled to 21 grade teachers ..... 21
Now serving on tenure ..... 11
Appointed: To serve during the pleasure of the School Com- mittee.-Assistant, Elementary, Esther E. Goodway ..... 1
Appointed: To serve for the term ending August 31, 1929.— Master's Assistant, Margaret M. Sullivan; Assistants, Elementary, Catherine G. Crane, Katherine C. Hanley, Helen R. Hines, Louise M. Keenan, Dorothy H. Norris, Anna A. Rush ..... 7
Kindergartens.- Teachers.- Number entitled to . ..... 4
Now serving on tenure ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistant, Helen Gorodetsky ..... 1
FRANKLIN DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 17 in special classes; 23 in classes for conservation of eyesight 758 in Grades I to VI; 138 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 904
Teachers.- Entitled to 23 grade teachers; 1 teacher of a special class; 2 teachers of classes for conservation of eyesight ..... 26
Now serving on tenure ..... 16
Appointed: To serve during the pleasure of the School Com- mittee.- Assistant, Elementary, Anna Shultz ..... 1
Appointed: To serve for the term ending August 81, 1929.- Assistant, Intermediate, Mabel R. Nathanson; Assistants, Elementary, Dorothy F. Burke, Mary R. Carroll, Alice N. O'Leary, Margaret M. Regan, Claire E. Sullivan ..... 6
Kindergartens.- Teachers. - Number entitled to .23Now serving on tenure2
Appointed: To serve during the pleasure of the School Com- mittee.-Assistants, Julia F. McInerney, Marion M. Scarr, ..... 2
FRANK V. THOMPSON INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 1,601 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,380
Teachers.- Entitled to 45 grade teachers ..... 45
Now serving on tenure ..... 30
Appointed: To serve during the pleasure of the School Com- mittee.- Assistant, Intermediate, Elizabeth Beatty ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, Walter A. Cremen; Assistants, Intermediate, Augusta Cantor, Mary A. Curran, Louise A. Glavin. Mar- garet M. Hinchey, Emily E. Kendregan, Dorothy L. Leonard, Robert E. Pyne ..... 8
FREDERIC W. LINCOLN DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-471 inGrades I to VI; 153 in Grades VII to VIII.
Average number of pupils belonging for the period September 1 1927, to April 1, 1928 ..... 612
Teachers. - Entitled to 16 grade teachers ..... 16
Now serving on tenure ..... 13Appointed: To serve for the term ending August 31, 1929.-Assistants, Elementary, Lillian C. Crowley, Marjorie F.McMahon, Mary M. Powers3
Kindergartens. - Teachers. - Number entitled to16
Now serving on tenure ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistant, Eleanor J. McNally ..... 1
Note. - The two kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of four teachers.

## GASTON DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 681 in grades I to VI; 297 in Grades VII and IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,043
Teachers.- Entitled to 25 grade teachers ..... 25
Now serving on tenure ..... 20
Appointed: To serve during the pleasure of the School Commit- tee.- Master's Assistant, Marion L. Owen; Assistants, Elementary, Regina M. C. Cronin, Katherine R. Goode ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Mollie E. Collins, Frances R. Sullivan ..... 2
Kindergartens.- Teachers.- Number entitled to .25
Now serving on tenure ..... 2
Note.- The two kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of four teachers.
GILBERT STUART DISTRICT.
Elementary Grades. - Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-621 inGrades I to VI; 131 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 732
Teachers.- Entitled to 19 grade teachers ..... 19
Now serving on tenure ..... 15
Appointed: To serve during the pleasure of the School Commit- tee. - Assistant, Elementary, Frances H. Bird ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Mary E. Duffy, Frances M. Griffin, Alice K. Merrick, Muriel H. Murray ..... 4
Kindergartens. - Teachers. - Number entitled to ..... 520
Now serving on tenure
Note.- One of the kindergarten teachers served two sessions sothat the kindergartens were operated with the equivalent offive teachers.
GROVER CLEVELAND INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 684 inGrades VII to IX; 57 in rapid advancement classes.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 737
Teachers.- Entitled to 19 grade teachers; 2 teachers of rapid advancement classes ..... 21
Now serving on tenure ..... 15
Appointed: To serve during the pleasure of the School Commit- tee.-Assistant, Intermediate, Margaret M. Hosman ..... 1Appointed: To serve for the term ending August 31, 1929.-Assistants, Intermediate, Richard J. Crowley, Marie T.Harrington, Francis A. Kelly, Joyce H. Young4

## HANCOCK DISTRICT.

| Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 95 in special classes; 16 in special English classes; 60 in open-air classes; 1,373 in Grades I to VI. |  |
| :---: | :---: |
| Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 | 1,514 |
| Teachers.- Entitled to 34 grade teachers; 6 teachers of special classes: 1 teacher of a special English class; 2 teachers of open-air classes | 43 |
| Now serving on tenure | 38 |
| Appointed: To serve during the pleasure of the School Commit-tee.- Master's Assistant, Margaret Mulligan; Assistants, Elementary, Emeline V. Holohan, Marie M. Raftery | 3 |
| Appointed: To serve for the term ending August 31, 1929.Assistants, Special Classes, Dorothy G Litchfield, Rachel T. Riley, Assistant, Elementary, Catherine F. Malone | 3 |
| Kindergartens.- Teachers.- Number entitled to | 44 18 |
| Now serving on tenure | 9 |
| Note.- The nine kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of eighteen teachers. |  |

## HARVARD-FROTHINGHAM DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 49 in special classes; 11 in classes for conservation of eyesight; 820 in Grades I to VI; 230 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 27 grade teachers; 3 teachers of special classes; 1 teacher of a class for conservation of eyesight
Now serving on tenure . . . . . . . . . 21
Appointed: To serve during the pleasure of the School Com-mittee.- Submaster, Paul Cloues; Assistants, Elementary, Sarah E. Bunyon, Frances J. Carroll, Mary B. Clifford, Gertrude A. Coffey, Ruth L. Darville
Appointed: To serve for the term ending August 31, 1929.Assistant, Intermediate, Katherine D. Sullivan; Assistant, Special Class, Catherine I. HagertyKindergartens.- Teachers. - Number entitled to29
Now serving on tenure ..... 5Appointed: To serve during the pleasure of the School Com-mittee.- Assistant, Elizabeth K. Weaver1

Note.- One of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of seven teachers.

## HENRY GREW DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,-937 in Grades I to VI; 262 in Grades VII to VIII.
Average number of pupils belonging for the period September 1. 1927, to April 1, 1928 ..... 1,171
Teachers.- Entitled to 31 grade teachers ..... 31
Now serving on tenure ..... 14
Appointed: To serve during the pleasure of the School Com- mittee.-Assistants, Elementary, Lucy E. Barrett, Anna I. Danahy, Kathleen V. Martin, Anna A. Moriarty ..... 4
Appointed: To serve for the term ending August 31, 1929.-Master's Assistant, Lavinia S. Powers; Assistants, Elemen-tary, Irma L. Battis, Helen K. Corrigan, Madeline C.Cunningham, Grace E. Flanagan, Ida G. Finn, Esther L.Glovsky, Margaret M. Glennon, Louis Osterman, MargaretP. Sheehan10
Kindergartens.- Teachers.- Number entitled to . ..... 28
Now serving on tenure ..... 5
Appointed. To serve for the term ending August 31, 1929.— Assistants, Mary J. McCarthy, Ruth R. Pengilly. ..... 2
HENRY L. HIGGINSON DISTRICT.
Elementary Grades.- Largest number of pupils belong between September 1, 1927, and April 1, 1928,-1,035 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, and April 1, 1928 ..... 1,020
Teachers.- Entitled to 26 grade teachers ..... 26
Now serving on tenure ..... 15
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Margaret F. Fitzgerald ..... 1
Appointed: To serve for the term ending August 31, 1929.-Submaster, John P. Shea; Assistants, Elementary, Mary C.Flynn, Catherine M. Hanley, Pauline Hoffman, Hannah D.Levy, Mary A. McClellan, Beatrice A. McCuspie, MargueriteE. Quilty8Kindergartens. - Teachers. - Number entitled to24
Now serving on tenure ..... 5
Appointed: To serve during the pleasure of the School Commit- tee. - First Assistant, Catherine M. McCance ..... 1
Appointed: To serve for the term ending August 31, 1929.-
Assistants, Florence G. Bogrette, Anna V. Doyle ..... 2

Note.- Two of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of ten teachers.
HENRY L. PIERCE DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 546 in Grades I to VI; 804 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,150
Teachers.- Entitled so 36 grade teachers ..... 36
Now serving on tenure ..... 28
Appointed: To serve for the term ending August 31, 1929.-- Assistants, Elementary, Marjorie F. Keating, Sibyl U. Murphy, Margaret M. Steptoe ..... 3
Kindergartens.- Teachers.- Number entitled to . ..... 31
Now serving on tenure ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elinor Glynn, Isabel C. Scott ..... 2Note. - Three of the kindergarten teachers served two sessions,so that the kindergartens were operated with the equivalentof seven teachers.
HORACE MANN SCHOOL.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928 ..... 155
Average number of pupils belonging for the period September 1, 1927, and April 1, 1928 ..... 152
Teachers.- Entitled to 16 grade teachers ..... 16
Now serving on tenure ..... 11
Appointed: To serve for the term ending August 31, 1929.- Assistants, Varsenig Boyajian, Anna I. Hines, Dorothy H. Lane, Edith Richards, Katherine H. Shields ..... 5
HUGH O'BRIEN DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 17 in special classes; 13 in classes for conservation of eyesight; 1,343 in Grades I to VI; 448 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,807
Teachers.- Entitled to 46 grade teachers; 1 teacher of a special class; 1 teacher of a class for conservation of eyesight, ..... 48
Now serving on tenure ..... 31
Appointed: To serve during the pleasure of the School Commit- tee.-Assistants, Elementary, Mary Jordan, Ruth E. Kelly, Agnes L. McQueeney ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Mary Beatty, Lauretta H. Burns, Catherine J. Connolly, Ida M. Durkee, Esther M. FitzGerald, Alice E. Haggerty, Lorna A. Hermes, Margaret M. Kennedy, Mabel A. T. McCloskey, Florence R. Sullivan, Mary C. Toomey ..... 11
Kindergartens.- Teachers. - Number entitled to ..... 8
Now serving on tenure ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Margaret E. Fields, Loretta M. Monahan ..... 2Note.- The four kindergarten teachers served two sessions sothat the kindergartens were operated with the equivalent ofeight teachers.
HYDE DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 15 in special classes; 565 in Grades I to VI; 136 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 690
Teachers.- Entitled to 18 grade teachers; 1 teacher of a special class ..... 19
Now serving on tenure ..... 14
Appointed: To serve during the pleasure of the School Com- mittee.- Assistant, Elementary, Sadie M. Mitchell ..... 1
Appointed: To serve for the term ending August 31, 1929.- Master's Assistant, Clara S. Ziersch; Assistants, Elementary, Alice L. Morse, Miriam K. O'Shea; Re-entrant. Temporary Assistant, Ellen G. Phillimore ..... 4
Kindergartens. - Teachers. - Number entitled to19
Now serving on tenure ..... 4
Note. - Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
JEFFERSON-COMINS DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 12 inspecial classes; 1.045 in Grades I to VI; 312 in Grades VII toVIII.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,357
Teachers.- Entitled to 35 grade teachers; 1 teacher of a special class ..... 36
Now serving on tenure ..... 24Appointed: To serve during the pleasure of the School Com-mittee.-Assistants, Elementary, Frances B. McCarron,Ruth E. Tilt2
Appointed: To serve for the term ending August 31, 1929.-Assistants, Elementary, Agnes T. Barry, Mary J. Burke,Mary V. Davin, Esther M. Hanney, Elizabeth M. Kelleher,Mary D. McCormick, Dora F. Rosengard; Re-entrantTemporary Assistant, Mary E. Sullivan8
Kindergartens.- Teachers. - Number entitled to ..... 7
Now serving on tenure ..... 4
Appointed: To serve for the term ending August 31, 1929.- Assistant, Christine M. Murphy ..... 1
Note. - Two of the kindergarten teachers served two sessions ..... 5
JOHN A. ANDREW DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 13 inspecial classes; 869 in Grades I to VI; 248 in Grades VII toVIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,119
Teachers.- Entitled to 28 grade teachers; 1 teacher of a special class ..... 29
Now serving on tenure ..... 15Appointed: To serve for the term ending August 31, 1929.-Assistants, Intermediate, Thelma M. Anderson, MarjorieI. A. Lynch; Assistants, Elementary, Marie F. Broder,Anna J. Chapman, Mary J. Conners, Anna C. Geoghegan,Louise E. Hurley, Miles G. Lee, Mary D. McCusker, AnnaE. Murray, A. Patricia Small; Re-entrant TemporaryAssistant, Helen A. Ryerson . . . . . . . 1212
Kindergartens. - Teachers. - Number entitled to ..... 27 ..... 4
Appointed: To serve for the term ending August 31, 1929.- Assistant, Genevieve V. McCarrick ..... 1
JOHN CHEVERUS DISTRICT.

Elementary Grades. - Largest number of pupils belonging

Elementary Grades. - Largest number of pupils belonging

Elementary Grades. - Largest number of pupils belonging

Elementary Grades. - Largest number of pupils belonging   between September 1, 1927, and April 1, 1928,- 15 in   between September 1, 1927, and April 1, 1928,- 15 in   between September 1, 1927, and April 1, 1928,- 15 in   between September 1, 1927, and April 1, 1928,- 15 in   special classes; 14 in classes for conservation of eyesight;   special classes; 14 in classes for conservation of eyesight;   special classes; 14 in classes for conservation of eyesight;   special classes; 14 in classes for conservation of eyesight;   612 in Grades I to VI; 187 in Grades VII to VIII.   612 in Grades I to VI; 187 in Grades VII to VIII.   612 in Grades I to VI; 187 in Grades VII to VIII.   612 in Grades I to VI; 187 in Grades VII to VIII.

Average number of pupils belonging for the period September

Average number of pupils belonging for the period September

Average number of pupils belonging for the period September

Average number of pupils belonging for the period September   1, 1927, to April 1, 1928   1, 1927, to April 1, 1928   1, 1927, to April 1, 1928   1, 1927, to April 1, 1928 .....  .....  ..... 785 .....  .....  ..... 785 .....  .....  ..... 785 .....  .....  ..... 785

Teachers. - Entitled to 20 grade teachers; 1 teacher of a

Teachers. - Entitled to 20 grade teachers; 1 teacher of a

Teachers. - Entitled to 20 grade teachers; 1 teacher of a

Teachers. - Entitled to 20 grade teachers; 1 teacher of a  special class; 1 teacher of a class for conservation of eyesight,  special class; 1 teacher of a class for conservation of eyesight,  special class; 1 teacher of a class for conservation of eyesight,  special class; 1 teacher of a class for conservation of eyesight, .....  ..... 22 .....  ..... 22 .....  ..... 22 .....  ..... 22
Now serving on tenure
Now serving on tenure
Now serving on tenure
Now serving on tenure ..... 16 ..... 16 ..... 16 ..... 16
Appointed: To serve during the pleasure of the School Com-
Appointed: To serve during the pleasure of the School Com-
Appointed: To serve during the pleasure of the School Com-
Appointed: To serve during the pleasure of the School Com- mittee. - Assistant, Intermediate, Theresa A. Larkin mittee. - Assistant, Intermediate, Theresa A. Larkin mittee. - Assistant, Intermediate, Theresa A. Larkin mittee. - Assistant, Intermediate, Theresa A. Larkin ..... 1 ..... 1 ..... 1 ..... 1
Appointed: To serve for the term ending August 31, 1929.-
Appointed: To serve for the term ending August 31, 1929.-
Appointed: To serve for the term ending August 31, 1929.-
Appointed: To serve for the term ending August 31, 1929.- Assistant, Elementary, Lillian M. Connelly, Florence J. Assistant, Elementary, Lillian M. Connelly, Florence J. Assistant, Elementary, Lillian M. Connelly, Florence J. Assistant, Elementary, Lillian M. Connelly, Florence J. Matthews Matthews Matthews Matthews ..... 2 ..... 2 ..... 2 ..... 22
Note. - The two kindergarten teachers served two sessions so Note.- The two kindergarten teachers served two sessions so
that the kindergartens were operated with the equivalent of four teachers.
so that the kindergartens were operated with the equivalent of seven teachers.Lo L. Hurly, Miles G. Lee, Mary D. Mccuske, Ara
Appointed: To serve during the pleasure of the School Com-
mittee.- First Assistant, Anastasia C. McCarthy ..... 1 ..... 
Kindergartens. - Teachers. - Number entitled to . ..... 4
Now serving on tenure ..... 3
Appointed: To serve for the term ending August 31, 1929.- Assistant, Anna L. Curley ..... 1
JOHN MARSHALL DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 131 in special classes; 1,396 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,510
Teachers.- Entitled to 35 grade teachers; 9 teachers of special classes ..... 44
Now serving on tenure ..... 28
Appointed: To serve during the pleasure of the School Com- mittee.- Assistants, Elementary, Mary G. Cussen, Ethel C. Lane, Ruth C. Ryan ..... 3
Appointed: To serve for the term ending August 31, 1929.— Submaster, Forrest Levis; Assistants, Elementary, Kathleen D. Cox, Edith L. Greenberg, Julia R. Hennessey, Catherine E. Hurley Esther Sampson; Assistants, Special Classes, Margaret R. Black, Josephine C. Coffin, Lois M. Oliver, Anna M. Rogers ..... 10Kindergartens.- Teachers. - Number entitled to41
Now serving on tenure ..... 3Appointed: To serve for the term ending August 31, 1929.-Assistants, Katherine I. Carrigan, Hazel S. Harris2Note. - Four of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof nine teachers.
JOHN WINTHROP DISTRICT.
Elementary Grades. - Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 18 inspecial classes; 1,274 in Grades I to VI; 443 in Grades VIIto IX.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,860
Teachers.- Entitled to 44 grade teachers; 1 teacher of a special class ..... 45
Now serving on tenure ..... 30Appointed: To serve during the pleasure of the School Com-mittee. - Assistant, Elementary, Johanna C. Eagan1Appointed: To serve for the term ending August 31, 1929.-Assistant, Special Class, Helen L. Flynn; Assistants, Inter-mediate, Mary A. Gleason, Katharine L. Mannix; Assistants,Elementary, Elizabeth M. Donohue, Alice R. Duffy, Mary
T. P. Eagan, Katharine E. Holland, Loretta T. Mulligan, Marjorie M. Murphy, Elizabeth B. Perlmutter, Mary R. Sullivan, Annie F. Weiner ..... 12
43Kindergartens.- Teachers. - Number entitled to
Now serving on tenure6
Appointed: To serve during the pleasure of the School Com- mittee.- First Assistant, Muriel E. Lowell ..... 1
Note. - Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
JOSEPH H. BARNES INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,-1,133 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,112
Teachers.- Entitled to 32 grade teachers ..... 32
Now serving on tenure ..... 26
Appointed: To serve for the term ending August 31, 1929.-Assistants, Intermediate, Paul M. Burke, Marjorie Daven-port, Catherine M. Doherty, Helen B. Peterson, William G.Tobin5

## JULIA WARD HOWE DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928 - 16 in special classes; 1,221 in Grades I to VI; 32 in rapid advancement classes.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,245
Teachers.- Entitled to 30 grade teachers; 1 teacher of a special class; 1 teacher of a rapid advancement class ..... 32
Now serving on tenure ..... 19Appointed: To serve during the pleasure of the School Commit-tee.- Assistants, Elementary, Katherine E. L. Creagh, HelenF. Klocker, M. Winnifred Reilly3
Appointed: To serve for the term ending August 31, 1929.- Submaster, John H. Treanor; Assistants, Elementary, Eliza- beth F. Byrne, Mary T. Carew, Catharine G. Coleman, Mary I. Colwell, Mary L. Conroy, Vera E. Gallagher, E. Madeline Toner ..... 8
Kindergartens. - Teachers. - Number entitled to ..... 30 ..... 4
Now serving on tenure ..... 2Note. - The two kindergarten teachers served two sessions sothat the kindergartens were operated with the equivalent offour teachers.

## LAWRENCE DISTRICT.

Elementary Gradees. - Largest number of pupils belonging between Ssptember 1, 1927, and April 1, 1928,- 17 in special classes; 615 in Grades 1 to VI; 161 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928

Teachers.- Entitled to 20 grade teachers; 1 teacher of a
special class

Now serving on tenure . . . . . . . . . . 11
Appointed: To serve during the pleasure of the School Commit-tee.-Assistant, Special Classes; Eilleen R. Marshall
Appointed: To serve for the term ending August 31, 1929.Submaster, William J. Barry; Master's Assistant, Joanna Z. Connell; Assistants, Elementary, Bessie Cohen, Mary Mahoney, Josephine F. O'Connell, Helen L. Whalen

Kindergartens. - Teachers. - Number entitled to . . . 2
Now serving on tenure . . . . . . . . . 2

## LEWIS INTERMEDIATE DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,-169 in Grades I to VI; 856 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
'Teachers.- Entitled to 28 grade teachers . . . . 28
Now serving on tenure . . . . . . . . . 15
Appointed: To serve during the pleasure of the School Commit-tee.-Assistants, Intermediate, Catharine L. Heagney, Florence A. McCarthy, Anne L. Thompson

## LONGFELLOW DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 13 in special classes; 1,465 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 36 grade teachers; 1 teacher of a special class
Now serving on tenure . . . . . . . . . 23
Appointed: To serve during the pleasure of the School Com-mittee.-Assistants, Elementary, Gladys K. Barron, Anna L. Kelly, Madaline Small
Appointed: To serve for the term ending August 31, 1929.-Assistants, Elementary, Myrna F. Bryant, Mary C. Campbell,Helen V. Crowley, Esther K. A. Johnson, Edith C. Little,Mary L. McDevitt, Agnes M. McNulty, Martha J. E. Volk834
Kindergartens. - Teachers. - Number entitled to ..... 12
Now serving on tenure ..... 3
Appointed: To serve during the pleasure of the School Com- mittee. - First Assistants, Helen E. Freeman, Marion E. Godfrey; Assistant, Evangeline E. Conza ..... 3
Appointed: To serve for the term ending August 31, 1929.- First Assistant, Marguerita R. Foley; Assistants, Catherine E. Beahan, Katherine A. Eldridge ..... 3
Note. - Three of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof twelve teachers.

## LOWELL DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 35 in special classes; 840 in Grades I to VI; 258 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928.
Teachers.- Entitled to 28 grade teachers; 2 teachers of special classes ..... 30
Now serving on tenure ..... 22
Appointed: To serve during the pleasure of the School Com- mittee.- Submaster, William R. Silva; Assistant, Inter- mediate, Mary C. Welch ..... 2
Appointed: To serve for the term ending August 31, 1929.- Master's Assistant, Anne A. F. Mellish; Assistants, Elemen- tary, Dorothy A. Brennan, Josephine T. Donohue, Agnes L. MacLachlan Smith ..... 4
Kindergartens.- Teachers. - Number entitled to . ..... 28 ..... 8
Now serving on tenure ..... 2
Appointed: To serve during the pleasure of the School Com- mittee.- First Assistant, Lillian Cherry ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistant, Grace C. Newell ..... 1
Note.- Three of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of seven teachers.

## MARTIN DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 40 in hospital classes; 13 in classes for conservation of eyesight ; 504 in Grades I to VI; 169 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928. ..... 690
Teachers.- Entitled to 19 grade teachers; 1 teacher of a hospital class; 1 teacher of a class for conservation of eyesight, ..... 21
Now serving on tenure ..... 11
Appointed: To serve during the pleasure of the School Com-mittee.- Assistants, Elementary, Grace R. Corrigan,Edith M. Holway, Mary E. McLean, Cora L. Mulrey4
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Edith E. Anderson, Blanche M. Hurley, Pauline R.Powers, Agnes V. Tobin ..... 4
Kindergartens.- Teachers, - Number entitled to ..... 619
Now serving on tenure ..... 2
Appointed: To serve for the term ending August 31, 1929.-
Assistants, Eleanor M. Jennings, Alda I. McNally ..... 2
Note.- Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
MARY HEMENWAY DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 12 inspecial classes; 1,287 in Grades I to VI; 482 in Grades VII toIX.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,750
Teachers.- Entitled to 46 grade teachers; 1 teacher of a special class ..... 47
Now serving on tenure ..... 34Appointed: To serve during the pleasure of the School Com-mittee.-Assistant, Special Class, A. Viveca Mattox;Assistant, Intermediate, Dorothea L. O'Shea; Assistant,Elementary, Mary A. Sullivan3
Appointed: To serve for the term ending August 31, 1929.- Assistants, Intermediate, Marion L. Bartlett, Esther M. Germaine; Assistants, Elementary, M. Winafred Lynch, Anna E. Quinn, Alice L. Treacy, 'Gertrude M. F. Treanor, Rita M. Sherry, Irene M. Sullivan, Katherine M. Urich ..... 946
Kindergartens.- Teachers.- Number entitled to . ..... 5
Now serving on tenure ..... 4
Appointed: To serve for the term ending August 31, 1929.- Assistant, Helen M. Greene ..... 1

## MATHER DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 34 in special classes; 1,818 in Grades I to VI; 368 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 2,204
Teachers.- Entitled to 56 grade teachers; 2 teachers of special classes ..... 58
Now serving on tenure ..... 43
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Special Class, Ruth Murphy ..... 1
Appointed: To serve for the term ending August 81, 1929.- Master's Assistant, Mary A. Starkey; Assistants, Elemen- tary, Linnea V. Bamberg, Irene J. DeMeulenaer, Elizabeth M. Good, Gladys L. Harrington, Frances K. Higgins, Jean P. Howell, Hazel L. Jameson, Mildred A. Kresser, Rebecca D. Kittredge, Margaret O. Lien ..... 11
Kindergartens. - Teachers.- Number entitled to55
12
12
Now serving on tenure ..... 4
Appointed: To serve for the term ending August 31, 1929.- Assistants, Dorothea A. Schiel, Marian A. Warren ..... 2Note. - The six kindergarten teachers served two sessions sothat the kindergartens were operated with the equivalent oftwelve teachers.
MICHELANGELO INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 925 in- Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 925
Teachers.- Entitled to 26 grade teachers ..... 26 ..... 26
Now serving on tenure ..... 20
Appointed: To serve during the pleasure of the School Commit- tee.-Submaster, Francis J. Lyons ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistants, Intermediate, William F. Barry, Charles O. Ruddy, Agatha M. Scarnici ..... 3
MINOT DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,-611 in Grades I to VI; 181 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 771
Teachers.- Entitled to 20 grade teachers ..... 20
Now serving on tenure ..... 13
Kindergartens.- Teachers.- Number entitled to .Appointed: To serve for the term ending August 31, 1929.-First Assistant, Bertha K. Rice; Assistant, Marian H.Parker2
Note.- One of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof three teachers.

## NORCROSS DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 22 in ungraded classes; 16 in special classes; 13 in classes for conservation of eyesight; 757 in Grades I to VI; 281 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 27 grade teachers; 1 teacher of an ungraded class; 1 teacher of a special class; 1 teacher of a class for conservation of eyesight
Now serving on tenure ..... 19
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Helen T. Curtis ..... 1Appointed: To serve for the term ending August 31, 1929.-Assistants, Elementary, Blanche E. Briggs, Mildred A.Dolliver, Eleanor S. Foster, Frances H. Gunning, Mary L.MacDonald, .Lillian Schaub, Marie D. Sullivan, Mary M.Walsh8
Kindergartens.- Teachers. - Number entitled to28
Now serving on tenure ..... 4
OLIVER HAZARD PERRY DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 14 in special classes; 533 in Grades I to VI; 189 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 717
Teachers.- Entitled to 18 grade teachers; 1 teacher of a special class ..... 19
Now serving on tenure ..... 15
Appointed: To serve for the term ending August 31, 1929.-Submaster, Francis J. Dillon; Assistants, Elementary, LillianT. Kearney, Mary A. Reilly318
Kindergartens. - Teachers.- Number entitled to . ..... 3
Now serving on tenure ..... 2

Note.- One of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of three teachers.

## OLIVER WENDELL HOLMES INTERMEDIATE DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 1,058 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,053
Teachers.- Entitled to 30 grade teachers ..... 30
Now serving on tenure ..... 24
Appointed: To serve for the term ending August 31, 1929.-Assistants, Intermediate, E. Ella Beach, Irene M. Bragan,John J. Connelly, William F. Dowling, Katherine F.McArdle, Katherine M. Ray6
PHILLIPS BROOKS DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,-1,220 in Grades I to VI; 398 in Grades VII to VIII. 1, 1927, to April 1, 1928 ..... 1,605
Teachers.- Entitled to 41 grade teachers ..... 41
Now serving on tenure ..... 27
Appointed: To serve during the pleasure of the School Com- mittee.-Submaster, LeRoy T. Martin; Assistant, Elemen- tary, Bertha M. Wright ..... 2
Appointed: To serve for the term ending August 31, 1929.- Submaster, Frank J. Herlihy; Assistant, Intermediate, Mary S. Ireland; Assistants, Elementary, Rose R. Braxton, Margaret M. Burns, Anna G. Byrne, Marie J. Donovan, Blanche Feldman, Frances B. McMorrow, Sarra N. Rosen- baum, Marie J. Walsh ..... 10
Kindergartens.- Teachers. - Number entitled to39
Now serving on tenure ..... 3
Appointed: To serve during the pleasure of the School Com- mittee.- Assistant, Celia L. Hurwitch ..... 1
Note. - The four kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof eight teachers.

## PRESCOTT DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 14 in special classes; 587 in Grades I to VI; 136 in Grades VII to VIII.

Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 18 grade teachers; 1 teacher of a special class ..... 19
Now serving on tenure ..... 11
Appointed: To serve during the pleasure of the School Com- mittee.-Assistants, Elementary, Mary A. Donahue, Catherine T. O'Connor ..... 2
Appointed: To serve for the term. ending August 31, 1929.- Assistants, Elementary, Alice P. Bransfield, Louise F. Hill, Laura M. Holland, Catherine C. Roche, Margaret E. Scanlan, Helen F. Hegarty; Assistant, Special Class, Helen B. Berrigan ..... 720
Kindergartens.- Teachers. - Number entitled toNow serving on tenure1
Appointed: To serve during the pleasure of the School Com- mittee. - Assistant, Mary E. Freeman ..... 1
PRINCE DISTRICT.
Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 860 in Grades I to VI; 282 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,109
Teachers.- Entitled to 29 grade teachers ..... 29
Now serving on tenure ..... 24
Appointed: To serve during the pleasure of the School Com-mittee.-Assistants, Elementary, Mary C. McLaughlin,Viola C. Soelle2
Appointed: To serve for the term ending August 31, 1929.- Assistant, Intermediate, A. Ruberta Nelson; Assistant, Elementary, Teresa M. Doherty ..... 2
Kindergartens.- Teachers. - Number entitled to ..... 328
Now serving on tenure ..... 3
QUINCY DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 45 in specialclasses; 744 in Grades I to VI; 130 in Grades VII to VIII.
Average number of pupils belonging for the period September901 Teachers. - En
special classes ..... 25
Now serving on tenure ..... 23
Appointed: To serve for the term ending August 31, 1929.-
Appointed: To serve for the term ending August 31, 1929.-
Submaster, George L. McKinnon; Assistant, Special Class,
Submaster, George L. McKinnon; Assistant, Special Class, Mary A. Gilligan; Assistant, Elementary, Marion C. Kiernan, Mary A. Gilligan; Assistant, Elementary, Marion C. Kiernan, ..... 3 ..... 3
Kindergartens. - Teachers. - Number entitled to
Kindergartens. - Teachers. - Number entitled to ..... 26 ..... 26 ..... 8 ..... 8
Now serving on tenure ..... 4
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Ruth N. Kenney ..... 1
Appointed: To serve for the term ending August 31, 1929.-1
1, 1927, to April 1, 1928
Teachers.- Entitled to 22 grade teachers; 3 teachers of
Teachers.- Entitled to 22 grade teachers; 3 teachers of
Assistant, Frances H. Garrett6
Note.- Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof eight teachers.
RICE DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 19 in specialclasses; 676 in Grades I to VI; 296 in Grades VII to VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 972
Teachers.- Entitled to 25 grade teachers; 1 teacher of a special class ..... 26
Now serving on tenure ..... 17
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Dorothy L. Winchenbach ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, Thomas D. Craven; Assistant, Intermediate, Honora G. Lynch; Assistants, Elementary, Anastasia M. Kelly, Clara C. Mee, Margaret M. O'Reilly, Helen D. Tuttle, ..... 6
Kindergartens. - Teachers. - Number entitled to4
Now serving on tenure ..... 1
Appointed: To serve for the term ending August 31, 1929.- Assistant, Helen Goldstein ..... 1
ROBERT GOULD SHAW DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 13 inspecial classes; 1,377 in Grades I to VI; 519 in Grades VIIto IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,899
Teachers.- Entitled to 49 grade teachers; 1 teacher of a special class ..... 50
Now serving on tenure ..... 34
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Margaret L. Donahue ..... 1
Appointed: To serve for the term ending August 31, 1929.-Assistant, Special Class, Louisa M. Phippard; Assistants,Intermediate, Sarah H. Christie, Helen J. Highley, Julia A.O'Connell; Assistants, Elementary, Alice M. Bushnell,Catherine F. Carr, Marion T. Foley, Mary P. Keane, MaryP. O'Brien, Eileen T. Raftery, Eleanor A. Riley, Mary M.Riordan, Olive E. Whittier13
Kindergartens.- Teachers.- Number entitled to . ..... 948
Now serving on tenure ..... 4
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Florence E. Smith ..... 1
Appointed: To serve for the term ending August 31, 1929.-Assistants, Martha M. Holland, Eleanor B. Keane, Evelyn
M. McCluskey ..... 38

Note.- One of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of nine teachers.

## ROBERT TREAT PAINE DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 12 in special classes; 855 in Grades I to VI; 37 in rapid advancement classes.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928

$$
\begin{aligned}
& \text { Teachers.- Entitled to } 21 \text { grade teachers; } 1 \text { teacher of a } \\
& \text { special class; } 1 \text { teacher of a rapid advancement class . . }
\end{aligned}
$$

Now serving on tenure . . . . . . . . . 13
Appointed: To serve during the pleasure of the School Commit-
tee.- Master's Assistant, Rachel Rosnosky . . . . 1
Appointed: To serve for the term ending August 31, 1929.Submaster, John B. Kelley; Assistant, Special Class, Margaret A. Gately; Assistants, Elementary, Marie L. Boylan, Lillian L. Burke, Eva G. Cohen, Mary C. Hawkins, Catherine
L. Keefe .

Kindergartens - Teachers - Number entitled to . . 5
Now serving on tenure . . . . . . . . . 3
Appointed: To serve for the term ending August 31, 1929.Assistant, Eileen M. McCarthy

Note.- One of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of five teachers.

## ROGER WOLCOTT DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 34 in special classes; 1,999 in Grades I to VI; 31 in rapid advancement classes.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 50 grade teachers; 2 teachers of special classes; 1 teacher of a rapid advancement class
Now serving on tenure
Appointed: To serve during the pleasure of the School Com-mittee.- Master's Assistant, Josephine Crockett, Katherine G. Garrity; Assistants, Elementary, Mary C. Cadigan, Florence E. Hurley, May Kapples, Grace K. Lonergan, Frances E. Wilkie, Dorothy R. Wilson
Appointed: To serve for the term ending August 31, 1929.Assistants, Special Classes, Helen G. Murphy, Cora G. Roberts; Assistants, Elementary, Beatrice C. Bamberg,
Barbara A. Clancy, Dora Cohen, Marjorie O. Ellis, Anna Glickstein, Mary L. Maguire, Mary C. McKay, Helena M. Nolan, Marian Poole, Hannah E. Tobin ..... 12Kindergartens.- Teachers. - Number entitled to51
Now serving on tenure ..... 414
Appointed: To serve for the term ending August 31, 1929.-
First Assistant, Ellen P. Colleran; Assistants, Hannah R. Aronson, Isabel W. Davison, Annabelle E. Moise ..... 4
Note.-Six of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of fourteen teachers.

## SAMUEL ADAMS DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 53 in special classes; 2,362 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 59 grade teachers; 3 teachers of special classes. ..... 62
Now serving on tenure ..... 27Appointed: To serve during the pleasure of the School Com-mittee.- Master's Assistant, Sarah M. Logue; Assistants,Elementary, Eleanor V. Abely, Elizabeth B. Fahey, Alice C.Leahy, Margaret C. Lyons, Helen M. MacDonald.6
Appointed: To serve for the term ending August 31, 1929.-Master's Assistant, Annie A. Doran; Assistants, specialclasses, Alice L. Galvin, Agnes M. Newcomb; Assistants,Elementary, Mary F. Casey, Florence E. Caspole, Ellen E.Collins, Marion T. Donely, Madeline R. Dunphy, Elinor G.Feeley, Mary J. Foley, Agnes G. Fox, Genevieve J. Farley,Eleanor F. Gartland, Anna M. Genter, Veronica M. Gillis,Helen J. Griffin, Lena Hecht, Margaret A. Hickey, MarionLevine, Mary F. McCourt, Edytha M. McNamee, Mary W.O'Maley, Theresa O'Neil, Sally A. Quinn, Antoinette Runci,Freda F. Weinberger26
Kindergartens.- Teachers. - Number entitled to .59Now serving on tenure
Appointed: To serve for the term ending August 31, 1929.-First Assistant, Mary A. Galligan; Assistants, Helen L.Barron, J. Lillian Bloomberg, Mary F. Lowney, Edith E.Robinson5
Note. - Six of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of eighteen teachers.

## SHERWIN DISTRICT.



## SHURTLEFF DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 19 in special classes; 847 in Grades I to VI; 265 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 28 grade teachers; 1 teacher of a special class
Now serving on tenure . . . . . . . . . 15
Appointed: To serve during the pleasure of the School Commit-tee.- Master's Assistant, Mary R. McNamara; Assistant, Elementary, Katherine B. Feeley
Appointed: To serve for the term ending August 31, 1929.Assistant, Special Class, Eleanor Magoun; Assistants, Intermediate, Eleanor E. O'Brien, Amelia C. Malley; Assistants, Elementary, Esther L. Cuneen, Catherine A. Daunt, Winifred M. Heffernan, Alice H. Kelley, Mary C. O'Brien, Cecilia A. O'Shea
Kindergartens. - Teachers. - Number entitled to ..... 7
Now serving on tenure ..... 3
Appointed:. To serve during the pleasure of the School Commit- tee.-Assistant, Arline O. Krey . ..... 1
Note.- Two of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of six teachers.
THEODORE LYMAN DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 134 inspecial classes; 13 in classes for conservation of eyesight;1,198 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,167
Teachers.- Entitled to 30 grade teachers; 9 teachers of special classes; 1 teacher of a class for conservation of eye- sight ..... 40
Now serving on tenure ..... 20
Appointed: To serve during the pleasure of the School Commit- tee. - Master's assistant, Special Classes, Anna G. Cauley; Assistants, Elementary, Mary V. Benson, Livia DeSimone, Marguerite R. Riley ..... 4
Appointed: To serve for the term ending August 31, 1929.- Submaster, Thomas F. Luby; Assistants, Special Classes, Elizabeth K. Ladrigan, Anna A. Norton, Catherine J. Thompson; Assistants, Elementary, Julia M. Clifford, Josephine A. Finocchiaro, Jessie G. Littlefield, Marion C. Mercurio, Elinor R. Sheridan ..... 933
Kindergartens.- Teachers.- Number entitled to ..... 8
Now serving on tenure ..... 3
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Gladys M. MacFaden ..... 1
Note. - The four kindergarten teachers served two sessions sothat the kindergartens were operated with the equivalent ofeight teachers.
THEODORE ROOSEVELT INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 30 inspecial classes; 732 in Grades I to VI; 750 in Grades VII toIX.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,532
Teachers.- Entitled to 39 grade teachers; 2 teachers of special classes ..... 41
Now serving on tenure ..... 33
Appointed: To serve during the pleasure of the School Com- mittee.-Assistants, Special Classes, Doris L. Carroll, Hazle E. Crane ..... 2
Appointed: To serve for the term ending August 31, 1929.- Assistants, Intermediate, Blanche Buxbaum, Edward J. Markham, Helen L. Mulloney, Francis P. O'Brien, Aida E. Troiano ..... 5
Kindergartens.- Teachers.- Number entitled to40
Now serving on tenure ..... 1
Appointed: To serve during the pleasure of the School Com- mittee. - Assistant, Margaret M. McElaney ..... 1
Note.- One of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof three teachers.
THOMAS GARDNER DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 35 inspecial classes; 1,227 in Grades I to VI; 291 in Grades VIIto VIII.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,505
Teachers.- Entitled to 39 grade teachers; 2 teachers of special classes ..... 41
Now serving on tenure ..... 25
Appointed: To serve during the pleasure of the School Com- mittee. - Submaster, John J. O'Brien ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, Joseph F. Burch; Assistant, Special Class, ElsieLarkin; Assistants, Elementary, Madeline M. Bevelander,Emma Crosby, Sylvia M. DeSimone, Alma A. Doyle,Rose M. Falbo, Anne F. Gibbons, Helen C. Halloran, RuthE. Pineo, Anna C. Quinn, Edna M. J. Snow, Mary H.Russell1339
Kindergartens. - Teachers. - Number entitled to ..... 6
Now serving on tenure ..... 6
THOMAS N. HART DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-15 inspecial classes; 620 in Grades I to VI; 212 in Grades VIIto VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 840
Teachers.- Entitled to 21 grade teachers; 1 teacher of a special class ..... 22
Now serving on tenure ..... 21
Appointed: To serve during the pleasure of the School Com- mittee.-Assistant, Elementary, Margaret E. Morgan ..... 122
Kindergartens.- Teachers. - Number entitled to
Now serving on tenure ..... 4 ..... 4
ULYSSES S. GRANT DISTRICT.
Elementary Grades. - Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 45 inspecial classes; 1,119 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,315
Teachers.- Entitled to 28 grade teachers; 3 teachers of special classes. ..... 31
Now serving on tenure ..... 13
Appointed: To serve during the pleasure of the School Com-mittee.-Assistants, Elementary, Alice E. Connelly, MaryW. Dunlevy2
Appointed: To serve for the term ending August 31, 1929.- Submaster, Maurice T. Ford; Assistants, Special Classes, Lillian M. Haggerty, Aileen P. MacDonald; Assistants, Elementary, Emily F. Doherty, Ethel C. Downey, Ida A. De Santis, Miriam C. Galvin, Anna I. Horne, Alice M. MacLeod, Marie Manna, Grace E. McKinnon, Martha V. O'Neil ..... 12
Kindergartens.-Teachers.-Number entitled to ..... 27
Now serving on tenure ..... 3
Appointed: To serve for the term ending August 31, 1929.— Assistant, Mollie Sirkin ..... 1
Note. - The four kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof eight teachers.
WARREN-BUNKER HILL DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,-32 inspecial classes; 1,279 in Grades I to VI; 331 in Grades VIIto VIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,631
Teachers.- Entitled to 41 grade teachers; 2 teachers of special classes ..... 43
Now serving on tenure ..... 33Appointed: To serve during the pleasure of the School Commit-tee. - Assistants, Elementary, Julia L. Corcoran, Helen I.Guinee2
Appointed: To serve for the term ending August 31, 1929.Submaster, Edmund H. Barry; Assistant, Special Class, Alice M. Robinson; Assistants, Elementary, Eleanor M. Cunningham, Isabelle H. Ehrlich, Alice R. MacIsaac, Gertrude V. Malone
Kindergartens.- Teachers.- Number entitled to . . . 7
Now serving on tenure . . . . . . . . . 5
Note. - Two of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of seven teachers.

## WASHINGTON INTERMEDIATE DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 1,060 in Grades VII to IX.
Average number of pupils belonging for the period September
1,1927, to April 1, 1928 . . . . . . . . 1,031
Teachers.- Entitled to 30 grade teachers . . . . 30
Now serving on tenure . . . . . . . . . 23
Appointed: To serve for the term ending August 31, 1929.Submaster, William J. Cunningham; Assistants, Intermediate, Dorothy M. Ellis, Rufina M. McCarthy, Ruth L. Quinn, J. Arthur Robertie, Marion I. Whalen6

## WASHINGTON ALLSTON DISTRICT.

Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 924 in Grades I to VI; 415 in Grades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers. - Entitled to 35 grade teachers ..... 35
Now serving on tenure ..... 28Appointed: To serve during the pleasure of the School Commit-tee. - Assistant, Elementary, Gladys M. Sullivan1
Appointed: To serve for the term ending August 31, 1929.-Submaster, Francis J. Cahill; Assistants, Elementary, E.Claire Doherty, Grace M. Dolan, Anna M. Mahoney . . 433
Kindergartens.- Teachers. - Number entitled to ..... 5
Now serving on tenure ..... 4Note.- One of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof five teachers.
WASHINGTON IRVING INTERMEDIATE DISTRICT.
Elementary Grades.- Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 1,025 inGrades VII to IX.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,015
Teachers.- Entitled to 29 grade teachers ..... 29
Now serving on tenure ..... 21
Appointed: To serve for the term ending August 31, 1929.-
Submaster, John W. Gorman; Assistants, Intermediate, Timothy H. Cronin, Beatrice G. Hantz, Frank E. McCarthy, John P. Sullivan, Frederick S. Whelton, George E. Wilkie, ..... 7
WELLS DISTRICT.
Elementary Grades. - Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 85 inspecial classes; 54 in open-air classes; 12 in classes for con-servation of eyesight; 1,311 in Grades I to VI.
Average number of pupils belonging for the period September1, 1927, to April 1, 19281,442
Teachers.- Entitled to 33 grade teachers; 6 teachers of special classes; two teachers of open-air classes and one teacher of a class for conservation of eyesight ..... 42
Now serving on tenure ..... 31
Appointed: To serve during the pleasure of the School Com- mittee. - Master's Assistants, S. Janet Jameson, Aloyse B. Tierney; Master's Assistant, Special Classes, Katherine A. Kenney; Assistants, Elementary, Helen J. Hirson Vivian Milmore ..... 5
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Ruth M. Crowley, Adelaide M. McGovern ..... 2
Kindergartens.- Teachers. - Number entitled to ..... 1138
Now serving on tenure ..... 5Appointed: To serve during the pleasure of the School Com-
mittee.-Assistant, Isabelle N. Wall . ..... 1Appointed: To serve for the term ending August 31, 1929.-
Assistants, Christine Hamburger, Mary I. McKenna ..... 2
Note. - Three of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of eleven teachers.

## WENDELL PHILLIPS DISTRICT.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 92 in special classes; 24 in special English classes; 32 in open-air classes; 849 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928
Teachers.- Entitled to 21 grade teachers; 6 teachers of special classes; 1 teacher of a special English class; 1 teacher of an open-air class
Now serving on tenure ..... 29
Appointed: To serve during the pleasure of the Schocl Com- mittee.- Assistant, Elementary, Amelda M. Holthaus ..... 1
Appointed: To serve for the term ending August 31, 1929.- Submaster, George C. O'Brien; Assistant, Special Class, Annie O'Connor ..... 2
Kindergartens.- Teachers. - Number entitled to ..... 2
Now serving on tenure ..... 1
Appointed: To serve during the pleasure of the School Com- mittee.- Assistant, Midred C. Haskell ..... 1
WILLIAM E. ENDICOTT DISTRICT.
Elementary Grades. - Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 18 in special classes; 1,513 in Grades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,507
Teachers.- Entitled to 38 grade teachers; 1 teacher of a special class ..... 39
Now serving on tenure ..... 27
Appointed: To serve during the pleasure of the School Com-mittee.- Submaster, Walter M. Burke; Assistants, Elemen-tary, Madeline R. Forrester, Ruth H. Kelley3
Appointed: To serve for the term ending August 31, 1929.- Assistants, Elementary, Antoinette C. Craffey, Mildred J. Hannon, Mary E. Murphy, Ruth M. Schobel, Mary C. Turnbull, Emily J. Wall ..... 6
Kindergartens. - Teachers. - Number entitled to ..... 1436
Now serving on tenure
Note.- Five of the kindergarten teachers served two sessions so that the kindergartens were operated with the equivalent of fourteen teachers.
WILLIAM E. RUSSELL DISTRICT.
Elementary Grades. - Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 15 inspecial classes; 627 in Grades I to VI; 271 in Grades VII toVIII.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 877
Teachers.- Entitled to 23 grade teachers; 1 teacher of a special class ..... 24
Now serving on tenure ..... 16
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Elementary, Gertrude A. Flynn ..... 1
Appointed: To serve for the term ending August 31, 1929.-Submaster, Howard Wilbur; Master's Assistant, MargaretL. Higgins; Assistants, Elementary, Edna B. Dowling, MaryJ. O'Leary, Mollie Segel5
Kindergartens.- Teachers. - Number entitled to
Now serving on tenure ..... 2
Appointed: To serve during the pleasure of the School Commit- tee.- Assistant, Ruth A. Carter ..... 1
Appointed: To serve for the term ending August 31, 1929.-Assistant, Gertrude V. Crandall . . . . . . 16
Note. - Two of the kindergarten teachers served two sessionsso that the kindergartens were operated with the equivalentof six teachers.
WILLIAM LLOYD GARRISON DISTRICT.
Elementary Grades. - Largest number of pupils belongingbetween September 1, 1927, and April 1, 1928,- 1,052 inGrades I to VI.
Average number of pupils belonging for the period September 1, 1927, to April 1, 1928 ..... 1,040
Teachers. - Entitled to 26 grade teachers. ..... 26
Now serving on tenure ..... 11
Appointed: To serve for the term ending August 31, 1929.- Submaster, Henry C. Clark; Assistants, Elementary, Mar- garet M. Corkery, Marion P. Dooley, Katherine M. Elston, Julia Cluck, Mabel E. Fletcher, Mary B. Gleason, Florence Hubert, Margaret L. Pratt, B. Ethel MacKay, June M. Raymond, Margaret R. Scully, Anna C. Whelan ..... 13Kindergartens. - Teachers. - Number entitled to24
Now serving on tenure ..... 1
Appointed: To serve for the term ending August 31, 1929. First Assistant, M. Isabel Sullivan; Assistants, Lucille M. Hayes, Mary C. O'Donnell ..... 3
Note.- Two of the kindergarten teachers served two sessionsof six teachers.

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Appointed: To serve during the pleasure of the School Com-    mittee. - Assistant, Edna B. Condon    mittee. - Assistant, Edna B. Condon    mittee. - Assistant, Edna B. Condon    mittee. - Assistant, Edna B. Condon    mittee. - Assistant, Edna B. Condon    mittee. - Assistant, Edna B. Condon    mittee. - Assistant, Edna B. Condon .....  .....  .....  ..... 1 .....  .....  .....  ..... 1 .....  .....  .....  ..... 1 .....  .....  .....  ..... 1 .....  .....  .....  ..... 1 .....  .....  .....  ..... 1 .....  .....  .....  ..... 1

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Appointed: To serve jor the term ending August 31, 1929.-   Assistant, Alice J. Barry   Assistant, Alice J. Barry   Assistant, Alice J. Barry   Assistant, Alice J. Barry   Assistant, Alice J. Barry   Assistant, Alice J. Barry   Assistant, Alice J. Barry .....  .....  ..... 1 .....  .....  ..... 1 .....  .....  ..... 1 .....  .....  ..... 1 .....  .....  ..... 1 .....  .....  ..... 1 .....  .....  ..... 1

SPEECH IMPROVEMENT CLASSES.

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Appointed: To serve for the term ending August 31, 1929.-
Appointed: To serve for the term ending August 31, 1929.- Assistants, Alice V. Campbell, Olive G. Mahoney, Frances Assistants, Alice V. Campbell, Olive G. Mahoney, Frances Assistants, Alice V. Campbell, Olive G. Mahoney, Frances Assistants, Alice V. Campbell, Olive G. Mahoney, Frances Assistants, Alice V. Campbell, Olive G. Mahoney, Frances Assistants, Alice V. Campbell, Olive G. Mahoney, Frances Assistants, Alice V. Campbell, Olive G. Mahoney, Frances E. McColgan E. McColgan E. McColgan E. McColgan E. McColgan E. McColgan E. McColgan ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3
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## LIP READING CLASSES.

Appointed: To serve during the pleasure of the School Com-mittee.- Assistant in Charge, Mabel F. Dunn

## DAY SCHOOL FOR IMMIGRANTS.

Now serving on tenure

## DISCIPLINARY DAY SCḢOOL.

Elementary Grades.- Largest number of pupils belonging between September 1, 1927, and April 1, 1928,- 104 in all classes.
Now serving on tenure . . . . . . . . . 3
Appointed: To serve during the pleasure of the School Com-mittee.- Assistants, Helen C. Godvin, Agnes C. Lavery

HOUSEHOLD SCIENCE AND ARTS.
Now serving on tenure.
Appointed: To serve for the term ending August 31, 1929.Trade Assistants, Frances B. Haskell, Louise M. McGovern, Mary T. Naphen3

## COOKERY.

Now serving on tenure 35
Appointed: To serve during the pleasure of the School Committee. - Teachers, Intermediate, Helen S. Hyde, Elizabeth M. O'Connor2

Appointed: To serve for the term ending August 31, 1929.Teachers, Intermediate, Evelyn Bliss, Helen N. Cohen, Margaret M. Comiskey, Grace A. McDermott, Helen Minsky, Mary F. Murphy, Helen Nutt, Mary A. Scanlan, Martha S. Walker, Mary C. Walsh

## SEWING.

Now serving on tenure
Appointed: To serve during the pleasure of the School Com-mittee.- Teachers, Intermediate, Mary R. O'Malley, Violet L. Russell; Teacher, Elementary, Mary V. Connors
Appointed: To serve for the term ending August 31, 1929.Teachers, Intermediate, Alice C. Gerard, Elizabeth F. Regan; Teachers, Elementary, Alice F. Boyden, Kathleen J. Carney, Alice Cody, Anne V. Cronin, Florence E. Daly, Helen P. Derby, Louise M. Duffy, Beatrice V. Fickett, Ruth M. Heidenreich, Helen C. Hogan, Louise Hurley, Bertha W. Johnson, Lillian G. McGee, Mary M. Moriarty, Margaret P. Morrissey, Emily L. F. Nelles, Mary G. Payne, Margaret A. Reilly20

## MANUAL ARTS.

Now serving on tenure
Appointed: To serve during the pleasure of the School Com-mittee.- Foremen, Shop Work, Walter E. Shaughnessy,
Percy R. Stewart; Shop Instructors, William J. I. Brown, Daniel J. Jameson, George C. McKeen, John J. McSweeney, John T. Mendenhall, Charles R. O'Malley; Instructors, Shop Work, Edwin C. Anderson, Herbert G. N. Forsell, William H. Powers; Instructor, Manual Training, Special Class, Mabel F. Alden
Appointed: To serve for the term ending August 31, 1929.Shop Foremen, James B. Cummings, Michael J. A. English, Henry S. Needham, Charles F. Rothera, Chester S. Sevrens, Cyril W. Shovelier; Foremen, Shop Work, Willis C. Brown, Emerson Staebner; Shop Instructors, John O. Baker, Joseph Beaton, George N. Bergh, James E. Carter, George E. Crabtree, John E. Denehy, William F. Gill, Albert F. Hanrahan, Harry A. Harris, P. Francis Hogan, Francis J. Hynes, Stanley F. Janik, Horatio N. Lamont, Joseph D. Mahoney, Philip V. McBride, Walter F. McCarthy, John J. Peers, Percy C. Peters, Albert Pokat, Raymond J. Powers, Joseph J. Reynolds, John F. Sullivan, John F. Sullivan, Francis Tobin, Harry J. Tobin, George B. VanDalinda, Harry T. Wall, William C. Walsh, Robert E. West; Instructors, Shop Work, John F. Ambrose, Joseph J. Assmus, Warren E. Bumpus, William A. Colleran, Harold A. Conant, John J. Coughlin, Leonard L. Curado, John B. Dunne, Edward B. Flaherty, Rudolph P. Hague, Nathan P. Harris, Frank A. Hurley, Louis Karshick, Gustaf G. Larsson, Harold J. Lawlor, Joseph N. Mannino, Edward J. Oakes, Thomas A. O'Loughlin, Thomas J. Schofield, Freeman D. Shepherd, John J. H. Shepherd, John P. Sweeney

## PART III.

## REAPPOINTMENTS OF TEACHERS OF PHYSICAL EDUCATION AND MILITARY DRILL.

## PHYSICAL EDUCATION.

Now serving on tenure:
The Teachers College of the City of Boston . . . . 2
Girls' Latin School . . . . . . . . . 2
Brighton High School . . . . . . . . . 1
Charlestown High School . . . . . . . . 1
Dorchester High School for Girls . . . . . . 1
East Boston High School . . . . . . . . 2
Girls' High School . . . . . . . . . 2
High School of Practical Arts . . . . . . . 1
Hyde Park High School . . . . . . . . 1
Jamaica Plain High School . . . . . . . 2
Memorial High School (Girls) . . . . . . . 1
South Boston High School . : . . . . . . 1
Department of Physical Education . . . . . . 1

Appointed: To serve during the pleasure of the School Commit-
tee.- Dorchester High School for Girls - Assistant,
Miriam R. Driscoll . . . . . . . . . 1
Girls' High School, Assistant Instructor, Margaret G. O'Brien, 1 High School of Practical Arts, Assistant Instructor, Grace F. Johnson

Boston Clerical School, Assistant, Alice M. Gorman . . 1

Appointed: To serve for the term ending August 31, 1929.Dorchester High School for Girls, Assistant Instructors, Mary T. Gibbons, Alice P. McClare
Girls' High School, Assistant Instructor, Dorothy L. Jones . 1
Memorial High School (Girls), Assistant, Rosamond W.
Estabrook; Assistant Instructor, Matilda E. Cogan . . 2
Trade School for Girls, Assistant Instructor, Barbara B. Johnson
Department of Physical Education, Assistant Instructor,
Clare L. Ennice . . . . . . . . . 11
REAPPOINTMENTS. ..... 61
MILITARY DRILL.
Now serving on tenure:
Public Latin School ..... 1
English High School ..... 1
High School of Commerce ..... 1
Department of Physical Education ..... 3
Appointed: To serve during the pleasure of the School Commit- tee.- English High School, Junior Masters, Albert J. Kelley, William H. Meanix; Armorer, Michael J. Lannon ..... 3
Appointed: To serve for the term ending August 31, 1929.- Instructors, Leo W. Banks, Peter V. Breen, Robert V. Dallahan, William J. McCluskey ..... 4
Respectfully yours,JEREMIAH E. BURKE,Superintendent of Public Schools.

# SCHOOL DOCUMENT NO. 6-1928 BOSTON PUBLIC SCHOOLS 

## A MANUAL FOR INSTRUCTION OF IMMIGRANTS

CITY OF BOSTON
PRINTING DEPARTMENT:

In School Committee, June 4, 1928.
Ordered, That the accompanying Manual for Instruction of Immigrants is hereby adopted; and that 2,500 copies be printed as a school document.

Attest:

ELLEN M. CRONIN, Secretary.

## TABLE OF CONTENTS.

PAGE
Introduction ..... 8
General aim ..... 10
Needs of the individual, the state ..... 10
General content ..... 10
B. I. ..... 11
Time allotment ..... 11
Suggestive programs ..... 12
Three group ..... 12
Two group ..... 12
Oral English ..... 13
Aim ..... 13
Minimum requirements ..... 13
Content - general ..... 13
Methods ..... 14
General suggestions ..... 14
Content - detailed ..... 14
Suggestive lessons ..... 15
Type lessons ..... 17
Table lesson ..... 18
Color lesson ..... 18
Telephone lesson ..... 18
Public signs ..... 19
Fables ..... 19
Famous men ..... 20
Written English ..... 21
Aim ..... 21
Minimum requirements ..... 21
Content - general ..... 21
Methods ..... 21
Phonics ..... 25
Aim ..... 25
Minimum requirements ..... 25
Content - detailed ..... 25
Independent recognition of words ..... 26
Enunciation ..... 30, 41
Blends ..... 31
Suggestive proverbs ..... 37
Page
Methods ..... 38
General ..... 38
Detailed ..... 39
Reading ..... 42
Aim ..... 42
Minimum requirements ..... 42
Content ..... 42
Material ..... 42
Poems ..... 43
Methods ..... 43
Dramatic type lesson ..... 43
Objective type lesson ..... 44
Spelling ..... 46
Aim ..... 46
Minimum requirements ..... 46
Content ..... 46
Suggestive lists ..... 46
Supplementary phonetic list for illiterates, ..... 47
Supplementary list for literates ..... 48
Methods ..... 50
Type lessons ..... 50
Dictation ..... 54
Aim ..... 54
Minimum requirements ..... 54
Content ..... 54
Methods ..... 54
Hygiene ..... 54
Citizenship ..... 55
General aims ..... 55
Special aims ..... 55
Minimum requirements ..... 55
The citizen ..... 55
The citizen's work ..... 56
The city ..... 56
History ..... 56
Citizenship ..... 57
Methods ..... 57
B.-II. ..... 58
Time allotment ..... 58
Suggestive programs ..... 59
Page
Oral English ..... 60
Aim ..... 60
Minimum requirements ..... 60
Content ..... 60
Suggestive lessons ..... 60
Methods ..... 71
Type lessons ..... 71
Written English ..... 73
Aim ..... 73
Minimum requirements ..... 73
Content - general ..... 73
Methods ..... 73
Sentence sense ..... 73
Sentence structure and parts of speech ..... 74
Paragraph ..... 75
Letter forms ..... 75
Phonics ..... 78
Aim ..... 78
Minimum requirements ..... 78
Content - detailed ..... 78
Methods ..... 82
Spelling ..... 84
Aim ..... 84
Minimum requirements ..... 84
Content and suggestive lists ..... 84
Methods ..... 85
Dictation ..... 87
Aim ..... 87
Minimum requirements ..... 87
Content ..... 87
Methods ..... 87
Hygiene ..... 87
Reading ..... 88
Aim ..... 88
Minimum requirements ..... 88
Phonics ..... 88
Word study ..... 88
Content ..... 88
Methods ..... 89
Page
Citizenship ..... 90
Special aim ..... 90
Minimum requirements ..... 90
I. American citizenship ..... 90
Content ..... 90
I. Naturalization - general ..... 90
II. Government ..... 91
III. City government ..... 91
IV. History ..... 92
V. Naturalization (2d papers) ..... 92
Methods ..... 92
B.-III ..... 93
Time allotment ..... 93
Suggestive program ..... 94
Oral English ..... 95
Aim ..... 95
Minimum requirements ..... 95
Content - general - detailed ..... 95
Suggestive lessons ..... 95
Methods ..... 104
Type lessons ..... 104
Written English ..... 108
Aim ..... 108
Minimum requirements ..... 108
Content - general ..... 108
Methods ..... 108
Phonics ..... 111
Aim ..... 111
Minimum requirements ..... 111
Content - detailed ..... 111
Methods ..... 115
Reading ..... 116
Aim ..... 116
Minimum requirements ..... 116
Content ..... 116
Methods ..... 117
Page
Spelling ..... 118
Aim ..... 118
Minimum requirements ..... 118
Content ..... 118
Suggestive lists ..... 118
Methods ..... 119
Dictation ..... 120
Aim ..... 120
Minimum requirements ..... 120
Content ..... 120
Methods ..... 120
Citizenship ..... 121
General aims ..... 121
Special aims ..... 123
Minimum requirements ..... 123
Methods ..... 125
Geography (see Oral English) ..... 95-104
History (see Oral English) ..... 95-104
Reference book for teachers ..... 126

## INTRODUCTION.

Realizing that courses of study for Grades I, II and III of the regular day schools were made for teaching children the various subjects of the primary curriculum and so were not adapted for teaching English and citizenship to adult aliens, the following course of study was arranged for the B-I, B-II and B-III classes of the evening elementary schools and the Day School for Immigrants to meet a longfelt need.

This manual has been made with the express purpose of providing practical guidance and assistance to those teachers whose work in evening schools is with aliens desirous of receiving instruction in English or citizenship.

The general aim, content, methods, and type lessons have been offered for guidance and, in addition, much suggestive material has been included to enable the teacher to carry on her work in a purposive way towards definite accomplishment in order to facilitate systematic pupil progress.

It is intended that this manual will be supplemented by available material taken from the regular day school courses of study for similar grades provided the material and methods used may be adapted readily to adult instruction. This combined use of the respective courses of study for day and evening schools should produce a wealth of material, sufficient, with the available texts, to encourage and stimulate efficient instruction by the teachers and more definite supervision by the principal.

Credit is given to members of past committees who provided material that has been revised and brought up to date and particularly to the members of the present committee who have actually produced the complete course as a result of much painstaking effort, and careful deliberations in several meetings during the past year.

The thanks and appreciation of the committee is extended to all who have assisted by advice or suggestion to the completion of this work.

Following are the names of the members of the committee:

Joseph F. Gould, Director of Evening Schools.
Caroline A. Shay, Assistant in Charge of Day School for Immigrants - Chairman.
Florence O. Bean, Principal Theodore Roosevelt Evening Elementary School.
Francis A. O’Brien, Principal Franklin Evening Elementary School.
Walter C. Winston, Ex-principal Comins Evening Elementary School.

## GENERAL AIM.

The general aim of teaching English to adult illiterates may be considered as meeting the needs of the individual and of the State as follows:

## 1. The needs of the individual.

a. Those he perceives for himself.
$b$. Those that leaders have discovered are necessary for him to know.
2. The needs of the State.
$a$. That the immigrant shall understand customs and ideals of the United States.
$b$. That the immigrant shall be assimilated into American life.
c. That the immigrant shall appreciate the privileges, duties, and responsibilities of American citizenship.
d. That naturalized citizens shall intelligently participate in civic duties.

## GENERAL CONTENT.

The content of the course in English shall include the material necessary to satisfy the needs of the individual and of the State mentioned under "General Aims."

English.
Oral English.
Written English.
Phonics.
Corrective phonics.
For independent recognition of words.

Reading.
Spelling.
Dictation.
Citizenship.
Hygiene.

## SUGGESTIVE TIME ALLOTMENT.-B.=I.

## Two hours an evening. Six hours a week. <br> 120 minutes an evening. 360 minutes a week.

| Reading. | 90 minutes a week | 30 minutes an evening |
| :---: | :---: | :---: |
| Writing | 90 minutes a week. | 30 minutes an evening |
| Conversation and Ora | 180 minutes a week. | 60 minutes an evening |
| Reading. | 90 minutes a week. | 30 minutes an evening. |
| Word study | 15 minutes a week | 5 minutes an evening. |
| Phonics | 30 minutes a week | 10 minutes an evening |
| Reading | 45 minutes a week | 15 minutes an evening |
| Writing | 90 minutes a | 30 minute |
| Alphabet | 30 minutes a week | 10 minutes an evenin |
| Copying | 30 minutes a week. | 10 minutes an evening |
| Spelling | 15 minutes a week. | 5 minute |
| Dictatio | 15 minutes a week. | 5 minutes an evening |
| Conversation | 180 minutes a week. | 60 minutes an evening |
| Verb drill | 30 minutes a week. | 10 minutes an evenin |
| Enunciation drill | 15 minutes a week. | 5 minutes an evening |
| Grammar. . . ....... Informal grammar | 30 minutes a week. | 10 minutes an evening. |
| Conversation | 90 minutes a week. | 30 minut |
| Relaxati | 15 minutes a wee | 5 mi |

## SUGGESTIVE PROGRAM FOR A THREE=GROUP CLASS.



* Individuals of Group 3 should be merged with Group 2 and those of Group 2 with Group 1 as rapidly as they show sufficient ability.


## SUGGESTIVE PROGRAM FOR A TWO=GROUP CLASS.

## B. I.

Two Groups.
7.15...7.30 Assignment for study.
$7.30 \ldots 7.40$ Explanation of board work.
$7.40 \ldots 7.50$ Phonics for independent recognition of words.
$7.50 \ldots . .8 .10$ Reading Class 1. Five-minute conversation on lesson. Writing Class 2.
8.10...8.30 Reading Class 2. Five-minute conversation on lesson. Writing Class 1.
8.30....8.40 Verb Drill.
8.40...8.45 Enunciation Drill.
8.45....8.55 Spelling - Dictation.
8.55 ...9.05 Technicalities. Informal Grammar.
9.05...9.20 Conversation.
$9.20 \ldots 9.30 \quad a$. Correction of written work.
b. Inspirational literature, songs, poems.

## ORAL ENGLISH.-B. $=\mathbf{I}$.

## AIM.

To teach pupils to express their thoughts orally in correct, clear, and simple English.

## MINIMUM REQUIREMENTS.

To understand and to answer brief questions concerning: residence, family, occupation, matters of personal and everyday interest.

To ask for articles or information needed.
To converse in simple English on topics of everyday experience.
To pronounce intelligibly the words used.

## CONTENT.

Subjects for conversation to develop a useful vocabulary rapidly.

1. Relations and contacts with others.

Name, address, occupation.
Forms of greeting, salutation, farewell.
Matters of personal interest and conditions of everyday life.
2. School room objects and activities.

Doors, windows, ventilators, walls, blackboards, pictures.
Books, pencils, papers, erasers.
Temperature, heat, cold, fresh air, thermometer.
Positions and actions of body, such as standing, sitting, walking, running, etc.
Reading, writing, speaking.
Opening, closing, coming, going.
3. Outside needs.

Looking for work, working.
Buying, selling, repairing.
Cooking, eating.
Riding by train, trolley, automobile.
Directions, signs, fares, prices.
Weighing, counting, measuring.
Holidays, use of leisure.
4. House and family.

Renting, buying, furnishing, cleaning, beautifying.
Members of family.
Schooling of children.

## 5. Community.

School, church, special social and civic organizations.
Newspaper, moving pictures, postoffice, library, hospitals, dispensaries, city buildings, etc.
Regulative agencies:
Police, sanitation, licenses, fire department, etc.

## METHODS.

## General suggestions for methods.

Motivation should be the keynote of every lesson.
Establish a definite goal for each lesson.
Arrange a situation to which the student can respond.
The response should develop a specific ability.
Let the student feel responsible for his own part of the lesson.
Use the "direct method" which requires that all teaching be done in English.
Be sure that words used are intelligible to class.
The use of language is the result of habit, therefore, in teaching a language the laws of habit formation should be observed carefully.

## Proceed slowly and drill thoroughly.

Each lesson should be a natural progression from the previous lesson and a preparation for the lesson of the following session.

## Detailed Content and Suggestive Lessons.

The beginner grasps readily the meaning of the ordinary salutations of everyday speech and puts them into use, hence, these should be taught first:

Good evening. Good afternoon. Good night. How do you do? Good morning. How are you this evening?
Also, "What is your name?" and the answer, "My name is -_." These may be written on the board, the pupil's approach to learning being through sound and sight.

Next in order come words such as the following to build a small vocabulary:

| Parts of the | Body. |
| :--- | :--- |
| head | legs |
| face | neck |
| hair | shoulders |
| eyes | arms |
| ears | hips |
| nose | feet |


| Objects within | Vision. |
| :--- | :--- |
| desk | chalk |
| chair | floor |
| seat | window |
| room | book |
| wall | paper |
| door | pencil |
| ceiling | pen |

Verbs.
is read
are write
place talk
put speak
raise walk
lower
sit
stand
open
close

| Pronouns. | Adjectives. |
| :--- | :--- |
| I | large |
| my | small |
| your | tall |
| we | short |
| he | white |
| she | black |
| it | red |
| they | brown |
| his | yellow |
| her | green |
| who | blue |
| that |  |
| what |  |
| this |  |

The above list is merely suggestive and other words should be added as occasion demands.

## SUGGESTIVE LESSONS.

Lesson 1. Greeting
Good afternoon, etc.
Good-bye.
2. Identification lesson.
3. Simple statement.

Affirmative.
This is a book.
pen.
pencil.
4. This is

That is
parts of room.
5. Review lesson.

Introduce parts of body.
6. These are $\left.\begin{array}{l}\text { Those are }\end{array}\right\}$ articles of clothing.

Contrast with this - that.
7. Review.
8. My and your.
9. "I have" with nouns already taught.

You - we - they - have.
10. He - she - has.
11. Verb - see.
12. Table - lesson with nouns.
13. Table - lesson with verb "'put."

Prepositions, on - in - with.
14. Lesson with third person singular.
see - put - give.
15. Color lesson - nouns.
16. Color lesson - verbs.
have - has put - puts
give - gives see - sees
Prepositions.
17. Is - was - today - yesterday.
18. Concrete verb work.
write - wash - sew - sit
stand - open - wipe - make
19. Concrete verb work negatively.
20. Past tense of verbs taught.
21. Review with introductory words.
when - where - what - how many?
22. Review all verbs taught in present and past tense using new preposi tions -
into to
with
on
from
23. Occupation lesson for teaching new nouns.
baker - carpenter - etc.

Lesson 24. Negative forms of verbs taught using present tense only.
25. Fruit lesson.
26. Negative form of verbs.

Irregular forms of verbs.
27. Review Lesson 26.
28. Adjectives.
high - low - long - short - etc.
29. Review Lesson 28.

Teach "longer than", "shorter than"
30. Review fruit lesson.

Teach "sweet" "sour" "ripe" "green."
31. Pattern lesson.

Nouns - Verbs
lay
pin
cut
baste, etc.
32. Sewing lesson,
33. Dress lesson.
34. Knitting lesson.
35. Biscuit lesson.
36. Cleaning lesson.
broom - sweep
carpet sweeper - dust, etc.

Optional, depending on nature and interests of class.
37. Compound personal pronouns.

I wash myself.
I dress myself.
38. Telephone lesson.

Nouns.
Questions.
39. Telephone lesson.

Exchanges and numbers.
40. Car signs.
41. Car lesson.

Stop.
Signal, etc.
42. Public signs.
43. Asking one's way.
44. Fables.
45. Buying and selling.

Grocery.
46. Shoe lesson.
47. Occupation lessons for teaching new words, such as carpentering, etc.

Nouns Verbs hammer build

Lesson 48. The Plumber.

| Nouns |  | Verbs |
| :--- | :--- | :--- |
| wrench | pipe | use |
| saw | sinks | repair |
| torch | trap | thaw |
| washer |  | etc. |

49. The Milkman.
50. The Baker.
51. The Dressmaker.
52. The Teacher.
53. The Dentist.
54. Verbs ending in " $t$ " or "d," of which the "ed " form is pronounced as extra syllable.
counted - rested.
55. Verbs as in 54 with nouns.
pupil - count
man - lift
woman - rest
56. Verbs ending in "k," of which the "ed" form is pronounced as "t," combined with prepositions.
look at - pick up - work for
57. Verbs ending in "p," of which the "ed" form is pronounced as "t." help - mop - stop
58. Verbs ending in "ch," of which the "ed" form is pronounced as
"t."
latch - match - snatch
59. Verbs ending in "sh," of which the "ed" form is pronounced as "t."

Mother - push - baby carriage
Jeweler - polish - silver
60. Fable - Fox and Grapes - Past tense.
61. Fable - Fox and Grapes - Present tense.
62. George Washington.
63. Fable - The Crow and the Pitcher.
64. Abraham Lincoln.

Other lessons emphasizing public works or buildings, etc., should be added or substituted according to needs and interest of class.

## TYPE LESSONS.

In the use of the following type lessons this principle must be kept always in mind, namely,- that in the beginning pupils learn thoroughly only by slow procedure and frequent repetition with close association of the object with the word. It is not essential at the start to refer to parts of speech as such but simply to establish a foundation on which later work will depend.

In teaching the first conversation lesson according to the objective method, the teacher holds a book before the class and says, "This is a book." She repeats
several times. Then she holds up a pen and says, "This is a pen." She does the same with several objects. Then she holds up the book and asks, "What is this?" Pupils know by the facial expression and intonation of her voice that she is asking a question. Without waiting for an answer, she answers her own question. Several objects are distributed and teacher moves among pupils and asks, "What is this?" Different pupils answer. After the names of several objects have been taught, the objects may be exchanged and the same method followed.

## 1. Table Lesson.

In the table lesson the teacher gives the names of the objects and as the names are taught, she gives one object to each pupil. Then she asks, "What have you?" Pupil answers, "I have a knife" or "I have a fork," as the case may be. After objects have been named and distributed, the teacher says, "I have a knife. I put the knife on the table." Pupils are asked, "What have you?" Each pupil replies, "I have a fork. I put the fork on the table." When all the articles have been named and put on the table, then teacher may select an object, name it, and say, "This is a fork. I take the fork from the table." Or, "This is a spoon. I take the spoon from the table. I put the spoon into the box." Continue until all the objects have been named, and put away. The pupils gradually learn by rote expressions and words that form the basis for a later vocabulary.

## 2. Color Lesson.- Red.

Materials. - A red apple, a piece of red ribbon, a piece of red cloth, a red box, a red pencil, a red book, a red paper. All the articles are placed on the table.

Method. - Teacher shows the apple to class and says, "This is a red apple." Then, "This is a red ribbon." "This is red box." "This is a red pencil," etc. Then she points to all of the articles and says, "These are RED." She points to the book and says, "This is a-"" and hesitates. Some pupil is sure to supply the word "red." Other colors may be taught in the same way.

Many verbs may be reviewed in this way:
"Do you take the red book from the desk?"
"Do you cut the white cloth?"
"Does she eat the blue grapes?"
"Do you write with black ink?"

## 3. Telephone Lesson.

A toy telephone may be used, and the words taught:
receiver - wire - cord - bells - ring
mouthpiece
operator - station - number - call - toll
Then the correct form of questions:
To whom do you wish to speak?
Who is speaking, please?
May I take a message?
She is not at home.

Then reading of telephone numbers:

> 1375-W

3640
1500
7000
3040-M
0280
30
Different exchanges.
After the names of exchanges and numbers have been taught, slips of paper upon which have been written numbers are given to pupils. Each pupil may be given an opportunity to call the number on her slip.

## 4. Public Signs - Car Signs.

Teacher should have printed signs. Car signs may be taught. Teacher prints sign or uses card and tells name. After pupils have learned a sign it may be pinned on board so that pupil may look at it over and over again. When several have been taught, they may be reviewed in the following manner: Place several chairs in a semicircle. Pin a sign on each chair.

Teacher says, "This is Dudley Street Station. Many cars come into Dudley Street."
"Mrs. White wants to go to Geneva Avenue. Mrs. White, will you sit in the car marked Geneva Avenue?" If Mrs. White fails to recognize the correct sign, another pupil may show her the correct sign, by saying, "I beg your pardon, this is not the Geneva Avenue car." She may then show Mrs. White the correct chair.

One pupil may be designated as the starter. Small strips of paper may be distributed. Mrs. Brown is instructed to ask the starter, "Will you please tell me where I can get this car?" Starter shows her the chair marked Norfolk Street. If Mrs. Brown hesitates, another pupil may ask, "May I assist you?" Mrs. Brown replies, "Thank you very much. I want the Norfolk Street car."

In this way pupils are learning the names of the various signs, and also every day expressions of politeness.

## 5. Fables.

In teaching fables, the teacher tells the story very simply. Then she asks one question for every sentence. Every pupil in the group should be allowed to participate in this lesson. In a literate beginners' class, the same method may be used, and the story reviewed by use of cards. Each card is numbered. A question is printed upon each card. Pupil who has card number one is called upon to read her question. Another pupil is called upon to answer that question. When the story is being reviewed, the cards may be distributed. One pupil may be called upon to read her question and answer it, or one pupil may be chosen to stand in front of the class to answer the questions which are read by other members of the class.

Finally, one pupil may be called upon to tell the story without questions being read.

Other variations of the above methods will suggest themselves to the teacher according to the size, age or type of class. It is important that all lessons carry an interest appeal in order to hold the attention of the class.

The Crow and the Pitcher.

1. Mrs. Crow
was
thirsty
2. looked everywhere water
3. at last found pitcher little water
4. | could |
| :--- |
| not |
| reach |
5. thought plan
6. dropped pebble into water
7. water
rose
little higher
8. dropped another water
9. water
rose
still
higher

## 10. dropped many pebbles

11. water rose top pitcher
12. Mrs. Crow took drink then said
"Where there's a will, there's a way."
Give in past tense.
Give in present tense.

## 6. Famous Men of History.

## George Washington.

1. was born

Virginia, 1732
2. parents sent to school
3. father died when George was 12 years old
4. George continued to go to school
5. studied surveying
6. became a surveyor
7. measured forest lands
8. had to live outdoors
9. grew
large strong
10. when
twenty-one years
went
Canada
traveled on foot
11. took a message
to the French
for the King
12. was
hard
journey
13. later

Americans
became
independent of
England
14. had

Revolutionary War
15. George Washington became commander-in-chief
16. served.

American Army six years
17. helped with new government
18. was elected first president
19. served for eight years
20. is called The Father of His Country

## WRITTEN ENGLISH.


#### Abstract

AIM. To teach pupils to write simple English legibly and correctly. To understand and use correctly in simple dictation exercises the capital, period, comma, and question mark.


## MINIMUM REQUIREMENTS.

To acquire the mechanics of writing.
To fill blanks in easy sentences with known words.
To write a few brief sentences from dictation.
To write at least a paragraph of related sentences about a given subject, conforming to the correct usage of grammar and punctuation.

## CONTENT.

Group letters according to form (for illiterate group).
Alphabet, small and capital letters.
In filling blanks use different parts of speech but grammatical definitions of same are not to be taught at this time.

Dictation, using the capital, period and question mark.
Use simple declarative and interrogative sentences.

## METHODS.

Use as many of the day school methods and as much material as can be readily adapted to the type of adults that attends B-I evening school classes.

Make all writing as practical as possible.
Never give copying for the sake of copying, but through the copying lesson teach some valuable facts.

In teaching writing to a beginners' class, a copy of the alphabet is given to each pupil to enable the teacher to discover the needs of the individual pupil.

If a pupil copies the alphabet correctly, he may be given his name to copy. If a pupil copies only fairly, note the errors and work upon those errors.

Some make a very good attempt at copying, others achieve fair results, while a third class seems almost hopeless.

These may be taken to one side and given special attention.
Those finding the writing of the forms of the letters extremely difficult may be assisted by tracing over the so-called "mica letters" or "blackboard copies" of letters which may be used collectively or separately. After sufficient tracing of the complete letter form has been done to fix the association of the picture of the letter and its construction attempts should be made to write without tracing and then to write the letter forms from memory.

For those who show evidence of being able to carry out a progressive system of lessons the following outline of drill work in the textbook (Palmer Method) is suggested for use in entirety or in part, according to ability of pupil.

Drills: $6,8,10,11,14,15,17,18,19,20$ and 21 (Note.- Do not use crosssection work of Drill 21).
When these drills are completed the following words containing letters already studied may be practiced:
on, mine, nine, one, Ann, ten, tune, minute, time, nut, no, unite
Drills: 22, 23, 26, 27, 28, 29, 30, 31, 32, 33 and 35.
When these drills are completed the following words containing letters already studied may be practiced:
go, get, going, gone, line, all, loan, done, tone, did, do, name, at, mill, ate, let, ill, quill, quite

Drills: 36, 37, 39 (Note.- Do not use cross-section work of 39), 40, 41, 42, 43,44 (not cross-section), 45,47 (not cross-section), 48, 49, 50, 51, 52 and 53.
When these drills are completed the following words containing letters already studied may be practiced:
yes, letter, dress, hand, year, date, warm, month, weather, head, write, note, sell, drive, address, year, license, learn, car, motor, wheel, raining, calendar, coat, tie, driving, school, city, town, cold, dressing.

Drills: 55, 56, 58, 59, 60. Lessons 52 and 53.
Drills: 62, 63, 64, 66, 68 (teach these as separate letters, not in groups), 69, $70,71,72,73,74$ and 76.
When these drills are completed the following words containing letters already studied may be practiced:
house, home, street, pipe, garden, apple, tide, ocean, ship, beach, gasolene, matches, tool, machine, read, telephone, table, occupation

Drills: 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 88, 89, 90, 91, 92, 93, 94, 95, 96, $97,98,100,101,102,104,106,107,108,109,111,112$.
When these drills are completed the following words containing letters already studied may be practiced:

John, Charles, Mary, Brown, Jones, Mullen, Jack, Michael, Karl, Peter, Patrick, Alfred, Ned, Swift, Green, build, work, smoke, baseball, truck, mistake, like, merchant, buy, store, newspaper, fire alarm, hotel, manufacture, enjoy, built, theater, church

Drills: 113 through 172.
For pupils incapable of doing drill or exercise work given in the textbook, the work may proceed as follows:

The teacher may group letters according to difficulty.

| 1. | i | u | t w | 7. | h | k | b |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2. | m | n |  | 8. | p | j |  |  |
| 3. | o | c |  | 9. | f |  |  |  |
| 4. | e | l |  |  | 10. | s |  |  |
| 5. | a | d | g | q | 11. | y | z |  |
| 6. | v | x | r |  |  |  |  |  |

After the mastery of the alphabet comes the writing of the pupil's name.
The writing lesson may go hand in hand with the reading lesson.
Pupil may be given a sheet of paper upon which are typewritten or printed sentences which he can read.

| This | is | a | book. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  | . |
| This | is | a | paper. |

In this way the pupil associates the written with the printed form. Generally, the reading lesson of one day forms the material for the writing lesson of that day or of the following day.

On the reverse side of the paper the alphabet may be written. If a pupil finishes the writing lesson, he may turn the paper and practice the alphabet or any letter with which he may have difficulty.

The difficulties of the individual pupils should be known by the teacher when she is preparing the lesson.

Gradually, the pupil should be led to read the writing lesson without the aid of the printed copy.

Prepare the copy, but omit a printed sentence or two on one day, the next day omit three sentences, and so on, so that the transition will be gradual.
These are my hands.

I have two hands.
How many hands have you?

In an illiterate beginners' class nothing but copying should be given, but in a literate beginners' class filling in blanks, answering questions and letter writing may be attempted.

Those who show evidence of being able to carry out a progressive system of lessons and those who have spent some time in the elementary schools, may continue and develop advanced skill in the writing process in which they have
received some training already. Such students should begin with Drill 1 in the textbook and continue from drill to drill throughout the book. A suggested outline of procedure in instructing such students is as follows:
(a) Develop posture and management of materials as outlined in pages 17 to 22 of the textbook.
(b) Presentation of Instruction:
(1) Teacher's demonstration at blackboard of full working knowledge of letter, word or figure to be considered.
(2) Attempt of the work by class, without ink until a knowledge of the rhythm and salient features are mastered.
(3) Attempt of the work by class, with ink, each student comparing his own work frequently with that of textbook and criticizing his work in detail.
(4) Teacher's frequent return to blackboard to point out errors common to many members of class and demonstration of how these may be corrected.
(5) Attempt, by class, of some applied work, for example, a dictated paragraph including letters and words studied, or of examples in addition or subtraction including figures already studied, to show power to carry over good writing ability into applied written work.

## FILLING IN BLANKS.

At first, the words may be placed at the top of the paper in the order in which they are to be used:

| pen | walls |
| :--- | :--- |
| pencil | ceiling |
| paper | windows |
| chair | clock |

I write with - and ink.
John writes with a
I write on -
Mary sits in a
There are four -_ in this room.
The next day these words may be placed in any order at the top of the page and pupil asked to select the correct word:

| pen | pencil |
| :--- | :--- |
| walls | clock |
| ceiling | chair |
| paper | windows |

The -are yellow.
The - is high.
The - tells time.
Work on informal grammar may be introduced here.

I write. Mary writes.
The girl
The woman —.

John -
The man Miss Brown

The boy
The teacher -

## PHONICS.

## AIM.

To teach pupils independent recognition of words.
To direct pupils towards correct enunciation of words.
To correct the particular phonetic errors of certain races.

## MINIMUM REQUIREMENTS.

To recognize independently the words set in the reading lesson. The accompanying list is suggestive and a help to the end.

## NOTE.

Phonics should be taught only as the need appears. Only the sounds tha will correct the phonetic errors of speech and that will assist the illiterates to gain power in using the spoken word should be taught.

## CONTENT.

## Consonant Sounds.

| c | cab | k | king | qu | quarter |
| :--- | :--- | :--- | :--- | :--- | :--- |
| f | fan | l | leg | r | run |
| g | gun | m | man | s | sit |
| h | hat | n | nest | t | tag |
| j | jump |  |  | p | pin |
| v | vest | y | yellow | sh | ship |
| b | box | z | axe | ch | chin |
| w | window | th | thin | wh | wheel |
| d | dog | th | this |  |  |
| z | zebra |  |  |  |  |

1. It is not important that these should be taught in the order given.
2. Teach " $x$ " as final sound.
3. Word following sound suggests name of object to be pictured on illustrative card used by the teacher.

## Vowel Sounds. Short.

| a apple | o orange |
| :--- | :--- |
| e egg | u umbrella |
| i ink |  |

Sentences following families may be used to test pupil's ability to give family.

Select words from the following lists that the pupil should make a part of his vocabulary:

## Families.

| at | an | and | ad |
| :--- | :--- | :--- | :--- |
| cat | can | band | bad |
| fat | man | hand | had |
| hat | ran | land | mad |
| mat | pan | sand | sad |
| rat | than | stand | lad |
| sat |  | grand | fad |
| pat |  |  | pad |
| that |  |  |  |
| chat |  |  |  |

That fat man ran.
The bad lad is sad.

| ed | et | ent | en |
| :--- | :--- | :--- | :--- |
| bed | bet | bent | Ben |
| red | get | sent | den |
| fed | let | dent | hen |
| wed | met | lent | men |
| shed | set | went | ten |
|  | yet | tent | pen |
|  | wet |  | when |

The red hat is on the bed.
Let me set the table.
He went into the tent.
Ten men went into the den.

| in | it | ill | ip | ish |
| :---: | :---: | :---: | :---: | :---: |
| bin | bit | bill | dip | dish |
| pin | fit | fill | hip | fish |
| fin | hit | hill | lip | wish |
| sin | sit | kill | tip |  |
| win | quit | mill | rip |  |
| thin |  | pill | ship |  |
| chin |  | sill | chip |  |
| shin |  | still | whip |  |
|  |  | will |  |  |
|  |  | chill |  |  |
|  | The <br> Ten <br> That <br> I wis | fell i it. ill win. a dish | bin. <br> fish. |  |


| op | ot | og | od |
| :--- | :--- | :--- | :--- |
| top | not | bog | hod |
| hop | hot | dog | cod |
| chop | got | fog | rod |
| shop | lot | $\log$ | sod |
|  | shot |  | nod |
|  | pot |  | pod |
|  | rot |  |  |

I went to the shop for a fish and a chop.
The dog is in the fog.

| un | ub | ut | ug |
| :--- | :--- | :--- | :--- |
| sun | cub | but | hug |
| fun | hub | cut | bug |
| gun | tub | hut | dug |
| shun | nut | mug |  |
| bun | rut | sug |  |
|  | The man will run with the gun. | rug |  |
|  | "Snug as a bug in a rug." |  |  |

Teach soft sound of cent, and $g$ general.
Vowel Sounds. Long.

| a | ape | o | overalls |
| :--- | :--- | :--- | :--- |
| e | ear | u | United States |
| i | ice |  |  |


| ay | ame | ade | ate | ake | ace |
| :---: | :---: | :---: | :---: | :---: | :---: |
| gay | game | made | ate | cake | face |
| hay | name | fade | late | make | race |
| say | tame | wade | fate | sake | lace |
| lay | fame | blade | grate | take | grace |
| may | lame | grade | plate | lake | place |
| nay | blame | trade | slate | rake | trace |
| clay | flame | shade |  | wake |  |
| play | frame |  |  | bake |  |
| dray | shame |  |  | brake |  |
| stay |  |  |  | shake |  |
| spray |  |  |  | flake |  |
| stray |  |  |  |  |  |
|  | May I pay my way? |  |  |  |  |
|  | May we say it the same way? |  |  |  |  |
|  | He made hay in the sun. |  |  |  |  |
|  | He ate late today. |  |  |  |  |
|  | Make a cake and bake it. |  |  |  |  |
|  | Take the lace away. |  |  |  |  |


| ail | ail | ain |
| :--- | :--- | :--- |
| jail | nail | rain |
| sail | bail | pain |
| pail | tail | gain |
| mail | trail | main |
| fail | rail | train |
| hail |  | grain |

The pail and the nail were sent in the mail.
The nail is in the rail.

| ee | ea | ea | east |
| :--- | :--- | :--- | :--- |
| seed | seat | speak | east |
| weed | meat | leak | feast |
| need | neat | beak | beast |
| feed | beat | bleak | least |
| sheet | heat |  |  |
| meet | peat | meal |  |
| sleet | cheat | steal |  |
| bleed | teach | steam |  |
| greed | reach |  |  |
| greet | each | ear |  |
|  | peach | fear |  |
|  | beach | dear |  |
|  | bleach | near |  |
|  |  | gear |  |
|  |  | rear |  |
|  |  | clean |  |
|  |  | lean |  |

Reach for the peach for the teacher. The beast had a feast of lean meat. Have no fear for I am near.

| ice | ide | igh |
| :--- | :--- | :--- |
| mice | hide | night |
| nice | side | right |
| rice | tide | fight |
| dice | wide | might |
| slice | ride | sight |
| price | bride | tight |
|  | pride | light |
|  | slide | bright |
|  | glide | fright |
|  |  | slight |
|  |  | knight |

The mice ate the rice.
I ride on one side of the wide"street.

| oa | one | old | oke | ose | ole | ote | ome |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| coat | bone | bold | woke | rose | pole | note | home |
| boat | tone | sold | joke | nose | sole | vote | dome |
| goat | lone | hold | coke | hose | whole | wrote | Rome |
| throat | zone | gold | yoke | those | stole |  |  |
| roar | shone | told | choke | close |  |  |  |
| soar | stone | mold | broke |  |  |  |  |
| soak | alone | scold | smoke |  |  |  |  |
| soap |  |  | spoke |  |  |  |  |
| lone |  |  |  |  |  |  |  |

load
loaf
board
coal
coast
boast
Button your coat at the throat.
The dog ate the bone.
He told me he sold the gold band.
A load of coal is on board.
I smell the rose with my nose.
I made a note to vote.
He takes the pole home.
I made a lace yoke.

|  |  |  |
| :--- | :--- | :--- |
| ow |  |  |
| bow | blow |  |
| mow | glow |  |
| low | grow |  |
| show | own | Show me the bow. |
| row | blown | The wind has blown away the new-mown hay. |
| tow | flown |  |
| flow | mown <br> shown |  |


| u | ew |
| :--- | :--- |
| blue | dew |
| due | few |
| June | pew |
| tune | new |
| sue | flew |
| glue | stew |
| flue | grew |
| hue | drew |
|  | threw |

The note was due.
He gave the news to few.

## Phonics for Enunciation.

In these lists select words covered by long and short vowels.


| shop | show | flesh |
| :--- | :--- | :--- |
| shaker | shudder | flash |
| shade | shut | fresh |
| shall | shy | Irish |
| shed |  | plush |
| shelf | ash | Polish |
| shift | cash | polish |
| ship | crush | punish |
| shin | fish | radish |
| shine | dish | rush |
| shop | finish | Spanish |


| these | bother | feather <br> those <br> weather |
| :--- | :--- | :--- |
| this | other | lather |
| that | father | cloth |
| there | mother | either |
| thus | leather | neither |
|  |  |  |
| think (soft) | bath |  |
| three | thimble | cloth |
| thick | thunder | tenth |
| thin | thread | moth |
| thigh | beneath | froth |
| Thursday | death | health |
| thing | tooth | thorough |
| thumb | teeth | thermometer |

My brother bothers my mother and father.
I think he threw my thimble under the cloth.

| vine <br> vest <br> vote <br> valve <br> vacant <br> vein |  | v |  |
| :---: | :---: | :---: | :---: |
|  | veil | varnish | victory |
|  | vanilla | vegetable | vinegar |
|  | velour | vestibule | visit |
|  | velvet | vestment | voice |
|  | variety | victim | vowel |
|  | vase | view | vulgar |
| w |  |  |  |
| wine | want | Wednesday | wish |
| wagon | well | weak | wick |
| wash | warm | wait | wide |
| water | warrant | welcome | wind |
| wage | watch | wet | woman |
| weight | wave | wood | world |
| waiter | wink | wives | we |
| walk | wealth | wire | weave |
| wall |  |  |  |
| wh (white) |  |  |  |
| which | where | what | whistle |
| white | while | wheat | why |
| wher |  |  |  |

When did he eat the wheat?

|  | qu |  |  |
| :--- | :--- | :--- | :--- |
| quaint | quarter) |  |  |
| qualify | quart |  | question |

The Quaker wore a quaint quilted skirt.
The queen quoted a queer quotation.
There was a question about the quantity and quality of the quilts.
After the quiz they quickly became quiet.
He requested a quire of paper, several quills and a quart of ink.

## Blends.

Blends may be taught with illustrated cards.

| bl | black | br | brown | tr | train | sn | snow |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cl | clock | cr | cry | scr | scratch | sp | spool |
| fl | flag | dr | dress | str | string | st | stool |
| gl | glue | fr | fruit | sc | scales | sw | swing |
| pl | plate | gr | green | sk | skates |  |  |
| sl | sled | pr | pray | sm | smoke |  |  |

1. Words following blends suggest name of objects to be used in teaching blends.
2. Not all of words in blend list are to be used in beginners' grade.
3. Select only appropriate words.
4. Sentences following blends may be used to test pupil's ability to give blend words.

| bl | $f$ | pl | slide |
| :---: | :---: | :---: | :---: |
| black | fly | please | slippery |
| blue | flake | plant | slim |
| blacksmith | flag | place | slap |
| blood | flame | plaid | slab |
| bleed | flannel | plain | sleep |
| blade | flat | plane | sledge |
| blame | flavor | plait | sleeve |
| blank | flax | plate | slight |
| blanket | flash | plank | sliver |
| blaze | flaw | plaster | slot |
| blacken | flood | platter | slow |
| blow | floor | platform | slouch |
| blew | flight | play | slush |
| bleach | fleece | pleasure |  |
| bless | flesh | pleasant | br |
| blot | fleet | pledge | brace |
| blotter | flounce | plenty | bracelet |
| blossom | flock | pleurisy | bracket |
| blister | float | pliers | braid |
| blizzard | flour | plot | brain |
| blush | flower | plucky | break |
|  |  | plow | bran |
| cl |  | plumber | brand |
| clean |  | plum | branch |
| clear |  | plump | brass |
| class | g1 | plural | brave |
| claps | glad | plush | bread |
| clan | glass | plus | breakfast |
| clamp | gland |  | breast |
| clerk | glazier | s1 | break |
| clever | glare | slogan | breathe |
| climb | glee | slave | breeze |
| climate | globe | slender | brick |
| close | glide | sleep | bride |
| clock | gloom | sloyd | bridge |
| clothes | glossy | sleigh | bright |
| cloud | glove | slur | bristle |
| clumsy | glue | sled | broad |
| clown | glycerine | slacker | broken |
| clutter | glorious | slipper | brook |
| cling | glory | slip | broom |
| clinker | glance | slipped | brown |


| brother | dream | gr | principal |
| :---: | :---: | :---: | :---: |
| brow | dress | grab | principle |
| brush | drift | graceful | print |
| bruise | drill | grade | prison |
| brute | drown | grammar | private |
| brutal | drink | grow | prize |
|  | drip | grand | produce |
|  | drive | grandmother | production |
| cr | drizzle | grandfather | professor |
| crab | drop | grant | progress |
| crack | drudge | grape | prohibit |
| cracker | dry | grass | promise |
| cradle | drug | grate | pronoun |
| crank | druggist | grateful | proof |
| crate | drunk | great | proper |
| crawl | drum | gratify | property |
| crayon |  | grave | prospect |
| crazy |  | gravel | prosper |
| crease | fr | grieve | prosperity |
| creature | frame | grind | protect |
| cream | frail | grist | protest |
| credit | fragile | green | proud |
| creep | fragrant | gray | provisio |
| cretonne | fracture | Greed | prudent |
| crevice | frank | grocer | prune |
| criticise | freak | ground |  |
| crochet | free | growl | tr |
| crooked | freedom |  | trace |
| crocodile | freeze | grizzle | trade |
| crop | frequent | grown | traffic |
| cross | fresh | grizzly | trailer |
| cruel | fret | grip | train |
| crowd | freight |  | tram |
| croup | Friday |  | tramp |
| crush | fry | pr | trample |
| crust | fried | prairie | transient |
| cry | friend | practical | transom |
| cruet | frighten | praise | transparent |
| crumb | frigid | prank | transport |
| crumble | fringe | prayer | travel |
|  | frock | preach | tray |
|  | frog | preamble | treasure |
| dr | front | premium | treat |
| draft | frost | prepay | treaty |
| dray | frowsy | present | tremble |
| drain | froth | preserve | trench |
| drag | frugal | president | trespass |
| dredge | fruit | press | trial |
| dread | fray | pretty | triangle |


| tribe | strangle | skill | snob |
| :---: | :---: | :---: | :---: |
| trick | strap | skim | snicker |
| trickle | strong | skimp | snuggle |
| trigger | stray | skin |  |
| trim | streaky | skirt | sp |
| trinket | stream | sky | spa |
| trip | strength | sky scraper | space |
| triple | strict | sky light | spade |
| triumph | strike | sky rocket | span |
| trivial | string |  | spend |
| trod | strip | sm | speech |
| trolley trot | stroke stroll | small | speed |
| trouble | struck | smart | spider |
| trough | street | smell | spicy |
| trousers | stripling | smoke | spendthrift |
| trout |  | smile | spill <br> spinach |
| truant | Sc | smear | spinster |
| truce | scab | smallpox | spine |
| truck | scaffold | smolder | spin |
| trudge | scald | smother | spit |
| true | scalp | smudge | spire |
| truly | scallop | smuggle | spite |
| trump | scamp | smelt | spoon |
| trumpet | scandal | smith | splash |
| trunk | scan | smut | splendid |
| trust | scapegoat | smut | spout |
| trusty | scanty |  | spoke |
| truth | scarce | sn | sponge |
| ry | scar | snake | splint |
|  | scarecrow | snatch | splinter |
| Scr | scarf | snail | spool |
| scream | scarlet | snare | sprain |
| scramble | scatter | snap | spread |
| scrap | scheme | snug | spring |
| scrape | schedule | sneak | sprinkle |
| scratch | scholar | sniff | spud |
| scrawl | school | snub | spunk |
| screach | schooner | sniffle | spur |
| screen | scoop | snuffle | spurn |
| screw | scorch | snow | spy |
| scribble | score | snowplow | spaghetti |
| scrimp | scout | snowstorm | Spaniard |
| scrub |  | snowshoe | Spanish |
|  | sk | snowdrift | Spain |
| str | skate | snowdrop | spare |
| straight | ski | snowball | spark |
| strain | skein | snow-bound | sparkle |
| strait | skewer | snarl | sparrow |
| strange | skid | sneeze | spat |


| speak | stagger | steel | swamp |
| :--- | :--- | :--- | :--- |
| spear | stain | steep | swan |
| special | stare | steal | swarm |
| spectacle | stupid | steerage | swam |
| spatter | store | stem | swear |
| specimen | stale | stern | sweater |
| speck | stall | stick | Swede |
| speculate | stamp | still | Swedish |
| spell | stand | stingy | Sweden |
|  | stanza | sting | sweep |
| st | starch | stir | swept |
| step | start | stomach | sweet |
| sting | starve | stitch | sweetheart |
| steak | state | stone | sweetmeat |
| stake | State House | stood | swell |
| star | stately | steed | swill |
| startle | stateroom | stoop | swift |
| stay | statesman | stool | swing |
| staid | station | stop | swindle |
| steam | stationary | stopper | Swiss |
| stiff | statue |  | sw |
| stable | stationery | swab | Switzerland |
| staff | study | steady | swallow |
| stage | stady |  | swoop |

## Blend Sentences for Drill.

Not all to be used in beginners' grade.
Choose appropriate sentences.

## bl.

The blue blanket was bleached by the sun.
The bleak wind blew.
cl.

The clever clerk wears clean clothes.
The class closed at three o'clock.

## f.

The flagship of the fleet sailed first.
The flood killed the flax flowers.

## gl.

The Glee Club sang "In the Gloaming."
I glanced at the gloves in the window.

## pl.

He plowed and planted the plot of land. Put plenty of plants on the platform.
sl.
The slogan of Lincoln was "Free the slaves."
The slender lad needs more sleep.
br.
He ate bran bread for breakfast.
Bring me the broken bracelet.
cr.
The baby crept from the crib to the cradle. The child cried for crackers and cream.
dr.
The dress did not dry in the drizzle.
The flax flower drooped in the dry air.

## fr.

The fragile frame came by freight Friday.
The violets were fresh but frail.
gr.
The grizzly bear grunted and growled.
Green grass does not grow on gravel.
pr.
The preacher prayed in the prison.
The President promises prosperity under prohibition.

## tr.

The traffic officer traced the truck and the trailer. The traitor trembled at his trial for treason.
scr.
The woman scrubbed the screen.
The cat scratched and the child screamed.
str.
The straight stripling grew by the stream.
He strained and stretched the strong strap.
sc.
A score of scholars from that school won scholarships.
The boy scout scaled the scaffolding.
sk.
Canadians skillfully skate and ski.
The skyrocket skimmed the skylight of the skyscraper.
sm.
The small scholar smelled the smoke. Smelts and scallops are small fish.
sn.
The snowplow went through the snowdrifts.
The snowshoers were snowbound by the snowstorm.
sp.
The Spaniard spoke of the splendors of Spain. The spider spun and spread a silken web.

## st.

The steed stamped in the stall of the stable. Are there staterooms in the steerage?

## SW.

A swarm of bees flew swiftly over the swamp. Swiss watches come from Switzerland.

## Suggested Proverbs for Review.

A stitch in time saves nine.
A rolling stone gathers no moss.
A pound of pluck is worth a ton of luck.
A small leak will sink a big ship.
A willing mind makes a light foot.
A new broom sweeps clean.
Barking dogs seldom bite.
Better late than never, but better never late.
Let your head save your heels.
Forgive and forget.
An empty barrel makes the loudest noise.
Have a place for everything and everything in its place.
Health is better than wealth.
Early to bed and early to rise, makes a man healthy, wealthy and wise.
If at first you don't succeed, try, try again.
It is never too late to mend.
Little strokes fell great oaks.
Men apt to promise are apt to forget.
One error breeds twenty more.
People who live in glass houses shouldn't throw stones.
Time and tide wait for no man.
The coat does not make the man.
There's many a slip between the cup and the lip.
Well begun is half done.
Easy come, easy go.
From saving comes having.
Haste makes waste and waste makes want.
He that goes a borrowing goes a sorrowing.

Birds of a feather flock together.
Do your best and leave the rest.
If it is not right, do not do it, if it is not true, do not say it.
A man of words and not of deeds
Is like a garden full of weeds.
Do a little and do it well.
A friend in need is a friend indeed.
Honesty is the best policy.
East or west, home is best.
Make hay while the sun shines.
Think twice before you speak.
Any time means no time.
It is no use waiting for your ship to come in unless you have sent one out.
No one is useless in the world who lightens the burden of it for any one else.
The advice you don't like is often the best.

## METHODS.

## Suggestions.

The sounds of the language alone and in combination are the basis of all language work, and practice in producing the sounds and drill on the difficult ones are indispensable to progress. In this sense phonics hold an important position in the curriculum from the very start. Technical phonics, namely, the separation of words into their constituent elements and the blending of elements to make new words, should never precede the work in conversation. Phonics, in this sense, should proceed naturally from the vocabulary acquired by the pupils. Individual or concert drill on syllables or on words that have no meaning to the class has absolutely no place in evening school work.

In the beginning words should be taught as wholes, and only those words should be selected that have a content basis in objects or actions and words that will be needed for sentence building. The pupils, hearing the spoken word, should repeat it over and over, individually and occasionally in concert, until a lasting auditory and vocal impression is made. Great care must be taken to have the pupils hear the sound correctly. To have the correct sound reproduced by the pupils, clear articulation, correct enunciation, and proper voice control and placement are necessary on the part of the teacher. In certain cases an entirely new auditory apperceptive basis must be established, and in all cases one of the chief objectives is proper ear training, the development of a keener sensitiveness to correct sound. Systematic ear training should precede and accompany vocal training.

Speech is a matter of habit and most of our sounds can be learned by imitation. Only in the case of pupils who after repeated attempts to imitate the clearly enunciated speech of the teacher fail to reproduce the sound correctly, should recourse be had to the organic phase of speech. The teacher, however, must be familiar with the proper placing of the organs of speech, and must be able to guide the pupils to a conscious control of these organs in producing difficult sounds. Various devices are familiar to the experienced teacher and many valuable suggestions may be gained from a study of the work with defectives and from standard books on sound formation. Some knowledge of sound formation is absolutely essential. The pupils should be led to understand the value of phonic work and the benefits derived from faithful practice.

Diacritical marks should not be used until the Intermediate Cirade and then only the simplest. They are of comparatively little assistance in early reading and are sometimes the cause of much unnecessary delay and confusion. In the Advanced Grade, however, as a preparation for the intelligent use of the dictionary, they are of much service.

In the technical phonic work, the order in which the elements are taught is not so important as is the thorough teaching of all the elements. Some authorities begin with the short vowel sounds because most words in our vocabulary contain short vowels. Other authorities begin with the long vowels because some of our short vowels are extremely difficult for the foreigners to pronounce. Many of our consonants have practically the same sound in the foreign tongue and thus afford a natural beginning. On the other hand, many of the consonant sounds which are difficult for the pupil occur in so many of our commonest words that they must be taught early and drilled frequently.

Whatever order is adopted in teaching the elements, the sounds should be studied by an analysis of common words which are already known. The pupils learn that a word is made up of elementary sounds and that each sound is made by a particular shaping of the mouth parts. Later the elements are combined or blended to make new words, and care must be exercised that the results of the blending in every case shall be real words, words that mean something to the pupil. In the blending the burden should be placed as much as possible upon the pupil for the real test of progress in this work is the ability to pronounce new words.

The pupil should be led gradually to recognize and to sound the longest combination of letters representing part of a word.

Many words, of course, must he taught as sight words and constant atten$\mathrm{t}^{\text {ion }}$ must be given to drill on the clear enunciation of difficult sounds, e. g., $\mathrm{t}, \mathrm{d}$, th, w, wh, v, ch, j, ng, er.

Marching sounds, rhyming words, and keeping progressive sound cards, charts and lists, for drill purposes are recommended as very helpful.

## Method.

The study of phonics should not be attempted until the last part of the second month or until the pupils have acquired a small vocabulary for the reading lesson.

The lesson may be divided into two parts:
Phonics for enunciation.
Phonics for independent recognition of common words.
The consonants and short vowels may be taught first.
Illustrated cards may be used. Every day pupils are shown cards upon which are printed the pictures of familiar objects and their word symbols of which the initial sounds are the sounds to be taught.

Teacher holds up a card and asks, "Of what is this a picture?" Pupil replies, "That is a picture of an apple." Teacher prints the word "apple" on the board and pronounces it.

She then says, "I'll say the first sound 'a'" and points to the letter on the card. Then a pupil is asked to sound the letter. In order to be certain that pupils make sound correctly, it is suggested that no concert work be used at this stage.

The teacher pins card on board where all may see, and leaves it there for several days. As new sounds are taught, the cards may be placed on board or wall.

Consonant sounds are taught as initial sounds (with the exception of " x ").
After the consonant and short vowel sounds are taught they may be combined and families taught. At first, it is advisable to teach only one family a day. Teach only those words whose meanings are known, or can be readily explained to the class.

The letters are printed on the board.
a t
A pupil gives the sounds of both letters. Then the letters are printed a little nearer together.


a
a t
at
at
at
at
at
Several pupils say the combination of the two sounds.
Teacher makes sound " $m$ " and places letter in front of "at" - mat. She says, "I'll make the sounds and see if you can tell what word I am saying."

$$
\begin{aligned}
& \text { mat } \\
& \text { sat } \\
& \text { fat } \\
& \text { pat } \\
& \text { that }
\end{aligned}
$$

Each pupil in group should be given an opportunity to say at least one word.

Once a week, slips on which are printed words containing families taught that week may be distributed and pupils allowed to study them and later to recite them.

Papers containing sentences based on the families taught may be distributed occasionally for review.

If, during the previous week or two the class has been taught the "at," "an," and "ad" families, sentences may be given.

The cat sat on the mat.
The man is sad.

After the simple families have been taught, the blends may be taken. Illustrated cards are used as with the consonants and short vowels. Illustrations on cards should be made to suit the needs of the particular class.

The long vowels may be taught by the use of illustrated cards. All sounds, families, and blends taught may be reviewed by blend sentences.

The blunt blade was broken. He made a blot in the blank book.

Each pupil is given a slip containing a review sentence and asked to study it before reading.

Purely phonetic sentences containing proverbs may be used to review.
Time and tide wait for no man.
The best is the cheapest.
East or west, home is best.

## Phonics for Enunciation.

Lists containing words particularly difficult for the nationalities in a class should be prepared by the teacher. She should have one list for the pupils who have difficulty with the sound of "w," another list for the members of her class who have difficulty with final syllable. At least five minutes of every lesson should be given to the lists.

The teacher pronounces each word, and has a pupil pronounce it after her. This drill should be quick and lively. If a pupil has difficulty and does not seem to get the sound, it is not advisable for the teacher to spend too much time on it. She may come back to that pupil again and work with him. The teacher should have the list ready and should give the lesson without referring to it.

## READING.

## $B=I$.

AIM.
To teach pupils to read and understand simple English on practical subjects.
(a) Phonics.

1. In this grade the teacher should furnish the model for imitation.
2. Drill upon phonograms which pupils find most difficult in the reading lessons.
3. Careful pronunciation should be the aim from the very outset.
(b) Word Study.
4. The new and difficult words of the lesson should be printed upon the board. Words thus selected are to be explained and illustrated by use in sentences.
5. Frequent drill upon words that are commonly miscalled.
(c) Oral Reading - Content.

Early lessons should be closely correlated with the conversational work.
No textbook work should be attempted until the students understand a few words in English.
At the end of B-I pupils should be able:

1. To read with a fair degree of fluency, accuracy, and good expression from any of the suggested readers for this grade.
2. To read with understanding.
3. To reproduce orally the important ideas of a paragraph when read silently or orally.

## Source Material.

1. Signs, posters, directions, instructions intimately touching the lives of the pupils and assisting them in their adjustments to environment, e. $g$.:
(a) Public signs.

| Theater | Railroad <br> Bank | Real Estate |
| :--- | :--- | :--- |
| Entrance | Women | No Smoking |
| Exit | Ladies | Keep off the grass |
| Danger | Stop | Safety first |
| Silence | Go | Wait until car stops |

and many others.
(b) Directions and instructions for work in factory, office, etc.
2. Lessons selected from one or more of the available texts and simplified to place story within range of pupils' understanding and vocabulary.

## 3. Inspirational Literature.

The teacher has a valuable opportunity to acquaint the pupils with the "real American" by the correct use of inspirational literature.
(a) Poems.

Poems should be selected from the regular day school course of study in Literature according to the needs and capacities of the students. Those selected should include poems of patriotism, romance, character, heroism, nature, etc.

## Methods.

Note: Teacher may use either of the following methods illustrated by the type lessons.

Type Lesson I.- Dramatic Method.
Reading Lesson.
I see the desk.
I see the pen.
I see the paper.
I see the paper and the pen.
I see the paper on the desk.
I see the paper and the pen on the desk.

1. Materials.

A desk, a pen, a paper.
2. Aim.

To teach the pupils to read the six sentences.

## 3. Presentation.

An illustration of primary development without the book.
(1) Teacher takes hold of a desk and says, "The desk."
(2) Each pupil takes hold of his desk and says, "The desk."
(3) Class repeats the desk four or five times after the teacher each time pointing to the desk while saying the word desk.
(4) Teacher prints upon the blackboard the desk.
(5) Class repeats the desk after the teacher.
(6) Teacher develops the pen and the paper in the same way that she did the desk. She repeats each word, printing it upon the board for the class to read, until the class is able to give each object its name.
(7) Teacher points to herself, saying, "I." Soon the pupil recognizes the meaning of the word. Each pupil repeats I pointing to himself as he says it.
(8) Teacher then takes the word see. She points to her eye and then she looks at the desk, saying the word see as she performs the action. The teacher repeats this until the pupil is able to apply the word to action.
(9) Teacher dramatizes the sentence. I see the desk, suiting the word to the action.
(10) The teacher then proceeds as in $2,3,4,5$, above.

## Type Lesson II.- Objective Method.

Develop new words objectively.
New words:

| book | pencil | table | ink | paper |
| :--- | :--- | :--- | :--- | :--- |
| pen | chair | desk | box | ruler |

Distribute objects and ask pupil:

## What is this?

Have pupil answer:

## This is a book.

Insist upon complete answer to question. Print on board as pupil answers,

## This is a book.

Have pupils exchange objects.
Use board exclusively for two or three days.
Then when pupil can read from board,
This is a book; this is a chair, etc., distribute slips. Cut on dotted line and distribute one to each pupil. Exchange slips.

Review words taught in Lesson I.

| book | pencil | chair | desk | box |
| :--- | :--- | :--- | :--- | :--- |
| pen | paper | table | ink | ruler |

New words to be taught:

| wall | floor | picture | curtain |
| :--- | :--- | :--- | :--- |
| ceiling | door | window | clock |

After pupil has read several of the slips, let her exchange with her neighbor.
Allow bright pupil to progress as rapidly as possible.
Give new slips out at every lesson so that sensitive pupil will not realize her backwardness.

In order to test pupils show cards on which are printed the isolated words,
such as: $\square$
I see the book.
I see the chair.
I see the pen.
I see the paper.
I see the table.
I see the box.
I see the pencil.
I see the pencil and the paper.
I see the paper and the book.
I see the window and the door.
I see the floor and the ceiling.
I see the pen and the ink.
I see the picture and the clock.
I see the window and the curtain.

Common phrases such as, there is, the book on the table, etc., should be taught as word groups and then the pupils should be required to read simple selections containing familiar words, phrases, and short sentences from the selected texts. Proceed slowly, illustrate objectively, pronounce clearly, as the work progresses.

The first parts of several books should be read and later in the year the more difficult parts of the same books. This is frequently preferable to the common practice of reading one book completely through before attempting a second.

## SPELLING.

AIM.
To teach pupils to spell correctly the words that they will need for use in written work in their every day lives.

## MINIMUM REQUIREMENTS.

To spell name and address.
To spell words on the suggestive list.
To spell selected words from the Boston Word List for similar grade.
In general, pupils should be able to spell the common words used in the oral and written work.

## CONTENT.

## Suggestive List for Illiterate Pupils.

To be increased as pupils acquire greater vocabulary. Also words commonly used with words of list, e. g., 1, 2, 3:

1. book, large, small
2. pencil, long, short
3. paper, white clean
4. table
5. pen
6. ink
7. have
8. you
9. and
10. wall
11. see
12. take
13. we
14. they
15. my
16. this
17. is
18. that
19. your
20. floor
21. door
22. window
23. shoe
24. stocking
25. shut
26. open
27. put
28. yes
29. no
30. chair
31. desk
32. clock
33. hat
34. coat
35. tie
36. collar
37. dress
38. waist
39. handkerchief
40. read
41. eat
42. drink
43. sleep
44. was
45. were '
46. are
47. these
48. those
49. morning
50. evening
51. knife
52. fork
53. spoon
54. plate
55. dish
56. box
57. saucer
58. coffee
59. tea
60. cocoa
61. milk
62. meat
63. butter
64. salt
65. water
66. fish
67. food
68. meals
69. there
70. bread
71. one
72. two
73. three
74. four
75. five
76. six
77. seven
78. eight
79. nine
80. ten
81. market
82. store
83. John
84. Mary
85. child
86. man
87. woman
88. boy
89. girl
90. baby

## Supplementary Phonetic List for Illiterate Pupils.

1. book
look took cook shook
2. ink sink drink pink think wink
3. take
make
bake
cake
wake
shake
4. that
cat
mat
hat
sat
fat
5. wall
tall
fall
ball
hall
small
6. knife
life
wife
7. spoon
moon
soon
noon
8. plate
mate
late
gate
rate
slate
state
9. dish
wish
fish
10. pen
hen
ten
men
den
when
11. tent
rent
sent
went
dent
12. shut
cut
but
nut
hut
13. chair
hair
fair
stair
pair
14. coat
float
boat
goat
15. meat
seat
eat
heat
beat
treat
16. meal
heal
steal
squeal
veal
17. $\begin{aligned} & \text { read } \\ & \text { bead } \\ & \text { knead }\end{aligned} ~=~$
18. speak
beak
leak
peak
19. spell
fell
tell
yell
sell
shell
well
20. day
play
stay
way
may
gray
21. sleep
sweep
creep
deep
weep
22. those
nose
hose
close
23. three
tree
free

24 cry
24. six fry
fix dry
mix
25. nine
mine
fine
wine
vine
shine
pine
26. mark
park
dark
hark
bark
market
27. store
shore
more
fore
pore
wore
28. child
mild
29. man
pan
fan
$\tan$
ran
can
30. and
hand
land
band
stand
candy
31. boy
toy
joy
enjoy
employ
32. my
by
try
cry
shy

Suggestive List for Literate B=I Pupils.

| finger | silver | while | yesterday |
| :---: | :---: | :---: | :---: |
| eye | March | where | next |
| thumb | copper | when | last |
| wrist | April | which | their |
| arm |  | what |  |
| elbow | kitchen | why | street |
| shoulder | dining room | whose | city |
| head | bath | white | state |
| healthy | stairs | whom | town |
| nurse | down | whole | church |
| purse |  | mother | America |
| ear |  | father | park |
| nose | born | sister | country |
| mouth | closet | brother | house <br> president |
| cheek | present | other | president |
| chin |  | another | Monday |
| hurt | borrow | parents | Tuesday |
| knees | lend | wife | Wednesday |
| foot | June | husband | Thursday |
| ankle | July | never | Friday |
| body | August | month | Saturday |
| uncle | wear | year | Sunday |
| aunt | tear | afternoon | visit |
| cousin | walk | night | daily |
| friend | talk | early | invite |
| family | use | late |  |
| relative | September | come | about |
| blue | October | went | between |
| brown | November | because | among |
| gray | December |  | around |
|  | should | eleven | without |
| before | could | twelve | through |
| after | would | thirteen | under |
| now | towel | fourteen | over |
| January | wash | fifteen | above |
| February |  | twenty |  |
| money | hard | thirty | yellow |
| cent | soft | forty | green |
| nickel | large | fifty | horse |
| dime | small | hundred | animal |
| quarter | high |  | bird |
|  | first | twenty-one | flowers. |
| half | second | thirty-five | pretty |
| dollar | third | forty-eight | young |
| spend | fourth | thousand | work |
| change | twelfth | to-day | better |
| coin | company | to-morrow | worse |


| rubbers | quick | pint | taught |
| :--- | :--- | :--- | :--- |
| umbrella | quiet | pound | daughter |
| weather | quite | ounce | different |
| rain | piece | clothes | any |
| snow | people | careful | many |
| warm | order | busy |  |
| cloudy | often | business |  |
| short | seldom | telephone | sign |
| stormy | office | receive | address |
| each | dentist | excuse | Mr. Mrs. |
| buy | minute |  | envelope |
| cotton | hour |  | stamp |
| wool | little | ticket | special |
| silk | right | transfer | delivery |
| linen | bright | needle | postal |
| velvet | grocer | thread | postoffice |
| beautiful | holiday | thimble | package |
| yard | fruit | please |  |
| quart | question | thank | doctor |
| breakfast | answer | north | tailor |
| dinner | English | south | sailor |
| potatoes | wood | east | janitor |
| sugar | coal | west | color |
| supper | hungry |  | learn |
| lunch | thirsty | bought | heard |
| cabbage | summer | brought | earth |
| vegetables | winter | thought | match |
| apple | autumn | fought | been |
| range | wind | caught | member |
|  |  |  |  |

## Supplementary List for Literate B=I Pupils.

| dumb | nurse | dime | dining |
| :--- | :--- | :--- | :--- |
| numb |  |  |  |
| plumber | purse | chime | shining |
|  | curse | time | lining <br> mining |
| arm | blue |  | refining |
| harm | cue | mend |  |
| farm | due | lend | binding |
| charm | flue | tend | finding |
| alarm | glue | bend | grinding |
|  | hue | blend | blinding |
| head | sue | fender | minding |
| dead | town | tender | winding |
| lead | gown |  |  |
| bread | down | change | clean |
| thread | crown | range | mean |
| tread | clown | strange | bean |
| dread | drown | march | dean |
|  | frown | starch | lean |


| born | use | high | ear |
| :---: | :---: | :---: | :---: |
| corn | abuse | nigh | year |
| horn | accuse | sigh | dear |
| shorn | amuse | thigh | near |
| morning | refuse | night | fear |
| torn | enthuse | fight | hear |
| worn | excuse | right | clear |
| thorn |  | sight | tear |
| scorn |  | bright | drear |
| sworn | hard | flight | smear |
|  | lard | plight | spear |
|  | yard | tight |  |
| borrow | card | might | some |
| to-morrow |  |  |  |
| sorrow |  |  | last |
|  |  | first | cast |
|  | large charge | thirsty | past |
| wear |  |  |  |
| tear |  |  | blast |
| swear |  | third | $\mathfrak{m}$ master |
| pear | small | bird | master |
| bear | call |  | plaster |
|  | ball |  | street |
|  | tall | while | beet |
| walk | fall | smile | feet |
| alk | hall | mile | meet |
| chalk | mall | pile | sweet |
| balk | wall | tile | sheet |
| stalk | stall | file | sleet |

## METHODS.

Make spelling assignment purposeful and definite.
Pronunciation should precede the written lesson.
Place emphasis on difficult part of word.
Drill on words in the list.
Drill on words most commonly misspelled.
Make the drill as interesting as possible by the use of interesting devices: spelling tests, colored chalk, colored cards, spelling matches, elliptical sentences, etc.

Use paper for spelling lesson rather than blank books.
Blank books should be used to copy words correctly from the board and kept for home study and as a reference list for a growing vocabulary.

Use the Boston Word List for finding quickly words suitable for the grades.
Make frequent use of list of phonetic words.

## TYPE LESSONS.

In teaching the alphabet to a class of beginners only a few letters are placed on the board.

Teacher pronounces letter as she writes it, and then has each member of class repeat it after her.

In the first lesson teach only a b c d e f g. After this group is taught, then take the next group of seven letters, and so on, until the entire alphabet is learned.

After the alphabet has been learned, the teacher may test in the following manner: Send a group to the board and ask them to write letters a b c d e f $g$ from dictation. Then ask pupils to erase the letter after " $a$ " or the letter before " f ," and then ask the pupil to give the name of the letter erased.

Show the pupils that it is the application of the alphabet that counts.
 v w x y z , then point to " b ," ask its name and write it, then point to "o," write it, then to " o " again, write it and then to "k," and write that.
b ooll

Then write the word
b ooll

## connecting the letters,

 bookalso print the word so that pupils may associate the written word which they already know with the printed word
b oo k
In this way the pupils learn to spell the easy words.
After the class has had work in phonics, the spelling lesson may be developed phonetically.

Teacher asks, "What letter says, 'a'?" A pupil gives the name. Teacher says, "Write it."
"What letter says ' $t$ '?" Name is given by pupil. Teacher says, "Write it."
Write those two letters again, joining them or putting them together.
"What letter says ' $m$ '? Write it. What letter says ' $a$ '? What letter says 't'? What word have we written? 'Mat.'"

This method may be followed in writing cat, sat, fat, that. Care should be taken to use only the phonetic combinations that will make sense, and only words that the pupil can understand, or whose meanings may be explained.

By this phonetic method, the pupil does not become discouraged in his attempt to learn the spelling lesson.

In order to teach the pupils to be neat and orderly, it is a good plan for the teacher to have some definite arrangement for spelling papers.

My name is
Spelling.

1. 6. 
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

After the pupil has learned to spell "book," the teacher gives the word "book," pupils write it. The teacher asks, "What letter says 'l'?" Then she says, "Write 'look.'" "What letter says ' $t$ '? Write 'took,'" and so on, spelling several words in the same family - book, took, look, cook, shook.

This method may be followed using the different combination of sounds taught in the phonics lesson.

In order to have pupil do some independent work, the spelling lesson may be conducted in this way: Teacher asks, "Who can give a word with sound of 'at'?" One pupil gives cat, another mat, another sat. Then teacher distributes papers arranged in the following manner:

Write five words that have the sound of at

Each pupil writes five words in any order and writes any word with that sound. His paper may look like this:
sat
flat
that
cat
pat

Another day, a teacher may wish to review spelling words. She can arrange her paper in the following way:

Write the names of five things you do in school

Pupils will name different activities, and after papers have been distributed, write the words in any order.

|  | write |  |
| :---: | :---: | :---: |
| study speak |  |  |

When the pupils have learned to spell a number of words later in the year, the lesson may take this form:

Name five things that you use in school.
Name five vegetables.
Name five things you do at home.

In order to help pupils to do independent work, the following device has been found helpful:

I read in a
I write on -
Mary sits at the
John writes with pen and
I cut meat with a
In some classes the pupils are very eager to learn to spell and if they know that there is a spelling lesson awaiting them, they make a great effort to get to school early, provided individual papers similar to illustrations below have been prepared for their use before school.

| Before School |  |
| :--- | :--- |
| Card |  |
| Spelling |  |
| knife | fork |
| fork | knife |
| spoon | glass |
| plate | spoon |
| glass | plate |

Before School Card Dictation
I eat with a fork.
I cut with a knife.
I drink with a glass.
I have a spoon.
Have you a plate?

Spelling may be on one side, and dictation lesson on the reverse side of the card.

Simple pictures may be distributed, and pupil asked to write names of all known articles in the picture. This may be done later in the year.

## DICTATION.

## AIM.

To teach pupils correct spelling, punctuation, and capitalization, technicalities of grammar and to test their ability to use same by written exercises.

To drill on comprehension and choice of words.

## MINIMUM REQUIREMENTS.

To be able to write from dictation simple declarative and interrogative sentences with correct capitalization, punctuation and use of common abbreviations.

To spell correctly the words used.

## CONTENT,

Sentences and later a short paragraph to fulfill the minimum requirements. Selections to be taken from textbooks and from every-day experiences of pupils.

## METHODS.

Teach and copy dictation lesson one evening and dictate it on the next evening to test what has been taught.

Teach one thing at a time.
Drill on correction of errors.

## HYGIENE.

Instruction in hygiene, particularly personal cleanliness and sanitation, and development of health habits, should be included in the English and reading for this grade. While no time is set apart for formal instruction, it should be included in the work, and the teacher should plan her lessons according to the needs of the class.

Abundant material for such teaching may be taken from experiences of every-day life and supplementary reading may be selected bearing on the particular point to be taught.

All work in teaching hygiene should be carefully developed from an adult standpoint.

## COURSE OF STUDY.- CITIZENSHIP.

GENERAL AIMS.

1. To teach the importance and the significance of the elements of community welfare.
2. To enumerate the social agencies, governmental and voluntary, that exist to secure these elements, emphasizing the immediate reciprocal relation between the welfare of the individual and the welfare of home, of society, and of state.
3. To place the pupil as a responsible and helpful member of several social groups.
4. To awaken and stimulate motives leading to the establishment of habits conducive to worthy membership in these groups.
5. To develop political intelligence, so that the pupil may recognize his civic obligation and prepare for its proper exercise, realizing that citizenship carries duties and responsibilities as well as privileges.

## SPECIAL AIMS.

To increase the immigrant's vocabulary, to show the interdependence of all citizens in the community, resulting in a social membership with strict obligations and distinct advantages, to emphasize the greatness of our country and its high ideals, to explain the process of obtaining first papers.

## MINIMUM REQUIREMENT.

I. General.

1. Acquire a knowledge of the important steps in the development of the nation, but not in great detail.
2. Know the qualities of a good citizen.
3. Possess the requisite information for securing first papers.
4. Know the advantages of good citizenship and also its duties and responsibilities, so that acceptance of citizenship shall be desired by pupil, not forced upon him.
II. Specific.
5. The Citizen.
A. His wants - food, clothes, money, liberty, pleasure, protection and a home.
B. His home - order, cleanliness, helpfulness or service, care of furnishings, mutual sharing of pleasures and responsibilities, and obedience to law of general good.
C. Reciprocal relations of home and community:
(a) Home to community - conduct, cleanliness, beauty and protection of property, treatment of strangers, value of co-operation.
(b) Community to home - service of grocer, butcher, milkman, ashes and garbage collectors, health inspectors, firemen, and policemen, streets, libraries, courts, etc.
6. The Citizen's Work.
A. How to secure it:
(a) Advertisements, public agencies, and personal application.
(b) Civil Service.
B. How to better his position:
(a) Good health, good habits, willingness, and knowledge of English.
(b) Stories of successful immigrants.
C. Expenditure of wages:
(a) Waste - with individual and in home.
(b) Economy - co-operative bank, savings bank, postal savings bank, insurance, and home ownership, careful buying, budgeting.
7. The City.
A. Protection.
(a) Health - food laws, sanitation, inspection, hospitals, clinics, and safety-first measures.
(b) Fire - duties and dangers of firemen, fire drill, fire inspection, building laws, warnings of fire prevention pamphlets, expense of department, and nearest box.
(c) Police - duties of policemen, reporting crimes, acting as a witness, concealed weapons, peddling without a license, and regulations for traffic.
(d) Other agencies - postoffice, etc.
B. Education.
(a) Schools - elementary, secondary, evening, continuation, and advantages of each.
(b) Libraries - how to obtain a card, books, papers, magazines, exhibitions, nearest reading room, advantages of its use.
C. Recreation - parks, playgrounds, bathing places, and free excursions.
8. History.
A. Our Country - its general geography, comparison with European countries, growth, population, products, industries, and its advantages.
B. Great men - Columbus, Washington, Lincoln, our living expresidents, and the President.
C. Our Flag - description, explanation of its meaning, history, conduct at its display, and Pledge of Allegiance for citizens.
D. Our Holidays - number, explanation of each, and how celebrated.
9. Citizenship.
A. The American People.

Variety of races, variety of opinions, yet composite ideals.
B. Need of Good Citizens.

Community welfare, selection of representative rulers, national welfare.
C. First Papers.

Advantages of citizenship, its responsibilities, method of procedure, explanation of care in getting accurate information.

## METHODS.

Citizenship should be taught through conversation, reading and special citizenship lessons both oral and written.

Selections from civic texts should be read to the class by the teacher and the simpler ones read by the class to form historic background for developing the important phases of the progress of the United States.

## $B=I I$. <br> TIME ALLOTMENT.- $\mathrm{B}=\mathrm{II}$.

Two hours an evening.
Six hours a week.

120 minutes an evening. 360 minutes a week.


## PROGRAM.- B=II.

|  | One Group. |
| :---: | :---: |
| 7.30...7.40 | Explanation of board work. |
| 7.40....7.50 | Phonics for independent recognition of words. |
| 7.50....8.00 | Word study for reading lesson. |
| 8.00....8.20 | Spelling and dictation. |
| 8.20....8.30 | Conversation. Verb drill. |
| 8.30....8.50 | Letter writing. |
| 8.50....9.00 | Conversation. Story. |
| 9.00...9.05 | Supervision of written work. |
| 9.05...9.30 | Reading. |
|  | Two Groups. |
| 7.30...7.40 | Explanation of board work. |
| 7.40....7.50 | Phonics for independent recognition of words. |
|  | $\mathrm{B}-\mathrm{II}-\mathrm{B}-\mathrm{I}$. |
| 7.50....8.05 | Reading. B-I. |
|  | Written work. B-II. |
| 8.05...8.30 | Reading. B-II. |
|  | Written work. B-I. |
| 8.30....8.40 | Verb drill. |
| 8.40....8.45 | Enunciation drill. |
| 8.45....8.55 | Spelling and dictation. |
| 8.55....9.00 | Supervision of written work. |
| 9.00_...9.10 | Technicalities. |
| 9.10....9.20 | Conversation. B-I. |
|  | Written work. B-II. |
| 9.20....9.30 | Conversation. B-II. |
|  | Written work. B-I. |

## ORAL ENGLISH.

## AIM.

To develop greater fluency in the use of clear, correct and simple English.

## MINIMUM REQUIREMENTS.

To converse on simple subjects that touch the pupils' every-day lives.
To reproduce simple stories.
To use sentences grammatically correct, clearly enunciated, and properly pronounced.

## CONVERSATION (Content).

Lessons 1 to 10.
Review of B-I, if necessary.
11. Teach
catch - teach - bring - think - buy
12. Teach

| catch - teach - bring - think - buy |  |
| :---: | :--- |
| learn - take | sell |
| Nouns - penholder | crayon |
| envelope | chalk |
| blotter | inkwell |
| eraser | filler |
| fountain pen | spindle |

13. Teach

$$
\begin{array}{cr}
\text { catch - learn - take - think - sell - play - find } \\
\text { teach - bring } & \text { buy - fight - seek }
\end{array}
$$

Review nouns of previous lessons.

Nouns - thumb tack
clip
pad
bulletin board
textbook
map
carbon paper
cabinet
waste basket
pencil sharpener
14. Fable - The Hare and the Tortoise. (Any good picture illustrating fable.) Given back in past and present.
(1) One day hare met tortoise
(2) hare
laughed
tortoise
for being
so slow
"Slow and steady wins the race."
15. Errors of speech - Teach correct form as follows:
(1) Between you and me
(4) I shall be glad
(2) It is I .
(5) He doesn't - she doesn't.
(3) It is he - she.
(6) My pencil is broken.
(7) I have no paper.
(8) Different from.
(9) The teacher taught.
16. Elias Howe - Story of.
(1) Born in Boston.
(2) Worked in a cotton mill.
(3) Family poor, wife sewed to earn money.
(4) Howe saw wife sewing at night.
(5) He dreamt of a machine to save labor.
(6) Invented first sewing machine, 1845.
(7) Patent obtained 1846.
(8) Sold one half of patent to Fisher for $\$ 400$.
(9) Public did not purchase machine.
(10) Fear of great unemployment of hand sewers.
(11) Went to England - unsuccessful.
(12) Returned to United States to find patent stolen.
(13) Litigation over patent - many years.
(14) Case won by Howe.
(15) 1863 - Royalties $\$ 4,000$ daily.
(16) Called Father of Sewing Machine.
17. Teach

| ring | sing | begin |
| :--- | :--- | :--- |
| a bell | a popular song | a meeting |
| a gong | The Star Spangled Banner | session |
| fire alarm | America |  |
| in a fare | opera | exercise |
| swim |  | drink |
| in the pool |  | milk shake |

18. Review - ring - sing - begin - swim — drink

Teach

| sink | spring | shrink |
| :--- | :--- | :--- |
| metal | dog | woolen cloth |
| stone | wild beast | serge |
| coin | lad | linen |
| fishhook | seed | cotton |
|  |  | broadcloth |

19. The Lion and The Mouse.

Present and past tense.
20. Review errors of speech: Always teach the correct form.

Teach. - I bought it of him.
I was not in school last year.
I saw him.
I was at home.
I came to school.
May I lie down?
I lay abed yesterday.
May I take this book home?
I shall bring it to school tomorrow.
Take the book to the other room.
21. Teach regular verbs ending in " $t$ " or " $d$," "ed" having the sound of "ed."
instruct
professor
teacher
tutor
master
judge fit
shoe salesmen
dressmaker
oculist
glove fitter tailor
mend tailor cobbler laborer tinker bookbinder attend pupil scholar children
business men employees
22. Teach
automobile touring car roadster limousine sedan

| motor cycle | traffic |
| :--- | :--- |
| side car | rules |
| license | regulations |
| chauffeur | right of way |
| highway commissioner | fine |
|  | truck |

Teach regular verbs ending in " $t$ " or " $d$ " of which the "ed" form is an extra syllable.
need - load - seat - expect - wait
23. Teach - Dr. Morton

| physician | operated | unconscious |
| :--- | :--- | :--- |
| Massachusetts | discover |  |
| $\quad$ General Hospital | ether 1859 |  |
| patients | relieved |  |
| suffer | statue |  |
| conscious | Public Garden |  |

24. Errors of speech:

She is lying down.
We stayed at the hotel.
I won't.
I must go.
I ought to go.
She doesn't know.

Aren't you glad?
Where were you?
She taught me.
I said.
25. Teach verbs ending in " $t$ " or " $d$ " of which the "ed" form is pronounced as an extra syllable.

| headlight | tail light | innertube | dise wheel |
| :--- | :--- | :--- | :--- |
| horn | hood | fender | wire wheel |
| brake | tire | spokes | spare |
| windshield | "gas" | shoe | engine |
|  | oil |  |  |

26. The Olive Tree and Fig Tree. Present and past tense.
27. Shoe store - Conversation between salesman and customer.

| size | low shoe | price | wrap |
| :--- | :--- | :--- | :--- |
| last | boot | bargain | bundle |
| style | rubber | fit | send |
| measure | overshoe | width |  |
| buttoned | black | length |  |
| laced | tan | A to D | $4-5-6-5 \frac{1}{2}$ |

28. Teach verbs ending in "t" (one syllable) in which present, past and past participle are the same.

| cut | shut | put |
| :--- | :---: | :--- |
| bread | gate | on your overcoat |
| meat | screen door | out the light |
| cloth | storm door | away the material |
| cardboard | folding door | in the coin |
| set | hit | let |
| the table | the baseball | go |
| the clock | the window pane | alone |
| the lamp on the table | the target | down |
| the glass |  | in |

bread
meat
cloth cardboard set the table the clock the lamp on the table the glass
knit
the stocking
the sweater
the muffler
the mittens
29. Teach

| burst | wet | quit | cost | hurt |
| :--- | :--- | :--- | :--- | :--- |
| seed | rain | laborer | food | bandage |
| bag | hail | foreman | fruit | shoes |
| blood vessel | snow | "hands" | vegetables | sore finger |
| water pipe | fog | employee | fuel | sprained ankle |
| balloon |  |  | clothing |  |

30. Clara Barton.

| nurse | Switzerland | returned |
| :--- | :--- | :--- |
| Civil War | Swiss flag | United States |
| Europe | red field, white cross | organized |
| rest | Red Cross flag | American Red Cross |
| Red Cross Society | white field, red cross | first president of that |
| nations of Europe |  | society |
| originated |  |  |

31. Errors of speech.

He looks as if. My pencil writes well.
He feels well.
I went to town.

Let each bring her book.
She sits behind me.
Where shall I find her?
Do as I do.
She ate her luncheon.
32. Fable - The Fox and The Hounds.

Given in present, past and progressive forms.
33. Teach regular verbs ending in " $k$," the "ed" form of which is pronounced as "t."

| walk | unpack | hook | cook |
| :--- | :--- | :--- | :--- |
| to the door | trunk | dress | dinner |
| up the hill | suitcase | coat | meals |
| down town | traveling bag | sleeve | luncheon |
|  | barrel | shirt | vegetables |
|  | goods | door | dessert |
| lock | overlook | pick |  |
| door | faults | up pencil |  |
| window | work | out mistakes |  |
| safe | dust | flowers |  |
| chest | payment of bills |  |  |
| trunk | visit |  |  |

34. Teach regular verbs ending in "k," the "ed" form of which is pronounced as 't.
kick bark squeak mock tick leak lick baby dog door parrot clock pipe cat quack
balk croak
duck
mule frog
35. Thomas Edison.
born . train boy
studied
telegraph
36. Compound personal pronouns.

Reflexive.
I wash myself. You wash, etc.
You hurt yourself.
He teaches himself.
She c̣uts herself. It cleans itself. We help ourselves. You overwork yourselves. They tire themselves.

Emphasis.
I myself did it.
You yourself saw it.
He himself picked the flowers.
She herself cooked the dinner.
The tailor himself fitted the garment.
The teacher herself corrected the lesson.
The men themselves caused the trouble.

Lesson to be used as a verb drill also.
37. Teach verbs ending in sound of " $k$ " and " $p$," of which "ed" form is pronounced as "t."

| ache | rake | bake | wipe | hope |
| :---: | :---: | :---: | :---: | :---: |
| teeth | garden | bread | feet | for good weather |
| head | leaves | cake | hands | to see you |
| ear | rubbish | pie | dishes | that you |
| face | soil | bricks | windows |  |
| back |  | pottery |  |  |
| help |  | pump |  | limp |
| yourself |  | an engin |  | lame |
| your nei | ighbor | the firem |  | wounded soldier |
| the poor |  | the sewe | men | patient |
| lesson |  |  |  |  |
| the aged |  |  |  |  |

38. Errors of speech:

I saw it.
I did it.
I have done it.
I lay abed.
I have it at home.

I can't find it anywhere.
I rather like it.
I like that kind of shoe.
To whom shall I give it?
She must have gone.
39. Review verbs ending in sound of "k" and "p."

Teach verbs ending in sound of " f ," the "ed" form of which is pronounced as " t ."
sniff laugh cough
dog
hound
bear
babies
children people audience spectator
consumptive patient the sick
40. The Rooster and the Pearl.

| farmyard | thought | don't want |
| :--- | :--- | :--- |
| scratching | piece of corn | would rather |
| found | disappointed | hundred |
| pearl | who lost |  |

41. Teach verbs ending in the sound of "s," "ch," "sh," of which the "ed" form is pronounced as " $t$."
produce - purchase - pound - wash - touch

| pound | quart | gallon | peck - bushel |
| :--- | :--- | :--- | :--- |
| $\quad$ a half pound | pint | oil | potatoes |
| a quarter pound | milk | gasoline | spinach |
| steak | beans | vinegar | apples |
| butter | ice cream | cider | onions |
| sugar | molasses | wine | oats |

        coffee
        tea
        rice
    bunch head
radishes
grapes
carrots
lettuce
cabbage
cauliflower
bag
flour
meal
salt
42. Teach

| buy — take - eat - shake - break - sell — cost | - bring — keep — |  |
| :---: | :---: | :---: |
| smell | can | can |
| dozen | corn | beans |
| eggs | tomatoes | soup |
| rolls | peaches | condensed milk |
| oranges | pineapples |  |
| bananas | box | crate |
| bottle | strawberries | oranges |
| bluing | blueberries | lemons |
| ammonia | raspberries | berries |
| grapejuice | blackberries | eggs |
| ginger ale | currants |  |
| catsup | gooseberries |  |
| mustard |  |  |
| perfume |  |  |

43. Teach
package soap chips washing powder starch
tin
cake
baking powder
soap mustard
chocolate
pepper
cocoa
ginger
crackers
tube
tooth paste
cold cream
shoe polish
salve
roll
gauze
absorbent cotton
adhesive tape
bandages
Verbs ending in " $t$ " or "d," the "ed" form of which is pronounced as "ed."

| need | count |
| :--- | :--- |
| hand | fold |
| load | lift |

44. Eli Whitney

| born | employer | cleaned |
| :---: | :---: | :---: |
| Boston, 1777 | owner | cotton from seed |
| Yale | plantation | tedious |
| Georgia as tutor | negroes picked | invented engine |
| cotton gin |  | $1783-3,000$ pounds a year. |
| increased |  | $1803-40,000,000$ pounds a year. |
| cotton |  |  |
| raising |  | \$1.50 a yard |
|  |  | 12 c. a yard |

Increased slavery in the south.
45. Antonyms

| small - large | right - wrong | old - new |
| :---: | :---: | :---: |
| rich - poor | busy - lazy | difficult - easy |
| glad - sorry | soft - hard | better - worse |
| high - low | wet - dry | thick - thin |
| pretty - ugly | tall - short |  |
| dark - light | straight - crooked | long - short |
| sick - well | smooth - rough |  |
| fast - slow | clean - dirty | wide - narrow |
| heavy - light | bright - dull | deep - shallow |
| old - young | big - little | sweet - sour |

46. Adjectives

$$
\begin{array}{cc}
\text { brave - cowardly } & \text { warm - cold } \\
\text { clear - cloudy } & \text { good - bad } \\
\text { innocent - guilty } & \text { better - worse } \\
\text { smart - stupid } & \text { strong - weak } \\
\text { neat - untidy } & \text { polite - rude } \\
& \text { cheap - expensive } \\
& \text { many - few } \\
& \text { easy - hard } \\
& \text { beautiful - ugly } \\
\text { stingy - generous }
\end{array}
$$

47. Errors of Speech:

Review - taking two of three from set.
48. Fables - The Crow and The Pitcher.

Present and past tense.
49. Teach
blow
wind
whistle
gale
breeze
glass blower
know
professor - subject
pupil - lesson
pastor - sermon
dog - master
50. bite
boy - apple
child - candy
dog - bone
mosquito
fish - bait
take
he - car
she - lesson
they - cold
we - care
I - notice
throw grow
pupil - paper flowers
pitcher - baseball trees
fisherman - line children
janitor - rubbish vegetables
people
fly
bird airplane kite flock flag
hide shake
mother - candy janitor - rugs
miser - gold friends - hands squirrel - nuts housewife - curtains children - in a game dog - itself
bird - in a tree
51. Teach
write
secretary - letter
orator - speech
pupil - lesson
hostess - invitations
business man - circular
rise
laborer - early
actor - late
student - promptly
bousekeeper - regularly
doctor - different hours
ride
boy - bicycle
girl - tricycle
mounted officer - horse
passengers - in a train
youth - motorcycle
52. Adverbs ending in "ly."
neatly - slovenly
quietly - noisily
richly - poorly
brightly - dimly
bravely - cowardly
legally - illegally
cheaply - expensively
53. Adverbs of time:

$$
\begin{aligned}
& \text { daily - weekly } \\
& \text { monthly - yearly } \\
& \text { annually } \\
& \text { quarterly } \\
& \text { semi-annually } \\
& \text { bi-annually } \\
& \text { regularly - seldom - often } \\
& \text { occasionally } \\
& \text { early - late }
\end{aligned}
$$

54. Adverbs (with verbs and nouns).
```
loudly - softly
    bell - rings
    child - sings
    girl - calls
    dog - barks
quickly - slowly
    he - works
    it - runs
    she - cooks
    we - read
    they - travel
```

politely - impolitely
rude boy - speaks
rough men - eat
gentlemen - act
ladies - answer
drive
chauffeur - automobile
pilot - airship
shepherd - sheep
farmer - oxen
soldier - mule
boy - horse
thrive
oranges - California
cotton - the south
rice - Carolinas
wheat -west
apples - New England
wisely - foolishly busily - lazily
swiftly
quickly slowly
rapidly
carefully - carelessly
regularly - irregularly
55. Alexander Graham Bell.

| born - Scotland | invented - lip reading | living |
| :--- | :--- | :--- |
| America - young boy | 1876 telephone | Washington |
| father - professor | Bell system | very active |
| son - becomes - teacher | first telephone | 75 years of age |

56. Telephone Lesson.

Exchanges (in Boston):
Giving numbers:

| East Boston | Back Bay | Beach 1234W | Dewey 6100 |
| :--- | :--- | :--- | :--- |
| Dorchester | Dewey | Back Bay 0707M | Main 4000 |
| South Boston | Main | Fort Hill 1200 | Dorchester 1065 |

57. Telephone.

Subscriber call ring consult the directory takes off the receiver hangs up speaks through mouth- Telephone terms:
piece "hello" telephone booth
answers the telephone gives a message drops in a nickel - slot signals the operator calls information

| "hello" | telephone booth |
| :--- | :--- |
| "goodbye" | pay station |
| instrument |  |

The line is busy.
They don't answer.
The line is out of order.
local call
long distance
5S. Telephone lesson - conversation - operator and subscriber.

Subscriber
(1) Takes off receiver.
(3) Back Bay 2101 M
(5) Yes, please.
(7) No, thank you.
(8) Hangs up the receiver.
(1) Takes off receiver.
(3) Haymarket 2103 W
(5) Yes, please.
(7) All right.
(9) Thank you. or
(8) Hello, may I speak with Mr. B.
or
(8) Hello, this is or
(8) Connect me with the Shoe

Department, please.
(7) R. H. Brown Company.

Telephone lesson:
Pay Station:
Party

## Operator

(1) Consults the directory.
(2) Takes off the receiver.
(3) Drops the nickel in the slot.
(4) Gives number.
(5) Repeats number.
(6) Rings several times.
(9) Rings again "No answer."
(10) Restores nickel.
59. Verb drill - verbs ending in sound of "x," "s," of which "ed" form is pronounced as "t."

| mix fix | address |
| :---: | :---: |
| baker - cake painter - varnish soda clerk - egg nog | chauffeur - car President - Congress <br> tailor - overcoat pastor - congregation <br> plumber - faucet speaker - audience <br> gas-fitter - jet professor - students <br> mason - foundation striker - mob |
| miss | lace |
| ```commuter - train traveler - train old lady - car employer - appointment patient - concert``` | lad - sneakers <br> girl - high boots <br> business woman - oxfords |

60. Verb drill - verbs ending in the sound of "ch," "sh," of which "ed" form is pronounced as "t."
\(\left.\begin{array}{lc}punish \& polish <br>
parents - children \& maid - the stove <br>
law - offenders <br>
teacher - pupil \& man - the brass <br>
manicure - the nails <br>

shoeblack - the shoes\end{array}\right\}\)| patch |  |
| :--- | :--- |
| finish | mechanic - tires |
| scholar - the exercise | mother - clothes |
| contractor - the building | cobbler - shoes |
| traveler - the journey |  |
| congress - session |  |
| milliner - the hat |  |

$$
\begin{aligned}
& \text { scratch } \\
& \text { people - matches } \\
& \text { nail - furniture } \\
& \text { cat - boy } \\
& \text { hen - for food }
\end{aligned}
$$

## METHODS.

## Verbs.

Distribute to each member of the class a slip of paper on which is printed a list of verbs. Have each pupil construct a sentence containing the form of the verb in the present tense. The next lesson, the same slips may be distributed and pupils asked to construct sentences using the past tense of the verb on the paper.

To=day.

| give | write | see | make |
| :--- | :--- | :--- | :--- |
| speak | go | take |  |

Much drill is necessary. To vary the drill, slips like the following may be given out.

|  |  | Yesterday. |  |
| :--- | :--- | :---: | :---: |
| gave | wrote | saw | made |
| spoke | went | took |  |

The pupil is asked to construct a sentence using the present tense of a verb on paper.

This method may be used for other tenses taught in this grade.

## Fables.

The story is told in the past tense by the teacher. It is then reproduced by pupils in answer to questions by teacher.

In order to aid pupils groups of words may be written on board.
The Fox and The Grapes.

| 1. fox <br> for walk | 4. fox | 7. at |
| :---: | :---: | :---: |
|  | those | last |
|  | grapes | said |
| 2. $\begin{aligned} & \text { saw } \\ & \text { large } \\ & \text { blue } \\ & \text { grapes }\end{aligned}$ | 5. tried | were sour |
|  | reach | grapes |
|  |  | didn't |
|  |  | want |
|  |  | them |
| 3. hanging | 6. jumped |  |
| on | but |  |
| vine | not |  |
|  | reach |  |

Each group represents a sentence. Teacher asks, "What did the fox do one day?" She points to 1 and a pupil answers, "The fox went for a walk one day."

Teacher asks, "What did the fox see?"
Pupil answers, "The fox saw some large blue grapes."

## Errors of Speech.

Teach a few of the correct forms in each lesson.
They may be taught by means of stories.
I met Mrs. Cohen in the yard this morning. She said, "I have a secret to tell you. This is between you and $\qquad$ ."

Then she waits for some one to supply the correct word. She repeats the story. When she comes to the phrase "Between you and me," she holds up a card upon which she has printed this phrase. The card is then pinned on the wall where all may see it.

After several have been taught, they may be reviewed in the following manner.

Teacher prepares a set of cards. Each card in set has a different story. Cards are distributed, read silently by pupils and then orally, pupils supplying correct word.

Does your husband come home to lunch?
No, he - come home to lunch.
Cards may be exchanged several times.
If a pupil persists in making the same mistake, the teacher may give her the same card every day until she has corrected error.

> Were you in school last year?
> Mrs. W replied, "I in school last year."

The lives of famous men and women may be taught in the same way as the fables.

## WRITTEN ENGLISH.

AIM.
To teach pupils to write connectedly and briefly on topics assigned.

## MINIMUM REQUIREMENTS.

1. To use correctly the present, past, and future tenses of verbs in simple compositions on original or assigned subjects.
2. To write a short narrative of their own or another's experiences.
3. To reproduce a short story.
4. To describe objects, places and people.
5. To write simple business and friendly letters.
6. To address envelopes.
7. To fill out money orders, checks, etc.
8. To continue lessons in penmanship necessary to produce legible handwriting with no special attempt at speed for those adults having had only slight previous training in writing.

## CONTENT.

1. Present, past and future tenses of verbs. Person, gender, number and agreement of nouns and pronouns.
2. The lives of famous men and women such as:

Washington
Franklin
Lincoln
Grant
Clara Barton
Dr. Morton
3. Personal experiences
at work
in the home
at recreation
4. Business and social letters.
5. Money orders
domestic
foreign
Checks.
6. Penmanship.

See outline under B-I, p. 22.

## METHODS.

## I. Developing the Sentence Sense.

A. Sentences for Filling in Blanks.
take I my book home last night.
take
took

| in | under <br> with | at |
| :--- | :--- | :--- |
| on | over |  |
| I am school. |  |  |
| The book is - the table. |  |  |
| My feet are- the table. |  |  |
| I cut meat - a knife. |  |  |



Does Mary write her lesson?
Mary - her lesson.
Does the boy speak English?
The boy - English.


The good farmer plants the seeds in the spring. The careful motorman drives the car to the city. The honest employer pays a good salary to his employees.
A large factory has many employees.
An honest salesman sells honest goods to the people.

## II. Developing Paragraph Sense.

A. Construeting Short Paragiraphes fronis Sugiested Words.

1. North Wind Sun quarrel as to which the stronger
2. traveler
came
along
wrapped
warm
coat
3. agreed
that one
first
made traveler off coat stronger
4. North Wind blew
all might
5. more
blew
more closely
traveler
folded
about
6. North Wind
finally
gave
7. Sun
shone
warmly
8. grew
hotter
hotter
9. traveler
took
off
coat
10. North Wind
had to confess
Sun
stronger
than

Each group of words suggests a sentence. Pupil supplies the missing words and constructs the sentence.

> B. Use of Topics. Dr. Morton.

Birthplace
Work
Surgeon - Massachusetts General Hospital.
Discovery
Ether
Date
Gratitude of people.
Monument erected.
Place - Public Garden - Boston.

## III. Development of Letter Forms.

Social and Business.
A. Copying from a model. Use model letter from Grade V. Course of Study of regular day school.
B. Answering clippings taken from daily papers or magazines.
C. Writing to various agencies for information.

## Letter Writing.

Distribute papers on which have been placed numbers as guides.
Teacher asks, "What is written at number one?" Pupil looks at copy on board and answers, "The number and street." Teacher directs the class to write the number at number one. Then she asks, "What is written at ' 2 '?" Pupil answers that the name of city and state are written at " 2 ." This method may be continued until the body of the letter is reached. Teacher dictates several short sentences. Then number 7 is filled in and then the pupil's name.
1.
2.
3.
5.
6.
7.
8.

As soon as possible drop the use of the numbers substituting therefor heading, salutation, body, complimentary ending, signature, address.

The teacher calls attention to the punctuation after each step is taken. The body of the letter may be changed daily. Care should be taken to use words which the pupil can spell. When pupils have acquired the ability to write $1,2,3,4,7$ and 8 correctly and 5 by dictation, then a letter may be attempted in which 5 is outlined but not dictated. The outline may be written on the board:

Write a letter to John.
Tell him that

1. You have received his letter.
2. You are glad to know that he is working.
3. You hope to see him next Sunday.
4. Your wife wishes him to come to dinner on that day.

Sincerely yours,
No attempt should be made to have the pupil write an unguided letter in the beginning of the teaching of correspondence. Train the pupils to write brief letters.

## Addressing of Envelopes.

Paper the size of an envelope may be prepared by the teacher. Then numbered.
$\square$



Teach pupils to begin to address the envelope near or below the center, explaining that the post office clerk needs the upper space to place the cancelling stamp.

If pupils write a large hand then it is a good plan to place the return address on the flap of the envelope, otherwise in the upper left-hand corner of face of envelope.

The number guides may be used until pupil can place address correctly. They should then be omitted entirely.

## PHONICS.

## AIM

To teach pupils to remedy faulty pronunciation.
To teach sounds more difficult than those taught in Grade I.
To emphasize clear articulation.

## MINIMUM REQUIREMENTS.

To recognize independently the words used in the reading and conversation lessons.

To be able to articulate clearly the words used in sentences.
To pronounce the sounds of the words in their acquired vocabulary and the sounds of closely related words in the same family.

## CONTENT.

Suggestive sentences for phonetic drill accompany each word list. Others may be developed by the teacher as need arises.

Only the phonetic sounds should be taught that meet the indicated needs of the class. Errors noted in reading and oral conversation should guide the teacher in the choice of the phonics taught.

Phonics should be closely associated with the speech of the pupils rather than taught as an isolated subject.

| a as in care square | ear bear | air chair |
| :---: | :---: | :---: |
| care | wear | chair |
| ware | bear | fair |
| pare | tear | hair |
| dare | pear | pair |
| mare | swear | stair |
| glare |  |  |
| scare |  |  |
| hare |  |  |
| share | The chinaware cannot stand the wear and tear. |  |
| spare |  |  |
| square |  |  |
| fare |  |  |


| a as in glass |  |  |  |
| :--- | :--- | :--- | :--- |
| class | plaster | flask | glance |
| grass | last | mask | bath |
| pass | past | bask | path |
| brass | cast | task | lath |
| mass | mast | dance | wrath |
| master | blast | France | half |
| faster | ask | trance | calf |
|  | That class was the last to pass. |  |  |
|  | Ask the master to do the task. |  |  |


|  | a like short o |  |  |
| :--- | :--- | :--- | :--- |
| quality | wander | ey or ei like long a sleigh |  |
| quantity | wash | they | vein |
| quarrel | watch | obey | veil |
| was | yacht | disobey | neighbor |
| what | swallow | whey | eight |
|  |  | sleigh | skein |
|  | rein | freight |  |
|  | reign | weight |  |

What was the quality of the wood in the yacht?
They rode in a sleigh to the house of their neighbor.

|  |  | o like short u glove |  |
| :--- | :--- | :--- | :--- |
| among | cover | Monday | wonder |
| love | done | monkey | worry |
| glove | front | none | oven |
| dove | honey | shovel | nothing |
| color | money | tongue | month |

Nothing was done this month.

| dge like $\mathbf{j}$ | ch like $\mathbf{k}$ | ch like sh |
| :--- | :--- | :--- |
| edge | anchor | mustache |
| budge | chorus | chef |
| judge | chord | chivalry |
| fudge | chrysanthemum | machine |
| nudge | character |  |
| trudge | ache | chronic |
| badge | echo |  |
| lodge | architect | scheme |
| dodge | schedule |  |
| wedge | budget |  |
| The architect included the cost of the machine in the budget. |  |  |


|  | ph or gh like f cipher |  |
| :--- | :---: | :--- |
| camphor | Philip | rough |
| cipher | phonic | laugh |
| hyphen | orphan | laughter |
| sulphur | pamphlet | enough |
| typhoid | sphinx | tough |
| diphtheria | draught | toughen |
| physic | cough | trough |

Philip, the orphan, took enough pamphlets.

| s like $\mathbf{z}$ |  | s like sh |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| use | advise | sugar | Asia |
| abuse | wise | sure | Russia |
| has | excuse | issue |  |
| news | amuse |  |  |
| house (verb) dose  <br> close revise  |  |  |  |
|  |  |  |  |

i like $y$ in yard
clothier Spaniard million union onion opinion cordial spaniel familiar genial senior
i like e

| police | oblique |
| :--- | :--- |
| magazine | unique |
| trio | antique |
| valise | intrigue |
| fatigue | pique |

## Silent Letters.

I before d in these
words
could
would
should

1 before f or v
half
halves
calf
calves
salve

1 before $k$
walk
talk
chalk
folk
yolk
balk
stalk
exceptions:
milk
silk
g before n
sign
reign
assign
gnaw
gnat
gnash
malign
resign
exceptions:
resignation
malignant
$k$ before $n$
knock
knee
knife
kneel Kneeland knickers knight knob knuckle knead knew knot known knelt knit

1 before m
calm palm salmon almond alms balm balmy psalm
b before t
debt
doubt
debtor
doubtless
subtle
b after m
lamb
limb
dumb
thumb
comb
plumber climb
u after $g$
guide
guess
guard
guilt
guilty
guinea
disguise
guarantee
guitar
$h$ as initial letter
heir
heiress
honest
honestly
honesty
hour
hourly
honor
honorable
honorably

| $h$ silent after $r$ rheumatism rhubarb rhinoceros rhyme rhythm Rhode Island |
| :---: |

c silent occasionally
victual
indict
czar
muscle

| d silent occasionally | $h$ silent | w silent before r |
| :---: | :---: | :---: |
| handkerchief | shepherd | write |
| handsome | exhaust | wrinkle |
| Wednesday | John | wrath |
|  | ghost | wring |
| p silent occasionally | gherkin | wry |
| $p$ silent occasionally | Thomas | wrench |
| pneumonia | Esther | wrangle |
| pneumatic | thyme | wrote |
| pshaw | isthmus | wrapper |
| Psyche | asthma | wren |
| psalm |  | wrong |
|  |  | wrought |
| t silent before le | $n$ after 1 | wringer |
|  | kiln | wriggle |
| bustle whistle |  | wreath |
| whistle |  | wretch |
| hustle | p before t | written |
| bristle | ptomaine | wrap |
|  | receipt | wrist |
| $n$ after $m$ when final |  | wretched |
| autumn <br> condemn | t silent before en often |  |
| hymn | hasten | w silent |
| solemn | listen | who |
| column | soften | answer |
|  | fasten | toward |
| ch silent | moisten | whose |
|  | glisten | sword |
| yacht drachm | chasten | whom |
|  |  | whole |
| gh silent before t | ue silent in final gue, que | whoop wholesale |
| might | plague |  |
| tight | tongue |  |
| light | league |  |
| sight | vogue |  |
| night | rogue |  |
| right | oblique |  |
| fright | antique |  |
| bought | unique |  |
| thought | exception: |  |
| ought | argue |  |
| daughter |  |  |
| caught |  |  |
| weight |  |  |
| freight |  |  |
| straight |  |  |
|  | s, x, r, q, j, v, s, never silen |  |

comfortable
suitable
vegetable
profitable agreeable eatable seasonable peaceable portable capable movable

## able

blamable reasonable
syllable
remarkable
available
palatable irritable abominable durable pitiable avoidable miserable
enjoyable honorable variable inseparable pleasurable advisable changeable hospitable

Is the movable or portable board available?

| tion and sion (shun) |  | secious (shus) <br> position <br> notion |
| :---: | :---: | :---: |
| motion | precious | si-ce |
| addition | luscious | nauseous |
| attention | gracious | ancient |
| suction | delicious | cautious |
| mention | vicious | martial |
| nation | spacious | partial |
| portion | suspicious | musician |
| election |  | physician |
| vacation | sion (zhun) | ocean |
| vocation | vision | Russian |
| pension | explosion | patient |
| permission | excursion | patience |
| omission | decision | special |
| action | persuasion |  |
| affection | occasion |  |
| affliction | compulsion |  |
| caution |  |  |
| condition |  |  |
| friction |  |  |
| relation |  |  |
| station |  |  |

## METHODS.

The work of previous year should be reviewed if necessary, and new families developed as in the beginners' class.

In this grade work with silent letters may be taken up. Teacher writes a word on board - knit. She says, "I'll say this word. Which letter is not sounded?" A pupil replies, "k."

Teacher writes a list of words on hoard and has individual pupils pronounce them.
knife
knee
kneel
knob
knuckle After pupils have pronounced, teacher may ask them to draw knot a line through the silent letter.
knit
knew
known
knead
Another day papers may be distributed.
" $L$ " is not sounded in these words.
calm palm salmon almond alms balm
Pupils asked to pronounce.
Sometimes pupils like to make their own rules for spelling and pronunciation.
A list of words may be written on hoard and pupils asked to pronounced them.

| candy | cabbage | cabinet | come | complain | cuff | custom |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| call | carpenter | coal | cold | cut | cup | customer |

Attention is called to the first letter which is " $c$ " and then to the letter following it in each word. It is seen that in the list given a o $u$ follow "c." Words are pronounced again and the rule made that when " c " is followed by a o or $u$, " $c$ " has the sound of " $k$." Sentences containing those words may be given.

The customer complained of the cuff on his coat.
The carpenter came to build the cabinet.
Later on the same method may be employed to teach the sof $t$ sound of "c.'
Words with difficult sounds may be treated in this way.
List written on board.
quantity quality quarrel
If pupils have difficulty, teacher may write a word such as, -
"on" beside "quantity"
on quantity Have "on" pronounced, and then, "quantity." When pupils see the similarity of sounds, the difficulty has passed.

## SPELLING.

## AIM.

To teach pupils to spell correctly the words that they will need for use in written work.

## MINIMUM REQUIREMENTS.

To spell the words in the suggested list and selected words from Boston Word List for similar grades. Pupils should not be required to spell all the words of the reading lesson but only the words that are commonly used in their everyday life.

| tooth | roof | wide |
| :--- | :--- | :--- |
| teeth | entrance | shallow |
| feet | exit | sour |
| tongue | garden |  |
| skin | storeroom | height |
| bone | housekeeper | weight |
| blood |  | width |
| heart | dust | depth |
| vein | sweep | length |
| pulse | iron | strength |
| beat | sew | roughness |
| flow | preserve | sorrow |
| taste | sprinkle | happiness |
| smell | scour | difficulty |
| touch | scrub | cheap |
| chest | prepare | expensive |
| limbs | peel | careful |
| thigh | rich | careless |
| sprain | poor | polite |
| bruise | glad | rude |
| grandmother | sorry | strong |
| niece | lazy | weak |
| nephew | new | steady |
| mother-in-law | difficult | tidy |
| stepdaughter | easy | gentle |
| black | stout | gently |
| purple | heavy | wisely |
| fade | straight | bravely |
| reside | crooked | quietly |
| residence | smooth | quickly |
| pantry | rough | rapidly |
| reception | dirty | beautifully |
| parlor | soiled | regularly |
| cellar | narrow | suddenly |


| around | show | piece | sank |
| :---: | :---: | :---: | :---: |
| found | blow | niece | tank |
| ground | low | our | Yankee |
| sound | mow | hour | flank |
|  | row | flour | drank |
| hound | tow | sour | blank |
| bound | crow |  | blanket |
| pound | glow | wood | plank |
| mound | slow | hood |  |
| wound | throw | stood | east |
| under | stow | good | feast |
| thunder | each | spring | yeast |
| blunder | beach | bring | least |
| plunder | teach | cling |  |
|  | reach | thing | west |
| yellow | peach | fling | test |
| mellow | bleach | swing | best |
|  |  | ring | vest |
|  | lunch | wing | next |
|  | Juncheon | string | rest |
| wetter | bunch | sting | chest |
| better | hunch |  | guest |
| weather | punch | ounce |  |
| feather |  | pounce | mouth |
| leather | quick | bounce | south |
|  | sick | flounce | sign |
| rain | lick | receive | resign |
| pain | wick | deceive | assign |
| main | tick | perceive |  |
| gain | kick | conceive | stamp |
| lain | brick |  | damp |
| stain | click | ticket | lamp |
| brain | thick | thicket | tramp |
| train | stick | picket | vamp |
| drain | trick | cricket |  |
| strain |  |  | catch |
| sprain | quite | thank | patch |
|  | bite | bank | latch |
| flow | kite | crank | batch |
| bow | mite | lank | hatch |
| grow | spite | spank | scratch |

## METHODS.

Make spelling assignment purposeful and definite.
Oral spelling and pronunciation should precede the written lesson but emphasis should be placed upon written spelling.

Drill on words in the lists suggested.
Drill on words most commonly misspelled.
Make the drill as interesting as possible by the use of interesting devices.

Write spelling words on board with the definition that the teacher wishes the pupil to know. Then explain the words and later use them in sentences.

It adds variety to the spelling lesson to give occasionally two words such as:

$$
\begin{aligned}
& \text { prompt pupil } \\
& \text { sterling silver } \\
& \text { ground floor } \\
& \text { furnished room } \\
& \text { classical music } \\
& \text { popular music }
\end{aligned}
$$

Homonyms should never be taught together because it is confusing to the foreign pupil. Teach one of the set, be sure that that word is known and later in the week or month teach the other. Homonyms may be reviewed by use of pictures.

## Method of Reviewing a Spelling Lesson.

Once a week the spelling lessons should be reviewed.
One method of reviewing is to dictate words that have been studied that week.

Another method is to dictate the definitions and ask pupils to write the word. In this way the teacher ascertains whether or not the pupil knows the meanings of words studied that week.

## Spelling Review.

Write the word that means to pay back
Write the word that means very wide -
Write the word that means clean, simple, orderly -.
Write the word that means to try to hear -.
Write the name of the article you use on a rainy day
Pupil writes the words
repay broad neat listen umbrella
Spelling lesson should contain words that are related but the review may contain words previously studied.

## DICTATION.

## AIM.

To test the ability of pupils to use correct spelling, punctuation, and capitalization previously taught.

To drill on comprehension of words.

## MINIMUM REQUIREMENTS.

To be able to write from dictation short paragraphs or a short letter.
To use the simpler forms of punctuation.
To spell correctly the words used.

## CONTENT.

Simple sentences to develop idea of punctuation.
Short paragraphs.
Short letters.

## METHODS.

Sentences may be placed on the board before school, containing the particular things to be taught. After the teaching, these sentences may be copied in blank books. They may be dictated the following lesson.

The entire class, or a group of pupils, may be sent to board. Teacher may dictate sentences giving each pupil a different sentence. Those pupils at seats may write sentences. Pupils correct their sentences and rewrite them.

Teacher may dictate sentences and ask class to correct them.

## HYGIENE.

Instruction in hygiene, particularly personal cleanliness and sanitation, should be included in the English and reading for this grade. Although no time is set apart for formal instruction, the teacher should plan for teaching the precepts of cleanliness and sanitation that will meet the needs of the class. The reading lesson and general talks offer abundant material for such teaching.

Use such portions of day school courses of study as can be adopted for practical teaching of adult prospective citizens.

## READING.

## AIM.

To develop power of oral and silent reading over that of previous grades.
(a) Phonics.
(1) Drill upon difficult phonograms.
(2) Consonant drills.
(3) Vocal drills.
(4) Foreign accent drills.
(b) Word Study.
(1) Of new words.
(2) Of words not easily analyzed.
(3) Of words not easily recognized.
(4) Frequent drill upon words commonly miscalled.
(c) Prose or Poetry.

To read easily and fluently simple passages of English prose and poetry selected from any of the suggested readers for this grade.

## CONTENT.

The amount of oral reading should decrease and the amount of silent reading increase in this grade. Oral reading enables the teacher to discover and to correct mispronunciations. Silent reading should be followed by discussion to test the pupil's ability to get the thought from the printed page.

1. Signs, posters, directions, instructions:
(a) Public signs - Industrial - Theatrical - Railroad - Store Bank - Real estate, e. g.
Keep to the Right Parks
Cross at the Corner Libraries Poison Swat the Fly Quarantine Sign Sample Ballots and many others.
(b) Directions and instructions at work.
2. Idioms:

Explanation of English idioms as needed for understanding of the content in reading.
3. Books selected from authorized list adapted to capacities of pupils.
4. American newspapers - carefully chosen selections.
5. Supplementary readings in history, geography, hygiene, civics.
6. Inspirational Literature.

Poetic and prose selections from the recommended list for similar grades in the day school but adapted to the age and understanding of evening school pupils.

## METHODS.

1. In this grade a new story or lesson is developed by the teacher drawing upon the knowledge of the students. Having finished B-I, the students have a fair vocabulary, a certain facility of expression, and good comprehension of simple texts. They are now able to understand the background or setting of the new lesson with the teacher's aid.
2. Major thoughts to be gained from the lesson may be suggested by the teacher.
3. All new words, idiomatic expressions, and grammatical constructions are made clear to the class.
4. Portion of the entire lesson is read by teacher as a model of pronunciation and is dramatized vocally.
5. Individual oral reading follows this step.
6. During latter part of the year connected reading without much comment should be permitted.

## CITIZENSHIP.

## SPECIAL AIMS.

To outline the principles of government; to explain its divisions and branches in our Republic; to make a definite study of local city government; to continue the study of the nation's history; to explain the advantages and responsibilities of citizenship; to outline the process of obtaining second papers.

## MINIMUM REQUIREMENTS.

I. General.

To assist pupils in becoming American citizens in all that the name citizen entails.
To prepare for active, intelligent participation in American life.
II. Specific.

American Citizenship.
A. Ideals.

Hospitality to all peoples, liberty, equality of opportunity, patriotism, and intelligent participation in democratic government.
B. Advantages.

Civil Service employment, special protection of life and property in other countries, license privileges, right to vote, right to hold public office, citizenship in the greatest republic in the world.
C. Responsibilities.

To obey the law; to defend the country, if necessary; to understand government procedure; to vote intelligently; to serve on the jury; to pay taxes; and to share in promoting the welfare of the nation.

## CONTENT.

I. Naturalization.

Explanation, reasons for qualifications, witnesses, fees, steps in procedure, and other important facts relative to wife and to dependents.

## II. Government.

A. Principles.
(1) Need - Law and order, protection of property, life and liberty, essential for any group.
(2) Kinds - Absolute monarchy, limited monarchy, and republic.
B. Our Republic.
(1) Government of the people, by the people, and for the people.
(2) Comparison with European governments.
C. Divisions.
(1) Town, city, county, state, and national.
(2) Need of each, and seat of government for each.
D. Branches.
(1) Legislative - Makes the laws.
(2) Executive - Enforces the laws.
(3) Judicial - Interprets the laws.

Note.- Question for names of local representatives in each branch of each division.
III. City Government.
A. City Charter.

Legislative enactment by referendum; fundamental law, and methods of modification.
B. Branches.
(1) Executive - Mayor, his duties, powers, etc.
(2) Legislative - Council, method of election, term of office, powers, duties, method in making city ordinances.
(3) Judicial - Municipal Courts, their location, appointment of judges, limits of judgment, process of arrest, trial, conviction or release, and punishment of criminal; habeas corpus.
C. Service to Citizens through these departments.

Assessors; Building Commissioner; Collector; Hospital Trustees; Corporation Counsel; Election Board; Fire Department; Health Department; Library Department; Superintendent of Markets; Overseers of the Poor; Park Department; Public Works Department; Street Commission; Treasurer; Sealer of Weights and Measures; Finance Commission; Port Directors; Police Department; School Department, etc.
IV. History. Biography method.
A. Discovery.
(1) Spanish - Columbus and Balboa.
(2) English - Cabot.
(3) French - Cartier and Marquette.
(4) Dutch - Hudson.
B. Settlement.
(1) Spanish - Florida, Mexico, along Gulf.
(2) English - Massachusetts to Virginia, along coast.
(3) French - Canada and Mississippi valley.
(4) Dutch - New York.
C. Revolution.
(1) Causes.
(2) The Struggle - Locally, around New York, and in the South.
(3) The Declaration of Independence.
(4) Final outcome and treaty.
D. Establishment of Nation.
(1) Constitutional Convention.
(2) First president.
(3) Foundation of political parties.
(4) Inauguration of cabinet.
V. Naturalization.

Second Papers.
Explanation, reason for two years' interval, witnesses, schoo attendance as a recommendation, etc.

## METHODS.

Citizenship shall be taught through the study of history and government, by conversation and general discussion to form a solid foundation as a preparation for the assuming of the responsibilities of active participation in American citizenship.

General lessons on citizenship shall be supplemented by specific preparation for naturalization but emphasis shall be placed upon establishing the proper ideals of citizenship rather than passing any particular examination.

# $\mathrm{B}=\mathrm{III}$. <br> TIME ALLOTMENT. B=III. 

## Two hours an evening. Six hours a week.

120 minutes an evening. 360 minutes a week.

| Reading | 90 minutes a week. | 30 minutes an evening. |
| :---: | :---: | :---: |
| Written work. | 135 minutes a week. | 45 minutes an evening. |
| Conversation and oral reci | . 135 minutes a week. | 45 minutes an evening. |
| Reading | 90 minutes a week. | 30 minutes an evening. |
| Word study | 15 minutes a week. | 5 minutes an evening. |
| Reading. | 75 minutes a week. | 25 minutes an evening. |
| Written work | 135 minutes a week. | 45 minutes an evening. |
| Spelling and dictation. | 45 minutes a week. | 15 minutes an evening. |
| Composition. . | 60 minutes a week. | 20 minutes an evening. |
| Letter writing: |  |  |
| Story <br> or | 30 minutes a week. | 10 minutes an evening. |
| Geography or |  |  |
| Citizenship |  |  |


| Conversation | es a week. | 45 minutes an evening. |
| :---: | :---: | :---: |
| Verb drill | 15 minutes a week. | 5 minutes an evening. |
| Geography | 60 minutes a weel | 20 minutes an evening. |
| Grammar | 60 minutes a week. <br> or | 20 minutes an evening. |
| Verb drill | 15 minutes a week. | 5 minutes an evening. |
| Citizenship. | 75 minutes a week. | 25 minutes an evening. |
| Biography. | 45 minutes a week. <br> or | 15 minutes an evening. |
| Verb drill | 15 minutes a week. | 5 minutes an evening. |
| Phonics | 15 minutes a week. | 5 minutes an evening. |
| History | 60 minutes a week. | 20 minutes an evening. |
| Current e | 45 minutes a week. | 15 minutes an evening. |

## PROGRAM. B=III.

7.30...7.35 Explanation of board work.
$7.35 \ldots 8.00 \quad$ Citizenship or biography or geography.
$8.00 \ldots 8.15$ Spelling and dictation.
8.15....8.20 Phonics for enunciation.
8.20...8.40 Grammar or history.
8.40....9.00 Composition or letter writing.
9.00....9.30 Reading.
7.30....7.35 Verb drill.
7.35...8.00 Citizenship or biography or geography.
8.00....8.15 Spelling and dictation.
8.15...8.35 Grammar of history or current events.
8.35...8.55 Composition.
8.55 ...9.00 Phonics for enunciation.
9.00 ...9.30 Reading.

## ORAL ENGLISH.

AIM.
To develop the ability to give a clear connected account of some experience having a personal interest, to give definite descriptions, and to reproduce short stories.

## MINIMUM REQUIREMENTS.

To give a well worded narration, free from grammatical errors, of some experience, personal or otherwise.

To describe clearly objects, persons, places, situations.
To reproduce stories of greater length and complexity than in B-II.
To discuss topics of history, geography, etc., in intelligent and correct English.

## CONVERSATION. (CONTENT.)

1. 
2. General Review of the Intermediate work, if necessary.
3. 
4. History - with verb drill.

Age of discovery
1492-1600
Lief Ericson
Columbus
The Cabots
Vespucci
date
nationality
reason for voyage
descriptions
discovery
Verbs - "ed" form pronounced as "d" as "t"
explore look need
discover help expect
tried hope land
stayed toss end
showed wait
5. Geography - with verb drill.

The United States.
Location.
Boundaries.
Climate.
Physical features - general.
Verbs - "ed" form pronounced as "t" as "d" as "ed"
slope flow bound name locate divide extend
Irregular verbs:

| rise | blow | falls |
| :--- | :--- | :--- |
| give | grow |  |
| find |  |  |

6. Biography.

Life of Columbus.
(1) Birthplace.
(2) Boyhood.
(3) Love of sea.
(4) Manhood

Desire for adventure.
(5) Voyages to America - Ferdinand and Isabella.
(6) Results of Voyages.
(7) Death.
7. Newspaper lesson.

Taken from newspapers, magazines, Current Events papers.
Head lines - extra editions.
8. Civics.

Need of government.
9. History - with verb drill.
(1) Review Lesson 4.
(2) Teach age of discovery (continued).

Balboa.
Joliette.
Marquette.
Champlain.
Magellan.
Drake.
Raleigh.
Verbs as in Lesson 4.
10. Geography - with verbs.

Review Lesson 5.
Teach - States.
Territories.
Possessions.
District.
Zone.
Coaling and Water Stations.
(1) Locations.
(2) Cause for and method of possession by United States.
Verbs:
situate
locate
buy
obtained
gained
11. Biography.

Raleigh.
Englishman.
Favorite of Queen Elizabeth.
Courtier.
Work - America.
Grant in Virginia.
Settlement in America - unsuccessful.
Introduction of
Tobacco and potatoes into England.
Interesting stories connected with life of Raleigh.
12. Current events.
13. Civies - with verbs.

Review Lesson 8.
School Department.
14. History.

Review Lessons 4 and 9.
Teach -

| Age of settlement | Verbs |  |
| :---: | :--- | :--- |
| English | settle | fight |
| John Smith | come | take |
| Pilgrims | land | wander |
| Puritans | suffer | found |
| Quakers | govern | worship |
| Dutch - New Amsterdam |  |  |

15. Geography - with verbs.

Review Lesson 10.
Possessions of United States - Territories.

1. Kinds of people.
2. Languages.
3. Customs.
4. Attitude of United States Government toward possessions desiring independence.

Philippines.
Verbs:

| speak | import |
| :--- | :--- |
| acquire | thrive |
| live | grow |
| produce | strive |
| export | send |

16. Biography.

John Smith.
Pocahontas.
Arrival in Virginia - Jamestown, 1607.
Settlement unsuccessful.
Colonists men of leisure.
Wanderings.
Capture by Indian Chief.
Sentence.
Plea of Pocahontas to Powhatan.
Marriage of John Rolfe and Pocahontas.
Journey to England.
Death of Pocahontas in strange country.
17. Current events.
18. Civics.

Board of Health.
19. History.

Claims of European nations.
French in America - Canada - Mississippi Valley - Great Lakes.
Spanish in America - Mississippi to Pacific Ocean.
Dutch in America - Hudson River.
20. Review Lessons 10 and 15.

Possession of United States.
People - population - occupations - products.
21. Biography - William Penn.

Birthplace.
Parents - wealthy - friends of king.
Indebtedness of king to Penn, Senior.
Organization of new sect.
Appearance at court.
Called Quakers - Shakers - Friends.
Belief - Honor to no one but God.
Attitude toward war.
Exile of Penn.
Grant of territory in America - Pennsylvania.
Father cancels debt of king - son allowed to go to America.
Founds City of Brotherly Love.
22. Current events.
23. Civics. Postal department.
24. History.

French and Indian Wars.
Treatment of Indians by French.
Treatment of Indians by English.
Treatment of Indians by Spanish.
Cause.
European troubles.
Canadian boundary - desire for territory.
Incidents.
Washington a messenger to Canada.
Capture of French forts.
Results.
France loses foothold in America.
England gains Canada.
25. Geography.

United States.
48 states.
General physical features.
Atlantic slope.
Atlantic highlands.
Great central plain.
Pacific slope.
26. Biography.

Benjamin Franklin. 1706-1790.
Boston - large family.
Printer.
Dissatisfaction and departure from home.
Philadelphia.
Printing press.
Entrance into City.
Marriage.
Printer - philosopher - statesman - hero of peace.
Teach well-known sayings of Franklin from Poor Richard's Almanac.

Facts about Franklin.
(1) Always read good books.
(2) Newspaper interests.
(3) Never wasted time.
(4) Saturday Evening Post.
(5) Poor Richard's Almanac.
27. Current events.

Clippings.
28. Civics.

Fire department.
29. History.

England and the Colonies.
Colonial policy in America.
Taxes.
Manufactures.
Trading - commerce.
Stamp Act.
Writs of Assistance.
Mutiny Act.
30. Geography.

Atlantic slope.
(1) Extent.
(2) Physical features.

Rivers short and swift.
Waterfalls - water power.
Near coal and iron regions.
(3) Industrial centers.

Cotton - wool.
Shoes - leather
Machinery.
Confectionery.
Ready made clothing.
Carpet and rugs.
Smallwares.
Jewelry.
Paper.
31. Biography.

George Washington.
Born, Virginia, 1732.
Parents.
Education.
Death of father.
Study of surveying.
Surveyor at 16.
Appointed public surveyor.
Messenger to Canada.
Officer in English Army. Marriage to Martha Custis.
Large plantation.
Commander-in-Chief of American forces.
President for eight years.
32. Current events.
33. Civics.

Police department.
34. History.

Pre-Revolutionary Period, 1770-1775.
Boston Massacre.
Cause.
Place.
Result.
How remembered.
State street.
Boston Tea Party.
Cause.
Place - T Wharf.
Result - Port of Boston closed.
Punishment of Boston by England.
Sympathy of Colonists.
35. Geography.

Atlantic highlands.
Extent.
Mountain system.
Appalachian.
Mountain ranges.
Products.
Coal - iron - oil.
Industrial centres.
Steel - iron.
36. Biography.

Treason of Benedict Arnold.
Young American officer.
Washington's staff.
Marriage to extravagant Tory.
Sale of secrets of Washington.
Gifts to Tory wife.
Appointment as officer in English Army.
Residence in England after war.
Life of disgrace.
Attitude of world towards a traitor.
37. Racial contributions.

History of Immigration
English Irish Scotch German Scandinavian
Note.- In discussing racial contributions teacher should always consider the nationalities in her class.
38. Civics Department of Labor and Industry.
39. History.

Revolution, 1775-1783.
Battles.
Lexington.
Concord.
Bunker Hill.
Bennington.
Saratoga.
Incidents - Declaration of Independence.
Winter at Valley Forge.
Help from France.
Help from Lafayette.
Help from other nations.
Polish - Kosciusko - Pulaski.
German - Von Steuben.
French - Lafayette.
Surrender of Cornwallis.
40. Geography.

Central Plain.
Mississippi Valley.
Rivers - long, slow moving.
Plains - grassy prairie.
Source of clothing material.
Source of food stuffs.
Centers of
wheat - corn - cotton - meat.
41. Biography.

Betsy Ross.
Home - Philadelphia.
Occupation - expert needlewoman.
Approached by Washington and others.
Made first American flag.
Design of five-pointed star - points heavenward.
42. Racial contributions.

Italian Spanish French
Grecian Portuguese
43. Civics.

Public works department.
44. History - 1783-1789.

Colonists governed under Articles of Confederation.
Weakness.
Thirteen separate governments.
Thirteen sets of laws.
Lack of executive and judicial heads.
Leaders realize defects of articles.
Constitution - two years in making.
Signed by George Washington.
Formation of United States - 1789.
45. Geography.

Pacific Highlands - Extent.
Mountain system.
Rocky.
Sierra Nevada.
46. Biography.
47. Holidays.

Washington's Birthday Lincoln's Birthday.
48. Civics.

Library department.
49. History.

The Constitution.

1. The Seven Articles.
2. Its Amendments - Purpose.

How made.
1 to 12 discussed.
50. Geography.

Production belts.
Products of the soil.
Wheat.
North Central States.
Corn.
Indiana Illinois Iowa.
Cotton.
Southern states.
Tobacco.
Kentucky Virginia (Massachusetts. Why possible?)
Dairy products.
Vermont New York.
Fruits.
Oranges lemons grapefruit.
California Florida.
Apples pears.
New England Washington Oregon.
Peaches grapes.
Georgia Delaware.
Early vegetables.
New Jersey.
Sugar.
Louisiana - cane.
California - beet.
Mineral belts.
Coal and iron.
Alleghany, Pa.
Oil.
Pennsylvania and Texas.
Gold and silver.
Rocky mountains.
Salt and zinc.
51. Biography.

Daniel Webster and the Constitution.
52. Holidays - Historical.

Patriots' Day Memorial Day Bunker Hill Day July Fourth.
53. Civics.

Licenses.
Kind.
Method of obtaining.
54. History

The Constitution.
Amendments 13, 14, 15.
55. Geography.

Miscellaneous belts.
Cattle.
Middle Western Prairies.
Swine.
Middle Central States.
Sheep.
Texas and Nevada.

## Horses.

Texas.
Poultry.
Western New York.
Fisheries.
New England and Atlantic Coast.
Cod haddock halibut mackerel shell fish.
Great Lakes.
Fresh water fish.
Pacific States.
Salmon.
56. Biography.
U. S. Grant.

Robert E. Lee.
57. Current events.
58. Civics.

Licenses (continued).
59. History.

The Constitution.
Amendments 16, 17, 18, 19.
60. Geography.

Grouping of States.
Lakes and rivers.
61. Biography.

Theodore Roosevelt 1859-1919.
Born in New York.
Boyhood.
Education.
Health.
Professional life.
Political life.
New York Assembly.
New York Governor.
Vice President.
President - date.
Traveler.
Writer.
Naturalist.
Orator.
Essayist.
1910.
$\$ 40,000$ prize for successfully ending Russo-Japanese War.
62. Geography - Cities.

New York Chicago Philadelphia Detroit Boston
63. History.

Wars of the United States.
64. Geography.

Cities:
Washington Baltimore San Francisco Seattle
65. History.

Inventions.

## METHODS.

## History.

An outline of the lesson is placed on the board before school. The lesson is later explained by the teacher. Questions pertaining to the lesson are written on paper and distributed. A pupil reads a question and answers it. At the next lesson, papers with questions are distributed, and the pupil finds the answer in the outline which is also distributed. At a third lesson, the papers with questions are distributed, and the pupil gives answers without consulting the outline. The outlines and questions may be placed in a looseleaf blankbook. Assigned silent readings are helpful to the pupil in acquiring ability to get information by selection of important facts.

## Sample Sheet 2.

1513. Ponce de Leon discovered Florida. He was searching for the "Fountain of Youth." His explorations gave Spain claim to that part of the New World.
1514. Balboa discovered Pacific Ocean. He crossed the Isthmus of Panama, and looked down upon the ocean. Then he rushed down and into the water, drew his sword and took possession of the ocean in the name of Spain.

1519-1522. Magellan sailed from Spain to the southwest. He added this knowledge to history - (1) the length of the Atlantic Coast, (2) the southern passage westward, (3) the width of the Pacific Ocean,
(4) the size of the earth, (5) the distance from Europe to Asia,
(6) the water route to India, and (7) the spherical shape of the earth.
1519. Cortez conquered Mexico and obtained land for Spain.
1539. De Soto landed in Florida and wandered about for two years. He discovered the Mississippi River in 1541. His work gave Spain claim to all the region of the Gulf of Mexico and the Mississippi River.

## Questions.

1. When did Ponce de Leon come to America?
2. From what country did he come?
3. What was his object in coming to America?
4. What discoverer came in the same year?
5. What was the nationality of Balboa?
6. What body of water did Balboa discover?
7. Why did he call it Pacific?
8. In what year did Magellan come to America?
9. Name the seven things that Magellan showed by his discoveries.
10. Who conquered Mexico, and for whom did he obtain the land?
11. In what year did De Soto land in Florida?
12. What body of water did he discover?
13. To what country did his discoveries give claim?
14. Are nations at present sending out explorers and discoverers? For what purpose?
15. Discuss the changes in purpose, methods of travel, results, etc.

## Biography.

In this grade the conversation lesson may be taught by use of topical outlines. See Lesson 6. Life of Columbus.

Topics may be written on the board. The teacher explains each topic, and then the pupils may be asked to recite. In order to prevent pupils from rambling or talking too long, the teacher may state the number of sentences required. "Tell something about the boyhood of Columbus in three sentences."

## Newspaper Lesson.

Pupils are very glad to bring their own copies of a newspaper. The teacher may ask the class to bring copies of a certain paper. In order that all may have the same edition, a member of the class may be designated to purchase for the class, or the pupils may be told to purchase a certain edition, such as the 5 o'clock edition, or the city edition.

The teacher should look over the paper and decide upon the articles she wishes discussed. A pupil is given one article to read before school. When the time for the lesson arrives, each pupil is asked to stand and give a brief outline of what he has read. Here, too, the teacher may state the length of the outline desired. "Will you tell us about the article you read, John? Limit yourself to four sentences." In this way, each pupil may have an opportunity to recite, and each pupil is trained to think before he speaks.

## Current Events.

The story of current events in an advanced class is of special importance: first, because it will encourage the use of the American newspaper; second, the pupil will become acquainted with the real happenings of the day through the wholesome guidance of the teacher, and third, because both of the foregoing factors will prepare and eventually lead the pupil to intelligent sources for future reading.

In the study of current events, select an article from a current magazine or newspaper, and put the heading on the board. Have the class read the heading and tell what it means.

Ask such questions as:

1. How much news is included in the heading?
2. Can you, through the heading, get a good idea of the happening if you can spend no further time in reading?

Have the class read the article if there are sufficient papers to go around,if not, have one pupil read it silently, and tell the class what he has read. Allow another pupil to read it aloud, and have the various members give their interpretations of the article read.

Occasionally, copy an article on the board so that all of the class may read it silently at the same time. Have one or more pupils reproduce it. Criticize the reproduction for accuracy, brevity and use of English.

## Geography.

Geography lessons may be used as oral English lessons.
Before taking up the study of continents and industrial studies of each, the teacher may teach about the earth as a whole, the great land and water masses. They may be taught by use of pictures. For review, small recitation cards may be used. Upon one side of card write the question, and upon the other side write the answer.
$\square$

An island is a body of land
ENTIRELY surrounded by water.

Cards are distributed and pupils asked to study them. Each pupil may be given two or three cards. The pupil reads the question and answers it. If he does not know the answer, he may turn the card and find the correct answer This helps the pupil to do independent studying. Cards may be exchanged and other questions studied.

If the teacher has made a collection of pictures illustrating type forms, she may distribute a picture to a pupil and ask him to name the form illustrated, and to give a definition of that form. The pupil may stand in front of the class to show the picture, so that others may decide whether or not his definition suits the picture. The emphasis should be placed upon the correct expression of thought, rather than upon an exact wording of a particular definition.

The teacher should stress the geography of the United States from an industrial, commercial, and occupational standpoint, in order to acquaint adult aliens with the opportunities awaiting them.

## WRITTEN ENGLISH.

## AIM.

To improve the quality of written English and to develop facility in its use. It is the use of the word that should be stressed rather than definitions of technical, grammatical terms.

## MINIMUM REQUIREMENTS.

To use the progressive, present perfect and past perfect forms of verbs.
To reproduce a story of some length.
To write an original composition of at least 150 words.
To use the phrase and clause as part of the written sentence.
To continue practice in writing business and friendly letters.

## CONTENT.

Progressive, present perfect, and past perfect forms of verbs.
Comparison of adjectives and adverbs.
Stories from literature, history and current events.
Personal experiences: at work, in the home and at recreation.
Business and friendly letters.

## METHODS.

A story may be told in the past tense and the pupils asked to reproduce it.
Then, pupils may be asked to reproduce parts of the story using the present or the progressive tense.

Methods employed should tend to make the pupils less dependent upon the teacher.

## Comparison of Adjectives.

If the comparison of adjectives is taken in six steps, much of the difficulty which pupils experience may be avoided. Each step is drilled upon thoroughly before studying the succeeding steps.

## Suggestion Method.

I.

Teacher writes a list of adjectives on board.


The teacher may ask a tall boy to stand in front of the class.
Then, a taller pupil, and then the tallest pupil in the class.
As the pupils stand in front of the class, the teacher may say, "Frank is a tall boy, John is taller than Frank, and Joseph is the tallest of the three."

She says, "Tall, taller, tallest," pointing to the pupils as she speaks.
She repeats, and as she says the adjectives, writes them in the proper column.
In this first lesson, teacher selects adjectives that may be taught objectively.
After she has taught the adjectives in the list, pupils are given papers arranged as above, and asked to fill in the blanks.

## II.

The teacher writes sentences on board:
tall taller tallest
Mary is —. Jennie is than Mary. Rose is the - of the three girls.
short shorter shortest
Frank is _. John is than Frank, and I am the - of the three.
III.

In this step the teacher writes just one form on the board.

> young

Pupil supplies the correct form after he has read sentence carefully.
Mary is - than Annie.
young

Honey is than sugar.
The teacher should impress upon the pupil the importance of studying or reading the entire sentence before writing.
IV.
old
My father is —. My grandmother is ——, but my grandfather is the - of the three.
beautiful more beautiful most beautiful

Mary is -. Jane is beautiful.
Anne is the - beautiful girl I have ever seen.
patient
She is a patient woman. Mrs. White is patient than Mrs. Brown, and Mrs. Green is the - patient woman I have ever known.

| VI. |  |
| :---: | :---: | :---: |
| attentive less attentive least attentive |  |

Mary is an student. Bessie is - attentive, and Stella is the -_ attentive student in the school.
Teach pupils that later the ear will be one of the best guides in deciding which form of comparison to use.

| famous | probable | beautiful |
| :--- | :--- | :--- |
| terrible | generous | intelligent |

VII.
good better best
This is a book. That book is _ , but the brown book is the __ of the three.
little less least
He has money. Mary has money than John, and I have the - of the three.
good
bad
little
much
near
far

## PHONICS.

## AIM.

To teach the pupils correct pronunciation emphasizing accent. To emphasize the elimination of foreign accent to a great degree.

## MINIMUM REQUIREMENTS.

To be able to pronounce correctly the words of the reading lesson.

| ADVANCED. |  |  |  |
| :---: | :---: | :---: | :---: |
| Phonics for Pronunciation. |  |  |  |
| through | where | almond | wise |
| though | were | salmon | wisdom |
| taught | who | said | one |
| caught | how | quite | once |
| thought | whose | quiet | business |
| ought | knit | fasten | building |
| brought | Thursday | film | scissors |
| fought | Tuesday | cupboard | sofa |
| sought | August | off | lounge |
| bought |  | of |  |
|  | north | guide | weather |
| been | northern | guilty | leave |
| again | south | guest | live |
| bargain | southern | want | life |
| captain | east | went | save |
| mountain | eastern | won't | safe |
| soldier | west | world | roof |
| island | western | work | spoon |
| suit | colonel | worst | pretty |
| suite | hiccough | worth | saucer |
|  |  | usually |  |
|  | Europe |  |  |
| answer | United States | Rebecca | scheme |
| sword | foreigner | high | schedule |
| boat | alien | height | trousers |
| coat | woman | wide | elevator |
| catch | women | width | elevated |
| house | child | deep | uncle |
| engine | children | depth | aunt |
| thousand | use | long | asparagus |
| hundred | used | length | niece |
| often | used to | strength | nephew |


| nation | Chicago | grocer | because |
| :--- | :--- | :--- | :--- |
| national | California | half | umbrella |
| nature | Canada | handkerchief | very |
| natural | England | her | yellow |
| conscience | English | wear | water |
| scythe | sugar | husband | butter |
| window | number | king | were |
| church | tooth | queen | patient |
| my | teeth | such | blood |
| mine | feet | quick | Stephen |
|  |  |  | Russian |


| bad | dig | lock | pat |
| :---: | :---: | :---: | :---: |
| bed | dog | luck | put |
| bid | dug | lack | pot |
| bead |  | lick | pet |
| bud |  | leak | peat |
| bide | deck | lake | pert |
| bird | duck | like | part |
|  | dock | lark |  |
| bag | dike |  |  |
| bog | duke |  | rob |
| bug | dark | mat | rib |
| beg |  | met | rub |
| big |  | meet | robe |
| back | feet | mit | rube |
| bake | fat | mate |  |
| beak | fought | might | sod |
| balk | fight | mute | sad |
| bark | fate |  | said |
| cat |  | net | seed |
| cot | had | not |  |
| cut | hod | nut |  |
| Kate | hid | knit | week |
| kite | head | gnat |  |
| coat | heed | neat | wake |
| cute | hide | night | woke |
| caught | hard | note | work |
| cart | herd | naught |  |
| bait |  |  | chair <br> chin |
| beat | heat | pack | churn |
| bite | hit | pick |  |
| bought | hot | peck |  |
| but | hat | pucker | cheap |
| bat | hut | peak | chap |
| bet | hurt | poke | chip |
| bit | heart | perk | chop |
| beauty | hate | pork | chirp |


| ship | three | while | quite |
| :--- | :--- | :--- | :--- |
| shop | through | whale | quit |
| sharp | throw | whirl | quoit |
| shape |  | wheel | quart |
| sheep | whet |  |  |
| than | what | quack | swap |
| then | wheat | quake | sweep |
| thine | white | quick | swoop |
|  |  | Short o | Short u |

## Consonant Sound Drills.

| t <br> t | d |
| :--- | :---: |
| neat | need |
| beat | bead |
| bit | bid |
| cut | cud |
| kit | kid |
| hurt | herd |
| coat | code |
| pot | pod |
| feet | feed |
| hat | had |
| hot | hod |
| let | lead |
| set | said |
| debt | dead |
| seat | seed |
| sat | bad |
| bat | had |
| mat | mad |
| bet | bed |
| not | nod |
| fat | fad |


| $\mathbf{p}$ | $\mathbf{b}$ |
| :--- | :--- |
| mop | mob |
| rope | robe |
| rip | rib |
| cup | cub |
| maple | Mabel |


| ts (s) | ds $\quad$ (z) |
| :--- | :--- |
| cuts | cuds |
| kits | kids |
| coats | codes |
| pots | pods |
| beats | beads |
| bits | bids |
| hurts | herds |
| seats | seeds |
| bets | beds |
| knots | nods |
| fats | fads |
| heights | hides |
| colts | colds |


|  | Final "k" and "g." |  |  |
| :--- | :--- | :---: | :--- |
| think | rank | thing | rang |
| wink | bank | wing | bang |
| brink | sank | bring | sang |
| rink | hank | ring | hang |
| sink |  | sing |  |

Words to Distinguish Vowel Sounds.

1
Long e bead
bid
beat

## bit

cheap
chip
cheek
chick
deed
did
deep
dip
eat
it
eel
ill
ease
is
he's
his
feet
fit
feel
fill
heat
hit

| heap | seat |
| :--- | :--- |
| hip | sit |

heal
hill
heed
hid
keel
kill

| leak | weak |
| :--- | :--- |
| lick | wick |

2

## Short i

leave
live
leap
lip
meal
mill
meat
mit
neat
knit
peak
pick
peel
pill
peat
pit
real
rill
read
rid
reap
rip
seal
sill
seat
seen
$\sin$
sheep
ship
steal
still
weak
wick

Long a Short e Short a Short u
bait bat
bet but
$\begin{array}{ll}\text { date } & \text { bat } \\ \text { debt } & \text { bug }\end{array}$
fail
fell bad
gate
get cat
cut
cap
cup
hat
hut
fan
fun
gnat
nut
lack
luck
rag
rug
rat
rut
ban
bun
ran
run
tag
tug
packer
pucker
mad
mud

| senate | hospitable |
| :--- | :--- |
| address | pianist |
| adult | allies |
| minor | inquiry |
| ocean | illustrate |
| Atlantic | distribute |
| Pacific | musician |
| success |  |
| certificate | minute |
| machine | avenue |
| open | upon |
| difficult | peculiar |
| recognize | necessarily |
| signature | primarily |
| conquer | student |
| general | pupil |
| theater | voluntarily |
| government |  |
| comfortable | Massachusetts |
| vegetable | orange |
| orchestra | carpenter |
| naturalization | equal |
| inside |  |
| opposite | outside |

Accent.

| legislative <br> executive <br> judicial <br> legislature <br> distant | village <br> surface |
| :--- | :--- |
|  | event |
| elect |  |
| preface | erect |
| average | recent |
| allow | eleven |
| New York | society |
| New Haven | idea |
| Italy | identity |
| Italian | omit |
| italics | omission |
| New Orleans | obey <br> obedience |
| along | tobacco |
| away | unite |
| ago | United States |
| among | graduate |
| about | valuable |
| alone | natural |
| delicate | nature |
| library |  |

## METHODS.

In this grade some pupils can sound almost every word they meet, but have difficulty with the accent.

The teacher may select a list of difficult words and write them on the blackboard. The syllable to be accented may be underlined or written with colored chalk, or the accent mark may be placed in the proper place. Pupils are asked to pronounce the words in the list.

For review, use slips of paper on which a list of words studied during the week have been written. Pupils may be asked to place the accent mark over the proper syllable and then asked to pronounce the words.

## READING. GRADE III (ADVANCED).

## AIM.

To increase the power to read aloud with expression.
To increase the power of getting the thought through silent reading.
To stimulate interest and pleasure in reading.
To develop a taste for good reading and proper use of the library.

## MINIMUM REQUIREMENTS.

## I, General.

At the end of B-III, pupils ought to be able:
To read easily and with intelligence any of the texts suggested for Grade IV and V of regular day schools.
To give in their own words the content of selected portions read.
To answer simple questions about the inspirational literature read by the teacher.
To repeat from memory some of the lines of poems or prose read.
II. Specific.

## 1. Phonics.

(1) Consonant drills.
(2) Vocal drills.
(3) Drills for removal of foreign accent.
2. Word Study.
(1) Of words not easily analyzed.
(2) Of words not easily recognized.
(3) Drill upon words commonly miscalled.
(4) Use of dictionary.
(5) Study of common American idiomatic expressions.
3. Oral Reading.
(1) Signs, posters, directions, instructions.
(2) Periodicals and newspapers.
(3) Supplementary readings in history, geography, hygiene, civics.
(4) Excerpts from literary works.
(5) Lessons selected from authorized texts in the book list for day schools.

## 4. Silent Reading.

(1) At least the equivalent of one period should be devoted to silent reading.
(2) Emphasis should be placed upon inculcating good habits of silent study.
(3) The pupils should be encouraged to make use of the Public Library.
(4) Home assignments should be given from time to time and the results tested in class.

## 5. Inspirational Literature.

Poems and prose adapted to the needs of the student selected from courses of study in English for regular day schools.

## METHODS.

The method of presentation in an advanced class is similar to that for an intermediate class. (See Method under B-II.)

In this grade the pupils have more self-reliance and much of the work can be directed at times by the pupils themselves. For example, a student may be delegated to read the entire lesson to the class after silent preparation. Discussion by the other pupils should follow his presentation. Again a student may be asked to give the content of a lesson that all have read silently. Others may be asked to discuss his presentation. In a word, the advanced student is ready for self-expression of the matter read and the teacher should capitalize this condition.

## SPELLING.

## AIM.

To teach pupils to spell correctly the words of their vocabulary that are commonly used.

## MINIMUM REQUIREMENTS.

To spell the words on the suggested lists.
To spell the familiar words of the Grade IV Boston Word List and selected words of the Grades V and VI lists.

|  | ADVANCED. |  |
| :--- | :--- | :--- |
| square | soldier |  |
| alley | opposite |  |
| private way | elevater | Atlantic |
| avenue | usually | Pacific |
| tunnel | theater | ocean |
| subway | orchestra | enough |
| elevated | government | geography |
| surface | successful | arithmetic |
| conductor | necessary |  |
| motorman | valuable |  |
|  |  | island |
| library |  | peninsula |
| garage | all right | mountain |
| stable | although | valley |
| hospital | also | stream |
| police station | almost | locate |
| relief station | always | situate |
| public building | altogether | boundary |
| State House | almighty | territory |
| Public Garden | already | possession |
| Boston Common |  |  |
|  |  |  |
| unite | through | unable |
| separate | though | comfortable |
| which | thorough | suitable |
| United States | thought | reliable |
| Massachusetts | language | movable |
| build |  | honorable |
| patient | enjoyable |  |
| patience | bridge | reasonable |
| towards | judge | syllable |
|  | chimney | remarkable |
|  |  |  |


| banana | teacher | telephone |
| :---: | :---: | :---: |
| onion | student | receiver |
| carrot | subject | operator |
| parsnip | dictionary | mouthpiece |
| turnip | reference | toll |
| squash | attendance | booth |
| lettuce | report | subscribe |
| radish | punctual | directory |
| tomato | promote review | information good-bye |
| hospital | tailor |  |
| ward | scissors | plural |
| accident | measure | noun |
| ambulance | suit | pronoun |
| operation | machine | adjective |
| patient | material | adverb |
| surgeon | ready-made | verb |
| ether | lengthen | preposition |
| injure | cleanse | conjunction |
| instruments | naphtha | sentence |
| carpenter | lawyer | Washington Street |
| hammer | client | Tremont Street |
| plane | legal | Boylston Street |
| wrench | plea | Dudley Street |
| bolt | court | Beacon Street |
| chisel | attorney | Hanover Street |
| contract | jury | Commonwealth Avenue |
| lumber | witness | Scollay Square |
| construct | guilty | Columbus Avenue |
| repair | convict | Copley Square |
|  | acquit | Sullivan Square |
| baker | real estate | history |
| knead | property | explore |
| dough | taxes | discover |
| pastry | mortgage | invent |
| dougnuts | lease | battle |
| biscuit | insurance | victory |
| counter | tenant | administration |
| clerk | landlord | president |
| wrapping paper | assessed | governor |
| register | vacate | mayor |
|  | MET |  |

Make the spelling lesson definite and purposeful.
Spelling contests or spelling matches may be used occasionally in this grade, but care should be taken to prevent oral spelling supplanting or equaling written spelling.

Silent reading tests may be used.
Pupils may be given a paragraph to read and then asked to write it. This will involve the spelling of difficult words.

## DICTATION.

## AIM.

To test pupils' ability to use correct spelling, punctuation and capitalization. To enrich the vocabulary.

## MINIMUM REQUIREMENTS.

To be able to write sentences containing clauses and phrases.
To use common marks of punctuation in an original paragraph or short composition.

To spell correctly the words used.

## CONTENT.

Sentences, paragraphs and short letters to develop the idea of punctuation.
These sentences should contain clauses, phrases, commas or quotation marks.

Subject-matter for the dictation lesson should be arranged or composed by the teacher or taken from some authorized text.

## METHODS.

The lesson should be put on the board before school to give the pupils an opportunity to study. The lesson should be given the same evening. Drill on correction of errors immediately after the lesson. Divide the class into two or more sections. Have one section work at the board while the other sections work at their seats. The entire class should work on the same sentences;
or
Write the lesson on the board before school for study. When the time for the dictation lesson comes, the teacher may distribute papers on which she has written elliptical sentences. The pupils are asked to complete the sentences or to fill in the blanks. These sentences are based on those which were placed on the board before school.

> John said, "The sun gives us heat and light."
> John said - sun gives us
> or

Regular teaching lesson may be given bringing out the important fact to be taught. It should be discussed orally and illustrated on the board by both teacher and pupils. The teaching should then be tested by dictation work involving the facts taught.

## CITIZENSHIP. ADVANCED B=III.

## GENERAL SUGGESTIONS.

The importance of the work of Americanization cannot be over-estimated. Good citizenship is essential to the continuance of our government, and training for citizenship in its broadest sense is the ultimate end and the sole justification of the expenditure of the people's money for public schools.

The main educational requirements for citizenship in the cause of the foreign-born are, first, a knowledge of the English language, and second, a familiarity with the fundamental principles of American government. Our work as teachers of the adult immigrant should not, however, be limited to the mere preparation of candidates for the naturalization hearing. The instilling of ideals of good citizenship is far more important than the imparting of the knowledge required for the naturalization process. Civic training must be emphasized and the immigrant must be led to realize his social responsibility.

As the state depends on the family, so the family depends upon the parent. He , in his individual life, must promote community welfare and live for the good of American society. He must vote, and vote intelligently, for the general welfare. He must be an honest workman. He must care for his family. He must be considerate of the rights of others. He must not only obey every law but he must be vitally interested in the enactment and enforcement of good legislation.

With these ends in view and the teaching made deeply interesting, our citizenship classes will succeed in their work and contribute their full share to the welfare of the nation.

The following suggestions will be found helpful:

1. Each teacher should use the suggestions best suited to the needs of the particular class. It is not intended that teachers shall follow each division of the outline or each suggestion separately or in the order given. Whatever phases of the same subject seem suitable should be taken up at the same time.
2. Correlation with the work in English in the grade is recommended. If the pupils are weak in English, emphasis should be placed there rather than on Citizenship and the Citizenship work should furnish content for the work in English. The ability to speak, to read and to write English is of paramount importance in the evening elementary schools, and without this working knowledge of English it will be impossible to obtain citizenship.
3. History is one of the best means of arousing and developing a love of country. The story of the struggles and sacrifices of American patriots from the earliest days to the present time cannot fail to instill into the mind of the pupil a deeper pride in American institutions and a keener desire to do his share in perpetuating them.

The work in history should be grouped about a few prominent leaders and about our more important holidays. Short and simply worded biographies should be read in the class, and as much conversation as possible
should be based on the reading, preferably in the form of question and answer. Individual contributions from the members of the class should be encouraged while the lecture system and the textbook method of teaching should be avoided.

Points of historic interest in Boston and its vicinity should be discussed with directions for reaching them. Maps, pictures and other illustrative material should be utilized and whenever possible there should be school or class celebrations of holidays and anniversaries.
4. Geography should be approached from the informational standpoint, with the purpose of showing the relative importance of the United States in the industrial and commercial world, thus broadening the view of the student and deepening his respect for the land of his adoption. The geography period should be utilized to point out to the student the opportunities in industrial life which this country offers the immigrant.

A simple treatment of the industrial and commercial activities should be presented, with emphasis on certain great areas of production, and on the methods employed in certain great industries. In connection with commerce and industry, a brief treatment of the means of transportation should be given, with a simple study of important cities as types of industrial and commercial centers.

Maps should be used constantly to locate large communities, to compare distances, to define areas of our special resources, to fix locations of great engineering accomplishments, and to point out places of geographical interest that the pupil may take a personal interest in the nation and its problems.

The work in geography, just as that in history, should be thoroughly correlated with the work in oral English, and illustrative material should be freely used to establish ideas and to create interest.
5. Formal civics should not be taught at the beginning. Instead, an attempt should be made to place the immigrant in sympathetic relations with his own environment and to explain the different governmental activities with which he comes in immediate contact in his everyday life. The differentiation between the activities of the different branches of our government will follow naturally later.

The immigrant comes into a political environment entirely different from the one he has left behind. He must, of course, be taught the machinery of the government under which he has to live, but he must also be impressed with his own responsibility in the matter of perpetuating and improving it. He must be shown that the foundation of our government rests upon the intelligence, industry and patriotism of our people. He must be shown the possibility of bad government through the control of selfish political leaders. Above all, he must be imbued with a spirit of loyalty and devotion to the ideals, traditions and institutions of the United States.

The machinery of the various branches of the government should be set forth in simple language with class discussion, as in the case of history and geography. The various forms needed by naturalization candidates may be obtained at the office of the Chief Naturalization Examiner and a wealth of material for illustrative purposes is readily secured at the State House and elsewhere. Topics from the daily papers should be introduced frequently. The new ward lines of the city and the various political districts
should be taught, with the names of local representatives in the different branches of the government and specific instruction as to how they may be visited or addressed.

A club or society organized for self-government will impress the principles of democracy better than any teaching. The activities of such an organization should be permitted to reach beyond the class so that the community may be served. If the sanitation, health, food laws, and general welfare of the community are studied, nuisances will be abated and law violations reported.

Pupils should be encouraged to secure a library card. A list of interesting books on Civics, to be acquired at the nearest reading room or branch library, should be kept on hand in the school.

Everything possible should be done to pass along the blessings of a free education by a vitally interesting exposition of citizenship so that our foreign-born neighbors may actively join with us in keeping this nation the best and greatest republic under the sun.

## SPECIAL AIMS.

To study the Constitution; the development of state and national government; to make a more detailed study of the rapid growth of the young republic; to emphasize the power of the ballot and the importance of its legitimate use.

## MINIMUM REQUIREMENTS.

I. The Constitution.
A. Need of written law.
B. History. The great charter which the English barons forced King John to sign in 1215 at Runnymede. It laid a foundation for the security of English political and personal liberty.
(1) Magna Charta.
(2) Bill of Rights.
(3) Mayflower Compact.
(4) Declaration of Independence.
C. Drafting.

Constitutional Convention.
D. Preamble.
(Memorize it.)
E. Analysis.
(1) Organization of government.
(2) Powers of Federal government.
(3) Powers denied Federal government.
(4) Powers denied State governments.
(5) Power of amendment.
(6) Bill of Rights - Seventeen Amendments.

## II. National Government.

A. Branches and function of each.
B. Members of each branch - manner of election or appointment, term, powers, duties, etc., and names of local representatives.
C. Service to Citizens.

Coining of money, regulation of commerce, interstate commerce, postoffice, agricultural department, labor disputes, life-saving service, forest reserves, irrigation, Homestead Act, work of various other departments.
III. State Government.
A. State Constitution.
(1) Fundamental law.
(2) No conflict with Federal Constitution.
B. Branches.
(1) Executive - Governor; his duties, powers, etc.
(2) Legislative - State House of Representatives and State Senate, term of office, powers, duties, procedure in making state laws.
(3) Judicial - State courts, appointment of judges, functions of each.
C. Service to citizens.

Support of institutions for care of the poor, blind, insane, and criminal; state highways; state education; state employment bureaus; work of various Boards and Commissions.
IV. History.
A. The New Republic.
(1) Founded upon the Constitution.
(2) Important facts of early administrations.
B. Development of country.
(1) Population.
(2) Territory.
(3) Inventions.
(4) Commerce and transportation.
(5) Growth of cities.
C. Civil War.
(1) Slavery and secession.
(2) Life of Lincoln.
(3) Abolition of slavery.
(4) Salute to the flag and its meaning.
D. America of to-day.
(1) Great men living.
(2) Country's possessions.
(3) Problems of to-day.
(4) Future prospects of the country.

## V. Suffrage.

A. Duties and responsibilities.
B. Registration.
C. Procedure - Australian ballot.
D. Parties and party enrollment; direct primaries.
E. Initiative and referendum.
F. Class illustrations of elections.
G. Class illustrations of naturalization hearing.

## METHODS.

Outline is written on board.
Teacher explains and develops lesson.
At the next lesson diagram may be put on board and filled in by different pupils as lesson progresses.

Then entire lesson is reviewed. At the next lesson diagrams are distributed and pupils asked to fill them in from memory.

## Federal Government.

Departments $\left\{\begin{array}{l}\text { Legislative } \\ \text { Executive } \\ \text { Judicial }\end{array}\right.$

| Legislative | Congress |
| :--- | :--- |
| Executive | President <br> Senate <br> House of Representatives. |
|  | Vice-President |

Cabinet

Makes the laws. Enforces the laws. Interprets the laws.

Secretary of State Secretary of Agriculture Secretary of War Secretary of Treasury Secretary of Navy Secretary of Commerce Secretary of Labor Postmaster General Secretary of Interior Attorney General

This method may be followed for teaching the machinery of the government. It is a good plan to use it in classes preparing for examination for second papers.

In general, reading and discussion will be employed in developing topics supplemented by reports on special assignments in which pupils should be encouraged to participate freely.

The room should be organized to illustrate machinery of city government when taught, and elections to parallel city, state and national elections should be carried out in class in order to familiarize pupils with exact procedure.

## REFERENCE BOOKS FOR TEACHERS.

Americanization.
First Steps in Americanization.
Americanization.
Teaching of English to the Foreignborn.
The Real Business of Living.
America, Americanism, Americanization.
The Spirit of America. Jenks.
Community Americanization.
Loyalty Highways.
Proceedings, Americanization Conference at Washington, May, 1922.
Schooling of the Immigrant. Thompson.
Immigration and Americanization. Davis.
America and The Neighborhood. Daniels.
School Master in a Great City. Angelo Patri.
The Making of an American. Riis.
The Problem of Americanism. Roberts.
Training Teachers for Americani- Mahoney. zation.
Adult Immigrant Education.
Courses of study and pamphlets issued by Americanization Department of State of Massachusetts.

SCHOOL DOCUMENT NO. 7-I928 BOSTON PUBLIC SCHOOLS CANDIDATES ELIGIBLE FOR APPOINTMENT AS TEACHERS NOVEMBER, 1928


> BOSTON
> PRINTING DEPARTMENT
> 1928

## CONTENTS.

Preparation of Eligible Lists
Page5
Classroom Inspection of Candidates ..... 6
Appointments from Eligible Lists ..... 6
Appointments not Governed by Appointments not Governed by Eligible Lists ..... 6
Age Limitation for Appointment ..... 7
Citizenship Requirements ..... 7
Removals and Restorations of Names from and to Eligible Lists ..... 7
Dates of Certificate Examinations ..... 8
Detailed Information with Regard to Examinations ..... 8
Re-examination for Certificates ..... 8
Eligible Lists:
High School Certificate ..... 10
High School Certificate (for Junior Assistants) ..... 14
High School Special Certificate ..... 15
Special Certificates Valid in Day High Schools: Commercial Branches ..... 15
Manual Arts ..... 16
Physical Education ..... 16
Vocational Instructor and Vocational Assistant Certificates ..... 17
Industrial Instructor, Day High Schools Certificates ..... 17
Home Nursing Certificate ..... 17
Holders of the Degree of Master of Education, 1928, The Teachers College of the City of Boston ..... 18
Holders of the Degree of Bachelor of Science in Education, 1928, The Teachers College of the City of Boston ..... 18
Holders of the Degree of Bachelor of Education, 1928, The Teachers College of the City of Boston ..... 19
Normal School Elementary Certificate, 1928, The Teachers College of the City of Boston ..... 20
Holders of the Degree of Bachelor of Education, The Teachers College of the City of Boston, Prior to 1928 ..... 24
Normal School Elementary Certificates, Prior to 1928 ..... 24
Intermediate Certificate ..... 27
Intermediate Certificate (for Junior Assistant) ..... 32
Elementary School, Class A Certificate ..... 33
Elementary School, Class B Certificate ..... 33
Kindergarten Certificates:
Normal Kindergarten - Primary, 1928 ..... 35
Normal Kindergarten - Primary, Prior to 1928 ..... 36
Examined Candidates ..... 36
Special Certificates Valid in Day Elementary Schools: Cookery ..... 38
Sewing ..... 38
Manual Training ..... 38
Special Class Certificates ..... 39
Eligible Lists:
Horace Mann School for the Deaf, Physical Education Cer- tificate ..... 40
Continuation School Certificates ..... 40
Day Clerical Schoool Certificates ..... 41
Day and Evening Industrial Schools Certificates ..... 41
Assistant Director of Manual Arts Certificate ..... 46
Assistant in Manual Arts Certificate ..... 46
Assistant Director of Music Certificate ..... 47
Assistant in Music Certificate ..... 47
Supervisor of Bands and Orchestras Certificate ..... 47
Examiner in Penmanship Certificate ..... 47
Instructor of Military Drill Certificate ..... 47
School Nurse Certificate ..... 47

> Boston Public Schools, Office of Board of Superintendents, 15 Beacon Street, November 1, 1928.

This document contains the names of all candidates included in the 1927 Eligible List (School Document No. 9, 1927) who have not been appointed to permanent positions in the service under the certificates indicated and whose certificates are still valid, with the exception of those who have asked that their names be omitted from this list. It also contains the names of persons who have successfully passed examinations held since that date, the names of graduates of The Teachers College of the City of Boston of June, 1928, and the names of candidates eligible for appointment as school nurse.

Graduates of The Teachers College prior to 1928 whose names appear on this list, have been re-rated by the Board of Superintendents and constitute prior lists, except where practically no teaching has been done during the year. In these cases, the graduation rating stands and the names appear on the current list.

The regulations of the School Committee with respect to the appointment, reappointment, assignment, transfer, removal, tenure of office, and marriage of teachers apply in general to nurses, and their certificates cease to be valid in accordance with the regulations governing the expiration and revocation of teachers' certificates of qualifications.

## PREPARATION OF ELIGIBLE LISTS.

Eligible lists of candidates with their respective ratings are annually prepared by the Board of Superintendents, which lists include the names of graduates of The Teachers College of the City of Boston arranged in the order of their respective ratings.

Appointments of teachers and members of the supervising staff, and school nurses, are made from the eligible lists in effect at the time of appointment. The names of candidates who successfully pass the prescribed examinations are added to the eligible lists on the dates upon which the results of such examinations are reported by the Board of Superintendents to the School Committee, and these names are merged with the names of others of existing groups according to numerical ratings. Appointments thereafter are made from these merged lists.

## CLASSROOM INSPECTION OF CANDIDATES.

All candidates certificated for permanent day school service are visited in the classroom by a representative of the Board of Examiners, with the exception of those whose original examinations included a demonstration lesson. This classroom demonstration is given great weight in determining the credit for "Amount, Quality and Character of Experience in Teaching."

## appointments from the eligible lists.

No name may be passed unless the person shall refuse appointment or the Superintendent shall certify to the School Committee that there are good reasons why said person should not be appointed. In case the person who heads the list refuses appointment, those next in order on the list shall successively become eligible for appointment.

## APPOINTMENTS NOT GOVERNED BY ELIGIBLE LISTS.

Appointments as principal, dean, or teacher in The Teachers College of the City of Boston, as director, associate director, first assistant director or assistant director of a special subject or department (with certain specified exceptions), as supervisor or assistant supervisor of a special subject or department, as supervising nurse, as supervisor in charge of playgrounds, are not governed by the eligible lists.

## AGE LIMITATION.

No person may be appointed to the permanent day school service, except to The Teachers College and to certain supervisory positions as specified in the regulations of the School Committee, to take effect later than the thirty-first day of December following the fortieth birthday of such person. This limitation, however, does not affect the promotion of a permanent teacher or member of the supervising staff to any position in the public schools.

## CITIZENSHIP REQUIREMENTS.

The Board of Examiners may not admit to certificate examinations persons who are not citizens of the United States, unless they shall have filed their declaration of intention to become citizens.

## REMOVALS AND RESTORATIONS OF NAMES FROM AND TO

 ELIGIBLE LISTS.The names of persons holding certificates which include certificates of a lower grade may, upon request, be included in the eligible list of such lower grade or grades according to the rating of such holders of certificates in their respective examinations, but they shall not be entitled to a higher rating on such lower list or lists by reason of their holding higher grade certificates.

The names of persons appointed to permanent positions in the day school service are removed from the respective eligible lists.

A person whose name appears upon the eligible lists may, upon request, have the same removed therefrom at any time, and may, upon written application, have it restored to the next eligible lists in June of any year during the life of the certificate, with the same rating as before; or, if a graduate of the Boston Normal School or of The Teachers College of the City of Boston, with such re-rating as the Board of Superintendents
may determine; provided, that such restoration shall not operate to extend the original period for which the certificate is valid.

The names of persons appointed as temporary teachers, or as teachers in the evening schools, or in playgrounds, or as temporary nurses, are not removed from their respective eligible lists because of such appointment.

The name of any person who has refused three offers of permanent appointment shall, by action of the Board of Superintendents, be dropped from the eligible list for the current school year. The name of any person may for cause be removed from any eligible list upon the recommendation of the Superintendent and action by the School Committee.

## DATES OF CERTIFICATE EXAMINATIONS.

The Board of Examiners annually conducts examinations of candidates for appointment as members of the supervising staff and as teachers in the day and evening schools.

The examinations for day school certificates are held at The Teachers College, Huntington avenue and Longwood avenue, during the week of the Christmas vacation of the Boston public schools.

## DETAILED INFORMATION WITH REGARD TO EXAMINATIONS.

Application for information as to certificate examinations should be made, personally or in writing, to the Chief Examiner, 15 Beacon street.

## RE-EXAMINATION FOR CERTIFICATES.

Persons whose names appear on any eligible list may have their ratings changed by re-examination.

A person taking more than one examination of the same class is rated on the eligible list of that class solely upon the results of the latest examination, except that
holders of the certificates of qualification IV. High School, XXXIII. Intermediate, and the Industrial School certificates, XXX., XXXI.-A, and XXXI.-B, may, by re-examination, obtain a rating in more than one group under said certificates.

If a person holding a valid certificate of qualification, on re-examination for a certificate of the same grade, shall obtain a rating lower than that held at the time of such re-examination, he may, in the discretion of the Board of Superintendents, retain his original rating with date of expiration of certificate unchanged.

ELLEN M. CRONIN, Secretary.

## HIGH SCHOOL CERTIFICATE.

Ancient Languages.
Men.

832 Irene G. Duggan . . . . . . . Dec. 31, 1931
812 Ruth Engles . . . . . . . . " 31, 1934

797 Aloyse P. Doherty . . . . . . . " 31, 1933
790 Agnes C. Dwyer . . . . . . . . " 31, 1929
Biology.
875 Elizabeth A. O’Doherty . . . . . . Dec. 31, 1934
873 Anna L. O’Brien . . . . . . . . " 31, 1934
776 Mary B. Gallagher . . . . . . . " 31, 1934

## Botany-Zoology. <br> Men.

888 John E. Fuller . . . . . . . . Dec. 31, 1931
778 Frank L. P. Alciere . . . . . . . " 31, 1933
Women.
864 Esther M. Patch . . . . . . . Dec. 31, 1928
838 Laurice E. Flagg . . . . . . . " 31, 1930
Commercial Branches.
bOokkeeping and commercial arithmetic.
Men.
879 Arthur W. Johnson . . . . . . . Dec. 31, 1932
819 John W. Corcoran . . . . . . . " 31, 1931
812 Jeremiah F. Sullivan . . . . . . . " 31, 1934
787 George F. Daly . . . . . . . . " 31, 1933
784 John H. Kenney . . . . . . . . " 31, 1934

## Women.

839 Alice V. Donahue
Dec. 31, 1934

> PHONOGRAPHY AND TYPEWRITING.
> Men.

Patrick J. Donovan . . . . . . . Dec. 31, 1929
792 Patrick
" 31, 1930

## Women.

876 Alice L. Beatty
Dec. 31, 1934
800 Vera A. Sexton . . . . . . . . " 31, 1932
796 Shirley Smalley Brown . . . . . . " 31, 1930
793 Gertrude F. Scully . . . . . . . " 31, 1934
776 Elizabeth Skirball . . . . . . . " 31, 1931
770 Mary E. Rush . . . . . . . . " 31, 1934

High School Certificate - Continued.
Dressmaking.

| Rating. Name. |  |
| :--- | :--- |
| 779 | Nona Jordan . . . . . . . . Dec. 31, 1933 |

## Economics.

829 Mark V. Crockett . . . . . . . Dec. 31, 1929

734 Thomas P. Burns . . . . . . . " 31, 1928
English.
Men.
828 James K. Godkin . . . . . . . Dec. 31, 1934
827 Julius G. Finn . . . . . . . . " 31, 1933
814 Nicholas C. Hamill . . . . . . . " 31, 1933

810 John A. O’Keefe . . . . . . . . " 31, 1934
802 Frederic O. Gifford . . . . . . . " 31, 1934
798 Everett J. Conway . . . . . . . " 31, 1934
794 Andrew L. Gemmel . . . . . . . " 31, 1932
782 Timothy M. Tully . . . . . . . " 31, 1934
777 Matthew P. Butler . . . . . . . " 31, 1933
772 Charles G. Benard . . . . . . . " 31, 1934
764 Leo J. McCarthy . . . . . . . " 31, 1934
762 Edward J. Markham . . . . . . . " 31, 1933
747 Lyford P. Beverage . . . . . . . " 31, 1932
738 Raymond J. Gemmel . . . . . . " 31, 1934
704 Cyril D. Norton . . . . . . . . " 31, 1930
Women. .
832 Linda F. Burr . . . . . . . . Dec. 31, 1934
821 Mary C. MacSwiney . . . . . . . " 31, 1934
819 Katherine A. Foley . . . . . . . " 31, 1934
815 Olive E. Foristall . . . . . . . " 31, 1932
809 Agnes K. Rhodes . . . . . . . " 31, 1931
806 Angela M. Pearce . . . . . . . " 31, 1930
802 Emma N. Dawson . . . . . . . " 31, 1932
795 Alice A. Hanson . . . . . . . . " 31, 1934
794 Marie T. Harrington . . . . . . . " 31, 1933
789 Agnes K. Gordon . . . . . . . " 31, 1934
784 Mildred M. Flynn . . . . . . . " 31, 1933
783 Gertrude A. Welch . . . . . . . " 31, 1932
781 Gladys W. Mevis . . . . . . . " 31, 1929
774 Alma M. Danforth . . . . . . . " 31, 1934
768 Ethel J. Earle . . . . . . . . " 31, 1933
765 J. Dorothy Troy . . . . . . . " 31, 1934
763 Marguerite A. Bligh . . . . . . . " 31, 1931
759 Rachel F. Baker . . . . . . . . " 31, 1928
751 Mary L. Roberts . . . . . . . " 31, 1930
737 Adelia MacMillan . . . . . . . " 31, 1928
736 Ruth E. Cox . . . . . . . . " 31, 1929
735 Rosalynde Hammons . . . . . . " 31, 1930

# High School Certificate - Continued. 



## General Science.

Men.
876 Francis P. Frazier . . . . . . . Dec. 31, 1932

830 Francis D. Whittemore . . . . . . " 31, 1931
824 Eugene H. Lord . . . . . . . . " 31, 1932
805 Arthur C. Nagle . . . . . . . . " 31, 1931
794 Elliot A. Gilfix . . . . . . . . " 31, 1933
776 Charles M. Frolio . . . . . . . " 31, 1930

Women.
805 Irene M. Bragan
Dec. 31, 1932

German.
706 Helen E. Mayer . . . . . . . . Dec. 31, 1930
History.
Men.
880 George T. Davis . . . . . . . . Dec. 31, 1932
849 Hubert J. Powderly . . . . . . . " 31, 1933
840 Cecil D. McIlroy . . . . . . . " 31, 1932
825 Elmer H. Phelps . . . . . . . " 31, 1930
815 George F. Barry . . . . . . . . " 31, 1930
809 David H. Brown . . . . . . . " 31, 1929
803 Lawrence W. Wild . . . . . . . " 31, 1933
791 Herman C. McGrath . . . . . . . " 31, 1933
776 Bernard F. Donovan . . . . . . . " 31, 1929
770 George F. Donovan . . . . . . . " 31, 1934
717 William V. McKenney . . . . . . " 31, 1928
715 Vincent L. Greene . . . . . . . " 31, 1928
711 Frederick J. Murray . . . . . . . " 31, 1928
707 Charles P. York . . . . . . . . " 31, 1928

# High School Certificate - Continued. 

Women.


Certificate Expires
837 Elizabeth D. Burns . . . . . . . Dec. 31, 1934
826 Isabelle C. Barry . . . . . . . " 31, 1934
817 Mary L. Tebeau . . . . . . . . " 31, 1933
795 Dorothy W. Abbott . . . . . . . " 31, 1934
791 Margaret B. O'Connor . . . . . . " 31, 1929
787 Mary P. O'Neill . . . . . . . . " 31, 1928
758 Katharine B. MacMillan . . . . . . " 31, 1930
Household Science.
842 Abigail J. Harrigan . . . . . . . Dec. 31, 1934
765 Elizabeth M. O’Connor . . . . . . " 31, 1933
Machine Shop Practice.
772 Robert E. Baker .
Dec. 31, 1933

> Mathematics.
> Men.
857 Louis E. Nash . . . . . . . . Dec. 31, 1934

841 Charles L. Cheetham . . . . . . . " 31, 1928
836 Charles W. Sheehan . . . . . . . " 31, 1934
830 Christopher A. Connor . . . . . . " 31, 1929
824 Barnet Rudman . . . . . . . . " 31, 1932
788 Frank A. Rhuland . . . . . . . " 31, 1934
783 John M. Falvey . . . . . . . . " 31, 1933
776 Frederick L. Sweeney . . . . . . " 31, 1932
766 Robert J. Anderson . . . . . . . " 31, 1932
741 Raymond E. McDonald . . . . . . " 31, 1934
728 Leo T. Cribben . . . . . . . . " 31, 1933
708 Warren E. Loring . . . . . . . " 31, 1933
703 Charles J. Keelon . . . . . . . " 31, 1931

## Women.

900 Mary E. Walsh . . . . . . . . Dec. 31, 1934
859 Helen F. Sullivan . . . . . . . " 31, 1934
835 Grace E. Martin . . . . . . . " 31, 1931
825 Marian W. Bates . . . . . . . " 31, 1931
819 Margaret M. Hinchey . . . . . . " 31, 1934
807 Catherine M. Morley . . . . . . " 31, 1934
805 Idessa A. Rooney . . . . . . . " 31, 1933
799 Ruth M. Clifford . . . . . . . " 31, 1933

## Millinery.

938 Caroline H. Wilson
Dec. 31, 1932
875 Florence B. Caton
" 31, 1931
Physics-Chemistry.
910 Waldemar S. McGuire
Dec. 31, 1930
881 Martin G. Sanborn . . . . . . . " 31, 1928

# High School Certificate - Concluded. 

| Rating. | Name. |  |  |  | Certific | ate Expires |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 870 | Robert W. Wales | . . | . . |  |  | 31, 1929 |
| 845 | Forrest W. Cobb |  | . |  |  | 31, 1931 |
| 844 | Frank V. Gordon |  |  |  | . ${ }^{\text {c }}$ | 31, 1928 |
| 837 | William J. Sweeney | - . | - . |  | . ${ }^{\text {c }}$ | 31, 1934 |
| 833 | Everett J. Ford |  |  |  | " | 31, 1934 |
| 829 | Lawrence I. Harris | - | . | - | . " | 31, 1934 |
| 819 | John E. Fuller | . |  |  | " | 31, 1931 |
| 817 | William B. O'Brien | . $\cdot$ |  |  |  | 31, 1931 |
| 812 | August H. Wigren | - | - - |  | . ${ }^{\text {c }}$ | 31, 1929 |
| 811 | Frank L. Bridges | - . | - $\cdot$ | . | - " | 31, 1933 |
| 811 | Edward J. Russell | - . | - . | . |  | 31, 1934 |
| 804 | Stewart B. Atkinson | - | . |  | . " | 31, 1931 |
| 794 | John I. Bennett | - . | - $\cdot$ | - | . | 31, 1931 |
| 793 | Roland B. Hutchins | . $\cdot$ | - . |  | . ${ }^{\text {c }}$ | 31, 1929 |
| 790 | John G. O'Connor | - . | . | - | . ${ }^{\text {a }}$ | 31, 1933 |
| 783 | Michael M. Kiley | - |  |  |  | 31, 1929 |
| 778 | Orra E. Underhill | . . | . $\cdot$ |  |  | 31, 1931 |
| 774 | Francis S. Quinlan | - . | . |  |  | 31, 1933 |
| 772 | John J. Hopkins . | - $\cdot$ | - . |  | - ${ }^{\text {c }}$ | 31, 1934 |
| 769 | Walter D. Wood | . $\cdot$ | - . |  |  | 31, 1933 |
| 759 | Herman W. Richter | . | - . |  | - " | 31, 1931 |
| 757 | Raymond E. McDonald | - | - |  |  | 31, 1933 |
| 700 | John J. Condon |  |  |  | . ${ }^{\text {c }}$ | 31, 1930 |

## Salesmanship. Men.

882 John F. Gorman . . . . . . . . Dec. 31, 1931
775 Timothy J. Curran . . . . . . . " 31, 1931
Women.
757 Persis M. Pottinger
Dec. 31; 1928

## Spanish.

875 Beatrice M. Reardon . . . . . . . Dec. 31, 1934
818 Madeleine J. Maguire . . . . . . " 31, 1934
791 Mary M. Stavrinos . . . . . . . " 31, 1933
783 Dorothy J. Sharkey . . . . . . . " 31, 1934
748 Gertrude F. Whelan . . . . . . . " 31, 1934
716 Marion E. O’Keefe . . . . . . . " 31, 1929

## HiGH SCHOOL CERTIFICATE. (For Junior Assistants.)

Ancient Languages.


## Commercial Branches.

PHONOGRAPHY AND TYPEWRITING.
865 Wilhelmina M. Clifford
Dec. 31, 1934
806 Anna R. Moylan
" 31, 1933

High School Certificate. (For Junior Assistant.) - Concluded.


## English. <br> Men.

779 Francis J. O'Connor . . . . . . . Dec. 31, 1934
769 Thomas A. Deely . . . . . . . " 31, 1934
Women.
817 Marion L. Carnegie . . . . . . . Dec. 31, 1934
French.
789 Louise B. Kelley . . . . . . . . Dec. 31, 1934
History.
Men.
870 Arthur Green . . . . . . . . Dec. 31, 1933
Women.
819 Edith G. Brown . . . . . . . . Dec. 31, 1934
791 Margaret A. Lynch . . . . . . . " 31, 1933
Physics-Chemistry.
837 John J. May . . . . . . . . Dec. 31, 1932
813 Solomon Gordon . . . . . . . . " 31, 1933

## HIGH SCHOOL SPECIAL CERTIFICATE. <br> Woodworking.

| Rating. | Name. |  |  |  |  |  |  | Certifica | te Expires |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 755 | Orren R. Tarr | . | - | . | . | - | . |  | 31, 1930 |
| 751 | William E. O'Connor | - | . | - | . | - | - |  | 31, 1930 |
| 722 | Harold R. Wise | . | . | . | . | - | - | " | 31, 1930 |
| 709 | Harry W. Lawson | . | - | . | - | - | - | " | 31, 1930 |
| 703 | J. Maynard Cheney | . | . | . | . | - | . |  | 31, 1930 |
| 700 | Arvid J. Wahlstrom | . | - | . | - | - | - |  | 31, 1930 |

SPECIAL CERTIFICATES VALID IN DAY HIGH SCHOOLS.

Commercial Branches.

BOOKKEEPING AND COMMERCIAL ARITHMETIC.

Men.


Women.
708 Eleanor G. Gale . . . . . . . . Dec. 31, 1931

Special Certificates Valid in Day High Schools - Continued.
PHONOGRAPHY AND TYPEWRITING.

| Rating. | Name. |  |  |  | Certificate Expires |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 884 | May M. Austin | - . | - . | . . | Dec. 31, 1929 |
| 815 | Ruby I. Coombs | . . | . . | . . | 31, 1930 |
| 754 | Mary Kelly | . $\cdot$ | - . | . $\cdot$ | " 31, 1930 |
| 745 | Mary H. Plimpton | . . | . . | . . | " 31, 1929 |
| 723 | Lillian A. Belanger | . | - . | - . | " 31, 1931 |

## Manual Arts. <br> drawing. <br> Men.

870 D. Frank Sullivan . . . . . . . Dec. 31, 1932
840 John W. Whalen . . . . . . . " 31, 1931
801 Richard E. Bailey . . . . . . . " 31, 1932
763 Franklin B. Mitchell . . . . . . . " 31, 1930

## Women.

934 Grace A. Robbins . . . . . . . Dec. 31, 1932
885 Martha M. Kreidel . . . . . . . " 31, 1929
871 Katharine L. Mannix . . . . . . " 31, 1932
856 Mollie E. Collins . . . . . . . " 31, 1931
820 Hannah E. McDonough . . . . . . " 31, 1931
802 Ruth Solomon Berlin . . . . . . " 31, 1929
780 Paulina V. Burns . . . . . . . " 31, 1934
762 Minnie A. Johnson . . . . . . . " 31, 1931
746 Vera L. Stevens . . . . . . . . " 31, 1930

Manual Training.
Joseph R. Parker
Dec. 31, 1928

## Printing.

783 Frederick L. Eames
Dec. 31, 1930
731 Joseph R. Parker
" 31, 1928

## Physical Education.

887 Louise H. Duane . . . . . . . Dec. 31, 1934
875 Mary D. Armstrong . . . . . . . " 31, 1934
872 Gertrude C. Keating . . . . . . . " 31, 1933
862 Anna B. Culhane . . . . . . . " 31, 1933
861 Elizabeth Dwight . . . . . . . " 31, 1932
860 Agnes C. McKenna . . . . . . . " 31, 1932
857 Katherine E. McCarty . . . . . . " 31, 1933
819 Virginia E. Pierce . . . . . . . " 31, 1929
818 Dorothy Sayer . . . . . . . . " 31, 1928
805 Marie A. Reardon . . . . . . . " 31, 1929
802 Doris M. FitzGerald . . . . . . . " 31, 1933
794 Ebba P. Holteen . . . . . . . " 31, 1929


# VOCATIONAL INSTRUCTOR AND VOCATIONAL ASSISTANT CERTIFICATES. <br> Instructors. 

Rating. Name. Certificate Expires
740 Cornelius G. Cotter . . . . . . . Dec. 31, 1931

Assistants.
815 Mary Miley . . . . . . . . Dec. 31, 1934
783 Blanche S. Hall . . . . . . . . " 31, 1934
757 Anne Sheridan . . . . . . . . " 31, 1929

## INDUSTRIAL INSTRUCTOR, DAY HIGH SCHOOLS, CERTIFICATES.

Dressmaking.

| Rating. | Name. |  |  |  |  | Certific | ate Expires |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 837 | Adaline Bates | . . | - - |  |  |  | 31, 1931 |
| 826 | Mary M. Moriarty |  | - |  |  | " | 31, 1934 |
| 7 | Marion G. Foristall | - . | - . |  |  | " | 31, 1933 |
| 791 | Violet L. Russell |  | - . |  |  |  | 31, 1931 |

## Millinery.

884 Marie C. Turner . . . . . . . . Dec. 31, 1932
818 Frances B. Haskell . . . . . . . " 31, 1933
720 Dorothy M. Gorman . . . . . . . " 31, 1928

## HOME NURSING CERTIFICATE.

| Rating. | Name. |  |  |  | Certificate Expires |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 857 | Alice B. Felton | - . |  |  | Dec. 31, 1931 |
| 832 | Marion C. Sullivan | . | - | - | " 31, 1931 |
| 821 | Sarah G. Reynolds | . | . . | . . | " 31, 1931 |
| 776 | Alma Taylor | - | - . | - . | " 31, 1931 |
| 775 | Mary B. O'Donnell | - | - . | - | 31, 1931 |



HOLDERS OF THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION, THE TEACHERS COLLEGE OF THE CITY OF BOSTON, CLASS OF 1928.
(Eligible for temporary service in Intermediate Schools.)

Ellen Bayley
Mary A. Cooney
Anne M. Dirksmeier
Mary V. Eaton
Mildred A. Gleeson
Mary B. Helfrich
Agnes E. Holland
Frances J. Kelly
Margaret E. Lundell

Marie C. McCabe
Katherine F. McCarthy
Margaret M. Murphy
Anna J. Reavey
Jane Rohrer
Bernice A. Smith
Dorothy M. Sommers
Catherine C. Sullivan

## HOLDERS OF THE DEGREE OF BACHELOR OF EDUCATION, THE TEACHERS COLLEGE OF THE CITY OF BOSTON, CLASS OF 1928.

(Eligible for appointment in Grades I. to VI., inclusive, and for temporary service in the Intermediate Schools.)
Rating. Name. Certificate Expires
821 Marguerite A. Rogers . . . . . . June 30, 1934
797 Bertha Grund . . . . . . . . " 30, 1934
795 Mabel A. Michie . . . . . . . " 30, 1934
793 Winifred M. LeDiouris . . . . . . " 30, 1934
793 Mary A. Govone . . . . . . . " 30, 1934
791 Ellen A. Murphy . . . .. . . . " 30, 1934
790 Cynthia M. Thresher . . . . . . " 30, 1934
789 Ida F. Revis . . . . . . . . " 30, 1934
788 Sylvia Holzer . . . . . . . . " 30, 1934
786 Julia F. Morrison . . . . . . . " 30, 1934
785 Ruth E. Prohaska . . . . . . . " 30, 1934
782 Marjorie R. Sullivan . . . . . . " 30, 1934
778 Grace M. Goodfellow . . . . . . " 30, 1934
775 Gladys Hurstak . . . . . . . . " 30, 1934

775 Pearl D. Monaghan . . . . . . . " 30, 1934
770 Eleanor F. O'Brien . . . . . . . " 30, 1934
768 Helen L. Regan . . . . . . . . " 30, 1934
760 Ruth E. Condon . . . . . . . " 30, 1934
759 Olive B. Watson . . . . . . . . " 30, 1934
758 Helen L. Noone . . . . . . . . " 30, 1934
758 Eleanor M. Hartnett . . . . . . . " 30, 1934
756 Rebecca Zoken . . . . . . . . " 30, 1934
756 Katherine M. Collins . . . . . . " 30, 1934
755 A. Gertrude Downey . . . . . . . " 30, 1934
754 Ellinor M. Brennan (Class of 1926) . . . " 30, 1932
754 Edna Livingstone . . . . . . . " 30, 1934
753 Mary C. Barrett . . . . . . . " 30, 1934
742 Ruth C. Adams . . . . . . . . " 30, 1934
741 Dorothy I. Guy . . . . . . . . " 30, 1934
741 Grace Hardy . . . . . . . . " 30, 1934
740 Leonore E. Lewis . . . . . . . " 30, 1934
737 Esther L. Moscatelli . . . . . . . " 30, 1934
731 Eleanor F. Fallon . . . . . . . " 30, 1934
729 Margaret M. Ryan . . . . . . . " 30, 1934
710 Virginia Hill . . . . . . . . " 30, 1934
695 Hilda G. Bensliman . . . . . . . " 30, 1934

NORMAL SCHOOL ELEMENTARY CERTIFICATES, CLASS OF 1928, OF THE TEACHERS COLLEGE OF THE CITY OF BOSTON, AND OTHERS AS INDICATED.
(Certificate covers Grades I. to VI., inclusive, except as indicated.)

| Rating. $\dagger$ | Name. |  |  |  |  | es |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 833 | Doris G. Mason . | . . | - . | - | . | June 30, 1934 |
| 814 | Florence M. Lappin | - . | .. | - |  | 30, 1934 |
| 812 | Lillian C. Chartoff | . . | . $\cdot$ | . | - | 30, 1934 |
| 810 | Beatrice Dvilnsky* | - . | - . | - |  | 30, 1934 |
| 810 | Marguerite C. Baker | . . | - . | . | . | 30, 1934 |
| 802 | Celia M. Bresnick | - . | - |  |  | 30, 1934 |
| 798 | Gertrude Bataitis | - . | - |  |  | 30, 1934 |
| 797 | Annie Bell | . $\cdot$ | . $\cdot$ | . | - | 30, 1934 |
| 795 | Etta Perlmutter |  |  |  |  | 30, 1934 |
| 794 | Mary L. Batchelder | . $\cdot$ | . - | - | - | 30, 1934 |
| 793 | Esther White | . . |  |  |  | 30, 1934 |
| 792 | Lenore W. E. Mehringer | . | - | - | - | 30, 1934 |
| 790 | Marie E. Brolund | . |  |  |  | 30, 1934 |
| 790 | Selma Wenetsky . | . | - . | - | - | 30, 1934 |
| 790 | Edna L. Diedrichs | - | . | . |  | 30, 1934 |
| 789 | Rose M. Klaus | . $\cdot$ | - |  |  | 30, 1934 |
| 789 | Catherine L. Burke | - |  |  | - | 30, 1934 |
| 789 | Mary D. McGuiggan | . . |  |  |  | 30, 1934 |
| 787 | Marie E. Cullity | - . | - | . | - | 30, 1934 |
| 785 | Margaret R. Hoerrner | - . |  |  |  | 30, 1934 |
| 785 | Alice I. McTiernan | - |  | . | . | 30, 1934 |
| 784 | Grace G. Kiernan * (Class | of 1927) |  |  |  | 30, 1933 |
| 783 | Mary B. Finn |  |  | - | - | 30, 1934 |
| 783 | Grace M. Long | . |  |  |  | 30, 1934 |
| 782 | Ruth M. McMahon | - | - | . | . | 30, 1934 |
| 782 | Kathleen M. Gleason. | - |  |  |  | 30, 1934 |
| 782 | Loretta A. Brodie | - . | - . | . |  | 30, 1934 |
| 781 | F. Ruth Condon . | - . | . | - |  | 30, 1934 |
| 781 | Ida C. Tucker | . . |  |  |  | 30, 1934 |
| 780 | Mary L. Trotter . | - $\cdot$ | - | - | . | 30, 1934 |
| 780 | Doris M. Schuhmacher * |  |  |  |  | 30, 1934 |
| 779 | Elizabeth A. O'Brien . | . | - | - | - | 30, 1934 |
| 778 | Lillian Dosick |  | . |  |  | 30, 1934 |
| 777 | Elizabeth A. O'Toole | - | . | - | - | 30, 1934 |
| 776 | Lillian C. McKay * | - . | - |  |  | 30, 1934 |
| 776 | Helen G. Drinan | - . | - | - |  | 30, 1934 |
| 776 | Ruth E. Miller * . | - . | - |  |  | 30, 1934 |
| 775 | Marion E. Bogrette | . . | - . | - |  | 30, 1934 |
| 775 | Beatrice E. Sudhalter | - . | - |  |  | 30, 1934 |
| 775 | Mildred Sughrue * | - . | - |  |  | 30, 1934 |
| 775 | Alice C. Lindberg | - . |  |  | . | 30, 1934 |

[^31]

[^32]Normal School Elementary Certificates, Class of 1928 - Continued.
Rating. $\dagger$ Name. Certificate Expires
751 Lily G. Alexander . . . . . . . June 30, 1934

751 Mary H. Leaney . . . . . . . " 30, 1934
750 Mary A. Creagh . . . . . . . . " 30, 1934
750 Alice L. O’Rourke . . . . . . . " 30, 1934
750 Blanche M. Gorfinkle * . . . . . . " 30, 1934
748 Helen D. Curtin . . . . . . . . " 30, 1934
748 Anabel M. Dacey . . . . . . . " 30, 1934
748 Rae Pimentel . . . . . . . . " 30, 1934
747 Elizabeth L. Peterson * . . . . . . " 30, 1934
747 Sara M. Curran . . . . . . . . " 30, 1934
747 Elizabeth A. McMurtry . . . . . . " 30, 1934
747 Elizabeth P. Wight . . . . . . . " 30, 1934
746 Helen J. McCarthy . . . . . . . " 30, 1934
746 Margaret P. Mullen . . . . . . . " 30, 1934
745 Margaret M. L. Sloan . . . . .. . " 30, 1934
743 Marie C. Cosgrove . . . . . . . " 30, 1934
743 Helen D. Perry . . . . . . . . " 30, 1934
742 Gertrude A. Geswell . . . . . . . " 30, 1934
740 Mary E. Kean . . . . . . . . " 30, 1934
740 Mary V. Quane . . . . . . . . " 30, 1934
739 Carolyn V. Murphy * . . . . . . " 30, 1934
739 Mary E. Curry . . . . . . . . " 30, 1934
739 Marie L. Kelley . . . . . . . . " 30, 1934
738 Alice M. Loftus . . . . . . . . " 30, 1934
736 Ethel M. Campbell . . . . . . . " 30, 1934
736 Mary V. Doherty . . . . . . . " 30, 1934
736 Mary F. Griffin . . . . . . . . " 30, 1934
736 Ruth E. Holland . . . . . . . " 30, 1934
736 Anne G. Fennessy . . . . . . . " 30, 1934
735 Esther L. Shaw * . . . . . . . " 30, 1934
735 Mary G. Crofwell . . . . . . . " 30, 1934
735 Anna Block . . . . . . . . . " 30, 1934
734 Mary L. Furlong . . . . . . . " 30, 1934
734 Anna E. McCarthy . . . . . . . " 30, 1934
734 Helen V. Donnelly . . . . . . . " 30, 1934
733 Althea I. Rymarczick . . . . . . " 30, 1934
733 Helen B. O'Neill . . . . . . . " 30, 1934
732 Alice M. Greene . . . . . . . . " 30, 1934
732 Alma Field . . . . . . . . . " 30, 1934
732 Arline D. A'Hearn . . . . . . . " 30, 1934
731 A. Mae Caffery . . . . . . . . " 30, 1934
731 M. Margaret Dargan . . . . . . " 30, 1934
731 Esther Fleishman . . . . . . . " 30, 1934
727 Helen E. Sweeney . . . . . . . " 30, 1934
726 Freida G. White . . . . . . . . " 30, 1934
725 Ann C. Tremble . . . . . . . . " 30, 1934

[^33]

[^34]
## HOLDERS OF THE DEGREE OF BACHELOR OF EDUCATION, THE TEACHERS COLLEGE OF THE CITY OF BOSTON, PRIOR TO 1928.

(Eligible for appointment in Grades I. to VI., inclusive, and for temporary service in Intermediate Schools.)


## NORMAL SCHOOL ELEMENTARY CERTIFICATES, PRIOR TO 1928.




[^35]| Rating. | Name. |  |  |  |  |  |  |  | cate Expire |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 834 | Kathleen A. Toland |  |  |  |  |  |  |  | 30, 1933 |
| 833 | Mary M. Edwards |  |  |  |  |  |  | " | 30, 1933 |
| 832 | Catherine H. McDonagh |  |  |  |  |  |  | " | 30, 1933 |
| 831 | Florence K. Sargent |  |  |  |  |  |  | " | 30, 1933 |
| 831 | Marjorie P. Kendrick |  |  |  |  |  |  |  | 30, 1933 |
| 831 | Helen M. Morey * |  |  |  |  |  |  | " | 30, 1933 |
| 831 | Mary J. Ruddick |  |  |  |  |  |  |  | 30, 1933 |
| 831 | Alberta H. Nickerson* |  |  |  |  |  |  |  | 30, 1933 |
| 830 | Sarah Koplovsky |  |  |  |  |  |  | " | 30, 1933 |
| 9 | Mary R. Freiburger |  |  |  |  |  |  |  | 30, 1933 |
| 829 | Dorothy E. Lurie* |  |  |  |  |  |  |  | 30, 1933 |
| 828 | Ruth F. Coughlin |  |  |  |  |  |  |  | 30, 1933 |
| 828 | Helen M. McGinley |  |  |  |  |  |  | * | 30, 1933 |
| 828 | Ethel M. Queen |  |  |  |  |  |  | " | 30, 1933 |
| 828 | Marion T. Sweeney |  |  |  |  |  |  | " | 30, 1933 |
| 827 | Alice A. Lyons |  |  |  |  |  |  |  | 30, 1933 |
| 826 | Evelyn A. Karcher |  |  |  |  |  |  |  | 30, 1933 |
| 826 | Mary M. Herlihy |  |  |  |  |  |  |  | 30, 1933 |
| 826 | Mary B. Hart |  |  |  |  |  |  |  | 30, 1933 |
| 826 | Mary C. Tapp |  |  |  |  |  |  | " | 30, 1933 |
| 825 | Anne M. Callahan |  |  |  |  |  |  |  | 30, 1933 |
| 825 | Freda R. Opper |  |  |  |  |  |  | " | 30, 1933 |
| 824 | Anne M. Panico . |  |  |  |  |  |  |  | 30, 1933 |
| 824 | Elizabeth K. Sullivan |  |  |  |  |  |  | " | 30, 1933 |
| 4 | Sue G. Hurley |  |  |  |  |  |  |  | 30, 1933 |
| 824 | Alice G. Moran |  |  |  |  |  |  | " | 30, 1933 |
| 824 | Barbara M. Mulcahy |  |  |  |  |  |  | " | 30, 1933 |
| 3 | Kathleen B. Mahoney |  |  |  |  |  |  |  | 30, 1933 |
| 822 | Beatrice Segall * |  |  |  |  |  |  | " | 30, 1933 |
| 2 | May E. Armstrong |  |  |  |  |  |  |  | 30, 1933 |
| 822 | Sarah J. Rabinowitz |  |  |  |  |  |  |  | 30, 1933 |
| 821 | Rose Levitt * |  |  |  |  |  |  | " | 30, 1933 |
| $821\}$ | Hyacinth A. Kenneally * |  |  |  |  |  |  | " | 30, 1933 |
| 821 \} | Mary C. Norton . |  |  |  |  |  |  |  | 30, 1933 |
| 0 | Helen F. Twiss |  |  |  |  |  |  | " | 30, 1933 |
| 820 | Ellen A. Valuski . |  |  |  |  |  |  |  | 30, 1933 |
| 20 | Alice R. Donahue |  |  |  |  |  |  |  | 30, 1933 |
| 0 | Ann I. Flynn |  |  |  |  |  |  |  | 30, 1933 |
| 819 | Anna M. Madden |  |  |  |  |  |  |  | 30, 1933 |
| 8 | Mary J. Glancy |  |  |  |  |  |  |  | 30, 1933 |
| 818 | Mary F. Hurley |  |  |  |  |  |  |  | 30, 1933 |
| 817 | Margaret M. Carton |  |  |  |  |  |  | " | 30, 1933 |
| 817 | Audrea Bishop* . |  |  |  |  |  |  |  | 30, 1933 |
| 817 | Anna A. Leonardi |  |  |  |  |  |  |  | 30, 1933 |
| 817 | Agnes E. Hallahan |  |  |  |  |  |  |  | 30, 1933 |
| 817 | Helen C. Weiss |  |  |  |  |  |  | " | 30, 1933 |
| 15 | Louise C. Galvin |  |  |  |  |  |  |  | 30, 1933 |

[^36]| Rating. | Name. |  |  |  |  |  | Certificate Expires |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 813 | Julia C. McAndrew | . $\cdot$ | . |  | . |  | June 30, 1933 |
| 813 | Anna G. Harrington |  |  |  | . | - | 30, 1933 |
| 813 | M. Frances Rattigan . | . |  |  |  | - | 30, 1933 |
| 813 | Elizabeth I. Teaffe | . |  |  |  |  | " 30, 1933 |
| 812 | Ruth M. O'Hara | . $\cdot$ |  |  |  |  | 30, 1933 |
| 812 | Katherine E. Curran |  |  |  |  |  | " 30, 1933 |
| 810 | Rose E. Gaffney . | . | . | - | . |  | 30, 1933 |
| 810 | Dorothy E. Dunn | .. |  |  |  |  | " 30, 1933 |
| 809 | Rhoda E. Shain | . |  |  |  |  | " 30, 1933 |
| 809 | Annie L. Young | . |  |  |  |  | " 30, 1933 |
| 809 | Catherine T. Hurley | . $\cdot$ | . | - |  |  | " 30, 1933 |
| 807 | Catherine J. Mangan | . |  | - |  |  | " 30, 1933 |
| 807 | Ella T. Hayes | . |  | . |  |  | " 30, 1933 |
| 807) | Barbara E. Ryan | - |  |  |  |  | 30, 1933 |
| 806 | Dorothea J. Duane |  |  |  |  |  | " 30, 1933 |
| 806 | Dora E. King | . $\cdot$ |  |  |  |  | 30, 1933 |
| 805 | Ruth P. G. Naber |  |  | - |  |  | " 30, 1933 |
| 805 | Leona M. McLane |  |  | . | . |  | 30, 1933 |
| 805 | Bessie L. Greenstein |  |  | - |  |  | 30, 1933 |
| 804 | Margaret M. Welch | . | . | - | - |  | 30, 1933 |
| 803 | Mary W. Hastry |  |  | - |  | - | 30, 1933 |
| 802 | Alice L. O'Connor |  |  |  |  |  | 30, 1933 |
| 802 | Catherine T. Manning |  |  |  |  | - | 30, 1932 |
| 800 | Hazel A. Harrington |  |  |  |  |  | 30, 1933 |
| 796 | Ruth S. Brodie |  |  |  |  |  | 30, 1933 |
| 793 | Sibyl Kuskin* |  |  | - |  |  | 30, 1933 |
| 791 | Dorothea A. McLaughlin |  |  |  |  |  | 30, 1933 |
| 787 | Anna B. Jordan |  |  | - |  |  | 30, 1933 |
| 783 | Geraldine M. Coffey |  |  |  |  |  | 30, 1933 |
| 782 | Alice E. Moore |  |  | - |  |  | 30, 1933 |
| 782 | Sophia E. Koziewicz |  |  |  |  |  | " 30, 1933 |
| 776 | Mary V. St. Thomas |  |  |  | - |  | 30, 1933 |
| 769 | Victoria M. Lima |  |  |  |  |  | 30, 1933 |
| 757 | Margaret S. Humphrey |  |  |  |  |  | " 30, 1933 |
| 749 | Josephine M. Lima |  |  |  |  |  | " 30, 1933 |
| 684 | Sophia Eskin |  |  | . |  | - | " 30, 1932 |

## INTERMEDIATE AND ELEMENTARY SCHOOL CERTIFICATES, EXAMINED CANDIDATES.

## Intermediate Certificate.

Clerical Practice.


[^37]Intermediate and Elementary Certificates, Examined Candidates -
Rating. $\quad$ Continued.

| Rating. Name. |  |
| :--- | :--- |
| 791 | Ralph S. Monks (1) . . . . . . . Dec. 31, 1933 |

761 Philip F. Mackey $\dagger$ (1)
Women.
887 Elizabeth C. Flynn $\dagger$ (1) . . . . . . Dec. 31, 1932
861 Mary E. Thompson (1) . . . . . . " 31, 1933
821 Alice P. McNamara (1) . . . . . . " 31, 1934
815 Mary J. Connors (2) . . . . . . . " 31, 1931
783 Helen K. Travers (1) . . . . . . . " 31, 1933
779 Emily L. Shannon (2) . . . . . . " 31, 1933


English.
Men.
829 Everett J. Conway † (3) . . . . . . Dec. 31, 1934
801 Leo J. McCarthy (6) . . . . . . . " 31, 1934
789 Joseph A. Mahoney $\dagger$ (7) . . . . . . " 31, 1934
Women.
881 Olive E. Whittier † (1) . . . . . . Dec. 31, 1934
854 Mary I. Dwyer (8) . . . . . . . " 31, 1928
828 Mary H. Lill (9) . . . . . . . " 31, 1934
824 Margaret C. Craven (4) . . . . . . " 31, 1930
823 Theresa O’Neil (3) . . . . . . . " 31, 1934
822 Mary T. Kelley (1) . . . . . . . " 31, 1931
820 Alice M. O’Rourke (9) . . . . . . " 31, 1933
810 Mary C. Cadigan (10) . . . . . . " 31, 1933
809 Helen B. Gleason (11)
808 Dorothy L. Winchenbach (5) . . . . . " 31, 1931
804 Edna D. Taylor (1) . . . . . . . " 31, 1931
802 Mary H. Stroup $\dagger$ (1) . . . . . . " 31, 1934
798 Blanche M. Hurley (5) . . . . . . " 31, 1931
795 Alma M. Danforth (9) . . . . . . " 31, 1934

## Intermediate and Elementary Certificates, Examined Candidates -

Continued.

| Rating. | Name. |  |  | Cert |
| :---: | :---: | :---: | :---: | :---: |
| 794 | Elizabeth M. O'Keefe (9) | . |  | Dec. 31, 1934 |
| 793 | Winifred M. Doyle (1) |  |  | 31, 1932 |
| 790 | Mary A. Croker (1) |  |  | 31, 1933 |
| 785 | Florence E. Murphy (1) |  |  | 31, 1934 |
| 783 | Mary R. Kirby (3) | - |  | 31, 1933 |
| 766 | Sarra N. Rosenbaum (10) |  |  | 31, 1932 |
| 764 | Anna F. Kuhn (1) |  |  | 31, 1934 |
| 759 | Helen M. Corrigan (12) |  |  | 31, 1928 |
| 752 | Grace K. Lonergan (3) |  |  | 31, 1934 |
| 746 | Mary B. Cummings (4) |  |  | 31, 1931 |



| 921 | Kathryn Acton (3) | . | . | . | . | . | . | . |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Gec. 31,1934 |  |  |  |  |  |  |  |  |
| 907 | Ursula M. Ryan (3) | . | . | . | . | . | . | . |

History.
Men.
801 James W. Driscoll (11) . . . . . . Dec. 31, 1934

751 Leo J. Aicardi † (11)
" 31, 1934
Women.
879 Mary L. Tebeau (11) . . . . . . Dec. 31, 1934
872 Katherine B. Feely (11) . . . . . . " 31, 1934
854 Anna F. Golden (11) . . . . . . . " 31, 1934
848 Anna V. Curran $\dagger$ (11) . . . . . . " 31, 1933
846 Esther L. Glovsky (11) . . . . . . " 31, 1934
829 Marguerite V. Murphy (11) . . . . . " 31, 1933
828 Nathalie H. Moran (11) . . . . . . " 31, 1933
825 Veronica Murray (11) . . . . . . " 31, 1933
820 Helena M. Dempsey $\dagger$ (11) . . . . . " 31, 1934
813 M. Grace Lenehan (11) . . . . . . " 31, 1934
809 Louise C. Leary (11) . . . . . . . " 31, 1933
807 Margaret V. O’Connor (11) . . . . . " 31, 1934
795 Veronica C. Moran (11) . . . . . . " 31, 1933
782 Ruth P. Rasmussen (11) . . . . . . " 31, 1934

## Intermediate and Elementary Certificates, Examined Candidates -

 Continued.

Italian.
829 Jeanette Ascolillo $\dagger$ (1) . . . . . . Dec. 31, 1933
Latin.
Men.
825 Francis J. Campbell (1) . . . . . . Dec. 31, 1934
805 Robert C. Healey $\dagger$ (9) . . . . . . " 31, 1934
796 Frank J. Thornton $\dagger$ (1) . . . . . . " 31, 1933
Women.
912 Doris D. Pike (1) . . '. . . . . Dec. 31, 1933
797 Mary A. Delahunt (2) . . . . . . " 31, 1932
724 Ellen G. White (15) . . . . . . . " 31, 1928
718 Vera N. Guilford (2) . . . . . . . " 31, 1931
Mathematics.
Men.
859 Frederick L. Sweeney $\dagger$ (16) . . . . . Dec. 31, 1934
837 Walter L. MeSwiney (10) . . . . . . " 31, 1934
836 Charles E. Foley † (16) . . . . . . " 31, 1932
824 Cornelius J. Holland † (16) . . . . . " 31, 1934
820 William J. Roderick (2) . . . . . . " 31, 1932
819 Thomas J. Cunney † (16) . . . . . . " 31, 1933
818 Edward Pickett $\dagger$ (10) . . . . . . " 31, 1934
805 Cornelius J. O'Connell $\dagger$ (16) . . . . . " 31, 1933
804 Thomas J. Colleran $\dagger$ (10) . . . . . " 31, 1934
780 George F. Barry (17) . . . . . . " 31, 1928
772 Arnold L. Ganley $\dagger$ (10) . . . . . . " 31, 1930

| Continued |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rating. | Name |  |  |  |  |  | Certifics | ate Expires |
| 755 | Thomas M. Connelly $\dagger$ (2) |  |  |  |  |  |  | 31, 1933 |
| 754 | John F. Meade $\dagger$ (16) | . |  |  |  |  |  | 31, 1933 |
| 747 | George E. Hayes (18) |  |  |  |  |  | " | 31, 1928 |
| Women. |  |  |  |  |  |  |  |  |
| 872 | Gladys M. Sullivan (16) | . |  |  |  |  |  | 31, 1934 |
| 865 | Beatrice P. Eaton (2) |  |  |  |  |  | " | 31, 1934 |
| 857 | Helena M. Crowley (2) |  |  |  |  |  |  | 31, 1933 |
| 55 | Bertha L. Fleming (2) | . |  |  |  |  |  | 31, 1933 |
| 4 | Olive G. Mahoney (16) | . |  |  |  |  |  | 31, 1933 |
| 838 | Barbara M. Murphy † (10) |  |  |  |  |  | " | 31, 1933 |
| 824 | Anna T. Gallivan (2) | . |  |  |  |  |  | 31, 1934 |
| 821 | Ida Feldman (16) |  |  |  |  |  | " | 31, 1933 |
| 808 | Edna S. Evans (11) |  |  |  |  |  |  | 31, 1934 |
| 806 | Katherine E. L. Creagh (2) | . |  |  |  |  |  | 31, 1931 |
| 805 | Mary A. C. Cleary (16) | . |  |  |  |  | " | 31, 1934 |
| 802 | Margaret A. Doyle (10) | - |  |  |  |  |  | 31, 1934 |
| 801 | Vera K. Flaherty (2) . | . |  |  |  |  | " | 31, 1931 |
| 796 | Mary E. Kelleher $\dagger$ (2) | - |  |  |  |  |  | 31, 1934 |
| 792 | Stella D. Rose (10) | . |  |  |  |  |  | 31, 1934 |
| 790 | Winifred A. McCabe (6) | . |  |  |  |  |  | 31, 1934 |
| 785 | Mary E. Cotter (2) |  |  |  |  |  |  | 31, 1934 |
| 777 | Margaret F. Fitzgerald (2) | - |  |  |  |  |  | 31, 1933 |
| 770 | Minna Rosen (10) | - |  |  |  |  |  | 31, 1932 |
| 763 | Mary A. Delahunt (6) | - |  |  |  |  |  | 31, 1934 |
| 707 | Claire L. Zimmerman $\dagger$ (10) | . |  |  |  |  | " | 31, 1930 |
| Music. |  |  |  |  |  |  |  |  |
| 91 | Eleanor M. Whelton (3) |  |  |  |  |  |  | 31, 1934 |
| 876 | Mary C. Hilton (1) |  |  |  |  |  |  | 31, 1934 |
| 845 | Mabel A. T. McCloskey (2) | - |  |  |  |  | " | 31, 1934 |
| 839 | Mary J. Deegan (2) |  |  |  |  |  |  | 31, 1933 |
| 819 | Isabelle M. Harvey (2) | . |  |  |  |  |  | 31, 1934 |
| 807 | Alice M. Vincent (2) |  |  |  |  |  |  | 31, 1933 |
| 804 | Alice C. Kapples (1) |  |  |  |  |  |  | 31, 1933 |
| 801 | Marguerite Clarke (8) |  |  |  |  |  |  | 31, 1929 |
| 798 | Mary P. Moran (2) |  |  |  |  |  |  | 31, 1933 |
| 784 | Ella R. Lyons $\dagger$ (2) |  |  |  |  |  | " | 31, 1932 |

Science.
Men.

| 842 | Lloyd A. Hechinger $\dagger$ (1) | . | . | . |
| :--- | :--- | :--- | :--- | :--- |
| 806 | Eugene A. Wright (3) | . | . | . |
| 792 | Harold J. Cleary $\dagger(8)$ | . | . | . |

Women.
832 Florence M. Hawkins (11).

Intermediate and Elementary Certificates, Examined Candidates Concluded.

| Rating. | Name. |  |  | Certifica |
| :---: | :---: | :---: | :---: | :---: |
| 826 | Elizabeth A. Donahue (11) |  | . . | Dec. 31, 1934 |
| 19 | Catherine R. Smith (1) |  |  | " 31, 1933 |
| 811 | Nellie W. Riley (4) |  |  | 31, 1933 |
| 808 | Mary G. O'Doherty (2) |  |  | 31, 193 |
| 9 | Mary C. Long (1) | - |  | 31, 193 |
| 786 | Eileen T. Raftery (1) |  |  | 31, 1932 |
| 775 | Constance Bartholomew (3) | - |  | 31, 1932 |
| 754 | Elizabeth M. Heffernan (2) |  |  | 31, 193 |
| 17 | Anastasia M. Connell (1) |  |  | 31, 193 |

## Spanish.

802 John P. Whalen $\dagger$ (1) . . . . . . . Dec. 31, 1934
Minor Subjects:
(1) Mathematics.
(2) English.
(3) History.
(4) Music.
(5) History-Geography.
(6) Latin.
(7) Italian.
(8) History-Geography, Mathematics.
(9) French.
(10) Science.
(11) Geography.
(12) History-Geography, French.
(13) Mathematics, Music.
(14) English, Mathematics.
(15) Mathematics, French.
(16) Clerical Practice.
(17) History-Geography, Science.
(18) History-Geography, English.

INTERMEDIATE CERTIFICATE. (For Junior Assistants.)
English.


French.
769 Louise B. Kelley (1) . . . . . . . Dec. 31, 1934

748 Margaret T. Gleeson (1) . . . . . . " 31, 1934
Latin.
Men.
732 John M. Maloney † (4) . . . . . . Dec. 31, 1934
Women.
819 Hilda P. Hayes (5) . . . . . . . Dec. 31, 1933
Mathematics.
868 Anna M. Doyle (1)
Dec. 31, 1934
Minor Subjects:
(1) Latin.
(4) Mathematics.
(2) Geography.
(5) English.
(3) History.
$\dagger$ Holds Elementary School, Class A Certificate.

## Elementary School, Class A Certificate.

| Rating. Name. |  |  |  |  | Certificate Expires |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 863 | Frederick L. Sweeney | . | . | . | . | . | . | Dec. |
| 853 | Ernest V. Flynn . | . | . | . | . | . | . | . |

## Elementary School, Class B Certificate.

 (Certificate covers Grades I. to VI., inclusive.)

# Elementary School, Class B Certificate - Continued. 

Rating. Name. Certificate Expires

826 Mary C. Downey
825 Frances C. Moriarty
825 Veronica Murray
824 Margaret C. Craven
824 Hazel L. Hyde
823 Constance Bartholomew
822 Alvira Hazzard
820 Mary P. Mullins
818 Mary J. Carroll
818 Elizabeth M. Downey
815 Anna C. Ford
814 Anna F. McGovern . . . . . . . " 31, 1932 Dec. 31, 1932
" 31, 1930
" 31, 1933
" 31, 1930
" 31, 1932
" 31, 1932
" 31, 1933
" 31, 1934
" 31, 1934
" 31, 1933

813 Helen E. Conroy . . . . . . . " 31, 1932
812 Esther J. Yoken . . . . . . . . " 31, 1930
810 Elizabeth A. Keefe . . . . . . . " 31, 1928
809 Sarah E. Gallagher . . . . . . . " 31, 1933
808 Josephine L. F. Neary . . . . . . " 31, 1933
807 Alice G. Curran . . . . . . . . " 31, 1932
806 C. Frances Hobbs . . . . . . . " 31, 1929
804 Ruth Reece . . . . . . . . . " 31, 1934
803 Mary E. Cavanaugh . . . . . . . " 31, 1931
801 Marguerite V. Murphy . . . . . . " 31, 1930
801 Anne G. Sweeney . . . . . . . " 31, 1929
798 Mary P. Moran . . . . . . . . " 31, 1933
797 Edith Kolb . . . . . . . . . " 31, 1931
794 Elizabeth M. McDonough . . . . . " 31, 1931
791 Margaret J. O’Brien . . . . . . . " 31, 1929
790 Gertrude M. Carey . . . . . . . " 31, 1932
788 Ruth E. Dowd . . . . . . . . " 31, 1931
786 Nathalie H. Moran . . . . . . . " 31, 1933
786 Esther D. Norton . . . . . . . " 31, 1934
784 Hannah P. Brown . . . . . . . " 31, 1931
783 Mary C. McLaughlin . . . . . . " 31, 1932
783 Lowena Mills . . . . . . . . " 31, 1934
782 Margaret M. Connelly . . . . . . " 31, 1933
780 Mary McMahon Burns . . . . . . " 31, 1932
779 Mildred R. Sargent . . . . . . . " 31, 1932
778 Mary E. McCann . . . . . . . " 31, 1933
777 Anna K. M. Coughlin . . . . . . " 31, 1930
776 Bernadette R. Flynn . . . . . . . " 31, 1932
775 Agnes C. Coleman . . . . . . . " 31, 1931
775 Esther G. Kedian . . . . . . . " 31, 1933
774 Josephine M. O’Neil . . . . . . . " 31, 1933
773 Sadie Berman . . . . . . . . " 31, 1931
772 Gertrude F. O’Loughlin . . . . . . " 31, 1928
770 Marie R. Ahern . . . . . . . . " 31, 1932
770 Ethel V. Tuohy . . . . . . . . " 31, 1934

Elementary School, Class B Certificate - Concluded.


## KINDERGARTEN CERTIFICATES.

Normal Kindergarten-Primary Certificate, Class of 1928 and Others as Indicated.

| Rating. Name. |  |  |
| :--- | :--- | :--- |
| 810 | Beatrice Dvilnsky | Certificate Expires |
| 784 | Grace G. Kiernan (Class of 1927) | . . . . . |

## Kindergarten Certificates - Concluded.



NORMAL KINDERGARTEN-PRIMARY CERTIFICATE, PRIOR TO 1928.


## KINDERGARTEN CERTIFICATE. <br> Examined Candidates.



[^38]| Rating. | Name. |  |  |  |  |  | Certifica | ate Exp |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 861 | Marjorie Macdonald | . |  | . | . |  |  | 31, 193 |
| 850 | Dorothy M. Smith | . . |  |  |  |  |  | 31, 1932 |
| 848 | Margaret L. McQuaid | - . |  |  |  |  | " | 31, 1932 |
| 837 | Annie Baum |  |  |  |  |  | " | 31, 1931 |
| 837 | Catherine M. McCarthy |  |  |  |  |  | " | 31, 1932 |
| 832 | Kathleen C. Daly | . |  |  |  |  |  | 31, 1932 |
| 830 | Mary J. Cowan |  |  |  |  |  |  | 31, 1934 |
| 829 | Mildred E. Rourke |  |  |  |  |  |  | 31, 1934 |
| 827 | Dorothea E. Meloy |  |  |  |  |  |  | 31, 1933 |
| 821 | Katherine M. Delany |  |  |  |  |  |  | 31, 1931 |
| 818 | Louise C. Galvin |  |  |  |  |  |  | 31, 1933 |
| 817 | Mary F. Lyons |  |  |  |  |  |  | 31, 1931 |
| 813 | Helen C. Bryant |  |  |  |  |  |  | 31, 1931 |
| 810 | Mina B. Eaton |  |  |  |  |  |  | 31, 1931 |
| 809 | Phyllis C. Small | . |  |  |  |  |  | 31, 1933 |
| 800 | Irene G. Woodward |  |  |  |  |  |  | 31, 1932 |
| 799 | Ruth K. Burns |  |  |  |  |  |  | 31, 1932 |
| 797 | Dorothy F. Toomey |  |  |  |  |  |  | 31, 1932 |
| 797 | Helena E. Sullivan | - |  |  |  |  |  | 31, 1934 |
| 796 | Helen J. McCarthy |  |  |  |  |  |  | 31, 1931 |
| 793 | Frances R. Sullivan |  |  |  |  |  |  | 31, 1932 |
| 792 | Margaret H. Healy |  |  |  |  |  |  | 31, 1931 |
| 790 | Gertrude E. Tobin |  |  |  |  |  |  | 31, 1933 |
| 788 | Esther T. Murphy | . |  |  |  |  |  | 31, 1932 |
| 782 | Anna C. MacDonald | . |  |  |  |  |  | 31, 1929 |
| 781 | Ethel S. Joslin |  |  |  |  |  |  | 31, 1929 |
| 778 | Eleanor C. Fee |  |  |  |  | . |  | 31, 1931 |
| 777 | Ruth M. Galvin |  |  |  |  |  |  | 31, 1932 |
| 776 | Lillian Haggerty . |  |  |  |  |  |  | 31, 1932 |
| 775 | Muriel V. Carnes |  |  |  |  |  |  | 31, 1931 |
| 774 | Kathleen R. Ryan |  |  |  |  |  |  | 31, 1931 |
| 773 | Edith V. Neagle . | . |  |  |  |  |  | 31, 1932 |
| 770 | Dorothy L. McMorrow | - |  |  |  |  |  | 31, 1934 |
| 763 | Isabel Avard |  |  |  |  |  |  | 31, 1932 |
| 759 | Winifred G. Creed | . |  |  |  |  |  | 31, 1931 |
| 753 | Helen J. Quinn | - . |  |  |  |  |  | 31, 1931 |
| 751 | Kathleen T. Murphy | . . |  |  |  | . |  | 31, 1933 |
| 750 | Esther D. Hamilton | . $\cdot$ |  |  |  |  |  | 31, 1931 |
| 749 | Gertrude M. Galvin |  |  |  |  |  |  | 31, 1932 |
| 748 | Catherine W. Monahan | - $\cdot$ |  |  |  |  |  | 31, 1932 |
| 742 | Ruth M. McLean |  |  |  |  |  | " | 31, 1933 |
| 737 | Margaret E. McKenna | . |  |  |  |  |  | 31, 1932 |
| 729 | Elizabeth Thorpe |  |  |  |  |  |  | 31, 1931 |
| 728 | Lewette H. Spence |  |  |  |  |  |  | 31, 1930 |
| 721 | Helen Z. Whiteman |  |  |  |  |  |  | 31, 1930 |
| 717 | Muriel A. Johnson |  |  |  |  |  |  | 31, 1930 |
| 716 | Mary E. Grant |  |  |  |  |  | " 31 | 31, 1931 |
| 711 | Elizabeth P. Hoyt | - |  |  |  |  |  | 31, 1933 |

Kindergarten Certificate, Examined Candidates - Concluded.

| Rating. | Name. |  |  |  |  | Certificate Expires <br> 704 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mabelle S. Chapman . | . | . | . | . | . | De. 31, 1930 |
| 704 | Marie E. McCarty | . | . | . | . | . |
| 702 | Pauline G. Davenport | . | . | 31, 1931 |  |  |
|  |  | . | . | . | . | 31, 1930 |

## SPECIAL CERTIFICATES VALID IN DAY ELEMENTARY AND

 DAY INTERMEDIATE SCHOOLS.Cookery.


## Sewing.

919 Mary E. Farrell . . . . . . . . Dec. 31, 1934
916 Frances W. Purcell . . . . . . . " 31, 1934
900 Annette M. Havey . . . . . . . " 31, 1934
897 Lydia M. E. Kipp . . . . . . . " 31, 1934
866 Josephine M. Pieper . . . . . . . " 31, 1934
864 Martha Clancy Koen . . . . . . " 31, 1930
858 Gertrude F. Sullivan . . . . . . . " 31, 1934
840 Marie C. Ludovic . . . . . . . " 31, 1934
826 Lois G. Lynch . . . . . . . . " 31, 1934
824 Helen M. Anderson . . . . . . . " 31, 1934
816 Mildred A. Winsloe . . . . . . . " 31, 1934
813 Dorothy A. Lynch . . . . . . . " 31, 1934
812 Clare C. McGoldrick . . . . . . . " 31, 1934
780 Irma B. Coffin . . . . . . . . " 31, 1934
777 Marion A. Clarkson . . . . . . . " 31, 1934

## Manual Training. <br> foreman, shopwork.

867 Herbert G. N. Forsell
Dec. 31, 1934
860 Edward B. Flaherty . . . . . . . " 31, 1934
853 Gunnar Munnick . . . . . . . " 31, 1934
825 Americo B. Ventura . . . . . . . " 31, 1934
821 Joseph R. Parker . . . . . . . " 31, 1928
818 Raymond F. Higgins . . . . . . . " 31, 1934
802 Freeman D. Shepherd . . . . . . " 31, 1934
785 Edwin C. Anderson . . . . . . . " 31, 1933
778 Harold J. Lawler . . . . . . . " 31, 1933

Special Certificates Valid in Day Elementary Schools - Concluded.
INSTRUCTORS, SHOPWORK.


## Modeling.

INSTRUCTOR, SHOPWORK.
755 L. Reginald Chandler . . . . . . Dec. 31, 1928
Instructor and Assistant Instructor of Manual Training.
782 Berthe D. Dion
Dec. 31, 1929

## SPECIAL CLASS CERTIFICATES.

Masters' Assistants.

| Rating. | Name. |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Certificate Expires |  |  |  |  |  |  |
| 939 | Annie Golden | . | . | . | . | . |

Assistants.
937 Sybil K. Leonard . . . . . . . Dec. 31, 1931

915 Mary I. MacGibbon . . . . . . . " 31, 1934
895 Margaret H. Healy . . . . . . . " 31, 1934
884 Sarah Albert . . . . . . . . " 31, 1934
851 Rose G. Frawley . . . . . . . " 31, 1934
847 Irene R. McElaney . . . . . . . " 31, 1934
846 Barbara R. McAdams . . . . . . " 31, 1934

# Special Class Certificate, Assistants - Concluded. 



HORACE MANN SCHOOL FOR THE DEAF, PHYSICAI. EDUCATION CERTIFICATE.

| Rating. |  |
| :--- | :--- |
| 909 | Mary E. O'Neil . . . . . . . $\left.\begin{array}{r}\text { Certificate Expires } \\ \text { Dec. 31, } 1934\end{array}\right)$ |

## CONTINUATION SCHOOL CERTIFICATES.

## Instructors.

$\begin{array}{lll}\text { Rating. } & \text { Name. } \\ 841 & \text { Edward C. Dullea . . . . . . . } & \text { Certificate Expires } \\ \text { Dec. 31, 1933 }\end{array}$
812 Thomas J. O’Leary . . . . . . . " 31, 1934
807 James P. Kelley . . . . . . . . " 31, 1930
803 James W. Driscoll . . . . . . . " 31, 1934
781 Daniel J. Leary . . . . . . . . " 31, 1933
777 James A. Delay . . . . . . . . " 31, 1931
755 John F. Meade . . . . . . . . " 31, 1931
754 John P. Degnan . . . . . . . . " 31, 1931
749 George F. Cronin . . . . . . . " 31, 1930
718 John F. Kerrigan . . . . . . . " 31, 1930
711 John A. Murphy . . . . . . . " 31, 1930
704 John J. Hoban . . . . . . . . " 31, 1931
702 Leo J. Aicardi . . . . . . . . " 31, 1930

## Assistants.

888 Anna J. Mullin
Dec. 31, 1934
787 Catherine G. Murray
" 31, 1932

## DAY CLERICAL SCHOOL CERTIFICATES.

Instructors.


DAY AND EVENING INDUSTRIAL SCHOOLS CERTIFICATES.
XXX. - (Shop Instructors, Vocational Assistants and Trade

Assistants in Day or Evening Trade, Continuation and Intermediate Schools.)


894 Gustav F. Virchow AUTO MEChanics. . . . Dec. 31, 1928
821 William McKenzie . . . . . . . " 31, 1930
794 George E. MacLean . . . . . . . " 31, 1934
753 George H. Hawes . . . . . . . " 31, 1933
751 William B. Dahill . . . . . . . " 31, 1929
749 Phillips N. Brooks . . . . . . . " 31, 1933

## CAbinetmaking.

883 George A. West . . . . . . . . Dec. 31, 1934
808 Thomas H. Egan . . . . . . . " 31, 1934
774 Peter T. Flaherty . . . . . . . " 31, 1930
727 Harrison W. Bunker . . . . . . . " 31, 1934
701 Freeman D. Shepherd . . . . . . " 31, 1930
700 Arvid J. Wahlstrom . . . . . . . " 31, 1928
CARPENTRY.
814 Arbuthnott H. Rattray . . . . . . Dec. 31, 1933
805 Edwin Johnson . . . . . . . . " 31, 1928
757 Frank E. Leonard . . . . . . . " 31, 1934
Commercial arts and crafts.
865 Elizabeth M. Upton . . . . . . . Dec. 31, 1933
864 Jennie M. Carlson . . . . . . . " 31, 1932 DRAFTING.
944 Edward W. Dixon . . . . . . . Dec. 31, 1932
871 Albert E. Artis . . . . . . . . " 31, 1933
871 George W. Seaburg : . . . . . . " 31, 1932

Day and Evening Industrial Schools Certificates - Continued.


## MACHINE SHOP PRACTICE.

883 Thomas A. O’Loughlin . . . . . . Dec. 31, 1934
857 Joseph F. Burke . . . . . . . . " 31, 1931
840 James H. Ginns . . . . . . . . " 31, 1928
806 Philip J. Spang . . . . . . . . " 31, 1934
793 Leo Renaud . . . . . . . . " 31, 1931
791 James R. Conners . . . . . . . " 31, 1928
769 Roswell W. Abbott . . . . . . . " 31, 1929
743 Charles F. Rosen . . . . . . . " 31, 1930
722 James E. Mulvanity . . . . . . . " 31, 1934
715 Henry J. McKinnon . . . . . . . " 31, 1928
MASONRY.
746 John W. O’Toole . . . . . . . Dec. 31, 1933

OXY-ACETYLENE WELDING.
782 Charles H. E. Coster . . . . . . . Dec. 31, 1929

PAINTING AND DECORATING.
748 John L. Collins
Dec. 31, 1932

PATTERNMAKING。
954 Joseph Hackett . . . . . . . . Dec. 31, 1934
840 Freeman D. Shepherd . . . . . . " 31, 1932
836 Alexander F. Rowe . . . . . . . " 31, 1928
824 Thomas H. Johnston . . . . . . . " 31, 1932
811 George W. Bowden . . . . . . . " 31, 1934


## plumbing.

858 George W. McNeill . . . . . . . Dec. 31, 1933
841 George E. Donohue . . . . . . . " 31, 1934
828 John F. Murphy . . . . . . . . " 31, 1928
power machine operating.
827 Mary T. Doyle . . . . . . . . Dec. 31, 1932
823 Edward Terrenzi ${ }^{\text {PRINTING - COMPOSITORS. }}$. . . Dec. 31, 1934
797 Wilbur A. Hart . . . . . . . . " 31, 1933
786 Arthur H. Kipp . . . . . . . . " 31, 1933
767 Thomas A. Kerrigan . . . . . . . " 31, 1934
755 George C. Todd . . . . . . . . " 31, 1934
714 George E. Cole . . . . . . . . " 31, 1934
Sheet metal work.
807 Ralph R. Callahan . . . . . . . Dec. 31, 1933
780 Frank J. O’Rourke . . . . . . . " 31, 1934
773 George Rogers . . . . . . . . " 31, 1933
772 Stephen T. Reilly . . . . . . . " 31, 1933
771 Bernard P. Dockray . . . . . . . " 31, 1934
755 John Robertson . . . . . . . . " 31, 1932
719 Leo T. F. White . . . . . . . . " 31, 1932
UPHOLSTERY.
898 Raymond M. Fallona . . . . . . Dec. 31, 1931
XXXI-A. - (Master's Assistant in the Trade School for Girls: Heads of Departments (Both Shop and Academic) in the Trade School for Girls; Shop Foreman in Day or Evening Trade Schools; Continuation School and Intermediate Schools.)

AGRICULTURE.

| Rating. |  |
| :--- | :--- |
| 892 | Name. |
| Carrick E. Wildon . . . . . . . |  |

## AUTO MECHANICS.

884 Gustav F. Virchow . . . . . . . Dec. 31, 1928
820 William F. Gill . . . . . . . . " 31, 1934
819 William McKenzie . . . . . . . " 31, 1930

CABINETMAKING.
849 Joseph Morello
Dec. 31, 1934

Day and Evening Industrial Schools Certificates - Continued.
CARPENTRY.

| Rating. Name. |  |  |  |  |  | Certificate Expires |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 817 | John F. Sullivan . | . | . | . | . | . |

costume and design.
762 Marie E. Jobin . . . . . . . . Dec. 31, 1934
drafting.
903 Edward W. Dixon . . . . . . . Dec. 31, 1932
840 George W. Seaburg . . . . . . . " 31, 1933
789 Albert H. Hanly . . . . . . . . " 31, 1928
788 Edward J. Oakes . . . . . . . " 31, 1931
774 Albert C. Dove . . . . . . . . " 31, 1928
743 Victor J. Lemay . . . . . . . . " 31, 1933

## DRESSMAKING.

890 Kathryn Whalen . . . . . . . Dec. 31, 1931
813 Katherine Bergen . . . . . . . " 31, 1931
801 Lucille A. Bouchard . . . . . . . " 31, 1934
760 Winifred T. Ormond . . . . . . . " 31, 1933

## EI.ECTRICITY.

839 Francis Tobin
Dec. 31, 1933
818 Stanley F. Janik . . . . . . . . " 31, 1934
803 Francis J. Hynes . . . . . . . " 31, 1934
794 Harry T. Wall . . . . . . . . " 31, 1934
759 John Y. Murray . . . . . . . . " 31, 1931

MACHINE SHOP PRACTICE.
836 James H. Ginns
Dec. 31, 1928
835 John T. Mendenhall
" 31, 1930
790 Joseph D. Mahoney
" 31, 1932
766 Charles Laird . . . . . . . . " 31, 1931
765 James E. Carter . . . . . . . . " 31, 1931
720 George N. Bergh . . . . . . . " 31, 1931

MILLINERY.
803 Lily W. Jewett
Dec. 31, 1931
MILL WORk.
821 Anthony F. Mayr
Dec. 31, 1934
plumbing.
825 William T. Hanigan
Dec. 31, 1934
PRINTING-COMPOSITORS.
894 Albert F. Hanrahan
Dec. 31, 1934
878 John A. Rice
" 31, 1934

757 William J. I. Brown ..... " 31, 1934
PRINTING - PRESSMEN.
869 Arthur A. Capitell ..... Dec. 31, 1934
778 Albert Pokat ..... " 31, 1934
sheet metal work.
871 Harold E. Atkinson ..... Dec. 31, 1934
820 Daniel J. Jameson ..... " 31, 1930
750 George B. Van Dalinda ..... " 31, 1934
730 James A. Linney ..... " 31, 1934UPHOLSTERY.
889 Raymond M. Fallona ..... Dec. 31, 1931XXXI-B.- (Co-operative Instructors and Co-ordinators in DayHigh Schools; Division Foremen, Division Heads, Shop Super-intendent, and Trade Instructors in the Boston Trade School;Division Foremen, Heads of Division, and Trade Instructorsin the Continuation School; and Senior Instructors, MechanicArts and Instructors of Mechanic Arts in Day High Schools.)
AGRICULTURE.
Rating. Name. Certificate Expires
865 Carrick E. Wildon

Dec. 31, 1933

AUTO MECHANICS.
806 Charles M. McKenzie . . . . . . Dec. 31, 1933

## CARPENTRY.

809 Orren R. Tarr . . . . . . . . Dec. 31, 1931

DRAFTING.
932 Chester B. Hammond . . . . . . Dec. 31, 1933
913 George W. Seaburg . . . . . . . " 31, 1934
810 Edward J. Oakes . . . . . . . " 31, 1933
792 John O. Baker . . . . . . . . " 31, 1933

## ELECTRICITY.

851 John Y. Murray . . . . . . . . Dec. 31, 1931
844 Vashni M. Marchant . . . . . . . '" 31, 1933
842 Charles F. L'Hommedieu . . . . . . " 31, 1933
840 Harry T. Wall . . . . . . . . " 31, 1934
834. Chester S. Sevrens . . . . . . . " 31, 1933

821 Michael J. A. English . . . . . . " 31, 1933
819. Albert L. Edson . . . . . . . . " 31, 1929

812 Francis J. Hynes . . . . . . . " 31, 1934
793 Rudolph N. Marginot . . . . . . " 31, 1934

Day and Evening Industrial Schools Certificates - Concluded.


PLUMBING.
829 William T. Hanigan . . . . . . . Dec. 31, 1934

PRINTING - COMPOSITORS.
935 Charles A. Bossi . . . . . . . . Dec. 31, 1934
860 . Frank P. Rich . . . . . . . . " 31, 1934
804 Cyril W. Shovelier . . . . . . . " 31, 1934
787 Albert F. Hanrahan . . . . . . . " 31, 1934
757 John A. Rice . . . . . . . . " 31, 1934
733 William J. I. Brown . . . . . . . " 31, 1934
SHEET METAL WORK.
805 Frank L. Ogilvie . . . . . . . Dec. 31, 1934
743 Daniel J. Jameson . . . . . . . " 31, 1933
734 George V. Van Dalinda . . . . . . " 31, 1934
820 UPHOLSTERY.
829 Raymond M. Fallona . . . . . . Dec. 31, 1931

ASSISTANT DIRECTOR OF MANUAL ARTS CERTIFICATE.
Rating. Name. Certificate Expires

838 Ralph W. Babb
Dec. 31, 1928

## ASSISTANT IN MANUAL ARTS CERTIFICATE. <br> Drawing.



ASSISTANT DIRECTOR OF MUSIC CERTIFICATE.
Rating. Name. Certificate Expires
845 James A. Ecker . . . . . . . . Dec. 31, 1934

## ASSISTANT IN MUSIC CERTIFICATE.



SUPERVISOR OF BANDS AND ORCHESTRAS CERTIFICATE.

| Rating. |  |
| :--- | :--- |
| 804 | Name. |
| Carl W. Leitsinger . . . . . . . Dertificate Expires |  |
| Dec. 31, 1933 |  |

EXAMINER IN PENMANSHIP CERTIFICATE.

| Rating. | Name. |  |
| :--- | :--- | :--- |
| 814 | Margaret M. Garvey . . . . . . . | Certificate Expires |
| Dec. 31, 1931 |  |  |

INSTRUCTOR OF MILITARY DRILL.

| Rating. | Name. |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 941 | Albert C. Dunphy |  | . |  | . |  |

## SCHOOL NURSE CERTIFICATE.



## School Nurse Certificate. - Concluded.



# ALPHABETICAL LIST OF CANDIDATES. 

## (Unless otherwise indicated, all addresses are in Massachusette.)


Page
Batchelder, Mary L......... . . . . . . . . . . . . . . . . . . . . . . . 54 Eastern Avenue, Dedham ..... 20
Bates, Adaline. 30 Preston Street, Danvers ..... 17
Marian W 8 Cypress Apartments, Brookline ..... 13
Baum, Annie 3 Elm Hill Park, Roxbury ..... 37Bayley, Ellen27 Chilton Road, West Roxbury18
Bean, Florence E 26 Peverell Street, Dorchester Bean, Florence E ..... 25
278 South Street, Jamaica Plain Beatty, Alice L ..... 0
17 Constable Street, Malone, N. Y. Belanger, Lillian A. ..... 16
Bell, Annie 11 Crawford Street, Roxbury ..... 20
Benard, Charles G 2 Winthrop Avenue, Lawrence ..... 11
Bennett, John I 57 Clifton Street, Uphams Corner ..... 14
Bensliman, Hilda G 67 Neptune Road, East Boston ..... 19
Bergen, Katherine 32 Columbia Street, Brookline ..... 44
Bergh, George N. 779 Huntington Avenue, Roxbury ..... 44
Berlin, Ruth S 5 Park Street, Brookline ..... 16
Berman, Sadie. 584 Salem Street, Malden ..... 34
Bernard, Andrew J 41 Linden Road, West Roxbury ..... 42
Beverage, Lyford P Silver Bay, N. Y. ..... 11
Bevins, Joseph J 455 Summer Street, Arlington ..... 41
Biggane, Sara T 15 Trowbridge Street, Suite 6, Cambridge ..... 17
Bishop, Audrea. 70 Stanley Street, Dorchester 2 ..... 26, 36
Bligh, Marguerite A. 37 Benton Road, Somerville ..... 11
Block, Anna 1011 Blue Hill Avenue, Dorchester ..... 22
Blue, Charlotte C. 68 Hewlett Street, Roslindale ..... 23
Blute, Harry P 42 Augustus Avenue, Roslindale ..... 42
Bogrette, Marion E 55 Fairmount Street, Dorchester ..... 20
Bolton, Gladys O. 26 Dunreath Street, Roxbury ..... 36
Bornstein, Augusta F 40 Kingsdale Street, Dorchester ..... 23
Bossi, Charles A 32 Burgess Street, Dorchester ..... 46
Bourchard, Lucille A 176 Norfolk Street, Wollaston ..... 44
Bowden, George W 37 Federal Street, Beverly ..... 42
Bowes, Mary L 914 Fourth Street, South Boston ..... 21
Bragan, Irene M. 25 Ashmont Street, Dorchester ..... 12
Bray, Maud J. 35 Mt. Pleasant Avenue, Roxbury ..... 46
Brennan, Ellinor M 50 Peterborough Street, Boston ..... 19
Bresnick, Celia M 237 Chambers Street, Boston ..... 20
Brett, Dorothea E 60 West Tremlett Street, Dorchester ..... 21
Bridges, Frank L 189 Everett Street, Suite 9, Wollaston ..... 14
Brodie, Loretta A 48 N Street, South Boston ..... 20
Ruth S . 366 Tappan Street, Brookline ..... 27
Brolund, Marie E. 12 Primrose Street, Roslindale ..... 20
Brooks, Helen G 27 Ward Street, South Boston ..... 23
Phillips N 182 Forest Street, Medford ..... 41
Brown, David H. 372 Sumner Avenue, Springfield ..... 12
Edith G. 42 Cunard Street ..... 15
Hannah P 126 Washington Street, Marblehead ..... 34
Miriam R. . 68 Brookings Street, Medford Hillside ..... 15
Shirley S Box 105, Onset ..... 10
William J. I 6 Moultrie Street, Dorchester ..... 45,46
Bryan, Dolores. 97 Green Street, Melrose ..... 18
Bryant, Helen C. 51 Bloomfield Street, Dorchester ..... 37
Iva M. 54 Albano Street, Roslindale ..... 41
Buck, Lucia A 31 Rodman Street, Jamaica Plain ..... 38
Bunker, Harrison W 43 Salem Street, Wakefield ..... 41
Burbank, Franklyn J Box 196, Livermore Falls, Me. ..... 47
Burke, Anna T 18 Union Street, Charlestown ..... 21
Catherine L 6 Jerome Street, Dorchester ..... 20
Gertrude M 57 Rogers Street, West Quincy ..... 30
Joseph F. 46 Loring Street, Hyde Park ..... 42
Burnham, Marion A 35 Congreve Street, Roslindale ..... 39
Burns, Anna C. 11 Emerald Street, Hingham ..... 35
Anna T. 39 Henley Street, Charlestown ..... 25
Page
Burns, Elizabeth D 12 Woodlawn Street, Jamaica Plain ..... 13
Mary McMahon. 6 Rodman Street, West Roxbury ..... 34
Paulina V. 30 Whiting Street, Roxbury ..... 16
Ruth K 23 Clifton Avenue, Salem ..... 37
Thomas P 11 Lenoxdale Avenue, Dorchester ..... 11
Burr, Linda F 101 Radcliffe Street, Dorchester ..... 11
Butler, Mary Claire 456 Meridian Street, East Boston ..... 25
Mary Cecilia 522 West Park Street, Dorchester ..... 33
Matthew P. 275 Prospect Street, Cambridge ..... 11
Byrne, Elizabeth A. 6 Mellen Street, Dorchester 21, 36Byrnes, Walter J.
14 Samoset Street, Dorchester ..... 27
C.
Cadigan, Mary C 93 Milton Avenue, Dorchester ..... 28
Caffery, A. Mae. 113 Smith Street, Roxbury ..... 22
Caffrey, James A 2 Cordis Street, Charlestown ..... 47
Cain, Katherine M 9 Braman Street, Danvers ..... 48
Callahan, Anne M 23 South Faiview Street, Roslindale ..... 26
Margaret R. 97 Vernon Street, Norwood ..... 25
Ralph R 27 South Stowell Street, Worcester ..... 43
Callister, Elfrida V 30 Kimball Road, Arlington ..... 46
Campana, Josephine E. 43 Bowdoin Street, Medford ..... 25
Campbell, Ethel M 30 Eastbourne Street, Roslindale ..... 22
Francis J. 100 Decatur Street, Charlestown ..... 30
Laurette A 54 Central Avenue, Milton ..... 33
Capitell, Arthur A 10 Fordham Street, Arlington ..... 45
Carey, Gertrude M 40 Kenton Road, Jamaica Plain ..... 34
Carlson, Jennie M. 72 Cleveland Street, Arlington ..... 41
Carnegie, Marion L 77 Gustine Street, Dorchester ..... 15
Carnes, Muriel V 77 Temple Street, West Roxbury ..... 37
Carpenter, Rachel S ..... Sandwich ..... 12
Carr, Mary C............................................ . . . 26 Merlin Street, Roslindale ..... 25
Carrington, George 0 1324 French Street, Wilmington, Delaware ..... 28
Carroll, Mary J . 42 Highland Street, Roxbury ..... 34
Carter, James E. 36 South Monroe Terrace, Dorchester 44, 46
Carton, Margaret M 12 Surrey Street, Brighton ..... 26
Casey, Leo P 1107 Winthrop Avenue, Beachmont 30, 33
Margaret L 83 Euston Road, Brighton ..... 23
Mary $\mathbf{F}$ . 42 Sharon Street, Boston ..... 28
Cashman, Katherine G 41 Waldeck Street, Dorchester ..... 18
Caton, Florence B . . . . . . . . . . . . . . . . . 19 Bow Street, Edgewood, Providence, R. I. ..... 13
Cavanaugh, Mary E South Windsor, Conn. ..... 34
Chamberlain, Katherine. 146 West Street, Hyde Park ..... 23
Chandler, L. Reginald. 44 Eliot Street, Jamaica Plain ..... 39
Chapman, George L 9 Caton Street, Mattapan
Mabelle S. . 26 Moreland Street, Roxbury ..... 38
Chartoff, Lillian C 348 Walnut Avenue, Roxbury ..... 20
Cheetham, Charles L 67 Green Street, Fairhaven ..... 13
Cheney, J. Maynard .335 Elliot Street, Milton ..... 15
Childs, Jennie V. . 42 Dakota Street, Dorchester ..... 25
Clahane, Gladys C. 626 South Street, Roslindale ..... 24, 29
Clancy, Margaret B 514 East Sixth Street, South Boston ..... 24
Clark, Ellen E 320 Allston Street, Brookline ..... 40
Clarke, Irl R 20 Sackett Street, Providence, R. I. ..... 42
Marguerite . 35 Park Street, Brockton ..... 31
Clarkson, Albert E. 1 Maple Leaf Road, Worcester ..... 43
Marion A 11 Pasadena Road, Dorchester ..... 38
Cleary, Harold J. 44 Prospect Street, Brockton ..... 31, 33
Mary A. C. . 91 Centre Street, Dorchester ..... 31
Clifford, Ruth M 11 Falmouth Avenue, Brockton ..... 13
Wilhelmina M. 508 East Fourth Street, South Boston ..... 14
Cobb, Forrest W 460 Lexington Street, Waltham ..... 14
Page
Coffey, Geraldine M. 179 Appleton Street, Cambridge ..... 27
Coffin, Irma B 8 Howitt Road, West Roxbury ..... 38
Cohen, Florence G 75 Waumbeck Street, Roxbury ..... 25
Cole, Christine M 168 Huntington Avenue, Boston ..... 40
George E 23 Whiting Street, West Roxbury ..... 43
Coleman, Agnes C 6 Pearl Street, Natick ..... 34
Colleran, Thomas J 73 Dale Street, Roxbury ..... 30, 33
Collins, John L 92 Broadway, Wakefield ..... 42
Katherine M 21 Mt. Vernon Street, Dorchester ..... 19
Mollie E 753 East Broadway, South Boston, 16, ..... 28, 46
Columbus, Magdalena C 85 Audubon Road, Boston ..... 42
Colwell, Eleanora S. 69 Birch Street, Roslindale ..... 25
Condon, Elizabeth P 83 Ardale Street, Roslindale ..... 18
F. Ruth 312 Bunker Hill Street, Charlestown ..... 20
John J. 98 Church Street, Bristol, R. I. ..... 14
Ruth E 14 Westbourne Street, Roslindale ..... 19
Connaughton, Elizabeth C 301 Chestnut Avenue, Jamaica Plain ..... 21
Connell, Anastasia M 14 Tremont Street, Cambridge ..... 32
Dorothy M... . . . . . . . . . . . . . . . . . . . . . . . . . 6 Helena Street, Jamaica Plain ..... 21
52 Midland Street, Lowell Connelly, Helen G ..... 40
349 Adams Street, Dorchester Margaret M ..... 34
Thomas MConners, James R11 Harney Street, Everett42
Connor, Christopher A 330 Hyde Park Avenue, Jamaica Plain ..... 13
Connors, Mary J
Conroy, Helen E. 87 Derby Street, West Newton ..... 28 ..... 28
Conway, Everett J 83 Woodlawn Street, Forest Hills, 11, 234
Cook, Janet L 26 Norton Street, Dorchester ..... 23
Coombs, Ruby I 116 Putnam Street, Quincy ..... 16
Cooney, Mary A 45 Hillside Street, Roxbury ..... 18
Cooper, Margaret J 8 Park Avenue, Winchester ..... 48
Corcoran, John W 7 Lindsey Street, Dorchester ..... 10
Ruth M 56 Windsor Street, Arlington ..... 47
Corrigan, Helen M 72 St. Stephen Street, Boston ..... 29
Cosgrove, Marie C 1 Carmen Street, Dorchester ..... 22
135 Surrey Street, Medford Costello, Alice A ..... 25
60 Pleasant Street, Norwood Elizabeth Oldham ..... 35260 Pleasant Street, Norwood
Coster, Charles H. E. 48 Houghton Street, Worcester ..... 42
Cotter, Cornelius G 100 Keith Street, West Roxbury ..... 17
Mary E 495 Columbia Road, Dorchester ..... 24, 31
Cotton, Rachel E 82 Maple Street, Malden ..... 47
Coughlan, Mary R 135 Bank Street, Abington ..... 35
Coughlin, Anna K. M 11 Brooks Street, Maynard ..... 34
Mary V. 87 Bellevue Street, Lowell ..... 35
Ruth F 90 Centre Street, Dorchester ..... 26
Coveny, Margaret A 40 High Street, Springfield ..... 33
Cowan, Mary J 20 Roslin Street, Dorchester ..... 37
Cox, Adeline E 77 Waldeck Street, Dorchester ..... 30
Ruth E. 169 Buckminster Road, Brookline ..... 11
Craft, Anna C. 599 Broadway, Everett ..... 42
Crane, Martha E. 298 South Street, Jamaica Plain ..... 18
Craven, Margaret C. 81 Dakota Street, Dorchester 28, 34
Creagh, Katherine E. L 24 Kerwin Street, Dorchester 31
Mary A. 24 Kerwin Street, Dorchester ..... 22
Creed, Winifred G 197 Dorchester Street, South Boston 37, 40
Cribben, Leo T Seton Hall College, South Orange, N. J. ..... 13
Crimmins, Bertha M 44 Augustus Avenue, Roslindale ..... 25
Crockett, Mark V 33 School Street, Gloucester ..... 11
Crofwell, Mary G 54 Francis Street, Roxbury ..... 22
Croker, Mary A. 308 Needham Street, Newton Upper Falls ..... 29
Cronin, Dorothy F 9 Ashford Street, Allston ..... 47
George F 147 Cottage Street, New Bedford ..... 41
Page
Cronin，Julia G ． 27 Juliette Street，Dorchester ..... 47
Crowley，Catherine L 11 Mansfield Street，Allston ..... 5， 36
Catherine M 21 Warrenton Street，Boston ..... 18
Elizabeth M 195 Second Street，South Boston ..... 23
Helena M 302 Ashmont Street，Dorchester ..... 31
Cuddy，Dorothy M 114 Powderhouse Boulevard，West Somerville ..... 47
Culhane，Anna B 35 Mellen Street，Cambridge ..... 16
Cullen，Agnes F Stone Avenue，Winchester ..... 46
Catherine R 18 Cherry Street，Lynn ..... 33
Cullity，Marie E 23 Brighton Street，Charlestown ..... 20
Cummings，Irene M 6 North 21st Street，East Orange，N．J． ..... 30
15 Harvard Terrace，Allston ..... 46
James B 140 Walnut Street，Dorchester ..... 29
Cunney，Thomas J． 11⿺⿸⿻𠃋丿又丶⿸⿻一丿又2 Fowler Street，Salem ..... 30， 33
Cunningham，Robert P 9 Rice Street，Framingham ..... 41
Curley，Regina K 93 Dustin Street，Brighton ..... 23
Curran，Alice G 11 Bardwell Street，Jamaica Plain ..... 34
Anna V．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 299 Church Street，Marlboro ..... 29
Eleanor C．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 98 Centre Street，Dorchester ..... 21
Elizabeth D．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 51 Brown Avenue，Roslindale ..... 18
Katherine E． 20 Neptune Road，East Boston ..... 27
Marie F． 34 Linwood Street，Roxbury ..... 23
Mary P． 32 Granfield Avenue，Roslindale ..... 24
Sara M 787 Broadway，South Boston ..... 22
Timothy J． 299 Church Street，Marlboro ..... 14
Curry，Mary E． 17 Corey Street，Charlestown ..... 22
Curtin，Helen D 36 Saxton Street，Dorchester ..... 22
Theresa C 93 Governors Avenue，Medford ..... 35
Curtis，Helen T ． 458 Quincy Street，Dorchester ..... 29
D．
Dacey，Anabel M．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 46 Burt Street，Dorchester ..... 22
Dahill，William B 15 Moraine Street，Jamaica Plain ..... 41
Daley，Eleanor E．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 3451 Washington Street，Jamaica Plain ..... 35
Dalton，Josephine V 42 Ashford Street，Allston ..... 29
Daly，George F 444 Sixth Street，South Boston ..... 10
Joanna T .11 Mason Street，Salem ..... 33
Kathleen A． 83 Terrace Road，Medford 25， 36
Kathleen C． 320 Dudley Street，Roxbury ..... 37
Damon，Clarence E 1450 Commonwealth Avenue，Allston 39， 43
Danforth，Alma M 231 Slade Street，Belmont ..... 11,28
Dargan，M．Margaret 9 Saybrook Street，Brighton ..... 22
Daunt，Marie F ..... 28
Davenport，Pauline G 6 Court Street，Concord，N．H． ..... 38
Davidson，Helen G 101 Wheatland Avenue，Dorchester ..... 33
Davis，George T 119 Pendleton Street，New Haven，Conn． ..... 12
Helen E 71 Etna Street，Brighton ..... 21
Margaret H 122 Central Avenue，Hyde Park ..... 21
Dawson，Emma N 44 Western Avenue，Cliftondale ..... 11
DeAvellar，Anna L ． 230 Fellsway West，Medford ..... 33
Deegan，Mary J 30 Sycamore Street，Somerville ..... 31
Deely，Thomas A 54 Armandine Street，Dorchester ..... 15
Degnan，John P 43 Melville Avenue，Dorchester 35， 40
4 Washington Street，Roslindale 30， 31 Delahunt，Mary A
12 Warwick Road，Brookline ..... 37
Delay，James A 291 Bunker Hill Street，Charlestown ..... 40
Dempsey，Catherine M． 86 Ardale Street，Roselindale ..... 18
Helena M ..... 29
Margaret M 83 Metropolitan Avenue，Roslindale ..... ， 36
Dente，Rose A 225 Maverick Street，East Boston ..... 23
Desmond，Alice L． ..... 25
$P_{\text {AGE }}$
Desmond, Helen G 131 East Cottage Street, Dorchester ..... 25
Devine, M. Irene 38 Brookford Street, Dorchester ..... 21
DeWitt, Helen A 143 Elm Street, Everett ..... 25
Diedrichs, Edna L 19 Harvest Street, Dorchester ..... 20
Dion, Berthe D 85 Broadway, Norwood ..... 39
Dirksmeier, Anne M 8 Sumner Street, Dorchester ..... 18
Dixon, Edward W 11 Wigglesworth Street, Roxbury ..... 41,44
Dockray, Bernard P 6 Morton Place, Roxbury ..... 43
Doherty, Aloyse P 2 Fairland Street, Roxbury ..... 10
Margaret C 152 Park Street, West Roxbury ..... 48
Mary C 8 Mercer Street, South Boston ..... 25
Mary V 82 Bernard Street, Dorchester ..... 22
William J 4 Mt . Vernon Avenue, Charlestown ..... 46
Donahoe, Alice J 26 Everett Street, Dorchester ..... 21
Mary M 379 Geneva Avenue, Dorchester ..... 48
Donahue, Alice R. 60 Cedar Street, Roxbury ..... 26
Alice V 132 Hyde Park Avenue, Jamaica Plain ..... 10
Elizabeth A 278 Beech Street, Roslindale 24, 32
Donigan, Margaret B 221 Poplar Street, Roslindale ..... 25
Donnelly, Helen V. 28 Weld Hill Street, Forest Hills ..... 22
William M 440 Appleton Street, Holyoke ..... 39
Donohoe, Rose L 390 Ashmont Street, Dorchester ..... 40
Donohue, George E. 64 Falcon Street, East Boston ..... 43
Donovan, Bernard F 108 Austin Street, Cambridge ..... 12
George F ..... 12 5419 Virginia Avenue, Kansas City, Mo.
Patrick J ..... 10
Dorey, Louise F 20 St. John Street, Jamatca Plain ..... 25
Dosick, Lillian 24 St. Albans Road, Boston ..... 20
Dougherty, William R 16 Morris Street, Everett ..... 39
Dove, Albert C 119 Walnut Avenue, Roxbury ..... 44
Dowd, Ruth E. 39 East Central Street, Natick ..... 34
Downey, A. Gertrude 104 Arlington Street, Hyde Park ..... 19
Elizabeth M 39 High Street, Charlestown ..... 34
Mary C 422 Ashmont Street, Dorchester ..... 40
Mary C. 24 Mora Street, Dorchester ..... 34
Doxer, Dora. . 725 Morton Street, Mattapan ..... 21
Doyle, Anna M South Franklin Street, Holbrook 14, 32
Dorothy P . 93 Fletcher Street, Roslindale 21, 36
Margaret A. 19 Pine Street, Malden 24, 31
Mary T 80 Hinckley Street, Somerville ..... 43
Winifred M. 98 Draper Street, Dorchester ..... 29
Drake, Beatrice E 10 Dana Street, Suite 401, Cambridge
Drew, Evelyn V 11 Penhallow Street, Dorchester0
Drinan, Helen G. 48 Reservoir Street, Cambridge ..... 20
Driscoll, James W 35 Valley Street, Medford 29 ..... 29, 40
Katherine L 283 Walnut Avenue, Roxbury ..... 47
Duane, Dorothea J 216 River Street, West Newton ..... 27
Louise H. 216 River Street, West Newton ..... 16
Mary M . 18 Pomeroy Street, Allston ..... 35
Dubar, Margaret C. 33 Mercer Street, South Boston ..... 23Duffy, Margaret A. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 37 Train Street, Dorchester
Duggan, Eleanor D......................................... . . . . 44 Hillside Street, Roxbury ..... 47
Irene G. 49A Eutaw Street, Lawrence ..... 10
Dullea, Edward C. 12 Willis Street, Dorchester ..... 40
Dunbar, Dorothy F 420 Talbot Avenue, Dorchester ..... 18
Dungan, Thomas F 48 Cedar Street, Newton Lower Falls ..... 39
Dunn, Dorothy E 160 F Street, South Boston
Dunphy, Albert C 15 Dorset Street, Dorchester
Dussault, Florence H ..... 47. 12 Barrows Street, Allston
Dvilnsky, Beatrice 21 Summit Street, Brookline 20,35
Dwight, Elizabeth 16 Browne Street, Brookline ..... 16
Dwyer, Agnes C 100 Walnut Street, Stoughton ..... 10
Page
Dwyer, Helena F 740 East Third Street, South Boston ..... 25
Mary I. 1 Rogers Place, Salem ..... 28
E.
Eames, Frederick L 75 Woodside Avenue, Winthrop ..... 16
Earle, Ethel J 464 Huntington Avenue, Boston ..... 11
Eastman, Mary G . 9 Jackson Court, Lexington ..... 40
Eaton, Beatrice P 71 Glendale Street, Dorchester ..... 31
Katherine A 71 Glendale Street, Dorchester ..... 21
Mary V 18 Bullard Street, Dorchester ..... 18
Mina B 23 Pearl Street, Wakefield ..... 37
Ecker, James A 50 Sturges Road, West Roxbury ..... 47
Edlund, Frank A 1492 Columbia Road, Dorchester ..... 39
Edson, Albert L 370 Chestnut Hill Avenue, Brookline ..... 45
Edwards, Gertrude A. M 33 Ashmont Street, Dorchester ..... 41
Mary M 107 Ocean Street, Dorchester ..... 26
Egan, Thomas H. 109 Fayerweather Street, Cambridge ..... 41
Ells, Harriet E 15 Woodford Street, Dorchester ..... 12
Laura A 15 Woodford Street, Dorchester ..... 12
Engles, Ruth 448 Commercial Street, Provincetown ..... 10
English, Michael J. A 19 Holmes Street, Atlantic ..... 45
Ericson, John H 92 King Street, Dorchester
Eskin, Sophia 27 Havelock Street, Dorchester ..... 2743
Evans, Edna S 33 Walter Street, Salem ..... 31
F.
Fallon, Eleanor F. 20 Parkton Road, Jamaica Plain ..... 19
Katherine M. 20 Parkton Road, Jamaica Plain ..... 18
Fallona, Raymond M 49 South Bayfield Road, Atlantic, 43, ..... 45,46
Falvey, John M 1648 Massachusetts Avenue, Cambridge ..... 13
Farrell, Mary E. 214 South Huntington Avenue, Jamaica Plain ..... 38Faulstick, Frederick J60 Seymour Street, Roslindale
Fee, Eleanor C ..... 43. 75 Russett Road, West Roxbury
37
Feely, Katherine B 32 Church Street, West Roxbury ..... 29
Fll
Fll 121 Draper Street, Dorchester eldman, Ida ..... 31
20 Woodward Street, Dorchester Felton, Alice B ..... 17Fennessey, Anne G................................ 701 Second Street, South Boston ..... 22
-

- 174 Sycamore Street, Roslindale Field, Alma ..... 22
48 Medford Street, Charlestown Finn, Helen A. ..... 25
Julius G 41 Georgia Street, Roxbury ..... 11
Mary B 15 Carmen Street, Dorchester ..... 20
Finnegan, Rosemary E 80 Campbell Street, Woburn ..... 35
Fish, Blanche M 37 Bartlett Street, Beverly ..... 28
Fisher, Margaret E. 202 South Street, Jamaica Plain ..... 23
FitzGerald, Doris M 19 Dawes Street, Springfield ..... 16
Fitzgerald, Margaret F 49 Jamaica Street, Jamaica Plain ..... 31
Mary F 41 Lyndhurst Street, Dorchester ..... 23
Ruth M 43 Ivy Street, Boston ..... 33
Flagg, Laurice E 17 Edgemere Road, Quincy ..... 10
Flaherty, Edward B 78 Peterborough Street, Suite 17, Boston ..... 38, 42
Mary E. 5 Whitten Street, Dorchester ..... 35
Peter T 5 West Lake Street, Worcester ..... 41
Vera K. 52 Percival Street, Dorchester ..... 31
Fleishman, Esther 65 Border Street, East Boston ..... 22
Fleming, Bertha L 18 Howes Street, Dorchester ..... 31
Gertrude M 211 Audubon Road, Suite 45, Boston ..... 47
Flynn, Ann I 47 Mason Street, West Somerville ..... 26
Bernadette R 33 Percival Street, Dorchester ..... 34
Elizabeth C ..... 28
Ernest V 48 Holt Street, Fitchburg 30, 33
Mildred M 24 Nelson Street, Dover, N. H. ..... 11
Page
Foley, Charles E 42 East Newton Street, Boston ..... 30, 33
Dorothy C. 86 Willard Street, East Milton ..... 39
Katherine A 34 Frances Street, Melrose ..... 11
Ford, Anna C 15 Wilson Street, Natick ..... 34
Everett J. 27 Water Street, Hyde Park ..... 14
Foristall, Marion G 18 Summit Road, Watertown ..... 17
Olive E. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 Summit Road, Watertown ..... 11
Forsell, Herbert G. N............................ . . . 1836 Columbia Road, South Boston ..... 38
Forslund, Svea E 45 Mattapan Street, Mattapan ..... 25
Foss, Amelia A 285 Foster Street, Brighton ..... 24
Fox, Emily M 103 Hamilton Avenue, Atlantic ..... 21
Frawley, Rose G West Concord ..... 39
Frazier, Francis P . 115 Pearl Street, Newton ..... 12
Freeman, Helen E 19 Allston Street, Dorchester ..... 21
Freiburger, Mary R 51 Symmes Street, Roslindale ..... 26
Frolio, Charles M. 847 Plymouth Street, Abington ..... 12
Fuller, John E Addison Street, South Essex ..... 10,14 ..... 22
Furlong, Mary L.
Furlong, Mary L. 12 Gertrude Road, West Roxbury 12 Gertrude Road, West Roxbury
G.
 ..... 39
Gaffney, Alice M...... . . . . . . . . . . . . . . . . . 1137 Massachusetts Avenue, Cambridge ..... 47
Rose E 61 Adams Street, Malden ..... 27
Gale, Eleanor G. 26 Roseclair Street, Dorchester ..... 15
Gallagher, Anna. 2 Hartford Street, Roxbury ..... 48
Mary B 100 Pleasant Street, Dorchester ..... 10
Sarah E. 100 Pleasant Street, Dorchester ..... 34
Gallivan, Anna T. 92 Sumner Street, Dorchester ..... 31
Marian B 50 Templeton Street, Dorchester ..... 25
Galvin, Gertrude M. 25 Dunster Road, Jamaica Plain ..... 37
Grace G .38 Temple Street, Boston ..... 35
Helen T 485 Medford Street, Malden ..... 24, 32
Louise C 11 Semont Street, Dorchester ..... 26
Louise C. 40 Harrison Street, Brookline ..... 37
Ruth M. 69 Mt. Ida Road, Dorchester ..... 37
Ganley, Arnold L. 189 Everett Street, Suite 5, Wollaston 30 ..... , 33
Gardner, Evelyn L 35 Tonawanda Street, Dorchester ..... 48
Garvey, Margaret M 476 Westford Street, Lowell ..... 47
Geary, Mary A 30 Grove Street, West Quincy ..... 29
Gemmel, Andrew L 32 Tappan Street, Roslindale
Raymond J. 32 Tappan Street, Roslindale11
Geswell, Gertrude A 16 Monument Square, Charlestown ..... 22
Gibbons, Anne F. 315 Warren Street, Brookline
29Gifford, Frederic O. 31 Davis Road, Waverley
Gilbert, Emma L 28 Dracut Street, Dorchester11
Gildea, Josephine F. 43 Elmore Street, Roxbury ..... 18
Gilfix, Elliot A.............................................. . . . . 61 Clinton Street, Newton ..... 12
71 Green Street, Charlestown Gill, Margaret M ..... 23
Margaret V. 27 Chaucer Street, East Boston ..... 47
Mary J 286 Bunker Hill Street, Charlestown ..... 21, 36
William F. 25 Bangs Street, Provincetown ..... 43
Ginns, James H 150 Maple Street, New Britain, Conn. ..... 42, 44
Glancy, Mary J 35 Asticou Road, Jamaica Plain ..... 26
Glavin, Elizabeth W 36 Bradlee Street, Dorchester ..... 38
Gleason, Helen B 29 Seymour Street, Roslindale 2 ..... 24, 28
Kathleen M 19 Sagamore Street, Dorchester ..... 20
Gleeson, M. Elizabeth 83 Foster Street, Brighton ..... 25
Margaret T. 83 Foster Street, Brighton ..... 32
Mildred A 272 Washington Street, Dorchester ..... 18
Glennon, Anna F 1472 Centre Street, Roslindale ..... 33
Marie C............................. . . . 44 Hampstead Road, Jamaica Plain ..... 14

Page
Hart, Mary B 17 Marsh Street, Dorchester ..... 26
Wilbur A 29 Cypress Road, Medford ..... 43
Hartel, Edward J 77 Shirley Street, East Milton ..... 42
Hartnett, Eleanor M 715 Walk Hill Street, Mattapan ..... 19
Harvey, Isabelle M . 81 O Street, South Boston ..... 31
Haskell, Frances B 19 Tapham Street, Medford ..... 17
Hastry, Mary W 96 Radcliffe Street, Dorchester ..... 27
Havey, Annette M 4 Archdale Road, Roslindale ..... 38
Hawes, George H 15 Fells Avenue Terrace, Medford ..... 41
Hawkins, Florence M 140 Manthorne Road, West Roxbury ..... 24, 31
Hayes, Anna G 66 Granite Avenue, Dorchester ..... 24
Ella T 282 Fourth Street, South Boston ..... 27
George E 10 Crescent Hill, Wakefield ..... 31
Hilda $P$ 31 Lookout Road, Medford ..... 24,32
Hazzard, Alvira 558 Massachusetts Avenue, Boston ..... 34
Healey, Francis G 141 Bright Street, Waltham ..... 39
Robert C. 291 Union Street, South Weymouth ..... 30, 33
Healy, Margaret H 9 Hathaway Street, Jamaica Plain 37, 39
Hechinger, Lloyd A 42 Fox Street, Dorchester 31, 33
Heffernan, Elizabeth M 32 Orkney Road, Brighton ..... 32
Katherine J. 48 Sterling Street, Worcester ..... 48
Helfrich, Mary B 2221 Centre Street, West Roxbury ..... 18
Hennessey, Elizabeth 386 West Union Street, East Bridgewater ..... 35
Louise M 6 Arborway Court, Suite 3, Jamaica Plain ..... 18
Margaret E. 66 Pershing Road, Jamaica Plain ..... 17
Herlihy, Mary M 32 East Brookline Street, Boston
Herman, Charlotte. 148 Townsend Street, Roxbury ..... 23
Hickey, Mary E 72 Pine Street, Milford26
Ruth E. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 39 Emerson Street, Wakefield ..... 33
Lincoln Street, North Easton Higgins, Raymond F ..... 38
51 Washington Street, Winchester Hill, Virginia ..... 19
Hilton, Mary C 64 Capen Street, Dorchester ..... 31
Hinchey, Margaret M 17 Pine Street, Waltham ..... 13
Hoban, John J . 39 Mansfield Street, Somerville
Hobart, J. Elwin 316 Huntington Avenue, Boston40
Hobbs, C. Frances 181 Temple Street, Fredonia, N. Y. Hobbs, C. Frances. ..... 34
18 Dunster Road, Jamaica Plain Hoerrner, Margaret R ..... 20
808 Blue Hill Avenue, Dorchester Hoffman, Rae F ..... 17
17 Barton Street, Salem Hogan, Elizabeth A ..... 35
Hohman, Marie L 214 Bowdoin Street, Dorchester ..... 12,29
Holland, Agnes E 250 Lamartine Street, Jamaica Plain ..... 18
Cornelius J 60 Jamaicaway, Jamaica Plain 30, 33
Ruth E 40 South Crescent Circuit, Brighton22
Holt, Orville G. 169 Harvard Street, Medford ..... 38
Holteen, Ebba P 24 Gothland Street, Quincy ..... 16
Holzer, Sylvia. 393 Metropolitan Avenue, Roslindale
Hooper, Dorothy E .76 Bowler Street, East Lynn ..... 47Hopkins, John J. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 169 Wachusett Street, Boston
14365 Mt. Auburn Street, Cambridge
Horrigan, Eleanor K
Horrigan, Eleanor K ..... 23
52 Newburg Street, Roslindale Houghton, Evelyn L ..... 21
151 Fellsway West, Medford 24, 32 Howard, Hazel M
127 South Street, Hingham Hoyt, Elizabeth P ..... 37
Hubbard, Mary V 91 Glen Road, Jamaica Plain 24, 32
Humphrey, Margaret S. 3 Wallace Court, Charlestown ..... 27
Hurley, Blanche M. 126 Glenville Avenue, Allston ..... 28
Catherine T 53 Lowden Avenue, West Somerville
Mary F. 19 Edgemont Street, Roslindale ..... 26
Sue G 53 Prince Street, Jamaica Plain ..... 26
6 Greenville Street, Roxbury
6 Greenville Street, Roxbury Hurstak, Gladys. ..... 19
203 Columbia Road, Dorchester Hurwitz, Gertrude ..... 24, 29
299 Broadway, Methuen Hutchins, Roland B ..... 14
600 Beach Street, Revere Hyde, Ella H ..... 33
Page
Hyde, Hazel L 600 Beach Street, Revere ..... 34
Hynes, Francis J. 73 Academy Hill Road, Brighton 44, 45
J.
Jameson, Daniel J 19 Oakes Street, Everett 45, 46
Janik, Stanley F 27 Pleasant Street, Dorchester ..... 44
Jewett, Lily W 61 Cliftondale Street, Roslindale ..... 44
Jobin, Marie E 28 Chester Street, Watertown ..... 44
Johnson, Arthur W Box 464, Durham, N. H. ..... 10
Edwin. 15 Pleasantview Avenue, East Lynn ..... 41, 44
Martha L . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 26 Metcalf Street, Roslindale ..... 24
Minnie A. 188A Savin Hill Avenue, Dorchester ..... 16
Muriel A 8 Verndale Street, Brookline ..... 37
Johnston, Thomas H .717 Bridge Street, Lowell ..... 42
Jones, Percy E. .35 Richards Avenue, Roslindale ..... 39
Jordan, Anna B 97 West Milton Street, Readville ..... 27
Monica M 74 Egmont Street, Brookline ..... 35
Nona. 131A Upham Street, Melrose ..... 11
Joslin, Ethel S. 60 Eddy Street, West Newton ..... 37
Joyce, James T. 21 Francis Street, Fitchburg ..... 42K.
Kahn, Ruth R 74 Claybourne Street, Dorchester 24, 29
Kalter, Jessie. 385 Hollis Street, Framingham ..... 41
Kane, Margaret M 7 Monument Square, Charlestown ..... 18
Kapples, Alice C. 329 Copeland Street, West Quincy ..... 31
Karcher, Evelyn A 5 Haverford Street, Jamaica Plain ..... 26
Katseff, Anna Washington Street, Holliston ..... 35
Kean, Mary E. 32 Garden Street, Brighton ..... 22
Kearn, Agnes M 30 Mt. Ida Road, Dorchester ..... 47
Keating, Gertrude C. 222 Webster Street, East Boston ..... 16
Kedian, Esther G 27 Belvidere Street, Boston ..... 34
Keefe, Elizabeth A 11 Woodward Avenue, Quincy ..... 34
Sarah A 16 Leslie Street, Dorchester 23, 36
Keelon, Charles J 68 Myrtle Street, Brockton ..... 13
Kelleher, Mary E. 156 Auburn Street, Brockton ..... 31
Kelley, Esther E 4 Felton Street, Woburn ..... 33
James P 104 Pleasant Street, Dorchester ..... 40
Louise B . 9 Parkwood Terrace, Jamaica Plain ..... 15,32
Marie L 34 Fox Street, Dorchester ..... 22
Mary T. 190 Massachusetts Avenue, Springfield ..... 28
Kelly, Anastasia M 109 Hayden Rowe Street, Hopkinton ..... 29
Frances J. .715 Walk Hill Street, Mattapan ..... 18
Mary 189 West Springfield Street, Boston ..... 16
Kendrick, Marjorie P . 493 Broadway, South Boston ..... 26
Kenneally, Hyacinth A. 442 Fifth Street, South Boston ..... 25,36
Josephine G . 9 Corey Street, Charlestown ..... 26
Kenney, Helen G 27 Brookline Street, North Abington ..... 34
John H. 35 Wayland Street, Dorchester ..... 10
Kenyon, Alice S . 21 Marlboro Street, Newton ..... 39
Kerrigan, John F 363 Dorchester Street, South Boston ..... 40
Thomas A . 8 Harbor Street, Clinton ..... 43
Kiernan, Grace G 3 Helena Road, Dorchester ..... 20,35
Kiley, Michael M 41 Johnson Street, Springfield ..... 14
Killion, Florence M 15 Fairmount Street, Dorchester ..... 25
King, Dora E . 13 Thompson Street, Hyde Park ..... 27
Kipp, Arthur H 73 Perham Street, West Roxbury 43, 45
Kirby, Mary R............................ . . . 50 Jamaicaway, Suite 6, Jamaica Plain ..... 3538
Mary R. 600 Beach Street, Revere ..... 29
Kirkjian, Claire B 279 Dudley Street, Roxbury ..... 12
Klaus, Rose M 25 Charles Street, Dorchester ..... 20
Page
Koehler, Selma . 103 South Street, Northampton ..... 12
Koen, Martha C 62 Dayton Street, Danvers ..... 38
Kolb, Edith 65 Poplar Street, Danvers ..... 34
Koplovsky, Sarah. 31 Princeton Street, East Boston ..... 26
Koziewicz, Sophie E. 1 Oakland Street, Roxbury ..... 27
Kreidel, Martha M 26 Sargent Street, Winthrop ..... 16
Kuhn, Anna F 227 Summer Street, Somerville ..... 29
Kuskin, Sibyl 4 Hartwell Street, Roxbury ..... 27,36
L.
Laird, Charles. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 59 Ellery Street, Cambridge ..... 44
La Mere, Clare O........................ . . . . . . . . . . . . . . . . . . . . . . . . Whitefield, N. H. ..... 38
Lane, Genevieve A 20 Moreland Street, Brockton ..... 24
Lappin, Florence M 973 Blue Hill Avenue, Dorchester
Larrabee, Elizabeth R. 50 Monastery Road, Brighton20Larsen, Arthur M.67 Bellingham Street, Chelsea23
15Lavellee, Emery A.Box 10923, Poplar Street, Southbridge
Lawler, Harold J.
Lawler, Harold J. 22 Woburn Street, West Medford 22 Woburn Street, West Medford
Lawson, Harry W .......... . . . . . . . . . . . . . . . . . . . . . 19 Melrose Street, Framingham ..... 3842
Leaney, Mary H......................................... . . 59 West Cedar Street, Boston
Lawton, Joseph F. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 63 Leonard Street, Dorchester ..... 39
Leary, Daniel J 15 Mt. Pleasant Street, East Lynn ..... 40Louise C............................. . . . . 597 Fellsway West, North Medford
LeDiouris, Winifred M 506 Bennington Street, East Boston
Lee, Miles G . 31 Roosevelt Street, Revere22
Leitsinger, Carl W 8 Marathon Street, ArlingtonLemay, Victor J.Tapley Lane, East Dedham29
Lenehan, M. Grace. 15 Southern Avenue, Dorchester 24 ..... 42,44
Leonard, Frank E.. 820 Massachusetts Avenue, Cambridge ..... 41
Helen M 44 Bellevue Street, Dorchester ..... 23
Sybil K. 64 Freeman Street, Wollaston ..... 39
Leonardi, Anna A 259 Harold Street, Roxbury ..... 26
Levitt, Rose. 46 Waverly Street, Roxbury ..... 26, 36
Lewis, Leonore E. 71 Anawan Avenue, West Roxbury ..... 19
L'Hommedieu, Charles F. . 1536 Centre Street, Roslindale ..... 45
Libby, Annie G 30 Chilton Road, West Roxbury 25, 36
Lill, Mary H. 19 Matchett Street, Brighton ..... 24, 28
Lima, Josephine M 22 Wolcott Street, West Medford ..... 27
Victoria M 22 Wolcott Street, West Medford ..... 27
Lindberg, Alice C 8 Bentham Road, Dorchester ..... 20
Linehan, Margaret T 63 Florence Street, Brighton ..... 48
Linney, James A 112 Magnolia Street, Dorchester ..... 45
Livingstone, Edna. 48 Glenville Avenue, Allston ..... 19
Locke, James H., Jr. 157 Vernon Street, Rockland ..... 10
Loftus, Alice M 166 Essex Street, Marlboro ..... 22
Lombard, Ella F. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 52 Hooker Street, Allston ..... 18
Tonera, Grace
36 Maxwell Street, Dorchester Lonergan, Grace K ..... 29
10 Holden Street, Dorchester Long, Grace M ..... 20
14 Clematis Street, Dorchester, 21, Mary C.
396 Moraine Street, Brockton ..... 12
Lord, Eugene H
1568 Commonwealth Avenue, Brighton Warren E. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 Cedar Street, Charlestown ..... 46
Loring, Marjorie ..... 13
Ludovic, Marie C.................................... . . . 9 Bourne Street, Forest Hills ..... 38
undell, Margaret E 27 Aldrich Street, Roslindale ..... 18
Lundgren, Helen M 23 Hawthorne Boulevard, Salem ..... 35
Lurie, Dorothy E ..... 41 Esmond Street, Dorchester 26, 36
Lynch, Dorothy A 11 Richview Street, Dorchester ..... 38
Grace $P$ 37 Lincoln Street, North Easton ..... 30
Helen C. S 61 Cambridge Street, Fall River ..... 38
Lois G 89 Union Park Street, Boston
Margaret A 20 Fairfield Street, Cambridge ..... 38
15
Page
Lyons, Alice A. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 161 Pleasant Street, Dorchester ..... 26
Ella R. 53 Harbor View Street, Dorchester ..... 31
Mary F 44 South Street, Jamaica Plain ..... 37
M.
MacBurney, Helen H. ........... . . . . . . . . . . . . . . . 74 Tonawanda Street, Dorchester ..... 28
MacDonald, Anna C. ... . . . . . . . . . . . . . . . . . . . . . . . . . 39 Leicester Street, Brighton ..... 37
Macdonald, Isabel 1 New Heath Street, Roxbury ..... 36
Marjorie 39 Tonawanda Street, Dorchester ..... 37
MacGibbon, Mary I 48 Westminster Street, Hyde Park
MacIntyre, Mary P. 40 Parkton Road, Jamaica Plain39
Mackey, Philip F 237 West Fifth Street, South Boston ..... 28
MacLean, George E 41 Putnam Street, Quincy
Helen C. 27 Willis Street, Dorchester41
MacMillan, Adelia 611 Walnut Street, Fall River ..... 28 ..... 11
Katharine B 147 Walton Park, Melrose Highlands
8 Florence Street, Roslindale ..... 21
Macomber, Mildred
247 Playstead Road, West Medford ..... 44
MacSwiney, Mary C 52 Algonquin Road, Chestnut Hill ..... 11
Madden, Anna M 46 Tower Street, Forest Hills ..... 26
Fauline E 850 Huntington Avenue, Boston ..... 25
Rose L 79 Jamaica Street, Jamaica Plain ..... 21
Maguire, Madeleine J 96 Manthorne Road, West Roxbury ..... 14
Mahoney, Joseph A. 65 Bowdoin Avenue, Dorchester ..... 28
Kathleen B 33 Orchard Street, Jamaica Plain ..... 26
Joseph D. 11 Iowa Street, Dorchester ..... 44
Marion L 83 Day Street, Jamaica Plain ..... 20
Mary S 8 Wetherell Street, Newton Upper Falls ..... 35
Olive G 7 Tremont Street, Stoneham ..... 31
Malone, Dorothy C 37 Atkins Street, Brighton ..... 25
Maloney, John M 53 Lamartine Street, Jamaica Plain ..... 32, 33
Mangan, Catherine J 9 Leeds Street, South Boston ..... 27
Mann, Alfred A 26 Marion Avenue, Norwood ..... 39
Manning Catherine T 11 Franklin Street, Charlestown ..... 27
Mannix, Katharine L 26 Sargent Street, Winthrop
Mansfield, Mary R 9 Atlantic Street, Lowell ..... 16 ..... 40
Marchant, Vashni M 19 Hobson Street, Brighton ..... 45
Marginot, Rudolph N 12 Archdale Road, Roslindale ..... 45
Markham, Edward J. 55 Pelican Road, Quincy ..... 11
Martin, Grace E 63 Dana Street, Cambridge ..... 13
Mason, Doris G 319 Bellevue Street, Newton ..... 20
Matson, Eleanor H 512 Beulah Street, Whitman
May, John J 4 Trowbridge Place, Cambridge ..... 15
Mayer, Helen E 42 Rosedale Street, Dorchester ..... 12
Mayr, Anthony F 51 Atherton Street, Roxbury ..... 44
McAdams, Barbara R 321 High Street, Lowell ..... 39
McAndrew, Julia C 3 Ayr Road, Brookline ..... 27
McAvoy, Anastasia L. 5 Ayr Road, Brookline
McBride, Philip V 100 Rediands Road, West Roxbury ..... 4539
McCabe, Marie C 22 Bentham Road, Dorchester ..... 18
Winifred A
McCann, Mary E. 19 Wheelock Street, Winthrop ..... 34
McCarron, Anna T 70 Tower Street, Forest Hills 21, 36
McCarthy, Agnes C 77 Sumner Street, Dorchester ..... 33
Anna $E$. 17 Rosemary Street, Jamaica Plain ..... 22
Catherine M................................. . . 11 Ocean Street, Dorchester ..... 15
Charles B . . . . . . . . . . . . . . . . . . . . . . . State Police Patrol, Northampton ..... 47
Clare L. 81 Franklin Street, Allston ..... 23
Daniel J. 30 Westford Street, Saugus ..... 33
Helen J. 12 Agnes Avenue, Hyde Park ..... 22
Helen J. 5 Holiday Street, Dorchester ..... 36
Page
McCarthy, Katherine F 5 Holiday Street, Dorchester ..... 18
Leo J 39 Shirley Street, East Milton ..... 11, 28
Richard A.............. . . . . . . . . . . . . . . . . . . . . . . . . 14 Oak Street, Ayer ..... 15
Theresa C 1 Fountain Hill, Roxbury ..... 25
McCarty, E. Mary 196 Lake Street, Brighton ..... 23
Katherine E. 10 Nottingham Street, Dorchester ..... 16
Marie E. 67 Halifax Street, Jamaica Plain ..... 38
McCloskey, Mabel A. T 73 Dale Street, Roxbury ..... 31
McDonagh, Catherine H 20 Rosemary Street, Jamaica Plain ..... 26
McDonald, Alice M 15 Prospect Street, Westboro ..... 40
Margaret E. 8 Haverhill Street, Charlestown ..... 23
Marion H 41 High Street, Charlestown ..... 35
Myrtle M 16 Ashford Street, Allston 25, 36
Raymond E 63 Marion Street, Natick 13, 14
McDonough, Elizabeth M 647 Main Street, Watertown ..... 34
Hannah E 37 Lindsey Street, Dorchester 16, 46
Helen J 74 Harvard Avenue, Hyde Park ..... 25
Sara M 123 Selwyn Street, Roslindale ..... 18
McElaney, Irene R 104 Warren Street, Brighton ..... 39
McEvoy, Ellen E. 55 Fourth Avenue, Lowell ..... 40
McFadden, Johanna G 616 East Street, West Bridgewater ..... 35
McGee, Frank L 70 East Central Street, Natick ..... 39
McGinley, Helen M 18 Merrill Street, Dorchester ..... 26
McGinty, Bertha C 15 Hopedale Street, Allston ..... 25
McGoldrick, Clare C. 25 West Street, Belmont ..... 38
McGovern, Anna F 14 Park Street, Bradford ..... 34
McGowan, R. Eleanor 27A Lindsey Street, Dorchester ..... 23
McGrath, Herman C. 77 Billings Street, Sharon ..... 12
McGuiggan, Mary D 32 Centre Street, Canton ..... 20
McGuire, Waldemar S 4051 Washington Street, Roslindale ..... 13
McIlroy, Cecil D 26 Central Avenue, Danvers ..... 12
McInnes, Grace I 461 La Grange Street, West Roxbury ..... 21
McKay, Lillian C 118 Woodrow Avenue, Dorchester 20, 36
McKenna, Agnes C. 31 Orkney Road, Brighton ..... 16
Margaret E 78 College Road, Chestnut Hill ..... 37
McKenney, William V 130 North Harvard Street, Allston ..... 12
McKenzie, Charles M 137 Rowe Terrace, Roslindale ..... 45
William 42 Bowdoin Street, Dorchester 41, 43
McKevitt, Ethel B. M 23 Thornley Street, Dorchester ..... 48
McKinnon, Henry J 254 Brookline Street, Cambridge ..... 42
McLane, Leona M 16 Gordion Street, Allston ..... 27
McLaughlin, Dorothea A 19 Thornley Street, Dorchester ..... 27
Mary C 130 Brainerd Road, Allston ..... 34
McLean, Ruth M 1924 Beacon Street, Boston ..... 37
McMahon, Mary E 839 Boylston Street, Boston ..... 48
Ruth M. 151 Park Street, West Roxbury ..... 20
McManus, Dorothy A 23 Egleston Street, Jamaica Plain ..... 48
McMorrow, Dorothy L 1740 Beacon Street, Brookline ..... 37
Helen A 309 Adams Street, Dorchester ..... 21
McMurtry, Elizabeth A 23 Henshaw Street, Brighton ..... 22
McNamara, Alice $P$. 62 South Hobart Street, Brighton ..... 28
Catherine D . 4 Ash Street, Bellows Falls, Vt. ..... 48
Rosetta M 16 Turner Street, Brighton ..... 17
McNeill, George W 45 Willow Street, Wollaston ..... 43
McQuaid, Margaret L . 17 Fenwood Road, Boston ..... 37
McSweeney, William J 8 Barry Street, Dorchester ..... 42
McSwiney, Walter L ..... 30
McTiernan, Alice I. 46 Woodville Street, Roxbury ..... 20
Meade, John F. 73 Lincoln Street, North Easton, 31, 33, 40Meader, Dorothy A8 Hollis Street, Holliston35
Mehringer, Lenore W. E. 12 Vinson Street, Dorchester ..... 20
Melling, Doris B 199 Willow Street, West Roxbury 21, 36
Page
Meloy, Dorothea E............................. 1322 Commonwealth Avenue, Allston ..... 37
Mendel, Gertrude N 124 Oxford Street, Cambridge ..... 47
Mendenhall, John T 158 Colorado Street, Mattapan ..... 44, 46
Meredith, Violet I 239 Broadway, Boston ..... 25
Mevis, Gladys W 869 Bridge Street, Lowell ..... 11
Michie, Mabel A 32 Alicia Road, Dorchester ..... 19
Miley, Mary . 19 Lothrop Avenue, Milton ..... 17
Miller, Ruth E Hotel Braemore, Boston ..... 20,36
Mills, Lowena 274 Gibson Street, Lowell ..... 34
Mirabile, Rose. 58 Main Street, Somerville ..... 42
Mitchell, Franklin B 15 Wayland Street, Wollaston ..... 16
Harriet A 15 Bradfield Avenue, Roslindale ..... 32
109 Endicott Street, Boston ..... 23
Moccia, Edith A
200 Hyde Park Avenue, Forest Hills
200 Hyde Park Avenue, Forest Hills ..... 19 ..... 19
Monaghan, Pearl D
Monaghan, Pearl D
52 Corona Street, Dorchester
52 Corona Street, Dorchester ..... 37, 40 ..... 37, 40
Monahan, Catherine W
Monahan, Catherine W
201 Copeland Street, Brockton ..... 28
Monks, Ralph 483 Boylston Street, Brookline ..... 40
Moore, Alice E 128 Cushing Avenue, Dorchester ..... 27
Moran, Alice G 539 Fourth Street, South Boston ..... 26
M. Edith. 39 Everett Street, Arlington ..... 47
Mary $P$. 16 Adams Street, Winthrop 31, 34
Nathalie H 44 Ashford Street, Allston 29. 34
Veronica C. 246 Silver Street, South Boston 24, 29
Morello, Joseph . 607 Main Street, Medford ..... 43
Morey, Helen M 164 Middlesex Avenue, Medford 26, 36
Moriarty, Anna A 38 Gardner Street, Allston ..... 28
Frances C 63 Converse Avenue, Malden ..... 34
Mary M. 108 High Street, Taunton ..... 17
Morley, Catherine M ..... 13
163 Calumet Street, Roxbury
Elsie R ..... 48
121 St. Stephen Street, Boston
Morrison, A. Evelyn ..... 23
15 Penhallow Street, Dorchester
Helen F ..... 23
84 Baldwin Street, Charlestown
Julia F ..... 19
22 Thurston Street, East Boston
Moscatelli, Esther L
Moylan, Anna R ..... 14
Moynihan, Grace. 28 Commonwealth Avenue, Marlboro ..... 47
Mulcahy, Barbara M 6 Douglass Avenue, Roxbury ..... 26
Catherine G 177 M Street, South Boston ..... 18
Mullen, Margaret P 122 D Street, South Boston
Mullin, Anna J. 2 Harbell Terrace, Dorchester ..... 40
Mullins, Mary P 74 Grove Street, Hopkinton ..... 34
Mulvanity, James E 842 Beacon Street, Boston ..... 39, 42
Munnick, Gunnar . 63 Bradbury Avenue, Medford ..... 38
Murphy, Arthur W 49 Thorndike Street, Brookline 27, 33
Barbara M 56 Walter Street, Roslindale ..... 31
Carolyn VEllen A . . . . . . . . . . . . . . . . . . . . . . . . . . 507 East Fifth Street, South Boston19
Emilie A. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Elm Street, North Easton ..... 35
Esther T 25 Alpine Street, Roxbury ..... 37
Florence E. 975 Dorchester Avenue, Dorchester ..... 29
Helen F 33 Mystic Street, Charlestown ..... 23
John A. .4 Benefit Terrace, Worcester ..... 40
John F 49 Speedwell Street, Dorchester ..... 43
Kathleen T . 7 Westcott Street, Dorchester ..... 37
Margaret M ..... 18
Marguerite L 28 Nottingham Street, Dorchester ..... 12
Marguerite V 68 Holbrook Avenue, South Braintree ..... 29, 34
Rose A. .58 Court Street, Newtonville ..... 47
Murray, Catherine G.... . . . . . . . . . . . . . . . . . . . . . 100 Waldemar Avenue, Winthrop ..... 40
Frederick J. 81 Rosemont Road, S. E., Dorchester ..... 12
John Y. . 21 Haskell Street, Allston 44, 45
Veronica. 8 Canal Street, Millbury 29, 34
N.
Page
Naber, Ruth P. G.................................... . . 72 Greaton Road, West Roxbury ..... 27
Nagle, Arthur C P. O. Box 164, Lenox ..... 12
Nash, Louis E 154 Orchard Street, Watertown ..... 13
Naughton, Margaret A 509 Audubon Road, Boston ..... 17
Nawn, John A 58 Bloomfield Street, Dorchester ..... 42
Neagle, Edith V 19 Rockingham Road, Mattapan ..... 37
Neary, Josephine L. F 150 River Street, West Newton ..... 34
Needham, Henry S 70 Moulton Street, Lynn ..... 46
Nelson, J. Frances 6 Willis Street, Dorchester ..... 21
Nickerson, Alberta H 60 Metropolitan Avenue, Roslindale ..... 26, 36
Noone, Helen L. 439 Henry Street, Detroit, Mich. ..... 17
Cyril D 22 Aldie Street, Allston ..... 11
Esther D 9 Dwight Street, Brookline ..... 34
28 Asticou Road, Jamaica Plain ..... 26
Noyes, Phillips A Cushing Academy, Ashburnham ..... 12
O.
Oakes, Edward J 53 Alpine Street, Roxbury, 42, 4 ..... 45
J. Wills . 53 Alpine Street, Roxbury ..... 39
O'Brien, Anna L 634 Essex Street, Lawrence ..... 10Catherine B50 John Street, Lowell
Eleanor F 59 Willowwood Street, Dorchester ..... 3
Elizabeth A 3 Stafford Street, Roxbury ..... 20
Gertrude A 11 Eddie Street, East Milton ..... 33
James L 85 Johnswood Road, Roslindale ..... 10
Margaret J 33 Elm Street, Hingham ..... 34
William B 29 Marion Street, Brookline ..... 14
O'Callahan, Edward P 143 Bennington Street, Lawrence ..... 10
O'Connell, Cornelius J . 31 Savin Hill Street, Canton ..... 30, 33
Helen M 78 Carruth Street, Dorchester ..... 25
Josephine F 50 Quincy Avenue, Quincy ..... 30
Mary T 9 Monument Square, Charlestown ..... 21
O'Connor, Alice L 350 Highland Avenue, Malden ..... 27
Elizabeth M 1 Wallace Court, Charlestown ..... 13
Francis J. 190 Beech Street, Roslindale ..... 15
John G 18 Henry Harris Street, Chicopee ..... 14
Margaret B 3642 Cook Avenue, St. Louis, Mo. ..... 13
Margaret V 52 Warren Avenue, Woburn ..... 29
Mary C 73 Hillside Street, Roxbury ..... 21
William E 24 Almont Street, Mattapan ..... 15
O'Doherty, Elizabeth A 29 Justin Road, Brighton ..... 10
Mary G 29 Justin Road, Brighton ..... 32
O'Donnell, Mary B 95 Milton Avenue, Dorchester ..... 17
Mary J 211 Friendship Street, Providence, R. I. ..... 2, 33
O'Gara, Mary M 23 Eliot Street, Watertown ..... 28
Ogilvie, Frank L 835 Watertown Street, West Newton ..... 46
O'Hara, Katharine V 28 Farragut Avenue, Medford ..... 35
Ruth M 64 Mapleton Street, Brighton ..... 27
O'Keefe, Elizabeth M. 41 Newcastle Road, Brighton 24, 29
John A 33 Briggs Street, Salem ..... 11
Marion E 87 Gardner Street, Peabody ..... 14
O'Leary, Frances C 46 Templeton Street, Dorchester ..... 23
60 Gale Street, Malden Margaret TThomas J.24 Preston Street, Worcester40
O'Loughlin, Gertrude F 54 Cypress Street, Brookline ..... 34
Thomas A. . . . . . . . . . . . . . . . . . . . . . . . . . . . 19 Hobson Street, Brighton ..... 42
O'Neil, Alice L 56 Idaho Street, Mattapan ..... 25
Josephine M 76 Trenton Street, Melrose ..... 34

|  |  | Page |
| :---: | :---: | :---: |
| O'Neil, Mary E | 235 Park Street, West Roxbury | 40 |
|  | 76 Trenton Street, Melrose | 28 |
| O'Neill, Helen | . 19 Claybourne Street, Dorchester | 22 |
|  | 58 Autumn Street, East Lynn | 13 |
| Opper, Freda R | 20 Hewins Street, Dorchester | 26 |
| Oquist, Carl H. | 28 Harwood Street, Dorchester | 42 |
| Ormond, Winifred T | 15 Peter Parley Road, Jamaica Plain | 44 |
| O'Rourke, Alice L | 21 Sagamore Street, Dorchester | 22 |
|  | . 107 Walter Street, Roslindale | 28 |
| Frank J | . 35 Pontiac Road, Quincy | 43 |
| O'Toole, Elizabeth A | . 24 Mapleton Street, Brighton | 20 |
| John W | 74 Cohasset Street, Worcester | 42 |
| Owens, Isabelle H. | . . 16 Holborn Street, Roxbury | 21 |
|  | P. |  |
| Panico, Anne M | 115 Adams Street, Dorchester | 26 |
| Papen, Gretchen O | . 40 Newburg Street, Roslindale | 38 |
| Parker, Joseph R | 20 Wabon Street, Roxbury | 16,38 |
| Partridge, Ethel M | . 141 Rutherford Avenue, Charlestown | 25 |
| Pasztor, Helen B | 132 North Main Street, Middleboro | 48 |
| Patch, Esther M | 83 Saskem Street, New Haven, Conn. | 10 |
| Pearce, Angela M | . 56 Westbourne Road, Jamaica Plain | 11 |
| Penell, Harriet F | . $50 \frac{1}{2}$ West Central Street, Natick | 35 |
| Penney, Margaret | . 14 Ivy Street, Boston | 40 |
| Perlmutter, Etta | 54 Hollander Street, Roxbury | 20 |
| Perry, Helen D Viola $R$ | 192 Fairmount Avenue, Hyde Park | 22 |
|  | ..... 62 Elm Street, Charlestown | 23, 36 |
| Peters, Ruth O | 424 Bowdoin Street, Dorchester | 18 |
| Peterson, Elizabeth I | .893 South Street, Roslindale | 22, 36 |
| Pfau, Albert J. | 35 Richards Street, Worcester | 46 |
| Phelps, Elmer H | Dean Academy, Franklin | 12 |
| Pickett, Edward | 415 High Street, Bridgewater | 30,33 |
| Pieper, Josephine M | 24 Lothrop Avenue, Milton | 38 |
| Pierce, Virginia E | Brockton High School, Brockton | 16 |
| Fike, Doris D | . . 509 Audubon Road, Boston | 30 |
| Pimental, Rae. | 2 School Street, Dorchester | 22 |
| Pinknam, Mary B | 839 Boylston Street, Boston | 48 |
| Plimpton, Mary H | . 12 Cherry Street, Lynn | 16 |
| Pokat, Albert. | . 32 Alaska Street, Roxbury | 45 |
| Pottinger, Persis M | 31 Bowdoin Street, Cambridge | 14 |
| Powderly, Hubert J | . 86 Union Street, Randolph | 12 |
| Power, Margaret E. | 12 Eldora Street, Roxbury | 28 |
| Powers, Elizabeth F | . 49 Mapleton Street, Brighton | 48 |
| James P. | . 88 Maple Street, Needham | 47 |
| Prohaska, Ruth E | 24 Chestnut Road, West Roxbury | 19 |
| Pumphret, Alice L | 249 Princeton Street, East Boston | 23 |
| Purcell, Frances W | . . . 46 Jamaica Road, Brookline | 38 |
|  | Q. |  |
| Quane, Mary V | .105 Murdock Street, Brighton | 22 |
| Queen, Ethel M | . 23 Dunlap Street, Dorchester | 26 |
| Quinlan, Francis S | . 40 Wyman Street, Jamaica Plain | 14 |
| Quinn, Anna R <br> Helen J. <br> Mary A | ..... 15 Burton Street, Brighton | 21 |
|  | . 17 Gates Street, South Boston | 37 |
|  | . . 80 East Central Street, Natick | 35 |
|  | R. |  |
| Rabinowitz, Sarah J | . 40 Harlem Street, Dorchester | 26 |
| Raftery, Eileen T | . 15 Auburn Street, Roxbury | 32 |
| Rankin, Virginia D | . ..... South Easton | 30 |
| Rasmussen, Ruth P | 73 Winchester Road, Jamaica Plain | 24,29 |
| Rattigan, M. France | . . 15 Dell Avenue, Hyde Park | 27 |

Page
Rattray, Arbuthnott H 93 Train Street, Dorchester ..... 41
Ray, Carlon W 124 Brookside Avenue, Brockton 30, 33
Reardon, Beatrice M. . . . . . . . . . . . . . . . . . . . . . 105 Huntington Avenue, Hyde Park ..... 14
Marie A . 505 Broadway, South Boston ..... 16
Reavey, Anna J 1078 Adams Street, Dorchester ..... 18
Reece, Ruth . 166 Summer Street, Brockton ..... 34
Regan, Helen L 313 Eliot Street, Milton ..... 19
Reichert, Frank P 28 Parkton Road, Jamaica Plain ..... 43
Reid, L. Josephine. 9 Sumner Place, East Boston ..... 21
Reilly, Stephen T 44 Francis Street, Boston ..... 43
Renaud, Leo. 181 Elm Street, Southbridge ..... 42
Revis, Ida F. 29 Almont Street, Mattapan ..... 19
Reynolds, Mary A 741 Washington Street, Canton ..... 35
Sarah G 72 Gardner Street, Allston ..... 17
Rhodes, Agnes K 826 Main Street, Waltham ..... 11
Rhuland, Frank A. 115 Florida Street, Dorchester ..... 13
Rice, John A. 77 Howard Avenue, Dorchester 44, 46
Rich, Frank P 96 Vernon Street, Roxbury 45, 46
 ..... 40
Richter, Emma. 11 Auburn Street, Roxbury ..... 21
Herman W East Carver ..... 14
Riley, Nellie W. 32 Sanford Street, Melrose ..... 32
Roach, Mary A. 360 Market Street, Brighton ..... 48
Robbins, Grace A 37 Upland Avenue, Brádford ..... 16
Roberts, Mary L. 107 Parade Street, Providence, R. I. ..... 11
Robertson, John. . 1 Cedar Avenue, Jamaica Plain ..... 43
Roderick, William J. 25 Conwell Street, Provincetown ..... 30, 35
Rogers, George. 94 School Street, Watertown ..... 43
Marguerite A. 1328 Dorchester Avenue, Dorchester ..... 19
Rohnstock, Carl L . 31 Jameson Street, Natick ..... 42
Rohrer, Jane . 8 Rockland Avenue, Roxbury ..... 18
Rooney, Idessa A . 29 Belmont Avenue, Northampton ..... 13
Rose, Stella D 163 Thorndike Street, Brookline 24, 31
Rosen, Charles F. 36 Newbern Street, Roxbury ..... 42
Minna. 9 Charlotte Street, Dorchester ..... 31
Rosenbaum, Sarra N 52 Larchmont Street, Dorchester ..... 29
Rosengard, Ruth 61 Whiting Street, Roxbury
Rosenwald, Ethel. . 40 Gaston Street, Roxbury25
Ross, Arthur L. 35 Dudley Street, Fitchburg ..... 15
Elizabeth W 216 Liberty Street, South Quincy ..... 30
Roth, Theodore F 61 Lexington Avenue, Hyde Park ..... 39
Rothera, Charles F. 138 Franklin Street, Quincy ..... 46
Roundtree, M. Josephine. 171 Walnut Avenue, Roxbury ..... 23
Rourke, Mildred E 66 Parsons Street, Brighton ..... 37
Roust, Verdia M 137 Quincy Street, Quincy ..... 35
Rowe, Alexander F. 774 Watertown Street, West Newton ..... 42
Ruddick, Mary J 549 Blue Hill Avenue, Roxbury ..... 26
Rudman, Barnet 46 Gordon Street, Pittsfield ..... 13
Rush, Mary E. 197 Wachusett Street, Forest Hills ..... 10
Russell, Edward J. Hinsdale
Violet L. 68 Millet Street, Dorchester14
Ryan, Barbara E. 20 Spring Park Avenue, Jamaica Plain ..... 27
182 Thacher Street, Milton Kathleen R. ..... 37
533 East Fifth Street, South Boston Margaret M2045 Columbus Avenue, Roxbury29
Rymarczick, Althea I. 29 Alpha Road, Dorchester ..... 22
S.
St. Thomas, Mary V 129 Columbia Road, Dorchester27
Sanborn, Martin G 18 Union Avenue, Everett ..... 13
Santosuosso, Anna M 16 Charter Street, Boston ..... 23
Sargent, Florence K. 21 Archdale Road, Roslindale ..... 26

Page
Sullivan. Monica P...................................... . . . 56 Nottinghill Road, Brighton ..... 21
Swan, Frederick W ....... . Pine Avenue, Milton ..... 41
Reinhold L 22 Hope Avenue, East Milton ..... 46
Sweeney, Anne G 11 Plantation Street, Worcester ..... 34
Frederick L 35 Bennington Street, East Boston 13, ..... , 33
Helen E. 33 Mystic Street, Charlestown ..... 22
Marion T. 40 Wellington Road, Medford ..... 26
William J 24 Westcott Street, Dorchester ..... 14
T.
Tapp, Mary C 22 Francis Street, Boston ..... 26
Tarr, Orren R 63 Dean Street, Everett ..... 15,45
Taylor, Alma 225 Vernon Street, Norwood ..... 17
Edna D 56 Spring Street, Malden ..... 28
Tebeau, Mary L 1408 Commonwealth Avenue, Suite 5, Boston ..... 13,29
Teaffe, Elizabeth I 72 Winthrop Street, Charlestown ..... 27
Terrenzi, Edward 55 Slade Street, Belmont ..... 43
Thompson, Mary E 16 Ackers Avenue, Brookline ..... 28
Thornton, Frank J School Street, Medway ..... 30, 33
Thorpe, Elizabeth 23 Gleason Street, West Medford ..... 37
Thresher, Cynthia M 22 Armandine Street, Dorchester ..... 19
Tilley, Helen M 99 Ruthven Street, Roxbury ..... 24
Tobin, Francis. 39 Leicester Street, Brighton ..... 44
Gertrude E. 73 Warren Avenue, Milton ..... 37
Joanne F 43 Fenwood Road, Boston ..... 17
Todd, George C. 62 Third Street, Medford ..... 43
Toland, Kathleen A 1 Aldworth Street, Jamaica Plain ..... 26
Toomey, Dorothy F 25 Pleasant Street, Dorchester ..... 37
Travers, Helen K 15 Fairfax Road, Milton ..... 28,35
Tremble, Ann C 16 Magnolia Square, Dorchester ..... 22
Trotter, Mary L 33 Boynton Street, Jamaica Plain ..... 20
Troy, J. Dorothy 9 Hartland Street, Dorchester ..... 11
Tucker, Ida C. 43 Woolson Street, Mattapan ..... 20
Tully, Timothy M 96 White Street, Lowell ..... 11
Tuohy, Ethel V. 11 Cliffmont Street, Roslindale ..... 34
Turner, Marie C 31 Batavia Street, Boston ..... 17
Twiss, Helen F 75 Hastings Street, West Roxbury ..... 26
U.
Umlah, Gladys I 107 Thorndike Street, Brookine ..... 35
Underhill, Orra E 161 Main Street, Amesbury ..... 14
Upton, Elizabeth M 86 Fuller Street, Dorchester ..... 41
V.
Valuski, Ellen A 11 East Newton Street, Boston ..... 26
Van Dalinda, George B 591 Saratoga Street, East Boston ..... 45, 46
Van Ham, Louis A. 14 Granada Avenue, Roslindale ..... 46
Ventura, Americo B 2A Aberdeen Road, West Somerville ..... 38
Veracka, Mary T 908 Broadway, South Boston ..... 24
Vienneau, Gladys I Rear 40 Vineland Street, Brighton ..... 21
Vincent, Alice M 15 Edison Green, Dorchester ..... 31
Virchow, Gustav F 8 Midvale Road, West Roxbury ..... 41, 43
W.
Wahlstrom, Arvid J. 85 It Itasca Street, Dorchester 1
21, 36
Walden, Florence Franklin Square House 21, 36
14 34 Reynolds Avenue, Chelsea ..... 14
Wall, Harry T.
Wal, Hary 11 Ardent Street, Roslindale ..... 4,45
Walsh, Bertha C 18 Langley Road, Brighton ..... 48
Doris M 234 Bennington Street, East Boston ..... 24 ..... 24
Katherine T 55 Whitten Street, Dorchester ..... 23
Mary E. 52 Cliff Street, Roxbury ..... 13
Page
Walsh, Mary L 50 Rosewood Street, Mattapan ..... 25
Watson, Olive B 75 Ruggles Street, Roxbury ..... 19
Weiner, Eva B 166 Paris Street, East Boston ..... 23
Weiss, Helen C 57 Bennett Street, Brighton ..... 26
Welch, Gertrude A 179 Columbia Road, Dorchester ..... 11
Margaret M 12 Pacific Street, South Boston ..... 27
Mary E 893 Broadway, South Boston ..... 21
Wenetsky, Selma. 8 Tennis Road, Mattapan ..... 20
West, George A 60 Dalton Road, Belmont ..... 41
Whalen, Eileen F 216 Grove Street, Fall River ..... 38
John P 70 La Grange Street, West Roxbury ..... 32, 33
John W. 29 Richards Street, Worcester ..... 16
Kathryn 103 Bennett Street, Brighton ..... 44
Whelan, Gertrude F. 198 Arborway, Jamaica Plain ..... 14
Whelton, Eleanor M 51 Strathmore Road, Brighton ..... 31
White, Ellen G.................. . . . . . . . . . . . 306 Hyde Park Avenue, Forest Hills ..... 30
Esther 62 Elm Hill Avenue, Roxbury ..... 20
Freida G 62 Elm Hill Avenue, Roxbury ..... 23
Leo T. F 36 Haskell Avenue, Revere ..... 43
Mary T. 173 Milton Avenue, Dorchester ..... 25
Whiteman, Helen Z 6 Lynden Street, Stoneham ..... 37
Whittemore, Francis D 36 Locust Street, Everett ..... 12
Whittier, Olive E 214 Stratford Street, West Roxbury ..... 28
Wight, Elizabeth P 9 Tonawanda Street, Dorchester ..... 22
Wigren, August H 128 Menlo Street, Brockton ..... 14
Wild, Lawrence W 854 New Boston Road, Fall River ..... 12
Wildon, Carrick E. Kingston, R. I., 41, 43, 45
Williams, Elizabeth G 89 Munroe Street, Roxbury ..... 18
Wilson, Caroline H Elm Street, South Dartmouth ..... 13
Winchenbach, Dorothy L 18 Hayes Street, Framingtham ..... 28
Winer, Esther 130 Homestead Street, Roxbury 24, 31
Winsloe, Mildred A 53 Savannah Avenue, Mattapan ..... 38
Winston, Frank T. ..... 39
Wise, Harold R 1427 Commonwealth Avenue, Allston ..... 15
Wood, Walter D 140 Mt . Auburn Street, Cambridge ..... 14
Woodward, Irene G 53 Mora Street, Dorchester ..... 37
Wright, Eugene A 143 Cottage Street, Everett ..... 31
Y.
Yaffee, Mary U............................................. . . 91 Walker Road, Swampscott ..... 46
Yoken, Esther J 828 Second Street, Fall River ..... 34
York, Charles P 373 Linwood Avenue, Newtonville ..... 12
Young, Annie L 115 Selwyn Street, Roslindale ..... 27
Z.Zimmerman, Claire L227 Belgrade Avenue, Roslindale31
Zoken, Rebecca 30 Wolcott Street, Dorchester ..... 19

## SCHOOL DOCUMENT NO. 8-1928 BOSTON PUBLIC SCHOOLS OUTLINE IN MERCHANDISING AND RETAIL SELLING



CITY OF BOSTON<br>PRINTING DEPARTMENT

1928

In School Committee, July 9, 1928.
Ordered; That the accompanying outline in Merchandising and Retail Selling, a revision of the outline in Merchandising and Special Syllabus in Salesmanship, School Document No. 7,1924 , is hereby adopted and that one thousand $(1,000)$ copies be printed as a school document.

Attest:
ELLEN M. CRONIN,
Secretary.

## INTRODUCTION.

Merchandising calls for an all-round knowledge of people, materials, events, and methods that can scarcely be matched in any other field. A fund of general information, a convincing personality, knowledge of particular merchandise, and a knowledge of the technique of buying and selling are necessary to success in this branch of business.

Producers and distributors generally recognize that marketing their products requires employees trained in up-to-date merchandising methods. If this training is not given by outside educational agencies, they have found it necessary to perform the function themselves. Manufacturers, trade organizations, and department stores, in the past, have organized to give the training which the schools failed to give. Gradually the schools have come to see that this important phase of commercial education must not be neglected.

There is a science of salesmanship but there is also an art of selling. Actual practice under normal selling conditions is necessary so that the pupil may put into practice the theory that is discussed in the class-room, and so that the class-room work may have more definite meaning and relation. There are certain substitutes which are helpful but which can never take the place of actual experience. The prepared sales talk, the demonstration sale, the development of sales projects within the school are all valuable but should never be allowed to provide the only experience that the student gets. Salesmanship should train for the actual job of selling and, with the co-operation of the merchants, the school can and does so train its students.

In the girls' high schools, merchandising is developed from the point of view of retail selling. In the boys' high schools more attention is given to wholesale selling, advertising, and organization. In view of the fact that in some
schools the course is a one year course and in other schools, a two year course, the outline is arranged so that certain sections may be omitted without injuring the continuity of the work.

The objectives in the teaching of merchandising are as follows:

1. To familiarize the student with the principles of salesmanship and to give practice in the application of these principles.
2. To fit the pupil for a gainful vocation.
3. To develop personality and character.
4. To cultivate high standards of ethics and help to apply them in personal and in business dealings.
5. To furnish fundamental training in store organization and management which will help the students to rise to a buying or executive position.
6. To familiarize the students with certain fundamental merchandize.
7. To familiarize the pupil with the sources of merchandise and the channels through which it passes in reaching the consumer.
8. To give the student an appreciation of values which will make him a better buyer of merchandise for personal use.
9. To appraise the student of the relations of employee, employer and customer.
10. To impress on the students the importance and need of adopting "service" as their ideal.
11. To teach the student to properly evaluate the position of the merchant and the salesman in the social order.
12. To provide financial aid for needy pupils, thereby enabling them to remain in school.
An outline in Merchandising was prepared in 1924 under the leadership of Louis J. Fish, at that time Commercial Co-ordinator. The following outline in this subject reproduces that outline in form and essentials with minor additions and rearrangement in certain parts. Credit for assistance in producing the original outline and for suggestions
regarding its revision is due to the following persons, all of whom give their approval of the outline in its new form:

William L. Anderson, Dorchester High School for Girls.
John V. Barrett, High School of Commerce.
William J. Carey, English High School.
James A. Dunbar, Bunker Hill School.
Vincent L. Greene, Continuation School.
Thaddeus J. Keefe, Memorial High School for Boys.
Frank E. Lakey, Dorchester High School for Boys.
Walter L. McLean, High School of Commerce.
Josepf M. Sullivan, Dorchester High School for Boys.
The outline in Retail Selling was prepared by a special committee working with the Commercial Co-ordinator as chairman, as follows:

Alice M. Falvey, East Boston High School. Florence R. Joyce, Dorchester High School for Girls. Helen J. Kiggen, High School of Practical Arts.

The members of the Educational Directors Group of the Boston Retail Trade Board rendered valuable assistance in preparing the outline, in criticizing it constructively while it was being put in its final form, and in furnishing store problems to illustrate the points under the section entitled "Business Ethics." The names of Bernice M. Cannon of William Filene's Sons Company and Irene Beers of C. F. Hovey Company should be especially mentioned in this connection.

The following teachers of the Boston schools have also helped materially by their suggestions and criticisms:
Grace T. Blanchard, South Boston High School.
Margaret A. Cronin, Girls' High School.
Dore M. Gentz, Girls' High School.
Clara W. Hill, Brighton High School.
Mary G. Jennings, Memorial High School.
Marion F. Lynch, Jamaica Plain High School.

> EDWARD J. ROWSE, Commercial Co-ordinator.

Approved:
JOHN C. BRODHEAD,
Assistant Superintendent in Charge.

## OUTLINE IN MERCHANDISING.

## BUSINESS ORGANIZATION.

1. Introduction to Business Organization.
a. Exact knowledge necessary.
b. Scientific attitude.
c. Absolute honesty.
d. Service to nation.
2. Kinds of Business.
$a$. Industrial.
(1) Extractive.
(a) Mining.
(b) Forestry.
(c) Agriculture.
(d) Ranching.
(e) Fisheries.
(2) Manufacturing.
(a) From raw materials.
(b) From other manufactured products.
b. Commercial.
(1) Marketing and trading.
(2) Transportation.
(3) Financial.
3. Forms of Ownership.
a. Small business enterprises owned and managed by the proprietor.
(1) Advantages and disadvantages.
(2) Management.
(3) Personal supervision.
b. Partnerships.
(1) Advantages and disadvantages.
(2) Liability of partners.
(3) Kind of partners.
(4) Kinds of partnerships.
c. Corporations.
(1) Advantages and disadvantages.
(2) Formation.
(3) Classes of stocks.
(4) Control of proprietorship.
(5) Stock transfer.
4. Financing the Enterprise.
a. Capital.
(1) Investment capital.
(a) Land.
(b) Building.
(c) Machinery.
5. Financing the Enterprise.-Concluded.
(d) Leases.
(e) Good-will.
(f) Patents.
(g) Franchises.
(2) Working capital.
(a) Raw material.
(b) Finished goods.
(c) Wages.
b. Relation of capital to turnover in
(1) Continuous production (or sales).
(2) Seasonal production (or sales).
c. Methods of raising capital.
(1) Stock.
(a) Common; Often "no par value."
(b) Preferred; cumulative preferred.
(c) Assessable; non-assessable.
(d) Rights; warrants.
(2) Bonds.
(a) Short term.
(b) Long term.
(c) Gold.
(d.) Equipment.
(e) Debenture.
(f) Collateral.
(g) Convertible.
(h) Prior lien.
(i) Mortgage.
(j) Municipal.
(k) State.
(l) Federal.
( $m$ ) Tax-exempt.
(3) Special.
(a) Bank loans.
(b) Merchandise loans.
(4) Other sources.
(a) Personal funds.
(b) Trade credits.
(c) Partnerships.
(d) Entrepreneurships.
d. Methods of repayment of borrowed capital.
(1) Amortization processes.
(2) Sinking funds.
6. Financial Organizations.
a. Banks.
(1) Classification according to control.
(a) Federal (supervised by Comptroller of Treasury). Federal Reserve System. National Banks. Postal Savings (postmaster general).
7. Financial Organizations.- Continued.
(b) State (supervised by Commissioner of Banks).

Mutual Savings Banks.
Corporate Savings Banks.
Trust Companies (loan companies).
Co-operative Banks.
(c) Private.
J. P. Morgan.

Lee, Higginson \& Co.
(2) Types of management.
(a) Corporate.

Stockholders.
Board of Directors.
President, vice president, treasurer (cashier).
Minor officials.
Committees.
Depositors.
(b) Mutual.

Trustees.
Officers.
Minor officials.
Committees.
Depositors.
(c) Co-operative Banks (Building and Loan Associations).

Management. Corporate. Directors elected by the shareholders. (One vote each share.)
Purchase of shares (maximum and minimum).
Ordinary shares, matured shares, paid-up shares.
Withdrawal.
Borrowing by shareholders (investments).
(3) Methods of deposit and withdrawal.
(a) Deposit.

1. Savings.

Receiving teller.
Signature cards (Constitution - by-laws).
Pass book.
Legal restrictions (single and joint accounts).
2. Commercial.

Receiving teller.
Signature cards.
Pass book.
Minimum requirements.
(b) Withdrawal.

1. Savings.

Paying teller.
Withdrawal demand slips.
Moratorium.
2. Commercial.

Paying teller.
Checks.
Monthly statement.
(4) Interconnection of banking systems.
(a) Federal districts.
(b) Clearing houses.
(c) Private connections.
(5) Services rendered by banks.
(a) Loans.
(d) Interest on deposits.
(c) Tax advice.
(d) Execution and administration of wills and estates.
(e) Safety deposit vaults.
(f) Fiscal agency services.
(6) Insurance companies.
(a) Types of insurance.

1. Fire.
2. Life.
3. Marine.
4. Credit.
5. Health and accident.
6. Fidelity.
7. Burglar.
8. Rain.
9. Steam boiler.
10. Riot.
11. Plate glass.
12. Automobile.
13. Workingmen's compensation.
(7) Exchanges.

Types.
(a) Securities.

Stock Exchange.
The Curb.
(b) Agricultural products.

Grain - Chicago Board of Trade.
Fruits - California Fruit Growers' Exchange. Cotton - New Orleans.
Tobacco - New York (or Louisville).
(c) Real estate.

Membership.
Methods of governing.
Rules of order.
Rights and privileges as a semi-public organization.
(d) Traders.

Professional traders.
Brokers.
Methods of effecting business on the floor.
Vocabulary of exchange:
Bulls; bears; margin; puts; calls; lambs; futures; cornering; hedging; short selling.
(8) Investment houses.

Professional services.
5. Financial Organizations.-Concluded.

Purchase and sale of stocks, bonds, rights, domestic and foreign exchange, negotiable paper.
Underwriting and promotion.
The illegitimate agencies:
Bucket shops, Blue Sky Law in Massachusetts.
(9) Loan agencies.

Workingmen's Credit Unions - American Telephone, City of Boston, etc.
Morris Plan - for salaried workers.
Pawn shops.
6. Management in Business.
a. Problems.
b. Line organizations.
c. Securing co-operation.
d. Planning.
$e$. Scientific management based on accurate knowledge.
$f$. The human factor.
(1) Motion study.
(2) Rest periods.
(3) Human considerations.
(4) Personnel work.
(a) Employment.
(b) Adjustment.
(c) Welfare.
(d) Promotion.
(e) Education.
(5) The influence of laws.
(a) Restriction on employment of women and minors.
(b) Workingmen's compensation laws.
(c) Government supervision.
(d) Safety devices - first aid equipment.
7. Location as Related to:
a. Source of raw material.
b. Market.
c. Good labor supply.
d. Power.
e. Room for expansion.
(1) City.
(2) Country.
f. Transportation.
(1) Railroad.
(2) Water.
(3) Truck.
g. Wholesale and retail sections of city.
$h$. Buildings and equipment.
(1) Layout.
(2) Transportation in buildings.
(3) Retail store buildings.
(4) Receiving and shipping rooms.
(5) Office plans.
8. Purchasing.
a. Classes of purchases.
(1) Permanent.
(2) Raw material or merchandise.
(3) Office supplies.
b. Requisitions.
(1) Checking quantity.
(2) Stock clerks.
c. Quotations.
d. Placing the order.
e. Following up the order.
$f$. The purchasing agent.
$g$. The retail buyer.
$h$. Determining the probable demand.
(1) Centers of distribution for commodities.
(2) Paris styles, etc.
i. How buying is done.
(1) Capital available.
(2) Merchandise managers.
9. Merchandising Methods.
a. Merchandising functions.
(1) Assembly (buying or production).
(2) Demand creation (selling or distribution).
(3) Transportation.
(4) Storage.
(5) Financing.
(6) Risks.
(7) Laws of transfers.
b. Distribution.
(1) Manufacturers (direct to consumer).
(2) Jobbers.
(3) Middlemen.
(4) Wholesale dealers.
(5) Retailers.
(a) Department stores.
(b) Specialty stores.
(c) Chain stores.
(d) General stores.
(e) Syndicates.
(f) Mail order houses.
(6) Consumers.
c. Process.
(1) Inventory.
(2) Turnover.
(3) Selling expense.
(4) Profits.
(5) Mark-ups.
(6) Mark-downs.
(7) Base of computation.
(8) Discounts.
(9) Selling price.
10. Office.
$a$. Filing.
b. Telephone.
c. Telegraph.
d. Correspondence.
(1) Mail.
(2) Answering.
(3) Follow-up.
11. Credits and Collections.
$a$. The credit man (including collections).
(1) Qualifications.
(a) Tact.
(b) Impersonal judgment.
(c) Versed in commercial law and accounting.
(d) Intuition.
(e) Knowledge of human nature.
(f) Analytical mind.
(g) Ability in correspondence.
(h) Cautious temperament without suspicion.
(2) Ethical principles.
(a) Act as adviser in crises.
(b) Check tendency to over-credit.
b. Credit office machinery.
(1) Personnel.
(a) Credit manager.
(b) Assistant credit manager.
(c) Bookkeepers.
(d) Correspondence clerks.
(e) Filing clerks.
(2) Standard equipment.
(a) Briefs.
(b) Blanks for investigation.
(c) Reports.
(3) Sources of information as to prospective debtors.
(a) Personal interview.
(b) Credit and trade associations.
(c) Dun; Bradstreet.
(d) Credit clearing house.
(e) Bonding company.
(f) Banks.
(g) Creditors (or debtors) of debtor.
(h) Salesman's reports.
(i) Neighboring business men.
(j) Subscription publications.
c. Granting credit.
(1) Credit defined.- The confidence reposed in the ability of the consumer to pay, coupled with his intention to pay. (Character, capital, and capacity.)
(2) Factors to be considered in granting credit.
(a) Concerning the business.

Location of the business.
Kind and quality of goods carried.
Class of customers served.
General business conditions.
Assets, liabilities, turnovers, profits.
(b) Concerning the management.

Ability and experience.
Moral qualities.
Personal habits.
d. Instruments of credit.
(1) Checks.
(a) Personal.
(b) Bank cashier's.
(c) Certified.
(2) Promissory notes.
(3) Acceptances.
(a) Bank.
(b) Trade.
(4) Letters of credit.
(a) Domestic.
(b) Foreign.
(5) Money orders.
(a) Postoffice.
(b) Tourist companies.
(c) Express companies.
(6) Draft.
(7) Accounts.
(a) Bills receivable.
(b) Accounts receivable.
(8) Federal reserve currency.
12. Accounting.
a. Sales accounts.
(1) Billing.
(2) Crediting collections.
b. Purchase accounts.
(1) Vouchers.
(2) Payments.
c. Financial accounts.
(1) Capital account.
(2) Profit and loss account.
(3) Resources and liabilities.
(4) Statements and reports.
13. Traffic.
a. Shipping problems.
b. Rates and routing.
c. Claims.
14. Business Procedure.
a. Telephone.
b. Telegraph.
(1) Cable.
(2) Radio.
(3) Codes.
c. Express.
d. Freight.
e. Parcel Post.
f. Reports on business conditions.
g. Directions.

## OUTLINE IN MERCHANDISING.

## SALESMANSHIP.

1. Place of Salesmanship in the Field of Business.
a. Breadth and importance.
b. Relation to production.
c. Reasons for interest in salesmanship:
(1) Value of trained salesmen.
(2) Demand for training.
(a) Theory.
(b) Practice.
(3) Salesmanship as an occupation.
(4) Scientific production $v$. scientific distribution.
(5) Aims of business (profits).
2. The Field of Selling.
a. Service.
b. Ideas.
c. Merchandise.
(1) Wholesale.
(2) Retail.
(3) Specialty.
3. Selling Services - Seeking Employment.
a. Selling depends on the nature of the goods offered and on the manner in which they are offered.
b. Sources of information concerning "help wanted."
(1) Newspaper advertisements.
(2) Commercial agencies.
(3) School agencies.
(4) City, state, and federal agencies.
(5) Personal solicitation.
(6) Through friends.
c. Personal application.
(1) Introduction.

Personal, telephone, letter.
(2) Importance of first impressions.
(3) Have something to offer; not asking a favor.
(4) Persistence.
d. Application by letter.
(1) Importance of first impressions.
(2) Form.
(3) Content.
(a) Request for consideration.
(b) Age, education, experience.
(c) References.
(d) Request for an interview.
4. The Factors in Selling.
a. Article or service.
b. Salesman.
c. Customer.
d. Sales technique.
$e$. Sales management.
f. Advertising.
5. Salesmanship Defined.
a. Define.
b. "We all have something to Sell."
c. Trained $v s$. untrained salespeople.
d. Duties of salesmen:
(1) Arrange details and perform mechanical work in exchange of goods.
(2) Bring goods to attention of prospect.
(3) Create wants on part of buyer.
(4) Create confidence and good will by personal contact.
(5) Advise, educate and increase the value to the buyer.
(6) Convince customer and get decision.
(7) Represent his firm, note complaints, and record new demands.
(8) Collect credit information.
(9) Pioneering, that is, getting information on styles, trade tendencies.
e. Development.
6. Analysis of Goods or Proposition.
a. History of the industry.
b. Raw material.
(1) Where and how produced.
c. Method of manufacture.
(1) Connect with human interest.
(2) Sanitary conditions.
(3) Connect with known articles of the manufacturer.
(4) Particular processes giving extra value.
d. Market conditions.
$e$. Tests of quality.
f. Uses.
g. Selling points.
h. Knowledge of stock.
i. Competing goods.
j. Sources of information.
(1) Advertising literature.
(2) Write to manufacturer.
(3) Buyers.
(4) Technical books.
(5) Older salesmen.
(6) Trade papers.
(7) Work in factory or shipping room.
7. Salesman.
a. Need for development of personality.
(1) Demands made upon the individual after leaving school.
(2) Competition.
(3) Opportunities open to high school graduates.

Responsibilities.
Qualifications.
Education and employment.
Promotional possibilities.
Wages and salaries.
b. Personal attributes.
(1) Physical.
(a) Physique.
(b) Health.
(c) Carriage and posture.
(d) Personal hygiene.
(e) Neatness of clothing.
(f) Voice.
(2) Mental.
(a) Accuracy.
(b) Alertness.
(c) Concentration.
(d) Imagination.
(e) Judgment.
(f) Keenness.
(g) Logical thinking.
(h) Memory
(i) Observation.
(3) Moral
(a) Conscientiousness.
(b) Courage.
(c) Loyalty.
(d) Honesty.
(e) Justice.
(f) Open mindedness.
(g) Self control.
(h) Will.
(4) Social.
(a) Affability.
(b) Cooperation.
(c) Courtesy.
(d) Generosity.
(e) Poise.
(f) Tolerance.
(g) Tactfulness.
(5) Temperament.
(a) Cheerfulness.
(b) Enthusiasm.
7. Salesman- (Concluded).
(c) Modesty.
(d) Optimism.
(e) Patience.
(6) Executive abilities.
(a) Ambition.
(b) Ability to make decisions.
(c) Industriousness.
(d) Initia,tive.
(e) Punctuality.
(f) Persistence.
(g) Persuasiveness.
(h) Reliability.
(i) Self assurance.
(j) Willingness to accept responsibility.
8. Customer.
a. Human nature.
b. Habits.
c. Classified as to:
(1) Wants.
(2) Temperaments.
(3) Mental attitudes.
(4) Social standing.
(5) Occupations.
(6) Economic status (can he buy).
(7) Buying motives (see sales appeals).
d. Classified according to character analysis (optional).
9. Sales technique.
a. Pre-approach.
b. Approach.
c. Demonstration.
(1) Getting attention.
(2) Getting interest.
(3) Creating desire.
(4) Answering objections.
(5) Influencing decision.
d. Closing the sale.
e. Get-away.
f. Critical self-examination of sale and salesman. (See Demonstration Sale, next page.)
g. Continuing interest in customer.
10. Criticism of Demonstration.
a. The use of the following check list is for the purpose of increasing the pupil's vocabulary in addition to forming a basis for criticism.

## Demonstration Sale.

While the demonstration sale is going on, place a check mark opposite the words which you think best describe the salesperson and procedure. The
accuracy with which you check the details will determine the mark given you. for the attention paid to the demonstration. These papers will be collected by the teacher, graded and destroyed.

|  |  | Salesperson. |  |
| :--- | :--- | :--- | :--- |
| Clean cut. | Careless. | Attentive. | Indifferent. |
| Neat. | Untidy. | Eager. | Easy-going. |
| Orderly. | Disorderly. | Aggressive. | Inactive. |
| Conservative. | Flashy. | Vivacious. | Nervous. |
| Satisfactory. | Unsatisfactory. | Energetic. | Dull. |
| Dignified. | Undignified. | Enthusiastic. | Lack enthusiasm. |
| Well poised. | Lacking poise. | Inspiring. | Depressing. |
| Confident. | Hesitant. | Courteous. | Rude. |
| Keen. | Dull. | Frank. | Evasive. |
| Natural. | Affected. | Sincere. | Affected. |
| Alert. | Inert. | Cheerful. | Gloomy. |
| Pleasant. | Unpleasant. | Tactful. | Tactless. |
| Favorable. | Unfavorable. | Persistent. | Conceited. |
| Convincing. | Uncertain. | Receptive. | Argumentative. |
| Interesting. | Uninteresting. | Kindly. | Harsh. |
| Competent. | Embarrassed. | Expectant. | Hesitant. |
| Forceful. | Weak. | Patient. | Impatient. |
|  |  | Co-operative. | Lacking co-operation. |

Method of Approach. Created favorable impression. Created unfavorable impression.

Interest and Demand.

Attention sustained.
Favorable selling points.
Positive selling arguments.
Curiosity aroused.
Interest leads followed.
Favorable "talking up goods."

Attention lagging.
Unfavorable statements.
Negative selling points.
Lack of interest.
Interest leads lost.
Listless "talking up goods."

Answering Objections.

Sales interview controlled.
Objections overcome.
Customer uncontradicted.
Valid reasons.
Convincing.
Sincere.

Uncontrolled sales interview.
Objections sustained.
Customer contradicted.
No valid reasons.
Lacking of conviction.
Insincere.

Closing Sale.
Confident approaching the close. Nervous approaching the close.

Question to avoid a negative answer.
Decision suggested.
Allied lines suggested.
Closed at proper moment.

Question to draw negative answer.
Delayed decision accepted.
Allied lines ignored.
Closing lagged beyond proper moment.
10. Criticism of Demonstration.- Concluded.

Good Points in the Sale.
Approach.
Selling arguments.
Merchandise display.
English.
Suggestive selling.
Arousing interest.
Creating desire.
Closing sale.
Securing good-will.

Weak Points in the Sale.
Approach.
Selling.
Merchandise display.
English.
Suggestive selling.
Arousing interest.
Creating desire.
Closing sale.
Securing good-will.
11. Sales Appeals.
$a$. Knowledge of human nature (psychology).
b. Fundamental human desires.
(1) Appetite - hunger, thirst, taste.
(2) Self-preservation, safety and comfort.
(3) Personal adornment, sex attraction.
(4) Devotion.
(5) Possession.
(6) Sociability, imitation, emulation, approval.
(7) Pleasure, recreation.
(8) Activity, construction, curiosity.
12. (See Merchandising Methods in Business Organization.)
13. Sales Management.
a. Duties of sales manager.
b. Organization of territory or departments.
(1) Assignment of salesmen.
(2) Routing of salesmen.
(3) Advance literature.
c. Salesmen's salary.
(1) Commission.
(2) Bonus.
(3) Salary.
(4) Combination of both salary and commission.
d. Sales reports.
(1) Establishment of quotas.
(2) Score boards, bonus, etc.
(3) Statistical information regarding sales.
e. Inspirational ("ginger") talks.
f. Competition.
g. Co-operation of advertising and selling departments.
14. Service.
a. The American idea of service. "Service at all times to all people."
b. Service features and conveniences.
(1) Field trips to stores, factories, offices and hotels.
(2) Public utility service stations.
c. Knowledge of types of people.
(1) How to deal with them by direct and indirect contact.
d. Qualities of mind needed to compete with mature and experieneed people.
(1) Adaptability.
(2) Co-operation.
(3) Honesty.
(4) Reliability.
(5) Obedience.
(6) Concentration.
(7) Decisiveness.
(8) Cheerfulness.
(9) Alertness.
(10) Fair mindedness.
(11) Enthusiasm.
(12) Optimism.
(13) Energy.
(14) Perseverance.
(15) Initiative.
(Note. - Based on Code of Morals for High School Pupils, $\$ 5,000$ prize code by W. J. Hutchins, publisher American Magazine.)
e. Employees as exponents of the firm by whom they are employed.
$f$. Quality of service insures the growth and permanency of business.
15. Some Elements Contributing to Individual Success.
$a$. Good first impression.
b. True service - manifested by love for your work.
c. Proper relations with fellow workers.
d. Ability to establish friendly relations with people.
e. Ability to know yourself and state your qualifications.
f. Ability to use good English.
$g$. Acceptance of responsibility.
h. Ability to control situations through
(1) Leadership.
(2) Study of human nature.
(3) Cultivation of habits which make for attractive personality and character.
(4) Self-control.
(5) Adjustment.

## OUTLINE IN MERCHANDISING.

## ADVERTISING.*

1. Short Historical Sketch.
a. Early advertising.
(1) Display of goods.
(2) Greek and Roman criers.
(3) Medieval fairs.
b. Modern advertising.
(1) Newspapers - patent medicines.
(2) Mechanical - Radio and electric signs.
(3) Recent rapid growth.
2. Importance of Advertising.
a. The life of business activity.
b. Accomplishments of advertising.
c. Amounts expended for advertising.
d. Relative amount of advertising done by manufacturers, wholesalers, retailers.
e. Effect of advertising on retail cost.
f. Relation of advertising to merit of the product.
3. Relation of Advertising to Selling.
a. Object of advertising.
(1) Ultimate.
(2) Immediate.
b. Steps in selling and advertising.
c. Co-operation and co-ordination between advertising and selling departments.
d. Advertising creates demand.
e. Advertising before selling goods.
$f$. Advertising after selling goods.
$g$. Advertising while selling goods.
h. Advertising is mass selling.
(1) Group appeal.
i. Study of advertising of competitors.
j. Appraising various mediums used.
k. Keying the advertisement.
4. Purpose of Advertising.
a. To sell goods.
b. To get nearer the customer.
c. To create demand.
d. To create styles and customs.

[^39]e. To get customer to enter a store.
f. To secure good will.
$g$. To get a list of prospects.
h. To prepare the way for the salesman.
i. To impress a name.
j. To make known a trade mark.
k. To impress a slogan.

1. To familiarize the consumer with the appear ance of the article. $m$. To present selling points.
2. Advertising Mediums.
a. Novelties.
b. Newspapers as mediums.
c. Magazines as mediums.
d. House organs.
e. Street car signs.
f. Out-door advertising.
(1) Posters.
(2) Billboards.
(3) Electric signs.
g. Direct advertising.
h. Window display.
i. Dealer's aids.
j. Samples and demonstrations.
3. The Tools of the Printed Advertisement.
a. Proper type.
(1) Harmony.
(2) Distinctiveness.
(3) Individuality.
b. Type measurement.
(1) Common sizes.
c. Line measurement.
d. Copy.
e. Illustrations.
(1) Zinc line cuts.
(2) Halftones.
(3) Woodcuts.
f. Reproductive processes.
(1) Electrotypes.
(2) Stereotypes.
g. Color processes.
(1) Two colors.
(2) Three and four colors.
(3) Ben Day process.
4. Appeals in Advertisements.
a. We are all buyers of commodities and luxuries.
b. We all respond to certain appeals.
c. An appeal to a fundamental human instinct is certain to attract attention.
5. Appeals in Advertisements.- Concluded.
d. Appeals vary.
(1) Age.
(2) Sex.
(3) Economic condition.
(4) Social position.
e. Appeals analyzed, according to strength.
(1) Health.
(2) Cleanliness.
(3) Scientific construction.
(4) Time saved.
(5) Appetite.
(6) Efficiency.
(7) Safety.
(8) Durability.
(9) Quality.
(10) Modernity.
(11) Family affection.
f. Appeals classified as to.
(1) Profit or economy.
(2) Health.
(3) Pleasure and comfort.
(4) Pride and vanity.
(5) Affection and the social instincts.
(6) Knowledge and progress.
$g$. Value of a knowledge of instincts.
6. Attention and Interest Value of Advertisements.
a. Advertisements must attract attention.
$b$. Balance of attention and desire.
c. Means of attracting attention.
(1) Contrast.
(2) Headlines.

Mechanical make-up.
Number of headlines.
Qualities.
Number of words in headlines.
(3) Illustrations.

To attract attention.
To direct attention.
To suggest a story.
To supplement text.
To show use, value and quality.
To make an appeal to emotions.
(4) Colors.
(5) Shape of the advertisement.
(6) Size of the advertisement.
(7) Position.
(8) Border.
(9) Repetition.
(10) Background.
(11) Movement.
(12) Balance.
(13) Distinctive type.
(14) White space.
(15) Curiosity.
(16) Punctuation marks.
(17) Type in reverse.
9. The Written Advertisement.
a. Value of clearness, force and conciseness in an advertisement.
b. Copy-writer must interpret the product to the public.
c. Unity, coherence and emphasis.
d. Planning, arrangement and stress.
e. Kinds of copy.
(1) Human interest.
(2) Reason why.
(3) Argumentative.
(4) Sense-appeal.
(5) Story.
(6) Conversational.
(7) Suggestive.
(8) Educational.
(9) Jingle and rhymes.
(10) Testimonial.
f. Slogans.
(1) Balanced sentences.
g. Point of view.
(1) "You" attitude.
(2) Consumer and not manufacturer.
h. Presentation.
(1) Mahin's tests.
10. The Advertising Campaign.
a. Selection of name for product.
b. Value of certain trade names.
c. Classes of trade names in use.
(1) Maker or firm name.
(2) Geographical.
(3) High quality names.
(4) Coined names.
d. Essentials of a good trade name.
(1) Simple and short.
(2) Easy to pronounce.
(3) In keeping with product.
(4) Suggestive or descriptive.
e. Copyright.
f. Analysis of product.
$g$. Analysis of market.
$h$. Policies in distribution.
$i$. Selection of mediums.
j. Allotment to each.
k. Appropriation.
11. Retail Store Advertising.
a. Kinds of retail stores.
b. Problems of retail advertising.
c. Mediums used by retailer.
d. Means of attracting customers to the store.
(1) Service features.
(2) Sales.
(3) "Leaders."
e. Mediums for the small dealer.
f. Mediums for the chain store.
g. Mediums for the large department store.
$h$. Newspapers as mediums for the retailer.
i. Advertising sales.
j. Factors determining goods to be advertised.
$k$. Steps in preparing an advertisement for the newspapers.

## RETAIL SELLING.

I. Introduction.
II. Employment.
III. Personal Efficiency and Development.
IV. Agencies of Distribution.*
V. Merchandise. $\dagger$
VI. Store System.
VII. Store Policies.
VIII. Customers.
IX. Principles of Salesmanship.
X. Store Organization.*
XI. Store Operation.*
XII. Ethics of Business.
XIII. Advertising. $\dagger$
XIV. Store Mathematics and English. $\ddagger$

* Abridged for one-year course. † Omit from one-year course. $\ddagger$ One lesson per week.
I. Introduction.
A. Importance of retail business.
B. Service and its relation to competition.
II. Employment.
A. Choosing a vocation.
B. Finding an opening.
C. Applying for a position.

1. In person.
2. By letter.
D. Filling out application blanks.
3. Compare blanks of different stores and discuss information asked for.
E. Working certificates.
F. Labor laws relating to store workers.
4. Hours of labor.
5. Minimum wage.
G. Store rating systems.
6. Obtain rating blanks of different stores and discuss qualities on which workers are rated.
H. Methods of payment.
7. Salary.
8. Commission.
9. Quota and bonus.
I. Qualities and duties of
10. Bundle girl.
11. Marker.
12. Stock.
13. Cashier.
14. Inspector.
15. Salesgirl.
III. Personal Efficiency and Development.
(Consult store application blanks and rating sheets.)
A. Personal appearance.
16. Posture.
17. Care of person.
18. Dress.
19. Facial expression.
B. Mode of living.
20. Habits of eating.
21. Habits of exercise and recreation.
22. Habits of sleep.
23. Habits of punctuality.
24. Habits of industry.
25. Attitude toward further training.
26. Choice of companions.
C. Manners.
27. Ambition.
28. Cheerfulness.
29. Enthusiasm.
30. Sincerity.
31. Directness.
32. Persistence.
33. Tact.
34. Courtesy.
35. Leadership.
36. Voice.
37. Use of English.
D. Mental equipment.
38. Accuracy.
39. Alertness.
40. Decision.
41. Concentration.
42. Memory.
43. Knowledge of people.
44. Knowledge of merchandise.
45. General information.
IV. Agencies of Distribution.
A. Early distribution organization.
B. Development of department store.
C. Manufacturers as distributors.
D. Wholesalers.
E. Agents with exclusive territory.
F. Retailers.*
46. General stores.
a. Advantages.
(1) Personal ownership.
(2) Personal contact with public.
(3) Stimulus of large profit.
(4) Low delivery expense.

[^40](5) Low advertising expense.
(6) Ability to adjust policy to local conditions.
(7) Same clerk sells in all departments.
b. Disadvantages.
(1) Low borrowing power.
(2) Unorganized methods of buying and selling.
(3) Small purchasing power.
(4) Slow turn over.
(5) Poor contact with central market.
2. Specialty stores.
a. Advantages.
(1) High grade sales clerks.
(2) Specialization in merchandise and service.
b. Disadvantages.
(1) Limited class appeal.
(2) High service cost.
(3) Single location.
(4) High advertising and selling cost.
(5) Often good buyers of merchandise but poor financiers and organizers.
3. Department stores.
a. Advantages.
(1) Large advertising power.
(2) Organized methods.
(3) Large purchasing power.
(4) Efficient distribution of responsibilities.
(5) Quick turn over.
(6) Shopping facilities.
b. Disadvantages.
(1) High service cost.
(2) Single location.
(3) Inferior sales clerks.
(4) High delivery expense.
(5) High rent.
(6) High advertising cost.
(7) Public abuse of privileges.
4. Chain stores.
a. Advantages.
(1) Wide distribution of institutional prestige.
(2) Organized methods of buying, accounting and selling.
(3) Large purchasing power.
(4) Efficient distribution of responsibilities.
(5) Diverse location.
(6) Low delivery expense.
(7) Low advertising expense.
(8) Quick turn over.
b. Disadvantages.
(1) Unit managers inferior.
(2) Impossibility of catering to local demands.
(3) Lack of personal contact with clientele.
IV. Agencies of Distribution.- Concluded.
5. Cooperative stores.
a. Advantages.
(1) Customers interested in profits.
b. Disadvantages.
(1) Lack of appeal to non-members.
(2) Favoritism in appointment of managers.
6. Selt-service store.
a. Advantages.
b. Disadvantages.
7. Mail order houses.
a. Advantages.
(1) Wide selling area.
(2) Organized method of buying and selling.
(3) Large advertising power.
(4) Large purchasing power.
(5) Low rent.
b. Disadvantages.
(1) High advertising expense.
(2) High delivery expense.
(3) Lack of personal contact.
(4) Risk of price changes.
(5) Lack of confidence of buyer.
V. Merchandise.
A. Textiles.*

1. Analysis of an Article of Merchandise.
(See Retail Selling, Norton, Page 104.)
2. Variety of materials.
a. Variety demanded by use.
b. Variety demanded by style.
3. Differences in materials.
a. Color,
b. Process of making.
(1) Woven.
(2) Knitted.
c. Raw material.
d. Finish.
4. Woven goods.
$a$. The loom.
b. Warp and filling.
c. Steps in weaving.
d. Kinds of weaves.

Plain, twill, satin, pile.
5. Knitted goods.
$a$. Comparison of knitted and woven goods.
b. Types of knitted goods.
c. Cause of popularity of knitted guods.
(1) Advantages of looped formation.
(2) Light weight.
(3) Hygienic.

[^41]d. Variety of stitches.
(1) Purl.
(2) Plain or jersey.
(3) Rib.
(4). Other useful stitches.
6. Spinning.
a. Differences between yarn and thread.
b. Influences of yarns on appearance of material.
c. Varieties of yarns.
d. The spinning process.
e. Yarn count.
f. Preparation of raw material for spinning.
(1) Cleaning.
(2) Carding.
(3) Combing.
(4) Drawing and doubling.
$g$. Warp and filling yarns.
7. Finishing.
a. Singeing.
b. Bleaching.
c. Dyeing.
(1) Yarn dyeing.
(2) Stock dyeing.
(3) Piece dyeing.
d. Printing.
e. Mercerizing.
f. Napping.
g. Filling.
$h$. Pressing.
i. Special finishes.
8. Cotton.
a. Reason for popularity.
b. Tests.
c. Sources of raw material.
d. Common varieties.
e. Production.
f. Manufacture.
9. Flax.
a. Comparison of cotton and linen.
b. Tests.
c. Sources of raw materials.
d. Production.
e. Manufacture.
10. Wool.
a. Qualities which determine special uses.
b. Distinction between woolen and worsted.
c. Tests.
d. Sources of raw material.
V. Merchandise.-Concluded.
$e$. Production.
f. Manufacture.
11. Silk.
a. Qualities which determine special uses.
b. Tests.
c. Sources of raw material.
d. Production.
e. Manufacture.
12. Rayon and celanese.
a. Manufactured fibres.
(1) What they are.
(2) Where they come from.
b. Qualities.
(1) Advantages.
(2) Limitations.
c. Tests for identification of man-made fibres.
d. Uses.
e. Handling and laundering of these and allied fabrics.
B. Non textiles.

1. Leather goods.
2. Toys.
3. Jewelry.
4. Toilet goods.
VI. Store System.
A. Importance.
B. The salesbook.
5. Parts.
6. Parts of the sales check and uses.
C. Kinds of sales transactions.
7. Paid, taken.
8. Paid, sent to customer's address.
9. Charged, taken.
10. Charged, to one address, sent to another.
11. Charged, sent to customer's address.
12. C. O. D.
13. Employee's charge.
D. Extra package.
E. Sales checks requiring floor man's signature.
F. Credit.
14. Coins.
15. O. K. telephone.
16. Opening a charge account.
G. Cash register.
H. Calls slips.
VII. Store Policies.
A. Delivery.
B. Charge accounts.
C. Returns and exchanges.
D. Special delivery.
E. C. O. D. regulations.
F. Guarantee.
G. Adjustments.
H. Mark up and mark down.
I. Advertising.
J. Personnel: wages and working conditions.
K. Job lot sales.
L. Meeting competitive prices.
M. One price to all vs. bargaining price.
VIII. Customers.
A. Knowledge of human nature.
B. Memory of faces and names.
C. Building up a clientele.
D. Power of suggestion.
E. Classified as to:
17. Wants.
a. Just looking.
b. Having a definite want.
18. Temperament.
a. Nervous.
b. Vital.
c. Phlegmatic.
19. Mental attitude.
$a$. Undecided.
b. Procrastinating.
c. Argumentative.
d. Stubborn.
e. Cautious.
f. Conceited.
$g$. Indifferent.
F. Reasons why people buy specific articles.
IX. Principles of Salesmanship.
A. Approach.
20. Importance of first impressions.
21. Essentials of a good approach.
a. Promptness.
b. Cheerfulness.
c. Cordiality.
d. Good voice and speech.
22. Forms of greeting.
23. Value of using customer's name.
B. Finding customers wants.
24. Direct question.
25. Showing merchandise and observing customer.
C. Presentation of merchandise.
26. Grade to display.
27. Amount to display.
D. Giving customer merchandise information.
28. Confidence inspired by complete information.
29. Sources of information.

## IX. Principles of Salesmanship. - Concluded.

a. Examination of goods.
b. Buyers and other salesmen.
c. Advertising literature.
d. Trade papers.
e. Technical books.
E. Meeting objection.
F. Substitution.
G. Closing the sale.

1. Narrowing the choice.
2. Action assuming decision.
H. Handling exchange sales.
I. Suggestion.
3. Related merchandise.
4. New merchandise.
5. Special sales.
X. Store Organization.
A. Introduction.
6. Purpose of organization.
7. General organization plan.
$a$. General manager.
(1) Merchandise division.
(2) Publicity division.
(3) Store management division.
(4) Records and finance division.
8. Large and small store organization.
9. Application to local stores.
B. Merchandise Division.
10. Merchandise manager.
a. Division managers.
(1) Buyers.
(a) Assistant buyers.
(b) Salespeople (see also Store Management Division).
(c) Head of stock.
(d) Merchandise clerical.
(e) Stock clerks.
C. Publicity division or sales promotion division.
11. Publicity manager.
a. Display manager.
(1) Window trimmers.
(2) Store display experts.
(3) Sign painters.
b. Advertising manager.
(1) Copy writers.
(2) Artists.
c. Broadcaster.
D. Store management division.
12. Store superintendent.
a. Bureau of adjustment.
b. Personal service shoppers.
c. Comparison shoppers.
d. Mail order clerks.
e. Telephone order clerks.
f. Maintenance department.
(1) Elevator operators.
(2) Engineers.
(3) Carpenters.
(4) Cleaners.
(5) Watchmen.
(6) Protection department.
(7) Supply department.
g. Personnel division.
(1) Employment manager.
(a) Interviewers.
(b) Rating staff.
(2) Training supervisor.
(a) Teachers of system.
(b) Teachers of salesmanship.
(c) Teachers of merchandise.
(3) Employees' service.
h. Floor superintendents.
i. Salespeople (see also Merchandise Division).
$j$. Shipping and delivery.
k. Receiving and marking.
l. Service shoppers.
E. Records and finance division.
13. Controller.
a. Bookkeepers.
b. Purchase ledger clerks.
c. Customers' ledger clerks.
d. Billing clerks.
$e$. Invoice clerks.
f. Filing clerks.
g. Pay roll clerks.
h. Cashiers.
i. Auditors.
j. Computing machine operators.
k. Credit and authorizing clerks.
l. Stenographers.
$m$. Merchandise control clerks.

## XI. Retail Store Operation.*

A. Factors influencing choice of location.

1. Competition: shopping centers or isolated.
2. Nearness to traffic routes and transfer points.
3. Number of passers.
4. Are they probable buyers?
a. Reason for passing.
b. Economic status.
[^42]
## XI. Retail Store Operation.- Continued.

5. Operating costs: rents, insurance, taxes.
6. Display windows.
7. Location of local stores.
B. Factors influencing interior arrangement.
8. Location of departments.
a. Impulse goods.
b. Convenience goods.
c. Necessities.
d. Utility goods.
e. Luxuries.
9. Grouping of merchandise lines.
10. Comfort and convenience of customers.
11. Comfort and convenience of salespeople.
12. Convenient display of merchandise.
13. Convenient location of stock rooms.
14. Store directory.
C. Equipment.
15. Storage equipment.
16. Display equipment.
17. Cash equipment.
a. Cash registers.
b. Tube system.
18. Measuring equipment.
19. Marking equipment.
20. Collection and delivery equipment.
21. Bookkeeping equipment.
22. Credit equipment.
23. Lighting equipment.
D. Problems of buying.
24. Methods of buying.
a. Personal trips to market.
b. From traveling salesmen.
c. By mail.
d. Co-operative buying.
e. Concentrated buying.
$f$. When to buy.
g. How much to buy.
(1) Stock control.
25. Kind of merchandise demanded.
a. Price range.
b. Complete stock.
c. Job lots.
d. Style requirements.
$e$. Value of records of previous sales.
26. Terms.
a. Discounts.
b. Datings.
27. Receiving and marking.
a. Checking the invoice.
b. Fixing the selling price.
(1) Dependent on.
(a) Actual cost of merchandise.
(b) Overhead expenses.
(c) Rate of turnover.
(d) Possible depreciation.

Style goods.
Perishable goods.
(e) Special attractiveness.
(f) Profit.
(2) Mark up and gross margin.
c. Marking.
(1) Price tickets.
(2) Codes.
E. Causes of mark downs.

1. Poor buying as to quantity, style, color, sizes, quality.
2. Style changes.
3. Unseasonable weather.
4. Goods soiled from handling and display.
5. Change in market conditions.
6. Remnants and broken assortments.
7. To meet competition.
F. Forms of store service.
8. Credit.
9. Delivery.
10. Adjustments.
11. Transfer card.
12. Information.
13. Tickets service.
14. Rest rooms.
15. Personal shopping service.
16. Stylists.
17. Beauty parlors.
18. Restaurants.
G. Records.
19. Sales.
a. Cash.
b. Charge.
c. C. O. D.
20. Purchases.
21. Expense.
a. Distribution.
22. Charge accounts.
a. Opening an account.
b. Sources of credit information.
c. Identification.
d. Authorization.
e. Value for sales promotion purposes.
H. Losses.
23. Waste of supplies.
24. Lack of care of merchandise.
25. Over measurement.
XI. Retail Store Operation.-Concluded.
26. Unnecessary delivery.
27. Errors of computation and change.
28. Errors in address.
29. Returned goods and goods out on approval.
30. Customers lost through poor service.
31. Theft.
32. Bad debts.
33. Illness of employees.
34. Tardiness and waste of time.
XII. Ethics of Business.
A. This course will be taken up from two points of view as follows:
35. From the point of view of the employee in the form of problems which arise from his relationship to management, fellow employees, customers, the store's competitors and the manufacturers from whom the store purchases its merchandise.
36. From the point of view of management in the form of problems which arise from its relationship to its employees, the public, its competitors and the manufacturers from whom it buys.
B. It is recommended that the problems used in this course be discussed from the point of view of the following standards of conduct:
37. Truth.
a. Honesty.
b. Sincerity.
c. Reliability.
d. Open-mindedness.
38. Justice.
a. Loyalty.
b. Co-operation.
c. Consideration of others.
d. Self-control.
39. Courage.
a. Initiative.
b. Leadership.
c. Perseverance.
d. Self-confidence.
e. Vision.
40. Obligation to others.
a. Obedience.
b. Thrift.
c. Sympathy.
d. Kindness.
e. Service.
f. Tact.

Note. - In planning this course, it should be borne in mind that business practice is still far
from ideal in its relationships, chiefly because it is only within recent years that it has begun to show signs of becoming a profession. This emphasis is important because young people will find in business many happenings which they will deplore but which they can only understand by a knowledge of the stage of development the business has attained.
C. From the point of view of an employee:

1. The employee's relationship to the public. Problems arising from:
a. Presenting merchandise to customers.
b. Service contracts with customers.
c. Presenting store standards or policies to customers.
2. The employee's relationship to management. Problems arising from:
a. Divided loyalties.
b. Quality and quantity of work done.
c. Overtime work.
d. Shifting employment or shifting jobs.
e. Wages paid.
3. The employee's relationship to the store's competitors.

Problems arising from:
a. Use of confidential information.
b. Directing customers to other stores for purchases.
c. Knocking competitors.
4. The employee's relationship to manufacturers. Problems arising from failure to carry through the store's policy as to:
a. Agreements.
b. Guarantees.
c. Return of merchandise.
d. Incurring obligations.
D. From the point of view of management:

1. The merchant's relation to public. Problems arising from:
a. Excessive service features.
b. What is said in advertising merchandise.
c. What is said by salespeople about the merchandise.
d. Management of business in the form of fair profits, elimination of waste, continuity of employment, changes in selling prices of merchandise.
2. The merchant's relations to his employees. Problems arising from:
a. Conditions under which employees work - physical, moral.
b. Wages payment - amount and kind (as tipping).
c. Hours of work.
d. Preparation for work in the form of training.
e. Promotion within the organization.
XII. Ethics of Business.- Concluded.
3. The merchant's relations to his competitors. Problems arising from:
a. Trade agreements.
$b$. Price cutting.
c. Knocking competitors.
d. Attracting into employment those from competitors' stores.
4. The merchant's relation to those from whom he buys. Problems arising from:
a. Agreements as to purchases.
b. Returning unwanted merchandise to manufacturers.
c. Social obligations.
XIII. Advertising.
A. Medium for retail stores.
5. Newspapers.
6. Street car signs.
7. Bill boards and electric signs.
8. Direct by mail.
9. Enclosures.
10. Demonstrations.
11. Window and store display.
B. Means of securing attention.
12. Contrast.
13. Headlines.
14. Borders.
15. Illustrations.
16. Colors.
17. White space.
18. Distinctive type.
C. Kinds of copy.
19. Argumentation.
20. Suggestive.
21. Institutional.
22. Educational.
23. Story.
24. Jingles and rhymes.
D. The written advertisement.
25. Clearness, force, conciseness.
26. Unity, coherence, emphasis.
E. Display.
27. Unity.
28. Background.
29. Harmony.
30. Order.
31. Fixtures.
32. Lighting.
33. Balance.
34. Changes.
35. Color.
36. Show cards.
F. Truth in advertising.
XIV.
a. Store Mathematics.

The four fundamental operations and simple fractions should be stressed in both oral and written work.

1. Combination of two numbers. Rapid addition. Drill.
2. Adding columns of figures. Combinations making 10.
3. Checking. Reverse addition. Casting out 9 's; casting out 11's.
4. Horizontal addition. Boxed problems.
5. Drills in addition.
6. Making change, cash register.
7. Subtraction, checking results.
8. Keeping cash account. Finding cash balance.
9. Multiplication. Checking results.
10. Short cuts in multiplication.
11. Division.
12. Decimals.
13. Fractions, addition and subtraction.
14. Mixed numbers, addition and subtraction.
15. Multiplication of fractions and mixed numbers.
16. Drill in multiplication.
17. Division of fractions and mixed numbers.
18. Decimal equivalents of:
$1 / 16,1 / 12,1 / 8,1 / 6,1 / 5,1 / 3,3 / 8,1 / 2,5 / 8,2 / 3,3 / 4$, $1 / 4,5 / 6,7 / 8$.
19. Tables of linear measure.

Tables of weight.
Drill.
20. Problems involving fraction of yard and pound.
21. Percentage. Review of decimal equivalents.
22. Finding a given per cent of a number.

Short cuts for $10 \%, 5 \%, 1 \%$.
23. Finding what per cent one number is of another. Estimating per cent.
24. Gross and net profits.
25. Distribution by per cents of expense of doing business.
26. Finding selling price, having given the cost and the per cent of required gross profit on sales.
27. Trade discounts.
28. Bills and accounts.
29. Commission.
30. Interest.
31. Notes and discount.
32. Finding average turnover.
33. Budget making.
XIII. b. Store English.

The work of the salesperson requires easy and correct habits of oral expression. For this reason drill in the spoken language should be emphasized to secure clear, accurate and forceful use of English.

1. Use of "was" for "were," and "is" for "are."
2. Correcting of "aint" and double negatives.
3. Use of "these" and "those" instead of "them."
4. Correct use of relative pronouns.
XIII. b. Store English.-Concluded.
5. Correct use of personal pronouns.
6. Correct use of "seen," "went," and "done."
7. Correct use of other verb forms. ("A customer came up. Has the bell rung? '")
8. Agreement in number of subject and verb.
9. Use of "can," " may," "learn" and "teach."
10. Use of "lay," "lie," "raise," "use," "sit," and "set."
11. Use of unnecessary words ("this here," "that there").
12. Use of adjectives and adverbs (comparison and discrimination between).
13. Common errors of speech - slang.
14. Word building - increasing vocabulary. Descriptive adjectives.
15. Spelling, merchandise terms, cities, streets, people's names.
16. Letters - construction of.
17. Superscription on envelope.
18. Friendly letter.
19. Notes of invitation - acceptance and regret.
20. Business letter - application.
21. Answers to advertisements.
22. Written exercise on store experiences.
23. Written exercise on other store topics.
24. Written exercise on talking points of merchandise.
25. Cultivation of voice - proper use - advantages of.
26. Clear articulation and pronunciation.
27. Selection for memory.
28. Newspaper article.
29. Magazine article.
30. Who's who article.
31. Discussion of business periodicals.
32. Discussion of books for outside reading.

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## SCHOOL DOCUMENT NO. 9-1928 BOSTON PUBLIC SCHOOLS

SPECIAL SYLLABUS<br>IN ART EDUCATION

## GRADES I., II., III.


In School Committee, July 9, 1928.
Ordered, That the accompanying syllabus in Art Education for Grades I., II., and III. is hereby adopted, and that two thousand $(2,000)$ copies be printed as a school document.
Attest:
ELLEN M. CRONIN,
Secretary.

## ART EDUCATION BOSTON PUBLIC SCHOOLS GRADES I., II., III.

This Course of Study in Art Education has been prepared through the cooperative study of the Director of Manual Arts, the Assistants in Manual Arts, the Advisory Committee for Education in Art, and the Primary Supervisors. Many teachers of Grades I., II., and III. have contributed to the value of the course by working out EXPERIMENTS AND TEST LESSONS.

## GENERAL INSTRUCTIONS.

This course of study in Art Education is addressed to the teacher, who should carefully read the general instructions. The special notes on each subject should be read again when that subject occurs in the Syllabus. The work to be covered is reasonable of accomplishment considering the time allowance, and the work is planned with consideration for the great variety of conditions existing in a large school system.

EDUCATION IN ART.- General education recognizes the increasing importance of art and the universal use of its principles in the individual and community life of all classes.

It is the purpose of Art Education in primary grades to afford children an abundance of experiences with a variety of materials for graphically recording impressions that may develop certain definite or specific phases of the imagination, powers of invention, observation and appreciation. Art will manifest itself as a quality in this creative work, and the graphic expression will rapidly improve in truth. Art Education enriches the life of the child, it satisfies his creative instincts and his natural love for beauty.

Terminology is very simple with all work outlined under the heads of Directed Observation and Creative Expression, with subheadings of: Space Relations, Tone Relations, Design (including lettering), Constructive Design (hand work), Representation, Appreciation of Art.

Directed Observation includes all lessons in which the attention is called to some particular external thing about which thought must center, to discover, organize and interpret outward facts through visual study into terms of visible or graphic expression. The teacher guides the development of such lessons, encourages orderly thinking, directs the type of drawing to be made, the manner of making observations, recording impressions, recognizing tones and design principles.

Creative Expression includes all lessons in which the attention is called to some common experience, or basic principle, some fanciful, emotional, or impulsive idea, in which thought looks within to discover, organize and express what it desires in terms of visible or graphic expression. The child here obeys his individual creative desire to draw, design or construct. Both memory and imagination may be manifest in his creative expression. Teachers may arouse and stimulate certain definite or specific phases of the child's observation, memory and imagination when presenting a lesson, but after the child has once started to work she should refrain from interfering with free thought and free expression.

Close every lesson with a word of encouragement and commendation. Every few lessons, allow time for pupils' criticism. It develops discrimina-
tion and is often more valuable than teacher's criticism. Never ridicule or laugh at children's work unless it has been done with humorous purpose, when all may laugh and enjoy the fun.

SPACE RELATIONS. - All geometric organization dealing with the elements of Position, Direction, Measure, Proportion and Shape and all combinations of these elements may be considered as study of space relations.
Positions (center-up-down-left-right)
Directions (vertical-horizontal-oblique)
Measures (number-length-width-size-interval)
Proportion (a relation of measures)
Shapes (circle-square-rectangle-ellipse, etc.)
TONE RELATIONS.- We live in a world of light and colors, any effect of which may be classified as a tone. Tone is the distinguishing factor which enables us to separate in our vision one object from another. Color may satisfy the senses, the emotions and the spirit, as food satisfies hunger. It is a language through which one expresses himself in Design and Representation.

The study of Tone Relations first leads one to recognize light, then to distinguish colors, and then to compare them with established standards as shown on a color scale. Later study may classify colors in warm and cool groups, light and dark groups, and in other simple tone relations.

Encourage children in the recognition of beautiful color and in color combinations wherever found.

Simple definitions are essential to a common understanding of color terms in relation to drawing and painting.

Tone.-An effect of light and color produced by pigment (crayon or paint) or a mixture of pigments. Tone is a general term that may be applied to any spot of color or neutral gray. It is the quality through which all things become visible to the eye. There are two elements in a tone: its value and its color.

Value.-An indication of the quantity of light in a tone. It is the relation of a color to white and black, such as, light red, dark green, etc.

Color.- The quality of light in a tone, such as, red, orange, yellow, green, blue, violet.

Intensity.- The quality by which we distinguish color strength, such as, brilliant orange, dull blue, etc.

Neutrality. - The absence of color, such as, black, gray.
Color Scale.-An orderly series of tones expressing intervals or relations of value, color, intensity or neutrality.

Harmony. - A consistency in light and color in tone relations.

## Color Symbolism:

Red: love, valor, courage, royalty, danger.
Orange: the flame, warmth, hospitality, knowledge.
Yellow: the sun, wisdom.
Green: growth, fruitfulness, long life, victory.
Blue: truth, cold.
Violet: (red and blue) truth and love, constancy.
White: light, purity, innocence.
Black: the absence of color, sorrow.
The Norse Story.-After the gods had made a man and a woman on the earth and had begun to take an interest in what was going on there, they concluded to build a bridge from Heaven to earth, and out of red fire and green sea water and blue air they built the rainbow bridge Bifrost, over which they could pass to the earth. Thor, the god of thunder, was never allowed to use it for fear his heavy tread and the heat of his lightnings might destroy it. The other gods passed over it to the earth whenever they wished, but men could not walk on it. When brave men fell in battle, however, the wish maidens, or Valkyries, mounted on their fleet steeds, bore the dead warriors over the quivering rainbow bridge to feast with Odin. When a Norse boy saw the rainbow, he said to himself, "The Valkyries are carrying heroes to Heaven!"

The Greek Story.-Juno, queen of Heaven, wife of Zeus, had an attendant maiden named Iris, whom she often employed as her messenger. Iris was so fleet of foot that nobody ever caught sight of her. She wore a beautiful robe of many colors. When Juno sent her on an errand to the earth, "gliding swiftly through the purple air," her dazzling mantle left its brilliant path across the clouds as a shooting star leaves its trail for a few moments in the midnight sky. When the Greek boy saw a rainbow, he said, "Iris, the messenger of Juno, has just passed by!"

The Hebrew Story.- After the great flood which destroyed everybody but Noah and those who were with him in the ark, God promised that the earth should never again be destroyed by water, and God said to Noah, "I will set my bow in the cloud, and it shall be for a token of a covenant between Me and the earth; when I bring a cloud over the earth, the bow shall be seen in the cloud, and I will remember My covenant that the waters shall no more become a flood to destroy all flesh." When the Hebrew boy saw the rainbow he thought, "God never forgets His promises." One of the Hebrew teachers used to say, "Look upon the rainbow and praise Him that made it. Very beautiful it is in the brightness thereof. It compasseth the heavens about with a glorious circle, and the hands of the Most High have bended it."

DESIGN is orderly arrangement, and the laws governing design may be recognized in Nature and in Art. Young children quite readily learn to discriminate between order and disorder with an ever increasing sense of beauty.

## THE MODES OF DESIGN

Repetition.- The recurrence of the same line, shape, form, color, light, sound, action or thought.

Sequence. - Arrangement which suggests different types of motion the producing of one thing after another, one attraction and then another in a line or row. There are three kinds of sequence:

## 1. Sequence of Repetition.

2. Sequence of Alternation. - The regular recurrence in turn of two or more contrasting or different attractions, lines, shapes, forms, colors, lights, sounds, actions, or thoughts, producing the effect of Rhythm.
3. Sequence of Progression or Gradation.- A regular increase, decrease, or change in movement of lines, measures, shapes, tones, sounds, actions or thoughts.

Balance. - Different types of equipoise or rest.

1. Axial Balance.- An effect of single inversion of equal attractions visually balanced on either side of a real or imaginary vertical axis.
2. Central Balance.- An effect of concentration or radiation of equal attractions visually balanced about a definite center.

Balances may include balance of repetition and balance of sequence.
Symmetry.-A geometric consistency in space relations.
Unity.-A consistency in line, shape and tone relations. Whenever illustrations are at hand encourage the recognition of the Modes of Order in objects, pictures, fabrics, feathers, plants, trees, flowers, vegetables. Arranging tablets, cuttings and modelled clay with the drawings of similar shapes will establish a valuable foundation on which to build more creative and enriched designs. Because the desk and the tablets are almost of the same tone, always arrange tablets on news or manila paper where the contrast in tone and pattern will readily be seen.

LETTERING.- All lettering is to be introduced and developed as Design. Use the lettering guide and instructions approved and supplied for Grades I., II., III.

CONSTRUCTIVE DESIGN.- Avoid making this study dictatorial. Encourage originality and creative expression, reasonable accuracy, orderly thinking and procedure. Stimulate pride in work well done. Teachers should work out each Constructive Design lesson step by step before presenting the work to classes.

The term "fold" means both fold and crease. The shorter edges of papers are referred to as "ends." It is advisable to place the paper with the long edges parallel with the front edge of the desk and to teach the placing, measuring, and laying off of points, dimensions and working lines by working from an established edge, line or corner of the paper. All points and lines are to be placed and drawn by the pupils, not by the teacher. The index finger may be used in place of a brush when pasting. This work is best done in groups, working at an occupation table.

REPRESENTATION is the drawing of an object (animate or inanimate) or of an idea, from observation, memory or imagination. Representation aims to gradually develop visual discrimination, observation, memory and imagination together with increasing ability to describe these experiences in visible or graphic expression: drawing, painting, modeling and constructing. Representation may record experiences as observed, and as imagined. Shape, general proportion, action and color should be emphasized. Draw the same object, person, or building more than once, or more than one of a kind. The second drawing will call for kindly criticism, more observation, better visual discrimination, and memory or imagination.

In Grade I. give little, if any, consideration to the setting or background for sketches. Try for pleasing location and reasonable size for sketches on the page.

In Grade II. give very simple consideration to the sky, ground, floor, or wall as a background or setting for sketches.

In Grade III. consider appropriate settings with simple light and dark tones as a help in emphasizing the large, central or story telling figure.

Tracing the shape of the object, person, or animal in the air, dramatizing the action, or impersonating the character will often help a child to better drawing of what he wishes to express. Drawings may be made with the colored crayons or with lead pencil in as direct, positive, clear a manner as possible.

APPRECIATION OF ART includes the recognition and enjoyment of color wherever found, the recognition of Order as expressed in Nature and in Art. Appreciation of Art should be recognized by teachers when exhibiting class work, mounting pictures and arranging flowers for the classroom. "An attractive classroom may contribute materially to better attendance, to problems of discipline, and create an atmosphere of happiness. The best place to inculcate the love of the beautiful is in the schoolroom. To the rising generation the most effective lessons can be given, and from the school millions of children will carry the lessons to millions of homes."

Since color prints are readily obtained and they occupy such an important place in general education, a few interesting pictures should be displayed in every classroom for the enjoyment of young children. These pictures
may be inexpensive cuts or color prints harmoniously mounted and displayed, a few at a time, on a bulletin, screen, or in the chalk tray. The subject should be changed frequently. Pictures selected as permanent decorations for the classroom should always be large, chosen with great care, beautiful in subject and in color, properly hung, and a constant delight to the children in the room.

The Director of Manual Arts is prepared to recommend suitable pictures for permanent decorations in schools. All pictures and casts must have the Director's approval in accordance with Chapter XII, Section 225, paragraph 2, of the Rules and Regulations of the School Committee.

Procedure. - Select a print from the portfolio provided for study, or select a picture used as a permanent decoration. Study the picture yourself and formulate a series of questions that will lead children to find important features in the picture and that will bring out the message the artist undoubtedly wished to express. Avoid a fixed formula when teaching young children to appreciate art. Lead them to love the picture, to revel in its color, and perhaps to recognize another work by the same artist. Picture study may inspire oral and written language, spelling, dramatics, posture, health habits and character development. The pictures selected for study in primary grades are such as appeal to young children, - animal, child and family life, happy incident, and mother love.

## Grade I.

Madonna of the Chair
Miss Bowles
Artist's Daughter
Feeding Her Birds
The First Step
A Simple Meal
Mute Appeal
Cat and Kittens

Raphael (Rä' fä ěl)
Reynolds (Rĕn'olds)
Kaulbach (Koul' bäh)
Millet (Mē lě')
Millet (Mē lě')
Perrault ( $\mathrm{Pěc}^{\prime}$ rō')
Fulton (Ful' ton)
Adam (Âd' ăm)

## Grade II.

The Little Mother
Calmady Children (Kăl' mă dì)
Holy Night
Do You Believe in Fairies?
Two Mothers
Behind the Plow.
Ducks on the Bank
Ducks in the Water

Calmady Children (Kăl' mǎ dì) Holy Night
Do You Believe in Fairies?
Two Mothers
Behind the Plow.
Ducks on the Bank
Ducks in the Water

Perrault (Pĕ' rō')
Lawrence
Correggio (Kō rĕd' jō)
Tarrant (Tăr ${ }^{\prime}$ ant)
Gardner-Bouguereau (Bōō' gë ró)
Kemp-Welch (Kĕmp Wĕlch)
Koester (Kers' ter)
Koester (Kers' ter)

Children of the Shell
My Cup is Empty!
A Quiet Hour
Age of Innocence
Adventure
Catching Happy Months
Mother and Daughter
Girl With Cat
Midday Rest

## Grade III.

Murillo (Mōō rēl' yō)
Knaus (Knous)
Perrault (Pĕ' rō')
Reynolds (Rěn' olds)
Tarrant (Tăr' ant)
Tarrant (Tăr' ant)
LeBrun (Lè brŭn')
Hoecker (Hö' ker)
Hosse (Hŏss)

Portfolios containing color prints mounted on heavy cards of approximately $15^{\prime \prime} \times 20^{\prime \prime}$ are furnished for study in Grades I., II., III. The portfolios are marked with large labels: "Boston Public Schools, Department of Manual Arts - Color Prints for Recognition and Appreciation of Art Grades I., II., III." Each picture is marked with a label giving the title of the picture and the artist. Prints are to be kept in the portfolio for protection when not in use, and the portfolio of prints must be returned to the office of the Principal or to the teacher in charge of the building at the close of each lesson.

SUPERVISION.- In anticipation of visits from the Assistant in Manual Arts, who supervises Art Education in the district, teachers are requested to have results from each lesson ready for inspection. Selected work is used for the permanent exhibition at department headquarters and for traveling exhibitions. All drawings selected for such purpose should be marked in lead pencil at the center of the back of the sheet with the name of the school, pupil's name, grade, lesson number and calendar year.

PERMANENT EXHIBITION.- At the Administration Building there is a permanent exhibition of work in Art Education designed to be of special help to teachers. Drawings are mounted on $22^{\prime \prime} \times 28^{\prime \prime}$ cards and displayed in portfolio cases ready for inspection and instruction of teachers and visitors. In the drawers below the cases, sets of class work and sets showing progressive stages in lesson development are available for study.

POSTURE. - Correct habits of sitting and drawing are essential to the child's health and sight. Papers should be a reading distance from the eye, a trifle to the right of the desk center and with edges parallel to the desk edges. The left hand may hold the paper in position leaving the right hand free for drawing.

CORRELATIVE EXPRESSION.- With the approval of the Primary Supervisors, we suggest the following opportunities for correlative expression
as occasional occupation, or seat work: drawing, folding, cutting, and modeling as free interpretation of impressions, creative expression, or adaptation of number work (arithmetic). This spontaneous expression with its freedom of invention, imagination and individuality is ample compensation for lack of technique. Design, Representation, Modeling and Color offer excellent opportunities for correlation with silent reading. They also offer valuable correlative possibilities with Nature Study, History, (ieography and Language stories.

BLACKBOARD DRAWING.- Give all pupils practice in drawing at the blackboard. Drawings should be of reasonable size and freely executed. Children should stand firmly upon both feet facing the board, one hand resting on the chalk tray to steady the body while the other hand is drawing. A half stick of chalk is sufficient for each child. They may draw in outline, in mass, or in a combination of mass and outline.

FREE PAPER CUTTING.- Tearing and cutting of paper is one method of teaching general shape and proportion. It offers an excellent means of free expression and hand training. Experience in using scissors is a prerequisite to satisfactory free cutting. Strict economy must be exercised in the use of the limited quantity of colored and construction papers.

JUNIOR RED CROSS.- Drawings, designs and paper cuttings may be bound into booklets of twelve or fifteen pages to be sent to the Junior Red Cross through your local chapter. Alphabet and word books, valentines, greeting cards, and all types of constructive design, made as part of the regular school work, and given by children to other children, carry a message of great social value. These things are always acceptable for hospitals. All work should be marked with name of the school, grade and city. Valentines, cards and favors should be sent in stout envelopes.

MATERIALS AND SUPPLIES.- Blanks issued in January call for inventories of stock on hand and estimated needs for the following year. Supplies will be furnished on the basis of this master's report for delivery in June. Yellow copies of the Order for Art Education Supplies will be mailed to the Principal for his office record and for checking supplies as delivered. If supplies are not received, inquiry should be made of the Supply Department. Quotas have been revised, and, if supplies are distributed as indicated, there should be no necessity for supplementary requisitions except in cases where numbers prove larger than estimated. Supplementary requisitions should be written on School Committee Requisition Blanks, approved by the Principal and sent to the Department of Manual Arts for the Director's signature before November 1.

## QUOTA OF ART EDUCATION MATERIALS AND SUPPLIES.

## Materials.

Scissors, $4 \frac{1}{2}{ }^{\prime \prime}$, pointed, I., II., III.
Leatherboard Rules, $1^{\prime \prime}$ divisions, II.
Leatherboard Rules, $\frac{1}{2}{ }^{\prime \prime}$ divisions, III.
Leatherboard Tablets, I., II., III.
Circles, Squares, Rectangles and Ellipses, I.
Semicircles, Ovals, and Right Triangles, II.
Equilateral and Isosceles Triangles, III.

Tablet Boxes, I., II., III.
These boxes contain 48 trays. Each box holds an assortment of tablets in one shape, each tray containing approximately 5 large, 25 medium, and 25 small tablets.

## Quota.

1 set per two classes.
1 per pupil.
1 per pupil.
Order these tablets by the package to replace class assortments. Packages of large size tablets contain 200 pieces, medium size contain 1,000 pieces, and small size contain 1,000 pieces.
4 boxes for 4 shapes per 4 rooms or less, I.
5 boxes for 5 shapes per 5 rooms or less, II., III.

## Supplies.

Dr. Paper, Manila, $8^{\prime \prime} \times 10^{\prime \prime}, 56$ lb., I., II.
" " " $6^{\prime \prime} \times 12^{\prime \prime}$, " " I., II............... 2
" " " $9^{\prime \prime} \times 12^{\prime \prime}$," " III................. 6
" " White, $8^{\prime \prime} \times 10^{\prime \prime}, 70$ " I., II.............. . . 2
" " " $6^{\prime \prime} \times 12^{\prime \prime}$," " I., II............... 1
" " " $9^{\prime \prime} \times 12^{\prime \prime}$," " III................. 3
Construction Paper, $9^{\prime \prime} \times 12^{\prime \prime}$, III......................... . . 1
Poster Paper, Black, $6^{\prime \prime} \times 6^{\prime \prime}$, I., II
" " Red, " " I., II..................... 1
" Green, " " I., II..................... 1
" Orange," " I., II......................
" Asstd., $9^{\prime \prime} \times 12^{\prime \prime}$, I., II., III. . . . . . . . . . . . .
Envelopes, Brown, $10^{\prime \prime} \times 13^{\prime \prime}$, I., II., III.
Colored Crayons, box of 8 colors, I., II., III.
DrawingPencils, round,imprinted "Drawing,"I.,II., III.,
Paste, 4 -ounce tubes, I., II., III

1 pkg. (100 shts.) per 2 classes.

1 per pupil.
1 box per pupil, plus 18 extra per class.

Quota.
reams per class.
" " "
" " "
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1 " " " " " "
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1 " " " " class.
per pupil.
2 per class.

## SEPTEMBER <br> Grade I.

The time allotment of 100 minutes per week for first year Art Education should be divided into five periods of twenty minutes each week, one lesson each day.

A Creative Expression series in Representation is arranged to stimulate the imagination and the joy of self-expression. The first crude drawings may be valuable records from which to trace the child's development. Exercises in Directed Observation are arranged to satisfy the child's natural curiosity in relation to the appearance of things. The circle, because of its basic quality, is used to develop the first shape consciousness. The color circle is introduced to develop an interest in orderly color relations and the joy of color consciousness.

## 1. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Little Girl." Stimulate interest by suggestive questions: "Can you draw a little girl? What kind of a dress is she wearing? What color is it? Has she curly hair? What color is it?" Encourage each child to express the idea in his own way. The teacher's kindly criticism is of great importance.

## 2. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Little Boy." Stimulate interest by suggestive questions. "Can you draw a little boy? How is he dressed? What colors are his shoes and stockings?" Encourage the children to express a difference between the boy and girl. Slight emphasis on details of dress may help to establish closer observation.

## 3. CREATIVE EXPRESSION. Representation.

MateriaIs.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "Mother." Stimulate interest by suggestive questions: "Can you draw a picture of Mother? What is the color of her dress? Has it sleeves? Can you show her hair?" Since the concept "Mother" is full of interest to the child, there is opportunity, with encouragement, to call forth great diversity of expression.

## 4. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Father." Stimulate interest by suggestive questions: "Can you make a picture of Father? Is he wearing his
coat? Is he wearing his hat?" Encourage the children to express a difference between "Father" and "Mother" of the last lesson. Slight emphasis on details of dress should help to establish closer observation.

## 5. Directed observation. Representation.

Materials.- Drawings of Lessons 1 and 2.
Procedure. - Show the papers and ask the children to select the best drawings of "A Little Boy" and "A Little Girl." Encourage them to tell why they are the best. Direct their attention to the boys and girls in the class by suggestive questions: "Does Mary's dress look like John's suit? Are they the same color? Is Mary's hair cut like John's? Are Mary's stockings the same color as John's?"

## 6. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Little Girl." Encourage the children to describe the differences found in the last lesson when Mary was compared with John. A second attempt with the same subject should result in more truthful drawings.

## 7. CREATIVE EXPRESSION. Representation.

Materials. - Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Little Boy." Encourage the children to describe the differences found from the study made in Lesson 5. Repeating a subject previously drawn gives opportunity for improvement.
8. Directed observation. Space Relations - The Circle.

Materials. - Large circles of various sizes.
Procedure. - Present the circle. Ask the children to watch you trace around its edge with your finger. Encourage several children to do the same. Teach them to trace circles in the air, and on the desk with a finger. Play a game of hunting for circles and circular shapes in the room. Use the term "circle." Differentiate between the circle and sphere.
9. Directed observation. Space Relations - The Circle. Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, one large circle for demonstration.
Procedure. - Review the tracing of circles in the air with a finger. Teach freehand drawing of circles on the blackboard, and on paper. Encourage large drawings.
10. Directed observation. Space Relations - The C'ircle. Materials.- Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, large circle for demonstration.
Procedure. - Teach the cutting of freehand circles. This is a test of knowledge of circle and skill in cutting. Teach the correct use and handling of scissors. Encourage the children to compare their best cutting with a large circle. Save the best cuttings.
11. Directed observation. Space Relations - The Circle. Materials.-Circular patterns $3^{\prime \prime}$ or $4^{\prime \prime}$ in diameter, newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, pencils, scissors.
Procedure. - Teach the tracing and cutting of circles. Review the correct use and handling of scissors. Several cuttings should be made. This work requires careful supervision so that right habits may be established. Encourage the children to select their best cuttings.

## 12. DIRECTED OBSERTATION. Recognition of Shape - The Circle.

Materials.-Interesting objects circular in shape; such as, balls, fans, bags, tops, Japanese lanterns, fruits or vegetables; manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Present an object for study. This may be a lesson in drawing or freehand cutting. Stimulate interest by suggestive questions: "What shape is it? How shall I use it? What is its color? Can you draw its picture in the air with a finger? Can you draw a picture of it on paper with crayons?" Show the drawings. Encourage the children to compare them with the object and select the best.

## 13. DIRECTED OBSERVATION. Tone Relations - Color Circle.

Materials.- Color chart of six standard colors, white paper for demonstration, colored crayons, abundant color samples.
Procedure. - Tell a rainbow story. If possible, produce the rainbow with a prism. Teach, by demonstration, the position of each standard color in its relation to others in the color circle. Ask the children to select, from colored samples, those which match the standard colors. Encourage them to bring from home, samples of the standard colors.

## 14. Directed observation. Tone Relations - Color Circle.

Materials.- White paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, color chart.
Procedure.- Teach the children to make a color circle with crayons. Each color should be placed and colored freely with crayons.
15. DIRECTED OBSERVATION. Recognition of Tone.

Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, large samples of standard colors for demonstration.
Procedure.- Show a standard color. Stimulate interest by suggestive questions: "What color is it? Can you make a picture of something the same color?" Continue in a similar way with each standard color.

## OCTOBER

## Grade I.

ORDERLY ARRANGEMENTS OF MOVABLE MATERIAL, SUCH AS PEGS, SEEDS, SHELLS, LENTILS OR TABLETS GIVE THE CHILD AN OPPORTUNITY TO SEE THE DIFFERENCE BETWEEN ORDER AND DISORDER. A SERIES OF EXERCISES IN THE ARRANGEMENTS OF TABLETS IS PLANNED TO DEVELOP A SENSE OF ORDER. REPETITION IS THE MOST ELEMENTAL FORM OF ORDER. IT SHOULD BE FELT AND ENJOYED THROUGH OTHER RHYTHMIC SENSE IMPRESSIONS AS THOSE WHICH COME THROUGH MARCHING, SINGING, CLAPPING AND DANCING. By understanding the Modes of Order, the child may be led to recognize these same Laws in Nature and Art. A series in the Appreciation of Art begins this month. It aims to create a desire and love for BEAUTIFUL PICTURES. ONE PICTURE IS TO BE ENJOYED AND STUDIED EACH MONTH. IF POSSIBLE, THAT PICTURE SHOULD BE APPROPRIATE TO THE SEASON or month. Problems in Constructive Design are arranged to orGANIZE ACTIVITIES SUGGESTED BY THE PLAY INSTINCT, TO DEVELOP ABILITY TO FOLLOW DIRECTIONS, TO DEVELOP THE POWER OF FREE EXPRESSION.
16. DIRECTED OBSERVATION. Appreclation of Art.

Materials.- One picture of the grade for class study.
Procedure. - Select a picture appropriate to the month. Place it where all may see it. The children should look at it silently for several moments. Stimulate interest by suggestive questions: "Do you like the picture? Why? What do you see in the picture? Are there any people? How many? Who are they? Where are they? What are they doing? What colors do you see in the picture?"
> 17. CREATIVE EXPRESSION. Design - Sequence of Repetition, The Circle.

Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Repetition of Shape in a Row. See aims for October. Direct the arrangement of circles at regular intervals in vertical and
horizontal rows: touching, near together, grouped. These should be well arranged on paper and left undisturbed until the series is complete. Encourage those who have failed by letting them see the hest arrangements of others.

## 18. CREATIVE EXPRESSION. Design - Sequence of Repetition, Circles.

Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, circular tablets, pencils, crayons.
Procedure.- Encourage children to recall and make one of the arrangements of Lesson 17. Teach them to trace and color the arrangement. The one color used should be chosen by the pupil first from a color chart, then from the color box. Show the drawings and let the children select those which show the straightest row and the best coloring.

## 19. CREATIVE EXPRESSION. Design - Sequeñce of Alternation, Circles.

Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Alternation of Position and Number in Rows. Teach position: up, down, left, right, up and down to left and right. Guide the arrangements of Alternation of Position with suggestive questions: "Can you find the medium size circles in your box? Place one on your paper. Can you place another circle of the same size a little higher than the first one? Do you want it to touch the first one, or not quite touch? Take another. Where shall you place this one, and the next one? Can you complete the row? Can you make a different arrangement?" Guide the arrangements of Alternation of Number in a similar way.
> 20. CREATIVE EXPRESSION. Design - Sequence of Alternation, Circles.

Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Alternation of Size and Number in Rows. Guide the arrangements with suggestive questions. See Lesson 19. The medium and small size circles should be used for the arrangements. Encourage the children to discover different possibilities.

## 21. CREATIVE EXPRESSION. Design - Sequence of Alternation, Circles.

Materials.- Circular tablets, manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, pencils, crayons.
Procedure. - Encourage children to recall and make one of the arrangements of Lesson 20. Review the tracing and coloring of the arrangement. Guide the choice of two related colors. Teach Alternation of Color.

## 22. CREATIVE EXPRESSION. Design - Sequence of Alternation, Circles.

Materials.- Blackboard, colored chalk.
Procedure. - Develop a community lesson. Ask a child to make a row of colored circles on the blackboard. Select another child to add smaller circles of a different color. Teach the use of a border line at the top and bottom of the row. Encourage the children to try several different arrangements.

## 23. CREATIVE EXPRESSION. Design - Sequence of Alternation, Circles.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Using the color chart, guide children in the selection of two crayons of neighboring colors. Ask them to make a freehand row of large and small circles. Lesson 22 should help them to enrich the rows with border lines.

## 24. DIRECTED OBSERVATION. Recognition of OrderNature.

Materials.- Nature specimens showing Sequence of Repetition and Alternation, such as seed pods, simple leaf or berry sprays; manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Present the specimen. Review position. Stimulate interest by suggestive questions: "What is it? What is the color? Does it grow up or down? Are the leaves or berries arranged side by side, or one a little higher than the other? Count the berries or leaves. Are they all on one side of the stem? How many are on the right side? How many on the left side? What shape are the leaves or berries? Are they the same size?" Encourage the children to make a picture of the specimen. Show the drawings and compare with the specimen.
25. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Boy or Girl in the Room." A few suggestive questions will help the children to begin: "Can you draw a picture of a boy or girl in the room?" Show the papers and see if the children can guess from the evident characteristics whose picture was drawn.

## 26. CREATIVE EXPRESSION. Representation.

Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Little Boy or Girl Playing a Game." Stimulate interest by suggestive questions: "What game do you like to play? How do you play it? Do you play it alone or with someone? With whom? Where do you play it?"

## 27. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "What Does Mother Do?" Encourage the children to talk freely on what mother does to make them happy, how she cares for them, loves them, makes good things to eat, and pretty dresses and suits for them to wear. When the interest is aroused, ask them to make a picture of mother which will show her doing something to make them happy.
28. Creative Expression. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "What Does Father Do?" Encourage the children to talk freely about what father does to provide for the comforts of the home. Stimulate interest by suggestive questions: "Does father go to work in the morning? Does he walk or ride? Does he carry anything with him? What kind of work does he do? Can you make a picture of father? What is he doing?"
29. CREATIVE EAPRESSION. Design - Sequence of Progression, Circles.
Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Progression of Size. Direct the arrangement of the large, medium and small size circles in vertical and horizontal rows - progressing from small to large - progressing from large to small - progressing from small to large to small.
30. CREATIVE EXPRESSION. Design - Sequence of Progression, Circles.
Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Progression of Size Within an Area. Review position. Direct the arrangement of circles progressing in size within a circular area - centers touching - top edges touching - bottom edges touching.

## 31. CREATIVE EXPRESSION. Design - Sequence of Progression, Circles.

Materials.- Blackboard, colored chalk.
Procedure. - Teach progression of color from a color chart. Ask children to select three pieces of chalk showing progression of color. Select several children to draw and color on the blackboard examples of Progression of Size in a Row and in an Area. Teach the enrichment of the edges by adding appropriate border lines.

## 32. CREATIVE EXPRESSION. Design - Sequence of Progression, Circles.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Guide children in the selection of three neighboring colors. Ask them to make a freehand drawing showing Progression of Size in a Row or in an Area. Encourage them to add an enriched border line to enclose the pattern.

## 33. DIRECTED OBSERVATION. Recognition of Order Nature.

Materials. - Nature specimens showing Sequences of Progression, such as seed pods, grasses, simple leaf and berry sprays, peacock feather.
Procedure. - Present the specimen. Follow suggestions given in Lesson 24. Encourage drawings which show truth and the spirit of growth.

## 34. DIrected observation. Constructive Design.

Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, orange poster paper, $6^{\prime \prime} \times 6^{\prime \prime}$, scissors. Procedure. - Direct a community poster or border for the blackboard appropriate to Halloween. Encourage children to follow simple directions. Place the manila paper with its long edge parallel with the front edge of desk - hold it down with the left hand. Fold the paper on its short diameter, or fold the right end to meet the left end - crease - unfold - cut on crease. Teach freehand cutting of Jack-O-Lanterns from squares - final cuttings to be made from orange poster paper. Children should suggest the arrangement of the cuttings for the poster or blackboard border. If the arrangement is to show Sequence of Repetition, the Jack-O-Lanterns should be cut from the 6 -inch squares. If the arrangement is to show Sequence of Alternation, two sizes of squares should be used for the cuttings. If Sequence of Progression is to be considered, use three sizes of squares from which to cut the Jack-O-Lanterns. Following the suggestions for arrangement given by the children, and using the best cuttings, the teacher may paste the parts of the poster.

## 35. DIRECTED OBSERVATION. Constructive Design.

Materials.- Poster paper $6^{\prime \prime} \times 6^{\prime \prime}$ - orange and black, scissors.
Procedure. - Direct the making of a simple Halloween favor to be taken home by the children. Select one from those recommended.
A Halloween Lantern.- Black poster paper, $6^{\prime \prime} \times 6^{\prime \prime}$. Place the square with one edge parallel with the front edge of desk - fold the vertical and horizontal diameters - unfold - fold the left and right vertical edges to meet the center vertical fold - unfold - fold the lower horizontal edge to meet the center horizontal fold - unfold. Cut off the strip along the lower horizontal fold - cut on each lower vertical fold as far as the long horizontal
fold. Fold to make a lantern. Paste the squares together at the bottom. To unite the sides of the lantern at the top, cut a string of Jack-()-Lanterns as follows: Fold the vertical diameter of a 6 -inch square of orange poster paper - unfold - fold the left and right vertical edges to meet the center vertical fold. (Cut off one strip - place with long edge parallel to front edge of desk - fold the right short edge to meet the left short edge - keep folded. Carry the right folded edge to meet the left open edges - while folded cut a Jack-O-Lantern from the square - leave a little of the folded edge on the left and right side. Cut, or draw, eyes, nose and mouth while square is folded-- unfold. The Jack-O-Lanterns should be joined together. Paste around the top edge of the lantern to hold it together. Fold a strip of black or orange paper on its long diameter - cut on crease and attach one piece to lantern, with paste, to form a handle.
Jack=O=Lanterns. - Cut freehand circles. From the best one, make a Jack-O-Lantern. Attach this to a folded strip of paper, a splint, or a stick.

## NOVEMBER

## Grade I.

The keynote for this month is Thankfllness. The Creative Expression series in Representation aims to arouse interest in particular buildings which serve as important factors in shaping the lives of the children. It seeks also to inspire an appreciation and the spirit of gratitude for the many opportunities of today. The work in Design should mean more than the orderly arrangement and drawing of shapes. It should help the children to feel the importance of order and balance and how our lives are affected by them. The joy of color and orderly arrangement of constructive problems may express thankfulness for the harvest.
36. DIRECTED OBSERVATION. Appreclation of Art - Pictures.
Materials.- One color print, pages 9, 10.
Procedure.-Instructions, page 9.
37. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Introduce a subject, "A House." Stimulate interest by suggestive questions: "Why do we live in a house? Does it have a door, windows, and a chimney? Why? Have you ever seen a man painting a house? What color? Can you draw a house in which you would like to live, and show the color?"
38. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Church." Stimulate interest by suggestive questions: "Does a church look like a house? Has it more than one door? Do the windows look like those in your house? Are there any steps? What is the color? Can you make a picture of a church?"
39. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "A School." Stimulate interest by suggestive questions: "Does a school look like a house - like a church? Has it more than one door? How many windows? What is the color?"
40. CREATIVE EXPRESSION. Representation.

Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "A Store." Stimulate interest by suggestive questions: "Does a store look like a house, a church, a school? Has it more than one door? How many windows? What color is the store?"
41. CREATIVE EXPRESSION. Design - Axial Balance, Circles.
Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce axial balance with circles. See aims for November. Guide the arrangement of circles in left and right balance of a vertical axis: in 2 or 4 parts, in 1 or 3 parts.

> 42. CREATIVE EXPRESSION. Design - Axial Balance, Circles.

Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, pencils, crayons.
Procedure. - Encourage the children to recall and make one of the arrangements of Lesson 41. Review tracing and coloring of arrangements. Direct the choice of one color, and the use of black crayon with which to add enrichments.

> 43. CREATIVE EXPRESSION. Design - Central Balance, Circles.

Materials.- Circular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Central Balance with circles. See aims for November. Review position. Guide the arrangements of circles in balance around a center: (a) in 4 parts - up, down, left, right; (b) in 4 parts - up to right, down to left, up to left, down to right; (c) in 8 parts combining (a) and (b). All arrangements should be left undisturbed on the drawing paper until the series is complete.

## 44. CREATIVE EXPRLESSION. Design - Central Balance, Circles.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, circular tablets, pencils, crayons.
Procedure. - Encourage children to recall and make one of the arrangements of Lesson 43. Review tracing the arrangement. Teach repetition of color in balance around a center in 4 parts. Teach alternation of color in balance around a center in 8 parts. Using the color chart, guide the choice of one or two neighboring colors. Encourage the use of simple border lines to enclose the shape.

## 45. CREATIVE EXPRESSION. Design - Axial or Central Balance, Circles.

Materials.- Blackboard, colored chalk.
Procedure. - Guide the choice of two neighboring colors from the colored chalk. Ask several children to draw freehand arrangements of Axial or Central Balance with colored chalk on the blackboard. These arrangements should be recalled from Lessons 41 and 43. Teach enrichments using dots and lines to enclose the shape. Encourage each child to offer suggestions to make the pattern grow.
46. CREATIVE EXPRESSION. Design - Central Balance or Axial Balance, Circles.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Ask children to make a freehand arrangement of Axial or Central Balance using one color. Enrichments should be added with a neighboring color.
47. Directed observation. Recognition of Order - Art. Materials.- Illustrative material showing Axial or Central Balance, such as simple embroideries, lace, patterns on dishes, or Indian patterns.
Procedure.- If the example is large, place it where the class may see it. If it is small, arrange groups of children to work from one example. Encourage children to tell how the pattern is put together and what shapes and colors are used. Pointing and tracing in the air with a finger will establish positions, directions and shapes. Guide the drawing of the example.
48. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Introduce a subject, "The First Thanksgiving." Tell the story, centering the interest around people. Ask the children to make a picture to illustrate the story.

## 49. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Thankfulness." Stimulate interest by suggestive questions: "What does it mean to be thankful? For what are you thankful? Can you make a picture which will show something for which you are thankful?"

## 50. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, a basket of fruit or vegetables. Procedure. - Present a basket. Direct the study of the basket for proportion, shape, color and construction, and the study of the handle for position, size and shape. Guide the tracing of the shape in the air with a finger. Let children arrange fruit or vegetables in the basket. Direct study of the basket filled with the fruit or vegetables. Ask children to draw the basket filled with fruit or vegetables.

## 51. DIRECTED OBSERVATION. Constructive Design.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors, fruit or vegetables.
Procedure. - Present fruit or vegetables. Direct the study of these for shape and color. Teach freehand cutting of fruit or vegetables, using newsprint for practice work. Have the best cuttings used as patterns for colored paper fruit or vegetables. Save the best cuttings for the following lesson.

## 52. DIRECTED OBSERVATION. Constructive Design.

Materials. - Cuttings of fruit or vegetables from Lesson 51.
Procedure.- Guide the children in the assembling of the fruit or vegetable cuttings to form a border for the blackboard, or a fruit wreath. Consider the Modes of Design.
53. DIRECTED OBSERVATION. Constructive Design.

Materials.- Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Review the study of baskets, Lesson 50; or, present bowls for study. Teach cutting of baskets or bowls using newsprint for practice work. Encourage children to select their best cutting and use it as a pattern for their final basket or bowl. Save these cuttings for the following lesson.

## 54. DIRECTED OBSERVATION. Constructive Design.

Materials. - The cuttings of baskets or bowls from Lesson 53, paste, mounts.
Procedure. - Teach enrichment by adding simple colored paper borders to the basket or bowl patterns. Review the Modes of Design. Teach the placing and pasting of the patterns.
55. DIRECTED OBSERVATION. Constructive Desigin.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Ask the children to suggest things to fill a Thanksgiving basket or bowl. Guide the cuttings and the arrangement in the mounted patterns of baskets or bowls from Lesson 54. These should be taken home before Thanksgiving.

## DECEMBER

## Grade I.

This is the month of anticipation, expectancy, and the joy of giving. All phases of the work centers around the holiday season. The square is introduced not only to provide the child with another shape consclousness, but also to show its importance as a shape with which to build, to create other shapes, and to produce simple gifts.

## 56. Directed observation. Appreciation of Art - PictURES.

Materials.- One color print, pages 9, 10.
Procedure.-Instructions, page 9.

## 57. Directed observation. Space Relations - The Square.

Materials.- Large circle and large square of the same diameter, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Present a circle and square for study. Trace the contour of each with a finger. Encourage children to compare and describe the characteristics of each. Teach the term "Square." Put the circle away. Ask children to draw squares in the air with a finger, at the blackboard, and on paper with crayons.

## 58. DIRECTED OBSERVATION. Space Relations - The Square.

Materials.- Large square for demonstration, newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors. Procedure. - Teach the cutting of freehand squares. This is a test of knowledge of square and skill in cutting. Encourage the children to compare their cuttings with a large square in the room. Save the best cuttings.

$$
\begin{aligned}
& \text { 59. Directed OBSERVATION. Space Relations - The } \\
& \text { Square. }
\end{aligned}
$$

Materials. - Three-inch squares, newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, pencils, scissors.
Procedure. - Review the correct use and handling of scissors. Teach tracing and cutting of squares. Ask children to trace and cut squares. Encourage many accurate cuttings. Save these for Lesson 60.

## 60. DIRECTED OBSERVATION. Design - Sequence of Repetition.

Materials.-Square tablets, newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, white paper $6^{\prime \prime} \times 12^{\prime \prime}$, green poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors, cuttings of squares from Lesson 59 , paste.
Procedure. - Teach the modification of squares to form holly leaves. Fold a square on one diagonal. Keep folded and cut three or four freehand curves on the open edges. Unfold. A slight cutting may be made half way up upon the folded edge. The final cuttings should be made from green poster paper. Guide the arrangement of these cuttings to show Repetition in vertical or horizontal rows. The best arrangements should be pasted.

## 61. DIRECTED OBSERVATION. Constructive Design Classroom Border.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, red and green poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Conduct a community lesson - the cutting and arranging of holly leaves and berries to form a classroom border. Fold and cut the manila paper to make two 6 -inch squares. Use these for practice cutting. The best one may serve as a pattern from which to cut the final holly leaves from green poster paper. Encourage children to suggest the arrangement of these to form a border. Circles of appropriate sizes may be cut to suggest holly berries. These should be added to the pattern to enrich the border. Paste, as the children suggest, the arrangement for leaves and berries.

## 62. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Describe a Christmas tree - the length and direction of the branches, the color of the needles. Ask the children to make a picture of a Christmas tree.

## 63. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Christmas Gifts." Stimulate interest by suggestive questions: "Have you asked Santa Claus to bring you something for Christmas? Can you make a picture of what you want?" Show the drawings and ask the children to guess what has been drawn.

## 64. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Christmas Giving." Stimulate interest by suggestive questions: "To whom would you like to give a gift? What shall it be? Can you make a picture of a gift you would like to give mother, father, brother or sister?"

## 65. CREATIVE EXPRFSSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Christmas Tree With Decorations." Review the description of a Christmas tree, Lesson 62. Stimulate interest by suggestive questions: "How shall we decorate the tree? With what? Where shall we begin? What colors shall we use? Where shall we put the gifts? Can you make a picture of a Christmas tree with decorations?"
> 66. CREATIVE EXPRESSION. Design - Sequence of Alternation, Balance or Progression.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, red and green poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors, paste.
Procedure.- Review cutting of holly leaves and berries. See Lessons 60, 61. Encourage the children to arrange the cuttings to show Sequence of Alternation, Balance or Progression. The newsprint should be used for practice work, and the poster paper for the final cuttings. Only the best arrangement should be mounted. Three-inch squares should be used for the cuttings.

## 67, 68, 69, 70. DIRECTED OBSERVATION. Constructive Design - Holiday Gifts.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors, paste, crayons.
Procedure. - Choose one or possibly two models from those recommended.
Christmas Box.- Fold the vertical and horizontal diameters of a 6 -inch square of manila drawing paper, or poster paper $6^{\prime \prime} \times 6^{\prime \prime}$. Fold the upper and lower edges to meet the center horizontal fold - fold the left and right edges to meet the center vertical fold - unfold. Make cuts on the folds which are left and right of the center fold, cutting from the lower edge as far as the first horizontal fold. Make similar cuts from the top of the paper to correspond with those at the bottom. Fold to form a box - paste the corners to complete box. The cover of the box may be made in the same way. Before the cover is pasted an appropriate design should enrich the top of the box.
Christmas Cornucopia.- Manila paper 8 inches square. Place square with one edge parallel with front edge of desk - fold the upper right corner to meet the lower left corner - unfold - fold the right vertical edge to meet the center diagonal fold, and the lower edge to meet the center diagonal fold - fold down the triangular corner at the upper left - unfold. Plan an Axial Balance unit for the triangular section. Color with appropriate coloring. Fold to form the cornucopia - tie or paste the overlapping sides at the back. Two of these may be made, forming a double cornucopia.

Pocket=book.- Poster paper $6^{\prime \prime} \times 6^{\prime \prime}$. Fold the diagonals of the squareunfold - fold each corner to meet the center of the square, or the point where the diagonals cross one another. Keep the left, right and lower corners folded - unfold the upper corner - fold on the center horizontal fold. The upper corner, or triangular piece, becomes a flap - to be folded over the edges and down. Emphasize the edge of the pocket-book with an appropriate colored line parallel with the edge, and add a small circle to represent a clasp.

Bag. - Poster paper $6^{\prime \prime} \times 6^{\prime \prime}$. Fold the diagonals of the square - fold each corner to meet the center of the square - unfold. Fold one diagonal keep folded - place in a vertical position. On the upper and lower folded corners, make freehand cuts from the center fold, parallel with the outside oblique edges, and stopping at the short horizontal folds. On one of these corners, cut out the triangular piece along the short horizontal fold - unfold. Place the square on the desk, resting on one cut corner - fold left and right corners to meet in the center of the square - fold on the center horizontal fold - fold the triangular piece between the handles down to form a flap. Emphasize the shape of the bag and flap with an appropriate colored line parallel with the edge.

Napkin=ring.-Strips of manila and poster papers $1 \frac{1}{2}^{\prime \prime} \times 6^{\prime \prime}$, scissors, crayons. Practice the construction of the napkin-ring with manila paper before making the final one with colored paper. Make a freehand cut a little distance in from the right short end, parallel to, and half way up. Make a similar cut down from the top parallel with the upper left end. Lock the ring together by fitting the cuts and carrying the edges inside. The final ring should be made of colored poster paper, which should be decorated before the cuts are made. Roll a 6 -inch square of newsprint and insert in the ring to form a napkin.

Christmas Tree Ornaments: Chains.- Construct rings as for napkinrings using strips of $\frac{3}{4} \times 6^{\prime \prime}$. Insert one within the other before locking. One 6 -inch square of poster paper folded and cut apart will give each child eight strips with which to construct a chain.
Christmas Tree Ornaments of Cut Paper.-Poster paper $6^{\prime \prime} \mathrm{x} 6^{\prime \prime}$. Fold the diagonals of the square - keep both folded - modify the open outside edges with simple curves. Make a freehand cut from one folded edge, parallel with the curved outer edges, stopping a little distance from the opposite folded edge. Turn the paper over and repeat the process. This cut should be the same distance from the first cut as the first cut is from the outer edge. Make alternate cuts until the center of the square is reached. Unfold carefully and pull slightly downward. A bead or marble may be placed in the bottom to weight the ornament.

Christmas Trees.- Green and red poster paper $6^{\prime \prime} \times 6^{\prime \prime}$. Fold a square on one diagonal. Make a freehand cutting of a Christmas tree. Mount on a sheet of black paper. Cut a freehand flower-pot from red poster paper in which to place the tree. Decorate the tree with frechand cuttings of candles. Consider balance in the arrangement of the candles.

## JANUARY

## Grade I.

While the creative work is not lost sight of this month, the greater part of the work is given to Directed Observation in Design and Representation. Progress should be shown in the child's ability to observe and express.
71. Directed OBSERVATION. Appreclation of Art -
Pictures.

Materials.- One color print, pages $9,10$.
Procedure. - Instructions, page 9.
72. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, a toy.
Procedure. - Present a toy. Direct the study for position, direction, shape, color and construction. Ask the children to make a picture of the toy. Teach them to compare their drawing with the toy by asking suggestive questions: "Does your drawing look like the toy? Why not? What did you forget? Did you use the right colors?" If time permits, let the children make another drawing.

## 73. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, a toy.
Procedure.- Conduct a lesson similar to Lesson 72, using another toy. Dolls make interesting drawings.
74. Directed observation. Representation.

Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, a toy.
Procedure.- Conduct a lesson similar to Lesson 72, using another toy, or repeat work of a previous lesson.
75. DIRECTED OBSERVATION. Representation.

Materials. - Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Toys." Stimulate interest by suggestive questions: "Have you a toy at home which mother wouldn't let you
bring to school? Perhaps it was too large? Can you draw a picture of it?" Memory drawing gives the child an opportunity to draw a picture of a toy he knows and treasures.

## 76. CREATIVE EXPRESSION. Design - Sequence of Alternation, Squares.

Materials.-Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Alternation of Position and Size in Rows with squares. Guide the arrangements with suggestive questions: "Can you place a vertical or horizontal row of the medium size squares not touching one another? Can you find a place between the first and second square to place a small square? Will it be at the upper part, in the middle, or at the lower part? Can you find a place for other squares, which will complete the row?" After guiding the first arrangement, encourage the children to discover other possibilities of arrangement.
> 77. CREATIVE EXPRESSION. Design - Sequence of Alternation, Squares.

Materials.-Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Alternation of Size and Attitude in Row with squares. See Lesson 76 for suggestions. Many different arrangements may be made by changing the attitude of the squares; such as, turning the square to rest on a corner.

## 78. DIRECTED OBSERVATION. Design - Sequence of Alternation, Squares.

Materials.- Blackboard, colored chalk.
Procedure.-Ask a child to select a color and draw a row of squares on the blackboard. Encourage other children to add smaller squares and border lines with a neighboring color to enrich the pattern.
> 79. CREATIVE EXPRESSION. Design - Sequence of Alternation, Squares.

Material.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Guide children in a selection of two opposite colors - R. and G., O. and B., Y. and V. Ask children to make a freehand row of large squares, using one color. The second color should be used to add smaller squares and enriched border lines.
80. DIRECTED OBSERVATION. Recoginition of Order - Art. Materials.- Illustrative material showing Sequence of Alternation, such as Indian patterns, simple textiles, ribbons, laces, or borders on dishes. These may be from the real materials, illustrations or photographs.
Procedure. - See Lesson 47 for suggestions.

## 81. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Gymnastic Game." Enter into the spirit of the game with the children. After the game has been played, ask the children to make a picture of a boy or girl in the class playing the game.

## 82. DIRECTED OBSERVATION. Representation.

Materials. - Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, a toy, crayons.
Procedure. - Introduce a subject, "Child Playing With a Toy." Choose a child to play with a toy - as, tossing balloons, bouncing a ball, building with blocks, playing ring toss. The activity should involve simple movement of arms and legs. Teach children to look and think in an orderly way by suggestive questions: "Can you point to Mary's head, to her hands? Are her hands near her head? Can you point to Mary's feet? Are they near her hands? Can you point to the place on your paper to draw Mary's head? What color is her hair? How did she comb it this morning? Can you draw Mary's face and show her hair?" Point to her head, to her hands. "Can you draw her hands? Where does Mary's arm begin - near her face? Can you trace her arm in the air with a finger? Can you draw her dress?", Point to Mary's shoes and stockings. "What color are they? Can you draw her shoes and stockings? Can you draw the toy with which she is playing?"

## 83. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Helpfulness." Stimulate interest by suggestive questions: "Do you help mother at home? Do you help father? What do you do? Can you make a picture of what you do to help at home?"

## 84. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "What do you do on Saturday?" Stimulate interest by suggestive questions: "Do you play on Saturday? With whom? Do you go away? Where? With whom? Do you ride or walk? What do you see? Can you make a picture of what you did one Saturday?"

## 85. CREATIVE EXPRESSION. Design - Sequence of Repetition, Squares.

Materials. - Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Repetition in a Field with squares. Guide one arrangement of squares in orderly rows in vertical and horizontal directions to form a field. Encourage children to discover other arrangements.

## 86. CREATIVE EXPRESSION. Design - Sequence of Alternation, SQuares.

Materials.- Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Alternation of Position and Size in a Field with squares. Guide one arrangement of the medium and small squares to show Alternation of Position and Size in a Field. Encourage children to make different arrangements.

## 87. CREATIVE EXPRESSION. Design - Sequence of Alternation, Squares.

Materials.- Square tablets, pencils, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Encourage children to recall an arrangement of Lesson 86. Ask them to make one arrangement, to trace and color it with two neighboring colors. Guide the choice and distribution of the colors.

## 88. CREATIVE EXPRESSION. Design - Sequence of Alternation, Squares.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Ask children to make a freehand drawing of large and small squares in a field to show alternation of position and size.

## 89, 90. DIRECTED OBSERVATION. Constructive Design.

Materials. - Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, scissors.
Procedure. - Select one model from the following recommendations.
Number=block. - Manila paper 8 inches square. Fold the vertical and horizontal diameters of the square - unfold - fold the left and right edges to meet the center fold or vertical diameter - unfold - fold the lower and upper edges to meet the center fold or horizontal diameter. The square is now folded into sixteen small squares. Cut off the strip of four small squares at the right - cut off the strip of three small squares at the bottom. Cut on each short vertical crease at top and bottom of square as far as the horizontal creases. Fold and paste the sides to form the box. Make another box in the same way for a cover. Slip one inside of the other to form a block. Draw a number on each side of the block from 1 to 6 with colored crayons. The edges may be emphasized with a crayon line. The blocks may be used as a game to correlate with the number work.

Envelopes.- Poster paper $6^{\prime \prime} \times 6^{\prime \prime}$. Fold diagonals of the square - unfold - fold each corner to the center of the square - unfold. Place the square resting on one corner - carry this corner past the middle fold to the upper short horizontal fold - unfold. Fold left and right corners to the center carry lower corner to upper short fold. Turn down and cut off the triangular piece which projects above the oblique edges at left and right - paste the sides of the envelope - turn down the flap. Fold and cut a piece of newsprint to fit into the envelope as a sheet of paper.
Folder for Writing Paper.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$ from Grade III. supply. Arrange, trace, and color squares in a field on one side of the drawing paper. See Lessons 85, 86, 87 for suggestions. When the pattern is complete, fold the paper on its short diameter, with the pattern on the outside.

## FEBRUARY

## Grade 1.

This month is full of interest. St. Valentine claims his part in bringing delight to the child. The exercises in Design lead to the making of valentines. Patriotism is the theme for the series in Representation.

## 91. DIRECTED ObSERVATION. Appreciation of Art Pictures.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.
92. Directed observation. Design - Sequence of Progression, Squares.
Materials.-Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Review Progression of Size in a Row and in an Area. Review position. Ask children to arrange squares in vertical and horizontal rows progressing in size from small to large, from large to small, from small to large to small. Ask children to arrange squares progressing in size within a square area, centers touching, bases or tops touching, centers moving up or down.
93. CREATIVE EXPRESSION. Design - Sequence of Progression, Squares.
Materials.-Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.-Introduce Progression of Number with squares. Teach arrangements of squares which will progress in regular sequence $1,2,3,4$, and in even numbers $2,4,6,8$. Encourage children to discover different arrangements which might resemble the laying of stones or blocks.
94. CREATIVE EXPRESSION. Design - Sequence of Progression, Squares.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Review Progression of Size, Area and Number with squares. Using a color chart, guide children in their choice of three neighboring colors. Ask children to make a freehand drawing of one example of Progression. Black may be used for border lines and enrichments.

## 95. CREATIVE EXPRESSION. Design - Axial Balance,

 Squares.Materials.- Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Axial Balance with squares. First, guide an arrangement in 1 and 3 parts and in 2 and 4 parts. Encourage children to make many different arrangements using the medium and small squares.

## 96. CREATIVE EXPRESSION. Design - Central Balance,

 Squares.Materials.-Square tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce Central Balance with squares. Ask children to arrange squares in balance around a center in 4 and 8 parts, and in 3 and 6 parts, using the medium size squares. Small squares may be added to enrich the arrangements.

## 97. CREATIVE EXPRESSION. Design - Central or Axial Balance, Squares.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Encourage children to recall an arrangement of Axial or Central Balance from Lessons 95 and 96. Using a color chart, guide the choice of one or two colors and black with which to make a freehand pattern with enriched border lines.

## 98. DIRECTED OBSERVATION. Constructive Design.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors.
Procedure. - Introduce paper folding to form squares. Demonstrate the following: Place a piece of newsprint with one long edge parallel to front edge of desk - hold paper down with left hand - carry lower right corner upward until the right edge meets the upper edge - crease - cut off the extra strip - unfold. The remaining piece is a square. Fold diameters of this square - cut on the creases making four smaller squares. Teach freehand cutting of hearts by folding each square on one diagonal. Encourage children to experiment with several cuttings of large, medium and small
hearts. Save the cuttings for following lessons to be used in arranging Repetitions, Alternations, Progressions and Balances; also, as patterns for Valentines.
99. CREATIVE EXPRESSION. Desigin - Arrangement of Hearts.
Materials. - The cuttings of hearts from Lesson 98.
Procedure.- Ask children to arrange heart patterns to form Repetitions in a Row, Alternation of size, Progression in a row, Axial and Central Balance.

## 100, 101. DIRECTED OBSERVATION. Constructive Design Valentines.

Materials.- Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, white paper $8^{\prime \prime} \times 10^{\prime \prime}$, red poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors, paste, crayons.
Procedure.- Teach the making of Valentines. Many suggestions will be given at Teachers' Meetings, and examples found in the Permanent Exhibit.

## 102. CREATIVE EXPRESSION. Representation.

Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Story of the Flag." Present the flag. Tell the story of who made the first flag, and the meaning of the colors. Stimulate interest by suggestive questions: "Where is the blue field? What is in it? How many red stripes are there - how many white stripes? Which color is at the top - at the bottom - in the middle? How many red stripes are between the top and the middle red stripes? Between the middle and the bottom red stripes? How does the flag look when it is placed straight? How does it look when the wind blows it? Can you draw a picture of a flag which you have seen waving in the air?"

## 103. DIRECTED observation. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "Salute to the Flag." Stimulate interest by suggestive questions: "Why do we love the flag? What do we do every morning to show that we love it?" After children have saluted the flag, ask them to make a picture of a boy or girl saluting the flag.

## 104. DIrected observation. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Introduce a subject, "Boy Marching With a Flag." Choose a boy to demonstrate how soldiers carry the flag. Music will stimulate interest as the boy marches around the room with the flag. Ask children to watch the flag, and the boy's hands and feet as he marches. Encourage children to make their drawings show the boy marching and the flag waving.

## 105. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "A Parade." Stimulate interest by suggestive questions: "Have you ever seen a parade of soldiers? How were they dressed? Did they wear hats? What did they carry? How did they carry them? How many carried the flag? Was it a big flag? Did you hear music? Were there horses?" Ask the children to make a picture of a parade. Memory drawing gives the child an opportunity to draw his impression of a parade.

## MARCH

## Grade I.

The introduction, comparison and use of a new shape with those already studied gives the child opportunity for more visual experience. The rectangle is a basic shape which approximates the proportion of many animals. As Humane Week occurs this month, it is appropriate to center interest around the study of animals.

> 106. DIRECTED OBSERVATION. Appreciation of Art Pictures.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.
107. DIRECTED OBSERVATION. Space Relations - The Rectangle.
Materials.- Large square and rectangle for demonstration, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Present the square and rectangle. Encourage children to compare and describe the characteristics of each. Teach the term, "Rectangle." Put the square away. Ask the children to draw rectangles in the air with a finger, and on paper with crayons.

> 108. DIrected ObSERVATION. Space Relations - The Rectangle.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, large rectangle.
Procedure.- Teach freehand cutting of rectangles. Watch for the correct use and handling of scissors. Encourage children to compare their cuttings with the large rectangle, and to select their best rectangle.
109. DIRECTED OBSERVATION. Recognition of Shape.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, and crayons for drawing; or newsprint $8^{\prime \prime} \times 10^{\prime \prime}$ and scissors for freehand cutting of objects, such as window, door, window shade, handbag, pocketbook, suit case, towel with border or fringe.

Procedure. - Select an object appropriate for drawing or frechand cutting. Direct the study of the object for positions, directions, measures, proportions and shapes. Guide the drawing or the freehand cutting from the object.

## 110. CREATIVE EXPRESSION. Design - Seqtence of Repetition, Rectangles.

Materials.- Rectangular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Repetition in a Row with Rectangles. Ask children to arrange rectangles in vertical and horizontal rows - touching, near together, grouped. Many different arrangements should be made.

## 111. CREATIVE EXPRESSION. Design - Sequence of Alternation, Rectangles.

Materials.- Rectangular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Alternation of Size and Number in a Row with rectangles. Ask children to arrange rectangles in orderly rows showing Alternation of Size and Number.

## 112. CREATIVE EXPRESSION. Design - Sequence of Alternation, Rectangles.

Materials. - Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Review Alternation of Size. Introduce Alternation of Shape in a Row with rectangles. The square is an appropriate shape to use with the rectangle. Using a color chart, guide the choice of two neighboring colors and black. Encourage children to make freehand patterns with enriched borders.

## 113. CREATIVE EXPRESSION. Design - Sequence of Progression, Rectangles.

Materials.- Rectangular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Progression of Size, Number, and in an Area with rectangles.

## 114. CREATIVE EXPRESSION. Design - Sequence of Progression, Rectangles.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Encourage children to recall an arrangement of Lesson 113. Using a color chart, guide the choice of three neighboring colors and black. Ask the children to make freehand patterns, enclose them with an appropriate shape and enrich with dots and lines.

## 115. DIRECTED OBSERVATION. Recognition of Order Art.

Materials. - Indian patterns, simple embroideries or lace patterns - showing Sequences of Repetition, Alternation or Progression - white paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Direct the study of the pattern for arrangement, considering the positions, directions, measures, shapes and proportion of the parts. Guide the children in the drawing of one pattern.

## 116. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Introduce a subject, "An Animal." Stimulate interest by suggestive questions: "Who has a pet animal? What is it? What is its name? Do you feed it? What does it like to eat? Do any animals live near you? What are they? Have you ever been to Franklin Park Zoo? What animals did you see?" Encourage the children to make a picture of some animal they know or have seen. Show the drawings. Let the children guess what animal has been drawn. Memory drawing gives the child an opportunity to draw his impression of an animal.

## 117. DIRECTED OBSERVATION. Representation.

Materials.- Pictures and photographs of an animal, or the real animal, such as cat, dog, squirrel or rabbit; newsprint $8^{\prime \prime} \times 10^{\prime \prime}$; manila paper $8^{\prime \prime} \times 10^{\prime \prime}$; scissors.
Procedure.- Direct the study of an animal from the picture or real animal, (a) position of head, ears, legs and tail, (b) direction of body, head, legs and tail, (c) number, length, and width of ears, legs and tail, (d) proportion and shape of body, which may resemble a circle, square or rectangle. Put the picture or animal away. Ask the children to draw a picture of the animal on paper with a finger. Encourage them to cut a piece of paper to approximate the proportion of the animal. From this, the freehand cutting of the animal should be made. Practice work may be done with newsprint and final cuttings made from the manila paper.

## 118. DIRECTED OBSERVATION. Representation.

## Materials.- Same as Lesson 117.

Procedure. - The same animal may be used, but not the same picture. Study the animal in different attitudes. Follow directions given in Lesson 117.

## 119. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, scissors.
Procedure.- Demonstrate freehand cuttings of different animals and fowls, or animals in different attitudes. Stimulate interest by talking as you demonstrate, "I am thinking of an animal that I can cut from a square."

Cut the freehand square and the animal from the square. The rabbit and hen are based on the proportion of a square. Cut animals from rectangles. Rats, cats, dogs, goats, pigs, cows, and horses are based on the proportion of rectangles. See if the children can guess the animals cut. Put yours aside. Encourage the children to cut freehand animals from squares and rectangles. Show the cuttings and let the children guess the name of the animal.

## 120. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - No pictures or photographs should be present in this lesson. Ask the children to make a picture of an animal they would like for a pet. The results may show the influence of previous study or they may be pure fancy.
121. CREATIVE EXPRESSION. Design - Axial Balance, Rectangles.
Materials.-Rectangular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Axial Balance with rectangles. Guide the arrangement of rectangles in left and right balance of a vertical axis: (a) In even number of parts, $2,4,6$; (b) in odd number of parts, 1, 3, 5. Encourage children to make different arrangements, using a combination of the small and medium size tablets.
122. CREATIVE EXPRESSION. Design - Central Balance, Rectangles.
Materials.- Rectangular tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Central Balance with rectangles. Guide the arrangement of rectangles in balance around a center in 4 and 8 parts and 3 and 6 parts. Encourage children to make different arrangements, using a combination of the small and medium size tablets.
123. CREATIVE EXPRESSION. Design - Balance, Rectangles.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Review Axial and Central Balance with rectangles. Using a color chart, guide the choice of one or two neighboring colors and black. Ask the children to make a freehand drawing of rectangles, showing Axial or Central Balance. Dots and lines should be added to enrich the pattern.

## 124. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Kindness to Animals." Stimulate interest by suggestive questions: "Why should we be kind to animals?

What can we do to help them? What does a dog do when he is happy? What does a cat do? Can you make a picture of a little boy or girl showing kindness to an animal?" Show the drawings. Encourage children to guess what kindness is shown.

## 125. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "An Animal Story." Tell the story. Dramatize different parts of it. Encourage children to make a picture of one part of the story.

## 126. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "The Wind." Stimulate interest by suggestive questions: "Do you like the wind? What does it do when it is angry? Do the birds like the wind? Where do they hide? What does the angry wind do to the trees? Does the wind make you walk or run? What does it do to your hat, scarf or skirt? Can you make a picture of the angry wind?"
127. DIRECTED OBSERVATION. Constructive Design Pin Wheel.
Materials.- Colored poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors, pins, skewers, or sticks. Procedure. - Direct the construction of the pinwheel as follows: Fold the diagonals of the square - unfold. Cut on each fold to within an inch of the center. Carry alternate corners to the center and pin to the skewer.


#### Abstract

APRIL

\section*{Grade I.}

The Creative Expression series in Representation is planned to lead the child into the world of fancy. The road to this world is through song, poetry and literature. It is for the teacher to inspire and the child to create. 128. DIRECTED OBSERVATION. Appreclation of Art - Pictures. Materials.- One color print, pages 9, 10. Procedure.- Instructions, page 9. 129. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons. Procedure. - Introduce a subject, "The Rain." Stimulate interest by suggestive questions: "Do you like to go out in the rain? What keeps you


from getting wet? What color is your rain coat and umbrella? Are the grasses and flowers thankful for the rain? Why? When the sun comes out and it is still raining, what do you see in the sky? Is it beautiful? Can you make a picture of a little boy or girl out in the rain?"

## 130. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Select a story. Tell or read it to the children. It should be one with colorful descriptions and plenty of action. Be careful that pictures of the story do not influence the children's work. Dramatize the story before the drawings are made.

## 131. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Select a jingle, rhyme or poem appropriate to the month. If the selection is one which the children know, have them recite it before the picture is drawn.
132. Directed observation. Space Relations - The ElLIPSE.
Materials.-A large circle and large ellipse for demonstration, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Present the circle and ellipse. Encourage children to compare and describe the characteristics of each. Teach the term "ellipse." Put the circle away. Ask children to draw ellipses in the air with a finger and to make freehand drawings of ellipses on paper and the blackboard.

## 133. DIRECTED OBSERVATION. Space Relations - The ElLIPSE.

Materials.- Large ellipse for demonstration, newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors. Procedure. - Teach freehand cutting of ellipses. Watch for correct use and handling of scissors. Encourage children to compare their cuttings with the large ellipse, and to select their best cutting. Save the best cuttings.
> 134. CREATIVE EXPRESSION. Design - Sequence of Alternation, Ellipses.

Materials.- Elliptical tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Repetition in a Row with ellipses. Ask children to arrange ellipses in vertical and horizontal rows - touching, near together, grouped. Encourage children to discover many possibilities of arrangement.

## 135. CREATIVE EXPRESSION. Design - Sequence of Alternation, Ellipses.

Materials.- Elliptical tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure.- Introduce Alternation of Size and Number in a Row with ellipses. Ask children to arrange ellipses in orderly rows with Alternation of Number and Size. Many arrangements should be made with vertical and horizontal rows, and records drawn on the blackboard.
136. CREATIVE EXPRESSION. Design - Sequence of Alternation, Ellipses.
Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Review Alternation of Size and Number. Introduce Alternation of Shape in a Row with ellipses. The circle is an appropriate shape to use with the ellipse. Guide the choice of two opposite colors and black. Encourage children to make freehand patterns with enriched borders.

## 137. CREATIVE EXPRESSION. Design - Axial Balance, Ellipses.

Materials.-- Elliptical tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Axial Balance with ellipses. Guide the arrangement of ellipses in left and right balance of a vertical axis - in even number of parts, 2, 4, 6; in odd number of parts, 1, 3, 5. Encourage children to make different arrangements using a combination of the small and medium size tablets.
138. CREATIVE EXPRESSION. Design - Central Balance, Ellipses.
Materials.- Elliptical tablets, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$.
Procedure. - Introduce Central Balance with ellipses. Guide the arrangement of ellipses in balance around a center in 4 and 8 parts and 3 and 6 parts. Encourage children to find many possibilities, using a combination of the small and medium size tablets. Records should be made on the blackboard.
139. CREATIVE EXPRESSION. Design - Balance, Ellipses. Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Review Axial and Central Balance with ellipses. Using a color chart, guide a choice of two or three neighboring colors and black. Ask children to make a freehand pattern showing Axial or Central Balance using ellipses. Lines and dots should be used to enrich patterns.

140, 141, 142. DIRECTED OBSERVATION. Constructive Design.
Materials.- Poster paper or white drawing paper $66^{\prime \prime} \times 6^{\prime \prime}$, scissors, crayons.
Procedure. - Select one model from the group recommended. Present a finished model for the children to see before giving directions.

May Basket. - Fold the diameters of a 6 inch square - unfold - fold the diagonals - unfold. Plan a border pattern around the edge of the square with colored crayons. The folds should assist in placing the units. Place the square parallel with the front edge of desk - carry the ends of the middle fold or horizontal diameter downward to meet the lower end of the vertical diameter - carry the upper left and right folded edges to meet the under folds. Fasten the center with a string to form two pockets or four pockets.

May Basket. - Fold the diameters of a 6 -inch square - unfold - fold the right and left edges to the vertical diameter - open. Fold the upper and lower edges to the horizontal diameter - unfold. The square is now folded into sixteen small squares. Fold the lower right corner of the big square to the lower right corner of the upper small square - unfold. Fold the upper left corner of the large square to the upper left corner of the lower small square - unfold. Fold the lower left corner of the large square to the lower left corner of the upper right small square - unfold. Fold the upper right corner of the large square to the upper right corner of the lower small square. Make cuts on the vertical and horizontal diameters as far as the first fold. Stand the sides to the basket up - the base is square - paste the triangular laps, one inside and one outside the basket. Cut a freehand strip of paper an appropriate width for a handle - paste.

Spring Poster - Community May Basket.- Use manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, to make freehand cuttings of baskets. Select the best cutting to be mounted on a suitable mount. Place in an appropriate place in the room. Cut freehand rectangles from poster paper $6^{\prime \prime} \times 6^{\prime \prime}$-fold the long diameter and cut leaf shapes. Cut freehand circles - fold two or four times across the center and cut flower shapes. Consider the modes of order and principles of design in the arrangement of the flowers within the basket. Strips of paper should be cut and used as an enclosing frame for the poster.
Garlands. - Poster paper $6^{\prime \prime} \times 6^{\prime \prime}$. Fold one diameter - cut apart - fold long diameter of each piece - cut apart. Fold one piece on its short diameter - keep folded - fold short folded edge to short open edges. Round the corners to form a circle - leave the center part of the two folded edges uncut. Fold one diameter of the circle. Make cuts forming elliptical shaped petals - unfold. Fold and cut the other strips of paper in a similar way. Paste these together to form a garland of flower shapes.

Crowns.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$. Fold paper on the short diameter. Make a freehand cutting of a crown for a May Queen. If the band is not long enough, paste on an extra strip. Choose the May Queen. Crown her and let the children adorn her with their garlands.

## MAY

## Grade I.

Every leaf, flower, bush and tree sings a song of beauty with the awakening of Spring. Plan some way by which the child in the heart of the city may feel a little of this beauty. An approach to A Love for beauty is through the recognition and appreciation of the Laws of Order which have been studied through the year in the Design exercises.
143. DIRECTED OBSERVATION. Appreciation of Art - Pictures.
Materials.- One color print, pages 9, 10.
Procedure.-Instructions, page 9.
144. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "A Tree." Stimulate interest by suggestive questions: "Is there a tree near your house - near the school? Where have you seen a tree? Do trees stand straight? Have they branches or arms - how many? Did you ever see a tree that pointed its arms up toward the sky? Can you hold your arms up like that tree? Did you ever see a tree that pointed its arms down toward the ground? Can you do the same with your arms? Did you ever see a tree that pointed its arms out to left and right? Can you make your arms point like that tree? What color are the arms? Does the tree look as it did in the winter? What do you see on the branches? What color are the leaves? Did you ever see a tree with beautiful flowers on the branches? Can you plant a little seed on your paper and make it grow into a big tree? How shall the arms of your tree point? Can you make the arms so beautiful with leaves and flowers that the birds will build a nest in your tree?"

## 145. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, pictures and photographs of various kinds of trees.
Procedure.- Direct the study of trees from pictures, photographs or from the real tree near the school. Discuss the number of parts, the direction, length and width of trunk and branches; the shape and pattern of the mass of foliage. Ask children to draw one of the trees.

## 146. CREATIVE EXPRESSION. Representatuon.

Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "Spring." Stimulate interest by suggestive questions: "What time of year is it? What grows in the Spring? Do you like the Spring? Why? What do you do in the Spring? Can you make a picture of what you would like to do or where you would like to go in the Spring?"

## 147. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Choose a spring song suitable for illustration. Ask the children to sing it, then draw the picture illustrating the song.

## 148. DIRECTED OBSERVATION. Space Relations - Direction, the Vertical.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce the Vertical. Teach the term "vertical." Demonstrate vertical lines on the blackboard. Ask children to find examples of vertical directions in the room - the vertical edges of objects - things which follow a vertical direction - those which approach vertical lines. Encourage children to name examples found on the street or at home. Have vertical lines drawn in the air with a finger. Teach the drawing of freehand vertical lines on the blackboard and on paper. Work for freedom of movement and vigorous lines.
149. DIRECTED OBSERVATION. Space Relations - Direction, The Horizontal.
Materials.- Manila paper $8^{\prime \prime}$ x $10^{\prime \prime}$, crayons.
Procedure. - Introduce the Horizontal Direction. Teach the term "horizontal." See Lesson 148.
150. DIRECTED OBSERVATION. Design - Lettering.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Introduce the study of letters composed of vertical and horizontal lines - I, L, T, H, E, F. Direct the study of these letters for positions, directions, measures and proportions. Each letter should be traced in the air with a finger before it is drawn on paper. Guide the freehand drawing of letters at the blackboard and on paper. Encourage large letters drawn with firm, bold strokes.

## 151. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons; Nature specimens, pictures or photographs of Nature.
Procedure. - Introduce freehand drawing of objects from Nature which will illustrate the letters drawn in Lesson 150. Suggestions: T stands for twig, tree, tiger, turtle; H stands for horse, hen; L stands for leaf, lily, lion; E stands for egg, elephant; F stands for flowers, fruits, fish, fox. Direct the planning of a page for a Nature Book. Consider the position of the paper and the placing of the letter. Choose one letter and an object to be cut. Using the color chart, guide the choice of an appropriate color. Ask children to place and draw the letter. Teach framing of the letter with an appropriate border line. Encourage children to consider the remaining space on the paper and make the drawing.

## 152. DIRECTED OBSERVATHON. Design - Lettering.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, scissors, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$.
Procedure. - Introduce freehand cutting of letters studied in Lesson 150. Demonstrate how to cut letters. Guide the cutting with the following directions: Place the $6^{\prime \prime} \times 12^{\prime \prime}$ paper parallel with front edge of desk fold on the short diameter into halves - unfold and cut apart. Fold diameters of each square - unfold and cut apart. Fold vertical diameter of one small square - unfold - fold the right edge to the center fold - unfold and cut on this fold. This is the pattern for the rectangles, $3^{\prime \prime} \times 2_{4}^{\frac{1}{4}}$. Cut each small square to fit the pattern. Teach cutting straight line letters from these rectangles. Use manila paper for practice work. Cut final letters from colored poster paper. Save the best cuttings.

## 153. DIRECTED OBSERVATION. Representation.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of objects to illustrate the letters cut in Lesson 152. Suggestions: T stands for top, table, teapot, trumpet; H stands for house, horn, hat, hammer; L stands for ladder, light, locket; E stands for electric car, engine; F stands for fence, fan, flag, football. Choose one or two from those recommended, or objects showing striking silhouettes. These may be from objects studied in previous lessons, from memory, or from objects present. Use newsprint for practice, and poster paper for final cuttings. Save the cuttings for the next lesson.

## 154. DIRECTED OBSERVATION. Constructive Design -

 Letter Book.Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, cuttings from Lessons 152, 153, and poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, paste.

Procedure.- Consider the position of the paper and the amount of space required for binding. Guide the arrangements of the freehand cuttings of letters and objects to form a well-balanced page. Direct the pasting.
155. Directed observation. Space Relations - Direction, the Oblique.
Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Introduce the oblique direction. Teach the terms, "slanting" or "oblique." See Lesson 148 for suggestions.
156. DIRECTED OBSERVATION. Design - Lettering.

Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Introduce the study of letters composed of vertical, horizontal and oblique lines - A, K, M, N, V, W, X, Y, Z. See Lesson 150 for suggestions.
157. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons; Nature specimens, pictures or photographs of Nature.
Procedure. - Introduce freehand drawing of objects from Nature which will illustrate the letters drawn in Lesson 156. See Lesson 151 for suggestions.
158. DIRECTED OBSERVATION. Design - Lettering.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of letters studied in Lesson 156. See Lesson 152 for suggestions.
159. DIRECTED OBSERVATION. Representation.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of objects to illustrate the letters cut in Lesson 158. See Lesson 153 for suggestions.

160, 161. DIRECTED OBSERVATION. Constructive Design Letter Book.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, cuttings from Lessons 158 and 159, paste.
Procedure.- Guide the plan of a page for the letter book. See Lesson 154 for suggestions.
162. DIRECTED OBSERVATION. Space Relations - Curves. Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce Curves. Teach the term, "curve." Demonstrate on the blackboard, circular and elliptical curves. See Lesson 148 for suggestions.

## JUNE

## Grade I.

It is recommended that the A B C and Nature Booklets which reach completion this month be sent to the Junior Red Cross to CARry happiness to children in the hospitals.
163. DIRECTED OBSERVATION. Design - Lettering.

Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Introduce the study of letters composed of straight and curved lines - B, D, J, P, R, U. See Lesson 150 for suggestions.

## 164. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons; Nature specimens, pictures or photographs of Nature.
Procedure.- Introduce freehand drawing of objects from Nature which will illustrate the letters drawn in Lesson 163. See Lesson 151 for suggestions.
165. DIRECTED OBSERVATION. Design - Lettering.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of letters studied in Lesson 163. See Lesson 152 for suggestions.
166. DIRECTED OBSERVATION. Representation.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of objects to illustrate the letters cut in Lesson 165. See Lesson 153 for suggestions.
167. DIRECTED OBSERVATION. Constructive Design Letter Book.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, cuttings from Lessons 165 and 166 , paste.
Procedure.- Guide the plan of a page for the letter book. See Lesson 154 for suggestions.
168. DIRECTED OBSERVATION. Design - Lettering.

Materials. - Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Introduce the study of the curved line letters - O, C, C, Q, S. See Lesson 150 for suggestions.

## 169. DIRECTED OBSERVATION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons; Nature specimens, pictures or photographs of Nature.
Procedure. - Introduce freehand drawing of objects from Nature which will illustrate the letters drawn in Lesson 168. See Lesson 151 for suggestions.
170. DIRECTED OBSERVATION. Design - Lettering.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of letters studied in Lesson 168. See Lesson 152 for suggestions.

## 171. DIRECTED OBSERVATION. Representation.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure. - Introduce freehand cutting of objects to illustrate the letters cut in Lesson 170. See Lesson 153 for suggestions.

## 172. DIRECTED OBSERVATION. Constructive Design Letter Book.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, cuttings from Lessons 170 and 171, paste.
Procedure.- Guide the plan of a page for the letter book. See Lesson 154 for suggestions.
173. DIRECTED OBSERVATION. Design - Cover for Nature Воок.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Direct the arrangement of a cover for the Nature Book. Cut the $8^{\prime \prime} \times 10^{\prime \prime}$ paper to measure $8^{\prime \prime} \times 9 \frac{1^{\prime \prime}}{}$. Give each child a sheet of this size to be folded in the following way: Place the paper with one long edge parallel with front edge of desk - fold the horizontal diameter unfold - fold the vertical diameter - unfold - fold the lower edge to meet the center fold - unfold - fold the left and right edges to meet the center fold - unfold. Fold the paper on its short diameter - with the paper
folded, make cuts from the center fold on the first and second creases, as far as the vertical crease - cut this piece out on the short vertical crease unfold. The opening makes a helpful guide for placing the letters of the title. To apply the lettering, guide the children with the following directions: Fold the paper on its long diameter - place this folded edge over the top edge of a sheet of drawing paper, placed in a horizontal position. All edges at the right should be together - hold the paper firmly with the left hand - letter the title "Nature" or "Spring" within the opening. Each letter should touch the top and bottom edge of the opening - the first letter should touch the left edge, and the last letter the right edge of opening. An appropriate color should be chosen for the letters of the title.

## 174. DIRECTED OBSERVATION. Constructive Design Nature Book.

Materials.- Papers from Lessons 151, 157, 164, 169, string, strips of manila paper $1^{\prime \prime} \times 8^{\prime \prime}$, pencils.
Procedure. - Direct the arrangement of the pages and cover for the Nature Book. Teach the binding of the book. The location of points for binding may be directed in the following way: Fold diameters of the strip of manila paper $1^{\prime \prime} x^{\prime} 8^{\prime \prime}$ - unfold - fold left and right short edges to meet the short center crease - unfold. Place this strip with top and left edges even with left edges of pages - hold firmly with left hand. Place a pencil point where the long vertical fold crosses the first short horizontal fold - push pencil point through the pages to make a hole. Make holes at the crossing points of vertical diameter and the second and third fold. Remove strip of paper. Push string through the holes with the pencil point - carry string up through the middle hole - down through the upper hole - pass the middle hole and carry string up through lower hole - down through center hole - pull gently and tie over the long center loop - push the knot into the hole.

## 175. DIRECTED OBSERVATION. Constructive Design Cover for Letter Book.

Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$ or newsprint, poster paper $6^{\prime \prime} \times 6^{\prime \prime}$, scissors.
Procedure.- Introduce freehand cutting of the letters A, B, C to be used as a title on the cover of the Letter Book. The rectangles from which to cut these letters may be obtained according to the suggestions given in Lesson 152, or a cardboard pattern $2^{\prime \prime} \times 3^{\prime \prime}$ may be traced and cut for the rectangles. There should be sufficient practice in the cutting of these letters before the final cuttings are made from the poster paper. Save the cuttings for Lesson 176.

## 176. DIRECTED OBSERVATION. Constructive Desigi Letter Book.

Materials.- Papers from Lessons 154, 160, 161, 167, 172, strips of manila paper $1^{\prime \prime} \times 8^{\prime \prime}$, pencils, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, paste.
Procedure. - Direct the arrangement of the papers and cover for the Letter Book. See Lesson 174 for suggestion for binding. Points should be located on the cover before the A, B, C letters are pasted. Guide the placing and pasting of the letters, and binding of the book.
177. DIRECTED OBSERVATION. Representation - Nature.

Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, simple nature sprays. Procedure. - Introduce Nature Drawing. Arrange nature sprays on white paper $8^{\prime \prime} \times 10^{\prime \prime}$. Place these in an upright position where small groups of children may easily see them. Direct the study of the spray for position of flowers and leaves; direction of stems, petals and leaves; number, length, width and sizes of parts; shapes of flowers and leaves. If time permits, make other flower drawings.

## SEPTEMBER

## Grade II.

The time allotment of 100 minutes per week for second year Art Education should be divided into five periods of twenty minutes EACH WEEK, ONE LESSON EACH DAY.

An informal review of terms may happily recall previous study of Design. Avoid a forced presentation. Keep the work spirited With free drawing on paper and at the blackboard. Questions may CLARIFY AND QUICKEN POWERS OF OBSERVATION, MEMORY AND DISCRIMINAtion. Lessons are planned as Directed Observation and the month's Review should clearly reveal to a teacher the needs and tendencies OF A CLASS.

1. DIRECTED OBSERVATION. Space Relations - Terms. Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Test the memory of children in relation to terms of position, direction and measure. By means of oral review, questions and suggestions, develop independence of attentive observation and lead toward individual drawing on paper, and community drawing at the blackboard. The lesson may develop into a lively and interesting game of question and answer, in which the answers may be both oral and graphic.

## 2. DIRECTED OBSERVATION. Space Relations - Square, Rectangles.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Stimulate memory of the square and other rectangles by means of discussion and drawing. Lead to the comparison of the relative position, direction and length of the edges. Interest children in comparing their drawings with perfect geometric shapes which the teacher may show them. Children may star their best results.
3. Directed observation. Recognition - Square, RecTANGLES.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-As a lesson in Recognition in Art, encourage interest in discovering modified geometric shapes of the square and other rectangles as they appear in objects in the room. Improve taste and discrimination by leading to the discovery of more interesting shapes in objects, pictures or photographs where rectangles are modified or enriched. Determine upon one example which all may learn to draw. Lead children to plan, place and develop drawings on paper. Emphasize shape and proportions. Select drawings for room exhibition.

## 4. Directed observation. Space Relations - Circlee, Ellipse.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Stimulate memory of the circle and ellipse by means of discussion and representation. Develop discrimination by comparing relative proportions and contours of these shapes. Have freehand records made of the shapes and compare the results with model shapes. Children may star their best drawings.

## 5. Directed observation. Recognition - Circle, Ellipse.

 Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.Procedure. - Encourage the recognition of modified or approximate appearances of circular and elliptical shapes in Nature or Art, discovering these shapes from things within the room and from remembered things. Decide upon one example which all may learn to draw. Lead children to compare results with the object and select the best for exhibition.

## 6, 7. DIRECTED OBSERVATION. Design - Sequence of Repetition.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Encourage children to recall simple occurrences of repetition of sound, motion, action, words or appearances. Stimulate memory of simple visual arrangements in Sequence of Repetition - direction or attitude, number, length, size, shape, color. Children should make individual inventive, rather than uniform records of each arrangement, using crayons, paper, and the blackboard. Use one color and black or two neighboring colors: $\mathrm{G}-\mathrm{B} ; \mathrm{B}-\mathrm{V} ; \mathrm{V}-\mathrm{R}$, chosen from a color chart.

## 8, 9. DIRECTED OBSERVATION. Design - Sequence of Alternation.

Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Review Sequence of Alternation - position, direction, number, length, size, shape, color. Follow the procedure of Lessons 6, 7. Use one color and black or two neighboring colors: R-O; O-Y; Y-G, chosen from a color chart.

## 10, 11. DIRECTED OBSERVATION. Design - Sequence of Progression.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Encourage discrimination of Sequence of Progression or Cradation of number, length, size, shape, color as in Lessons 6, 7, 8 and 9 .

12, 13. DIRECTED OBSERVATION. Design - Central BalANCE.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Review balance in relation to equilibrium, the centralizing of interest around a given point or idea. Encourage remembrance of simple visual arrangements of Central Balance: 4 and 8 parts; 3 and 6 parts; 5 parts. Use one color with black or two neighboring colors chosen from a color chart.

## 14. DIRECTED OBSERVATION. Design - Axial Balance.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Review Axial Balance and the remembrance of simple visual possibilities of Axial Balance: in one part - pendant or supported; 2 parts left or right, up and down of an axis or balancing point; 3 or more parts. Use neighboring colors and black, selected from a color chart.

## 15. DIRECTED OBSERVATION. Appreciation of Art.

Materials.- One color print, pages 9, 10.
Procedure. - Instructions, page 9. Arrange picture in most attractive and interesting way possible. Develop interest in the story: "What does it say? How is it said? Why is it said? Why do you like it? Why do others like it?" "Who made the original painting and when did he live?" Dramatize the story and name colors found in the picture.

## OCTOBER

## Grade II.

Encourage children to use and enjoy color throughout the month. Representation as Directed Observation and Creative Expression atms to develop recognition and love for order in Nature AND TO AFFORD CHILDREN OPPORTUNITY TO EXPRESS MORE AND MORE CLEARLY tones, shapes, directions and arrangements on which the unity of nature depends. Recognition and Apprectation of Art should lead children toward a better understanding of simple beauty. Constructive Design aims to organize seasonal activities, and to teach reasonable accuracy, with freedom of expression.
16. DIRECTED OBSERVATION. Tone Relations - Standard Colors, Warm and Cool.
Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, color chart.
Procedure.- Awaken enthusiasm for color by showing many lovely, fresh, clear colored fruits, flowers and fabrics. Review color names, color families.

Using the relative value positions of the six standard colors, teach the warm and cool divisions. Find and name these from objects in the room and from remembered things. Have simple color records made by each child to fix these relationships.

17, 18. DIRECTED OBSERVATION. Representation - Central Balance in Nature.
Materials.- White paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, front or top views of flowers, fruits, seeds.
Procedure. - Select simple, beautiful specimens showing Central Balance. Place these where all may see them clearly. Emphasize importance of a single, unchanging point of view when studying specimen. (arefully plan drawings and note relative positions, directions, measures, basic shapes. Strive for vigorous, colorful results about the same size as the specimens. Lead children to frequently compare drawings with specimens. Guide investigations for truths of appearance by leading questions on observing color, shape, increase or decrease in length, size or change in attitude. Present these in order of their importance in developing the drawing. Alternate observation with drawing.

19, 20. DIRECTED OBSERVATION. Representation - Axial Balance in Nature.
Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, crayons; simple, beautiful specimens of leaves, fruits, flowers showing Axial Balance.
Procedure.-Arrange specimens so that they illustrate Axial Balance. Continue as in Lessons 17, 18.

21,22. DIRECTED OBSERVATION. Representation - Sequence of Progression, of Length or Size in Nature.
Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, crayons; simple, interesting examples of twigs, leaves, flowers, seeds, showing Progression of Length or Size.
Procedure.- Follow directions similar to those in Lessons 17, 18.
23, 24. DIRECTED OBSERVATION. Representation - Sequence of Alternation in Nature.
Materials.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, crayons; simple, interesting examples of alternation in leaves, stems, branches, seed-pods.
Procedure.-Arrange specimens to emphasize Alternation of Position, Attitude, Length, Size, Number or Color. Follow directions similar to those in Lessons 17, 18.

## 25. DIRECTED OBSERVATION. Recognition of Art.

Materials.-A number of drawings selected from the Nature series and a place to exhibit them.
Procedure.- Awaken interest in planning and arranging an exhibition of work from the Nature series. Develop recognition of simple truths of appearance as accuracy in recording relative positions, directions, measures, shapes, tones and laws of order. Select drawings which best show these features. Select drawings having good composition, order and beauty of arrangement on paper, including size of drawing. Select drawings done clearly and directly.

26, 27. CREATIVE EXPRESSION. Representation - The Sсноод.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Stimulate visual imagination in relation to experiences and situations occurring frequently in life at school. Allow children to select any simple experience which appeals to them individually. Permit them to draw freely. A teacher may encourage and suggest in a way that will not interfere with the individual creative result desired. Encourage large, colorful, lively drawings.

28, 29. CREATIVE EXPRESSION. Representation - The Номe. Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Discuss experiences and situations frequent in the home life of children. Allow them to select subjects which appeal to their visual imaginations and to express these freely.

## 30. DIRECTED OBSERVATION. Recognition of Art.

Materials. - Drawings selected from everyday experiences.
Procedure.-Awaken interest in planning and arranging the exhibition. Select co-operatively those drawings that tell the story in the most lively, colorful way; that show unity of idea in the most forceful, direct manner; that fill the spaces well and in which important things are well placed. Discuss action, appropriate color, groupings. Select the best for room exhibition.

31, 32, 33. DIRECTED OBSERVATION. Representation - Life and Action.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Dramatize Life in action and determine the parts of the body most vital to action: - head, hands, feet; shoulders, waist; elbows, knees. Children may dramatize simple games or dances. Encourage children to
watch and memorize these motions, determining relative position of parts, general directions, shapes and colors of the masses. Lead children to draw rapidly with colored crayons, recording any action they may remember. Select the liveliest drawings.

## 34, 35. DIRECTED OBSERVATION. Constructive Design.

Materials.- Manila or white paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons, scissors, 2 -inch tablets of circle, square, rectangle; rules, pencils.
Procedure.- Introduce the rule and have children experiment testing the 2 -inch measurement working from a definitely measured and ruled line. Permit each child to experiment individually with various combinations of the 2 -inch tablets, to invent arrangements for Halloween, favors, cards or folders. Community layouts may demonstrate possible combinations. The teacher may show a few finished models and help to determine the placing of arrangements on paper. Emphasize accuracy in contacts of edges of shapes, in tracing, measuring, cutting, pasting and folding. Encourage originality in construction and decoration. Use formal, not realistic, shapes which conform to previous study of design.

## NOVEMBER

## Grade II.

This is the month in which "Thanksgiving" should be manifest as gratitude for shelter, food, clothing, beauties of Nature and abundance of health. Creative Expression in Representation and Design aims to develop discrimination in recognizing the semicircle as a basic shape in Nature and Art. The use of this shape in Design may promote love of order and happy invention. Constructive Design should promote understanding of unity in construction, arrangement, shapes and tones.

## 36. DIRECTED OBSERVATION. Space Relations - Semicircle.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, pencil or dark crayon, large semicircle.
Procedure.- Present a large semi-circle. Compare its likeness and unlikeness with other known shapes. Teacher and children may measure its height and compare it with its width. Develop shape sense by drawing in the air, on paper, and on the blackboard. Results may be compared with a model shape.

## 37. DIRECTED OBSERVATION. Space Relations - SemiCIRCLE.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, semi-circles.
Procedure.-Review characteristics of the semi-circle. Allow children to trace several in the air. Encourage free cutting of semi-circles and comparison with model shapes.
38. DIRECTED OBSERVATION. Recognition - Semi-circle.

Materials.- Mánila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, objects, prints or photographs showing modified or approximate semi-circles in Nature or Art.
Procedure.- Arrange objects, prints, vegetables, photographs which will interest and lead children to discover the semi-circular shape in these and in remembered things. Select a simple, beautiful example which all may learn to draw. Determine proportion of height to width and have children make a large drawing.
39. CREATIVE EXPRESSION. Design - Sequence of Repetition, Semi-circle.
Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Review Repetition of Shape in a Row. Develop the lesson creatively, permitting each child initiative, freedom in laying tablets of one size: semi-circles touching, near together, overlapping. After arrangements are laid, permit each child to select one and to draw this freehand on paper. Shapes may approximate the size of tablets. Retain drawings for Lesson 40.

## 40. CREATIVE EXPRESSION. Design, Enrichment.

Materials. - Drawings from Lesson 39, crayons.
Procedure. - Drawings of basic layouts, Lesson 39, may be placed on the board or on large paper by the more inventive children and may be developed with colored chalk in rhythmic cycles of repetition of shapes, dots and related lines. Discuss enrichments and awaken interest in the growth and unity of pattern. Note its relation to embroidery, ribbon, bands of lace and other designs. Teachers who feel the inherent logic and beauty of design will communicate it to their classes. Children should develop designs individually and not consciously copy those of others. Use two neighboring cool colors and black selected from a color chart.

## 41, 42. CREATIVE EXPRESSION. Desigi - Sequence of Alternation, Semi-circles.

Materials.-Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, semi-circular tablets, crayons.
Procedure.- Permit children to experiment creatively, arranging semicircular tablets in rows with alternations of position, attitude, number, size. Similar arrangements may be drawn freehand and enriched as in Lessons 39, 40. Use two neighboring warm colors and black selected from a color chart.

43, 44. CREATIVE EXPRESSION. Design-Sequence of Progression of Size, Semi-circle.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, semi-circular tablets.
Procedure. - Teach or review Sequence of Progression of Size in horizontal and vertical rows using three sizes of semi-circular tablets. Follow directions similar to those in Lessons 39, 40.

## 45. DIrected observation. Recognition of Art.

Materials.- Selected designs from Lessons 39-44.
Procedure. - Arrange an exhibition. Ask each child to select the design he likes best and to decide why he likes it. Discuss designs that illustrate: (a) orderly arrangement of basic shapes, sizes, straightness of rows; (b) appropriate placing of additional dots, shapes, harmonious movements of enriching lines; (c) grouping of parts for unity; (d) beauty of color. Encourage children to redraw the design with a better understanding.

## 46, 47. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject. "A House"- that shelter for which all are thankful. Encourage children to draw a house such as they have seen, recalling the direction and repetition of the shapes and lines, and expressing pride in bold, direct drawing. Ask children to look carefully at their own houses from a viewpoint across the street and to remember what they have seen for use at the next drawing lesson. In this Lesson, 47, promote the drawing of houses that tell more truth about "Our House."

48, 49. CREATIVE EXPRESSION. Representation.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "Homes of Other People." Encourage children to use any new knowledge each has gained in relation to the appearance and construction of houses: doors, windows, blinds, shutters, fire escapes, roof lines, chimneys, dormer windows, gables. Each drawing should show increasing power of expression.

## 50. CREATIVE EXPRESSION. Representation.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Vividly describe "First American Homes" - the log cabin of the Puritan and the wigwam of the Indian. Show pictures of these homes. Allow children to draw one of these early homes.

## 51, 52, 53, 54. CREATIVE EXPRESSION. Constructive Design -Posters.

Materials.- Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, paste, poster paper $9^{\prime \prime} \times 12^{\prime \prime}$, fruits, vegetables, or pictures of the "Mayflower."
Procedure.- Consider the proportions and characteristics of fruits or vegetables. Encourage children to cut similar shapes from newsprint. Teach the free cutting of basket or bowl shapes based on the semi-circle. Criticise and save best cuttings. With the children, plan a poster, classroom border, or harvest favor. This may be designed from free cuttings to suggest decorative baskets of fruit or vegetables. Ships and waves symbolizing the adventure of Pilgrims may be used with consideration for previous study of shapes and design. Free cuttings from newsprint may be re-cut from poster paper. The class should direct the arrangement of the poster. The pasting may be done by the teacher or a pupil.

## 55. DIRECTED OBSERVATION. Appreciation of Art.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.

## DECEMBER

## Grade II.

Little children welcome this month of surprises, expectancy and feasting. Constructive Design in simple gifts and the adaptation of decorative design to these gifts affords opportunity for wide Creative experience and worthy practice for the giving of one's best efforts. This definite use for Design should stimulate consistent, Creative Expression.

56, 57. CREATIVE EXPRESSION. Design - Sequence of Progression, Semi-circle.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, semi-circular tablets.
Procedure. - Teach or review Sequence of Progression of Size in an Area using three sizes of tablets: sequence of progression in an area with straight sides touching; centering each of the three tablets on a common center;
arranging one within the other with the centers progressing either upward or downward. Allow each child to select the arrangement he prefers and to draw it freehand ready for Lesson 57, in which he may add enrichments as in previous lessons. Use two neighboring colors and black selected from a color chart.

58, 59. CREATIVE EXPRESSION. Design - Sequence of Progression of Number, Semi-circle.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, semi-circular tablets.
Procedure. - Allow children to experiment laying Progressions of Number arranged in Axial Balances: 1, 2, 3; 2, 4, 6; 1,3,5. Tablets may touch, may be near together, may overlap. Guide children in the selection of one interesting arrangement to be drawn, enriched and unified freehand in Lesson 59. Use two contrasting colors and black, selected from a color chart: $\mathrm{Y}-\mathrm{V} ; \mathrm{O}-\mathrm{B} ; \mathrm{R}-\mathrm{G}$.
60. CREATIVE EXPRESSION. Design - Classroom Border.

Materials.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors.
Procedure. - Conduct a community lesson - the free cutting and planning of shapes for a classroom border. Have children use modified geometric shapes with which they are familiar. Save the most interesting cuttings for Lesson 61.

## 61. CREATIVE EXPRESSION. Constructive Design - Classhoom Border.

Materials.- Poster paper $9^{\prime \prime} \times 12^{\prime \prime}$, scissors, paste.
Procedure. - Cuttings saved from Lesson 59 may be used as patterns when cutting poster paper shapes in as many duplicates as are needed for the sequences of repetition and progression that will make up a classroom border. Assemble borders as directed in Lesson 51.

62, 63. CREATIVE EXPRESSION. Design - Central Balance, Semi-circle.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, semi-circular tablets.
Procedure. - Teach or review Central Balance. Permit each child to experiment creatively, laying semi-circular tablets in central balance in 4 and 8 parts. Lead the arrangement and inversion of these in opposite groups of balances: - up balanced by down; left balanced by right; up to the right balanced by down to the left; up to the left balanced by down to the right. Allow each child to select his choice and to draw it freehand for Lesson 63, in which enrichments may be added. Use two neighboring colors and black, selected from a color chart.

## 64, 65. CREATIVE EXPRESSION. Design - Axtal Balance, Semi-circles.

Materials. - Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, semi-circular tablets.
Procedure. - Teach or review Axial Balance and its recognition in objects that are pendent from or supported on a visible axis. Encourage children to experiment creatively laying axial arrangements involving $1,2,3$, or more parts. Proceed to have children draw, enrich, unify and complete designs as previously suggested.

## 66, 67, 68, 69. DIRECTED OBSERVATION. Constructive Design - Holiday Gifts.

Materials.- Manila or newsprint paper $8^{\prime \prime} \times 10^{\prime \prime}$ for practice, white paper $6^{\prime \prime} \times 12^{\prime \prime}$ or $8^{\prime \prime} \times 10^{\prime \prime}$, poster paper $9^{\prime \prime} \times 12^{\prime \prime}$, scissors, paste, crayons, rules.
Procedure. - Select one or possibly two models from those recommended. Note suggestions at teacher's meetings and in the permanent exhibition. Proceeding from a definitely measured and ruled line, and using the square, rectangular and semi-circular tablets as shapes, encourage children to originate the constructive design for boxes and gifts suitable for the holidays. Ex-ample,- on $6^{\prime \prime} \times 12^{\prime \prime}$ paper draw a 12 -inch line 2 inches from one long edge; at 4 -inch side of line trace five 2 -inch squares, one edge of each touching the line, one edge touching the next square. At one side of this row, trace four adjacent squares; at opposite side trace four adjacent semi-circles. Cut on outside lines, fold on remaining lines, slash three 2 -inch folds between squares of four in a row, paste. This constructive design admits of six possibilities a cubical box with semi-circular curves on four sides, or two ends; with four or two laps; with two or four wings. Decorate gifts with adaptations of design from any previous study, drawn before pasting is finished and first planned and practiced within areas such as will be decorated on the final gifts.
Crystal Box.- Measure and cut a 7 -inch square - fold the diameters fold the diagonals - fold each corner to center of square - unfold - cut on half of one diameter from edge to center of square - punch holes for cord or raffia on diagonals in four outside corners of square - thread 15inch strand of raffia or cord through punched holes to close and suspend crystal box.
Triangular Box.-From $6^{\prime \prime} \times 12^{\prime \prime}$ paper, fold and cut $3^{\prime \prime} \times 12^{\prime \prime}$ paper fold long diameter - unfold - fold short diameter - unfold - fold ends to short diameter. You now have eight $1_{2}^{1 \prime} \times 3^{\prime \prime}$ rectangles. Fold short diameter of a $1 \frac{1}{2}^{\prime \prime} \times 3^{\prime \prime}$ piece of practice paper - use this as a guide for placing points on one 3 -inch edge of one row of rectangles - draw oblique lines from these points to the intersections of nearest folds - cut on these lines to get a row of four $1 \frac{1}{2}^{\prime \prime} \times 1^{\frac{1}{2}} \times 3^{\prime \prime}$ triangles - fold and paste to make triangular box.

Double Cornucopia. - Fold diagonals of an 8 -inch square - cut on one diagonal to get two triangles - fold right angle edges to the fold already in center of the triangle - crease - unfold - slip outside triangles one over the other to form a triangular cornucopia. Cut away projecting pieces (triangles). Repeat with second triangular paper - place cornucopias back to back - punch holes for cord - tie with 12 -inch cord or raffia - knot ends together and loop through holes in cornucopias.
Bon Bon.- Measure and cut one piece of manila paper $6^{\prime \prime} \times 8^{\prime \prime}$ - measure and draw a line 3 inches from and parallel to one 6 -inch end of paper, roll paper and paste end at this line to make a $1 \frac{3}{4}$-inch cylinder. Cover cylinder with $8^{\prime \prime} \times 10^{\prime \prime}$ newsprint or poster paper on which designs, as Repetition in Rows, have been repeated at 1 -inch intervals. Fill bon bon - fold in or tie ends.
Notebook.-Fold short diameters of two sheets of $6^{\prime \prime} \times 9^{\prime \prime}$ ruled paper, item 7 - cut on short diameter - slip one piece inside the other to make folio for notebook. Measure and cut $6^{\prime \prime} \times 9^{\prime \prime}$ paper for cover - fold short diameter and cut on fold to give two papers $4 \frac{1}{2}^{\prime \prime} \times 6^{\prime \prime}$ - fold short diameters of these papers - use one for practice and one for cover of notebook. Bind book with three hole sewing - out at center, in at one end, out at the other end, in at center, tie over long inside stitch.

## 70. DIRECTED OBSERVATION. Apprectation of Art.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.

## JANUARY

## Grade II.

Representation as Directed Observation and Creative Expression will, this month, stimulate the recording of relative truths of appearance from observation, memory and imagination. The recognition and apprectation of order and beauty with a better command of mediums of expression should be manifest in picturing familiar, Very intimate and imaginative experiences of childhood.
71. CREATIVE EXPRESSION. Representation - the Holidays.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Introduce a subject, "Our Christmas Tree," or "A Holiday Feast." Stimulate imagination of children by recalling beauties of a Christmas tree and its colorful decorations, toys and lights. Ask them to draw the most beautiful tree they can remember or imagine. If another subject has more appeal for the class, develop it in a similar manner.

72, 73, 74. DIRECTED OBSERVATION. Representation - Toys. Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Call for a loan exhibition of toys. Exhibit one interesting toy and discuss its structure, shapes, tones, positions, directions and relative sizes of the toy and its parts. Lead children to plan orderly ways of developing drawings of toys in large, colorful sketches. Have them frequently compare their drawings with the toy. Avoid foreshortening and perspective, but encourage recording relative proportions, structure and tone.

## 75. DIRECTED OBSERVATION. Recognition of Art.

Materials.- Drawings from Lessons 71, 72, 73, 74.
Procedure. - Assign the planning and arranging of an exhibit, and group the drawings of each toy with the toy itself. Discuss and select drawings which best illustrate: truth telling of relative positions, directions, measures and shapes of toy and its parts; truth telling about the structure of the toy; good composition in placing and size of drawing; clear, direct drawing and good coloring.

## 76. CREATIVE EXPRESSION. Representation - Trees.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Introduce a subject, "Trees," as oral description from memory and imagination. Allow children to impersonate trees in the seasons, storms and sunlight; and to draw the loveliest trees they can imagine.

## 77. CREATIVE EXPRESSION. Representation - Trees.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Interest children in the appearance of trees by reading stories and poems about trees and by questions: "Can you draw a tree without its leaves? What color are the trunk and branches? Do we find progression in a tree? Can you show this in your drawing? In your drawing, tell all you can about order and beauty of trees."

## 78. CREATIVE EXPRESSION. Representation - Trees.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Lead children through question and suggestion to gain more vital, imaginative ideas about trees; "Can you draw a tree with leaves and blossoms? What colors will you use? Can you draw a tree in a snow storm? In your picture, tell about the life and beauty of trees, the time of year and the time of day."
79. CREATIVE EXPRESSION. Representation - Trees.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Appeal to the creative imagination through poetry and questions: "A tree is a design - what kinds of design can you show when drawing a tree? Can you remember and draw a tree with the wind blowing its branches? Can you show the rain coming down, or the leaves falling? Can you show which way the wind was blowing? Did the wind blow the rain? Did it blow the leaves? What colors will you use? Tell me all you can about this in your drawing."
80. Directed observation. Representation - Trees.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, pictures and photographs of beautiful trees.
Procedure.- Stimulate interest in the actual appearance of trees. Look at real trees if possible; if not, use pictures of trees in different seasons of the year. Study them as designs. Develop feeling for shapes, division into masses of trunk and foliage, character of edges of foliage masses, progression of sizes, widths and lengths. Have group drawings made on the blackboard, and individual drawings on paper.

## 81. DIRECTED OBSERVATION. Recognition of Art. <br> Materials and Procedure similar to Lesson 75.

82. CrEative Expression. Representation - The Street.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Consider with children their everyday experiences when going to and coming from school. Permit each child to select his own experience and to illustrate it in a colorful and spirited manner. These drawings should call for an active exercise of the memory and imagination.

## 83, 84. Directed observation. Representation - Shopping and Marketing.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Encourage lively interest in dramatizing and then drawing scenes and activities of shopping and marketing. Emphasize life, action and color. Permit children to dramatize with simple costuming and accessories - bags, baskets, bundles all help to vitalize and sharpen imagination. Lead children to observe phases of the dramatization and to draw these from memory.

85, 86, 87, 88. DIRECTED OBSERVATION. Representation Kindness, Helpfulness, Courtesy.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Discuss ways of exemplifying qualities of kindness, helpfulness and courtesy. Dramatize and then draw simple incidents which may illustrate these ethical attributes. Follow directions similar to Lessons $83,84$.

## 89. DIRECTED OBSERVATION. Recognition of Art.

Materials.— Drawings from Lessons 82-88.
Procedure. - Assign the organization of an exhibit to a group of children. Have the drawings grouped by subjects. Lead the class in a discussion to compare and select drawings that well express: life and motion, shown in most lively, natural, colorful ways; truth of relative positions, directions, shapes and colors of parts and the whole; good size and arrangement; clear, direct expression of ideas.
90. DIRECTED OBSERVATION. Apprectation of Art.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.

## FEBRUARY

## Grade II.

This month's study develops Creative Expression in Design with the adaptation of this study to the festival of St. Valentine, in which little children manifest such happy interest. Lessons are PLANNED TO DEVELOP initiative, inventions and independent power to enrich, unify and complete designs. This creative expression with straight and curved lines serves as an introduction to Lettering.

## 91. DIRECTED OBSERVATION. Space Relations - Parallels.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Teach the Parallel Relation of straight lines and curves in vertical, horizontal and oblique combinations. Children may find objects in the room which involve these relationships of direction and interval. Allow children to experiment at the blackboard and on paper, making sets of long lines and curves in parallel relationships. Suggest that these be made in the eight attitudes, up, down, left, right, up and down to left and right. Curves may be inverted to curve outward and inward in all these attitudes.

## 92. CREATIVE EXPRESSION. Design - Repetition in Row, Curves.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Continue interest in the occurrence of parallel curves in Design and encourage children to find these in architecture, embroidery, and on china. Allow children to experiment drawing and repeating parallel curves for basic arrangements in borders: touching to form scallops, near together, overlapping; continue to enrich, unify and complete these into satisfactory borders. Use two related colors with black, selected from a color chart.
93. CREATIVE EXPRESSION. Design - Alternation in Row, Curves.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$ or $6^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Encourage children to experiment by drawing a series of parallel curves as basic arrangements for Design developments. Illustrate sequence of alternation: (a) of attitude (curves touching to form meander), (b) of position (up and down or right and left), (c) of length (short, long),
(d) of number. Lead children to enrich and unify designs.
94. CREATIVE EXPRESSION. Design - Central Balance, Curves.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure. - Interest children in inverting parallel curves around a center to form balanced arrangements of $4,3,5$ parts. Experiment with group and individual expressions.
95. CREATIVE EXPRESSION. Design - Axial Balance, Curves.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- Interest children in balancing and inverting sets of parallel curves to form left and right arrangements in Axial Balance; up and down balances may also be invented.
96. Directed observation. Constructive Design. Material.-Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors.
Procedure.- Teach or review folding and cutting outlined in Grade I., Lesson 98.
97. CREATIVE EXPRESSION. Constructive Design - Valentines.
Material.-Free cuttings from Lesson 96, manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, pencils, crayons.
Procedure.- Encourage the laying and tracing of heart shapes as designs for valentines which shall test the child's understanding of orderly and consistent arrangement.
98. CREATIVE EXPRESSION. Constructive Design - Valentines.
Material.-White paper $8^{\prime \prime} \times 10^{\prime \prime}$, red poster paper $6^{\prime \prime} \times 9^{\prime \prime}$, crayons, scissors, paste.
Procedure.- Continuing Lesson 97, encourage children to complete valentines. Note suggestions given at teachers' meetings and found in Permanent Exhibition. Careful attention should be given to the adaptation of previous design study. Simple 1 -inch measuring with the rule should be used as an aid when constructing valentines.

## 99. DIRECTED OBSERVATION. Design - Lettering.

Material.- Ruled manila paper $6^{\prime \prime} \times 9^{\prime \prime}$, Item 50 ; pencils or crayons.
Procedure.- By drawing at the blackboard, introduce letters based on the horizontal and vertical directions. Teach the drawing of such letters as I, T, L, H, F, E, and words composed of these as FILL, HILL, FIT, HIT, IF. Note the positions, directions and relative lengths required. Children may draw on the board and on lined paper.

## 100. DIRECTED OBSERVATION. Design - Lettering.

Materials.-See Lesson 99.
Procedure. - Introduce letters based on the vertical, horizontal and oblique directions. Children may experiment in drawing N, M, A, V, W, X, Y, $\mathrm{Z}, \mathrm{K}$, and words composed of these as VAN, MAN, WAY, WALK, WANT, MANY. Carefully watch for the vertical attitude and balance of lettering.

101, 102. DIRECTED OBSERVATION. Design - Lettering. Materials.-See Lesson 99.
Procedure. - Introduce letters based on curved lines. Allow children to experiment in drawing $\mathrm{D}, \mathrm{P}, \mathrm{R}, \mathrm{B}, \mathrm{O}, \mathrm{Q}, \mathrm{C}, \mathrm{G}, \mathrm{J}, \mathrm{U}, \mathrm{S}$, and words composed of these as BROOK, BROAD, PRAY, PRAISE, QUILT, DROP, JUST, DOG, ROB, ROD, JUG, JUDGE, ROOST, DRY.

## 103, 104. CREATIVE EXPRESSION. Design - Lettering.

Materials.-See Lesson 99.
Procedure.- Building on previous study, teach children to experiment in lettering their names, days of the week or month. Carefully watch the spacing of letters in words. When a name is well spaced, the child may locate the visual center of the name, noting on what letter or between which letters this center occurs. This point of balance may serve as a guide when lettering names on drawing envelopes. Names may be lettered in one direction - from left to right - and by using the practice paper as a guide. First names are more essential than family names in Grade II.
105. DIRECTED OBSERVATION. Appreclation of Art.

Materials.- One color print, pages 9, 10.
Procedure.-Instructions, page 9 .

## MARCH

## Grade II

Seek to stimulate visual imagination and to increase freedom and joy in expressing ideas which may arise from literature. Develop better understanding of Order and love for beauty by teaching appropriate ways of organizing and preserving school material in booklets. Encourage pride in work well done.

106, 107, 108, 109. CREATIVE EXPRESSION. Representation Stories, Poems, Songs.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.- A measured 1-inch margin should be drawn parallel to the left 8-inch edge of every paper to allow for binding space in Lessons 122 126. Consider with the children incidents from stories, poems and songs that readily lend themselves to illustration in drawings that shall develop resources of pure fancy, imagination and memory. Allow each child to select an incident and to illustrate it in his own way. Kindly criticism of drawings may stimulate children to better drawing of the same incident at another lesson. Lead children to realize in a simple way that a picture should have the basic plan, enrichment, and unity of Design.

## 110, 111, 112, 113, 114. DIRECTED OBSERVATION. Representation - Dramatization.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-Encourage children to express through dramatization incidents and ideas from literature of the grade. Accessories helpful to such expression may be used in simple costuming and in arranging the settings. Pictures for research in relation to historical or geographical details may help to enrich the performances. Guide children in costuming themselves and in grouping and dramatizing the selected incidents. Permit each child to observe and then to picture any phase of the story portrayed. He may add his own details to heighten the effect and to give the setting he wishes to express. All drawings should be from memory as a test of repeated observation. Encourage dramatic action, good proportion, and as direct, truthful drawing as possible in these sketches. A line similar to that in Lessons 106-109 should be drawn in Lessons 110-114.
115. DIRECTED OBSERVATION. Recognition of Art.

Materials.- Drawings selected from Lessons 110-114.
Procedure.- Follow directions similar to those in Lessons 75 and 87.
116-120. CREATIVE EXPRESSION. Representation - Spring.
Materials.-Manila or white paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons.
Procedure.-A measured 1-inch margin should be drawn parallel to the left 8-inch edge of every paper to allow for binding space in Lessons 122-126. By means of carefully selected pictures, explain realistic and fanciful ways of expressing ideas in pictured forms. Oral descriptions, stories, poems, songs and rhymes may all contribute ideas of spring - budding trees, growing grass and flowers, coming of birds, showers, blue skies and wind blown clouds. Allow children to picture their ideas of spring in realistic or fanciful sketches. Only one type of sketch should be made in one lesson. Accent edges of paper and binding margin with a dark crayon line. Afford time for criticism and selection of drawings that well express facts, that are well composed as designs, that are attractive in color, and that are very interesting in imaginative ideas.

## 121. DIRECTED OBSERVATION. Recognition of Art.

Materials.- Drawings selected from Lessons 116-120.
Procedure. - Follow directions similar to those in Lessons 75 and 89. Lead children to select drawings for booklets to be made in Lessons 122-126. Five drawings on white paper or five on manila paper are enough for one book. Do not combine white and manila papers.

## 122-126. DIRECTED OBSERVATION. Constructive Design Booklets.

Materials.- Drawings from Lessons 106-120, white or manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, pencils, rules, crayons, string.
Procedure. - End Paper. Teach children to measure and rule a 1 -inch margin at one 8 -inch end of a cover paper. Accent this line and the edges of paper with dark crayon lines. Have the $8^{\prime \prime} \times 9^{\prime \prime}$ space decorated as an end paper for the booklet, adapting any previous study of design.
BINDING: Teach children to measure and cut a $1^{\prime \prime} \mathrm{x} 8^{\prime \prime}$ strip of paper and to fold on its long diameter. Have points measured and placed on this fold at 2 inches, 4 inches, 6 inches. Using this as a guide, have points pricked tbrough covers and pages for booklet. Using pencil point, increase size of holes to take string used for binding. String 18 inches long may be threaded into a needle or forced through holes with a pencil point - up at one end hole, over 8 -inch edge, up at same hole - down at middle hole, over 8 -inch edge, down at same hole - up at second end hole, over 8 -inch edge, up at same hole - down at middle hole - tie on back of booklet near hole one.

TITLE: Plan and letter a title on the cover. On $8^{\prime \prime} \times 10^{\prime \prime}$ manila paper have children measure, draw and cut a mask to serve as a guide when locating the title. Draw one line 2 inches and one line 3 inches from and parallel to one $10-$ inch edge of $8^{\prime \prime} \times 10^{\prime \prime}$ manila paper. Fold short diameter of paper - unfold - measure and draw 1 -inch lines connecting parallel lines already drawn 1 -inch lines to be 2 inches from 8 -inch ends of paper - refold diameter cut away $1^{\prime \prime} \times 6^{\prime \prime}$ rectangle to make mask. Place mask over booklet cover and letter title through opening in mask - color of lettering and color of binding may correspond.

## 127. DIRECTED OBSERVATION. Appreciation of Art.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.

## APRIL

## Grade II.

A New basic shape, the oval, is introduced this month for recognition in Nature and Art. Because of its similarity to the ellipse, time is allowed for careful study and comparison. Creative Design BUILDS ABOUT THIS SHAPE WITH ENRICHMENTS AND ADAPTATIONS FOR Constructive Design in Spring favors.
128. DIRECTED OBSERVATION. Space Relations - Oval.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, large oval for demonstration. Procedure. - Present the large oval for observation. Question its likeness and unlikeness to other known shapes. Lead towards a discovery of its proportions and contour. Develop shape sense by tracing with a finger in the air to get the muscular feeling for its contour. Allow children to experiment drawing this shape at the blackboard and on paper. Compare results with model shape and check best drawings.
129. DIRECTED OBSERVATION. Space Relations - Oval.

Materials. - Newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, 2-inch ovals, pencils.
Procedure.- Review characteristics of the oval and follow directions similar to those in Lesson 37. Compare cuttings with objects, fruits, and vegetables using shapes that are modified or approximate ovals.
130. CREATIVE EXPRESSION. Design - Sequexce of Repetition in Row, Ovals.
Materials. - Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons, oval tablets.
Procedure.-Follow directions similar to those in Lessons 39 and 40.
131. CREATIVE EXPRESSION. Design - Sequence of Alternation in Row, Ovals.
Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons, oval tablets.
Procedure.- Follow directions similar to those in Lessons 41 and 42.

132, 133. CREATIVE EXPRESSION. Design-Central Balance, Ovals.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, oval tablets.
Procedure.-Follow directions similar to those in Lessons 62 and 63.

134, 135. CREATIVE EXPRESSION. Design - Central Balance, Ovals.
Materials. - Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, oval tablets.
Procedure.-Follow directions similar to those in Lessons 62 and 63 and develop in three and five parts.

136, 137. CREATIVE EXPRESSION. Design - Axial Balance, Ovals.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, oval tablets.
Procedure.- Follow directions similar to those in Lessons 64 and 65.
138. CREATIVE EXPRESSION. Design - Sequence of Progression of Size in Area, Ovals.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, oval tablets.
Procedure. - Follow directions similar to those in Lesson 56. As only one lesson is assigned for this study, children may develop designs as a community experience.
139. CREATIVE EXPRESSION. Design - Sequence of Progression of Size in Row, Ovals.
Materials.- Manila paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons, oval tablets.
Procedure. Follow instructions similar to those in Lessons 43 and 44.
140. CREATIVE EXPRESSION. Design - Sequence of Progression of Number, Ovals.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, oval tablets.
Procedure.- Follow directions similar to those in Lessons 58 and 59.

## 141, 142. CREATIVE ENPRESSION. Constretetive Design.

Materials.-Classroom Posters: newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, poster paper $9^{\prime \prime} \times 12^{\prime \prime}$, white paper $8^{\prime \prime} \times 10^{\prime \prime}$, paste. Spring Favor: white paper $6^{\prime \prime} \times 12^{\prime \prime}$, crayons, pencil, rules, paste.
Procedure. - Select either the Poster or Favor for construction.
POSTER: Teach free cutting of flower and leaf shapes as modifications of basic geometric shapes. Teach free cutting of basket and bowl shapes of refined proportions suitable to hold an arrangement of these flower and leaf shapes for a classroom poster. Class may choose best basket or bowl, flower and leaf shapes to serve as patterns from which to cut poster paper shapes. Teacher may paste these duplicate shapes as class directs the assembling of a design. Poster may be assembled on large white paper which has been pasted together to make a background of suitable size. Note suggestions at teachers' meetings and in Permanent Exhibition.
SPRING FAVOR: Teach children to place 5 points 2 inches apart on 12 -inch edges of $6^{\prime \prime} \times 12^{\prime \prime}$ white paper and to rule 6 -inch lines connecting opposite points. Fold long diameter of sheet - fold one long edge to this diameter cut on this last fold and discard the $1^{\frac{1}{2}}{ }^{\prime \prime} \times 12^{\prime \prime}$ strip - cut 5 slashes $1 \frac{1}{2}$ inches long from long edge to diameter fold - fold on all lines - overlap and paste $2^{\prime \prime} \times 3^{\prime \prime}$ ends and six $1^{\frac{1}{2}} \times 2^{\prime \prime}$ tabs for bottom of pentagonal faror. A similar favor $1 \frac{1}{2}$ inches high in place of 3 inches high may be made from $3^{\prime \prime} \times 12^{\prime \prime}$ paper without discarding $1 \frac{1}{2}{ }^{\prime \prime} \times 12^{\prime \prime}$ strip. Decorative designs may be adaptations of any previous study using oval shapes. Favors may be designed as in Lessons 66-69, using constructive designs which may be similar but which do not repeat work of that period.

## MAY

## Grade II.

This month's work features animal life as an important interest. Records of observations representing characteristic attitudes, actions, types, general and relative proportions may center about a story, locality, legend, museum or seasonal attraction. A new basic shape, the right triangle, is introduced for recognition and building in Creative Design.

## 143, 144, 145. CREATIVE EXPRESSION. Constructive Design - May Basket.

Materials.- Manila paper for practice, white paper $6^{\prime \prime} \times 12^{\prime \prime}$ for finished work, pencils, scissors, rules, tablets, crayons, paste.
Procedure. - Working from a definitely measured and ruled line, and using pressboard tablets, and through measuring and folding, develop constructive design for May baskets. Decorative designs may be adaptations of previous
study done in two contrasting tones selected from a color chart. Note suggestions made at teachers' meetings, and in Lessons 66-69, 141-142, and the Permanent Exhibition. A classroom community May Basket similar to that in Lessons 141-142 may answer a creative urge of the season if it has not been designed in April.

## 146-153. DIRECTED OBSERVATION. Representation - Animals.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons - or - newsprint $8^{\prime \prime} \times 10^{\prime \prime}$, scissors, poster paper $9^{\prime \prime} \times 12^{\prime \prime}$, paste.
Procedure. - Introduce a subject around which to center representation of animal life. Drawing or free cutting may be the medium of expression, but decide which is most needed by the class. Subjects such as: Noah's Ark, Domestic Pets, The Farm, Wild Animals, The Zoo, The Circus, have an appeal for children. In presenting this series of lessons, encourage comparison of sizes, characteristic attitudes, color and action. Lead children to make observations from living animals at home, in the classroom, on the street, at parks, at museums, from pictures, prints, and photographs. Encourage direct expression after observation, but no copying. Free cutting or drawing should be the child's expression in representation of facts learned from observation. First cuttings may be re-cut from poster paper and assembled in a classroom design or community poster.
154. DIRECTED OBSERVATION. Apprectation of Art.

Materials.- One color print, pages 9, 10.
Procedure.- Instructions, page 9.
155, 156. Directed observation. Space Relations - Right Triangle.
Materials and Procedure.-Follow directions similar to those in Lessons 128,129 , using right triangles.
157. DIRECTED OBSERVATION. Recognition of Art.

Materials and Procedure. - Follow directions similar to those in Lesson 38.

158-161. CREATIVE EXPRESSION. Sequences of Repetition in a Row and Alternation in a Row-Right Triangle.
Materials and Procedure.-Follow directions similar to those in Lessons 39-42.
162. DIRECTED OBSERVATION. Recognition of Art. Materials and Procedure. - Follow directions similar to those in Lesson 45.

## JUNE

## Grade II.

Design should be very rich this montil as a proof of creative power gained from the year's study. Encourage creative freedom, more orderly enrichments and better tone relations.

163, 164. CREATIVE EXPRESSION. Central Balance -Right Triangle.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, right triangular tablets. Procedure.- Follow directions similar to those in Lessons 62, 63.

165, 166. CREATIVE EXPRESSION. Central Balance - Right Triangle.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, right triangular tablets.
Procedure. - Follow directions similar to those in Lessons 62, 63, using three and six parts.

167, 168. CREATIVE EXPRESSION. Sequence of Progression of Size in Area - Right Triangle.

Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, right triangular tablets.
Procedure. - Follow directions similar to those in Lessons 56, 57.

169, 170. CREATIVE EXPRESSION. Sequence of Progression of Size in a Row-Right Triangle.
Materials.-Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, right triangular tablets.
Procedure. - Follow directions similar to those in Lessons 43, 44.

171, 172. CREATIVE EXPRESSION. Sequence of Progression of Number - Right Triangle.
Materials.- Manila paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, right triangular tablets.
Procedure.- Follow directions similar to those in Lessons 58, 59.
173. DIRECTED OBSERVATION. Recognition of Art.

Materials. - Designs selected from Lessons 163-172.
Procedure. - Follow directions similar to those in Lesson 45.
174. DIRECTED OBSERVATION. Appreciation of Art.

Materials.- One color print, pages 9, 10.
Procedure.-Instructions, page 9.

175-177. DIRECTED OBSERVATION. Representation Nature.

Materials.- Manila or white paper $8^{\prime \prime} \times 10^{\prime \prime}$, crayons, simple nature sprays. Procedure.- Review nature sketching as outlined in October. Direct the study, for position, of flowers and leaves - directions of stems, flowers and leaves; number, length, width, size and any other Sequences of Progression.

## SEPTEMBER

## Grade III.

The time allotment of 120 minutes per week for Third Year Art Education should be divided into four periods of thirty minutes each week.

The work of this monti, largely review, includes Space Relations, Tone Relations, Representation and Constrective Design. Through lessons in space relations, a response to different positions and directions is established and the geometric shapes are recognized as basic shapes in Nature and Art, and habits of attentive observation and accurate expression are developed. By means of added knowledge, the child's love and apprectation of color in Nature and Art is increased. By constructing objects the desire to plan well and to think independently is developed.

## 1. Directed observation. Space Relations - Straight and Curved Lines.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, objects. Pictures of objects showing straight or curved parallel edges may be placed about the room.
Procedure.- Make the schoolroom environment rich in material illustrating the subject. Review vertical, horizontal and oblique directions. Children may trace these directions in the air and draw on the blackboard. Review parallels. Lead children to discover and to trace in the air examples of parallel horizontal, vertical, and oblique directions before making accurate freehand drawings of straight and curved parallel lines on paper. Use bold gray lines.

## 2. Directed observation. Space Relations - Geometric

 Shapes.Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, examples of the geometric shapes. Objects or illustrations based on these shapes may be placed about the room as if by chance.
Procedure. - Lead children to recall and find examples of circles, squares, rectangles, ellipses, semi-circles, ovals, and modifications of these shapes. Freehand drawings of some of these geometric shapes should be made on paper and at the blackboard. Emphasize good arrangement. Drawing paper should be placed on the desk with edges parallel to the edges of the desk. Good posture is essential during drawing lessons. Tablets are used this year for reviewing and teaching shapes, for experimental arrangement in design, but not for tracing.
3. Directed ObSERVation. Space Relations - Triangles. Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, examples of triangular shapes found in Nature and in Art, large triangular shaped papers or cards.
Procedure. - Present or review the right, the equilateral and the isosceles triangles. Direct attention to their points of similarity and analyze their points of difference. Children may draw these shapes on paper and at the blackboard.

## 4. Directed OBSERVation. Tone Relations - Six Standard Colors.

Materials.-A color chart, good examples of color in Art: textiles, pottery, baskets, pictures, colored papers; in Nature: brilliant flowers, leaves, fruits, vegetables.
Procedure. - Review the six colors and teach their position in the color circle. Lead children to discover that some colors are lighter than the standards. A search for light and dark colors in the material provided will arouse keen interest. Encourage children to contribute to a color collection of beautiful tones. Children should share with the teacher in collecting samples of colors.

## 5. Directed observation. Tone Relations - Color Scale

 of Three Values.Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, color chart; examples of textiles, beads, pottery, vegetables, fruits, flowers, leaves showing gradation of tone; good color prints showing summer and winter coloring in landscapes. Procedure - Quickly review color names with recognition of six colors. Fold or cut paper to $6^{\prime \prime} \times 9^{\prime \prime}$ size. Encourage children to find in the examples provided, first - red, orange, yellow; second - lighter and darker tones of these colors. Plan a graded color scale of three steps, as follows: place chosen color in the middle, lighter tone a little above and darker tone a little below. Pupils in one row may make similar scales,- light and dark tones of red, orange or yellow. Colors are made lighter by using the crayon lightly and darker by using black with the color. Teachers may demonstrate with blackboard chalks or with crayons on white paper. Arrange tones in an informal scale, gradations of light and dark tones without enclosing shapes.
6. Directed observation. Tone Relations - Color Scale of Three Values.
Materials.- Same as in Lesson 5.
Procedure. - The same as in Lesson 5, using green, blue and violet.

## 7. Directed observation. Tone Relations - Black, White and Gray

Materials.- White paper $6^{\prime \prime} \times 9^{\prime \prime}$, hack crayon, birds, feathers, textiles, pottery for color reference, a color scale.
Procedure - Children may recognize and locate black, white, and gray in materials for color reference. Many different values of gray will be found. By searching, a half-way step between black and white - called middle gray - may be located. Develop an informal seale of white (the white paper), middle gray, and black.

## 8. Directed observation. Representation - Color in Nature.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, nature specimens: grasses, sedges, weeds, berry sprays, leaves, flowers, fruits, vegetables.
Procedure.- Select simple specimens, or simplify specimens by elimination of some leaves, flowers or berries. Co-operate with school garden teachers. Place examples where they may be clearly seen by all pupils. Teach structure and growth. Children should study growth of stem, leaves, flower or fruit and their relation to visual elements: position, direction, attitude, measure, proportion, and shape, and to the laws of order: repetition, sequence and balance. Encourage children to carefully observe light and dark tones in specimens and to draw them freely with crayons. Good arrangement on the paper should be emphasized.

## 9. DIRECTED OBSERVATION. Representation - Color in Nature.

Procedure. - The same as in Lesson 8, with emphasis on the richness and brilliancy of color.

## 10. DIRECTED OBSERVATION. Representation - Color in Nature.

Procedure.- The same as in Lesson 8, drawing leaves, flowers, fruits or vegetables. Teach children to manipulate one color over another when one crayon alone does not produce the desired tone. Questions: "Is the color light? Is it dark? Is it more red or more blue?"
11. Directed observation. Constructive Design - Oneinch and One-half-Inch Measures.
Materials - Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, leatherboard rules.
Procedure. - Review or teach the use of a rule as a means of establishing distances between any two given points. Review 1 -inch measure. Emphasize the fact that 1 inch on a rule is located not only at the beginning of a
rule, but that the length, 1 inch, may be found in any part of the rule. Teach $\frac{1}{2}$-inch measure. Children may locate $\frac{1}{2}$ inches on the rule, and draw lines of $3 \frac{1}{2}$ inches, $6 \frac{1}{2}$ inches, etc. Objects may be measured, each child making a record on paper of some definite lengths by laying off the number of inches and half-inches on a straight line.

## 12. DIRECTED OBSERVATION. Constrưctive Desigi Measuring and Laying Off Given Distances.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, pencils.
Procedure - The lesson is similar to Lesson 11, with emphasis on directions for laying off any given distance. Explain the correct way to make a point when indicating a definite measurement. Teach the construction of a rectangle by laying off definite distances and working from one corner of the paper; or, teach the construction of a square based on a working line. After experimentation, a square or rectangle one-half or twice the size of the first ones may be constructed. Well arranged papers are to be encouraged.

## OCTOBER <br> Grade III.

The month of brilliant color effects in nature may be amplified by study of rich color combinations found in textiles and other objects made by man, and also by studying reproductions of fine works of art. Lettering is introduced that words or groups of words may be correctly spaced, thus acquiring beauty of arrangeMENT.
13. DIRECTED OBSERVATION. Recognition of Art.

Procedure.- Display as many as possible of the nature drawings made in Lessons $8,9,10$. Arrange in the same group those drawings made from the same kind of plant. If possible, have in the room some of the same varieties of specimens. Criticism of this art exhibit should come from the children and should be conducted in a happy, helpful spirit. Suggestive questions: "Which drawings look most like the specimen? Why? Which look as if they would grow? Are the leaves and blossoms the right shape? Which are the most beautiful in color?" Display for a few days several of the best papers selected by the class.

## 14, 15, 16, 17. DIRECTED OBSERVATION. Representation Color in Nature.

Procedure.- Conduct lessons similar to previous nature lessons, using colorful leaves, berry sprays, fruits or vegetables. Gradation of light and
dark tones is stressed this year, but the recognition of gradations from one color to another color should be encouraged whenever such effects occur and are recognized in specimens.

## 18, 19. DIRECTED obsERVATION. Representation - Recognition of Tone, Color in Art.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, textiles, ribbons, printed papers, Indian pottery, Japanese lanterns illustrating repetition of shape and tone.
Procedure. - Select examples simple enough for children to translate and place them where they may be plainly seen. Teach children to plan the arrangement on paper and then to study the steps by which a pattern is developed: "What colors are used and what are the shapes of the spots of color?" Drawings should be developed freely with crayons.

## 20. DIRECTED OBSERVATION. Appreciation of Art.

Materials.- One color print, page 11.
Procedure.-Instructions, page 9. Arrange picture in most attractive and interesting way possible. Develop interest in the story: "What does it say? How is it said? Why is it said? Why do others like it?" Dramatize the story and name tones found in the picture. "Who made the original painting and when did he live?" Stimulate in the children a desire to know more about pictures. The story of the picture may be told by the children. The teacher should add her contribution by directing the pupils' attention to the way in which the artist has told the story - making the picture of interest by using masses of light and dark tones, by placing dark trees, buildings or people against light, or light against dark, and by using lines which direct attention into the picture. Good works of Art in the room or in the building, which are within the children's comprehension, may be studied sometime during the year. If the artist is well known, his name and the kind of pictures he loved to paint may be taught through recognition of pictures other than the one studied.

## 21. DIRECTED OBSERVATION. Design - Lettering.

Materials.- Ruled manila paper $6^{\prime \prime} \times 9^{\prime \prime}$ - Item 50 , pencils, lettering chart. Procedure.- Review letters as grouped in previous lessons by drawing at the blackboard. Direct children to observe the direction of lines and the proportions in height and width of the different letters. Height of letters may be one or two spaces. When two spaces are used on the lined paper, the middle line will serve as a guide to show that some letters cross above and some below the middle. Direct the freehand drawing of letters made with vertical and horizontal lines, letters requiring oblique lines, letters made with all
curved lines and those made with straight and curved lines. Each group of letters should be arranged in a horizontal row and each letter should be drawn several times.

## 22. DIRECTED OBSERVATION. Design - Letter Grouping.

Materials.- Ruled manila paper $6^{\prime \prime} \times 9^{\prime \prime}$, pencils, lettering chart.
Procedure. - Demonstrate on the blackboard the grouping of letters to form words. Follow this study with practice lettering on paper. Choose short words which may be made by combining letters from the first group of straight line letters. See Lessons $99-104$, Grade II. Children should consider direction of lines, proportion, size, and the relation of one letter to the next letter.

## 23, 24. DIRECTED OBSERVATION. Design - Lettering of Child's Name.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils.
Procedure.- Direct lettering of the child's name in sizes suitable for the drawing envelopes. If the name is long, the first initial and last name may be used. Spaces between individual letters should be slight. Spaces between words should be equal to the letter M. Blank spaces should occur between lines of lettering. Note letter proportions on chart. Save papers for Lesson 25.

## 25. DIRECTED OBSERVATION. Design - Lettering on EnveLOPES.

Materials.- Drawing envelopes $10^{\prime \prime} \times 13^{\prime \prime}$, rules, scissors, pencils. Lettering papers from last lesson.
Procedure.- Direct the lettering of names on drawing envelopes, each child working from the best arrangement made in Lesson 24. Cut the strip with lettered name from the drawing paper, fold to find center of name, place center of paper to correspond with vertical center of envelope and just above place where name is to be lettered on the envelope.
26. DIRECTED OBSERVATION. Constructive Design.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, pencils, scissors.
Procedure.- Review the use of a rule, measuring definite distances to include inches and half-inches, and the construction and cutting of rectangles, squares and triangles. Encourage truth telling work by children, but avoid arbitrary dictation.

27, 28. DIRECTED OBSERVATION. Constructive Design. Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, pencils, scissors, paste. Procedure.- From among the constructive design suggestions for December, select one article such as the tray, square, or triangular bon bon, or wing box for practice construction and adaptation of 1 inch and $\frac{1}{2}$ inch. Teach children to lay off the measures, rule lines, cut, fold and paste the article as outlined under the titles named.

## NOVEMBER

## Grade III.

The month's study reviews and stimulates new Creative Expression in Design, featuring Sequences of Repetition and of Alternation in a Row and in a Field. The method builds the whole design step by step. Each child chooses a color and a shape, either geometric or modified. The shape is repeated at regular intervals in a vertical or horizontal direction, producing a simple Sequence of Repetition in a Row. A highter or darker tone of the same color or another color is chosen. Using this tone, a new shape or a different size or number of the same shape is repeated in the spaces between the first row of shapes, producing a Sequence of Alternation.

Enrichment is obtained by using values of the chosen colors, or black. Single lines, groups of lines, or small shapes may be used. Unify the design with borders closely related to the pattern.

The same method is followed for Sequences of Repetition and Alternation in a Field. The shape in this case is repeated in a row, then in another row, until the field is covered with shapes at regular intervals.

Criticism of pupils' work by the pupils may answer questions: "Is the design planned correctly? Do the shapes look well together? Do they fill the spaces well? Is the color good? Does it make a beautiful design?"
29. DIRECTED OBSERVATION. Recognition of ArtSequence of Repetition in a Row with Alternation.
Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, illustrative material showing Repetition or Repetition with Alternation; plants, sprays, flowers, lace, embroidery, baskets, bowls with border designs.
Procedure.- Encourage children to discover Repetition with Alternation in illustrative material. Teach them to recognize and to draw the structural development of the plant or pattern. This study may include Sequences of Alternation in Number, Length, Width, Size, Position or Shape.

## 30. CREATIVE EXPRESSION. Design - Sequence of Repetition in a Row with Alternation of Position and Size.

Materials.- Manila paper $4 \frac{1}{2}{ }^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.-Fold and cut $4 \frac{1}{2}^{\prime \prime} \times 12^{\prime \prime}$ from the $9^{\prime \prime} \times 12^{\prime \prime}$ paper. Children may create Sequence of Repetition in Rows in which their inventive expression will show Alternation of Position aid Size. Use one color and black and enrich with lines and dots.

31, 32. DIRECTED OBSERVATION. Constructive Design The First Meeting House and Fort.

Materials.-Construction paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, scissors, pencils, pictures of First Meeting House and Old Fort, 1621.
Procedure. - Using rule and pencil, have points measured and placed on 12 -inch edges of paper $2 \frac{1}{2}$ inches from all four corners - rule two 9 -inch lines connecting opposite points. On 9-inch edges have points placed $2 \frac{1}{2}$ inches and 3 inches from all four corners - rule four 12 -inch lines connecting opposite points. Cut out four rectangles $\frac{1_{2}^{\prime \prime}}{} \times 2 \frac{1^{\prime \prime}}{}$ and fold on all remaining lines - fold paper to show "flat rofe and batilments." Unfold and plan openings for "ordnance" by placing points on 12 -inch lines $4 \frac{1}{2}$ inches and 5 inches from ends of lines - refold and cut $\frac{1}{2}$-inch slashes at these points - fold these $\frac{1}{2}$-inch double squares and paste them to the flat roof fold and paste ends of Old Fort - cut away $\frac{1}{2}{ }^{\prime \prime} \mathrm{x} 3$ " tabs at lower edge of ends. Before any pasting is done, plan and draw a horizontal row of "loop holes" on long sides of building, large door at one end, and color the building to resemble heavy $\log$ construction.
"The old fort and first meeting house, 1621.
'This somer they builte a forte with good timber, both strong and comly, which was of good defence, made with a flat rofe and batilments, on which their ordnance were mounted, and wher they kepte constant watch, especially in time of danger. It served them allso for a meeting house.'"

- William Bradford.

> 33, 34. CREATIVE EXPRESSION. Design - Sequence of Repetition in a Row with Alternation of Position, Number and Shape.

Materials.-Manila paper $4 \frac{1}{2}{ }^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Building on the information gained in Lessons 29, 30, develop lessons in which children will use two shapes drawn in Sequence of Repetition in a Row with Alternation of Position, Number and Shape. Encourage freedom of arrangement by allowing children to work in groups or in succession at the blackboard and at their desks. Consider possible enrichments and
arouse interest in the growth and unity of pattern. Shapes may be drawn with one color, using a darker tone of the same color or black for accent and enrichment.

35, 36. CREATIVE EXPRESSION. Desigiv-S Gquevce of
Repetition in a Row with Altervation of Attitude and Tone.
Materials.- Manila paper $4 \frac{1}{2}^{\prime \prime} \times 12^{\prime \prime}$, crayons, illustrative material.
Procedure.- Continue to develop creative patterns using two shapes in Sequence of Repetition in a Row with Alternation of Attitude and Tone. From a color chart the children may select two warm colors, such as R and O, or two cool colors, such as B and G, to be used with black. Border lines may enrich and unify the design.

## 37, 38. CREATIVE EXPRESSION. Design - Repetition in

 a Row Showing Overlapping of Shapes.Procedure.- Call attention to the material provided, as in Lesson 29, and to similar arrangements of Repetition in a Row showing overlapping of shapes which may occur on the children's clothing. Repetition may be in horizontal or vertical rows using equilateral or isosceles triangles. From a color chart select two tones of one color with a dark tone of the opposite color, thus using warm and cool colors; for example,- light and dark orange and a darker tone of blue for enrichment.

## 39, 40. DIRECTED OBSERVATION. Constructive Design Indian Headdress or Puritan Bonnet.

## Indian Headdress.

Materials.- Construction paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, scissors, crayons, pencils. Indian illustrations: Pictures, feathers, bead work, blankets, baskets.
Procedure.- Interest children in the illustrative material, noting designs and colors which Indians used. Place paper with 12 -inch edge at top on left and right 9 -inch edges lay off from the bottom $\frac{1}{2}$ inch, $1 \frac{1}{2}$ inches. 2 inches - connect opposite points. On the line 2 inches from the bottom and on the top long edge of paper, beginning at the left, lay off $\frac{1}{2}$ inches across the paper - connect opposite points with 7 -inch lines - find the line in the middle of the top edge - lay off $\frac{1}{2}$ inch from the top on this line - draw from this point to the points where the next vertical lines on left and right of center touch top edge - cut out this triangle. From these last points, draw oblique lines, right and left, to points 5 inches from top on the 9 -inch edges. Each feather is 1 inch wide. Two feathers touch the top edge. The apex and outside slanting edge are on the long oblique line. Make the opposite short slant of each feather balance the lines given. Cut on long
oblique lines, then on center vertical line from top to horizontal band cut between other feathers, every other line. Cut other oblique edges of feathers. To lengthen headband cut a strip of paper $2^{\prime \prime} \times 12^{\prime \prime}$ and paste the ends. Coloring - use a progression of warm colors - red, orange, yellow for the feathers, with strokes slanting toward center of feather. Starting at center of the band, draw a square or two equilateral triangles facing each other - to the right and left draw a Repetition in a Row showing overlapping of triangles. Use colors in the feathers and black for accent.

## Puritan Bonnet.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, scissors, pencils, pictures of Puritans with white caps.
Procedure. - Teach children to measure and cut a 9-inch square. Lay off $1 \frac{1}{2}$ inches down from the top on the left and right edges - connect these points - fold on the vertical diameter - open and fold bottom edge up to line $1 \frac{1}{2}$ inches from top - turn over and place folded edge at top - fold upper left and upper right folded half until they coincide with the center fold - fold up all the paper below the triangles. Force the fingers under the last fold up into the bonnet toward the top and turn it over. By pasting two pieces of drawing paper together, a bonnet large enough for a child may be constructed.
> 41. DIRECTED OBSERVATION. Apprectation of Art - Pictures Suggestive of the Season - Harvest, Thanksgiving, Pilgrim and Indian Pictures. See Lesson 20.
42. CREATIVE EXPRESSION. Design - Modification of Geometric Shapes.
Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, triangular tablets, illustrative material - objects based on the geometric shapes with emphasis on triangles.
Procedure.- Review the three kinds of triangles: right, equilateral and isosceles triangles. The lesson may begin at the blackboard with as many children working as possible. The shapes are to be modified in an orderly manner by using curves - circular or elliptical, curving either in or out of the shape. Several modifications may be drawn in outline on drawing paper. Save papers for future reference in December.

> 43, 44. CREATIVE EXPRESSION. Design - Sequence of Progression of Size and Tone in a Row.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, color chart.
Procedure.-A simple modification of the equilateral or isosceles triangle may be used in a Sequence of Progression of Size and Tone. Recall shapes
modified in the last lesson. The shapes may be built on a vertical or horizontal axis, touching or overlapping. The progression or gradation is from small to large or from large to small. Three sizes of the same shape should be used. Single inversion may be encouraged. From a color chart select for coloring a progression of warm colors - yellow, orange, red. Enrich and unite shapes with black.

## DECEMBER

## Grade III.

Design this month will combine Creative Expression with Directed Observation, the purpose being to create beauty in constructed objects. Good structure is most essential. Designs appropriate to the subject, to the material, and to the construction may be used with adaptations of Sequences of Repetition, Alternation and Progression, Axial and Central Balances.

## 45. CREATIVE EXPRESSION. Design - Progression of <br> Number.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, triangular tablets.
Procedure. - Children may choose a shape, the equilateral or isosceles triangle. Direct children to make several arrangements with tablets on $9^{\prime \prime} \times 12^{\prime \prime}$ paper. Progression will be $1,2,3,4,5 ; 2,4,6,8,10 ; 1,3,5,7,9$. The progression may be either from above, increasing downward, or from below, increasing upward.
46. CREATIVE EXPRESSION. Design - Progression of Number.
Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Freehand crayon designs showing Progression of Number and Position may be drawn at the blackboard and on paper. Encourage children to recall arrangements made in Lesson 45, and to invent new arrangements. From a color chart children may select one color and a darker tone of the opposite color for enrichment, as light red and a darker green, or orange and a darker blue. Save papers as suggestions for holiday decorations.

## 47, 48. CREATIVE EXPRESSION. Design - Progression in an Area.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, illustrative material showing Progression in an Area.
Procedure.- Display best results from Lesson 42. Encourage children to draw a large triangular shape which they may modify or enrich. Within this
shape they may develop Progression in an Area. Drawings may be developed at the blackboard and on paper. Designs should show an understanding of progression of warm or cool colors. Black may be added in the enrichment.

## 49, 50, 51, 52. DIRECTED OBSERVATION. Constructive Design - Holiday Gifts.

Materials.- The materials for each article are described with the instructions for its design.

Procedure. - From among the following articles, select one or two for construction and decoration for the holidays. Teach the constructive process or review the work of Lessons 26, 27, 28, using manila paper, rules, pencils, scissors and paste. Repeat the steps, using white or poster paper and an adaptation of previous design study. Have the creative design finished before children do the final pasting.

Triangular Bon Bon.- From manila paper teach children to measure, rule and cut a $6^{\prime \prime} \times 7^{\prime \prime}$ rectangle. On 6 -inch edges have points placed at $1 \frac{1}{2}$ inches, 3 inches, $4 \frac{1}{2}$ inches - rule 7 -inch lines connecting opposite points fold on lines - paste overlapped end to make hollow triangular tube. Children may measure and cut $6^{\prime \prime} \times 9^{\prime \prime}$ thin poster paper for covering bon bon. Place points on 6 -inch edges at $1 \frac{1}{2}$ inches, 3 inches, $4 \frac{1}{2}$ inches - rule 9 -inch lines connecting opposite points - fold on lines. This covering paper will be enriched with creative design before pasting. Paper ends of equal length will be tucked inside after paste is dry and bon bon has been filled.

Square Bon Bon.- Teach children to measure, draw, and cut a $7 \frac{1}{2}^{\prime \prime} \times 9^{\prime \prime}$ piece of white paper. On the $7 \frac{1}{2}$-inch edges have points placed at $1 \frac{1}{2}$ inches, 3 inches, $4 \frac{1}{2}$ inches, 6 inches - rule lines to connect opposite points. On 9 -inch edges have points placed $1 \frac{1}{2}$ inches from each corner - rule $7 \frac{1}{2}$-inch lines to connect opposite points - cut on all $1 \frac{1}{2}$-inch lines from $7 \frac{1}{2}$-inch edges to the $7 \frac{1}{2}$-inch lines - fold on all lines to make square end box. Cut away two $1 \frac{1}{2}$-inch squares, one each at opposite ends of one outside $1_{\frac{1}{2}}{ }^{\prime \prime} \times 6^{\prime \prime}$ rectangle. Paste $1_{\frac{1}{2}}{ }^{\prime \prime} \times 6^{\prime \prime}$ lap inside with $1 \frac{1}{2}$-inch squares overlapping at ends.

Cornucopia.- Teach children to measure, draw and cut a $7 \frac{1}{2}$-inch square of white paper. Fold one diagonal of this square - unfold - fold one $7 \frac{1}{2}$-inch edge to the diagonal - fold adjacent $7 \frac{1}{2}$-inch edge to diagonal slip these right triangles over each other and paste - cut a small opening at upper end of diagonal fold to slip over twig on Christmas tree. Creative Design for one triangular face should be practiced within a similar shape. Edges may be accented with crayon lines.

Classroom Border.- Continue teaching the measuring and ruling of lines to construct triangles. Use a working line drawn parallel to and 1 inch from
the 6 -inch edge of $6^{\prime \prime} \times 9^{\prime \prime}$ paper. Measure and draw !-inch diameter of paper - place points at 2 inches each side of diameter on working line and a point $5 \frac{1}{2}$ inches above this line on diameter - rule lines connecting these three points to make an isosceles triangle. Repeat process on second paper, using points at $2 \frac{1}{2}$ inches each side on diameter. C'ut on lines of triangles to make patterns of $5^{\prime \prime} \times 6^{\prime \prime} \times 6^{\prime \prime}$ and $4^{\prime \prime} \times 5_{\frac{1}{2}}{ }^{\prime \prime} \times 5_{\frac{1}{2}}^{\prime \prime}$ triangles. On $9^{\prime \prime} \times 12^{\prime \prime}$ paper measure and rule a 12 - inch working line 1 inch from one edge of paper measure and draw 9 -inch diameter of paper - fold larger triangle on altitude line - place this on 9 -inch diameter of $9^{\prime \prime} \times 12^{\prime \prime}$ paper - place base of triangle on working line, and trace shape. Trace smaller triangle at left and right, having one long edge common to both sizes of triangles - accent lines with pencil, and rule - cut out five-sided shape and use as pattern from which to cut red paper cornucopias. Cut 8 -inch circles of white paper against which to mount cornucopias filled with sprays of evergreen. See Permanent Exhibition.

Tree Ornament.-Using $9^{\prime \prime} \times 12^{\prime \prime}$ paper, teach children to measure and cut a $3^{\prime \prime} \times 12^{\prime \prime}$ piece - measure and place points $1 \frac{1}{2}$ inches apart on 3 -inch and 12 -inch edges of paper - rule lines connecting opposite points - cut on 12 -inch line - fold on $1 \frac{1}{2}$-inch lines to make two 12 -inch folded strips of eight squares each. Refold strips in a zigzag - hold two strips at right angles - overlap first two squares - fold alternately one square over the next, proceeding upward or downward to make an accordion fold. Thread a looped piece of worsted or brilliant cord through the center of the folded strips. A bead at the top and bead with tassel at the bottom will add interest to the ornament.

## Drinking Cups and Folder.

Materials.-Construction paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, pencils, scissors.
Procedure. - Measure and cut a 7 -inch square for a folded cup, pupils working from one corner of a $9^{\prime \prime} \times 12^{\prime \prime}$ paper. Fold one diagonal of 7 -inch square - place paper with fold toward worker - measure 4 inches from right and left angles of triangle, placing points on oblique edges of paper repeat on opposite side of paper - fold lower right corner to touch point on left edge - turn paper over - fold lower right corner as before - fold down triangles at top, one on each side - tuck each into a folded corner. Repeat to make second cup. Neasure and cut $8^{\prime \prime}$ x $9 \frac{1}{2}{ }^{\prime \prime}$ rectangle for folder, using white or construction paper. Measure and rule lines parallel with and $2 \frac{1}{2}$ inches from all four edges of paper - cut away $2 \frac{1}{2}$-inch squares from each corner - fold on lines. Decorate folder with adaptation of design or plan a decorative seal. The folder may be made from a 6 -inch square of paper folded on the diameters and diagonals and folded from the end of one diameter to the end of the next diameter, a seal closing the four triangular laps and an axial balance design decorating the $4 \frac{1}{4}$-inch square surface.

## Picture or Calendar Mount.

Materials.-White or construction paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, pencils, scissors.
Procedure.- Measure and cut three papers, one $4 \frac{1}{2}{ }^{\prime \prime} \times 7 \frac{1}{2}{ }^{\prime \prime}$; one $4^{\prime \prime} \times 7 \frac{1}{2}{ }^{\prime \prime}$; one $4 \frac{1}{2}^{\prime \prime} \times 8^{\prime \prime}$. Place one $4^{\prime \prime} \times 7 \frac{1^{\prime \prime}}{}$ paper on one $4 \frac{1^{\prime \prime}}{} \times 7 \frac{1}{2}^{\prime \prime}$ paper, long diameters at right angles, ends projecting equally - fold one end of under paper over upper paper - repeat with opposite end - turn both papers over - fold one end of under paper over upper paper - repeat with opposite end - separate papers - recrease folds - lock ends of one folded paper into folded ends of other paper. Measure and draw a light pencil line 2 inches from and parallel to the ends of a $4 \frac{1}{2}{ }^{\prime \prime} \times 8^{\prime \prime}$ paper or a $4^{\prime \prime} \times 8 \frac{1}{2}^{\prime \prime}$ paper fold on lines - unfold - place a point $\frac{1}{2}$ inch from corner on $4 \frac{1}{2}$-inch or 4 -inch end of paper - repeat on opposite end - draw oblique lines to connect point with ends of $4 \frac{1}{2}$-inch line - cut on oblique lines - slip paper through folded unit to make support for picture mount - "tip on" one appropriate picture $2 \frac{1}{2}^{\prime \prime} \mathrm{x} 3 \frac{1}{2}^{\prime \prime}$, or a calendar pad of this size. A decorative border done in colored crayon may surround the calendar pad.

Tray.-Using $9^{\prime \prime} \times 12^{\prime \prime}$ paper, teach children to measure, draw and cut a $6^{\prime \prime} \times 9^{\prime \prime}$ rectangle. On the 9 -inch edges place points at 1 inch, 2 inches, 7 inches, 8 inches, and connect opposite points with carefully ruled lines. On the 6 -inch edges place points at 1 inch, 2 inches, 4 inches, 5 inches, and rule lines to connect opposite points. Cut away three outside 1 -inch squares from four corners and cut on 1 -inch line at ends of $1^{\prime \prime} \times 2^{\prime \prime}$ rectangles. Fold all lines - paste 1 -inch square laps to make tray 1 inch deep, having $1^{\prime \prime} \times 2^{\prime \prime}$ and $1^{\prime \prime} \times 5^{\prime \prime}$ wings or having these pieces folded inside to reinforce tray. Design may be located in bottom of tray, $2^{\prime \prime} \times 5^{\prime \prime}$ rectangle, or it may occur as a simple repetition in a row, 1 inch wide on outside or on wings of tray.

Notebook.- Teach children to measure and cut $3 \frac{1}{2}^{\prime \prime} \times 9^{\prime \prime}$ drawing paper or poster paper cover - fold short diameter. Teach children to measure and cut six $3 \frac{1}{2}^{\prime \prime} \times 10^{\prime \prime}$ pieces from Item 3 ruled paper - cut away the wide margin at top of these pieces - fold $3 \frac{1}{2}$-inch diameter of each - slip one inside another to make pages. Fold short diameter of one $3 \frac{1}{2}$-inch strip cut from top of 10 -inch pieces - fold ends to this diameter - mark folds - use this as guide to locate three holes for sewing when binding pages in cover of notebook. In binding, use 12 -inch split raffia or cord - out at one end hole, in at center hole, out at second end hole, in at center hole, tie in hard knot near center hole.

Wing Box.- Teach the measuring and cutting of a $6 \frac{1}{2}$-inch square of paper. On each edge of the square have points placed at $2 \frac{1}{2}$ inches and 4 inches, which locates points $2 \frac{1}{2}$ inches from each corner of all four edges of square. Draw lines to connect these points, making four $2 \frac{1^{\prime \prime}}{} \times 3^{\prime \prime}$ triangles. Draw
four lines to connect ends of bases of opposite triangles. Fold all lines cut one line of each 1 -inch triangle - refold box with triangular wings projecting.
53. DIRECTED OBSERVATION. Appreciation of Art - Pictures Suggestive of the Season.
Materials.- One color print, pages 11.
Procedure.- Instructions, page 9.
54, 55, 56. CREATIVE EXPRESSION. Design - Holiday Gifts.
Materials.-White or manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, crayons.
Procedure. - Teach children to plan and practice designs suitable for articles made in constructive design. Patterns must be practiced and built up within the same size areas as those on the constructed gifts. Choose a type of design appropriate for the space to be decorated,- border, field, Progression in an Area, Central or Axial Balance. The circle, square, rectangle, triangle or modifications of any one may be used as shapes. Axial Balances may be built from curved lines, showing progression of length and number. Edges may be accented with lines of color. Using a color chart, select color combinations based on previous study. From among the practiced designs children may choose one to be repeated on the gift.

## JANUARY

## Grade III.

The study of Representation should encourage and promote truth in representing facts and appearances, truth in expressing ideas. Lessons may be approached and developed through the avenues of:
Observation, as training powers of observation and judgment. Real contacts are necessary in order to clarify and impress principles. Drawing may be in line or color.
Memory.- Drawing from memory, things which are both in and out of school.

Observation and Memory.- Drawing from memory after having been directed to carefully observe something.
Memory and Imagination.- Giving opportunity for initiative and selfexpression. Drawings representing experiences of school, family or out-ofdoor life; also stories and rhymes to supplement language, history or geography.

Imagination.- Drawings representing animals, birds, characters and objects drawn from fancy or imagination. Drawings representing imaginative incidents and happenings.

## 57. DIRECTED OBSERVATION. Study of People.

Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Demonstrate with children in action. Teach positions, directions, measures, proportions and shapes, colors and values. Direct children to observe lines which give the most action in the different attitudes featured. Use the method of "tracing in the air" by having children trace with the finger the principal directions and shapes, first in the air, then on paper, before making large spontaneous drawings with crayons. This method is to be followed for acquiring knowledge when the object is present. Suggest improvement through kindly, constructive criticism. Direct the selection of the best papers.

## 58. DIRECTED OBSERVATION. Study of People.

Procedure.-Same as in Lesson 57, with emphasis on characteristic proportions.

59, 60. DIRECTED OBSERVATION. Study of People. Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Continue the study of characteristic proportions when drawing people. Call attention to the attitude of the head when looking up at a bird or flying machine, when looking down at a baby, or animal. The line and mass of the hair often helps to explain the attitude of the head. Encourage the study of a variety of attitudes of the body, arms and legs to express action.

## 61. DIRECTED OBSERVATION AND MEMORY. Groups of Children.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Dramatize a game or home activity. Use the method of tracing in the air. Review position, direction, measure and shape in relation to grouping. Drawing some children in front of other children is the new problem. The nearer children should be drawn first, then those who are partly hidden by the nearer ones.

## 62. CREATIVE EXPRESSION AND MEMORY. Groups of People in Action.

Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Encourage children to recall particular activities of people at work or at play. Choose one subject from those suggested by the class.

Each child may draw one incident illustrating a group of people in action. The result should be a large, spontaneous, life-like drawing of a group of people.

## 63. DIRECTED OBSERVATION AND MEMORY. Study of Animals in Action.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Encourage children to recall the characteristics of an animal. "What is the direction of the back? What shape is the body? Is the tail long or short, bushy or slender? What are the directions of the legs when he walks, runs, or hops?" Memory may be stimulated by tracing with the finger on the paper before drawing to locate positions, directions, size. When possible, have an animal in the classroom, the children making several quick drawings, showing action with a few lines.

## 64. DIRECTED OBSERVATION AND MEMORY. Animals in Action.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - When possible, visit the birds, fishes and animals in Franklin Park Zoo, the Aquarium at City Point, the Children's Museum, or other interesting collections to acquire information and then to record the facts. Photographs and pictures may be used as books are used and referred to for information, but never used for copying, as the course is planned to develop individual expression.
65. Directed observation. Appreciation of Art - Pictures of Animals and Children.
Materials.- One color print, page 11.
Procedure.- Instructions, page 9.

## 66: CREATIVE EXPRESSION. Every Day Experiences.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Suggestive subjects showing action: games, recreation, home life, care of animals, citizenship. Encourage children to describe, recall, or dramatize a familiar and happy incident. Emphasize the center of interest by size and color of the group. Follow this method in all creative work of this grade. The results should be spontaneous, individual expressions of definite ideas. Gradual improvement should be developed through constructive criticism from the teacher and the class.

## 67. CREATIVE EXPRESSION. Every Day Experiences.

Procedure.- Same as in Lesson 66, repeating the subject but changing the incident.

68, 69. CREATIVE EXPRESSION. Every Day Experiences.
Procedure.-Same as in Lessons 66, 67, with change of subject which should include drawing of people and animals.

## 70. DIRECTED OBSERVATION. Constructive Design - Toy Theatre.

Materials.- Construction paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, pencils, scissors, paste.
Procedure. - Teach the measuring and ruling of lines $\frac{1}{2}$ inch from and parallel to the 9 -inch ends of two sheets of construction paper - fold on lines. Teach measuring and cutting of two pieces of construction paper $5^{\prime \prime} \times 9^{\prime \prime}$ and drawing of lines on these papers 2 inches from one 9 -inch edge. Teach measuring and cutting two pieces of paper $4^{\prime \prime} \times 9^{\prime \prime}$ and drawing of a line $\frac{1}{2}$ inch from one 9 -inch edge of each piece - fold on lines.

## 71, 72. DIRECTED OBSERVATION. Constructive Design Toy Theatre.

Materials.- From Lesson 70: Two $4^{\prime \prime} \times 9^{\prime \prime}$ papers for wings; two $5^{\prime \prime} \times 9^{\prime \prime}$ papers for theatre ends; two $9^{\prime \prime} \times 12^{\prime \prime}$ papers for back drop and stage front. Crayons, paste.
Procedure. - Select a story to be dramatized on the toy stage. On $4^{\prime \prime} \times 9^{\prime \prime}$ papers draw trees, vines, castle walk, or other objects needed to picture the desired scene and modify one edge of each paper by cutting. Paste $\frac{1^{\prime \prime}}{} \times 9^{\prime \prime}$ fold at the line drawn on $5^{\prime \prime} \times 9^{\prime \prime}$ paper - repeat but reverse on the opposite end and wing. On one $9^{\prime \prime} \times 12^{\prime \prime}$ paper have children picture the back drop by drawing windows, doors, hills and clouds, sky and water, furniture and utensils, or whatever will picture the desired scene. On one $9^{\prime \prime} \times 12^{\prime \prime}$ paper plan, measure, draw and cut the stage front, using 1 -inch and $\frac{1}{2}$-inch measures to make the arched opening. Paste $\frac{1}{2}$-inch folded ends of $9^{\prime \prime} \times 12^{\prime \prime}$ papers to the $5^{\prime \prime} \times 9^{\prime \prime}$ papers to complete theatre $5^{\prime \prime} \times 11^{\prime \prime}$. Theatres may be folded flat and saved for continued work in March.

## FEBRUARY

## Grade III.

This month's study of Design offers an opportunity for originality and inventiveness. Design problems are planned to emphasize sequences of Progression in Axial and Central Balances. By recognizing the laws of order in Nature and Art, a better understanding of Design is developed.
73. CREATIVE EXPRESSION. Design - Invention of Shapes. Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, many examples of Art and Nature showing various shapes.

Procedure.-Review at the blackboard curves: circular, elliptical and spiral. A search for curved line shapes among the illustrative materials provided is to be encouraged. Stimulate children to invent shapes by experimenting with combinations of different curves. Many shapes may be drawn on paper using one color.

## 74. CREATIVE EXPRESSION. Design - Axial Balance.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, drawings from Lesson 73, illustrative material showing simple arrangements of Axial Balance.
Procedure.-Review or introduce Axial Balance. Use many illustrations to make the idea clear. Locate the vertical axis. Build on 1,2 or 3 structural lines. The shapes may be selected from the shapes invented in Lesson 73. Several arrangements may be made on the paper, using one color and black.

## 75. CREATIVE EXPRESSION. Design - Axial Balance with Progression of Number and Size.

Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Direct the children to plan an Axial Balance unit on a vertical axis, the structural lines - either straight or curved - extend to right and left of the axis, increasing or decreasing in length. The children may then choose a shape and arrange in rows on the structural lines, increasing or decreasing in number. Several arrangements may be made on the paper. From a color chart, select tones of one color with the opposite color for enrichment.

## 76. CREATIVE EXPRESSION. Design - Axial Balance with Progression of Number and Size.

Procedure. - Complete Lesson 75, or plan a similar design, using a progression of color: yellow, orange, red; or green, blue, violet; enrich with black.

## 77. DIRECTED OBSERVATION. Constructive Design Valentine.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, scissors, rules, pencils. Select (1), (2) or (3) for construction.
Procedure.-(1) Select one type of valentine from among the suggestions outlined, those shown at teachers' meetings and in the Permanent Exhibition. Teach measuring and drawing of long diameter of paper and measuring drawing and cutting of $1^{\prime \prime} \times 9^{\prime \prime}$ strip at end of paper. Using $1^{\prime \prime} \times 9^{\prime \prime}$ paper as measuring strip, place one end at corner of $9^{\prime \prime} \times 11^{\prime \prime}$ paper and one end on diameter line already drawn - thus setting off a point on diameter line 9 inches from two corners of 9 -inch end of paper. Draw oblique lines to connect point with corners to make a 9 -inch equilateral triangle - cut out
this triangle. Place points at $4 \frac{1}{2}$-inch centers of 9 -inch sides of triangle draw three lines, each $4 \frac{1}{2}$ inches long, to subdivide 9 -inch triangle into four smaller $4 \frac{1}{2}$-inch equilateral triangles - fold on three lines last drawn. Triangles with center axis line should be on outside front and back of four fold triangular paper. Place folded edge at top - lay off on vertical center line a point $\frac{1}{2}$ inch from top - $\frac{1}{2}$ inch to right and left of center line on fold $\frac{1}{2}$ inch from right and left ends of triangle, placing points on two edges. Using points as guides, draw and cut curves to make folded triangles resemble heart shapes. Save papers for Lesson 78. (2) Teach the measuring and cutting of a 6 -inch square of manila paper - draw one diagonal and place a point on this line 6 inches from one end - draw two oblique lines to the free corners of square - cut out $4 \frac{1}{2}^{\prime \prime} \times 6^{\prime \prime} \times 6^{\prime \prime}$ triangles - fold 6 -inch edges together and modify triangles by drawing and cutting to resemble heart shapes. Repeat drawing and cutting 6 -inch square, using white paper, and rule one diagonal. Trace heart pattern on white paper, edges of pattern touching diagonal of square - cut out and fold. Accent all edges, using red crayon, and save for Lesson 78. (3) Teach the measuring and drawing of the 9 -inch diameter of $9^{\prime \prime} \times 12^{\prime \prime}$ paper and the drawing of one diagonal of a $6^{\prime \prime} \times 9^{\prime \prime}$ half of the paper - fold on the short diameter with diagonal line outside. Encourage taste training and discrimination in establishing proportions for a rectangle of smaller size than $6^{\prime \prime} \times 9^{\prime \prime}$, using the diagonal as a means of definite measure. Encourage individuality and reasonable accuracy in establishing, measuring, ruling and cutting this rectangle. Use this folded paper for a valentine to be decorated in Lesson 78.

## 78. CREATIVE EXPRESSION. Design - Valentine, Progres-

 sion of Size or Number.Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, valentines constructed in Lesson 77, drawing papers from previous lessons illustrating Axial Balance with Progression of Size and Number.
Procedure. - Children may select suitable units from their Axial Balance papers. The size and proportion must be made to harmonize with the shape of the valentine. The progression of shapes may be changed to a progression of heart shapes. Red may predominate. Black may be used very sparingly as enrichment. A valentine message may be lettered inside. Follow the practice on manila paper with drawing of design on the white paper valentine.
79. Directed observation. Recognition of Art.-The Laws of Order in Nature and Art.
Materials.- White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, illustrative material for study Nature or Art.
Procedure. - Present many examples illustrating the Laws of Order, Sequences of Repetition, Alternation, Progression, Axial and Central Balance.

Place emphasis on recognition of Progression and Axial Balance. Suggestive material: winter trees, shells, potted plants, pottery, baskets, embroidery, lace, jewelry, cutlery, toys. Encourage the selection, study and drawing of one good example. Pencil or crayon may be used according to the subject selected.
80. Directed ObSERVATION. Recognition of Art - The
Laws of Order in Nature and Art.

Procedure.- Complete Lesson 79, or choose another example to discuss and draw.
81. CREATIVE EXPRESSION. Design - Central Balance.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Teach Central Balance in 4, 8, and 12 parts. Plan structural lines, building from the center out. Children may choose a shape similar to the isosceles triangle, placing the largest shapes on structural lines, with smaller shapes between. From a color chart, lead children in the choice of related colors with the opposite of one of the colors: yellow, green and violet. Plan to show a progression of value.
82. CREATIVE EXPRESSION. Design - Central Balance.

Procedure.- Complete Lesson 81 by enriching designs with a dark value of one of the colors used.
83. DIRECTED OBSERVATION. Recognition of the Laws of Order.
Procedure.- Same as in Lesson 79, with emphasis on Central Balance.
84. Directed observation. Appreciation of Art.

Material.- One color print, page 11.
Procedure.-Instructions, page 9.

## MARCH

## Grade III.

"If hand and eye you deftly train, Firm grows the will and keen the brain."- Goethe.
85, 86, 87, 88, 89, 90. DIRECTED OBSERVATION. Representation - Play Things or Work Things.
Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, or crayons.
Procedure.-Demonstrating with a toy or a utensil, teach the proportions, shapes and construction as observed in an object. Consider the colors and values. Children will enjoy a study series of things which are related in kind,
such as play things: toy animals, dolls, drums, toy vehicles, boats, automobiles, trains; work things: baskets, as - work basket, fruit basket, market basket; several kinds of bags, several kinds of brushes. Stimulate a genuine interest in the object or article to be drawn and in every instance direct a careful observation of the object before it is drawn. Draw only such objects as can be brought into the classroom for observation. After careful and kindly criticism have a second lesson in drawing from the same object.

## 91, 92. DIRECTED OBSERVATION. Representation Memory Drawing.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils or crayons.
Procedure. - Direct the children at a previous session of school to carefully observe a piece of furniture, an automobile, truck, or other object of large, simple proportions. Urge children to recall the object observed and to show by tracing in the air the general proportions. Encourage large drawings and class criticism of results.

## 93. DIRECTED OBSERVATION. Appreciation of Art - a Story-Telling Picture Depicting Action.

Material.- One color print, page 11.
Procedure.- Instructions, page 9.

## 94. CREATIVE EXPRESSION. Representation - Stories or Poems.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Consider stories and rhymes studied in this grade. Select one for illustration, picturing a specific incident in the story. Interest may be stimulated through dramatization, individual interpretations and descriptions. The results should be spontaneous and original and should show increased power of expression. Encourage simple, bold drawings expressing action.
95. CREATIVE EXPRESSION. Representation.

Procedure.- Same as in Lesson 94, subject being the same but with change of incident.

96, 97. CREATIVE EXPRESSION. Representation - Story or Rhyme.
Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Choose a story requiring a simple setting or a background. Explain how sky and ground or sky and water may be suggested, also a method of representing sky if a tree, house or a person hides part of the sky. Show good pictures for demonstration, but not for copying.

98, 99, 100. CONSTRUCTIVE DESIGN. Toy Theatre. Materials.- Drawing paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, scissors, paste, crayons.
Procedure.- Continue and complete construction of the toy theatre from Lesson 72. By means of cutting, drawing and modeling, encourage each child to individually develop the picturing of some scene from a selected story, or the dramatization of pure fancy and imagination. Trees, rocks, castles, buildings, furniture, chimneys, fireplaces, utensils, fairies, gnomess birds, giants, men, women, children and animals may all serve as character, and properties.

## APRIL

## Grade III.

This month's study of Design features a Review and a new study of Central Balance, also Sequences of Repetition in a Field. Tablets in three sizes may be used for laying a variety of arrangements TO TEST AND TO STIMULATE ABILITY TO BUILD CREATIVELY AND INDIVIDUALLY. These arrangements may be recalled when children are designing WITH COLORED CRAYONS AND THE WORK MAY BE ENRICHED AS THE INDIVIDUAL Child's imagination urges him to express lines and shapes in accordance with his understanding of the Laws of Order.
101. CREATIVE EXPRESSION. Design - Central Balance.

Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, rules, crayons, a large right triangle, an equilateral triangle and an isosceles triangle.
Procedure.- Teach or review the three triangles. Demonstrating with triangles, direct children to first compare the three triangles, and second, to select the particular triangle within which a Central Balance unit may be arranged. Children may draw equilateral triangles and light lines from the corners to the middle of the sides. A three-part Central Balance unit may then be created on the structural lines, using one color only.
102. CREATIVE EXPression. Design - Central Balance. Procedure. - Complete Lesson 101 by adding enrichment.

103, 104. CREATIVE EXPRESSION. Design - Central Balance in 3, 6, and 9 Parts.
Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, examples of Central Balance.
Procedure.- Present examples of Central Balance. Allow children to select units illustrating Central Balance and let them determine the number of parts in each. Suggest arrangements of structural lines working from the
center out. The lines may be drawn very lightly with pencil or with a very light value of one of the colors to be used in the design. Plan in 3 parts, 6 parts or 9 parts. The same colored shape should be repeated around the center 3,6 or 9 times, according to the structural lines planned. Enrich by using a value of an opposite color, or black.

## 105, 106. CREATIVE EXPRESSION. Design - Sequence of Repetition in a Field.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Plan a Sequence of Repetition in a Field. Follow the method outlined in introduction for November. Color - rich and colorful: one color and its opposite selected from a color chart. Enrichment should tend to unite the spots or units of the field.

## 107. CREATIVE EXPRESSION. Design - Sequence of Repeti-

 tion with Alternation.Materials.- Manila or white paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Proceed as in Lessons 105, 106, repeating one shape at a time over the entire field. Emphasize progression and movement. Color: one color with its opposite selected from a color chart and not the same group used in Lessons 105, 106.

## 108. CREATIVE EXPRESSION. Design.

Procedure. - Complete Lesson 107. Enrichment of lines, dots, or small shapes should unite the spots or units of the field. Use a dark value of one of the colors or black.

## 109. DIRECTED OBSERVATION. Recognition of Art.

Material. - Fabrics, papers, ribbons, as illustrative material; crayons, white or manila paper.

Procedure.- Encourage children to select and analyze Sequences of Repetition as found in field patterns on pupils' clothing, fabrics, papers, and other available illustrative material. Children may draw from one wellchosen example.

## 110, 111. CREATIVE EXPRESSION. Constructive Design.

Materials.-Airplane: Construction paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencil, rule, scissors, paste. Spring Souvenir: White paper $9^{\prime \prime} \times 12^{\prime \prime}$, poster paper, scissors, paste.
Procedure. - Select either the airplane or the spring souvenir for constructive design study.

Airplane. - Teach the measuring and cutting of $5 \frac{1}{2}$-inch squares of construction paper. On two opposite edges of a square, lay off points 2 inches from corners - rule two lines to connect opposite points - fold one diameter of square parallel with lines. On second pair of opposite edges of paper, lay off points at $\frac{1}{2}$ inch, $2 \frac{1}{2}$ inches, $3 \frac{1}{2}$ inches and rule lines to connect opposite points. Place points 1 inch from each end of line drawn $2 \frac{1}{2}$ inches from one end of paper and similar points on edge of paper, that is, 3 inches from this line - connect points with 3 -inch lines. Cut away two small rectangles $\frac{1}{2}{ }^{\prime \prime} \times 2^{\prime \prime}$. Place paper with projecting piece at the top. Measuring from lower end of vertical lines, drawn 2 inches from right and left edges - place points at 1 inch and 2 inches, and on right and left edge of paper place points 1 inch above lower corners. Draw oblique lines and cut out shape as indicated on plate. Note the curves and rounded corners. Fold on lines indicated and paste $\frac{3^{\prime \prime}}{4} \times 5 \frac{1}{2}{ }^{\prime \prime}$ surfaces together. A small paper fastener on the nose of the paper airplane helps to balance the ship when it "takes off" as thrown from the hand.
Spring Souvenir.- Review or teach Lesson 77, suggestion 3, the proportioning of a rectangle. Plan a circular, rectangular, or elliptical area and its location on the first established rectangle. Within this shape plan an individual or a classroom spring souvenir or decorative panel using poster paper and shapes that are modifications of geometric shapes and that are arranged according to principles studied. Encourage the oral use of terms when developing this work.

## 112. DIRECTED observation. Appreciation of Art.

Materials. - One color print, page 11.
Procedure.- Instructions, page 9.

## MAY <br> Grade III.

This is the season when life in the open, the great out-of-doors, festivals, pageants, parades, parties and excursions, with their exhilarating action and charming color may satisfy the child's desire for Creative Expression in Representation. Teachers should encourage freedom, stimulate imagination, guide but not dictate the procedure.

## 113. DIRECTED OBSERVATION. Constructive Design May or Birthday Basket.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, scissors, pencils.
Procedure. - Select one of the constructive design suggestions and teach children to make and then to decorate it.

Square Basket.- Teach the measuring, ruling, and cutting of a $1^{\prime \prime} \mathrm{x}$ $12^{\prime \prime}$ paper. Measure and draw a 12 -inch line through the center. Save strip for basket handle. Measure and cut a $7 \frac{1}{2}$-inch square. Divide each side of square into three parts of $2 \frac{1}{2}$ inches each - draw lines connecting opposite points - fold on these lines, always folding toward the center. This gives nine squares - lightly number each square 1 to 9 - beginning with upper left square with number 1 and making center square number 9 . Cut two sides of opposite squares, such as, numbers 2 and 6 or 4 and 8 . By changing measurements, different proportioned baskets may be made. Save for Lesson 114.
Triangular Basket - Measure and cut a $6^{\prime \prime} \times 9^{\prime \prime}$ paper and draw the diameters. Draw one diagonal of each quarter locating lines between ends of diameters. Lay off two points on each 9 -inch edge 2 inches from corners of paper - draw oblique lines between these points and ends of long diameter - cut on these lines - fold short diameter and four oblique lines - slip small triangles one over the other and paste, or punch holes for cord.

## 114. DIRECTED OBSERVATION. Constructive Design May Baskets.

Materials - Basket and handle constructed in last lesson, rules, scissors, paste, pencils, crayons.
Procedure.- Decorate squares 2 and 6, 4 and 8, with Central Balance in 4 or 8 parts. Refer to previous lessons on Central Balance in 4 and 8 parts. Plan light structural lines. Decorate handle with Central Balance unit in center of handle or use lines on or near the edges. Use two related colors or two related colors with the opposite of one for enrichment. Measure and fold $2 \frac{1}{2}$ inches from each end of handle and paste this $2 \frac{1}{2}$-inch part down the center of the inside of two opposite squares. The triangular basket may be decorated in a similar manner. Refer to Lessons 101, 103, for method and have either a warm or a cool combination of colors used with black for enrichment.

## 115. DIRECTED OBSERVATION. Constructive Design Headdress for May Festival or Birthday Party.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, rules, scissors, pencils, crayons.
Procedure.- Measure and cut a 4 -inch or $4 \frac{1}{2}^{\prime \prime} \times 12^{\prime \prime}$ and a $1 \frac{1}{2}{ }^{\prime \prime} \times 12^{\prime \prime}$ paper - fold short diameter of wider paper and working from the center build a design for the headdress - use Sequences of Repetition with Progression or Gradation of Size. Refer to Permanent Exhibition and models shown at teachers' meetings for suggestions.

## 116. DIRECTED OBSERVATION. Representation - Study of Trees.

Materials.-Illustrations showing structure, shapes, and tones of trees, manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons or pencils.
Procedure.- It may be possible to take the children to a neighboring street or park to study trees and to enjoy, through careful observation, the characteristics of growth, such as: trunk, branches, twigs and foliage. Children may recognize Sequences of Repetition, Alternation, Progression and Balance; trace in the air with finger the tree or trees studied; draw on paper one or more records of these observations.

## 117. DIRECTED OBSERVATION. Representation - Observation and Memory, Study of Trees.

Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Previous to this lesson children should be directed to observe carefully the same tree studied in the last lesson. If this is not possible, each child may study any tree near the school or home. Before drawing on paper, each child may demonstrate by tracing in the air the structural growth and general shape of the tree he is going to draw. Next he may trace with his finger the directions and shapes on his paper. The last step will be to draw one large tree with colored crayons. Encourage class criticism for structural growth, shape and color. In case there are no trees in the neighborhood, children may accumulate information by study of photographs and pictures of trees.
118. CREATIVE EXPRESSION. Representation-Memory and Imagination.
Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.-Stimulate the children's interest in expressing ideas about trees, such as, a tree in the wind, a tree full of blossoms, a make-believe tree, the most beautiful tree one can think of, the trees in the park. Stories and rhymes may furnish suggestions. The result should be a large, colorful, original drawing well placed on the paper.
119. DIRECTED OBSERVATION. Representation - Children
in Costume.

Materials.- White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- When possible, encourage a few children to wear attractive costumes. Otherwise select children wearing bright, colorful, dresses or suits. By adding a scarf, belt, sash or headdress, a costume may be modified to fit the needs of the particular subject chosen. By dramatization or impersonation of some incident, more spontaneity is obtained. The attitude should
not be limited to one view of the figure. Direct children to observe and trace in the air the attitude of the figure, and the proportion of head with reference to different parts of the body and the costume. Encourage beauty in color and shape.

## 120. DIRECTED OBSERVATION. Representation - Children, in Costume, Showing Action.

Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Continue as in Lesson 119, with emphasis on life and action. Children may draw an appropriate setting.
121. DIRECTED OBSERVATION. Representation - Children in the Costumes of Different Countries or of Long Ago.
Materials.-White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Same as in previous lessons. Choose costumes of some countries studied in Grade III. If costumes are not available, select children wearing simple, interesting, colorful clothes. Pictures may be studied for information but not copied.

## 122. CREATIVE EXPRESSION. Imagination.

"Imagination is as much a normal and integral part of human activity as is muscular movement."- John Dewey.
Materials. - White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Stimulate the child's interest in expressing imaginative or purely fanciful ideas, such as, fairies, giants, mermaids or the world of "make believe." Choose a subject and tell the story or incident. All the children may illustrate the same incident, but each child should give to his picture his own interpretation. Encourage large colorful drawings.

## 123. CREATIVE EXPRESSION. Imagination.

Procedure. - Complete Lesson 122 or choose a new subject. Refer to "Grade III., General Syllabus," for rhymes and poems. One phrase will often furnish a good subject for illustration.

## 124, 125. CREATIVE EXPRESSION. Imagination.

Materials.- White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure. - Choose a subject for illustration. Encourage children to work independently, each child expressing himself in his own personal way. Suggestions: A trip to the moon, walking on the bottom of the sea, a song in the woods, sailing in a cloud.

126, 127. CREATIVE ENPRESSiON. Imaghation.
Materials. - White paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.-Allow the children to think of words which will suggest a picture story, not a story they have read. From among the words named by the class one may be chosen. Each child may draw the picture which the subject suggests to him: joy, kindness, courage, helpfulness, astonishment, generosity, speed, rest.
128. DIRECTED OBSERVATION. Appreciation of Art.

Materials.- One color print, page 11.
Procedure.-Instructions, page 9.

## JUNE

## Grade III.

The work for June should manifest the progress made by the class during the year. Designs should be richer, drawings shotld be truer. Two interesting studies complete the tear's work: a Booklet for the Junior Red Cross and a Health Poster. These problems summarize the principles and laws which have been emphasized.
129. DIRECTED OBSERVATION. CONstructive Design -
Booklet.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$ ruled manila paper $6^{\prime \prime} \times 9^{\prime \prime}$ - Item 50 , pencils, rules.
Procedure.-Study simple booklets and the manner of binding them. Lead children to plan a booklet and its binding using $9^{\prime \prime} \times 12^{\prime \prime}$ paper and Japanese binding with back and end stitching - using three holes on the 9 -inch or the 12 -inch edge. Measure and rule lines $\frac{1}{2}$ inch from and parallel to one 9 inch and one 12 -inch edge of the paper. On these lines place points at the middle and 2 inches from each end - prick these points through paper - save paper for guide when marking and binding booklet in Lesson 136. On ruled manila paper, plan and letter a title for the booklet using a lettering chart as a guide.
130. CREATIVE EXPRESSION. Design - Lettering.

Materials.-Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, pencils.
Procedure.- Building on the practice lettering done in Lesson 129, plan, locate and letter a title page for the booklet. Consider the size, proportion and balance of the title in relation to the page. Part of the class should plan pages for a 9 -inch binding and part for a 12 -inch binding. Letter both pages with pencil or crayon, using bold strokes. Save papers for Lesson 136.

131, 132, 133, 134. DIRECTED OBSERVATION. Representation - Nature.
Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons, nature specimens.
Procedure.-Study available nature material: Flowers, trees, vines, plants. Direct children in drawing these things, placing emphasis on structural growth and color. Review tracing in the air before drawing on paper. Lead the class in the selection of drawings for binding in booklet in Lesson 136.

## 135. CREATIVE EXPRESSION. Design - Booklet Cover.

Materials.-Drawings from Lessons $105-108$, manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, crayons.
Procedure.- Guide children in the selection of field patterns from Lessons 105-108 for the booklet cover and have them accent or enrich the selected drawings, or have the class design new field patterns. When children are designing new covers, guide the design creation as Repetition and Alternation in a Field. Progressions with change of size and number may be encouraged with alternation of Color. When selecting drawings for booklet pages, the growth of the design and the type of drawings selected will determine the location for the binding on a 9 -inch or a 12 -inch edge. Pages may be selected from drawings illustrating stories, rhymes, animals, toys or flowers.
136. DIRECTED OBSERVATION. Constructive Design Booklet Binding.
Materials.- One sheet of each child's Creative Design in attractive field pattern $9^{\prime \prime} \times 12^{\prime \prime}$, title page, one sheet manila paper $9^{\prime \prime} \times 12^{\prime \prime}$ for final page, a number of drawings $9^{\prime \prime} \times 12^{\prime \prime}$, string, raffia or thread, pencils.
Procedure. - Using paper from Lesson 129 as a guide, have children prick holes for binding at edges of pages for booklet. Select and arrange pages,cover, title page, drawings, plain paper for back cover, a total of ten or twelve papers. Booklets may be bound by individual pupils or by groups working at a table. Binding cord should be 32 inches long. A pencil will answer as a tool with which to push string through holes in paper. Large eye needles may be used if available. The method of binding is a review of work taught in first and second year classes. Pass the binding cord up at end hole - over back - up at same hole - down at middle hole - over back - down at same hole - up at second end hole - over back - up at same hole - over end of back - up at end hole - down at middle - up at end hole - over end of book - tie in secure knot on back of book near first hole. Finished books may be sent to the Junior Red Cross.

## 137. CREATIVE EXPRESSION. Design - Poster.

Materials.- Manila paper $9^{\prime \prime} \times 12^{\prime \prime}$, pencils, and examples of large, simple lettering.

Procedure.- Consider subjects for a poster to promote interest in: Gardens, Health, Citizenship, Home Activities, School Life. Choose one short word, under one of these headings, which will arrest attention. The thought may be completed by the design motif used for decoration. Encourage children to make freehand suggestions for the poster by drawing at the blackboard and on paper. The chosen word may be lettered near the top using letters 2 inches or $2 \frac{1}{2}$ inches high, and a decorative unit below, balanced on a vertical center line, thus making an Axial Balance. Fruit, vegetables, flowers, trees, houses, animals or children may be used in the design. Save papers for class criticism and future work. One large classroom poster may be made, as community work, if preferred. When such a plan is followed, all children will work on the same specific problem each lesson and the best drawings or cuttings may be chosen for the large poster. Paper cutting from colored paper is preferable to cut-out crayon drawings.

## 138, 139. CREATIVE EXPRESSION. Design - Poster.

Materials.-Manila or white paper $9^{\prime \prime} \times 12^{\prime}$, pencils, rules, scissors; examples of large, simple lettering, and drawings made in Lesson 137.
Procedure. - Teach the measuring and ruling of a $\frac{1}{2}$-inch margin on one 9 -inch and two 12 -inch edges and a 1 -inch margin on the second 9 -inch edge of paper; draw one long diameter. Plan the lettering by drawing light horizontal lines, leaving a narrow space between top margin line and top of letters and the same space at right as at left of the word. Plan very simple, bold double line letters 2 inches or $2 \frac{1}{2}$ inches in height on a strip of paper. Letters may be $\frac{1}{2}$ inch or more in thickness according to number of letters in the word. Draw letters on the poster and color in one tone. In a community poster the letters will be larger and may be cut freehand.

140, 141, 142. CREATIVE EXPRESSION. Design - Axial Balance, Unit for Poster.
Materials. - Papers from Lessons 137, 138, 139, pencils, crayons.
Procedure. - Display first papers on which ideas for poster decoration were planned. Conduct a class criticism considering: Expression of the idea, balance of shapes, space filling, and good drawing. Direct children to draw the original design or make a new design on the poster. The letters and design should not touch each other. Neighboring colors or one color with its opposite may be chosen from a color chart. If a class poster is made instead of individual posters, children may cut shapes for the Axial Balance design, using fruit, flowers, trees, animals or figures for the shapes in the design. The several parts of the poster may be pasted on a background made up of white, manila or colored papers pasted together to make a background of proper size.

## SCHOOL DOCUMENT NO. 1o-1928 BOSTON PUBLIC SCHOOLS

ANNUAL STATISTICS OF THE BOSTON


SCHOOL YEAR 1927-1928


CITY OF BOSTON
PRINTING DEPARTMENT
1928

## TABLE OF CONTENTS.

Introduction
PAGE
5-6Attendance OfficersBoston Clerical School42
16, 20-21, 42
Boston Trade School ..... 16, 20-21, 42
Certificates Issued to Working Children ..... 62
Continuation School ..... 42, 52
Day Schools:
Admissions, September, 1927, Teachers College, High and Latin Schools ..... 37-38
Ninth Grade Intermediate Classes ..... 39
Ages and Grades of Pupils, October 1, 1927 ..... 18-21
Average Attendance ..... 8, 9-15
Average Membership ..... $5,8,9-15$
Conservation of Eyesight Classes (semi-blind) ..... 6, 42
Day School for Immigrants ..... 42, 51
Disciplinary Day School ..... 16, 20-21, 42
Enrollment on June 30, 1928 ..... 7
Graduates, June, 1928, The Teachers College, High and Latin Schools ..... 31
September, 1928 (Summer Review Schools) ..... 33
Horace Mann School ..... 16, 20-21, 42
Hospital Classes ..... 6
Kindergartens, Number of Morning and Afternoon ..... 40
Membership and Attendance ..... 13-15
Mechanic Arts Classes ..... 6
Non-promotions, Elementary and Intermediate, June, 1928 ..... 26-29
Elementary, September, 1928 (Summer Review Schools) ..... 36
Open-air Classes ..... 6
Parochial Schools ..... 6, 63
Practical Arts Classes ..... 52
Promotions, Elementary and Intermediate, June, 1928 ..... 22-25
Elementary, September, 1928 (Summer Review Schools) ..... 35
Pupils Finishing Eighth Grade in June, 1928, Number of ..... 32
September, 1928 (Summer Review Schools) ..... 34
Pupils per Teacher, Number of ..... 30
Registration, Average Number belonging, Average Attend- ance, etc. ..... 5, 8, 9-16
Registration, Summary of ..... 7
Special Classes ..... $6,18-19,42$
Special English Classes ..... 6
Speech Improvement Classes (Stammerers) ..... 6, 42
Page
Day Schools (Continued):
Summaries ..... 7-8
Trade Schools ..... 16, 17, 20-21, 42
Ungraded Classes ..... 6, 18-19
Evening Schools:
Ages and Grades - High Schools ..... 46
Elementary Schools ..... 47
Grand Total ..... 49
Non-English Speaking Pupils ..... 50
Trade Schools ..... 48
Extension of Term ..... 51
Registration, Average Number Belonging, Average Attend- ance, etc. ..... 44-45
Summary ..... 43
Extended Use of Public Schools ..... 42, 56-61
Licensed Minors, Supervisor of ..... 42
Minors, Registration of ..... 63
Playgrounds ..... 54
Practical Arts Classes (day) ..... 52
School Districts, Number of ..... 40
Schoolhouse Summary ..... 55
School Nurses ..... 42
School Physicians ..... 42
Summer Review Schools ..... 6, 33-36, 53, 54
Summer Vacation Schools ..... 53
Trade School for Girls ..... $16,17,20-21,42$
Teachers:
Elementary ..... 41
High and Latin ..... 41
Kindergarten ..... 41
The Teachers College ..... 40
Summary, All Teachers, June 30, 1928 ..... 40
Supervisors and Directors, June 30, 1928 ..... 42

# In School Committee， Boston，November 5， 1928. 

## To the School Committee：

I submit herewith the nineteenth annual report of the statistics of the Boston Public Schools．

The total registration in all schools during the year was 164,714 ；the average membership，141，709；and the average number in daily attend－ ance， 130,155 ．The total registration was 313 less than during the school year next preceding．The total registration was distributed as follows：

| Regular day schools | . | . | . | 141,809 |
| :--- | :--- | :--- | :--- | ---: |
| Evening schools | . | . | . | . |
| 15,372 |  |  |  |  |
| Continuation School | . | . | . | 6,457 |
| Day School for Immigrants | . | . | . | 1,076 |

The number of pupils registered in the summer review schools was 8,161 ．This total 8,161 is not included in the total registration be－ cause，with few exceptions，these pupils were registered in the public day schocls during the term ending June， 1928.

The high and Latin schools showed an increase in registration of 825 pupils．The registration for the intermediate ninth grade of the elemen－ tary schools showed a total registration of 4,082 ，making a new total increase in high and Latin schools of 1,394 ．The elementary grades （exclusive of the ninth）showed a decrease of 627 pupils．The Contin－ uation School showed a decrease of 810 pupils，and the special schools an increase of 51．The Teachers College of the City of Boston showed an increase of 17 pupils；kindergartens showed an increase of 264 pupils； evening schools showed a decrease of 492 pupils；and the Day School for Immigrants showed a decrease of 110 pupils．

The average number belonging in all day schools was 128,735 ，an in－ crease of 1,577 ．

The total number of principals and teachers，including the members of the supervising staff，in the employ of the city June 30，1928，was $4,352-92$ more than on the corresponding day of the preceding year． The day high and Latin schools had 31 additional teachers；the day elementary schools， 16 additional；the kindergartens had 313 teachers， 144 of whom served two sessions，which was the equivalent of 454 teachers． Last year the kindergartens were operated with the equivalent of 424 teachers．Of the total number， 4,352 － 868 were men and 3,484 women． The average number of pupils per teacher in The Teachers College was 17； in the day high and Latin schools， 25 ；in the grades， 39 ；and in the kinder－ gartens， 21.

The number of classes of special types in the day elementary schools and the number of pupils belonging at the end of the school year were as follows:

|  | Number of Classes. | Number <br> Belonging. |
| :---: | :---: | :---: |
| Conservation of Eyesight Classes. | 11 | 133 |
| Hospital Classes, including Boston City Hospital, Boston Sanatorium, and Long Island Hospital Schools; also classes conducted at the House of the Good Samaritan, Prendergast Preventorium, and Robert Breck Brigham Hospital. | 7 | 144 |
| Open-air Classes. | 12 | 339 |
| Mechanic Arts Classes. | 15 | 471 |
| Rapid Advancement Classes. | 3 | 119 |
| Special Classes. | 126 | 1,941 |
| Special English Classes. | 2 | 32 |
| Speech Improvement Classes (stammerers) (23 centers). | 111 | 1,947 |
| Ungraded Classes. | 5 | 202 |
| Fort Strong. | 1 | 17 |
| Deer Island. | 1 | 10 |

Summer review schools were opened June 25 and were continued in session six days per week, up to and including August 10, 1928. There was one summer review high school conducted in the English High Schoolhouse. There were two summer review intermediate schools and ten summer review elementary schools.

Following is the summary of the distribution of children of public school grade in all day schools of the city for the past six years, based on the daily average number belonging:

| School Year. | 1922-23. | 1923-24. | 1924-25. | 1925-26. | 1926=27. | 1927-28. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Public schools... | 121,161 | 123,086 | 125,115 | 125,789 | 127,158 | 128,735 |
| Parochial schools. | 26,034 | 26,522 | 27,213 | 28,013 | 28,552 | 28,839 |

Respectfully yours,
Jeremiah E. Burke, Superintendent of Public Schools.

## GENERAL SUMMARIES.

AVERAGE MEMBERSHIP SCHOOL YEARS 1923-24 TO
1927-28.

| Day Schools. | 1923-24. | 1924-25. | 1925-26. | 1926-27. | 1927-28. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| The Teachers College of the City of Boston.. | 487 | 653 | 724 | 772 | 789 |
| High and Jatin. | 20,637 | 21,355 | 21,278 | 21,347 | 22,332 |
| Elementary Grades.. | 92,464 | 93,105 | 93,466 | 94,470 | 94,712 |
| Kindergartens. | 8,223 | 8,612 | 8,801 | 9,041 | 9,207 |
| Special Schools.. | 1,275 | 1,390 | 1,520 | 1,528 | 1,695 |
| Totals. . | 123,086 | 125,115 | 125,789 | 127,158 | 128,735 |
| Increase over previous years.. | 1,925 | 2,029 | 674 | 1,369 | 1,577 |

ENROLLMENT OF JUNE 30 OF EACH OF THE LAST FIVE YEARS

| Day Schools. | 1924. | 1925. | 1926. | 1927. | 1928. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| The Teachers College of the City of Boston. | 487 | 651 | 689 | 771 | 784 |
| High and Latin. | 19,370 | 20,097 | 20,020 | 20,339 | 21,267 |
| Elementary Grades. | 92,237 | 92,656 | 93,260 | 94,671 | 94,810 |
| Kindergartens. | 8,910 | 9,147 | 9,452 | 9,348 | 9,916 |
| Special Schools.. | 1,144 | 1,199 | 1,284 | 1,290 | 1,500 |
| Totals. | 122,148 | 123,750 | 124,705 | 126,419 | 128,277 |

TOTAL REGISTRATION.
School Year Ending June 30, 1928.

|  | Boys. | Girls. | Total. |
| :---: | :---: | :---: | :---: |
| The Teachers College of the City of Boston. |  | 805 | 805 |
| High and Latin. | 12,306 | 11,896 | 24,202 |
| Elementary Grades.. | 53,195 | 50,429 | 103,624 |
| Kindergartens. | 5,609 | 5,498 | 11,107 |
| Special Schools. | 857 | 1,214 | 2,071 |
| Totals. | 71,967 | 69,842 | 141,809 |

SUMMARY.
School Year Ending June 30, 1928.

| Schools |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| The Teachers College of the City of Boston | 805 | 789 | 874 | 98 |
| High and Latin | 24,202 | 22,332 | 20,790 | 93 |
| Elementary Grades. | 103,624 | 94,712 | 88,469 | 93 |
| Kindergartens.. | 11,107 | 9,207 | 7,451 | 81 |
| Totals. | 139,738 | 127,040 | 117,484 | 92 |
| Special Schools. | 2,071 | 1,695 | 1,545 | 91 |
| All day schools (except the Continuation School and Day School for Immigrants), | 141,809 | 128,735 | 119,029 | 92 |
| Evening High. | 7,356 | 4,238 | 3,362 | 79 |
| Evening Elementary. | 6,485 | 3,454 | 2,829 | 82 |
| Boston Trade School (Evening Classes) .. | 1,531 | 772 | 609 | 79 |
| Totals. | 15,372 | 8,464 | 6,800 | 80 |
| Continuation School. | 6,457 | 3,995 | 3,918 | 98 |
| Day School for Immigrants............. . | 1,076 | 515 | 408 | 79 |
| Total of all Day and Evening Schools, | 164,714 | 141,709 | 130,155 | 92 |

## DAY SCHOOLS．

## THE TEACHERS COLLEGE OF THE CITY OF BOSTON， LATIN AND HIGH SCHOOLS．

School Year Ending June 30， 1928.

| Schools． |  | Average Number Belonging． |  |  | Average Attendance． |  |  | $\text { - } 3 \text { ursqq }$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{\infty} \\ & \stackrel{\circ}{\circ} \\ & \dot{\oplus} \end{aligned}$ | $\stackrel{\dot{\infty}}{\dot{j}}$ | $\begin{aligned} & \text { जू } \\ & \text { 由丂ㅇ } \end{aligned}$ | $\begin{aligned} & \dot{\infty} \\ & \stackrel{\sim}{\circ} \end{aligned}$ | $\stackrel{\dot{x}}{\stackrel{0}{3}}$ | E゙ |  |  |
| The Teachers College of the City of Boston．． | 805 |  | 789 | 789 |  | 774 | 774 | 15 | 98 |
| High and Latin： |  |  |  |  |  |  |  |  |  |
| Public Latin． | 1，805 | 1，728 |  | 1，728 | 1，641 |  | 1，641 | 87 | 95 |
| Girls＇Latin． | 1，057 |  | 982 | 982 |  | 938 | 938 | 44 | 96 |
| Brighton High | 962 | 465 | 502 | 967 | 429 | 466 | 895 | 72 | 93 |
| Charlestown High | 1，045 | 470 | 452 | 922 | 440 | 418 | 858 | 64 | 93 |
| Dorchester High School for Boys．．． | 1，963 | 1，718 |  | 1，718 | 1，577 |  | 1，577 | 141 | 92 |
| Dorchester High School for Girls． | 2，064 |  | 1，926 | 1，926 |  | 1，749 | 1，749 | 177 | 91 |
| East Boston High | 1，148 | 507 | 543 | 1，050 | 473 | 507 | 980 | 70 | 93 |
| English High | 2，717 | 2，551 |  | 2，551 | 2，337 | ．．． | 2，337 | 214 | 92 |
| Girls＇High． | 2，193 |  | 1，972 | 1，972 |  | 1，811 | 1，811 | 161 | 92 |
| High School of Commerce | 1，214 | 1，129 |  | 1，129 | 1，082 |  | 1，082 | 47 | 96 |
| High School of Practical | 964 |  | 776 | 776 |  | 716 | 716 | 60 | 92 |
| Hyde Park High． | 1，117 | 500 | 489 | 989 | 470 | 460 | 930 | 59 | 94 |
| Jamaica Plain High | 1，303 | 368 | 883 | 1，251 | 352 | 841 | 1，193 | 58 | 9.5 |
| Mechanic Arts High | 1，697 | 1，475 |  | 1，475 | 1，406 |  | 1，406 | 69 | 95 |
| Memorial High School for Girls．．．．．．．．．．．．．．．．．．．．．．．．． | 1，964 |  | 1，972 | 1，972 |  | 1，802 | 1，802 | 170 | 91 |
| South Boston High． | 989 | 387 | 537 | 924 | 368 | 507 | 875 | 49 | 9.5 |
| Totals，High and Latin．． | 24，202 | 11，298 | 11，034 | 22，332 | 10，575 | 10，215 | 20，790 | 1，542 | 93 |
| Grand Totals | 25，007 | 11，298 | 11，823 | 23，121 | 10，575 | 10，989 | 21，564 | 1，557 | 93 |

## ELEMENTARY GRADES.

School Year Ending June 30, 1928.

| School Dietricts. |  | Average Number Belonging. |  |  | Average Attendance. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{\infty} \\ & \stackrel{\rightharpoonup}{\circ} \\ & \dot{\sim} \end{aligned}$ |  | $\begin{aligned} & \text { ت⿹\zh26灬 } \\ & \stackrel{0}{0} \end{aligned}$ | $\dot{\hat{\circ}}$ | $\frac{\dot{x}}{: \mid}$ | ( |  |  |
| Abraham Lincoln | 1,573 | 637 | 745 | 1,382 | 594 | 691 | 1,285 | 97 | 93 |
| Agassiz | 817 | 665 | 76 | 741 | 633 | 69 | 702 | 39 | 95 |
| Bennett | 2,695 | 1,207 | 1,188 | 2,395 | 1,121 | 1,096 | 2,217 | 178 | 93 |
| Bigelow. | 1,171 | 930 | 146 | 1,076 | 897 | 136 | 1,033 | 43 | 96 |
| Blackinton | 887 | 423 | 411 | 834 | 401 | 389 | 790 | 44 | 95 |
| Bowditch. | 1,108 | 246 | 785 | 1,031 | 225 | 740 | 965 | 66 | 94 |
| Bowdoin. | 1,081 | 254 | 533 | 787 | 235 | 502 | 737 | 50 | 94 |
| Chapman | 1,245 | 574 | 506 | 1,080 | 537 | 473 | 1,010 | 70 | 94 |
| Charles Sumner | 1,172 | 530 | 557 | 1,087 | 499 | 520 | 1,C19 | 68 | 94 |
| Christopher Gibson | 1,208 | 572 | 598 | 1,170 | 529 | 546 | 1,075 | 95 | 92 |
| Dearborn | 1,909 | 935 | 704 | 1,639 | 882 | 657 | 1,539 | 100 | 94 |
| Dillaway | 1,361 | 260 | 819 | 1,079 | 239 | 769 | 1,008 | 71 | 93 |
| Donald McKiay | 1,084 | 527 | 453 | 980 | 516 | 439 | 955 | 25 | 97 |
| Dudley | 1,162 | 839 | 233 | 1,072 | 787 | 212 | 999 | 73 | 93 |
| Dwight | 896 | 543 | 197 | 740 | 512 | 176 | 688 | 52 | 93 |
| Edmund P. Tileston | 1,529 | 729 | 725 | 1,454 | 674 | 659 | 1,333 | 121 | 92 |
| Edward Everett. | 1,649 | 765 | 719 | 1,484 | 728 | 682 | 1,410 | 74 | 95 |
| Elihu Greenwood. | 1,667 | 764 | 771 | 1,535 | 720 | 723 | 1,443 | 92 | 94 |
| Eliot | 1,953 | 1,448 | 489 | 1,937 | 1,404 | 466 | 1,870 | 67 | 97 |
| Emerson | 1,279 | 645 | 564 | 1,209 | 608 | 523 | 1,131 | 78 | 94 |
| Emily A. Fifield. | 1,126 | 510 | 525 | 1,035 | 481 | 490 | 971 | 64 | 94 |
| Everett. | 1,097 | 211 | 669 | 880 | 196 | 629 | 825 | 55 | 94 |
| Francis Parkman. | 881 | 411 | 395 | 806 | 393 | 374 | 767 | 39 | 95 |
| Frank V. Thompson. | 1,495 | 644 | 722 | 1,366 | 583 | 653 | 1,236 | 130 | 90 |
| Franklin | 1,027 | 242 | 648 | 890 | 224 | 607 | 831 | 59 | 93 |
| Frederic W. Lincoln... | 646 | 507 | 101 | 608 | 485 | 95 | 580 | 28 | 95 |
| Gaston. | 995 | 163 | 793 | 956 | 148 | 752 | 900 | 56 | 94 |
| Gilbert Stuart | 836 | 397 | 329 | 726 | 371 | 306 | 677 | 49 | 93 |
| Grover Cleveland | 760 | 350 | 375 | 725 | 332 | 345 | 677 | 48 | 93 |
| Hancock. | 1,753 | 339 | 1,171 | 1,510. | 323 | 1,124 | 1,447 | 63 | 96 |
| Harvard-Frothingham | 1,297 | 551 | 518 | 1,069 | 518 | 484 | 1,002 | 67 | 94 |
| Henry Grew.. | 1,280 | 600 | 561 | 1,161 | 566 | 527 | 1,093 | 68 | 94 |

## ELEMENTARY GRADES

School Year Ending June 30, 1928.- Continued.

| School Districts. |  | Average Number Belonging. |  |  | Average Attendance. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{x} \\ & \stackrel{n}{n} \end{aligned}$ | $\frac{\dot{x}}{x}$ | $\begin{gathered} \text { 펚 } \\ \stackrel{0}{1} \end{gathered}$ | $\begin{aligned} & \dot{g} \\ & \stackrel{y}{\bullet} \\ & \stackrel{y}{n} \end{aligned}$ | $\frac{\text { i }}{\underset{U}{E}}$ | E. $\stackrel{y y}{\circ}$ $\sim$ |  |  |
| Henry L. Higginson | 1,138 | 527 | 493 | 1,020 | 480 | 449 | 929 | 91 | 91 |
| Henry L. Pierce | 1,156 | 566 | 577 | 1,143 | 524 | 534 | 1,058 | 85 | 93 |
| Hugh O'Brien | 1,978 | 1,041 | 740 | 1,781 | 989 | 691 | 1,680 | 101 | 94 |
| Hyde | 837 | 177 | 514 | 691 | 159 | 483 | 642 | 49 | 93 |
| Jefferson-Comins | 1,553 | 680 | 669 | 1,349 | 647 | 636 | 1,283 | 66 | 95 |
| John A. Andrew | 1,124 | 625 | 495 | 1,120 | 595 | 465 | 1,060 | 60 | 95 |
| John Cheverus | 816 | 415 | 368 | 783 | 392 | 345 | 737 | 46 | 94 |
| John Marshall | 1,594 | 821 | 687 | 1,508 | 758 | 627 | 1,385 | 123 | 92 |
| John Winthrop. | 1,751 | 865 | 854 | 1,719 | 802 | 779 | 1,581 | 138 | 92 |
| Joseph H. Barnes | 1,074 | 532 | 572 | 1,104 | 498 | 529 | 1,027 | 77 | 93 |
| Julia Ward Howe | 1,271 | 662 | 564 | 1,226 | 608 | 518 | 1,126 | 100 | 92 |
| Lawrence | 886 | 598 | 156 | 754 | 579 | 149 | 728 | 26 | 97 |
| Lewis. | 1,054 | 504 | 507 | 1,011 | 463 | 460 | 923 | 88 | 91 |
| Longfellow | 1,482 | 748 | 703 | 1,451 | 679 | 642 | 1,321 | 130 | 91 |
| Lowell | 1,175 | 554 | 528 | 1,082 | 529 | 501 | 1,030 | 52 | 95 |
| Martin. | 841 | 347 | 343 | 690 | 327 | 320 | 647 | 43 | 94 |
| Mary Hemenway | 1,882 | 862 | 901 | 1,763 | 813 | 842 | 1,655 | 108 | 94 |
| Mather | 2,487 | 1,157 | 1,041 | 2,198 | 1,089 | 972 | 2,061 | 137 | 94 |
| Michelangelo | 976 | 480 | 428 | 908 | 466 | 411 | 877 | 31 | 97 |
| Minot | 918 | 397 | 366 | 763 | 374 | 343 | 717 | 46 | 94 |
| Norcross. | 1,157 | 190 | 818 | 1,008 | 177 | 771 | 948 | 60 | 94 |
| Oliver Hazard Perry. | 758 | 361 | 351 | 712 | 343 | 331 | 674 | 38 | 95 |
| Oliver Wendell Holmes, | 1,040 | 530 | 519 | 1,049 | 490 | 477 | 967 | 82 | 92 |
| Phillips Brooks | 1,750 | 826 | 779 | 1,605 | 751 | 709 | 1,460 | 145 | 91 |
| Prescott | 812 | 376 | 339 | 715 | 353 | 317 | 670 | 45 | 94 |
| Prince. | 1,341 | 540 | 555 | 1,095 | 494 | 507 | 1,001 | 94 | 91 |
| Quincy. | 1,023 | 645 | 250 | 895 | 609 | 230 | 839 | 56 | 94 |
| Rice. | 1,037 | 568 | 395 | 963 | 540 | 373 | 913 | 50 | 95 |
| Robert Gould shaw | 1,986 | 991 | 909 | 1,900 | 930 | 848 | 1,778 | 122 | 94 |
| Robert Treat Paine. | 986 | 453 | 443 | 896 | 407 | 396 | 803 | 93 | 90 |
| Roger Wolcott. | 2,100 | 1,028 | 1,020 | 2,048 | 923 | 913 | 1,836 | 212 | 90 |
| Samuel Adams | 2,539 | 1,193 | 1,166 | 2,359 | 1,136 | 1,104 | 2,240 | 119 | 95 |

## ELEMENTARY GRADES.

School Year Ending June 30, 1928. - Concluded.

| School Districts. |  | Average Number Belonging. |  |  | Average Attendance. |  |  | Average Absence. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{\text { No}} \\ & \stackrel{\circ}{\circ} \end{aligned}$ | $\dot{\text { 豙 }}$ | $\begin{aligned} & \text { تूं } \\ & \stackrel{y}{0} \end{aligned}$ | - | $\frac{\dot{x}}{\underset{\sim}{\tilde{v}}}$ | $\begin{aligned} & \text { ت゙ } \\ & \stackrel{0}{0} \\ & \text { F } \end{aligned}$ |  |  |
| Sherwin. | 1,050 | 735 | 185 | 920 | 686 | 170 | 856 | 64 | 93 |
| Shurtleff | 1,164 | 260 | 832 | 1,092 | 238 | 773 | 1,011 | 81 | 93 |
| Theodore Lyman. | 1,424 | 729 | 599 | 1,328 | 693 | 566 | 1,259 | 69 | 95 |
| Theodore Roosevelt. | 1,568 | 692 | 766 | 1,458 | 646 | 709 | 1,355 | 103 | 93 |
| Thomas Gardner. | 1,624 | 785 | 716 | 1,501 | 748 | 680 | 1,428 | 73 | 95 |
| Thomas N. Hart. | 847 | 683 | 159 | 842 | 651 | 148 | 799 | 43 | 95 |
| Ulysses S. Grant. | 1,265 | 586 | 564 | 1,150 | 554 | 534 | 1,088 | 62 | 95 |
| W arren-Bunker Hill. | 1,791 | 836 | 770 | 1,606 | 786 | 723 | 1,509 | 97 | 94 |
| Washington. | 1,243 | 494 | 520 | 1,014 | 451 | 476 | 927 | 87 | 91 |
| Washington Allston. | 1,460 | 667 | 623 | 1,290 | 625 | 576 | 1,201 | 89 | 93 |
| Washington Irving | 1,099 | 482 | 534 | 1,016 | 462 | 507 | 969 | 47 | 95 |
| Wells. | 1,552 | 517 | 903 | 1,420 | 478 | 842 | 1,320 | 100 | 93 |
| Wendell Phillips. | 901 | 863 | 57 | 920 | 809 | 51 | 860 | 60 | 93 |
| William E. Endicott.. | 1,528 | 753 | 749 | 1,502 | 675 | 668 | 1,343 | 159 | 89 |
| William E. Russell. | 935 | 427 | 447 | 874 | 403 | 419 | 822 | 52 | 94 |
| William L. Garrison. | 1,012 | 557 | 469 | 1,026 | 495 | 416 | 911 | 115 | 89 |
| Totals. | 103,624 | 48,743 | 45,969 | 94,712 | 45,685 | 42,784 | 88,469 | 6,243 | 93 |

KINDERGARTENS.
School Year Ending June 30, 1928.

| School Districts. |  | Average Number Belonging. |  |  | Affrage Attendance. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\grave{\circ}}{\stackrel{\sim}{\circ}}$ | $\dot{\dot{S}}$ |  | $\stackrel{\dot{n}}{\stackrel{\rightharpoonup}{\dot{n}}}$ |  | $\begin{aligned} & \text { 亏̈ } \\ & \stackrel{0}{1} \end{aligned}$ |  |  |
| Abraham Lincoln. | 51 | 23 | 27 | 50 | 16 | 19 | 35 | 15 | 70 |
| Agassiz | 59 | 27 | 22 | 49 | 20 | 16 | 36 | 13 | 73 |
| Bennett | 384 | 158 | 146 | 304 | 121 | 109 | 230 | 74 | 76 |
| Bigelow | 87 | 32 | 35 | 67 | 28 | 28 | 56 | 11 | 84 |
| Blackinton | 93 | 42 | 40 | 82 | 34 | 33 | 67 | 15 | 82 |
| Bowditch | 155 | 69 | 75 | 144 | 53 | 62 | 115 | 29 | S0 |
| Bowdoin. | 130 | 56 | 48 | 104 | 47 | 40 | 87 | 17 | 84 |
| Chapman. | 185 | 72 | 82 | 154 | 60 | 68 | 128 | 26 | 83 |
| Charles Sumner | 202 | 75 | 89 | 164 | 58 | 72 | 130 | 34 | 79 |
| Christopher Gibson. | 87 | 39 | 44 | 83 | 30 | 35 | 65 | 18 | 78 |
| Dearborn. | 178 | 72 | 54 | 126 | 57 | 40 | 97 | 29 | 77 |
| Dillaway. | 186 | 76 | 75 | 151 | 60 | 62 | 122 | 29 | 81 |
| Dudley | 143 | 60 | 49 | 109 | 50 | 40 | 90 | 19 | 83 |
| Dwight | 88 | 31 | 37 | 68 | 24 | 30 | 54 | 14 | 79 |
| Edmund P. Tileston | 137 | 53 | 74 | 127 | 41 | 59 | 100 | 27 | 79 |
| Edward Everett. | 154 | 68 | 55 | 123 | 55 | 44 | 99 | 24 | 80 |
| Elihu Greenwood | 195 | 92 | 76 | 168 | 72 | 60 | 132 | 36 | 79 |
| Eliot. | 234 | 100 | 83 | 183 | 88 | 74 | 162 | 21 | 89 |
| Emerson. | 148 | 54 | 62 | 116 | 45 | 51 | 96 | 20 | 83 |
| Emily A. Fifield | 91 | 41 | 40 | 81 | 36 | 34 | 70 | 11 | 86 |
| Everett. | 74 | 26 | 20 | 46 | 19 | 16 | 35 | 11 | 76 |
| Francis Parkman. | 91 | 48 | 36 | 84 | 42 | 31 | 73 | 11 | 87 |
| Franklin. | 111 | 47 | 46 | 93 | 37 | 36 | 73 | 20 | 78 |
| Frederic W. Lincoln. | 94 | 40 | 39 | 79 | 35 | 35 | 70 | 9 | 89 |
| Gaston. | 83 | 28 | 49 | 77 | 24 | 40 | 64 | 13 | 83 |
| Gilbert Stuart. | 158 | 60 | 53 | 113 | 45 | 39 | 84 | 29 | 74 |
| Hancock | 420 | 160 | 162 | 322 | 140 | 142 | 282 | 40 | 8S |
| Harvard-Frothingham. | 207 | 77 | 62 | 139 | 63 | 49 | 112 | 27 | 81 |
| Henry Grew. | 195 | 65 | 75 | 140 | 52 | 58 | 110 | 30 | 79 |
| Henry L. Higginson. | 267 | 118 | 113 | 231 | 93 | 92 | 185 | 46 | 80 |
| Henry L. Pierce. | 131 | 65 | 64 | 129 | 50 | 52 | 102 | 27 | 79 |
| Hugh O'Brien. | 156 | 87 | 60 | 147 | 69 | 50 | 119 | 28 | 81 |

## KINDERGARTENS.

School Year Ending June 30, 1928. - Continued.

| School Districts. |  | Average Number Belonging. |  |  | Average Attendance. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{n} \\ & \stackrel{\circ}{\circ} \\ & \end{aligned}$ | $\frac{\dot{\theta}}{\underline{E}}$ | $\begin{aligned} & \stackrel{5}{0} \\ & \stackrel{0}{0} \end{aligned}$ | és | $\frac{\dot{x}}{i}$ | $\stackrel{\stackrel{\text { İ }}{c}}{\substack{c}}$ |  |  |
| Hyde. | 140 | 52 | 59 | 111 | 39 | 46 | 85 | 26 | 77 |
| Jefferson-Comins . | 208 | 67 | 85 | 152 | 56 | 71 | 127 | 25 | 84 |
| John A. Andrew. | 83 | 37 | 41 | 78 | 30 | 35 | 65 | 13 | 83 |
| John Cheverus. | 112 | 41 | 51 | 92 | 33 | 42 | 75 | 17 | 82 |
| John Marshall . | 188 | 77 | 87 | 164 | 64 | 71 | 135 | 29 | 82 |
| John Winthrop. | 156 | 66 | 62 | 128 | 54 | 47 | 101 | 27 | 79 |
| Julia Ward Howe | 95 | 37 | 34 | 71 | 30 | 27 | 57 | 14 | 80 |
| Lawrence. | 80 | 23 | 29 | 52 | 20 | 23 | 43 | 9 | 83 |
| Longfellow. | 249 | 109 | 110 | 219 | 86 | 90 | 176 | 43 | 80 |
| Lowell. | 140 | 71 | 66 | 137 | 60 | 56 | 116 | 21 | 85 |
| Martin. | 169 | 50 | 68 | 118 | 41 | 57 | 98 | 20 | 83 |
| Mary Hemenway | 170 | 72 | 67 | 139 | 56 | 51 | 107 | 32 | 77 |
| Mather. | 284 | 106 | 120 | 226 | 92 | 105 | 197 | 29 | 87 |
| Minot. | 62 | 25 | 27 | 52 | 21 | 22 | 43 | 9 | 83 |
| Norcross. | 117 | 42 | 44 | 86 | 32 | 36 | 68 | 18 | 79 |
| Oliver Hazard Perry | 72 | 31 | 30 | 61 | 25 | 24 | 49 | 12 | 80 |
| Phillips Brooks. | 189 | 81 | 73 | 154 | 65 | 58 | 123 | 31 | 80 |
| Prescott. | 58 | 28 | 32 | 60 | 19 | 22 | 41 | 19 | 68 |
| Prince | 80 | 37 | 37 | 74 | 27 | 24 | 51 | 23 | 69 |
| Quincy. | 216 | 80 | 69 | 149 | 65 | 56 | 121 | 28 | 81 |
| Rice. | 48 | 21 | 19 | 40 | 17 | 15 | 32 | 8 | 80 |
| Robert Gould Shaw | 215 | 90 | 86 | 176 | 72 | 69 | 141 | 35 | 80 |
| Robert Treat Paine. | 136 | 62 | 43 | 105 | 47 | 33 | 80 | 25 | 76 |
| Roger Wolcott. | 299 | 123 | 126 | 249 | 101 | 104 | 205 | 44 | 82 |
| Samuel Adams. | 375 | 186 | 194 | 380 | 151 | 154 | 305 | 75 | 80 |
| Sherwin. | 109 | 48 | 53 | 101 | 40 | 44 | 84 | 17 | 83 |
| Shurtleff. | 137 | 73 | 69 | 142 | 61 | 57 | 118 | 24 | 83 |
| Theodore Lyman. | 174 | 76 | 64 | 140 | 64 | 55 | 119 | 21 | 85 |
| Theodore Roosevelt. | 74 | 22 | 32 | 54 | 18 | 25 | 43 | 11 | 80 |
| Thomas Gardner. | 166 | 75 | 62 | 137 | 61 | 51 | 112 | 25 | 82 |
| Thomas N. Hart. | 100 | 56 | 52 | 108 | 44 | 42 | 86 | 22 | 80 |
| Ulysses S. Grant. | 191 | 70 | 86 | 156 | 59 | 71 | 130 | 26 | 83 |

## KINDERGG．LRTEN：

S＇choal Year Endin！Jume 30，193s－Concluded．

| School Distratets． |  | Average Number Belonging． |  |  | Averagr Attendance． |  |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 80002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{\hat{\sim}} \end{aligned}$ | $\underset{E}{\dot{Z}}$ | $\begin{aligned} & \text { 華 } \\ & \end{aligned}$ |  | $\frac{2}{c}$ | $\begin{aligned} & = \\ & = \\ & =1 \end{aligned}$ |  |  |
| Warren－Bunker Hill | 196 | 87 | so | 167 | 70 | 64 | 134 | 33 | －1） |
| Washington Allston | 12.2 | 63 | 40 | 103 | 49 | 32 | s 1 | 22 | 8！） |
| Wells． | 2以 | 123 | 120 | 243 | 99 | 95 | 197 | 16 | 91 |
| Wendell Phillips | 50 | 19 | 21 | 40 | 16 | 19 | 3.7 | j | A |
| William E．Endicott | 297 | 132 | 129 | 261 | 106 | 103 | 209 | 52 | 80 |
| William E．Russell． | 162 | 70 | 59 | 129 | 58 | 46 | 104 | 25 | s1 |
| William L．Garrison． | 126 | 52 | 48 | 100 | 41 | 37 | －s | 22 | 78 |
| Totals | 11，107 | 4，641 | 4，566 | 9，207 | 3，753 | 3，698 | 7，451 | 1，756 | A1 |

## SPECIAL SCHOOLS.

School Year Ending June 30, 1928.

| School Districts. |  | Average Number Belonging. |  |  | Average Attendance. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \dot{\sim} \\ & \stackrel{\rightharpoonup}{\circ} \\ & \end{aligned}$ | 寝 | $\begin{aligned} & \text { एँ } \\ & \text { in } \\ & \text { H. } \end{aligned}$ | $\stackrel{\dot{\infty}}{\substack{\circ\\}}$ | $\frac{\dot{x}}{\dot{x}}$ |  |  |  |
| Horace Mann School. | 153 | 77 | 72 | 149 | 71 | 66 | 137 | 12 | 92 |
| Boston Clerical School | 505 |  | 399 | 399 |  | 366 | 366 | 33 | 92 |
| Boston Disciplinary Day School, | 69 | 81 |  | 81 | 67 |  | 67 | 14 | 83 |
| Boston Trade School. | 711 | 611 |  | 611 | 565 |  | 565 | 46 | 92 |
| Trade School for Girls. | 633 |  | 455 | 455 |  | 410 | 410 | 45 | 90 |
| Totals. | 2,071 | 769 | 926 | 1,695 | 703 | 842 | 1,545 | 150 | 91 |

## TRADE SCHOOLS.

Total Registration by Departments, School Year Ending June 30, 1928. BOSTON TRADE SCHOOL.

| Department. | Day. |  | Evening. |
| :---: | :---: | :---: | :---: |
|  | Complete Enrollment. | Original Enrollment. |  |
| Automobile mechanics.. | 116 | 113 | 141 |
| Electrical.. | 107 | 106 | 153 |
| Machine. | 93 | 92 | 181 |
| Masonry. | 23 | 21 |  |
| Plumbing. | 84 | 84 | 154 |
| Printing.. | 90 | 87 | 74 |
| Sheet metal.. | 44 | 44 | 102 |
| Woodworking. | 154 | 153 | 152 |
| Bricklaying. |  |  | 83 |
| Drawing. |  |  | 118 |
| Firing and engineering. |  |  | 52 |
| Furniture design. | .... | ........ | 28 |
| Ignition.. |  |  | 51 |
| Painting and graining... |  |  | 102 |
| Paperhanging. |  |  | 58 |
| Welding.. |  |  | 82 |
| Totals. | 711 | 700 | 1,531 |

TRADE SCHOOL FOR GIRLS.

| Department. | Day. | Extension. | Total. |
| :---: | :---: | :---: | :---: |
| Dressmaking . | 380 | 4 | 384 |
| Millinery | 92 | 6 | 98 |
| Operating. | 162 | 21 | 18.3 |
| Catering. | 76 | 2 | 78 |
| Totals. | 710 | 33 | 743 |

Summer Term, 1928.
Total registration . . . . . . . . . . . 214
Average number belonging . . . . . . . . . 192
Average attendance . . . . . . . . . . . 175
Per cent of attendance . . . . . . . . . 91
Average daily number of teachers . . . . . . . 16
Part-time extension:
Number enrolled . . . . . . . . . . . 11
Hours of attendance . . . . . . . . . . 790

## DISTRIBUTION OF PUPILS IN RESPECT BOTH

 The Age Given is That

TO AGE AND TO GRADE, OCTOBER 1, 1927. of October 1, 1927.


DISTRIBUTION OF PUPILS IN RESPECT BOTH


TO AGE AND TO GRADE, OCTOBER 1, 1927, Concluded.

| $\begin{aligned} & \dot{\omega} \\ & \stackrel{y}{0} \\ & \stackrel{1}{0} \\ & \varrho \end{aligned}$ |  | ¢ ²0 N | $\frac{2}{2}$ | E. <br> - <br> - | ity ¢ in in | - | - | ¢ | - |  |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & 4,320 \\ & 4,420 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  | 8,948 |
| 3 4 8 | 4 11 7 | $\begin{array}{r}4 \\ 12 \\ \hline\end{array}$ | 9 4 9 20 | 7 6 8 139 150 | 15 7 6 179 215 9 | .7 7 91 138 24 | 3 3 4 4 9.5 67 | 6 39 39 128 | 7 13 123 | ? $\cdots$ 3 6 69 | 1 1 29 29 | $\begin{array}{r} 46 \\ 75 \\ 71 \\ 503 \\ 669 \\ 649 \\ 449 \end{array}$ |
| 15 | 22 | 19 | 42 | 310 | 461 | 235 | 212 | 203 | 143 | 78 | 32 | 1,813 |
| 10,664 | 10,303 | 10,471 | 10,969 | 10,250 | 8,845 | 5,871 | 3,258 | 1,273 | 576 | 272 | 113 | 130,102 |

ELEMENTARY SCHOOL PUPILS PROMOTED．

| Districts． |  | $\begin{aligned} & \text { E } \\ & \text { S } \\ & \text { む } \\ & \text { む } \end{aligned}$ |  |  |  |  |  | ゴ \％ \％in | $\begin{aligned} & \text { H } \\ & \text { む̃ } \\ & \text { む̃ } \\ & \text { Un } \end{aligned}$ | 烒 |  |  |  |  |  |  |  |  | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abraham Lincoln． | 118 | 150 | 183 | 169 | 173 | 151 |  | 61 | 84 |  |  | 11 |  |  |  | 47 |  | 45 | 1，263 |
| Agassiz |  | 53 | 63 | 75 | 109 | 107 | 65 | 41 | 50 |  |  | 10 |  | 98 |  |  |  | 41 | 712 |
| Bennett． | 149 | 224 | 229 | 266 | 259 | 254 | 259 | 240 | 289 |  |  | 7 |  |  |  |  |  | 255 | 2，431 |
| Bigelow | 67 | 97 | 112 | 126 | 166 | 154 | 95 | 87 | 85 |  |  | 4 |  |  |  |  |  | 56 | 1，049 |
| Blackinton |  | 107 | 116 | 111 | 96 | 90 | 77 | 80 | 76 |  |  |  |  |  |  |  |  | 81 | 834 |
| Bowditch |  | 87 | 90 | 102 | 100 | 111 | 121 | 128 | 184 |  |  |  |  |  |  | 25 |  | 152 | 1，100 |
| Bowdoin． |  |  |  | 39 | 80 | 75 | 132 | 116 | 106 | 16 |  | 13 |  |  |  | 140 |  | 107 | 824 |
| Chapman． |  |  |  | 158 | 156 | 175 | 162 | 172 | 166 |  |  | 13 |  |  |  |  |  | $14 \%$ | 1，151 |
| Charles Sumuer |  |  |  | 157 | 167 | 166 | 169 | 163 | 178 |  |  |  |  |  |  |  |  | 158 | 1，1．58 |
| Christopher Gibson． |  | 179 | 181 | 175 | 156 | 150 | 87 | 88 | 103 |  |  |  |  |  |  |  |  | 74 | 1，193 |
| Dearborn． |  | 162 | 198 | 164 | 178 | 141 | 168 | 193 | 244 | 21 |  | 13 |  | ．．．． |  |  |  | 104 | 1，586 |
| Dillaway． |  | 104 | 100 | 123 | 96 | 111 | 128 | 136 | 143 |  |  | 26 |  |  |  |  |  | 148 | 1，115 |
| Donald McKay | 206 | 323 | 418 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 947 |
| Dudley． |  | 99 | 96 | 107 | 107 | 126 | 121 | 116 | 144 |  |  | 12 |  |  | 12 |  |  | 98 | 1，038 |
| Dwight． |  | 65 | 66 | 83 | 89 | 82 | 69 | 69 | 73 |  |  |  | 58 |  |  |  |  | 57 | 711 |
| Edmund P．Tileston． |  | 124 |  |  |  |  |  |  |  |  |  |  | 23 |  |  |  |  | 122 | 1，517 |


ELEMENTARY SCHOOL PUPILS PROMOTED．

| ${ }^{1} \mathrm{~T}+{ }^{10} \mathrm{~L}$ | － | $\begin{aligned} & \infty \\ & \underset{\sim}{\infty} \\ & \hline \end{aligned}$ | $8$ | $\begin{aligned} & \text { N్ } \\ & \text { M } \end{aligned}$ | $\underset{t}{\infty}$ | $\stackrel{\infty}{\infty}$ | $\xrightarrow{\text { H. }}$ | $\begin{aligned} & \text { N } \\ & - \\ & \hline \end{aligned}$ | $\underset{i}{2}$ | － | $\begin{aligned} & \text { ®్ } \\ & \text { à } \end{aligned}$ | $\stackrel{\otimes}{\wedge}$ | $\stackrel{\infty}{\infty}$ | $\stackrel{\rightharpoonup}{\circ}$ | $\frac{7}{6}$ | $\begin{aligned} & \text { H } \\ & 0 \\ & \hline-1 \end{aligned}$ | $\xrightarrow[\sim]{+8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ＇иәұтеяләри！¢ | 20 | $\stackrel{\square}{=}$ |  | $\stackrel{1}{6}$ | ¢ |  | त |  | $\stackrel{1}{7}$ | ® | O |  | 9 | \％ | $\overline{6}$ |  | $\stackrel{\infty}{\sim}$ |
| －sscio quәш －әэивлру p！dву | ： |  |  | ¢ | $\vdots$ |  |  |  |  |  |  | ！ |  |  | ： |  |  |
| －ssbij） |  |  |  |  | ： |  |  |  |  |  |  | ： |  |  |  |  |  |
|  јо иоптвлдәзио， | ！ | ！ | ： |  | ！ | ： | ： | ： | 긱 |  |  | ！ | ！ | 7 | ： |  |  |
|  | ： | $\vdots$ ！ | $\vdots \vdots$ |  | ！ | ： | $\vdots$ | ： | ． |  | $\vdots$ | $\vdots$ | ： |  | $\vdots$ |  |  |
| ＊sselo［eq！dso H |  | ： | $\vdots \vdots$ |  | ： | ： | ！ | ： |  | ： | ： | $\vdots$ | ！ |  | ！ |  |  |
| －sselo Ieroads | $\stackrel{\square}{\square}$ | $\cdots$ |  | － | $\stackrel{10}{\sim}$ |  | $\cdots$ | $\stackrel{\sim}{1}$ |  | $\stackrel{N}{7}$ | $\stackrel{\sim}{\sim}$ | ： | ： | ＋ | $\cdots$ |  |  |
| पs! |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ． |  |  |
| ${ }^{\text {＇рәреıs̈и }}$ |  | ：： |  |  |  |  |  |  |  |  |  | ！ |  | $\stackrel{\infty}{\sim}$ |  |  |  |
| ‘I әрвı | $\stackrel{N}{\mathrm{~N}}$ | 简 |  | \％ | 잉 |  | $\stackrel{\text { N }}{N}$ | $\stackrel{\underset{\sim}{\circ}}{\stackrel{N}{2}}$ | ก5 | ¢ | N |  | 8 | $\underset{\sim}{\alpha}$ | स |  | त |
| ＇II әреıу | 8 | $\stackrel{\text { ¢ }}{ }$ |  | た్గ్N | 악 |  | $\begin{aligned} & \stackrel{10}{0} \\ & \text { en } \end{aligned}$ | $\exists$ | ¢ | $\stackrel{10}{\infty}$ | $\stackrel{\rightharpoonup}{\text { cis }}$ |  | $\stackrel{\text { N }}{ }$ |  | $\cdots$ |  | ¢ |
| ＇III әрелу |  | ${ }_{\sim}^{\circ}$ |  | $\underset{\sim}{9}$ | $0$ |  | $\stackrel{N}{\tilde{\sim}}$ | $\underset{\sim}{\underset{\sim}{2}}$ |  |  |  |  | क |  | \％ |  | $\stackrel{\sim}{\infty}$ |
| － AI دpery |  | 佥 |  | $\begin{aligned} & \stackrel{\circ}{\circ} \mathrm{N} \end{aligned}$ | 8 |  | \%్ | － |  |  |  |  | ¢ | ஜ | N |  | $\stackrel{\odot}{\circ}$ |
| ${ }^{\wedge} \Lambda$ әрвхэ | Nิ | N |  | 등 | $\infty$ | \％ | $\overline{\text { దे }}$ |  |  |  | ベค |  | ¢ |  | － |  | $\stackrel{\circ}{\sim}$ |
| ＇İ әреір |  | 둑 |  | E | $\bar{\infty}$ | $\stackrel{\infty}{\sim}$ | न | $\stackrel{10}{7}$ | \％ |  |  |  | \％ | © | N |  | $\stackrel{\infty}{\sim}$ |
| ＇Iİ әрexp |  |  | $\stackrel{N}{\sim}$ |  | $\stackrel{8}{8}$ |  |  | \％ |  | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\infty} \end{aligned}$ |  |  | $\stackrel{\rightharpoonup}{0}$ | $\because$ |  | $\underset{\infty}{\infty}$ | $\underset{\sim}{\infty}$ |
|  |  |  | \％ |  | 8 | N |  | \％ | $\stackrel{\cong}{1}$ | O | $\stackrel{\text { P }}{ }$ | 은 | ¢ | $\pm$ | 18 | $\underset{\sim}{2}$ |  |
| ＇XI әрел！ |  |  | $\cdots$ |  |  | กิ |  |  |  | － |  | ¢్త |  | $\bigodot$ |  | ¢ | ＊ |
|  |  |  |  | Julia Ward Howe |  | $\stackrel{\infty}{E_{0}^{2}}$ |  | च | N |  |  | Michelangelo | $\begin{aligned} & \stackrel{+}{\sharp} \\ & \stackrel{y}{4} \end{aligned}$ |  |  |  |  |


ELEMENTARY SCHOOL PUPILS NOT PROMOTED．

| Districts． | 药 |  | $\begin{aligned} & \text { B } \\ & \text { 范 } \\ & \text { Hin } \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \text { 荡 } \end{aligned}$ |  | $\begin{aligned} & \text { 学 } \\ & \text { 炰 } \end{aligned}$ | $\begin{aligned} & \text { घ } \\ & \text { 葡 } \end{aligned}$ | $\begin{aligned} & \text { H } \\ & \text { 号 } \\ & \text { OU } \end{aligned}$ |  |  |  |  |  |  | $\begin{aligned} \\ \hline \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abraham Lincoln． |  | 3 | 8 | 18 | 21 | 21 | 7 | 1 | 22 |  |  | 23 |  |  |  | 9 | 5 | 144 |
| Agassiz． |  | 7 | 9 | 3 | 5 |  |  | 12 | 6 |  |  | 4 |  | 15 |  |  | 4 | 74 |
| Bennett． |  | 19 | 21 | 16 | 24 | 19 | 11 | 22 | 79 |  |  | 24 |  |  |  |  | 71 | 316 |
| Bigelow． |  | 3 | 2 | 12 | 6 | 9 | 4 | 9 | 20 |  |  | 12 |  |  |  |  | 12 | 89 |
| Blackinton． |  | 2 | 3 | 19 | 9 | 9 |  | 5 | 12 |  |  | 15 |  |  |  |  | 11 | 89 |
| Bowditch． |  | 6 | 8 | 3 | 10 | 11 | 6 | 20 | 33 |  |  |  |  |  |  | 2 | 3 | 102 |
| Bowdoin． |  |  |  |  |  |  | 3 | 8 | 21 |  |  | 35 |  |  |  | 8 | 9 | 84 |
| Chapman． |  |  |  | 8 | 5 | 9 | 14 | 15 | 39 |  |  |  |  |  |  |  | 28 | 118 |
| Charles Sumner．．． |  |  |  | 19 | 23 | 14 | 16 | 18 | 38 |  |  |  |  |  |  |  | 20 | 148 |
| Christopher Gibson． |  | $3$ | $6$ | 3 | 7 | $4$ | 7 | 8 | 15 |  |  |  |  |  |  |  | 3 | 56 |
| Dearborn． |  | 2 | 3 | 14 | 16 | 7 | 25 | 19 | 36 | 2 |  |  |  |  |  |  | 30 | 173 |
| Dillaway |  | 6 | 4 | 6 | 7 | 5 | 7 | 14 | 43 |  |  | 6 |  |  |  |  | 15 | 113 |
| Donald McKay． |  | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dudley． |  | 7 | 14 | $9$ | 11 | 19 | 14 | 26 | 21 |  |  | 20 |  |  | 1 |  | 28 | 170 |
| Dwight．．． |  | 2 | 2 | 3 | 6 | 1 | 2 | 2 | 19 |  |  | 92 |  |  |  |  | 19 | 148 |
| Edmund P．Tileston |  | 2 | 4 |  | 3 | ${ }^{4}$ | $8$ | $6$ | 31 |  |  | 11 |  |  |  |  | 6 | 75 |
| Edward Everett． |  | 7 | 17 | 20 | 12 | 8 | 21 | 9 | 34 |  |  | 14 |  |  |  |  | 12 | 154 |
| Elihu Greenwood． |  | 10 | 6 | 12 | 19 | 11 | 9 | 12 | 21 |  |  | 11 |  |  |  |  | 16 | 127 |
|  |  |  |  |  |  |  |  |  |  |  |  | 32 |  |  |  |  | 35 | 443 |






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| merson |  |  |  |
| :---: | :---: | :---: | :---: |
| Emily A．Fifield． |  |  |  |
| Eve |  |  |  |
| Francis Parkman． |  |  | 16 |
| Frank V．Thompson | 18 | 12 | 6 |
| Franklin |  | 9 |  |
| Frederic W．Lincoln |  |  | 11 |
| Gaston |  |  |  |
| Gilbert Stuart． |  |  |  |
| Grover Cleveland． |  | 6 | 22 |
| Haneock． |  |  |  |
| Harvard－Frothingham |  | 4 | 11 |
| Henry Grew． |  |  |  |
| Henry L．Higginson． |  |  |  |
| Henry L．Pierce | 12 | 12 | 11 |
| Hugh $O^{\prime}$＇Brien． |  | 16 | ${ }^{21}$ |
| Hyde． |  | ， |  |
| Jefferson－Comins |  |  | 16 |
| John A．Andrew |  |  | 2 |
| John Cheverus |  |  |  |
| John Marshall． |  |  |  |
| John Winthrop |  | 10 | 16 |
| Joseph H．Barnes |  | 11 |  |
| Julia Ward Howe |  |  |  |
| Lawrence |  | 4 |  |

ELEMENTARY SCHOOL PUPILS NOT PROMOTED．

| Districts． |  |  | 发 \＃ \＃ U | 5 \％ \％ ¢ | $\dot{7}$ \＃̈ \＃ु | $\begin{aligned} & \text { 良 } \\ & \text { ® } \\ & \text { \%in } \end{aligned}$ | $\begin{aligned} & \text { 日 } \\ & \text { 淢 } \end{aligned}$ | a \＃ \＃ Un |  |  |  |  |  |  |  |  |  | －¢ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lewis． |  |  | 8 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  | 25 |
| Longfellow． |  |  |  | 3 | 12 |  |  | 14 | 11 |  |  | 11 |  |  |  |  | 35 | 105 |
| Lowell．． |  |  | 10 | 7 | 7 | 15 | 13 | 15 | 43 |  |  | 14 |  |  |  |  | 17 | 148 |
| Martin． |  |  | 9 | 14 | 2 | 4 | 4 | 7 | 15 |  |  |  | 2 |  | 1 |  | 16 | 97 |
| Mary Hemenway |  |  | 16 | 45 | 24 | 21 | 9 | 16 | 35 |  |  |  |  |  |  |  | 20 | 197 |
| Mather． |  |  | 21 | 21 | 33 | 25 | 10 | 11 | 23 |  |  | 18 |  |  |  |  | 22 | 189 |
| Michelangelo．． |  | 2 | 45 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 73 |
| Minot． |  |  | 3 | 10 | 10 | 11 | 4 | 6 | 15 |  |  |  |  |  |  |  | 15 | 74 |
| Noreross． |  |  | 4 | 15 | 14 | 6 | 8 | 10 | 31 | 2 |  | 9 |  |  | 2 |  | 18 | 124 |
| Oliver Hazard Perry |  |  | 37 | 16 | 13 | 12 | 1 |  | 16 | 3 |  | 12 |  |  |  |  | 2 | 121 |
| Oliver Wendell Holmes |  | 2 | 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 67 |
| Phillips Brooks． |  | 1 | 10 | 14 | 7 | 9 | 6 | 7 | 12 |  |  |  |  |  |  |  | 7 | 84 |
| Prescott． |  |  | 8 | 29 | 11 | 8 | 5 | 4 | 10 |  |  | 10 |  |  |  |  | 11 | 101 |
| Prince． |  |  | 5 | 3 |  | 5 | 4 | 3 | 8 |  |  |  |  |  |  |  | 10 | 46 |
| Quincy |  |  | 1 |  |  |  |  |  |  |  |  | 32 |  | 2 |  |  | 27 | 180 |



NUMBER OF PUPILS PER TEACHER.

| Year. | The Teachers College of the City of Boston (Excluding Head Master). | High and Latin (Excluding Head Master.) | Elementary. |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Grades (Excluding Principals.) | Kindergartens. |
| 1904. | 19.3 | 26.5 | 48.3 | 27.1 |
| 1905. | 19.9 | 27.3 | 48.4 | 28.5 |
| 1906. | 20.3 | 27.4 | 48.2 | 28.1 |
| 1907. | 17.0 | 26.9 | 47.9 | 26.8 |
| 1908. | 16.4 | 26.9 | 47.1 | 27.4 |
| 1909. | 14.0 | 29.2 | 45.6 | 25.7 |
| 1910. | 15.6 | 27.5 | 43.6 | 25.6 |
| 1910-11. | 16.0 | 28.9 | 42.2 | 23.4 |
| 1911-12. | 16.1 | 28.8 | 40.3 | 25.9 |
| 1912-13. | 14.0 | 27.8 | 42.7 | 24.6 |
| 1913-14. | 13.4 | 29.4 | 43.4 | 24.6 |
| 1914-15. | 15.4 | 31.2 | 42.9 | 26.1 |
| 1915-16. | 19.0 | 30.8 | 42.4 | 26.1 |
| 1916-17. | 19.6 | 30.3 | 41.4 | 22.8 |
| 1917-18. | 16.3 | 28.1 | 40.9 | 24.2 |
| 1918-19. | 15.3 | 26.7 | 40.1 | 24.3 |
| 1919-20. | 14.7 | 27.6 | 41.2 | 24.8 |
| 1920-21. | 16.4 | 28.8 | 42.4 | 25.4 |
| 1921-22. | 16.7 | 30.1 | 41.8 | 25.4 |
| 1922-23. | 18.5 | 28.7 | 41.0 | 25.1 |
| 1923-24. | 19.4 | 27.6 | 40.9 | 25.3 |
| 1924-25. | 18.1 | 27.4 | 40.3 | 23.6 |
| 1925-26. | 17.6 | 26.0 | 39.6 | 22.3 |
| 1926-27. | 16.4 | 25.0 | 39.3 | 21.3 |
| 1927-28* | 17.1 | 24.9 | 38.9 | 20.5 |

* The average number of teachers for the school year 1927-28 was: The Teachers College of the City of Boston, 46 ; Latin and high, 898 ; elementary grades, 2,435 ; kindergartens, 306 including 143 teachers who served two sessions.


## GRADUATES.

## THE TEACHERS COLLEGE OF THE CITY OF BOSTON, DAY HIGH AND LATIN SCHOOLS.

June, 1928.


## NUMBER OF PUPILS FINISHING EIGHTH GRADE.

(In some cases with diplomas and some without.)
June, 1928.

| District. | Boys. | Girls. | Total. | District. | Boys. | Girls. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abraham Lincoln . | 53 | 100 | 153 | Lewis Intermediate. | 136 | 142 | 278 |
| Agassiz | 86 |  | 86 | Lowell. | 53 | 56 | 109 |
| Bennett. | 106 | 137 | 243 | Martin. | 37 | 38 | 75 |
| Bigelow. | 99 |  | 99 | Mary Hemenway | 75 | 101 | 176 |
| Blackinton. | 49 | 58 | 107 | Mather. | 103 | 67 | 170 |
| Bowditch |  | 89 | 89 | Michelangelo Intermediate. | 130 | 100 | 230 |
| Christopher Gibson. | 90 | 89 | 179 | Minot. | 38 | 44 | 82 |
| Dearborn | 99 | 62 | 161 | Norcross. |  | 85 | 85 |
| Dillaway. |  | 104 | 104 | Oliver Hazard Perry | 37 | 38 | 75 |
| Donald McKay Intermediate.. | 126 | 123 | 249 | Oliver Wendell Holmes Intermediate. | 189 | 200 | 389 |
| Dudley. | 100 |  | 100 |  | 97 | 103 | 200 |
| Dwight. | 67 |  | 67 | Phillips B | 97 | 103 | 200 |
| Edmund P. Tileston | 53 | 72 | 125 | Prescott. | 28 | 33 | 61 |
|  |  |  |  | Prince. | 64 | 76 | 140 |
|  | 60 | 76 | 136 | Quincy. | 58 |  | 58 |
| Elihu Greenwood | 82 | 103 | 185 | Rice | 80 | 48 | 128 |
| Everett. |  | 67 | 67 |  |  |  |  |
| Francis Parkman. | 33 | 40 | 73 | Robert Gould | 85 |  |  |
| nk V Thompson Inter- |  |  |  | Sherwin. . | 55 |  | 55 |
| mediate.... | 261 | 267 | 528 | Shurtleff. |  | 77 | 77 |
| Franklin. | 6 | 44 | 50 | Theodore Roosevelt Intermediate. | 126 | 158 | 284 |
| Frederic W. Lincoln. | 64 |  | 64 | Thomas Gardner | 64 | 61 | 125 |
| Gaston . |  | 95 | 95 |  |  |  |  |
| Gilbert Stuart | 30 | 32 |  | Thomas N. Hart. | 94 |  | 94 |
|  |  |  |  | Warren-Bunker Hill. | 63 | 65 | 128 |
| Grover Cleveland Intermediate, | 105 | 112 | 217 | Washington | 157 | 171 | 328 |
| Harvard-Frothingham, | 46 | 61 | 107 | Washington Allston | 69 | 81 | 150 |
| Henry Grew. | 62 | 60 | 122 |  |  |  |  |
| Henry L. Pierce. | 107 | 120 | 227 | Washington Irving Inter- mediate....................... | 153 | 188 | 341 |
| Horace Mann | 6 | 6 | 12 | William E. Russell. | 56 | 62 | 118 |
| Hugh O'Brien | 123 | 87 | 210 |  |  |  |  |
| Hyde. |  | 58 | 58 | Totals. | 4,415 | 4,584 | 8,999 |
| Jefferson-Comins. | 63 | 76 | 139 | Summary. |  |  |  |
|  |  |  |  | The Teachers College. |  | 239 | 239 |
| John A. Andrew | 48 | 54 | 102 | Boston Clerical. |  | 61 | 61 |
| John Cheverus. | 54 | 45 | 99 |  |  |  |  |
| John Winthrop. | 70 | 89 | 159 | Day High and Latin. |  |  |  |
| Joseph H. Barnes Intermediate, | 160 | 179 | 339 | Day Elementary. | 4,415 | 4,584 | 8,999 |
| Lawrence. | 60 |  | 60 | Totals $\dagger$. | 6,238 | 7,033 | 13,271 |

[^43]$\dagger$ In addition 166 pupils finished the eighth grade because of work done in the summer review school (see page 34).

## SUMMER REVIEW SCHOOLS.

(Graduates, September, 1928.)
(As a Result of Summer Review School Work.)

| Higr School. | Boys. | Girls. | Total. |
| :---: | :---: | :---: | :---: |
| Brighton High. | 3 | 2 | 5 |
| Charlestown High. | 1 |  | 1 |
| Dorchester High for Boys. | 12 |  | 12 |
| Dorchester High for Girls. |  | 3 | 3 |
| English High. | 17 |  | 17 |
| Girls' High. |  | 15 | 15 |
| High School of Commerce. | 1 |  | 1 |
| High School of Practical Arts. |  | 3 | 3 |
| Jamaica Plain High. | 4 | 2 | 6 |
| Mechanic Arts High. | 7 |  | 7 |
| Memorial High for Girls. | 4 |  | 4 |
| South Boston High . | 3 |  | 3 |
| Totals. | 52 | 25 | 77 |

## NUMBER OF PUPILS COMPLETING GRADE VIII AS A RESULT OF SUMMER REVIEW SCHOOL WORK.

| School or District. | Boys. | Girls. | Total. | School or District. | Boys. | Girls. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public Latin. . | 2 |  | 2 | John Winthrop. | 2 | 1 | 3 |
| Girls' Latin. |  | 1 | 1 | Joseph H. Barnes. | 2 | 1 | 3 |
| Abraham Lincoln. | 1 |  | 1 | Lawrence. | 1 |  | 1 |
| Agassiz. | 6 |  | 6 | Lewis. | 1 |  | 1 |
| Bennett. | 4 | 2 | 6 | Lowell. |  | 1 | 1 |
| Blackinton. | 1 |  | 1 | Mary Hemenway | 1 |  | 1 |
| Bowditch. |  | 4 | 4 | Mather. |  | 2 | 2 |
| Christopher Gibson | 1 |  | 1 | Michelangelo. |  | 2 | 2 |
| Dearborn. |  | 1 | 1 | Oliver H. Perry | 2 |  | 2 |
| Dillaway. |  | 4 | 4 | Oliver $\mathbf{W}^{\boldsymbol{\gamma}}$. Holmes. | 5 | 4 | 9 |
| Dudley. | 3 |  | 3 | Phillips Brooks. | 7 | 4 | 11 |
| Edward Everett. |  | 3 | 3 | Prince. | 1 |  | 1 |
| Elihu Greenwood. | 3 | 4 | 7 | Rice. | 1 | 1 | 2 |
| Francis Parkman. | 1 | 2 | 3 | Robert G. Shaw. | 2 | 2 | 4 |
| Frank V. Thompson. | 5 | 10 | 15 | Shurtleff. |  | 2 | 2 |
| Franklin. |  | 7 | 7 | Theodore Roosevelt. | 7 | 7 | 14 |
| Frederic W. Lincoln. | 3 |  | 3 | Thomas Gardner. | 2 | 2 | 4 |
| Gaston. |  | 2 | 2 | Thomas N. Hart. | 3 |  | 3 |
| Henry Grew. |  | 1 | 1 | Washington. | 4 | 6 | 10 |
| Henry L. Pierce. |  | 2 | 2 | Washington Allston. | 4 | 2 | 6 |
| Hugh O'Brien. | 1 | 2 | 3 | William E. Russell. | 1 | 3 | 4 |
| John Cheverus. | 3 | 1 | 4 | Totals. | 80 | 86 | 166 |

## SUMMER REVIEW INTERMEDIATE AND ELEMENTARY SCHOOL PUPILS PROMOTED.

September, 1928.

| Name of School. |  |  |  | E E E U |  |  |  | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High. | 14 |  |  |  |  |  |  | 14 |
| Intermediate. |  |  |  |  |  |  |  |  |
| Lewis. | 7 | 34 | 81 |  |  |  |  | 122 |
| Oliver W. Holmes. | 19 | 30 | 121 |  |  |  |  | 171 |
| Total. | 26 | 64 | 202 |  |  |  |  | 293 |
| Elementary. |  |  |  |  |  |  |  |  |
| Abraham Lincoln. |  | 40 | 57 | 86 | 81 | 87 |  | 356 |
| Bigelow. |  | 9 | 31 | 72 | 63 | 67 |  | 242 |
| Henry Grew. |  | 11 | 28 | 65 | 39 | 41 |  | 184 |
| Hugh O'Brien. |  |  |  | 231 | 166 | 168 | 10 | 575 |
| Sarah Greenwood. |  |  |  | 156 | 154 | 118 |  | 428 |
| Shurtleff. |  | 5 | 38 | 45 | 69 | 43 |  | 203 |
| Theodore Roosevelt. |  | 29 | 52 | 108 | 88 | 86 |  | 363 |
| Ulysses S. Grant. |  | 8 | 21 | 131 | 139 | 106 |  | 411 |
| Warren. |  |  | 39 | 73 | 77 | 64 |  | 253 |
| Wells. |  |  |  | 99 | 99 | 80 |  | 278 |
| Total. . |  | 102 | 266 | 1,066 | 975 | 860 | 10 | 3,293 |
| Grand Total. | 40 | 166 | 468 | 1,066 | 975 | 860 | 10 | 3,600 |

## SUMMER REVIEW INTERMEDIATE AND ELEMENTARY SCHOOL PUPILS NOT PROMOTED.

September, 1928.


## ADMISSIONS TO TEACHERS COLLEGE OF THE CITY OF BOSTON.

September, $192 \%$.

| School to Which Pupils Were Admitted. | Boys. | Girls. | Total. | Boston High School Graduates, June, 1927. | Received from Other Sources, September, 1927. | Average Age of all Admitted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Years. | Months. |
| Teachers College of the City of Boston. . |  | 244 | 244 | 198 | 45 | 17 | 9 |

ORIGINAL ADMISSIONS TO GRADE X, HIGH AND LATIN SCHOOLS.
September, $192 \%$.

| Schools to Which Pupils Were Admitted. | Boys. | Girls. | Total. | Admitted from Boston Intermediate Districts. | Received from Other Sources. September, 1927. | Average Age of All Admitted. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Years. | Months. |
| Public Latin. | 26 |  | 26 | 10 | 16 | 15 | - |
| Girls' Latin. |  |  |  |  |  |  |  |
| Brighton High. | 55 | 99 | 154 | 125 | 29 | 15 | 3 |
| Charlestown High. | 23 | 3 | 26 | 21 | 5 | 15 | 7 |
| Dorchester High for Boys. | 346 |  | 346 | 314 | 32 | 15 | 5 |
| Dorchester High for Girls. |  | 542 | 542 | 489 | 53 | 15 | 3 |
| East Boston High. | 166 | 146 | 312 | 305 | 7 | 14 | 8 |
| English High. | 463 |  | 463 | 388 | 75 | 15 | 2 |
| Girls' High. |  | 241 | 241 | 202 | 39 | 15 | - |
| High School of Commerce. | 116 |  | 116 | 95 | 21 | 15 | 6 |
| High School of Practical Arts. |  | 133 | 133 | 91 | 42 | 15 | 9 |
| Hyde Park High. | 42 | 10 | 52 | 26 | 26 | 15 | 7 |
| Jamaica Plain High. | 26 | 205 | 231 | 191 | 40 | 15 | 5 |
| Mechanic Arts High. | 175 |  | 175 | 158 | 17 | 15 | 4 |
| Memorial High for Girls. |  | 280 | 280 | 243 | 37 | 15 | 2 |
| South Boston High. | 29 | 134 | 163 | 139 | 24 | 15 | 1 |
| Totale. | 1,467 | 1,793 | 3,260 | 2,797 | 463 | 15 | 3 |

## ADMISSIONS TO GRADE IX, HIGH AND LATIN SCHOOLS. <br> September, $192 \%$.

| Schools to Which PupilsWere Admitted. | Boys. | Girls. | Total. | Boston Elementary Graduates, June, 1927 | Received from Other Sources, September, 1927. | $\begin{gathered} \text { Average Age } \\ \text { of All } \\ \text { Admitted. } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Years. | Months. |
| Public Latin. | 334 |  | * 334 | 204 | 130 | 14 | 2 |
| Girls' Latin |  | 164 | $\dagger 164$ | 96 | 68 | 13 | 9 |
| Brighton High. | 149 | 71 | 220 | 154 | 66 | 15 | 2 |
| Charlestown High . | 150 | 199 | 349 | 192 | 157 | 14 | 6 |
| Dorchester High for Boys. | 322 |  | 322 | 214 | 108 | 14 | 8 |
| Dorchester High for Girls. |  | 341 | 341 | 231 | 110 | 14 | 5 |
| East Boston High . | 95 | 106 | 201 | 101 | 100 | 14 | 6 |
| English High. | 480 |  | 480 | 366 | 114 | 14 | 3 |
| Girls' High. |  | 504 | 504 | 329 | 175 | 14 | 4 |
| High School of Commerce | 268 |  | 268 | 146 | 122 | 14 | 5 |
| High School of Practical Arts. |  | 252 | 252 | 194 | 58 | 15 | - |
| Hyde Park High. | 176 | 153 | 329 | 207 | 122 | 14 | 6 |
| Jamaica Plain High | 81 | 183 | 264 | 181 | 83 | 14 | 6 |
| Mechanic Arts High. | 494 |  | 494 | 367 | 127 | 14 | 4 |
| Memorial High for Girls. |  | 494 | 494 | 406 | 88 | 14 | 5 |
| South Boston High . | 157 | 97 | 254 | 170 | 84 | 14 | 3 |
| Totals. | 2,706 | 2,564 | 5,270 | 3,558 | 1,712 | 14 | 5 |

* In addition 246 pupils were admitted to Grades VII and VIII.
$\dagger$ In addition 191 pupils were admitted to Grades VII and VIII.


## ADMISSIONS TO GRADE IX, INTERMEDIATE.

September, 1927.

| Schools to Which Pupils Were Admitted. | Boys. | Girls. | Total. | Boston Elementary Graduates, June, 1927. | Received from Other Sources, September, 1927. | Average Age of All Admitted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Years. | Months. |
| Abraham Lincoln. | 73 | 69 | 142 | 140 | 2 | 14 | 3 |
| Bennett. | 71 | 96 | 167 | 159 | 8 | 14 | 6 |
| Bigelow. | 66 |  | 66 | 66 |  | 14 | 2 |
| Donald McKay. | 133 | 101 | 234 | 233 | 1 | 13 | 10 |
| Frank V. Thompson. | 201 | 227 | 428 | 421 | 7 | 14 | 6 |
| Gaston. |  | 79 | 79 | 79 |  | 13 | 11 |
| Grover Cleveland | 114 | 116 | 230 | 227 | 3 | 13 | 9 |
| Henry L. Pierce. | 83 | 77 | 160 | 160 |  | 14 | 5 |
| John Winthrop | 53 | 71 | 124 | 123 | 1 | 14 | 2 |
| Joseph H. Barnes . | 181 | 178 | 359 | 355 | 4 | 14 | 2 |
| Lewis. | 133 | 116 | 249 | 248 | 1 | 14 | - |
| Mary Hemenway | 65 | 74 | 139 | 138 | 1 | 14 | 4 |
| Michelangelo. | 113 | 89 | 202 | 202 |  | 14 | 7 |
| Norcross. |  | 75 | 75 | 74 | 1 | 13 | 5 |
| Oliver Wendell Holmes. | 145 | 137 | 282 | 260 | 22 | 13 | 11 |
| Robert Gould Shaw . | 81 | 76 | 157 | 156 | 1 | 14 | 6 |
| Shurtleff. |  | 77 | 77 | 76 | 1 | 14 | 4 |
| Theodore Roosevelt. | 129 | 115 | 244 | 241 | 3 | 13 | 3 |
| Washington. | 156 | 142 | 298 | 293 | 5 | 14 | 3 |
| Washington Allston . | 47 | 72 | 119 | 118 | 1 | 14 | 2 |
| Washington Irving. | 129 | 147 | 276 | 265 | 11 | 13 | 3 |
| Totals. | 1,973 | 2,134 | 4,107 | 4,034 | 73 | 14 | 1 |

## TEACHERS.

## SUMMARY OF ALL TEACHERS - June 30, 1928. <br> Number of Schools.

| Schools. | Number of Schools. | Number of Teachers. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Men. | Women. | Total. |
| The Teachers College of the City of Boston, | 1 | 12 | 35 | 47 |
| High and Latin. | 17 | 451 | 442 | 893 |
| Elementary. | ${ }^{1} 80$ | 187 | 2,351 | 2,538 |
| Kindergartens. . | ${ }^{2} 246$ |  | ${ }^{3} 313$ | 313 |
| Special.. | ${ }^{4} 6$ | 218 | 343 | 561 |
| Totals. |  | 868 | 3,484 | 4,352 |

${ }^{1}$ Represents the number of districts.
${ }^{2}$ Includes eighty-four kindergartens established on double-session basis.
3 One hundred and forty-four of these teachers served two sessions so that the kindergartens were operated with the equivalent of 454 teachers.

4 Horace Mann School, Boston Clerical School, Boston Disciplinary Day School, Boston Trade School, Trade School for Girls, and Continuation School. The number of teachers given includes the teachers of the special schools, and all general supervisors and directors.

THE TEACHERS COLLEGE OF THE CITY OF BOSTON.
June 30, 1928.

| Rank. | Men. | Women. | Total. |
| :---: | :---: | :---: | :---: |
| Head Master. | 1 |  | 1 |
| Dean. | 1 |  | 1 |
| Masters... | $\dagger 8$ |  | 8 |
| First Assistants. |  | * 10 | 10 |
| Junior Masters. | 2 |  | 2 |
| Adviser of Women. |  | 1 | 1 |
| Assistants.. |  | 20 | 20 |
| Temporary Teachers. |  | 2 | 2 |
| Assistant, Physical Education. . . . |  | 1 | 1 |
| Assistant Instructor, Physical Education. |  | 1 | 1 |
| Totals. | 12 | 35 | 47 |

[^44]
## SUMMARY OF HIGH AND LATIN SCHOOL TEACHERS. June 30, 1928.

| Rank. | Men. | Women. | Total. |
| :---: | :---: | :---: | :---: |
| Head Masters. | 16 | 1 | 17 |
| Masters, Heads of Departments. | 65 |  | 65 |
| First Assistants, Heads of Departments. |  | 32 | 32 |
| Masters. | 11 |  | 11 |
| Junior Masters. | ${ }^{1} 311$ |  | 311 |
| Assistants. |  | 2377 | 377 |
| Instructors, Special Branches. | 6 |  | 6 |
| Assistant Instructors, Special Branches. |  | 22 | 22 |
| Co-ordinators. | 5 |  | 5 |
| Co-operative Instructors. | ${ }^{3} 33$ |  | 33 |
| Senior Instructors. | 4 |  | 4 |
| Industrial Instructors. |  | 10 | 10 |
| Totals. | 451 | 442 | 893 |

${ }^{1}$ Includes ten temporary junior masters.
${ }^{2}$ Includes twenty-eight temporary assistants.
${ }^{3}$ Includes one temporary co-operative instructor.

## SUMMARY OF ELEMENTARY SCHOOL TEACHERS.

 June 30, 1928.| 1 Rank. | Men. | Women. | Total. |
| :---: | :---: | :---: | :---: |
| Masters. | 63 | 17 | 80 |
| Submasters. | 95 |  | 95 |
| Masters' Assistants. |  | 217 | 217 |
| Masters' Assistants, Special Classes |  | 6 | 6 |
| Assistants, Special Classes. | 1 | 107 | 108 |
| Assistants, Intermediate. | 26 | 492 | 518 |
| Assistants, Elementary. | 2 | 1,512 | 1,514 |
| Totals. | 187 | 2,351 | 2,538 |
| Kindergartens: |  |  |  |
| First Assistants. |  | 160 | 160 |
| Assistants. |  | 153 | 153 |
| Totals.. | 187 | 2,664 | 2,851 |

## SPECIAL TEACHERS, SUPERVISORS AND DIRECTORS. <br> June 30, 1928.

|  | Men. | Women. | Total. |
| :---: | :---: | :---: | :---: |
| Boston Clerical School. | 5 | ${ }^{1} 13$ | 18 |
| Horace Mann School. |  | 17 | 17 |
| Day Industrial Schools: |  |  |  |
| Trade School for Girls. |  | 37 | 37 |
| Boston Trade School. | 40 |  | 40 |
| Household Science and Arts. |  | 130 | 130 |
| Department of Manual Arts. | 109 | 51 | 160 |
| Music Department. | 11 | 13 | 24 |
| Practice and; Training. |  | 6 | 6 |
| Primary Supervisors. |  | 2 | 2 |
| Director of Evening Schools. | 1 |  | 1 |
| Director of Modern Foreign Languages. |  | 1 | 1 |
| Continuation School. | 28 | 22 | 50 |
| Department of Educational Investigation and Measurement | 2 | 1 | 3 |
| Board of Examiners. | 2 | 1 | 3 |
| Director of Kindergartens. |  | 1 | 1 |
| Assistant Director of Kindergartens. |  | 1 | 1 |
| Director of Special Classes |  | 1 | 1 |
| Assistant Director of Special Classes |  | 1 | 1 |
| Commercial Co-ordinator | 1 |  | 1 |
| Boston Disciplinary Day School |  | 5 | 5 |
| Day School for Immigrants. |  | 22 | 2 |
| Speech Improvement Classes |  | 13 | 13 |
| Conservation of Eyesight Classes |  | 10 | 10 |
| Director of Penmanship. |  | 1 | 1 |
| Assistant Director of Penmanship. |  | 1 | 1 |
| Department of Physical Education. | 12 | 3 | 15 |
| Director of School Hygiene. | 1 |  | 1 |
| Department of Vocational Guidance. | 6 | 10 | 16 |
| Totals.. | 218 | 343 | 561 |

${ }^{1}$ Includes one assistant, physical education.
${ }^{2}$ In addition there were fifteen special assistants.

## MISCELLANEOUS SUPERVISORS.

Nurses (including supervising nurse)
School Physicians (including Supervisor of Nutrition Classes) . 60
Chief Attendance Officer
Attendance Officers . . . . . . . . . . . 31
Supervisor of Licensed Minors . . . . . . . . 1
Director of Extended Use of Public Schools . . . . . 1

## EVENING SCHOOLS.

Summary of Statistics - School Year 1927-1928.


* Includes three branches.


## EVENING SCHOOLS.

School Year 1927-1928.- Continued.


EVENING SCHOOLS.
School Year 1927-1928.- Concluded.

| Elementary Schools. | Total Registration. |  |  |  |  |  |  | Number of Nights. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. |  |  |  |  |  |
| Bigelow.. | 180 | 113 | 293 | 179 | 154 | 25 | 86 | 75 |
| Bowdoin. | 24 | 190 | 214 | 114 | 89 | 25 | 78 | 75 |
| Brighton. | 85 | 175 | 260 | 113 | 86 | 27 | 76 | 75 |
| Comins. | 153 | 106 | 259 | 145 | 123 | 22 | 85 | 75 |
| Dearborn. | 167 | 224 | 391 | 223 | 185 | 38 | 83 | 75 |
| Edward Everett. | 93 | 236 | 329 | 161 | 130 | 31 | 81 | 75 |
| Eliot. | 270 | 79 | 349 | 217 | 174 | 43 | 80 | 75 |
| Franklin. | 399 | 501 | 900 | 452 | 387 | 65 | 86 | 75 |
| Frederic W. Lincoln.... | 83 | 225 | 308 | 156 | 138 | 18 | 88 | 75 |
| Hyde Park. | 96 | 138 | 234 | 115 | 96 | 19 | 83 | 75 |
| Joseph H. Barnes. | 261 | 209 | 470 | 261 | 216 | 45 | 83 | 75 |
| Oliver Wendell Holmes. | 126 | 179 | 305 | 177 | 149 | 28 | 84 | 75 |
| Phillips Brooks. | 148 | 232 | 380 | 227 | 192 | 35 | 85 | 75 |
| Roger Wolcott. | 90 | 194 | 284 | 150 | 115 | 35 | 77 | 75 |
| Theodore Roosevelt. . | 99 | 199 | 298 | 134 | 101 | 33 | 75 | 75 |
| Washington. | 372 | 161 | 533 | 334 | 266 | 68 | 80 | 75 |
| Washington Irving | 105 | 573 | 678 | 296 | 228 | 68 | 77 | 75 |
| Totals. | 2,751 | 3,734 | 6,485 | 3,454 | 2,829 | 625 | 82 |  |
| Trade Schools. (Evening Classes.) |  |  |  |  |  |  |  |  |
| Boston Trade. | 986 |  | 986 | 485 | 388 | 97 | 80 | 70 |
| Apprenticeship Classes. | 330 |  | 330 | 162 | 120 | 42 | 74 | 47 |
| Brighton Branch. | 44 |  | 44 | 32 | 28 | 4 | 88 | 70 |
| East Boston Branch. | 66 |  | 66 | 40 | 34 | 6 | 85 | 70 |
| Hyde Park Branch. | 105 |  | 105 | 53 | 39 | 14 | 74 | 70 |
| Totals. | 1,531 |  | 1,531 | 772 | 609 | 163 | 79 |  |

CLASSIFICATION AND AGES OF PUPILS IN EVENING SCHOOLS, MARCH, 1928.

| Subiects. | ${ }_{\text {Y EARS }} 14$ |  | $\underset{\text { YEARS }}{15}$ |  | $\mathrm{Y}_{\text {Years. }}^{16}$ |  | ${ }_{\text {Y EARS }} 17$ |  | ${ }_{\text {YEARS }}^{18}$ |  | ${ }_{\text {YEARS }} 19$ |  | $\mathrm{Y}_{\text {Y AARS }}^{20}$ |  |  |  |  |  |  |  | (tatas for Eact |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 宽 | 苞 | $\\| \frac{\dot{x}}{\stackrel{\rightharpoonup}{\omega}}$ |  |  |  |  | \% |  |  |  |  |  |  |  |  |  | (1) |  |  | - |
| Commercial Subjects * Other Subjects $\dagger$. |  |  | 139 46 |  | 369 |  | 358 |  | 286 |  | 241 <br> 147 |  | 144 | 244 | ${ }_{2}^{23}$ | 487 <br> 157 | 141 217 | 194 | ${ }^{29}$ | 65 32 32 | $\begin{aligned} & 1,969 \\ & 1,417 \end{aligned}$ | $\begin{array}{r} 3,336 \\ 630 \end{array}$ | 5,305 2,047 |
| Totals. | 35 |  | 185 |  | 540 | 565 | 568 | 757 | 478 | 613 | 388 | 460 | 254 | 302 | 48 | ${ }^{644}$ | 357 | 306 | 92 | 97 | 3,386 | 3,966 | 7,352 |
| Total number of pupils of each age. |  | 89 | 3 | 53 | 1,10 | 05 | 1,3 | 325 | 1,0 | ,091 | 84 |  | 55 |  |  |  |  |  | 18 |  |  | 7,352 |  |

Elementary Schools.

T＇rade Schools．

| Subjects． | $\underset{\text { Years. }}{16}$ |  | $\underset{\text { Years. }}{17}$ |  | $\underset{\text { Years. }}{18}$ |  | $\underset{\text { Years. }}{19}$ |  | $\underset{\text { Years. }}{20}$ |  | Over 21 and Under 25 Years． |  | Over 25 and Under 35 Years． |  | $\begin{aligned} & 35 \text { Years } \\ & \text { AND Over. } \end{aligned}$ |  | Totals for Each Grade or Subject． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { cim }}{\substack{\text { ® }}}$ | 宽 | 岕 |  | 䓓 |  |  |  | $\begin{aligned} & \dot{\oplus} \\ & \sum_{\boxed{\omega}}^{\omega} \\ & \hline \end{aligned}$ | \％ | 安离 |  | － |  |  | 宽 | $\stackrel{\text { 官 }}{\text { ¢ }}$ | 砣 | － |
| Shopwork． | 102 |  | 105 |  | 115 |  | 115 |  | 92 |  | 287 |  | 336 |  | 164 |  | 1，316 |  | 1，316 |
| Drawing． | 29 |  | 28 |  | 31 |  | 22 |  | 18 |  | 37 |  | 31 |  | 14 |  | 210 |  | 210 |
| Theory．． |  |  |  |  | 1 |  | 1 |  | 1 |  | 2 |  |  |  |  |  | 5 |  | 5 |
| Totals．． | 131 |  | 133 |  | 147 |  | 138 |  | 111 |  | 326 |  | 367 |  | 178 |  | 1，531 |  | 1，531 |
| Total number of pupils of each age． | 131 |  | 133 |  | 147 |  | 138 |  | 111 |  | 326 |  | 367 |  | 178 |  | 1，531 |  |  |

Grand Total.


Non-English Speaking Pupils.*


## EVENING SCHOOLS.

School Year 1927-1928.- Extension of Term.

| Elementary Schools. | Total Registration. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. |  |  |  |  |  |
| Franklin. | 118 | 91 | 209 | 165 | 150 | 15 | 91 | 15 |

## DAY SCHOOL FOR IMMIGRANTS.

School Year 1927-1928.

|  | To | Registrat | Total. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| *2 | 199 | 877 | 1,076 | 515 | 408 | 107 | 79 |

* Not including special assistants.


## DAY PRACTICAL ARTS CLASSES.

School Year 1927-1928.

| School. | Total RegistraTION. <br> Females. |  |  |  |  | $\text { -suo!sรәS jo дəquin } N$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ellen H. Richards. | 41 | 35 | 29 | 6 | 83 | 110 |
| Francis Parkman.. | 51 | 33 | 26 | 7 | 79 | 105 |
| Helen L. Burgess. | 38 | 29 | 23 | 6 | 79 | 81 |
| Little Em'ly. | 22 | 15 | 12 | 3 | 80 | 53 |
| Longfellow. | 27 | 18 | 13 | 5 | 72 | 59 |
| Minot | 32 | 22 | 17 | 5 | 77 | 54 |
| Robert Gould Shaw | 36 | 16 | 12 | 4 | 75 | 51 |
| Rochambeau. | 19 | 18 | 16 | 2 | 89 | 57 |
| Stoughton... | 24 | 17 | 15 | 2 | 88 | 60 |
| Totals. | 290 | 203 | 163 | 40 | 80 | 630 |

CONTINUATION SCHOOL.
School Year 1927-1928.

| Classes. | $\begin{aligned} & \text { Number of Regular } \\ & \text { Teachers. } \end{aligned}$ | Total Registration. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Boys. | Girls. | Total. |  |  |  |  |
| Compulsory Classes. | 45.6 | 3,418 | 3,039 | 6,457 | 3,995 | 3,918 | 77 | 98 |

## SUMMER VACATION SCHOOLS.

1928. 

| Name of School. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dearborn | 1,575 | 830 | 560 | 67 | 29 |
| Eliot. | 2,194 | 1,941 | 1,892 | 97 | 64 |
| Frothingham. | 903 | 677 | 621 | 92 | 22 |
| Norcross. | 967 | 499 | 251 | 50 | 15 |
| Rice. | 1,507 | 684 | 604 | 88 | 22 |
| Theodore Lyman. | 3,231 | 1,881 | 1,616 | 86 | 59 |
| Totals. | 10,377 | 6,512 | 5,544 | 85 | 211 |

SUMMER REVIEW SCHOOLS.
1928.

| Name of School. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| High . | 1,409 | 1,334 | 1,288 | 97 | 61 |
| Intermediate: |  |  |  |  |  |
| Lewis. | 459 | 428 | 414 | 97 | 14 |
| Oliver Wendell Holmes . | 639 | 604 | 587 | 97 | 16 |
| Total. | 1,098 | 1,032 | 1,001 | 97 | 30 |
| Elementary: |  |  |  |  |  |
| Abraham Lincoln. | 674 | 625 | 604 | 97 | 21 |
| Bigelow. | 385 | 372 | 366 | 98 | 12 |
| Henry Grew. | 367 | 342 | 332 | 97 | 11 |
| Hugh O'Brien | 775 | 719 | 691 | 96 | 25 |
| Sarah Greenwood. | 635 | 598 | 575 | 96 | 20 |
| Shurtleff. | 420 | 397 | 389 | 98 | 13 |
| Theodore Roosevelt. | 669 | 631 | 618 | 98 | 20 |
| Ulysses S. Grant. | 752 | 689 | 668 | 97 | 22 |
| Warren. | 411 | 375 | 359 | 96 | 13 |
| Wells. | 483 | 451 | 441 | 98 | 15 |
| Total.. | 5,571 | 5,199 | 5,043 | 97 | 172 |
| Grand Total. . | 8,078 | 7,565 | 7,332 | 97 | 263 |


| LONG ISLAND HOSPITAL | SUMMER | REVIEW |  | CLASS.-1928 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name of School. |  |  |  |  |  |
| Long Island Hospital Summer Review Class. | 32 | 32 | 32 | 100 | 1 |
| Totals. | 32 | 32 | 32 | 100 | 1 |

## CITY HOSPITAL SUMMER REVIEW CLASS.- 1928.

| Name of School. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| City Hospital Summer Review Class. | 51 | 51 | 51 | 100 | 1 |
| Totals. . | 51 | 51 | 51 | 100 | 1. |

## PLAYGROUNDS.

Number of Teachers School Year 1927-1928.


## SCHOOLHOUSE SUMMARY.

School Year Ending June 30, 1928.

| Grade of School. | Number of Buildings. | Number of Portables (Wood). | Assembly Halls. | Drill Halls and Gymnasia. | Construction of Schoolhouses. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Wood. | Brick. |
| The Teachers College of the City of Boston. | *2 |  | 2 |  |  | 2 |
| High and Latin. . | 21 | 25 | 19 |  |  | 21 |
| Elementary. | 268 | 203 | 83 |  | 51 | 217 |
| Boston Clerical School......... | 1 |  | 1 |  |  | 1 |
| Boston Trade School. | 1 | 2 | 1 |  |  | 1 |
| Trade School for Girls. | 1 |  | 1 |  |  | 1 |
| Horace Mann School.......... | 1 |  | 2 |  |  | 1 |
| Continuation School. | 2 |  | 1 |  |  | 2 |
| Totals. . | 297 | 230 | 110 |  | 51 | 246 |

* Includes one elementary building (Patrick A. Collins Building) used jointly by Teachers College and Girls' Latin School.

Note.- In addition to the above there were in use during the school year the following rented quarters: High Schools, 2; elementary schools, 8; the Continuation School, 868 Washington street, and Day School for Immigrants in the Essex Building. Classes were also conducted at Fort Strong (Long 'Island), Deer Island, Boston City Hospital, Boston Sanatorium, Long Island Hospital School, Prendergast Preventorium and House of Good Samaritan.

## EXTENDED USE OF PUBLIC SCHOOLS.

## SUMMARY OF STATISTICS * SEASON OF 1927-1928.

1. Number of School Centers maintained by the appropriation for the Extended Use of the Public Schools
2. Number of buildings other than School Centers occupied by

"Non-School Center" $\dagger$ groups and "Additional Use" $\ddagger$
organizations
3. Total number of buildings occupied . 84
4. Total number of different openings of schoolhouses after school hours

| School Center and Other Buildings. | Total Attendance. |
| :---: | :---: |
| School Center Buildings . | 541,033 |
| Other Buildings . | 207,634. |
| Grand Total. | 748,667 |


| School Center and Other Buildings. | Average Daily Attendance. |
| :---: | :---: |
| School Center Buildings . | 535 |
| Other Buildings. | 103 |

* Figures from June 1927, to June, 1928 .
$\ddagger$ Occupancy charges met by the organization occupying accommodations.


## NON-SCHOOL CENTER GROUPS, 1927-1928.

Total number of different Teacher, Pupil, etc., groups meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different Day School Mother's Clubs meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different Boy Scout Troops meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different Home and School Associations meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different District Improvement Associations meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different Alumni and Alumnae Associations meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different Girl Scout Troops meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools
Total number of different Community Activities groups meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools ..... 7
Total number of different American Legion Posts meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools ..... 4
Total number of different Boards of Election Commissioners meeting in school buildings at the expense of the appropria- tion for the Extended Use of Public Schools ..... 1
Total number of different Civil Service Commissions meeting in school buildings at the expense of the appropriation for the Extended Use of Public Schools ..... 1
Total ..... 192
ADDITIONAL USE GROUPS, 1927-1928.
Total number of different Social and Fraternal Organizations using school buildings paying fuel, light, custodian and other service charges ..... 44
Total number of different Benevolent and Charitable Organiza- tions using school buildings paying fuel, light, custodian and other service charges ..... 37
Total number of different Political Rallies held in school build- ings paying fuel, light, custodian and other service charges ..... 13
Total number of different Educational Groups using school buildings paying fuel, light, custodian and other service charges ..... 11
Total number of different Civil Service Commissions using school buildings paying fuel, light, custodian and other service charges ..... 1
Total number of different Boards of Bar Examiners using school buildings paying fuel, light, custodian and other service charges ..... 1
Total ..... 107
SCHOOL CENTER CLUBS AND GROUPS - 1927-1928.


ATTENDANCE - SCHOOL CENTER BUILDINGS - 1927-1928.



NON-SCHOOL CENTER GROUPS - 1927-1928.

|  | Total Attendance. | Number of Mectings. | Average Attendance. |
| :---: | :---: | :---: | :---: |
| 1. Teacher, Pupil, etc., Groups . | 36,291 | 124 | 292 |
| 2. Boy Scouts...................... | 35,994 | 879 | 40 |
| 3. Home and School Associations . . . | 21,905 | 154 | 142 |
| 4. District Improvement Associations, | 9,609 | 51 | 188 |
| 5. Day School Mothers' Clubs. | 8,008 | 195 | 41 |
| 6. Girl Scouts . | 6,287 | 174 | 36 |
| 7. Alumni and Alumnae Meetings.... | 4,834 | 23 | 210 |
| 8. Community Activities. | 1,980 | 70 | 28 |
| 9. American Legion Posts. | 750 | 4 | 187 |
| 10. Board of Election Commissioners' Meetings. | 450 | 2 | 225 |
| 11. Civil Service Examinations. | 290 | 3 | 98 |
| Total. | 126,398 |  |  |

ADDITIONAL USE GROUPS - 1927-1928.

|  | Total Attendance. | Number of Meetings. | Average Attendance |
| :---: | :---: | :---: | :---: |
| 1 Benevolent and Charitable Groups, | 32,246 | 101 | 319 |
| 2. Social and Fraternal Organizations, | 21,983 | 104 | 211 |
| 3 Educational Groups. | 14,411 | 103 | 140 |
| 4. Civil Service Examinations . | 6,326 | 16 | 395 |
| 5. Political Rallies . | 4,735 | 13 | 364 |
| 6. Board of Bar Examiners | 1,535 | 3 | 512 |
| Total. | 81,236 |  |  |

WORKERS EMPLOYED - DEPARTMENT OF THE EXTENDED USE OF PUBLIC SCHOOLS - 1927-1928.

| Ranks. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Managers. | * |  |  | 1 | $\dagger$ | $\ddagger$ | 1 |  | 1 | 1 | § | 1 |  |  | 5 |
| Associate Managers-in-charge. |  | 1 | 1 |  |  |  |  | 1 |  |  |  |  | 1 |  | 4 |
| General Leaders. | 1 |  |  |  |  | 1 |  |  |  |  | 1 |  |  |  | 3 |
| Orchestra Leaders. |  |  | 1 | 1 |  | 1 |  | 1 | 1 |  |  |  |  |  | 5 |
| Special Leaders. |  |  | 1 | 2 | 2 | 2 | 2 |  |  |  |  |  |  |  | 9 |
| Club Leaders. | 1 |  | 1 | 1 |  | 2 | 2 | 2 | 1 | 1 | 1 |  |  |  | 12 |
| General Helpers. | 4 | 2 | 3 | 2 |  |  | 3 | 4 | 3 | 1 | 2 | 3 |  | 25 | 52 |
| Leaders. | 9 | 8 | 15 | 8 | 11 | 20 | 11 | 9 | 8 | 7 | 10 | 7 |  |  | 123 |
| Helpers | 5 | 4 | 14 | 8 | 8 | 11 | 7 | 10 | 8 | 9 | 9 | 7 |  | 16 | 116 |
| Attendants. | 1 |  | 1 |  | 1 | 2 |  | 2 |  |  |  |  |  |  | 7 |
| Totals. | 21 | 15 | 37 | 23 | 22 | 39 | 26 | 29 | 22 | 19 | 23 | 18 | 1 | 41 | 336\|| |

* "General Leader" managed the Brighton High School Center

[^45]
THE FOLLOWING IS A RECORD OF THE NUMBER OF CERTIFICATES ISSUED TO WORKING CHILDREN AND YOUNG PEOPLE FOR TWO YEARS UNDER THE ACTS OF 1913, CHAPTER 799.

| мохтн. | Employment Certificates. |  |  |  | Educational Certificates. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | evening school attendance not required. |  |  |  | evening school attendance compulsory. |  |  |  |
|  | 1926-27. |  | 1927-28. |  | 1926-27. |  | 1927-28. |  | 1926-27. |  | 1927-28. |  |
|  | $\begin{array}{\|c\|} \text { New } \\ \text { Certificates. } \end{array}$ | Re-issues. | $\begin{gathered} \text { New } \\ \text { Certificates. } \end{gathered}$ | Re-issues. | $\left\lvert\, \begin{array}{cc} \text { New } \\ \text { Certificates. } \end{array}\right.$ | Re-issues. | $\begin{gathered} \text { New } \\ \text { Certificates. } \end{gathered}$ | Re-issues. | $\begin{aligned} & \text { New } \\ & \text { Certificates. } \end{aligned}$ | Re-issues. | $\begin{gathered} \text { New } \\ \text { Certificates. } \end{gathered}$ | Re-issues. |
| September. | 900 | 954 | 813 | 940 | 1,210 | 1,517 | 721 | 1,825 | 39 | 36 | 39 | 37 |
| October.... | 550 | 701 | 437 | 601 | 944 | 1,264 | 584 | 1,588 | 42 | 39 | 39 | 40 |
| November. | 262 | 483 | 276 | 476 | 825 | 1,050 | 576 | 1,476 | ${ }_{63}$ | 64 | 33 | 36 |
| December.. | 198 | 29.5 | 168 | 266 | 703 | 711 | 528 | 1,018 | 36 | 2 | 32 | ${ }^{26}$ |
| January. | 199 | 379 | 186 | 335 | 654 | ${ }^{773}$ | 266 | 1,015 | 28 | 29 | 6.5 | 41 |
| February.. | 204 | 296 | 157 | 287 | 264 | 1,063 | 25.3 | 979 | ${ }^{25}$ | 21 | 24 | 19 |
| March. | 21.5 | 431 | 154 | 319 | 299 | 1,261 | 359 | 1,205 | 32 | 28 | 21 | 25 |
| April. | 173 | 301 | 102 | 226 | 293 | 1,075 | 257 | 914 | 32 | 1.5 | 14 | ${ }^{14}$ |
| May | 184 | 288 | 151 | 255 | 342 | 1,317 | ${ }^{273}$ | 1,087 | 22 | 18 | 25 | 11 |
| June | 486 | 271 | 517 | 256 | 48.5 | 1,212 | ${ }_{608}$ | 1,211 | ${ }^{28}$ | 16 | 28 | s |
| July | ${ }^{634}$ | 184 | 472 | 139 | 660 | 1,015 | 697 | 1,170 | 19 | 22 | 21 | 10 |
| August. | 577 | 205 | 341 | 149 | 520 | 1,468 | 748 | 1,491 | 22 | 25 | 20 | 25 |
| Totals. | 4,582 | 4,788 | 3,774 | 4,249 | 7,199 | 13,726 | 5,870 | 14,979 | $3 \times 8$ | $3+1$ | 361 | 295 |

## REGISTRATION OF MINORS.

October 1, 1927.

| Group. | Enrollment of Pupils. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 to 7 fears. |  | 7 to 14 years. |  | 14 to 16 years. |  |
|  | Males. | Females. | Males. | Females. | Males. | Females. |
| Boston public schools. | 10,698 | 10,167 | 36,831 | 34,944 | 11,293 | 11,119 |
| Private schools. | 89 | 95 | 164 | 267 | 127 | 141 |
| Business schools. |  |  |  |  |  | 11 |
| Schools outside of Boston. . | 2 | 3 | 97 | 52 | 32 | 23 |
| Parochial schools and institutions.. | 3,033 | 3,302 | 9,296 | 11,549 | 950 | 1,705 |
| Institutions for educational and custodial purposes. . | 104 | 118 | 627 | 516 | 183 | 147 |
| Physically or mentally defective children not enrolled in any school.. | 7 | 2 | 17 | 33 | 13 | 4 |
| Grand totals. | 13,933 | 13,687 | 47,032 | 47,361 | 12,598 | 13,150 |
| Illiterate minors. |  |  |  |  | $\frac{(16 \text { to }}{551}$ | $\begin{gathered} \text { years.) } \\ 423 \end{gathered}$ |

## SCHOOL DOCUMENT NO. 11 - 1928 BOSTON PUBLIC SCHOOLS

# ANNUAL REPORT OF THE SUPERINTENDENT 

OCTOBER, 1928

BOSTON PRINTING DEPARTMENT 1928

I have the honor to submit herewith the forty-sixth annual report of the Superintendent of Public Schools.

This report covers the school year ending August 31, 1928.
Respectfully submitted,
JEREMIAH E. BURKE, Superintendent of Public Schools.

In School Committee, October 15, 1928.
On motion, it was
Ordered, That this Board hereby adopts as its annual report for the current year the Annual Report of the Superintendent as contained in School Document No. 11, 1928.

## TABLE OF CONTENTS.

Page
I. Statistical Data Regarding the Boston Public Schools ..... 5
School Membership ..... 5
Financial Statement ..... 6
II. Survey of the Public School System ..... 7
III. Citizenship through Character Education ..... 10
The Problem in General ..... 10
Report of High School Head Masters on Character Education in Secondary Schools ..... 15
Survey of Character and Citizenship Training in the Boston Public Schools ..... 22
Report of Mr. Henry A. Pulliam ..... 23
IV. Training of the Emotions ..... 33
Controlling Fear ..... 33
Report of Dr. William F. Linehan for the Council on the Educability of the Emotions ..... 37
V. Commercial Education ..... 42
Commercial Education in Retrospect ..... 43
Commercial Education, Present and Future ..... 55
VI. The Three R's ..... 98
Fundamentals Emphasized ..... 98
Teaching Spelling in the Boston Public Schools ..... 104
GRAPHS.
Day School Population 1917-27 ..... 4
Percent Increase Average Membership Day Schools ..... 19
Percent of Increase, Total Registration, Total Number of Teachers ..... 41
Representation in Office Employment ..... 78
Distribution of Graduates, Girls' High School ..... 91
Increased Retention of Pupils 1892-1904, 1914-25 ..... 99
Spelling Report Slip ..... 107


## STATISTICS.

The following table shows the total registration, the average number belonging and the average attendance of pupils in the Boston public schools during the school years 1925-26, 1926-27, and 1927-28:

|  | Total Registration. |  |  | Average Number. Belonging. |  |  | Average Number Attending. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | school year ending June 30. |  |  | school year ending June 30 . |  |  | school year ending June 30. |  |  |
|  | 1926. | 1927. | 1928. | 1926. | 1927. | 1928. | 1926. | 1927. | 1928. |
| Teachers College of the City of Boston. | 744 | 788 | 805 | 724 | 772 | 789 | 704 | 754 | 774 |
| High and Latin. | 23,238 | 23,377 | 24,202 | 21,278 | 21,347 | 22,332 | 19,874 | 19,984 | 20,790 |
| Elementary Grades. | 103,533 | 103,682 | 103,624 | 93,466 | 94,470 | 94,712 | 86,937 | 88,279 | 88,469 |
| Kindergartens. | 10,214 | 10,843 | 11,107 | 8,801 | 7,368 | 9,207 | 6,992 | 7,368 | 7,451 |
| Totals. | 137,729 | 138,690 | 139,738 | 124,269 | 125,630 | 127,040 | 114,507 | 116,385 | 117,484 |
| Special Schools. | 1,902 | 2,020 | 2,071 | 1,520 | 1,528 | 1,695 | 1,371 | 1,410 | 1,545 |
| All Day Schools (except Continuation and Day School for Immigrants) | 139,631 | 140,710 | 141,809 | 125,789 | 127,158 | 128,735 | 115,878 | 117,795 | 119,029 |
| Evening High | 6,248 | 7,070 | 7,356 | 3,644 | 3,958 | 4,238 | 2,873 | 3,101 | 3,362 |
| Evening Elementary . | 7,614 | 7,321 | 6,485 | 4,195 | 3,911 | 3,454 | 3,360 | 3,180 | 2,829 |
| Boston Trade School (Evening Classes). | 1,609 | 1,473 | 1,531 | 770 | 728 | 772 | 565 | 541 | 609 |
| Totals, Evening Schools. | 15,471 | 15,864 | 15,372 | 8,609 | 8,587 | 8,464 | 6,798 | 6,882 | 6,800 |
| Continuation School * | 6,685 | 7,267 | 6,457 | 3,476 | 4,055 | 3,995 | 3,379 | 3,933 | 3,918 |
| Day School for Immigrants. | $1,254$ | 1,186 | 1,076 | 666 | 573 | 515 | 513 | 451 | 408 |
| Totals of all Schools, | 163,041 | 165,027 | 164,714 | 138,540 | 140,373 | 141,709 | 126,568 | 129,001 | 130,155 |

* Represents number of children between the ages of fourteen and sixteen who are not enrolled in any regular day school.


## FINANCIAL STATEMENT.

The following table copied from the report of the Business Manager summarizes concisely the expenditures for maintenance of public schools and for repairs and alterations of buildings (but not including cost of land and new buildings) for the period beginning January 1, 1927, and closing December 31, 1927.

For general school purposes, including Americanization and vocational guidance:
Salaries of Instructors (principals, teachers, members of the supervising staff and others)
$\$ 10,904,95641$
Salaries of Officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees)

346,719 83
Salaries of Custodians (including matrons) . . . 809,027 05
Fuel and Light (including electric current for power) . 445,754 27
Supplies, Equipment and Incidentals . . . . 930,014 60
Pensions to Attendance Officers and Custodians . . 4,642 24
Physical Education (salaries of teachers, members of the supervising staff and others, supplies and equipment - day schools and playgrounds)

284,507 53
Salaries of School Physicians and Nurses . . . . 189,299 04
Pensions to Teachers 133,015 82
Payments to Permanent Pension Fund 73,22788
Extended Use of the Public Schools (salaries, supplies, equipment and incidentals)
Repairs and alterations, protection against fire and fire hazard, and new furniture and furnishings for old buildings, including new lighting fixtures . . . 1,675,124 10

Total expenditures
$\$ 15,878,41940$

## SURVEY OF THE PUBLIC SCHOOL SYSTEM.

Under date of March 19, 1928, the following resolutions and orders were adopted by the School Committee:

Whereas, the expenditures of the School Committee for all purposes, including land and new buildings, have increased from $\$ 7,495,052.62$ in 1918 to $\$ 19,581,458.81$ in 1927 ; and

Whereas, popular interest and concern is evidenced by contemplated surveys from time to time and recently a preliminary survey by the Finance Commission for an elaborate survey costing $\$ 60,000$, apparently now abandoned; and

Whereas, the Board of Superintendents and the Board of Apportionment, to whom have been referred by the School Committee, orders for investigation and report on certain phases of activities of our school system, are already taxed to the maximum with their official and ordinary functions; and

Whereas, the School Committee is desirous of having all the facts that have caused the increased cost of maintaining the public school system during the past decade made known, together with the relation of the increase in cost to the numerical, pupil and curricula growth of the school system; and

Whereas, the School Committee is willing to provide the necessary funds for a survey of the public school system and to appoint a committee to make such survey, of which a majority shall be citizens of Boston who are neither officials nor employees of the school system; said survey to have special reference to the increased and increasing cost of the maintenance of the school system,

Be it therefore,
Ordered, That a committee of seven, to serve without pay, be appointed by the School Committee to make a survey which shall include the following:
I. Intermediate and High School Organization.
(a) A study of vocational education with special reference to shop work.
(b) A careful study of the curriculum with a view to ascertaining whether or not subjects are being taught which are of so unusual a nature as may be broadly classified as "fads and fancies."

## 1I. School Building Survey and Program.

(a) Survey of buildings which will become obsolete within the next ten years.
(b) A study of the growth and shifting of population as related to a building program.
(c) A comprehensive ten-year building program.
(d) Construction of high schools by sale of bonds (long-term or short-term as distinguished from the "pay as you go" policy.)
III. Survey of such other educational aspects of the school system as appear advisable to the Survey Committee, and which have a bearing upon the increased cost of the school system.

And be it further,
Ordered, That His Honor the Mayor, the Chamber of Commerce and the Boston Real Estate Exchange be invited to nominate each one member of said Survey Committee who will thereupon be appointed by the School Committee to constitute the Survey Committee of seven with the following, who are hereby appointed:

Honorable Michael H. Sullivan, Chairman, former Chairman of the School Committee and former Chairman of the Finance Commission.

Arthur L. Gould, Assistant Superintendent, Boston Public Schools.

Walter F. Downey, Head Master, Boston English High School.
Archer M. Nickerson, Master, Frank V. Thompson Intermediate School.

And be it further
Ordered, That the Survey Committee be and hereby is authorized to employ such specialists and to appoint such sub-committees not of their own number and such clerical and other assistants as it deems necessary, with the approval of the Board; and

That the teachers and members of the supervising staff on the Survey Committee and on the sub-committees, if any, shall be granted such leave with pay as shall appear proper and necessary to the School Committee; and

That all orders of reference now pending before the Board of Superintendents and the Board of Apportionment, related to and contained within the scope of the within survey, be and hereby are referred to the Survey Committee; and

That the Survey Committee shall report with all reason-
able expedition the facts, results and recommendations of the within survey to the Superintendent and the School Committee.

At subsequent meetings of the School Committee it was voted that a representative of organized labor nominated by the Central Labor Union, and a woman nominated by the Boston Home and School Association be included on the School Survey Committee.

In addition to the appointees named in the order of the School Committee of March 19, membership of the Survey Committee comprises the following:

President A. Lawrence Lowell of Harvard University, nominated by His Honor the Mayor; Mr. Carl Dreyfus, nominated by the Chamber of Commerce; Mr. Francis R. Bangs, nominated by the Boston Real Estate Exchange; Mr. Frank P. Fenton, President of the Boston Central Labor Union, nominated by that body; and Mrs. Willard D. Woodbury, former President of the Boston Home and School Association, nominated by that body.

Immediately aiter appointment the Survey Committee organized and earnestly entered upon its labors. At the meeting of the School Committee of July 9, Judge Michael H. Sullivan, Chairman of the Survey Committee, presented a report of progress which reads as follows:

The Survey Committee respectfully submits to the School Committee the following report of progress relating to its work up to date:

Meetings - The Committee has met weekly since its organization on May 5. 1928. Each session has lasted ordinarily about three hours. These meetings have been held at the School Administration Building.

Headquarters - Headquarters have been established in Room 21, School Administration Building, 15 Beacon Street, with Miss Agnes E. Reynolds assigned as clerk of the Committee.

Procedure - Some time has been spent by the Committee in securing a grasp of the complete problem and in outlining the scope $o_{i}^{n}$ the inquiry. Sub-committees have been appointed and are engaged in the preparation of reports which will later be submitted to the entire Survey Committee.

Report of the Survey - The Survey Committee cannot at this time give a definite statement as to the date of the completion of its report.

## CITIZENSHIP THROUGH CHARACTER DEVELOPMENT.

The early pioneers of New England were the spirit of civil liberty incarnate. No sooner had they landed upon these rockbound shores than they proceeded to establish a government of the people. The Town Meeting still persists as the purest type of local self-government that the world has ever known. But the forefathers were not merely idealists, they were far-seeing statesmen. They knew that absolutism flourishes in illiteracy, but that an unenlightened democracy shall fall! They foresaw that if freedom of speech, freedom of the press, freedom of worship and trial by jury are to abide; if freemen are to counsel, make just decisions and rule wisely then the electorate must be intelligent and virtuous, as well as free.

In order that the ideal they cherished might be shielded and defended, these nation-founders placed Liberty under the guardianship of law. And then to insure the inviolability of civil liberty and the perpetuity of government under law, they created the free public school, "New England's fairest boast." The school thus became the bulwark and support of popular government. It would be stupid to declare that free government is dependent wholly upon popular education. There are other powerful contributory forces; but it is significant that the chief agency sanctioned by the state for its own defense and perpetuity is universal and compulsory education. Therefore, popular education and democratic government are mutually inter-dependent, each deriving from the other elements of security and stability.

The purpose of popular education is twofold. It should enable every child or youth - regardless of his gifts or limitations - to rise to the very height of his capabilities and endowments and then to become a citizen of power in the service of the Commonwealth. In this definition, I advisedly place the child before the State. Both as a human being and as a future citizen, he possesses certain indefeasible rights which the State must recognize and foster. At the same time, next to worship of his Maker, a citizen owes unreserved fealty to his country, its institutions and its laws. This reciprocal relation of citizen to State, therefore, is intimate and protective.

The Puritan forefathers believed that they had reconciled the various educational complexities - intellectual, emotional, moral and spiritual - and thus had insured a virtuous citizenship, by making religious instruction an integral part of the public school's curriculum. Such a program was unobjectionable and practicable so long as communities were denominationally homogeneous and the closest union existed between Church and State. But it was unable to resist the onward march of events. With the advent of heterogeneous populations came the disestablishment of Church and State and the secularization of education. Not only has the teaching of religion been swept away, but in many instances instruction in the moral and civic virtues, and consequently in good citizenship, has been relegated to a subordinate place. It is a serious question whether the centrifugal force of these rapidly revolving wheels of progress has not hurled us out of our true propertions. Whatever be our personal points of view, however, there are certain facts which cannot be disregarded.

We, engaged in the field of popular education, are not privileged to teach whatever we may choose; upon us are imposed either by customs or by statute law certain welldefined limitations. In the present day public schools, we cannot teach religion. Such instruction is reserved for the home, the church and religious teachers. Nevertheless, since moral instruction is indispensable to good government, teachers and administrators have very distinct obligations. Indeed, there exists in Massachusetts an ancient statute which is mandatory and unequivocal in its insistence upon moral training in our schools as a preparation for citizenship. It reads as follows:
"All instructors of youth shall exert their best endeavors to impress on the minds of children and youths committed to their care and instruction the principles of piety and justice and a sacred regard for truth, love of their country, humanity and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance, and those other virtues which are the ornament of human society and the basis upon which a republican constitution is founded."

Man and society are reciprocally inter-related. The citizen of character is the foundation of good government. Conversely, the citizen without character is a menace to the State and for his delinquency society stands accused. Social right-
eousness depends upon individual morality. There is no such thing as collective virtue which can be practiced by a community whose members are not personally virtuous in any manner or degree. Integrity of life in each citizen is the only sure guarantee of worthy citizenship.

It was such conclusions as the foregoing - with a consciousness of an imperative call for more intensified citizenship training - that urged the school folk of Boston to prepare an epoch-making report entitled "Citizenship Through Character Development" which has for its essence and core the inculcation of natural and civic virtues. In this document which was approved as a course of study, a definite time allotment is assigned daily for the practice and exercise of these virtues under the guidance of the teachers. Thus character and citizenship training has been elevated deservedly to a position of supereminence in all our school programs, elementary and secondary. At every point, all the machinery of the school is operating to produce a spiritual entity,- an upright, honorable and dependable citizenship.

Manifestly teachers always have regarded moral and civic instruction as the chiefest of their duties. All honor to those unselfish men and women whose illuminating personalities have been beacon lights to generations of youths! But for the most part, such instruction has been left to the initiative of individual teachers. Now the obligation is upon all, and all teachers must become equipped for this inspiring service. In consequence, a campaign of education has been inaugurated in Boston to collect material, organize instruction, develop skill, and formulate special technique of procedure. Normal training schools, teachers colleges, and graduate schools of education everywhere might well co-operate in this missionary enterprise.

It is unsafe to prophesy: But it is altogether likely in the future that public school teachers will be required to qualify for instruction in citizenship as thoroughly as they now prepare in so-called academic subjects. It is wholly within the range of probability that power in the molding of civic virtues may become the chief criterion of the teacher's ability.

Interwoven in the warp and woof of the Boston plan is the impelling conviction that a prerequisite to worthy citizenship is the habitual practice of fundamental moral and civic virtues similar to those enumerated in the ancient statute of the Commonwealth.

These then are the essential requirements demanded of every youth who aspires to don the toga virilis of American citizenship, and thereby join in this glorious venture for equality of rights and identity of responsibilities:
First and foremost, the worthy citizen must be capable of distinguishing between right and wrong, and must acquire the habit of willing to do the right.

He is clean in thought and word and deed
He practices self-control and self-denial
He has convictions and the courage of his convictions
He appreciates truth and has an established habit of speaking truthfully. "Every child should have, during his school life, innumerable lessons in mental truthseeking and truthtelling"

He interprets freedom as opportunity for service, privilege to do the right.

The worthy citizen is virtuous socially, as well as personally:
While steadfast in maintaining his individual rights, he is obedient to regularly constituted authority

He has a keen sense of justice and respects all the rights of others

He has a proper sense of loyalty and is loyal to his family, his institutions, his community, his country, and his faith

Fair-minded and magnanimous, he is tolerant toward the opinions, beliefs, and convictions of his fellow-citizens; he dispenses good will; he promotes the brotherhood of man; "Thou shalt love thy neighbor as thyself".

Every citizen must be a public servant, performing meritorious deeds that add to the happiness of his fellow-citizens and promote the prosperity of his country. He should know through practice that it is more blessed to give than to receive.

You are interested to know what are the fruits, the results of this ambitious and adventurous program. Is it functioning? What are its accomplishments? - are pertinent inquiries.

We are laboring under no illusions. We appreciate fully the magnitude of our tasks, and are far from extravagant in our expectations. The results flowing from this work in character development - the very tap-root of good citizenship - are intangible and unmeasurable as all spiritual reactions are. "Behind the visible work there is a work invisible." However, evidences of the effectiveness of our program, coming from parents, teachers and even from the pupils themselves, indicate quite conclusively that we are making noticeable and persistent gain in personal and civic honesty, practice in truth-
telling, effort to choose the right and reject the wrong, reverence for elders and superiors, respect for law and order and for others' rights and privileges, growth in moral judgments, and appreciation of spiritual values.

It is particularly gratifying to record in many instances the development of a better civic virtue, of a finer collective spirit; in short, the dawning of an educated public sentiment.

Pupils are beginning to assume responsibility for the good reputation of their school communities, and are learning the lesson paramount in a democracy, namely, the indispensableness of a high order of leadership and the moral purpose to select such leadership.

A teacher writes: "I feel that the most distinct benefit from our work in citizenship is the formation of a new attitude of mind. The weight of public opinion (that is, what will my classmates think?) is manifestly on the side of right. Whereas a few years ago a boys' club generally would choose the most daring or most mischievous boy for their leader, the choice now falls to one who in the estimation of the class possesses qualities as a citizen. I believe that the creation of public opinion that immediately condemns the slacker, the dishonest, the disobedient, and commends the praiseworthy and reliable is most vital, since in the final analysis it is public opinion that rules in democracy."

In his Annual Report for the year 1927, the Superintendent wrote:
"The original course of study in Citizenship through Character Development was prepared by a council of intermediate and elementary principals. Coincidentally with its appointment, the Superintendent invited the head masters of high schools likewise to formulate an outline in character and citizenship for the instruction of pupils of high school grade. The Head Masters' Association for some time has been actively engaged in the preparation of such an outline of work, designed especially to meet the needs of their pupils. The problem was a most difficult and serious one and the head masters have been justified in proceeding slowly toward its solution. Their task is now complete. The report on 'Character Education in Secondary Schools,' which the head masters submitted to the Superintendent late in the current school year and
which was approved by the School Committee, is a most noteworthy contribution to the literature of character development. We doubt if any document equals it in its intelligent and satisfactory adaptation to instruction in public high schools."

Since the above statement was recorded, the document referred to has been printed by authority of the School Committee and distributed among all teachers in our secondary grades.

In order that there may be preserved a more adequate description of this important educational achievement, a brief description of some of the salient features of this Course of Study in Citizenship is herewith presented by a representative of the Head Masters.

## Report of the High School Head Masters on Character Education in Secondary Schools.

In presenting this statement relating to character education in secondary schools let us say that it is the result of over four years of intensive study, investigation and experimentation by the High School Head Masters' Association of Boston.

Our purpose is to submit certain principles and illustrative material of practical value in shaping and conducting a program of character education in the secondary schools of Boston. The Association has endeavored to prepare a suggestive, workable plan of procedure. It includes the factors involved in the proper conduct of this important work of developing right attitudes in the youth of our city schools, and is an attempt to formulate a plan by which specific worthwhile qualities of character may be developed through definite life situations.

The development in the individual pupil of a good character which shall rightly shape and control his conduct in and out of school, and throughout his later life, is an educational task of no mean order. No plan, however well conceived and organized, will, of itself, bring about the desired result. The successful achievement of our great objective can be secured only through the loyal, painstaking, and intelligent co-operation of every teacher. The teacher must make all the life of the school, the teaching of every subject, the dealing with all matters of discipline, the atmosphere and spirit of the school, count for good moral education. The teacher must realize that the work of character education is a practical everyday
matter demanding constant attention and practical wisdom in its conduct. And to the degree that the teacher measures up to this ever present responsibility, to that degree will the success of this character program be assured.

## THE PUPIL AND THE WORLD OF TODAY.

What is the exact situation faced by a teacher who has the responsibility for developing right character in secondary school pupils? In the first place, it must be recognized that these young people have arrived at the age when they are thoughtfully keen and critical concerning all matters which secure their attention, more especially those things which seriously affect any purpose or result upon which they have set their hearts. Therefore, situations which arouse strong satisfaction or strong dissatisfaction are likely to be of frequent occurrence. Again, these pupils are engaged in that most interesting but baffling process of finding themselves, which further complicates the situation. They are living in an age of phenomenal change and progress as well as of intense activity and competition. The world about them is full of challenge, arousing their curiosity at every turn and constantly stimulating them to interested inquiry and investigation. All parts of the globe are so intimately linked together today by the telegraph, the radio and other recent inventions that, without leaving his own community, the child may be brought each day into direct contact with the life of far distant lands; and, as a matter of fact, the city in which he lives is cosmopolitan in its population, customs, language, and ideals. The individual boy and girl in the group varies widely in native ability, in environment and cultural opportunities, in knowledge and background, in disposition, ambitions and ideals.

## MASTERY IN ALL UNDERTAKINGS.

In the modern conception of education a most important phase of character development lies in guiding the pupil to complete achievement in all of his tasks, so that he may acquire what is sometimes spoken of as achieving power and habit. The process of education through self-activity requires three conditions to operate effectively: (1) that the pupils should be given opportunity to be problem finders as well as problem solvers, because problem finding and solving are infinitely more productive in the development of vital minds
than is problem solving alone; (2) that whatever activity is undertaken, whether it be academic study, mechanic arts, practical arts, fine arts, or athletics, the principle should be accepted and followed that if the thing is worth assigning and is properly assigned, before passing on to the next bit of work, it is worth mastering one hundred per cent, not sixty per cent or seventy per cent only, and (3) that, before considering any problem as completed, the pupil should feel sure in his own mind, through the use of checks and other means, that his work is correct. In this way he reaches that assured success in one undertaking which brings to him great encouragement amounting to a strong motivation for the next undertaking. This is in accord with the fundamental principle that character building is a cumulative process.

## CHARACTER TRAITS.

These should include the following habits and attitudes:

1. Responsibility. - The willing acceptance of personal and social responsibility.
2. Justice. - The cultivation of habitual acts of fair play, honesty, truthfulness and honor.
3. Strength. - The development of strength of various sorts, including independence, bravery, industry, perseverance, selfrespect, self-control, moral cleanliness in thought, word and act; cheerfulness and self-sacrifice, with their varieties and inter-relations.
4. Good-will.-The promotion of good-will, including kindness, generosity, open-mindedness, sympathy, service, respect for the rights of others and reverence for all that is good.
5. Loyalty. - The development of loyalty, in thought, word and deed, to the ethical and moral standards of the family, school, church, community, state and nation, and a proper regard for duly constituted law and authority.

Note.- These qualities of character are not mutually exclusive. In general, one quality cannot be developed fully without the cultivation of others.

FACTORS INVOLVED IN CHARACTER EDUCATION IN THE SCHOOL.
The character developed in the pupil by the school is the result of all the experiences which constitute his school life. Therefore, everything which enters into his life as a pupil must be thought of as contributing its share to the result, and
each activity and influence must be so guided and controlled as to work toward the desired goal. Many and varied are the factors which have a part in this complex business of making strong men and women.

## FUNCTIONS OF THE HIGH SCHOOL PRINCIPAL.

The Head Master has a number of important and difficult functions to perform in the general scheme of moral training. He is the liaison officer between the school and the parents. He is the interpreter to the public of the aims and the achievement of the school. To the faculty he is not merely an administrative superior; he is both counselor and friend. To the students (besides being judge and court of appeal) he is a quickening, vitalizing influence, a perennial source of encouragement. Moreover, he represents the school to the alumni, and endeavors to make them realize their part in fostering the ideals of the school and in maintaining as an active force for good that larger community which is made up of past and present pupils.

## THE TEACHER.

The Head Master sets the scene for these activities of the school out of which moral training grows. The organization of the school and the final control of policy are in his hands. But it is the teacher who has the close and constant daily contact with the pupil. His, therefore, is the great molding influence: "As is the teacher so is the school." Day after day, by word and deed he touches the emotions, influences the thoughts, guides and inspires the actions of the pupils with whom he comes into intimate contact. The teacher stands before his class an open book read by them at all times. There is no more alert audience than a group of pupils. "Actions speak louder than words." Therefore, the teacher's ideals of life, his habits of action, his character, are making daily impress on the lives of his pupils, and are received by them as his real teaching concerning character and citizenship.

Included in our report we present a professional code of ethics for the teachers, as well as two moral codes for pupils. Experience has shown us that student participation in school government appears to be an important means of promoting worthy citizenship training in the school.*

[^46]PERCENT OF INCREASE, AVERAGE MEMBERSHIP


A school wishing to introduce student participation will do well to consider the following conclusions, drawn from a study of practice throughout the country for two decades.
$a$. Student participation should be introduced gradually.
b. The machinery for its administration should be simple.
c. The students themselves must desire in a genuine way to participate in the government of the school.
d. The faculty must be sympathetic, patient and willing in every way to make the movement a success. Student participation is necessarily a cooperative matter.
$e$. The plan must provide for means by which all students are given opportunities to participate in the government of the school.
Student participation seems to aid in developing important qualities, such as responsibility, initiative, leadership, fellowship, school pride, and a respect for law and order.

To assist others in the organization and control of student participation we have included constitutions of student councils now in use in some of the Boston high schools.

## STUDENT GROUP ACTIVITIES.*

The word "extra-curricular" as commonly applied to student group activities is something of a misnomer. It is questionable whether it is wise to use a term which seems to make a decided separation between the curriculum itself and activities which have their rise in the curriculum. Since, however, the connotation of the term is generally understood, it will doubtless continue to be used until a better one is accepted by educators.

## CHARACTER VALUES OF SCHOOL CLUBS.

The following character values are claimed for school clubs: (1) They furnish the opportunity for adolescent boys and girls to express themselves in wholesome and recreative instead of dangerous activities. (2) They serve as a training ground for leadership, not self-appointed or self-willed, but a socially-

[^47]minded leadership. (3) They offer training in co-operative team work. (4) They provide an opportunity for the development of loyalty. (5) They help to develop character by the overcoming of unsocial or purely individualistic tendencies.

Among many clubs it is possible for each pupil to find a place where, led by his individual tastes and interests, he may learn to follow as well as to lead, to co-operate as well as to initiate. Loyal "fellowship," leadership, co-operation, and initiative may be developed through club organizations.

## PRINCIPLES UNDERLYING A CLUB PROGRAM.

For a successful club program the following principles should be observed.

1. Time should be set aside for the club activities.
2. Only those clubs should be introduced which meet the aims of education.
3. Enough clubs should be included in the social program so that the varied interest of all pupils may be met.
4. Each club should be sponsored by a teacher who is interested in individuals as well as in subjects, and who knows how to work by indirect and suggestive methods.
5. Each club must stand for something worth while so that it will hold the interest of its members.
6. Guidance of pupils in choice of clubs is often necessary.
A list is given of twenty-four different clubs found in secondary schools of the country, with the purpose of each and the type of student activity represented by each.

Next we call attention to the character values of (a) the High School Library and (b) the various forms of Visual Aids including:

1. Sculpture. 2. Mural Tablets. 3. The flag. 4. Announcements of Student Activities. 5. Honor Rolls. 6. Thrifts and other Educational Charts. 7. Films. 8. Exhibition Cases. 9. Exhibits. 10. Moral Code Posters. 11. Messages through Art Display Posters.
(Copies of large display posters, issued by the Mather Co., Chicago, Ill., are included.)

The character values which may be obtained from each
subject in the curriculum of the secondary school are analyzed, organized and presented. For this purpose the curriculum has been divided as follows:

1. Social Studies. 2. English Composition and Literature. 3. Foreign Languages. 4. Mathematics. 5. The Sciences. 6. Music. 7. Art. 8. Commercial Subjects. 9. Domestic Arts. 10. Physical Education for boys and girls.

In addition, we have studied various specific forms of personality records, with which we have experimented for many years. Definite suggestions for the necessary administrative technique relating to these records are given. Abundant material has been supplied for special instruction by section and home room teachers as well as a list of specific school situations in which character traits are stressed.

We have included also in our report twenty-four pages of quotations classified under the headings responsibility, justice, strength, good-will and loyalty, as well as an extensive bibliography on the subject.

In presenting our report, we do so with the hope that it may be in the nature of a definite forward step in organized material, which will be of assistance to administrators and teachers, to the boys and girls in their charge, and that it may assist the secondary schools in achieving their great aim "to equip pupils as fully as possible with the habits, insights, and ideals that will enable them to make America true to its traditions and its best hopes." *

Survey on Character and Citizenship Training in the Boston Public Schools.
In the autumn of 1927 Mr. Henry A. Pulliam of Paducah, Kentucky, visited Boston and spent several days in the public schools, observing patiently and thoughtfully the attitude of teachers and pupils towards the program in citizenship and character development.

Mr. Pulliam makes no pretensions of being an educator; by profession he is an engineer. He is, however, deeply interested in the education of children and is favored with leisure time for the study of social and economic problems.

When Mr. Pulliam had completed his observations in the schools and was about to leave the city, the Superintendent

[^48]asked him if at his convenience he would write his impressions or criticisms of what he had observed. The report of Mr. Pulliam is so intelligent, so dispassionate, and so illuminating, that with the author's kind permission I am submitting it in its entirety.

## REPORT OF MR. HENRY A. PULLIAM.

I write to you the impressions of my survey of the citizenship and character education work being done in the Boston Public Schools.

The impressions are not those of the professional educator. My profession is civil engineering and my interest in citizenship education is largely an outgrowth of a modest part in Kentucky politics during the last six years. I have given considerable study, as an office holder, to educational administration and finance, and during these last few years to character and citizenship education.

This survey of twelve days was directed to a determination of the results that are being attained by this work in Boston, so far as such can be gauged. I am interested also in the applicability of the methods in use to public schools elsewhere. Hence the survey was utilitarian rather than technical.

## METHODS USED.

Your familiarity with the methods in use dismisses any need of my dwelling on them. Briefly, they seem to be about as follows: A specified period of fifteen minutes at the commencement of each day's work, the latter ten minutes of which is allotted to citizenship and character education; the participation of all teachers in the work, in contradistinction to the use of specialists; talks on ethics by teachers, forum discussions by teachers and pupils; stories, songs, dramatics, duty projects, making character stimulating posters, displays, thrift clubs, helpful clubs, courtesy clubs, self-government, safety councils all with the object of giving both the theory and practice of good citizenship and right living; a monthly variation in progress synchronized throughout the school system to emphasize in succession different virtues and phases of character development; and a monthly bulletin supplied to all the teachers containing suggestions, stories, short dramas and other aids to the work, contributions to the bulletin being by teachers as well as from other sources.

It seems to be realized by all leaders in this work with whom I talked that the present methods are tentative and subject to any improvements which extensive research in the field of citizenship and character training whenever it may be made, either under public or private auspices, shall demonstrate to be possible.

RESULTS OBTAINED FROM CITIZENSHIP AND CHARACTER EDUCATION IN BOSTON.
Some of the results of the character and citizenship work are tangible enough to be discerned by the teachers and parents. However, the most important results are naturally those of the future,- results that can be measured now only by deduction, by the use of common sense and common knowledge about the character training methods which every good parent utilizes to a greater or lesser extent. In making this survey I was not of course expecting the results of character work to be as easily measured as, for example, proficiency in spelling and arithmetic. Furthermore, it was not expected that the results achieved with the children who have had this training from one to four years, while the teaching staff are wrestling with new ideas and procedures, are a full measure of the efficacy of the plan. It is naturally to be expected that when children have had a full school life of from eight to twelve years of this work, especially when they have had it through high school and the teachers have additional experience in the new methods, a more complete estimate of the results can be made. The results here recorded consequently are taken merely as a tentative portrayal.

## RESULTS NOTICED IN SCHOOL.

An observer in some of the class discussions will easily perceive the unusual ability of the children in making distinctions between right and wrong, and the interest which they evince in such distinctions. This moral knowledge, which the teachers are carrying to the children, seemed very obviously in excess of that which children are accustomed to acquire at their respective ages. To listen to some of the discussions is to see very clearly how they receive this moral knowledge.

In regard to putting this knowledge into practice, which is naturally of more importance, there were indications of sub-
stantial results, some of which were tangible and others deducible, but none the less obvious to even a mediocre student of human nature.

Among the tangible results noted and reported was testimony by some masters that their schools run more smoothly and with less disciplining since this work was inaugurated. There were reports of less truancy. However, some masters said that they had not been able to notice any difference in the operation of the school.

I found three reports of less police action concerning bad boys in neighborhoods, less profanity coming to notice than formerly and a more respectful attitude of pupils toward teachers. No master with whom I talked reported conditions as worse than before the character and citizenship work was inaugurated. None reported harm done by this new training.

At the Boys' Disciplinary School it was stated that since the citizenship and character training was started there has been a reduction in commitments to that school, and a reduction in numbers sent to court for action.

In several places I was informed that parents had expressed themselves to teachers and to masters as having noticed improvement in their children, although the amount of this sort of testimony that I could locate was very limited. Most of the teachers appeared to have slight contact with the homes. I could find no evidence of there having been adverse criticism from parents at any time since the course began. It occurred to me, and has probably been considered in your office, that questionnaires concerning the character education might to advantage be addressed to the parents some time soon, and, in the course of years, to the alumni who have had this work.

Among a very few teachers there was some adverse criticism of the courses. These were undoubtedly in a very small minority. Among these few the character work was considered as a waste of time, and likely to make hypocrites and prigs of the children. They believed that but few of the teachers would read the bulletin and all were opposed to making contributions to it on account of the extra work it entailed. I believe that there are others who are adverse to the character work and would have talked in similar vein had I not been a stranger and had they not considered it a matter of policy or loyalty to keep their opinions to themselves. Nevertheless, the
quantity and evident sincerity of the favorable testimony for both the courses and the bulletin was convincing to me that the adverse opinions are held by a very small percentage of the teaching force,- possibly well under five or ten per cent, - a much smaller number than I expected of a new process.

## EFFECT ON THE TEACHERS.

In view of the fact that several thousand teachers in Boston are called upon each day to instill in more than a hundred thousand children a training in good workmanship, kindness, reliability, veracity and other desirable traits of character, I was interested in what effect this work was having on the teachers themselves.

This also is something that can be estimated best by observation of the work in progress and drawing commonsense conclusions, although some tangible evidence was available in the testimony of some of the masters that the schools run smoother since the character work was started. One master stated that in his opinion the teachers get more from the work than does the average individual among the pupils.

The teacher's daily concentration on this species of ideas will, according to the laws of human nature, I think we are safe in concluding, have an influence on her own habits of living and working.

My opinion is that the execution of the work which I saw, the daily concentration of the teacher's attention on that species of ideas, can be expected to have a substantial influence on her work and life. It would seem to me to refute many of the laws of human nature if the result were otherwise. Hence I am utilizing the postulate for my own purpose, and I offer it to you merely as my personal deduction, that the character educational work as given in your schools makes for better teachers and a better functioning educational system. Whatever direct evidence there was tended to substantiate rather than refute this postulate.

It is the opinion in some quarters; I found, that the practice of having the teachers contribute to the monthly bulletin is very helpful to these contributors. It was stated that it helps to develop their resourcefulness in dealing with character situations when they arise in class, to emphasize in their own minds the character work, and to make for more stress on character throughout the school day. This opinion would seem to square with common sense and with natural expectancy.

EFFECTS ON OTHER SCHOOL WORK.
From numerous sources there was offered testimony that the stressing of such character traits as industry, good workmanship, self-reliance, will-power and obedience to constituted authority, has resulted in better work by the pupils in their other subjects. If this be accurate it may be just to conclude that the expenditure of fifteen minutes or about three per cent or four per cent of each school day in character work may be more than made up by improved work in the other studies. It may be time saved rather than lost to the other school work. At any rate it can be accepted that very little improvement in a pupil's attitude can account for a three or four points higher grade, where grading is done on the system of 100 points being perfect.

There was also testimony from some individuals that where the teacher had been successful in administering the character work the improved conduct and better work by the pupils made her other class work less arduous and trying.

## CONJECTURE AS TO EFFECTS ON FUTURE SOCIAL AND POLITICAL PROGRESS.

Since it is generally accepted that the improvements in our political and social organization can be assisted by newspapers, books and other publications, by certain club activities and other secular agencies, it seems reasonable to believe that the ideas which accomplish good for the body politic and for the individual citizen when utilized by these agencies can be equally effective when made available through the schools to the growing young citizen.

In fact, when we consider the plasticity of the young mind, and its Nature-endowed appetite and enthusiasm for good, the possible future benefits of this work appear most vast in scale, especially when the methods have been perfected by years of experience and research, and preparation for character training has become a part of every teacher's professional education.

Since some civic and social ideas can be grasped best by children after they have reached the high school age, more pronounced results than I have had the privilege of observing can be expected after the inauguration of your proposed system of character and citizenship work in the high schools of the city.

Today you can truthfully say in Boston that you are not stopping after having given to the future citizen a mental training and a store of useful information, but that you are making a deliberate and intelligent effort, as a city-wide policy of your school administration, to insure that this training and knowledge will be put to beneficent uses for the individual and for the future political and social life of the Republic.

## PERFECTING THE METHODS.

The work as a whole seems to be so effectively developing and so much devotion and sacrifice is evident among the school forces that I hesitate to mention even the few elements of weakness which appeared to me.

You have many of the problems of the pioneer, and if I did not mention whatever I saw of weakness in the work I should be detracting from the force of the commendations which I can so sincerely render,- and I should not be following your request.

Uniform excellence was not expected or found. Some few, apparently very competent teachers whom I saw, can, I believe, get more vital results in their character work. It would appear to be a case of not realizing the vast possibilities inherent in the work. It is new. It is discouraging, for results are of the subsurface variety. One does not see easily the growth in what he is doing. In engineering it could be compared to building a very intricate and difficult underground system where the work was covered as fast as completed, as against the satisfaction of building a bridge which stands out visible to the builder and to the world. Hence character work, as one master remarked, will always demand more encouragement, more inspiration, to be effective, than other more measurable, even though less important, phases of education.

It was said in various quarters that the results achieved in any school depend largely on the attitude of the master. There was some evidence to support this statement, as would be expected in a work so dependent on encouragement and enthusiasm, although some teachers seemed to be doing very well regardless of the attitude of the master.
Some of the work intended to aid character may miss the mark, but none that I saw could be called harmful to character. This more or less innocuous work might be noticed, for example, in some of the dramatics, games and stories, and in some of
the talks by the teacher on ethical values where they becometoo abstract and removed from the children's familiar problems. This also is a minority condition which will tend to disappear, I believe, as the teachers increase in skill and experience in this new work.

It may be noticed, too, with a very few teachers, that some of the "forums" or "discussions" by the children of ethical matters can easily take on the forms of mere quizzing and exhorting by the teacher. This latter manner of handling the class in discussion of right and wrong is easier and calls for less resourcefulness on the part of the teacher than does her attempt to guide a general "forum" discussion by the pupils, where it is necessary to suggest, restrain, temper, require courtesy of a pupil to another and direct the course of a general debate without seeming to be too much the guardian of order. It may be presumed that the greater the part taken by the pupil the more he is forming his own code and helping to raise the group code of right and wrong. Forums are, of course, more applicable to older children. I have seen a whole class "on its toes" in attention to a general discussion, where, on the other hand, in one class of forty I counted only five children who were giving the least evidence of attention to the teacher's treatment of ethical matters in the conventional recitational manner.

Although story-telling and story-reading are generally recognized as having a place in character training, yet they may become a constant temptation to a teacher as the easiest way to fill the ten-minute character and citizenship period, when some of the other methods requiring more initiative could well be given more prominence. This, however, seems hardly likely to become a grave drawback. Another minor comment might concern the need in a very few places to avoid spending the character training effort on trifles.

If there is any outstanding need it would appear to be that of bringing a realization of the benefits and importance of the work to those masters and teachers who do not yet appreciate its significance. We can feel some certainty that the teacherof the near future will see her advancement in her profession gauged to a large extent by her success in character building as well as by her proficiency in what are today called purely academic subjects, and her educational qualifications. It possibly is not too much to prophesy that the time is by no-
means in the distant future when the teacher's charactermoulding abilities will be the chief criterion of her proficiency:

## BOSTON PRACTICE COMPARED WITH OTHER CHARACTER EDUCATIONAL METHODS.

In some essential points the Boston character education differs from that of some other schools in the country. For example, some schools have the ethical training given not by the regular teachers but by specialists especially equipped for the work. In some such schools the character education work is not given every day as in Boston. In one well-known school it is confined to a period of 20 minutes per week; in another, a 40 -minute period each week.

The Boston method of having about 10 minutes each day devoted to character work, assuming that the first five minutes of the 15 -minute period is consumed by calling the roll, announcements and other routine, is a daily reminder to both pupils and teachers of the ultimate and great object of public education. Habit formation would likely achieve better results due to daily attention to the matters at hand than to a treatment once a week. However, once a week, as in these other schools, or even once a year, is to be preferred to not at all.

The Boston method of having the character work handled by all the teachers, instead of by specialists who go from room to room, has some distinct advantages, as far as I can judge. Undoubtedly more skill in some phases of the work can be expected from the teacher who specializes in the work. But when we remember that character is something that needs attention throughout the day, that it cannot be learned entirely out of a book nor under skillful direction for ten minutes a day, we see the benefits of allowing the teacher who follows the children's work through the rest of the day to keep in touch with what she is doing in the character and citizenship period. She can then better correlate the other school work with it and find more situations for practice and demonstration of principles which are being considered in the character courses. The teacher who at the beginning of each day's work has focused her attention on developing character and has centered the thoughts of her pupils on this as a great objective in life, is better prepared to make the entire school day contribute to the character training of the children than would be the case if she had no connection with the character and
citizenship period. The Boston method is likely the less expensive. It distributes also whatever benefits the character work may have to the several thousand teachers of the city.

The monthly bulletin or teachers' magazine is another feature of the Boston practice which seems to be well adapted to starting and developing a city-wide program. It serves not only to co-ordinate and standardize the work throughout the city but conveys suggestions which should be especially helpful in a work so taxing on the resourcefulness and ingenuity of the teacher. If it did nothing else but induce the teachers to make contributions, induce them to give study to character methods and write of them for the use of others, it would probably more than justify its existence, though this is but an incidental and by-product benefit.

## ADAPTABILITY OF BOSTON METHODS TO PUBLIC SCHOOLS IN GENERAL

The Boston method should lend itself to adoption in other schools without great difficulty. However, for small school systems, or for single schools, it would likely be necessary to procure from outside sources such aids as the monthly bulletin and other literature. It would of course be possible to carry on some local bulletin work in multigraph editions.

## ATTITUDE OF THE CLERGY.

In several quarters I was told that during the four years of experience with this work there had not been a case of opposition from any member of the clergy of any faith. This is of particular interest, for Boston has large representations of all religions. I found individuals of all these affiliations cooperating without lines of demarcation.

It would seem that Boston has demonstrated that this is a work to which people of all creeds can lend aid. This is about what anyone who understands the objects and methods of the work would anticipate.

## COMMENTS.

If faculty meetings are held in the different schools it might be a good place to have specified time devoted to promoting the spirit necessary for the proper functioning of the character and citizenship work. It requires more inspiration than does arithmetic and other subjects, and this inspiration can come from the masters, from individual teachers, or from outside speakers.

Probably the best teachers have always given attention to character training when the occasion demanded. In your system even the best teachers are given more opportunity for such practices than they had before its installation, and occasions can be made by the teacher to occur.

It seems reasonable to believe that just as nearly all parents can do something in the way of character training for their children, so even the least skilled teacher can do something in that direction. This would refute the remark that is often made concerning character education in the public schools, that with the general average of teachers very meagre results can be expected. It could be said in further refutation, that the teacher, unlike prospective parents, must pass certain tests of her qualifications, must be well above average intelligence, and that she enters her work with more training than do the majority of even the best fitted young parents.

It was said that suggestive outlines are being prepared for guiding the character work in all grades, just as it had already been done for the sixth grade, the first grade and the kindergarten. These additions to your methods should add to the effectiveness of the work.

In the proposed high school courses some co-ordinating agency, some separate publication, such as the monthly bulletin as utilized in the elementary grades, should prove desirable.

I admit some enthusiasm in contemplating the prospects of results from a properly conducted high school system of training in the work, and I hope to have the privilege some day of observing it in action in your schools.

In conclusion, and in view of the pioneer nature of your efforts, it is hard to say enough in praise of the work in citizenship and character education which you and the Boston School Committee are carrying forward. Nor can too much be said for Mr. Egan, Miss Carrigan, Mr. Patton and many others who are giving of themselves for its advancement. The Boston work is deserving of the gratitude of the entire country, which sooner or later will follow in your footsteps and profit by your experience, your errors detected and obstacles surmounted.

I appreciate the courteous and helpful attitude which I encountered in this survey, and wish you increasing success, which seems assured as you are now progressing.

## TRAINING OF THE EMOTIONS.

Intimately associated with character development is the training of the emotions. The one suggests the other. The work in character development in our schools would have naturally led to the need of education of the emotions. When the program in character training was fairly well established, our thoughts turned toward this related problem. Accordingly the Superintendent invited a group of teachers to make a study of the emotions and their educability. This council under the direction of Dr. William F. Linehan of the Teachers College has approached this new and important field of education with rare tact, industry, and vision, and is rapidly enlisting the interest and support of many of our progressive teachers.

While only upon the threshold of this great movement, we can, however, report considerable progress. In the last Annual Report of the Superintendent it was recorded that the council had published a school document entitled, "The Educability of the Emotions; A Suggested Discussion Approach." During the current year it has made an inestimable contribution, "Controlling Fear."

One of the characteristics of fear is its universality. It is doubtful if any one is absolutely free from its influence. An eminent psychologist in discussing the subject frankly declares that he has never overcome completely a deeply intrenched fear. He says, "Probably my own fear in the dark has made me particularly interested in this problem. My reactions in the dark are chaotic and more or less infantile."

Imaginative fear is the root of superstition and is more intricately interwoven with human conduct than is generally conceded. Imaginative fear or superstition frequently overmasters intelligence. It was Madam de Stahl who remarked that she did not believe in ghosts but that she was afraid of them.

Many boys will appreciate the experience of Andrew Carnegie. In boyhood he was fortunate in having an uncle who at eventide told him stories and taught him songs about the heroic Scottish patriots. In Carnegie's own language: "There were two roads," he writes, "by which to return from my
uncle's house. . . . One along the eerie churchyard of the Abbey among the dead, where there was no light; and the other along the lighted streets by way of May Gate. When it became necessary for me to go home, my uncle, with a wicked pleasure, would ask which way I was going. Thinking what Wallace would do, I always stoutly replied that I was going by the Abbey. . . . Trying to whistle to keep up my courage, I would plod through the darkness falling back in all emergencies upon the thought of what Wallace would do if he had met with any foe, natural or supernatural."

A real disciple of Wallace and Bruce could never give up. He would die first.

The Boston Council on the Educability of the Emotions warns teachers and parents against undue introspection on the part of pupils. It finds, however, many instances where children are conscious of emotional conflicts and are struggling heroically for control. One pupil describes his conflict as follows:

## WAR.

There is a war going on with two parts of my mind. This war is over a fear. One part said, "This fear is terrible, and something terrible is going to happen." The second part said, "Nonsense, this is all foolishness, and I am right." This fear is to walk under a ladder which is said to bring bad luck. I have not declared peace, for I haven't decided who has won. I will have to let the fight go on till some day one side will win.

Self-assertion, like all emotional trends, requires direction and control. Like all emotions likewise it may become helpful or harmful. Positively speaking, self-assertion assists in the cultivation of individuality, in independence of action. On the negative side it produces certain complexes. The inferiority complex may arise from physical imperfections, unfortunate environment, lack of sympathy or appreciation; from shame, ridicule, or consciousness of disadvantage in comparison with others.

The remedies for such disorders are rational readjustment, the establishment of self-confidence, encouragement in the performance of tasks, and an experience of the joy of achieve-
ment. Unquestionably, sareasm or ridicule should be taboo in dealing with sensitive children. One pupil tells her sad experience as follows:

## FEAR OF RIDICULE.

The greatest fear in my school life is to be laughed at. When I first started school I knew very little English, because I came from Europe. When I gathered enough courage to say a few words in front of the class, they were badly pronounced and caused laughter.

An incident that I shall never forget occurred one day when I was talking to a group of people and mispronounced a word, and one person in that group whom I most admired made fun of my pronunciation. A lump rose in my throat, tears came to my eyes, and I felt I would much rather go back to Europe than speak English again.

I am five years in this country, and have not quite overcome that fear yet, but I hope in the years to come to be perfectly at ease in a group of people.

Conversely: "A word fitly spoken is like apples of gold in pitchers of silver."

Many of these emotional tendencies develop very early in the life of a child and are shaped largely by environment. Speaking of his laboratory work at Johns Hopkins University, Dr. Watson says:

I have tried many experiments and I have come to the conclusion that the first few years are the allimportant ones for shaping the emotional life of the child. We have centralized on teaching the child proper conventional habits of study and conduct, while neglecting almost entirely his emotional training. In so far as I have learned from my work, I should say that it shows first, that parents and second the early grade teachers equally must share the responsibility of making or marring the emotional life of the average child.
Parents and teachers should realize that the future careers of children are dependent largely upon the development of
instincts, emotions and impulses - whether they be properly directed, misdirected, or thwarted, and our task is magnified as we contemplate the vast number of these tendencies.

In the presence of our children let us not express too freely our own emotions of dislike ; our fear, anger, contempt and disgust for actions we dislike and for persons who commit them; let us rather put a restraint on such criticisms. We should, however, freely and fully express the emotions of gratitude, admiration, wonder and love which we feel on contemplating a fine action or a noble character.

The relation between emotional tendencies and health is reciprocal. Emotional arousals or conflicts frequently result from physical disorders, and health in turn is affected by emotional disturbances. According to Dr. Healy, loneliness, homesickness, speech defects, deformities, unfortunate family reputation, and physical condition, may cause emotional disturbances. On the other hand, the problems of shyness and fear of recitation, of absentmindedness, of obstinacy and unruliness, of lying, etc., are issues which may call for as careful an analysis and understanding as those clearly morbid conditions which today are brought to the attention of physicians.

Suggestibility is a fruitful source of physical alarm and discomfort. The strong and sudden emotional reaction to suffering, pain, or grief are well known. Chameleon-like we take on the colors of our environment. Reason seems to be temporarily dethroned and a mob of imaginary imps run riot.

## How we

Walk the livelong day, and watch our shadows;
What our shadows seem, forsooth, we will ourselves be; Do I look like that? You think me that? Then I am that.

There is a Hindoo legend of a pious pilgrim who, journeying toward a distant city, was accosted by a female figure of ghastly mien who begged leave to ride beside him to her journey's end.

He asked her who she was and she replied, "I am Cholera, but I will spare your life if you carry me to the city." "And how many lives will you destroy when you reach the city?" asked the pilgrim. "Two thousand, no more, no less," was the reply. On condition that the victims should not exceed two thousand, the pilgrim permitted her to accompany him. On
a subsequent occasion the twain met again and the pilgrim reproached the woman: "You failed to keep your agreement. You promised you would slay not more than two thousand and you have actually slain twenty thousand." "You do me a great injustice," replied Cholera, "I slew but two thousand, the remainder were killed by my sister, Fear or Worry."

It is needless to comment upon the lesson embodied in this legend. Incredible is the mischief wrought by fear in its various forms including worry, anxiety, dread, depression, melancholy, and despondency. We teachers and parents must awaken to our responsibility. We must study the emotional strivings and conflicts of our children and aid them in making instincts, emotions and impulses more directly subject to mental and volitional life.

May I suggest a few safeguards:
One of these is the constant bestowal of what Frederic Ozanam loved to call, "The alms of good counsel."

Others are: Self-control, self-restraint, self-denial, a sense of true values, worthy comradeship, wholesome recreation, and whole-hearted joyous play.

And last but not least: Purity of mind, of body and of heart.
Inherent and fundamental in man's nature is the instinct for worship. Its accompanying emotions are admiration, awe and reverence - "a blend of wonder, fear and gratitude." Manifestly, the highest ideal of the race is the worship of a Being, infinitely merciful and just. The emotions are not designless. They are given to us, I believe, as a vehicle, by means of which we may come more readily and perfectly to the knowledge, love and service of God. Here and here alone are Security and Peace. Spiritual health is our ultimate goal. The words of the Master Physician are comforting and reassuring:
"Come to Me , all you that labor and are burdened, and I will refresh you."
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## Report of Dr. William F. Linehan for the Council on the Educability of the Emotions.

In the preceding reports of the Superintendent of Schools the chairman of the council on the educability of the emotions has kept our readers acquainted with the progress that had
been made. In like manner he now submits a brief statement of the work of the council during the past year:

I am submitting herewith a report regarding progress during the current academic year in the program of training pupils' emotions.

The indirect program, which would aid the teacher in recognizing and redirecting the pupil's emotional behavior and which was established by the publication of School Document No. 2, 1927, entitled "The Educability of the Emotions," has during the current year been maintained or enriched in the following ways:
(1) Instruction in the psychology of personality adjustment has been continued as part of the graduate curriculum of the Teachers College.
(2) Recent scholarly works contributing to the teacher's knowledge of the emotional foundations of behavior have been abundantly added to the Administration Library and to the library of the Teachers College.
(3) On April 30, at the beginning of Health Week, the Superintendent delivered over the radio an address to parents and teachers on training emotional nature. In regard to this address the council would express its gratification and, also, its hope that the address may become available in printed form.
During the current year the project of training the emotions has concentrated particularly on the construction of a direct program. This program seeks to give the child wholesome insights into emotional nature, thereby aiding him in rational, volitional self-control and in sympathetic helpfulness to others. A course of study, applicable to the fifth and successive grades, has been published as School Document No. 2, 1928, entitled, "Controlling Fear." Assuming on the part of teachers basic psychological training and mature sympathies, the course of study "Controlling Fear" gives a minimum of psychological theory. Constructed entirely through experiment in the classroom, the course endeavors concretely to outline, step by step, methods of presentation and discussion, offering at every step ample options in procedure. Abundant examples are given, with classification, of pupils' typical fears, objective and subtle. The course employs especially the case method, the method of conference on concrete, real-life instances. Through the cordial
co-operation of the respective principals and by classroom teachers selected by these principals, this course of study has been established in the following schools or school districts:

English High School
High School of Commerce
Memorial High School (Girls)
Bowdoin School
Christopher Gibson School
Dearborn School
Edward Everett School
Elihu Greenwood District
Frank V. Thompson Intermediate School
Robert Gould Shaw School
Shurtleff School
Having, we believe, no precedent, the course of study in fear, toilsomely evolved, may for the present serve as our model method in building what we should urge as the next and concluding course in the direct program - a course in redirecting self-assertiveness. The course of study in controlling fear has concerned itself with timidity, lack of confidence, undesirable inhibitions - in a word, with the avoidance response. Our next and concluding course would concern itself with the approach response, including the striving for self-expression, the desire for recognition, the will-to-power. Especially, this course might aid pupils to meet thwarted self-assertiveness in more direct and enlightened ways and, in the face of thwarting, .to find wholesome compensatory adjustments. A theory of self-assertiveness has been worked out by the chairman and fully discussed with experienced teachers. Some of these teachers have made preliminary experiment with the theories presented. Already a considerable amount of illustrative material has been collected. Accordingly, the experimental construction of the course in self-assertiveness should begin early in the coming academic year and should proceed apace. For this project the council on the educability of the emotions would welcome the appointment of an associate council of classroom teachers. At group conferences conducted in the final weeks of school the teachers applying the course in fear in the eleven co-operating schools expressed themselves unanimously as willing to become members of this contemplated associate council. With the co-operation of this associate council, the next course of study may, division by division, be immediately established in the schools.

In substance, the council would respectfully recommend for your approval, besides the continuance of the indirect program maintaining interest in the rapidly developing psychology of personality adjustment, these two immediate and comprehensive steps:
(1) The extension in our schools of the course of study "Controlling Fear."
(2) The co-operative, experimental development of a second and concluding course of study.

## PERCENT OF /NCREASE

Total Registaation:Day Schools
Total Numberf or Teachers: Day Schools
1919-20 To 1926-27


This graph shows the increase in the number of pupils in the Boston public schools and the increase in the number of teachers. Although the tendency has been to reduce the number of pupils per teacher, still the increase in the number of teachers has not kept pace with the increase in the number of pupils.

## COMMERCIAL EDUCATION.

According to our statistics fifty-two per cent of the pupils in the public high schools of Boston are pursuing so-called commercial courses. They are taking such subjects as bookkeeping, stenography, salesmanship, merchandising, commercial law and geography, together with a substantial amount of social subjects and English.

During the past few years there has developed a noticeable demand in business houses for young men and women equipped for clerical routine and possessing skill in manipulating the office machines which are rapidly increasing in number. The question is constantly arising whether business concerns, in the future, are likely to call for these routine accomplishments and manipulative skills to a greater extent than for preparation in the traditional commercial subjects, such as bookkeeping and stenography.

Teachers of commercial subjects are desirous, so far as possible, of anticipating future demands of business and of adjusting school programs accordingly. For these reasons the friends of commercial education in Boston are preparing to make a very thorough investigation, with a view of determining the future needs of business and of reorganizing curriculum and procedure more definitely in accordance therewith.

The history of commercial education must be studied. Curricula must be formulated, based upon the experiences of the past and the business requirements of the future, so far as they can reasonably be ascertained.

A beginning has been made of this general survey. During the past year the School Committee delegated Mr. Raymond G. Laird, Head Master of the Boston Clerical School, to visit several cities of the country, acquaint himself with the present status and tendencies of commercial instruction, and in so far as he was able, to ascertain what the future demands of business are likely to be.

I am presenting herewith the results of Mr. Laird's studies. At the same time I am submitting a brief outline of the history of commercial education in Boston prepared by Mr. Louis J. Fish, Educational Statistician of the School Department.

## Commercial Education in Retrospect.

By Louis J. Fish, Educational Statistician.
There was a little trace of commercial education in the American colonies, although at that time it did not play an important part in the school system. With the rising importance of trade in the eighteenth century "writing schools," so called, came into prominence. Young men of good families who showed more aptitude for money making than for learning Latin were sent to the writing schools to learn "good hands and accounts." These writing schools taught an elaborate system of penmanship, arithmetic in forms somewhat fantastic, and the science of bookkeeping complicated and made intricate by the multitude of varying monetary and metrical systems.

Writing and ciphering schools had been a part of the Boston public schools since 1682. In 1740, however, writing schools under private auspices were established in Boston. These writing schools, in contrast to the severity practiced in the grammar schools, enforced no discipline whatever. Until the close of the eighteenth century such homely but useful schools were rarely if ever endowed.

At that time commercial life was a simple matter, and commercial education was thought not to be a function of the schools, being considered too humble a form of activity for the exercise of great talents or even for any special preparation. At first the boys left school early and were trained by their employers. More boys were attracted than offices could train. This led to the development of the private commercial schools during the nineteenth century.

Private commercial schools and classes in bookkeeping sprang up in Boston between 1830 and 1840. They were the forerunners of the modern business school now found in all important cities. The main subjects taught in these private schools were penmanship, bookkeeping, commercial arithmetic, commercial law, and later on stenography and typewriting.

Bookkeeping, as such, made its first appearance in the public high schools in the program of the English Classical (High) School of Boston for 1823-24, where it was prescribed for the third or lowest class as "Book-keeping, by Single and Double Entry." By the law of 1827 it was made a required subject in the high schools of all towns containing five hundred families or over and it remained among these requirements until the
law of 1898. Notwithstanding this legal support, however, as late as 1834 the returns indicate but one town claiming to offer the subject. By 1838-39 the number had increased to seventeen and in 1840-41 twenty-one towns claimed to offer bookkeeping in the public schools. By 1860-61 it had appeared in the curricula of fifty-five towns out of the selected group of sixty-three and over eighty-seven per cent of the towns required by law to provide the subject in the high schools met the requirements.

Since the opportunities in office service have grown by leaps and bounds during the last seventy-five years, the training of workers to meet these demands has provided an interesting chapter in the history of commercial education. Naturally the innovation in the educational world of training for business originated and was shouldered by private individuals who appreciated the opportunities and the importance of the new demands. Pioneer commercial educators and schools were more or less evanescent, but at least twelve private business colleges were established in various cities in the United States before 1850 , and more than thirty before 1860 , all of which survived the Civil War and reconstruction period. Between 1860 and 1870, more than fifty new business colleges sprang up to meet the increasing demands of reviving business after the war, but only fourteen responded to the United States Commissioner of Education in 1870, reporting 3,055 students.

Four of those established before the Civil War were located in Boston, Sawyer's Commercial College being organized in 1838, Comer's Commercial College in 1840, French's Business College and Stenographic Institute in 1848, and Bryant and Stratton's Commercial School in 1860. In 1880, three of these, Sawyer's, French's, and Bryant and Stratton's, reported 795 students, of which 689 were men and 106 women. "Common English and Correspondence," Penmanship, Bookkeeping, Banking, and Commercial Law were taught in all. French's and Sawyer's offered in addition Higher Mathematics, Surveying, Political Economy and Phonography.

The commercial schools developed greatly both in quality and quantity during the twenty years from 1870 to 1890 , when they largely controlled the training of men and women wishing to go to work in business or commercial lines.

Commercial subjects as we now know them were introduced into the Boston public schools in 1893-94. In 1893
there were enrolled in the private commercial schools of the United States 115,748 pupils. This number was roughly about three-fourths of all the students seeking a business education. After that year the number enrolled in private commercial schools diminished for two reasons: 1. The general business depression. 2. The increasing number of public high schools, normal schools and universities offering commercial instruction. In the year 1893 there were already 15,220 pupils pursuing commercial subjects in the high schools in the country.

In 1894 the students studying commercial subjects in public high schools constituted but one-tenth ( 10.1 per cent). The proportion of commercial students trained in public high schools continued to increase parallel with a decrease in the private commercial schools during the next five years. In 1910 the high schools trained more than one-third (34.8 per cent) and the private commercial schools trained more than onehalf ( 57.7 per cent) the students of commercial subjects. In 1898 the Commissioner of Education wrote, "The business course in the greatest number of these (public high) schools does not differ from the business course in the private secondary schools."

In Boston, in 1897-98, the "so-called commercial courses" were introduced into the day high schools and offered to all boys and girls who desired to take them. Special instructors in bookkeeping, phonography, and typewriting were employed. The commercial course of study, as adopted September 24, 1897, was to extend through two years and provided an almost appalling range of subjects:
"First Year.- English language and literature, ancient history, phonography, penmanship and commercial forms, commercial arithmetic and bookkeeping, botany, drawing, music, physical training.
"Second Year.- English language and literature, mediæval history, modern history, phonography and typewriting, elements of mercantile law, bookkeeping, commercial geography, zoology, physiology and hygiene, drawing, music, and physical training."

Two high schools, the Girls' High and the Roxbury High, reported 117 students (of whom seventeen were boys) taking the course out of a total of 1,635 . In October, 1899, stenography and typewriting were reported in seven Boston high schools.

The three and four year courses later instituted in the Boston High Schools existed side by side until 1907-08, when the commercial courses were placed on a four-year basis in all the high schools. In the graduating classes of 1908 were found the last survivors of a three-year course. The majority of the students had left school when they "graduated" as a matter of course, regardless of the length of time required. Thus, in a graduating class of 226 commercial students in the Dorchester High School, a little more than one-fourth ( 27 per cent) were graduates of a four-year course. In a graduating class of fifty-seven in East Boston, slightly more than onefifth ( 21.1 per cent) were graduates of a four-year course.

The introduction of commercial work in high schools of the country led to the establishment of high schools specializing in commercial education. In 1892 Professor Edmund J. James of the Wharton School of Philadelphia had already pleaded for the establishment of separate commercial high schools. Until 1900 progress was slow. In 1909 there were in the United States 574 separate commercial departments in high schools with 146,288 students enrolled. With the introduction of commercial work in the Boston high schools, there also came a demand for the establishment of separate high schools specializing in commercial work.

The Boston High School of Commerce was established in 1906 and was evidence of the growing demand for a separate school specializing in commercial education. This high school has maintained a high standard of scholarship in commercial work, and has enlarged its sphere of usefulness so that its graduates are filling positions of responsibility in business leadership in the City of Boston. Five per cent of the Certified Public Accountants of Massachusetts are graduates of this school. A graduate division consisting of one full year of post graduate work has been established. The work done in this graduate division is of such a quality that it is recognized and credited as a complete first year's work in a college of business administration.

In 1911 an attempt was made to return to a two-year course of study, and an "intensified clerical course" was introduced into the Roxbury High School "to afford special vocational training to those pupils who desire to become stenographers and bookkeepers and to give them as good training and prepa-
ration as they could obtain in the best business colleges. It can be completed in two years or less by able and faithful pupils. . . ." A large number of girls of widely varying background flocked into the new "short course" but a very small number seemed to have survived.

In 1914 the Boston Clerical School was established to provide an intensive business training for girls who had completed at least two full years above the eighth grade. Pupils might enter at various times during the year with almost equal advantage and graduate when the courses were completed, regardless of the date. In other words, it was established as a municipal business college. The Boston Clerical School has shown a continuous growth since its establishment. Like all other educational institutions the standards of this school have been raised greatly since 1914. This is attested by the fact that nearly all the young women attending are graduates of an approved high school. The institution has veritably become a junior college.

Although training for business is of more recent origin than any other line of scientific training, there are more students taking this type of training today than there are in all other unit vocational schools combined. The expansion of the curriculum in high schools was brought about by the demands of the pupils, the wishes of the parents, the needs of business and the threat of migration to the business college.

As a result of these definitely voiced demands the commercial course in our high school has come into its own.

Recent developments in commercial education are numerous. Large corporations have established in their own organizations training schools for their employees in clerical work. Inventors and manufacturers of special devices used in mercantile offices have established schools for instruction on those appliances. These courses are given at a minimum cost to the pupils, and aim to provide operators in abundance for the skill required for the operation of the machine. New projects are continually being undertaken to adapt the offerings in commercial education to current employment needs. A few of these projects were described by Assistant Superintendent Rafter in the Annual Report of the Superintendent for 1927.

Commercial education has required the evolution of means and methods peculiar to itself, and to a degree at least, quite
dissimilar to those found in general education. The following method has been suggested within the last fifteen years and is now being increasingly emphasized:

1. Practical participation in productive work.
2. Technical studies related to the productive work.
3. Studies to enhance vocational skill and ideals.

Logically, the simple program for commercial education seems to be that which provides for the acquisition of practical experience in mercantile establishments, and for the processes of related instruction in high schools.

The importance and extent of commercial instruction in the public schools of Boston may be ascertained by the following tabulations:

## Tabulation I. <br> NUMBER OF COMMERCIAL TEACHERS - BOSTON PUBLIC SCHOOLS. <br> (June, 1928.)

| School. | Men. | Women. | Total. |
| :---: | :---: | :---: | :---: |
| Brighton High School. | 2 | 4 | 6 |
| Charlestown High School. | 2 | 4 | 6 |
| Dorchester High School for Boys. | 10 |  | 10 |
| Dorchester High School for Girls. | 2 | 21 | 23 |
| East Boston High School. | 2 | 9 | 11 |
| English High School. | 14 |  | 14 |
| Girls' High School. | 3 | 21 | 24 |
| High School of Commerce. | 20 |  | 20 |
| High School of Practical Arts |  | 2 | 2 |
| Hyde Park High School. | 2 | 5 | 7 |
| Jamaica Plain High School. | 4 | 6 | 10 |
| Memorial High School (Girls) | 1 | 20 | 21 |
| South Boston High School. | 2 | 4 | 6 |
| Boston Clerical School. | 4 | 12 | 16 |
| Continuation School. | 2 | 1 | 3 |
| Girls' Trade School. |  | 3 | 3 |
| Total number in these schools. | 70 | 112 | 182 |
| Abraham Lincoln School. |  | 1 | 1 |
| Bennett School. |  | 1 | 1 |
| Bigelow School. |  | 1 | 1 |
| Frank V. Thompson School. |  | 1 | 1 |

NUMBER OF COMMERCIAL, TEACHERS - BOSTON PUBLIC SCHOOLS.Concluded.

| School. | Men. | Women. | Total. |
| :---: | :---: | :---: | :---: |
| Grover Cleveland School. |  | 1 | 1 |
| Henry L. Pierce School |  | 1 | 1 |
| Mary Hemenway School. |  | 1 | 1 |
| Michelangelo School. |  | 1 | 1 |
| Noreross School. |  | 2 | 2 |
| Oliver Wendell Holmes. |  | 1 | 1 |
| Robert Gould Shaw School. |  | 1 | 1 |
| Shurtleff School. |  | 1 | 1 |
| Theodore Roosevelt School. |  | 1 | 1 |
| Washington Intermediate School. |  | 1 | 1 |
| Washington Allston School. |  | 1 | 1 |
| Washington Irving School. | 1 | 1 | 2 |
| Total in Intermediate Schools | 1 | 17 | 18 |
| Grand total. | 71 | 129 | 200 |

Tabulation II.
The total number of different pupils taking commercial subjects in high schools and in the ninth grade intermediate schools is 10,485 . If to this is added the number taking commercial subjects in the Clerical and Continuation Schools, the total is 12,183 . Tabulation II shows by schools the number of different pupils taking the so-called commercial subjects. These pupils on an average take 2.32 commercial subjects. These figures were secured near the end of the school year, 1928.

TOTAL NUMBER OF DIFFERENT PUPILS TAKING COMMERCIAL SUBJECTS IN HIGH SCHOOLS AND NINTH GRADE INTERMEDIATE SCHOOLS.
(Including Clerical and Continuation Schools.)

| Schools. | Boys. | Girls. | Total. |
| :---: | :---: | :---: | :---: |
| Brighton High School. | 66 | 271 | 337 |
| Charlestown High School. | 100 | 349 | 449 |
| Dorchester High School for Boys. . | 702 |  | 702 |
| Dorchester High School for Girls. . |  | 1,278 | 1,278 |
| East Boston High School | 291 | 472 | 763 |
| English High School. | 1,003 |  | 1,003 |

TOTAL NUMBER OF DIFFERENT PUPILS TAKING COMMERCIAL SUBJECTS IN HIGH SCHOOLS AND NINTH GRADE INTERMEDIATE SCHOOLS.-Concluded.
(Including Clerical and Continuation Schools.)

| Schools. | Boys. | Girls. | Total. |
| :---: | :---: | :---: | :---: |
| Girls' High School. |  | 1,452 | 1,452 |
| High School of Commerce.. | 1,061 |  | 1,061 |
| High School of Practical Arts. |  | 114 | 114 |
| Hyde Park High School. | 205 | 340 | 545 |
| Jamaica Plain High School. | 95 | 381 | 476 |
| Memorial High School. |  | 1,524 | 1,524 |
| South Boston High School |  |  | 638 |
| Boston Clerical School. |  | 334 | 334 |
| Continuation School.. | 633 | 731 | 1,364 |
| Abraham Lincoln School. | 9 | 34 | 43 |
| Bennett School. | 8 | 27 | 35 |
| Bigelow. . | 121 |  | 121 |
| Donald McKay. | 35 | 37 | 72 |
| Frank V. Thompson. | 36 | 148 | 184 |
| Gaston School. |  | 21 | 21 |
| Grover Cleveland School. | 7 | 24 | 31 |
| Henry L. Pierce | 8 | 28 | 36 |
| John Winthrop School. | 14 | 51 | 65 |
| Joseph H. Barnes School. | 83 | 82 | 165 |
| Lewis School. | 38 | 73 | 111 |
| Mary Hemenway School. | 17 | 41 | 58 |
| Michelangelo School. |  | 38 | 38 |
| Norcross School.. |  | 43 | 43 |
| Oliver Wendell Holmes School. | 48 | 73 | 121 |
| Robert Gould Shaw School. | 9 | 27 | 36 |
| Shurtleff School. |  | 35 | 35 |
| Theodore Roosevelt School. | 37 | 58 | 95 |
| Washington Allston School. | 14 | 45 | 59 |
| Washington Intermediate School. | 31 | 97 | 128 |
| Washington Irivng School. | 15 | 83 | 98 |
| Total in High Schools . |  |  | 8,890 |
| Total in Ninth Grade Intermediate Schools. |  |  | 1,595 |
| Clerical and Continuation Schools |  |  | 1,698 |
|  |  |  | 12,183 |

## Tabulation III.

Tabulation III represents the number of boys and girls taking commercial subjects by subject in high schools and ninth grade intermediate schools, including the Clerical School and the Continuation School. The grand total for this chart is 28,382 . This grand total, however, does not represent different pupils. It is possible for a pupil to take two or more commercial subjects and in that instance the pupil would be counted two or more times.

| Subject. | High Schools. |  |  | Intermediate Schools. |  |  | Boston Clerical School. |  | Continuation School. |  |  | $\begin{aligned} & \text { Grand } \\ & \text { Total. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys. | Girls. | Total. | Boys. | Girls. | Total. | Girls. | Total. | Boys. | Girls. | Total. |  |
| Stenography I | 665 | 1,673 | 2,338 |  |  |  | 282 | 282 |  |  |  | 2,338 |
| Stenography II. | 325 | 924 | 1,249 |  |  |  |  |  |  |  |  | 1,249 |
| Stenography III. | 37 |  | 37 |  |  |  |  |  |  |  |  | 37 |
| Typewriting I. | 814 | 2,132 | 2,946 |  |  |  | 330 | 330 | 197 | 244 | 441 | 3,717 |
| Typewriting II. | 341 | 1,184 | 1,525 |  |  |  |  |  | 51 | 11 | 62 | 1,587 |
| Typewriting III. | 23 | 35 | 58 |  |  |  |  |  |  |  |  | 58 |
| Clerical Practice or Bookkeeping I | 1,473 | 2,563 | 4,036 | 430 | 1,062 | 1,492 |  |  |  | 142 | 142 | 5,670 |
| Bookkeeping II. | 1,146 | 2,032 | 3,178 |  |  |  | 137 | 137 |  | 23 | 23 | 3,338 |
| Bookkeeping III. | 441 | 648 | 1,089 |  |  |  |  |  |  |  |  | 1,089 |
| Bookkeeping IV | 170 | 202 | 372 |  |  |  |  |  |  |  |  | 372 |
| Merchandising I. | 261 | 228 | 489 |  |  |  |  |  |  |  |  | 489 |
| Merchandising II. | 24 | 23 | 47 |  |  |  |  |  |  |  |  | 47 |
| Merchandising III | 19 | 37 | 56 |  |  |  |  |  |  |  |  | 56 |
| Salesmanship I. | 92 | 140 | 232 |  |  |  |  |  | 205 | 68 | 273 | 505 |
| Salesmanship II | 21 | 144 | 165 |  |  |  |  |  | 79 |  | 79 | 244 |
| Commercial Law. | 504 | 686 | 1,190 |  |  |  | 149 |  |  |  |  | 1,339 |
| Salesmanship III |  | 47 | 47 |  |  |  |  |  |  |  |  |  |



While the mechanical side of commercial education, that is, skill in operation of machines, recording of facts and commercial arithmetic, have not been neglected, commercial education in Boston has placed increasingly greater emphasis on the executive and planning requirements of business. Leaving out the executive and administrative requirements, commercial education is fundamentally concerned with the following five operations:

1. Writing or recording
2. Comparing or checking
3. Rating, costing, pricing or coding
4. Figuring or proving
5. Sorting or assembling.

All commercial functions outside of administrative and executive work come under the preceding classification, and the work in the office and the commercial instruction in the school are divided accordingly.

With the new emphasis on administrative and executive instruction, however, the Boston high schools have for years instituted courses in business organization, merchandising and accounting. These courses in addition to the four-year technical commercial subjects include the following groups:

1. Courses dealing with the physical environment of business.
2. Courses dealing with the social environment of business.
They include industrial history, history of commerce, economics, commercial geography, commercial law, business English, salesmanship or merchandising, and commercial organization. The introduction of these commercial courses has naturally divided the work into four sections:
3. Stenographers - secretarial
4. Bookkeepers - accounting
5. Clerks - office practice
6. Salesman - store service and merchandising.

Commercial education in Boston has not limited the scope of its ambition to turning out clerks and office workers. The work has been sufficiently thorough and technical to enable the pupils to make immediate application of it in keeping books or doing work in shorthand and typewriting. Yet it has also aimed at something far more significant than this. It has put the young man and young woman into intelligent
sympathy with the vast business world around them. It has been liberalizing, educational and calculated to call out of the student his best mental powers. It has never lost sight of pedagogical principles, nor has it been unmindful that the first duty of any educational system or course of study should be the unfolding of the mental powers of the child.

Commercial education must produce intelligent citizens who can deal with the problems that face this nation. It must contain those studies, and follow methods that will appeal to the citizenship and character side of the pupil. It must develop business men rather than office workers and clerks.

> Commercial Education, Present and Future. By Raymond G. Laird, Head Master, Boston Clerical School.

In accordance with the authorization of the School Committee granted at their meeting of March 5, I spent two weeks in making a rapid survey of commercial education in the cities of Worcester, Providence, New Haven, Brooklyn, New York City, Philadelphia, Pittsburgh, Cincinnati, Detroit, Fordson, Mich., Cleveland, and Buffalo.

The object of the trip was to learn (after the phenomenal growth in recent years in this branch of education) whether in view of all the circumstances it might appear that training for business has reached its height and that such training is likely to become stationary or to resurge in the future; to ascertain if, in those cities, there were noteworthy achievements or experiments, the knowledge or adopton of which might be valuable to Boston schools; and to obtain an understanding of how commercial education, as conducted in the Boston school system, compares with that of the cities named. It was assumed that the schools in those twelve cities represented a fair cross-section of organized commercial instruction in the eastern portion of the United States.

My visits led me to the headquarters of six boards of education, to thirteen high schools, one continuaton school, and one private school. Also I had lengthy conferences with four city directors of commercial education, while a contemplated visit with a fifth one was prevented by his illness.

The result of careful inquiry leads to the conclusion that pupils undertaking commercial studies in almost every school
are steadily increasing in number, and in anticipation of a continuance of this growth, school boards are making plans for their accommodation.

It is quite generally believed that the fitness of those electing the commercial program is steadily improving. This is probably due to the fact that many not suited to it are being interested in some of the recently introduced courses of technical training. The proportion of those who persevere until graduation is increasing.

In the Commercial High School of Providence there is the most extensive system for ranking pupils, according to their intelligence, with which I have come in contact. The pupils of each school year are divided according to their I. R. and their achievement rating, which creates a number of sections for each term of a subject, grading from the superior to the poorest. The school day being divided into eight periods, it is possible for all the classes of one phase, say, second term English, fourth term shorthand, etc., to recite simultaneously, thus making it convenient to transfer individual pupils of any term of a subject from group to group until their proper place is found, which is accomplished without interfering with the remainder of a pupil's daily program. The principal states that the scheme has been most advantageous, but it is a matter of speculation what will happen when the school adopts the standard six-period day next September.

New Haven is conducting classes in telephony. This is the first definite achievement of what is generally recognized as a very much needed feature of instruction. The equipment, while rather inadequate, employs a number of telephones about the classroom which are operated through a P. B. switchboard. A very complete book of instructions is used, which is provided by the Southern New England Telephone Company and written by an employee of the company. The results obtained from this instruction appear to me to be very valuable.

The Girls' Commercial High School of Brooklyn faces two problems, the solution of which is causing the woman principal not a little anxiety. The building, with seats for about 2,800 , has an enrollment of six thousand girls, necessitating the division of the membership into four groups, each coming to school at a different time of the day, which extends the school day for the group coming latest to about $5.30 \mathrm{p} . \mathrm{m}$. The
securing of suitable employment for the great grist of graduates is a task that is accomplished only with increasing difficulty.

At the department of commerce of the Central High School in Philadelphia, each pupil in his senior year is required to prepare a thesis on some topic of materials of commerce and industry, commercial geography and commercial relations, transportation problems, banking, finance and business, survey of commercial activities of the past two years, economic history and government activities, etc. Under direction of a teacher the pupil consults the best sources of information in libraries, in public documents, and in the literature of various trade bodies. Very frequently his search for material will lead him to an exploration of the Commercial Museum or to visits to places of trade, finance, or manufacture. When the essay becomes acceptable, it is bound and indexed, and becomes a part of the library of the school, where there is frequent reference to it by pupils in geography of commerce, history, economics, etc. There have been instances where applicants at the Philadelphia Commercial Museum have been referred to the school for information on specific topics beyond what the museum had obtained.

In Cincinnati where cooperative studies have been tried for a number of years, with two weeks in school and two weeks in store, the plan is being discontinued.

The Detroit Hígh School of Commerce, in addition to its regular four-year course of study, offers a course of two years' duration which is but little less narrow than the two-year intensified course that was given a short trial at the Roxbury High School. It is not held in high esteem by the teachers and the school authorities.

The Detroit High School of Commerce ties up with the printing needs of the Board of Education through the employment of its multigraphs and mimeographs. Millions of sheets are printed. The extensive variety of cards, similar to those used by the Boston schools, are run off. School documents and prospectuses, with eighty or more pages, are neatly printed and with appropriate covers are bound by stapling machines.

A teacher's position is relatively secure in Detroit, but it is no sinecure. The indolent, indifferent, incapable or worthless teacher is readily disposed of. At the close of a school year should a teacher receive the mark of "D," he is
placed on probation and transferred to a different school, where, if he receives a " $D$ " at the end of the year, his connection with the school department ceases.

After visiting three schools in Detroit and observing the teachers with a view of determining the effect such a regulation might have, I concluded I had never seen an equal devotion to classroom work or as much an inclination to regard the "free period" as one belonging to the school, during which only school matters should receive attention.

The Detroit High School of Commerce offers a year of post-graduate commercial work. In no other school was there any provision made for pupils who had received diplomas from the commercial course but were inadequately trained for office work, or for graduates of normal, classical, or technical courses who felt that commercial life offered them greatest opportunities.

When the curricula of the Boston Clerical School was outlined to the school men and they learned of the high standards maintained, they were amazed at the generosity of Boston in making such a provision for worthy young people, who in other cities are obliged to patronize private schools before they are prepared for self-support.

At every school I received a hearty welcome. Every facility, in the nature of information, literature, opportunity to observe classroom practice, and conferences with teachers and officials, that would be of assistance to me, was freely provided. My time was as much occupied in explaining the work of the Boston system as in acquiring a knowledge of theirs. All school people warmly approved of the plan of dispatching an envoy, and commended the Boston School Committee for their enterprise in sending one.

At every turn there was assurance of the highest regard for our educational achievements. They wonder at our many high schools and their enormous enrollment of pupils in proportion to our population. They marvel at the numbers that are educating for business life, for Boston traditions have generated in their minds the idea of the classical instead of the commercial.

What I observed in my visits was more or less in harmony with my personal beliefs. In order that these observations and opinions may be of assistance to those on whom rests the responsibility of deciding to what extent our commercial
training is adequate, it may not be inopportune to offer a few general statements and present some of the statistical material that has come to my attention. While personal opinions may merit a certain amount of confidence, the most convincing evidence is that which is obtained from the complete and accurate data compiled by unbiased experts. The several tables and graphs will doubtless be of interest to commercial teachers, as it is improbable that much material of this nature comes to their attention, and this was uncovered only as the result of considerable research.

While there are many small concerns whose offices have fewer than ten employees, at the other extreme are gigantic industries each employing many hundreds of clerical workers. The stupendous quantity and the high quality of the output of these industries would be impossible without the use of the most modern machines. Inventors are urged to exert their utmost skill to produce machines that are as nearly automatic as is possible and requiring a minimum of human attention. Usually these machines can be operated by an unskilled class of persons who readily learn their simple duties and in a few days attain top output. This tends toward a lack of permanency in employment, for, when there is a dropping off in the demand for the product of a machine, the employer feels slight responsibility in retaining the worker, as a new worker can be trained promptly and cheaply for the job when occasion requires, or the worker, when tiring of operating a particular machine or actuated by some other motive for leaving his task, has little hesitancy because he has faith in his ability to find a new one and to learn quickly its operations.

If office methods had remained stationary the growth of "big business" would have been slowed down or, possibly, stopped. The number of clerks required over those at present found sufficient, with the several times additional space needed by them, would have placed an unbearable expense on many businesses. Wonderful inventions have been made to assist in the performance of office details, business has promptly adopted them, and certain demands have been made on the schools to train young people for their operation.

The special functions of commercial education in a high school are generally regarded as twofold. The first is to instruct in those fundamental principles of business that are useful to all and essential to any person in the successful
organization and management of his own business, to train the logical faculties of a student, and to awaken a critical and analytical attitude of mind toward his business surroundings. The second is to give the pupil such a training for some activity of a business that he may obtain lucrative employment, which not only extends to him satisfactory promotional opportunities, but in which he may either substantiate or refute the instruction received in the studies of the first objective.

The first aim, therefore, is to educate for business, and the second is to secure employment where commercial contact may be enjoyed and business experience may be gained. These aims have for their objective that business acumen combined with the results of thrift which may achieve worthy business success.

The St. Louis board of education apparently having these objectives in view has made the following statement of the aims of commercial education in the high schools of that city:

1. To acquire the specific knowledge and skill necessary for success in business occupations.
2. To acquire practical, technical skill in the operation of the typewriter, and other office machines in general use.
3. To acquire the knowledge and skill necessary for success in stenographic and secretarial work.
4. To acquire the fundamental principles of bookkeeping and accounting procedure.
5. To obtain a knowledge of technical business forms.
6. To gain the ability to analyze and interpret forms.
7. To acquire basic and exploratory knowledge of selling and advertising.
8. To gain a knowledge of the legal procedure applicable to common business transactions.
9. To acquire a knowledge of production, marketing and finance.
10. To acquire a knowledge of the prevailing forms of business organization and methods of administration.
11. To acquire a knowledge of world conditions directly affecting trade and industry.
12. To develop the ideal of service to society and a knowledge of desirable procedure in human relationships in business.
13. To obtain a knowledge of opportunities and conditions in the occupations for which training is given in the commercial curriculum.
14. To form habits of neatness, accuracy, and systematic procedure desirable in the performance of the business duties.
15. To develop a critical attitude in judging one's own performance and pride in work well done.
16. To realize the opportunities for fullest development of self in the commercial occupations.
17. To develop ideals for the improvement of commercial relations and procedure.
18. To appreciate the importance of good health, good citizenship, and the application of high ethical standards, as factors contributory to success.
19. To apply in the home, or wherever needed, the desirable knowledge, habits, ideals, and appreciaciation acquired through commercial training.
20. To develop and strengthen those qualities of mind and those habits which contribute to success in personal, social, and business life, with emphasis upon integrity, industry, initiative, self-reliance, loyalty and adaptability.
21. To gain a broad, general education and a thorough knowledge of business principles as a foundation for success in the higher types of business services.
Commerce and industry, history of commerce, business law, economics, banking, finance and insurance, salesmanship and advertising, office management, and business organization and administration are the subjects generally accepted as treating the fundamentals of business. The first five appear as offerings in School Document No. 17-1926, Provisional Curricula for General High Schools-Boston. Commerce and industry which is there named commercial geography is the only one that is required of all commercial course pupils, and is placed in the eleventh grade. The other four are left to the inclinations of the several head masters. Retail selling is represented in the merchandising course and is specifically directed toward
store service, and is not intended to cover the wider range recognized under the title of salesmanship.

Criticism is frequently directed at high schools in general that instruction in business is neglected. Undeniably those of Boston are placed on the defensive, for, except in business law, which has a strong representation, there is relatively nothing done. Several factors have produced this situation, the most important being the liberality of election of studies. In the eleventh and twelfth grades physical education, English, and one major are required and the remaining hours of work, constituting more than half, are left to the choice of the pupils. It is needless to specify them or to comment on the various reasons that influence young people in their choice of studies, except to give rather extended attention to election of bookkeeping and of shorthand with typewriting.

Teachers are censured for urging pupils to take up these subjects, since there is always a supply of bookkeepers and stenographers in excess of the demand. This is unjust in a large measure, for there are more cogent reasons than the advice of a teacher that decide the choice of these subjects. The pleasure that older pupils find in the study of them and the advice of people in employment who have pursued the study of these subjects are the principal deciding factors. Parents and relatives frequently decide years before the pupil reaches the secondary school that these subjects shall be studied. In very many humble homes there is as keen enjoyment when the boy or girl has completed these subjects as is experienced in the homes of the more fortunate when the son or daughter receives the college diploma. In all probability many who study shorthand but engage in some other occupation, either because their preparation was inadequate or because they were unable to find a position, regard their shorthand training as an accomplishment and, instead of viewing the time spent as wasted, experiencing little or no regret, recommend the study to their friends.

In a recent report, Harvard Bulletins in Education, No. XII, setting forth the results of a study of 4,336 clerical workers in fifty-four concerns in thirty-one cities of fifteen states and Canada, a considerable number stated they were taking improvement courses. These were set down as engaged in twenty-six different kinds of office trades, but did not include bookkeepers and stenographers. While the numbers were not
indicated in this particular table it is apparent that from two to three times as many were taking shorthand, typewriting, bookkeeping, and business English as were studying office practice, business management, calculating machine operation, business law, salesmanship, and economics. In spite of the claim that too many bookkeepers and stenographers are being turned out by the schools, it seems significant that these young people, who in their daily employment were constantly touching elbows with bookkeepers and stenographers, deemed it advantageous to utilize part of their after-work time in endeavoring to qualify themselves for those overcrowded fields.

In 1920 the Federal Board of Vocational Education in Bulletin No. 54 made this report on a Milwaukee survey:

General, as well as technical educational requirements for entrance into commercial positions, are reaching higher standards. Applicants for such positions are confronted by the question: "What can you do? What education and preparation have you had?" In Milwaukee employers of office help favor young people who are 17 or more years of age and who have had a full, or at least part, high-school education. Unfortunately there are not enough secondary-school graduates to supply the demands of business. Economic reasons compel thousands of worthy and ambitious boys and girls to leave the elementary schools to find employment.

In Milwaukee there are approximately 1,067 boys and girls between the ages of 14 and 17 years who are doing office work (mostly in small offices). Only a very small number have had some high-school training. About 200 have taken business courses, either in high schools, continuation, or private business schools. All of these boys and girls are attending the part-time continuation school. Fully 90 per cent of them are following courses of study intended to advance them in their commercial work.

It will be noticed that only about $5 \frac{1}{2}$ per cent are doing actual bookkeeping work, and only 11 per cent are doing stenographic work, proving that, as a rule, young boys and girls are not employed for such work.

In reply to the question, "What must you know, learn, or do to advance yourself in your position?"

951 boys and girls under 17 , who are now commercially employed, responded. The replies are grouped as follows:

| Bookkeeping | 158 | Stenography | 302 |
| :---: | :---: | :---: | :---: |
| Billing-machine operating. | 12 | Calculating machine . | 44 |
| Multigraph operating . | 1 | Addressograph operating. | 1 |
| Dictaphone operating | 2 | Telegraphy | 5 |
| Filing | 12 | Bookkeeping-machine operating, | 3 |
| Telephone operating | 6 | Selling | 40 |
| Shipping-clerk work. | 3 | Time keeping | 8 |
| Cost-clerk work | 15 | Mail-clerk work | 4 |
| Advertising. | 3 | Buying. | 4 |
| Business law | 3 | Banking. | 5 |
| Cashier. | 3 | Checker. | 4 |
| General clerical. | 25 | English. | 99 |
| Penmanship. | 86 | Spelling | 44 |
| Arithmetic. | 44 | Correspondence... | 15 |

The fact that about 50 per cent call for bookkeeping and stenography may be due to a lack of opportunity to pursue other courses; to a lack of knowledge that other kinds of office work offer as much pay and advancement as bookkeeping and shorthand, or because the false notion prevails among many young folks (old folks, too) that bookkeeping and stenography lend more dignity, refinement, and respect to a position. They look with disdain upon general clerical work, machine operating, retail selling, etc.

English in some form is called for by about 30 per cent. This is significant.

In a general way it may be stated that more time can profitably be given to the teaching of the essentials of English, arithmetic, penmanship, general clerical work, filing, and machine operating, rather than to technical bookkeeping and stenography, especially when the educational background does not equal at least a high-school education.

If the Milwaukee survey was at all representative of the conditions of the country at large, we may conjecture that the "disdain" for general clerical work has grown less during the period since the above report was issued. Recent data indicate the numbers employed in this branch as increasing. It is the logical work in offices for high school graduates who have made no study in preparation for business. The scope of clerical practice remains undefined. It places a premium on the high personal qualifications and leaves the nature of
the service to be performed largely to some outstanding characteristic or ability of the clerk or to the exigencies of the office. It is an explorative job. It presents opportunities for advancement, and it provides eager and excellent candidates for night and continuation school classes.

RELATIONSHIP BETWEEN PRESENT POSITION AND PROMOTIONAL OPPORTUNITY.*

| Office Trades. | Number Reporting. | Opportunity for Advancement. |  |
| :---: | :---: | :---: | :---: |
|  |  | Yes. | No. |
| Primary. |  |  |  |
| Correspondent. | 74 | 85 | 15 |
| Dietating machine operator | 96 | 78 | 22 |
| Calculating machine operator. | 251 | 46 | 54 |
| Bookkeeping machine operator | 40 | 64 | 36 |
| Typist. | 514 | 42 | 58 |
| Multigraph operator | 37 | 80 | 20 |
| File clerk. | 457 | 40 | 60 |
| Sfcondary. |  |  |  |
| Ledger clerk. | $\dagger$ | 27 | 73 |
| Statistical clerk | 64 | 71 | 29 |
| Cost clerk. | 143 | 66 | 34 |
| Billing clerk | 69 | 76 | 24 |
| Shipping clerk | 45 | 60 | 40 |
| Cashier.... | 45 | 87 | 14 |
| General. |  |  |  |
| Pay roll clerk. | 137 | 56 | 44 |
| Timekeeper. | 57 | 20 | 80 |
| Stock clerk | 79 | 59 | 41 |
| Receiving clerk | 64 | 44 | 56 |
| Miscellaneous. |  |  |  |
| Adding and listing machine operator | 61 | 43 | 57 |
| Addressograph operator. | 769 | 39 | 61 40 |
| General clerk Hollerith machine opera | 299 | 60 | 40 |
| Inventory clerk..... | $\dagger$ | 50 | 50 |
| Mimeograph operator | 7 | 33 | 67 |
| Crder clerk.... | 129 | 64 | 36 |
| Price clerk | 34 | 52 | 48 |
| Median for all. |  | 56 | 44 |

[^49]The above table from Harvard Bulletins, Number XII, concerns about three thousand workers. It discloses the optimism of general clerks, who comprise one of the four large groups. In contrast, calculating machine operators, typists, and file clerks have much less expectation of advancement. The machines, because of their noise, are usually relegated to the farthest corners of the office, or to outer rooms, and the
bulky files are grudgingly placed in the office, if allowed there at all, while most of them are frequently placed in the basement. The duties of these three classes of clerks call for very little communication with those of high position and are accompanied with the apprehension that the workers may be overlooked.

Another factor which contributes to the neglect of fundamental business subjects is the early and abiding insistence on the part of many educators that certain studies, which have little or no value in the preparation and careers of our commercial pupils, be included in the commercial program. Often where those subjects are not "required" the curriculum is so planned as to almost insure their inclusion as electives, or the urgency in their support, which is started in the lower grades, decides their selection. However, too frequently, they occupy a place in the pupil's program thereby crowding out subjects that possess undisputed worth in business education.

Another influence has been the persistent and widespread theory of mental discipline. According to this belief there are certain studies which are peculiarly fitted to train the mind to greater power, even though these have little practical value in themselves, in either a vocational way, or in giving a stock of cultural ideas and appreciations. Latin and mathematics occupy prominent places in all secondary school curricula, because of a general belief in their value as agents of mental training. This is illustrated by the fact that in almost all high schools mathematics is a prescribed study for girls as well as boys, although the former will very rarely follow the subject up and apply it either to vocational or cultural stages.

- Dutton and Snedden.

The conception of discipline that is ordinarily current seems to this writer to be misleading and dangerous. In spite of the very clear findings of educational psychology, the view is still common that one of the chief values of education is to be found in the cultivation of such mythical powers of the mind as reason, attention, imagination, discrimination and the like.

The fallacy in this point of view lies in the fact that there is no all-round ability to reason, or to attend, or to imagine, or to discriminate. A pupil may very well learn a lesson in mathematics and fail in history; he may cultivate a vivid imagination in literature and acquire no skill in projecting a plan in carpentry, or for seeing a result in physics. Further than this, when he graduates from high school and goes out into life, his reasoning ability, his imagination, his discrimination, acquired in his school tasks may be little in evidence in the office, the shop, or the factory.

However, it would be wrong to assume that the discipline gained through study has no value in after life. Frequently, doubtless, it has great value, but just how extensive this value is in any given case, and how it will manifest itself, is a matter so difficult to predict that mental discipline should never be made the sole or principal aim of teaching. . . Probably in no subject in the high school curriculum are materials which are presented in the form of problems, less real incentives to thinking, than in geometry.
-S. S. Colvin, "An Introduction to High School Teaching."

The majority of business or professional callings require no algebra, geometry, or trigonometry, and even the professions which use those subjects do so to a much smaller extent than is generally supposed. Only for those few men who become original designers and investigators is true mathematical skill and knowledge indispensable. If mathematics, however, had no value as a mental discipline, its teaching in the secondary schools could hardly be justified solely on grounds of its bread-and-butter value.

- A. Schultze,"The Teaching of Mathematics in Secondary Schools."

The values of secondary school mathematics (or some parts of it) are undoubtedly for some parts of certain professions. They are, however, less than is commonly thought and must be considered as highly contingent for most pupils.

The values of the study of certain foreign languages for commercial use has been readily accepted as valid by the school public and by school authorities, who have, however, frequently failed to recognize that commonly such values are highly limited and highly contingent. They have failed commonly to appreciate the fact that bilingual men and women in this country are in plentiful supply in the great majority of instances and that the smattering of German, French, or Spanish gained in the secondary school does not enable the individual so equipped to compete on anything like equal terms with the German-American, the French-American, or the Spanish-American. Whether or not this be accepted as a fact it must be recognized that the annual increase of the number of those added to the commercial population who utilize German, French, or Spanish is relatively small - small out of all proportion to the number of those who leave our secondary schools equipped with some knowledge of one or more of those languages. That as high as five per cent of the pupils in the public secondary schools should study a foreign language for commercial or vocational purposes would probably be a gross over-estimate.

- A. Inglis, "Principles of Secondary Education."

As the result of an extensive study and experiment which he made of the mental discipline obtainable from high-school studies, Thorndike decided that "the facts . . . prove that the amount of general improvement due to studies is small; that the differences between studies in respect of it are small, so that the studies may be decided largely by consideration of the special training which they give."

As a conclusion from the foregoing we may with advantage omit mathematics and foreign languages from the commercial curriculum where they doubtless occupy an average of onefifth of the recitations, thereby leaving places for subjects that may be determined to have a more direct relation to the aims of the course. An objection, however, will be met, for such a program will prevent the girl or boy from going to college. Preparing for college and training for business are entirely different propositions and the course of study that attempts to do both fails in satisfactorily equipping in either.

The only practical solution where a boy or girl has started a definite course for college or for business, and then decides the other is preferable, is to switch over and accept the results of lack of judgment, information, or whatever caused the mistake.

Assistant Superintendent Charles H. Lake of Cleveland summed up the situation somewhat in these words, "If I am uncertain whether I want to go to New York or Chicago, and take a west-bound train and later decide that New York should be my destination, I have no alternative but to charge up loss of time and money and credit experience. It is a rule of life that mistakes are expensive, and securing an education is no exception."

The number of pupils who complete commercial courses and then go to college are few. In the past ten years 2,157 boys and girls graduated from Longwood Commerce High School of Cleveland, 139 of whom entered twenty-five colleges, twentyone going to colleges with courses of less than four years. Twenty have graduated, twelve of them from less than fouryear courses and eight from full-time colleges. Of the fortynine who left, forty-seven were in the four-year courses. Less than four per cent of the graduates of that school, which takes pride in the advantages it offers pupils who desire to combine college preparatory and business, have graduated from college or are still attending.

The 1926 annual report on statistics of labor of the Commonwealth of Massachusetts presents a most complete and illuminative exhibit. The following general statement, table and chart are taken from the part representing Boston, by consent of the Department of Labor and Industries.

Quite naturally, wherever any kind of business is transacted, office workers of some description will be found. This survey, however, was confined to those cities or districts in which a relatively large number of persons were engaged at such employment. In Boston, the leading business center of the State, are found offices of nearly every description, "home offices" of various types of establishments, headquarters for nearly everything bought and sold, not only in Boston but in New England, many very important manufacturing establishments within its immediate confines, and public services and utilities necessary to the proper functioning of a city of such size and importance.

Thousands of those who find regular employment in Boston reside outside of the city limits. The cost of commuting, the code of the business world requiring more attention to personal appearance, the generally higher standard of living, etc., in a large city, are reflected in higher wages and salaries paid those employed therein. Of the 1,075 establishments reporting, 480 were in Boston and represented 14,146 office workers, of whom 5,366 were males and 8,780 were females. The returns from these establishments in Boston may be considered fully representative of office employment in that city, as they include in addition to 152 miscellaneous offices employing 2,252 persons, average 15 , the following relatively important groups: 199 dealers and sales agencies, employing 3,037 employees, average 16 ; nine public service corporations, employing 2,993, average 333; 10 banks and trust companies, 2,473 , average 247 ; 87 manufacturing establishments, 1,940 , average 22 ; and 23 insurance companies, 1,441 , average 63 .

It was found advisable to group together those occupations quite generally of a similar character, and accordingly four office "Sections" were decided upon, as follows: "Clerical"; "Stenographic"; "Accounting and Bookkeeping"; and "Office Appliance"; the latter section including those employees engaged solely or largely in operating office appliances commonly used throughout offices, but not identified with any one branch or office section. At the end of Table I, Boston, are summarized the complete returns from 480 establishments in Boston employing office workers, showing the data by office sections and sex thereunder, and segregated by the number receiving salaries classified in twelve salary groups, as follows: "Less than $\$ 14$," then by two-dollar salary groups to $\$ 22$, " $\$ 22$ but less than $\$ 25$," by five-dollar salary groups to $\$ 50$, and then the " $\$ 50$ or over" group. In addition to the actual numbers, percentages have been computed so as to show the representation by employees in each salary group.

The summary data for the complete returns as given in Table I are presented in graphic form in the chart. Plate A is based upon the actual data, by
sex, so as to better illustrate the relative number of males and females employed as office workers and the number of each sex coming within each of the stated salary groups; thus, a picture of office employment is presented by this chart. Each bar represents a salary group, and the variation in spacing between the bars is intended to show that the class intervals are not equal. The group including those receiving " $\$ 50$ and over," while not directly comparable with the others, is shown in order to complete the chart. Plate $B$ shows the percentage representation of males and females respectively, in each salary group, as compared with the total males and females, respectively, and illustrates the relative grouping of men and women, in so far as salaries are concerned.

It is immediately apparent from a study of Table I and Chart I, that many more women than men were employed as office workers, and also that a large majority of the women so engaged received salaries of less than $\$ 30$ per week. In the lower salary groups the females greatly outnumbered the males; for instance, about six times as many females as males were included in the groups " $\$ 16$ but less than $\$ 18$ " and " $\$ 20$ but less than $\$ 22$." In the " $\$ 25$ but less than $\$ 30$ " salary group, the females outnumbered the males more than two to one. Although the complete returns indicated a ratio of five females to three males employed as office workers, beginning with the " $\$ 30$ but less than $\$ 33$ " salary group, the males were found to outnumber the females, more particularly so as the salary ratings became higher, until, in the " $\$ 50$ and over" group, the males outnumbered the females seventeen to one.

Plate B, although somewhat similar in general outline to Plate A, illustrates another phase of office employment. It will be noted that in each of the seven lower salary groups the percentage of the total number of females was greater than the percentage of the total males, but that, beginning with the group representing salaries of $\$ 30$ or more, the reverse was true. In the group " $\$ 25$ but less than $\$ 30$ " the percentage of females was only a little greater than the percentage of males.
TABLE I．－－BOSTON（480 Reports，Representing 14，146 Office Employees）．

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TABLE I．－BOSTON（4S0 Reports，Representing 14，146 Office Employees）．－Continued．

| Occupations，by Sex （By Office Sections）． | Number of Office Employees Receiving，per Week－ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \dot{0} \\ & \dot{5} \\ & \dot{0} \\ & \text { ó } \\ & 0 \\ & 0 \end{aligned}$ |  |
| Junior stenographers： Males． Females | $\overline{3}$ | ${ }_{15}^{2}$ | $\overline{19}$ | 1 48 | $\overline{78}$ | 1 119 | 1 79 | $\overline{12}$ | 6 | 二 | 二 | 二 | 5 379 |
| Stenographer－bookkeepers： Males． Females | 1 | 1 | $\overline{11}$ | $\overline{24}$ | $\overline{15}$ | $\overline{33}$ | 1 33 | $\overline{12}$ | 1 4 | 1 | $\bigcirc$ | 1 | ${ }_{13}{ }^{2}$ |
| Stenographer－clerks： Males Females | $\overline{8}$ | $1{ }^{1}$ | 1 4 | 54 | 78 | 6 112 | 97 | 5 23 | 3 3 | $\overline{1}$ | － | － | 26 427 |
| Stenographer－typists： Males． Females | $\overline{18}$ | 1 27 | 1 42 | 97 | 2 98 | 127 | －${ }^{2}$ | $\overline{27}$ | －2 | $\overline{1}$ | 1 | － | 7 572 |
| Dictating machine operators： <br> Males． <br> Females | 二 | $\overline{7}$ | $\overline{7}$ | ${ }_{12}^{1}$ | $\overline{23}$ | $\overline{32}$ | $\overline{46}$ | 7 | 1 | － | － | － | 135 |
| Typists（regular）： Males． Females． | $\begin{array}{r} 1 \\ 50 \end{array}$ | $\begin{array}{r}4 \\ 8 \\ \hline\end{array}$ | $\begin{array}{r} 4 \\ 73 \end{array}$ | 134 | 104 | 75 | $7{ }^{1}$ | $\overline{5}$ | 二 | 二 | － | － | $\begin{array}{r}14 \\ 599 \\ \hline\end{array}$ |
| Totals，all occupations： Males． Females． | $\begin{array}{r} 1 \\ 80 \end{array}$ | $\begin{array}{r} 8 \\ 152 \end{array}$ | 187 | 8 376 | 3 422 | 9 572 | $\begin{array}{r} 19 \\ 770 \end{array}$ | $\begin{array}{r} 22 \\ 245 \end{array}$ | 12 <br> 90 | 8 24 | $\begin{array}{r}4 \\ 16 \\ \hline\end{array}$ | 13 12 | $\begin{array}{r}113 \\ 2,946 \\ \hline\end{array}$ |
| Both sexes combined． | 81 | 160 | 193 | 384 | 425 | 581 | 789 | 267 | 102 | 32 | 20 | 25 | 3，059 |


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TABLE I．－BOSTON（480 Reports，Representing 14，146 Office Employees）．－Concluded

| Occupations，by Sex （By Office Sections）． | Number of Office Employees Receiving，per Week－ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Office Appiance Section． | 16 | 29 | 1027 | ${ }_{49}^{15}$ | 1218 | ${ }_{42}^{28}$ | 43 <br> 7 | 41 | 二 | 1 | － | 二 | 159180 |
| Adding machine operators： Males．． Females |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Addressing machine operators： Males Females | 2 | ${ }_{9}^{1}$ | $\overline{11}$ | $\overline{17}$ | $\overline{15}$ | $\overline{11}$ | ${ }_{10}^{10}$ | $\overline{2}$ | 二 | 1 | 二 |  | $\begin{array}{r}4 \\ 7 \\ \hline\end{array}$ |
| Duplicating machine operators： Males． Females | 1 | 1 4 | $\bigcirc$ | $\overline{9}$ | ${ }_{3}^{1}$ | 3 1 | 二 | $\bigcirc$ | 二 | 二 | 二 | 二 | 6 19 |
| Multigraph operators： Males． Females | 2 | $\stackrel{1}{8}$ | $\bigcirc$ | 7 | $1{ }_{10}^{1}$ | $\overline{7}$ | $\begin{aligned} & 1 \\ & 4 \end{aligned}$ | $\stackrel{1}{5}$ | 1 | 二 | 二 | 二 | ${ }_{47}^{6}$ |
|  | 二 | 7 | $\checkmark$ | $\underline{2}$ | $\overline{2}$ | $\checkmark$ | ${ }_{15}^{15}$ | 1 | 二 | － | 二 | 二 | 4 3 30 |
| Tabulating machine operators： Males Females | $\frac{1}{6}$ | 14 14 | ${ }_{10}^{10}$ | ${ }_{16}^{2}$ | $\overline{6}$ | ${ }_{1}^{4}$ | 5 6 | 1 | 1 | － | 二 | － | $\begin{array}{r}17 \\ \hline 60 \\ \hline\end{array}$ |
| Totals，all occupations： Males Females | $\begin{array}{r}4 \\ 26 \\ \hline\end{array}$ | $\begin{aligned} & 13 \\ & 60 \\ & \hline \end{aligned}$ | $\begin{aligned} & 11 \\ & 57 \\ & \hline \end{aligned}$ | $\begin{array}{r} 17 \\ 100 \\ \hline \end{array}$ | $\begin{aligned} & 14 \\ & 54 \\ & \hline \end{aligned}$ | $\begin{aligned} & 35 \\ & 65 \\ & \hline \end{aligned}$ | 51 <br> 42 | $\begin{array}{r}44 \\ 9 \\ \hline\end{array}$ | 2 | 3 | 二 | 二 | 194 |
| Both sexes combined | 30 | 73 | 68 | 117 | 68 | 100 | 93 | 53 | 2 | 3 | － | － | 607 |


|  | 136 <br> 195 | 173 <br> 413 | 122 <br> 501 | 189 <br> 548 | 192 <br> 489 | $\begin{array}{r}277 \\ 569 \\ \hline\end{array}$ | 616 <br> 591 | 677 <br> 173 | $\begin{array}{r}387 \\ 70 \\ \hline\end{array}$ | $\begin{array}{r}253 \\ 40 \\ \hline\end{array}$ | 228 18 | 693 27 | $\begin{aligned} & 3,943 \\ & 3,634 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Both sexes combined. | 331 | 586 | 623 | 737 | 681 | 846 | 1,207 | 850 | 457 | 293 | 246 | 720 | 7,577 |
| Stenographic Section: Males. Females. | $8{ }_{0}^{1}$ | 152 | 187 | ${ }_{37}^{8}$ | 423 | 572 | 19 770 | 22 245 | 12 90 | 8 24 | 4 16 | 13 12 | 113 2,946 |
| Both sexes combined | 81 | 160 | 193 | 384 | 425 | 581 | 789 | 267 | 102 | 32 | 20 | 25 | 3,059 |
| Accounting and Bookkeeping Section: Males. Females | $\begin{array}{r}4 \\ 12 \\ \hline 18\end{array}$ | 96 | $\begin{array}{r}13 \\ 134 \\ \hline\end{array}$ | $\begin{array}{r} 10 \\ 187 \end{array}$ | $\begin{array}{r} 34 \\ 251 \end{array}$ | $\begin{array}{r}59 \\ 394 \\ \hline\end{array}$ | $\begin{aligned} & 160 \\ & 445 \end{aligned}$ | $\begin{aligned} & 245 \\ & 131 \end{aligned}$ | $\begin{array}{r}183 \\ 80 \\ \hline\end{array}$ | 118 25 | 69 16 | 215 16 | $\begin{aligned} & 1,116 \\ & 1,787 \end{aligned}$ |
| Both sexes combined | 16 | 103 | 146 | 197 | 285 | 453 | 605 | 376 | 263 | 143 | 85 | 231 | 2,903 |
| Office Appliance Section: Males. Females. | $\begin{array}{r} 4 \\ 26 \\ \hline \end{array}$ | $\begin{aligned} & 13 \\ & 60 \\ & \hline \end{aligned}$ | $\begin{aligned} & 11 \\ & 57 \end{aligned}$ | $\begin{array}{r} 17 \\ 100 \end{array}$ | 14 <br> 54 | $\begin{aligned} & 35 \\ & 65 \\ & \hline \end{aligned}$ | $\begin{aligned} & 51 \\ & 42 \end{aligned}$ | ${ }^{44} 9$ | $\underline{2}$ | - | - | = | $\begin{aligned} & 194 \\ & 413 \end{aligned}$ |
| Both sexes combined............. | 30 | 73 | 68 | 117 | 68 | 100 | 93 | 53 | 2 | 3 | - | - | 607 |
| Totals, all sections: Males. Females. | $\begin{aligned} & 145 \\ & 313 \\ & \hline \end{aligned}$ | $\begin{array}{r} 201 \\ 721 \\ \hline \end{array}$ | $\begin{aligned} & 151 \\ & 879 \\ & \hline \end{aligned}$ | $\begin{array}{r} 224 \\ 1,211 \end{array}$ | $\begin{array}{r} 243 \\ 1,216 \end{array}$ | $\begin{array}{r} 380 \\ 1,600 \end{array}$ | $\begin{array}{r} 846 \\ 1,848 \end{array}$ | $\begin{aligned} & 988 \\ & 558 \end{aligned}$ | $\begin{aligned} & 584 \\ & 240 \end{aligned}$ | $\begin{gathered} 382 \\ 89 \end{gathered}$ | $\begin{array}{r} 301 \\ 50 \end{array}$ | $\begin{array}{r}921 \\ 55 \\ \hline\end{array}$ | $\begin{aligned} & 5,366 \\ & 8,780 \end{aligned}$ |
| Both sexes combined | 458 | 922 | 1,030 | 1,435 | 1,459 | 1,980 | 2,694 | 1,546 | 824 | 471 | 351 | 976 | 14,146 |

Chart 1.
REPRESENTATION - MALES AND FEMALES IN OFFICE EMPLOYMENT, AS SHOWN BY
COMPLETE RETURNS FROM 480 ESTABLISHMENTS IN MASSACHUSETTS
Plate a PlateB.
Mumber of Males and Females in Each Salary Group. Percentages-Males and Females in Each Salary Group.
Males |Females


Nine-tenths of the total reported on, that is, 12,716 of these workers are performing services for which the bookkeeping or stenographic courses prepare wholly or in a large measure. Of the remaining 1,430 , less than 500 are engaged in operating special types of machines which are not in the equipment of our high schools.

Reference has been made to the criticism of teaching bookkeeping to so many when so few are employed under the name of bookkeeping. The January, 1928, number of "Spotlights on Commercial Education" contained the following:

## SHOULD BOOKKEEPING CONSTITUTE THE BACKBONE OF COMMERCIAL COURSES IN HIGH SCHOOLS?

The answer is Yes, because:

1. Bookkeeping gives, as does no other subject, a complete view of business activities. Every penny of income and expense must be recorded in the books; and all activities of the business, from those of the president to those of the office boy, are reflected in the books.
2. Good bookkeeping consists not in making a mere mechanical record of these transactions, but in making an intelligent record of them,- one which will clearly analyze and display the facts and their significance.
3. When bookkeeping is thus well done, it becomes an aid to the management in all departments, so that a man entering any line of business - manufacturing, selling, finance, or any other branch - is likely to have occasion to use figures prepared from the books. He should be able to judge whether the information has been correctly prepared and also what it signifies.
4. An increasing number of people are investing in business securities; it is essential that they be able to read and understand the published statements of business corporations if they are to make such investments intelligently.
5. Many men who do not earn their living as bookkeepers are called upon to keep records in connection with their social or other community activities.
6. Bookkeeping is a subject which, while acquainting the student with business practices, is capable of being developed in an orderly, logical way, so as to form a structure of consecutive reasoning.
7. In learning to analyze the results of business activities the student's attention is directed to the causes of success or failure in business; he is led to examine the reasons for the conduct of the various business heads, and connect those reasons with the results which follow. This is likely to stimulate his ambition and constructive imagination.
8. The study of bookkeeping inculcates habits of neat, orderly and careful work.

While other commercial subjects in the high school curriculum offer some of these advantages, there is no other subject that offers all of them.

Teachers of bookkeeping maintain that, in addition to the education it gives to bookkeepers, it provides the most available and satisfactory means for the development and training of those characteristics that are required in clerical and business occupations.

In securing material for the preparation of Harvard Bulletins No. XII, the questionnaires sent to fifty-four business organizations contained the request that the business managers state by name what, in their opinion, were the special requirements of twenty-one office positions. Four outstanding characteristics for each trade were selected from the replies, which are here listed according to their frequency: Accuracy, 20; Systematic habits, 15; Concentration, 13; Manual dexterity, 12; Co-operation, 10; Mental alertness, 7; Courtesy, 4, Willingness to assume responsibility, 2, Judgment, 1, Total, 84.

Accuracy, which is needed in twenty of the positions, is an outstanding aim in the teaching of bookkeeping. The pupil from the start is required to perform correct arithmetical computations, to make rulings of precise length, often exactly on a line already on the paper, to rule true vertical and horizontal lines, to write numerals of proper size in careful columnar arrangement, and to state concisely, yet definitely, the narrative of transactions. A small error in judgment or in figures, or a slight carelessness anywhere in the work, may not become evident until near the end of a set of books on which the pupil
may have spent several weeks. When it does come to the surface, as it is certain to do, its correction imposes a salutary penalty. The pupil early realizes that these difficulties can be avoided by resolute concentration. He forms systematic habits by keeping a well-sharpened pencil, by having at hand a good pen and holder, by taking home and bringing to class the necessary text, blanks, and supplies, and by performing a definite task for each lesson, which can be checked up readily by the instructor.

The manual dexterity wanted by office managers is the ability to write longhand well and make figures distinctly and rapidly, to strike the keys of typewriters and other key machines accurately and with relative speed, to have aptitude in operating and the making of simple adjustments of office instruments, and to possess dexterity in handling and sorting various card and paper record forms. Training and practice in all these desired characteristics are afforded in varying proportions by the various business studies, and it is believed that the results of them do carry over into the performance of office work.

The basis of the transfer or spread of improved efficiency is found in this law of dissociation or generalization. Just as a knowledge of sixness is acquired from experiencing its manifestation in six apples, six marbles, six men, etc., just as a knowledge of whiteness is acquired from experiencing its manifestation in white paper, white paint, white snow, white cats, etc., just as the meaning of number is acquired from experiencing its various manifestations in two objects, ten objects, etc., just as a concept of honesty is acquired from its manifestation in divers forms; just as a general principle of grammar, of mathematics, of science, of economics, is acquired by experiencing its manifestation in varying circumstances,- just so an idea of accuracy, and ideal of thoroughness, a concept of method, a habit of work, or the like, may be abstracted from its manifestation in varied fields and may be generalized on the basis of differing specific experiences. In all these cases the fundamental process is the same and the method of transfer or spread of improved efficiency is nothing more, nothing less, than the ordinary process of dissociation or generalization.

The Committee on Clerical Salaries of the Boston Chamber of Commerce prepared, under the title "A Workable Classification of Office Jobs," a nomenclature of office workers with the clerical and personal qualification required for each job. A study of this material would be useful to many teachers and to all young people expecting to undertake office work. It is of particular interest in connection with this report for it determines how nearly the commercial course of our schools meets the requirements of Boston offices. Only the title is given of those jobs that are manifestly outside the scope of our aims.

Class I - Stenographers, Dictaphone Operators, Typists. Class 1A. Secretarial Stenographers

Handles executive correspondence by dictation but often on own responsibility - carries on detail of administration work makes effective the policies of the executive. Administrative ability required.
Class 1B. Expert Stenographers
Expert knowledge of shorthand. Able to report meetings and conferences and write technical dictation. A limited knowledge of the company's business routine required ability to type with speed and accuracy.
Class 1C. Regular Stenographers, 1st Class
Good command of shorthand for every-day correspondence. Handles executive correspondence as dictated - ability to type with speed and accuracy - commercial or high school education preferred.
Class 1D. Regular Stenographers, 2d Class
Fair command of shorthand for every-day correspondence. Ability to type with medium speed and a tolerable degree of accuracy.
Class 1E. Dictaphone Typists
Able to transcribe dictation with speed and accuracy from dictaphone - no shorthand required. High School education or its equivalent required.

## Class 1F. Expert Typists

Clerks with ability to typewrite with high degree of accuracy and speed - or to do copy work of an involved and technical character with speed and accuracy - able to handle difficult tabulations and statistical work. High School education preferred.

## Class 1G. Regular Typists

Clerks with ability to typewrite the simplest forms of copy work with mechanical skill and accuracy - order writers form letter writers, etc. Beginners' knowledge of typewriting required.

## Class II - Bookkeepers, Ledger Clerks; Accountants, Statistical; Cost Figuring, Payroll Figuring.

## Class 2A. Bookkeepers, Senior

Clerks with knowledge of double entry bookkeeping and ability to keep general ledgers and controlling accounts; to prepare balance sheets and special reports involving current financial transactions; to keep intricate financial records. Special training and usually extensive experience required.
Class 2B. Bookkeepers, Junior
Clerks with ability to make simple entries of accounting information from one book or record to another; to balance and adjust accounts; take trial balance, make journal entries, prepare statements and bills and to compute, post, tabulate and compile data in connection with bookkeeping procedure. Must have knowledge of double entry bookkeeping and exercise limited degree of continuing judgment.
Class 2C. Ledger Clerks
Clerks with ability to post financial records from journals to ledgers; draw off trial balances; prove their postings and analyze simple accounts. Knowledge of double entry bookkeeping not essential but high degree of accuracy required.

## Class 2D. Statistical Clerks

Clerks with ability, under supervision, to search out and draw off from journals, ledgers, etc., accounting information; to prepare statistical reports and tabulate statistical information. High degree of mathematical accuracy and limited degree of judgment required.
Class 2E. Senior Accountants
Clerks with ability to analyze and interpret evidence of financial transactions; to analyze and classify accounts and expenditures. High degree of judgment and expert accounting knowledge gained by special training or experience required.
Class 2F. Junior Accountants
Under supervision or direction, to analyze, interpret and report upon financial data; to decide and report on the accu-
racy of and significance of financial records and accounts. Limited judgment and accounting training and experience required.
Class 2G. Cost Figuring Clerks
Clerks with ability, under supervision or direction, to draw off from current accounting records statistical information relating to costs; to analyze and report upon such figures and prepare accurate and dependable cost figures upon which to base current prices. Limited judgment but high degree of accuracy required.

## Class 2H. Payroll Clerks

Clerks with ability, under supervision or direction, to interpret and analyze time cards and other supporting records, to tabulate and prepare payroll sheets and post them in journals and on ledgers. High degree of mathematical accuracy required.

## Class 2I. Bookkeeping Machine Operators

Class 2J. Ledger Clerks (Machine Operators)
Class 2K. Figure Machine Operators
Clerks with ability to operate with speed and accuracy an adding machine, calculating machine, comptometer or other mechanical device designed for mathematical calculation in connection with statistical, cost figuring, payroll and general accounting work.

## Class III - Correspondents, Order Clerks.

## Class 3A. Senior Correspondents

Clerks with ability independently to dictate letters and conduct correspondence with customers on subjects relating to quotations, sales, shipments, claims, and adjustments, credit and collections; thorough knowledge of products, company policies and procedure, and a high degree of judgment required.
Class 3B. Junior Correspondents
Clerks with ability to dictate letters and conduct correspondence with customers on subjects relating to quotations, sales, shipments, claims and adjustments, credit and collections under supervision and control of superior; limited knowledge of products, company policies and procedure and limited degree of judgment required.
Class 3C. Senior Order Clerks
Clerks with ability independently to interpret and "dress" orders and route them through factory, office or store; exten-
sive knowledge of company's products, procedure and policies, gained through experience, required.
Class 3D. Junior Order Clerks
Clerks with ability to interpret and "dress" orders and route them through factory, office or store, under supervision or direction of superior. They are beginners, with limited knowledge of product, procedure and policies, gained through experience.

> Class IV - Telephone and Telegraph Operators, Information Clerks.

Class 4A. Senior Telephone Operators
Class 4B. Junior Telephone Operators
Class 4C. Telegraph Operators
Class 4D. Information Clerks
Clerks with thorough knowledge of company's organization and procedure who are able to greet and direct visitors and answer questions. Courtesy, tact and good appearance essential.

> Class V - Machine Operators Except Bookkeeping, Adding - Statistical or Dictaphone Machine.

Class 5A. Addressograph Machine Operators
Clerks with ability to operate an addressograph machine with expertness and to do clerical work incidental thereto.
Class 5B. Multigraph Machine Operators
Class 5C. Photostat Machine Operators
Class 5D. Blue Print Machine Operators
Class 5E. Statler Coin Machine Operators
Class 5F. Telautograph Machine Operators
Class 5G. Perforating Machine Operators

## Class Vi - Mail Clerks, Messengers.

Class 6A. Mail Clerks, Senior
Clerks with ability to sort and route the delivery of mail through factory, office or store, to supervise weighing, addressing and dispatching of mail to post office; sealing of envelopes, stamping of parcels and letters; receipting of special delivery and registered mail and other clerical work incidental thereto.

Class 6B. Mail Clerks, Junior
Clerks with ability, under supervision, to sort and route delivery of mail through factory, office or store; to weigh and address mail, seal and stamp envelopes and parcels; operate sealing and opening machines and to do other clerical work incidental to the handling of mail.
Class 6C. Messengers
Clerks with ability to deliver mail through an office, factory or store; to run errands and do clerical work of the simplest nature.

## Class VII - General Clerks, File Clerks.

Class 7A. Clerical Assistant
Capable of relieving the office manager, handling general and special clerical matters as they come up and serving as a general all around office man.
Class 7B. Clerks
Clerks with ability to do routine or specialized clerical work not included in other groups, such as checking, maintaining balance of stores.

The Department of Vocational Guidance of the Boston School Committee has compiled much valuable information pertaining to the activities of all the departments of our school system. Nowhere have I found available so much pertinent material. In some cities one may secure facts concerning groups of pupils, but it is only when the entire unit of a kind has been exhaustively followed up, analyzed, and classified that it is safe to establish conclusions. The Boston department has made a practice each spring of finding, through correspondence or personal interview, as far as has been possible, what each member of the graduating classes of all the high schools of the previous year was doing. About ninety-eight per cent of all graduates are reported on, the remainder consisting of those who have moved and those from whom no response could be secured through reasonable effort.

The class of 1926 is the latest for which the study has been completed at the time of this writing. One fact in the following form that deserves attention is that only seventy-one of the 3,083 , or $2.3 \%$, are without work. It is encouraging to apprehend with what readiness and with what degree of completeness the business and industrial life of this community absorbs the product of our high schools.
OCCUPATIONS OF GRADUATES FROM BOSTON HIGH SCHOOLS, JUNE, 1926.
FROM STATISTICS COLLECTED BETWEEN JANUARY AND APRIL, 1927.

| Schools. | Total Graduates. |  | Taking Further Studies, Days. |  |  |  |  |  | At Work. |  |  |  | $\begin{aligned} & \text { Not } \\ & \text { Otherwise } \\ & \text { Classified. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | тоtal. |  | ${ }^{1}$ colleges. |  | оther schools. |  | тоtal. |  | $\begin{aligned} & \text { WORKING AND } \\ & \text { TAKING EVENING } \\ & \text { COURSES. } \end{aligned}$ |  |  |  |
|  | Number. | Per Cent. | Number. | Per Cent. | Number. | Per Cent. | Number. | Per Cent. | Number. | Per Cent. | Number. | Per Cent. | Number. | Per Cent. |
| Boys | 1,370 | 100 | 466 | 34.0 | 308 | 22.4 | 158 | 11.5 | 789 | 57.6 | 202 | 14.0 | ${ }^{2} 115$ | 8.4 |
| Girls. | 1,713 | 100 | 633 | 37.0 | 156 | 9.1 | 477 | 27.8 | 935 | 54.6 | 184 | 10.7 | ${ }^{3} 145$ | 8.4 |
| Total. | 3,083 | 100 | 1,099 | 35.6 | 464 | 15.1 | 635 | 20.6 | 1,724 | 56.0 | 386 | 12.5 | 260 | 8.4 |
| ${ }^{1}$ Degree giving institutions. <br> ${ }_{2}^{2}$ At home, 7 ; moved, $30 ;$ no response, 12 ; wanting work, 25; industrial diplomas not followed up, 40; deceased, 1 . <br> ${ }^{3}$ At home, 50 ; moved, 16 ; no response, 15; wanting work, 46 ; convent, 2 ; married, 15; deceased, 1. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

The following table is supplementary to the one shown on page 87 and separates the girls that were working into various occupa－ tions．It was not compiled on the same day as the other，which accounts for the slight difference in the number at work．

|  |  |  |  | Bookkeeping． | ＋ |  | 品 | 它 |  | 皆家 | cin |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1，713 | 252 | 63 | 77 | 147 | 191 | 33 | 20 | 43 | 826 | 68 | 44 | 938 |
| Per Cents of Office Workers． |  | 30.5 | 7.6 | 9.3 | 17.8 | 23.1 | 4.0 | 2.4 | 5.2 | 100.0 |  |  |  |
| Per Cents of All at Work |  | 26.9 | 6.7 | 8.2 | 15.7 | 20.4 | 3.5 | 2.1 | 4.6 | 88.1 | 7.2 | ${ }^{\bullet} 4.7$ | 100.0 |
| Per Cent of Class in $\cap$ ffices | 48.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Per Cent of Class at Work | 54.8 |  |  |  |  |  |  |  |  |  |  |  |  |

Eighty-eight per cent of all girls who went to work found employment in offices, and their number is nearly half of all the girls who graduated that year. Of the 477 who are not working but are taking further studies during the day, though not attending degree-giving colleges, the paramount group of 204 , or $43 \%$, are attending schools that will fit them for business. While some of these have had part or complete business courses in high school, more than half of them have taken college or normal-preparatory training. The remainder of those attending "Other Schools" are thus classified:

| Public normal |  | 112 | Private normal |  | 43 |
| :--- | :--- | ---: | :--- | :--- | :--- |
| Art | . | 36 | Nursing |  | 20 |
| Preparatory | . | 11 | Post graduate | . | 47 |

The Secretary of the Commercial Council supplies the information that the high school commercial pupils of the class of 1928 were pursuing vocational subjects as follows:

| Shorthand | 24.4 | Secretaryship Cent. |
| :--- | :--- | ---: |
| Bookkeeping | 10.1 | Merchandising |
| Typewriting | 27.9 | Civil Service |
| Office Practice | 19.3 | 14.0 |
| Of nearly three thousand calls from employers received |  |  |
| by the Department of Vocational Guidance in the year ended |  |  |
| September 30, 1927, nearly one-half were for office help. |  |  |
| These calls included boys and girls who had passed their four- |  |  |
| teenth birthday. There is no place in the office for youngsters. |  |  |
| A certain amount of maturity, poise, and judgment is required |  |  |
| even for the less important jobs; therefore it is probable that |  |  |
| the average age of those called for and placed in offices was con- |  |  |
| siderably above that of those that went to work in other occu- |  |  |
| pations. The line of advancement in offices is more attractive |  |  |
| and the help turnover is doubtless smaller than in the other |  |  |
| occupations, and there is less probability that the calls for |  |  |
| office help were repeat-calls for the same job. |  |  |

Placement calls of the department of vocational guidance year ended september 30， 1927.

|  | 尔盛 |  |
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While interest and value may be derived from a study of what happens to a group of graduates during the following year the real measure of what the school system does for its graduates must be learned from a study covering a longer period of time, during which a settling-down process has a chance to come into effect.

The graph on page 91 represents a study of the class of 1920 of the Girls' High School of Boston, and is probably typical of what happened to graduates of the other high schools. The upper portion broadly shows the distribution of the class in the early part of 1921 . The lower section discloses the activities of the same young women in 1925.

There are no data in my hands that tell whether any of those that married remained at work, but it is presumable that the inquiry concerning them ceased at that point. It seems a reasonable guess that most of the marriages were from the "Work" group. The thirteen per cent of "Professional" was formed from the twenty-three per cent of College, Normal, Post Graduate, Music, Nursing, and Art students.

Of those who took Shorthand 66 per cent are now in that line.
Of those who took Bookkeeping 65 per cent are now in that line.

Of those who took Shorthand and Bookkeeping 61 per cent are now using the combination.

Of those who planned to teach 79 per cent are now teaching.
Of those who planned to go to college 83 per cent went to college.

Altogether 62 per cent are following the vocations which they elected and for which they studied in high school.

It is gratifying to note that only two per cent of this large class died during five years. This proves that the instruction in health and the practice in physical maintenance given through all grades are effective, and meet the requirements of the first objective of the "Seven Cardinal Principles of Secondary Education."

A "follow-up" of 554 boy graduates of 1920 from eight high schools also was made, the following being extracts from a report on it made by the Department.

## METHOD PURSUED.

Personal interviews were secured with as many of the boys as possible who were employed in Boston and vicinity. This
was accomplished by requests to the boys to call at the Central Office while on their lunch hour, or during the evening office hour, and by visits of the vocational instructors to places of employment and homes of the boys. To others, questionnaires were sent. The college bureaus assisted by supplying information regarding boys who had continued their education.

The total represents 95 per cent of all boys graduated from the above schools for the year 1920. (No Co-operative Industrial Course Graduates are included in the study.)

RELATIONSHIP AMONG FATHER'S OCCCPATION, PUPIL'S VOCATICNAL INTEREST AND PRESENT OCCUPATION OF MALE GRADUATES OF 1920.

|  | Father's Occupation. | Pupil's Vocational Interest, 1920. | Pupil's Present Occupation. 1927. |
| :---: | :---: | :---: | :---: |
| 1. Unskilled labor | 18 | 0 | 0 |
| 2. Semi-skilled labor. | 60 | 0 | 3 |
| 3. Skilled labor | 192 | 34 | 64 |
| 4. Agriculture. | 0 | 4 | 1 |
| 5. Office, clerical | 24 | 81 | 112 |
| 6. Retail sales people | 1 | 0 | 25 |
| 7. Wholesale sales people. | 187 \{ 17 | $256\{28$ | $293\{48$ |
| 8. Junior business executives. | 25 | 141 | 67 |
| 9. Proprietors of small businesses. | 120 | 6 | 41 |
| 10. Professional | 35 | 219 | 186 |
|  | Deceased 62 | Undecided 41 | Unemployed 7 |
| Totals. | 554 | 554 | 554 |

The above table should be read thus: 219 boys expressed as their vocational interest, in 1920, while in high school, as professional. Only 35 fathers were engaged in occupations included in this group. Five years after graduation, 186 boys were found engaged in occupations included in the professional group.

RELATION BETWEEN COURSE PURSUED IN HIGH SCHOOL AND AFTER SCHOOL EMPLOYMENT.
Graduates of the College course in high school do, in the great majority of cases, go to college.

Graduates of the Business course enter into and remain in one of the five fields of business activity.

Graduates of the General course in high school enter chiefly into some form of business life.
Graduates of the Technical Preparatory course in high school are about evenly distributed in after high-school life between professional life and business activities.

## MISCELLANEOUS.

There is considerable evidence that the boys who continue their education do so immediately after high school, although a few postponed it until two or three years.

Higher education is functioning in the occupational life of the graduates who took it.

Thirty-three per cent of the boys who took no further education have held one position for five years.

Twenty-eight per cent have held two positions, and two per cent have held as many as five different positions.

About eighty-five per cent of all these boys did some work for wages while attending high school. There is no definite evidence that this work was a factor in their choice of a vocation.

At the request of mercantile associations, and on the advice of students of business conditions, salesmanship was introduced into the high schools about fifteen years ago. It has received much encouragement from school authorities and, beyond all doubt, the instruction has been on a par with that of any other business subject. The pupils in salesmanship have steadily increased in numbers, but at no time has the subject occupied the place it was believed it should take.

A study of the data herein presented and interviews with office managers and thoughtful commercial educators leads to the belief that the purchase of a modest but carefully chosen equipment of office machines is a wise investment. There does not appear to be a need of such a degree of skill in any of them at all comparable with that required in typewriting. Much of the multiplication in an office can be performed mentally or it can be taken from convenient tables. Division and subtraction are not frequent, but addition is most often employed. However, the sums are usually short, and are done more quickly without resorting to a machine. While the small non-listing adding machines are useful, and are found in many offices, there does not seem to be justification in the installation of batteries of them, nor to devoting to them the amount of time some teachers wish to give.

Nothing appears to warrant the purchase of bookkeeping machines, the cost of each being about a thousand dollars. They are found only in large offices. Their successful operation is predicated on a knowledge of bookkeeping and of skill in pressing keys. The latter may be gained on the machines already in the schools, so an ambitious clerk with a knowledge of bookkeeping can learn to use this machine at odd times, with a little instruction from an experienced operator.

School authorities should recognize the possibility that the introduction of machines into our schools may reach such an extent that the educating of mental faculties may be displaced by a training on mechanical devices. Girls, as well as boys, enjoy running machines that relieve their minds from work and responsibility, and this is evident from the way the fundamental subjects are avoided, and the machine subjects are taken up. The mental faculties used in studying through a business proposition and arriving at a correct judgment cannot be trained through the operation of a machine. Successful business people have become so through the use of their minds instead of their fingers. If our aim is to have our young people become successful business men and women instead of competent and satisfactory clerks we need to undertake some curriculum reconstruction.

The most pronounced need is that the quality of the classroom instruction be improved in the commercial subjects that are now being taught. Methods of business and office technique are far from static. The teacher who depends on what she learned from a teacher who was up-to-date in practical matters a very few years ago is decidedly unprogressive. The business office is the laboratory where new ideas are being developed and tried out, and when teachers fail to call upon that laboratory they are falling short of doing that which should be expected of them.

In recognition of the fact that many young commercial teachers were entering Boston schools who had had no business or office experience and who were showing no inclination to secure either, in 1925 Assistant Superintendent Rafter requested the Commercial Council to consider a plan for "permitting commercial teachers to offer as units for credit toward their promotional examinations, experience gained as the result of work done in actual business establishments." The Council devoted the greater part of two meetings to the question and submitted the following recommendations:

1. In the opinion of this Council such practical experience for commercial teachers should be required for one of the two promotional examinations; unless the Board of Superintendents is satisfied that sufficient business experience has already been obtained.
2. That such work be wholly without restriction as to compensation received by a teacher offering such work for credit; and that rating be given purely on the basis of suitable business experience gained.
3. That at least six weeks of full time employment be taken as the equivalent of one thirty-hour course, or two fifteen-hour courses, for credit.
4. That not more than one of these thirty-hour credits be allowed on any one promotional examination. Mr. Rafter, to whom had been referred on May 7, 1925, the question as to allowance of promotional rating credit for teachers of commercial subjects for actual experience in business houses, submitted the following plan which had been approved by the Commercial Council:
5. That the business house selected by the teacher be approved by the Board of Superintendents.
6. That the work done in the mercantile establishment be closely related to the school work of the teacher.
7. That at least six weeks of full time employment, or the equivalent, be taken as the equivalent of one thirty-hour course, or of two fifteen-hour courses.
8. That not more than one of these thirty-hour credits be allowed toward any one promotional examination.
9. That at the expiration of the business employment the teacher submit to the Board of Superintendents a detailed statement of at least one thousand words setting forth the definite, specific value of the business experience in connection with the work of the school room.
This recommendation was approved by the Board of Superintendents and put into effect November 19, 1925. Beyond all doubt this has resulted in a benefit to the commercial teachers.

The city of Des Moines recognizing the value of experience, believes no one should teach a commercial subject in which she cannot do and has not done in actual business the things she is attempting to teach, and has prepared definite requirements of the actual experience that must be obtained before a teacher will be employed, and that which must be secured coincident with her service as a teacher. Some such plan might well be used here.

## THE THREE R'S.

For several years, in every school system in the country, much attention has been directed to the problems of secondary education, Grades VII to XII, inclusive. The coming of the intermediate or junior high school was preceded by enthusiastic and effective advocacy of the advantages to be gained by the establishment of such a unit of instruction. This agitation produced a disturbing upheaval in a cherished traditional organization. The administrative reorganization and the reconstruction of curricula incident to the establishment of intermediate or junior high schools well nigh exhausted the time, thought and energy of school officials and administrators. For years the intermediate or junior high school became the chief topic of discussion at conventions and meetings of educators. Coincidentally the growth in attendance upon high schools advanced beyond all expectations. The problem of assimilating heterogeneous groups of pupils, of readjusting administrative machinery, of introducing new courses of instruction and of securing or preparing suitable teachers for the same - all these were considerations urgently demanding solution.

Since it was the central theme for discussion, secondary education seemed to overshadow elementary. It is not surprising therefore that a suspicion has arisen that the elementary school has been neglected, in comparison with the secondary.

Unfortunately, our earnestness in making humane, effective and scientific the work of pupils in Grades VII, VIII and IX has tended to produce a challenge concerning our devotion to the grades below.

As a matter of fact, the administration of our schools has been consistent. We have repeatedly reaffirmed that under no circumstances whatever should the emphasis upon secondary education be permitted to injuriously affect the work of elementary schools. The importance of the elementary schools must never be minimized. Though not so spectacular or dramatic, perhaps, as the grades above, they are nevertheless the fountain source of our entire system. Unless the elementary schools are maintained at the highest possible plane of efficiency, the grades following are sure to suffer irreparably.

In the year 1920, in the very throes of the agitation for intermediate schools, the rank of Primary Supervisor was created, and two especially gifted women were selected for these important positions. The leadership of our primary supervisors has been potent and stimulating, guiding our teachers along the most progressive line of thought and action. It is now proposed to give Grades IV, V and VI the same type of supervision that obtains in Grades I, II and III. Thus we shall provide skillful and scientific supervision continuously from the kindergarten, through the elementary schools to the intermediate. At the same time we are urging teachers of Grades VI and VII to so harmonize their work that there will be no interruption of classroom work between the two types of schools, intermediate and elementary.

A very slight acquaintance with our school system convinces one that the three R's are not overlooked or overshadowed. Instruction in reading, writing, arithmetic, and the fundamental subjects, is of a higher quality today than ever before. In penmanship there is a uniform system taught throughout all the grades. Teachers are required to prepare especially for this work, and as a result thereof over twenty-four hundred teachers have qualified and have been certified in teaching ability. All new teachers must receive training in penmanship and qualify within two years after appointment.

During the past year there was on exhibition at the Administration Building, the handwriting of all pupils in all grades of instruction. It is doubtful if ever before, in Boston or elsewhere, was there presented handwriting, by large groups of pupils, that excelled in legibility and general excellence this product of our children's pens.

In arithmetic the excellence of our work is universally recognized. Under the direction of the Department of Educational Investigation and Measurement, various standard tests in arithmetic, extending over a series of years, have proved that we are maintaining the highest standards of attainment. Compared with the norm of the larger cities throughout the country, Boston is equalled only by Detroit in the high standard secured by our pupils. Moreover, the requirements established by the school systems of Detroit and Boston are considered adequate by research students of education. These tests include accuracy and speed on the part of the pupils.

It follows, from the above, that not only are we leading all the cities except Detroit, but that we are maintaining the very maximum of attainment. The Department of Educational Investigation and Measurement is now including problem work, supplementary to the tests in accuracy and speed. A problem book has been authorized for this purpose and placed in the hands of fourth grade pupils. Problem books for the pupils of Grades V and VI are in process of preparation. So far as we know, Boston alone, of the cities of the country, is using such problem books.

The Department of Educational Investigation and Measurement, furthermore, has given standardized tests in reading to the pupils in our grades. Here again the tests show that the grade average for our schools, in each case, is from one half a year to nearly a full year above the norm established by the test range. The tests show, also, that there is a gradual increase in the average, from grade to grade. That is, the eighth grade is farther above the norm than the fourth grade. Furthermore, the increase during the year was approximately normal for each grade, a fact which demonstrates the uniformity of the excellence of our teaching in the grades.

As regards spelling I quote from one of our principals:
"In no field is the work of the public school today more practical than in spelling. Many extensive studies of words needed and used in daily life have been made, and the Boston Word List is based on a comparison of the best of these. The children keep lists of their own misspelled words; the teachers are provided with means of finding just what words their own classes most need to study; city-wide tests are given on words that give general difficulty in all schools; pupils work together to improve their spelling ability; and the whole subject is made more practical and interesting than ever before. The Boston Plan for Teaching Spelling is carefully worked out in detail and places a distinct emphasis upon the responsibility of each individual for learning to spell words actually needed in school and in the ordinary uses of life."

The notable contribution made by principals and teachers to the whole problem of spelling in our elementary schools is praiseworthy and deserving of permanent record. I am, therefore, embodying the story of our accomplishments as presented by the Principal of the Model School, Mr. Charles M. Lamprey.

Teaching Spelling in the Boston Public Schools. By Charles M. Lamprey, Principal, Martin School.
In 1915 a list of words was prepared at the Boston Model School and published under the title, "An Experimental Method of Teaching Spelling." This method was used in the school for eight years and after some modifications was copyrighted by the School Committee and an edition of 125,000 copies was printed for use in the Public Schools of Boston under the title, "The Boston Word List" (School Document 22, 1923). Accompanying this list was a pamphlet for the use of teachers, entitled "New Boston Spelling List," which later was revised, improved and entitled, "New Boston Spelling List (Revised)," School Document 11, 1926.

These two books, one for pupils and one for the convenience of teachers, furnish the basis for the study of spelling in the public schools of Boston.

During the past five years the Boston Plan for Teaching Spelling has been developed and a large amount of valuable work has been done by teachers in determining relative word difficulties. This work culminated in 1928 in the giving of the third of a series of Cooperative Review Tests in all Boston Schools. The results of these tests are described in the final part of this report under the heading "Cooperative Review Tests."

The way in which the two books were made and their respective purposes are described in the Preface of School Document 11, 1926. The Revised Plan for Teaching Spelling is contained in the same document. This Preface with some alterations for the sake of clearness, and a synopsis of the Revised Plan, are given below as follows:

## I. PREFACE. (SCHOOL DOCUMENT 11, 1926.)

1. New Boston Spelling List.

The work done in Boston during the last eight years in selecting words and evaluating spelling difficulties forms the best available basis for a permanent spelling list for use in Boston Schools.

In selecting words for the New Boston Spelling List the committee has retained nearly all the words of the Boston Minimum Lists and added enough words, after an analysis of
other spelling investigations, to make up a total of 2,116 words. It is recommended that the teaching of these 2,116 words be required in the grades indicated.

In the New Boston Spelling List (Revised) these words are separated by grades and printed in syllabicated form for the use of teachers.

## 2. Boston Word List.

No list or spelling book can be regarded as final. New words are constantly coming into use. The degree of accuracy with which familiar words are spelled will change as a result of consistent drill in spelling. The frequency with which many of these words are used may be increased by instruction aimed to enrich and improve the vocabulary of pupils. The committee therefore offers a Vocabulary List of words and has combined the two groups of words to form the Boston Word List. The Vocabulary List is not to be printed separately.
Some general suggestions are offered below in the hope and expectation that teachers and pupils will find here a basis for effective work together. It is possible to carry through a city-wide experiment in educational procedure that will have high value.

## 3. Vocabulary List.

(a) The vocabulary of individuals varies to such an extent even among young children that it is believed to be desirable to put before pupils a much larger number of words than they are required to learn. Many words creep into the child's consciousness from reading and conversation and need only the stimulus of a convenient opportunity to take their place in his written language. Reference to the vocabulary words in the Word List will furnish an incentive for this extension of the child's vocabulary in accordance with his natural impulses.
(b) There is another reason for including these additional words. In the discussion on spelling that must go on continually it is desirable that teachers have before them a large number of words that may be used in school work more commonly than we suspect. As this larger list is used for reference and occasional discussion it cannot fail to be of service in enabling teachers to give valuable suggestions as to the inclusion of debatable words in the regular spelling list and to advise as to the grades where these words may best be taught.

## 4. Selection of Words.

(a) The words in the Boston Word List were selected after a careful analysis of the following sources:

Ayres: A Measuring Scale for Spelling.
Boston Model School: An Experimental Method of Teaching Spelling.

City of Boston: Minimum and Supplementary Spelling Lists.

City of Chicago: Spelling in the Elementary Schools.

Jones: Concrete Investigation of the Material of English Spelling.

Kelley: A List of Words Misspelled in the Diaries of Third Grade Children.

Nicholson: A Speller for the Use of the Teachers of California.

Thorndike: The Teacher's Word Book. (First 5,000 words in order of frequency.)
(b) The Vocabulary List consists of words originally included in the Model School List and the Boston Supplementary Lists, after eliminating most of the simple "ed" and "ing" forms and some words that seemed to have no support in Thorndike's "The Teacher's Word Book."

## 5. Arrangement of Words.

To put before a child only those words assigned to be studied in one particular grade is to limit his facility in the general study of spelling. For the purpose of encouraging the abler pupils to acquire new words outside of the required list for the grade, and children of poor spelling ability to review words forgotten or never learned in earlier grades, the Word List is arranged in alphabetical order with the grade in which each word is to be taught indicated at the left.

Experience with this arrangement in the Boston Model School has shown not only that it is not confusing, but that it stimulates and helps the pupil to acquire early the very important power of finding words which he desires to learn. Furthermore, it gives to the teacher an opportunity she has never had before to judge as to the rejection of undesirable words and the selection of new ones.

## 6. Use of the Word List.

This list will be used in Grades IV to VIII, inclusive, and the book will become the permanent property of the pupil after five years of use. It will serve for the study of words in preparation of the lesson and in review; for the checking of words misspelled and needed by individual pupils in varying degree; and for convenient reference by the pupil while writing - a use that cannot be made of any spelling list or spelling book published for school use at the present time. The pupil can thus be stimulated not only to study carefully and intelligently such words as he needs to study, but to watch the growth of his written vocabulary and take an interest in adding new words. When the pupil has occasion to use a word that he is not familiar with and that he does not find in the list, he can write it in the blank space provided in the book and thus have a constructive interest in developing a final list. This method of procedure has been used in the third grade of the Farragut School with marked success. The "Finding List for the Third Grade" contains all the words used by third grade pupils in writing diaries over a period of several years. It takes the place of the Boston Word List in Grade III. It is believed that the method suggested is sound in form, stimulating in actual use, constructive in character, and likely to produce definite satisfaction through aroused interest among the pupils.

## 7. Review and Testing.

Lists of words found difficult in earlier grades will be sent to teachers for dictation at the beginning of each year. The tabulation of results of tests on these words will give information of increasing value in regard to their spelling difficulty. These difficult words should be dictated at the beginning of each year before the new words for the grade are taken up.

## 8. Additional Words.

A blank space is left at the bottom of each page for such words as it may be desirable to add to the printed list. It probably will be found helpful to use this space for local names, for words used largely in school studies but not commonly used after leaving school, and for new words coming into more frequent use through progress in science and invention.

## 9. Project Method.

It is believed by a majority of members of the Committee that the use of this Spelling and Vocabulary list (Boston Word List) in the manner suggested will do much to make spelling interesting to pupils and teachers and will encourage the use of the project idea in handling this subject.

## II. the revised plan for teaching spelling.

The Revised Plan for Teaching Spelling was devised to promote the study of words from the standpoint of their relative difficulty (1) for the individual pupil, (2) for the class group, (3) for the pupils throughout the city as a whole.

The first of these aims is accomplished by having pupils check each word in their copies of the Boston Word List and make a copy of their misspelled words at the end of the year. This list should be the basis of study for the individual pupil. To facilitate this kind of study pupils are arranged in pairs for cooperative work.

The second and third aims are realized through the use of Percentage Tables and Spelling Report Slips in the hands of teachers. By means of the percentage tables teachers may readily find the per cent of pupils in the class that misspell each word. This per cent is first recorded on the Spelling Report Slip in column A. Only the harder words are reviewed, and the per cent recorded in column B; and again the hardest of these words are taken and the results recorded in column C. Column D is for a final record on all hard words, without study, at the end of the year, and column E for a review of these words in the next grade at the opening of school in September.

A sample column of the percentage table for a class of 37 pupils, and a sample of the spelling report slip for the third grade are given on page 107 .

The use and meaning of words are taken care of by oral and written sentence work. Pupils are encouraged to write sentences for home work which are supposed to be exchanged, discussed and corrected by pupils working together in pairs.

1. This plan is susceptible of wide variation as to detail in writing, reading, discussing, careful study, and sentence drill on words. Teachers choosing to follow it should preserve the essential purpose, which is to stimulate a variety of in-

## 37

1.... 03
2.... 05
3.... 08
4.... 11
5.... 14
6.... 16
7.... 19
8.... 22
9.... 24
10.... 27
11.... 30
12.... 32
13.... 35
14.... 38
15.... 41
16. . . . 43
17. ... 46
18. . . . 49
19. . . . 51
20.... 54
21.... 57
22.... 59
23.... 62
24.... 65
25. . . . 68
26.... 70
27.... 73
28.... 76
29.... 78
30.... 81
31. . . . 84
32.... 86
33. . . . 89
34.... 92
$35 . . .95$
36. . . 97
37. . . 100

SPELLING REPORT SLIP-BOSTON PUBLIC SCHOOLS
GRADE III.
ROOM

SCHOOL
TEACHER
The per cent of correct spelling may be obtained from percentage tables furnished for this purpose.
261. par lor
262. part
263. pear
264. peo ple
265. pi an o
266. pic ture
267. piece
268. pitch er
269. plant
270. pleas ant
271. point
272. po lite
273. po ta to
274. pound
275. pres ent
276. pri ma ry
277. prove
278. pu pil
279. push
280. quart


teresting and attentive efforts, and above all, to require the looking up of words in the Word List by pupils and a written record of each individual's misspelled words made by the pupil.
2. The teacher may pronounce words or may ask pupils to find the next starred word for the grade. In either case attention is insured, effort is stimulated, satisfaction results, keenness, quickness and accuracy are definitely developed. Good habits of response and co-operation are formed. Each word is seen in printed form, pronounced orally and spelled orally.
3. Oral sentence and written sentence work are both essentially English exercises, but writing the word in a sentence is good application or spelling practice.
4. The written spelling or test lesson follows the conventional method. Use of the Spelling Report Slip is of value in emphasizing and comparing individual results, determining hard words, stimulating effort and developing class pride. Children like to participate in definite measuring exercises.
5. Making a list of misspelled words and pairing of pupils for mutual help involve recognition of errors, prompt correction, cooperative effort, relief from fixed position and formal class management; and provide means for intelligent review study.
6. The time required for using the Percentage Table and recording results on the Spelling Report Slips is believed to be amply justified by increased efficiency of instruction resulting from reviewing only words that present real spelling difficulty, and also by the training given to pupils in participation in accurate record taking.

Cooperative Review Tests.
As a result of the efficient cooperation of teachers throughout the city, especially in the use of percentage tables and spelling report slips, it has been possible to give three sets of Cooperative Review Tests, each having greater value and significance than the preceding one. These were given in October, 1925, January, 1927, and April-May, 1928.

As a matter of record there seems to be no better way of showing the increasing purpose and value of these tests than to print the three circulars issued by the Board of Superintendents in connection with the respective tests. These circulars, I, II and III, with minor alterations for the sake of clearness, are given below as follows:

## I. board of superintendents' circular no. $15,1926-27$.

On October 7, 1925, Cooperative Review Tests in Spelling were given in Grades III to IX in Boston Public Schools. The tests consisted of the forty hardest words for each grade, determined by reports made by numerous teachers based on their class records for the preceding year. The tests on words selected in each grade were given to pupils in the next higher grade without previous study. That is, fifth grade pupils were tested on fourth grade words and so on for all grades.

In marking these tests teachers recorded the "Per Cent Wrong" for each word.

An examination of these records clearly indicates that, while nearly all these words were "hard words" for a great majority of pupils, there was little uniformity in the per cent of error in different classes. The records of "per cent wrong" on any individual word generally cover a range of 50 per cent; that is, the record in one class may be 10 per cent wrong and in another 60 per cent wrong for the same word. It is also true that the relative apparent difficulty of the words, based on per cent wrong, varies widely in the different rooms. This supports the opinion that any attempt to evaluate the spelling difficulty of words in general is not likely to solve the spelling problem satisfactorily for the individual teacher.

In June, 1926, 524 teachers reported the 40 hardest words for their respective classes. The basis for these reports was not the per cent wrong on a single test but the actual per cent of error that persisted after the harder words for the grade had been reviewed and retested.

These reports have been tabulated and new tests made out comprising the 40 words reported by the greatest number of teachers ( 20 words in Grade II).

The degree of agreement between the 1925 and 1926 selections is shown in Table A, as follows:

Table A. ("Grade" means the grade in which the words were selected.)
Grade II.- Of 20 words in 1925 test 12 appear in 1926.
Grade III.- Of 40 words in 1925 test 25 appear in 1926.
Grade IV.- Of 40 words in 1925 test 24 appear in 1926.
Grade V.- Of 40 words in 1925 test 25 appear in 1926.
Grade VI.- Of 40 words in 1925 test 23 appear in 1926.
Grade VII.- Of 40 words in 1925 test 28 appear in 1926.
Grade VIII.- Of 40 words in 1925 test 30 appear in 1926.

The following table shows:

1. Total number of reports for each grade.
2. Number of words on which reports were unanimous.
3. Largest number of reports agreeing on any selected word.
4. Smallest number of reports agreeing on any selected word.
5. Whole number of words in Boston lists, by grades.
6. Total number of words reported one or more times.

Table B. ("Grade" means the grade in which the words were selected.)
Grade.

|  | II. | III. | IV. | V. | VI. | VII. | VIII. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1 \ldots \ldots$ | 61 | 59 | 86 | 85 | 94 | 43 | 41 |
| $2 \ldots \ldots$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $3 \ldots \ldots$ | 52 | 47 | 78 | 73 | 76 | 42 | 38 |
| $4 \ldots \ldots$ | 28 | 19 | 32 | 30 | 36 | 16 | 16 |
| $5 \ldots \ldots$ | 257 | 410 | 396 | 304 | 251 | 228 | 185 |
| $6 \ldots \ldots$ | 192 | 244 | 236 | 216 | 182 | 141 | 126 |

For example, in Grade V -

1. 85 teachers made reports.
2. There was no one word on which all of them agreed.
3. 73 of the reports agreed on the most frequently reported word (separate).
4. 30 of the reports agreed on the least frequently reported of the 40 selected words (tobacco).
5. There are 304 words in the Boston List for Grade V.
6. Of these 304 words 216 were included one or more times by teachers in their report of 40 hardest words.

Consideration of this table in connection with Table A only serves to emphasize the fact that the spelling problem for each teacher may be stated best in terms of the performance of her own class, just as the problem for each pupil must be stated in terms of his own achievement.

The Boston Plan for Teaching Spelling enables the teacher to realize both these ideals by the following means:

1. Percentage Tables.
2. Spelling Report Slips.
3. Directions concerning individual pupil lists of misspelled words.
4. Cooperative study and recitation by pupils in pairs.

It seems logical to suppose that the spelling problem will be more nearly solved when this plan is carried out in all schools, and review tests are prepared for each class and review study encouraged for each pupil on the basis of demonstrated needs.

Assuming, however, that the plan is not completely carried out in all schools and by all teachers at the present time, it is felt that the Cooperative Review Tests will be welcomed as a valuable aid.

The purpose of these tests is threefold:

1. To give the teacher some idea of the spelling needs of her pupils with reference to their work of the previous year.
2. To emphasize the paramount necessity of a definite review of the harder words of the preceding grade at the beginning of each year.
3. To enable the Spelling Committee to make a list of a comparatively small number of the hardest words in all grades to which teachers may refer in reviewing their classes on certain words of preceding grades. While these tests are of the greatest value if given at the beginning of the year they cannot fail to be helpful at any time in testing the retention by pupils of the spelling work of the previous year.

The general adoption of the Boston Plan for Teaching Spelling in Grades IV to VIII has resulted in laying the foundation for certain habits of thought and effort on the part of teachers and pupils that are fundamental requisites for the study and teaching of the subject.

## Habit Forming Results.

Pupils have formed habits of -

1. Looking up words in their alphabetical order and thus thinking of them and comparing them in their spelling relation.
2. Identifying, rewriting and intensively studying their own misspelled words, thus making their chief effort along lines determined by their own previous achievement.
3. Making accurate reports on their work each day, resulting in recognition of the effect of their individual efforts on the class record.
4. Working together and helping each other to improve, thus satisfying a natural social instinct and developing the habit of cooperation.

Teachers who have followed the Plan have certainly begun
to lay the foundation for a study of the spelling needs of their particular groups of children. It is not to be expected that great progress can be made in a short time since general acceptance of and familiarity with a new set of ideas can hardly be gained in less than two or three years.

It is expected that very many teachers will find the Spelling Report Slips and the Percentage Tables valuable aids in the teaching of spelling; but it is not desired to make the use of these forms obligatory. It is possible to secure many of the desired results of the Boston Plan for Teaching Spelling by the use of the Boston Word List in accordance with the plan outlined, without keeping the percentage records.

## II. board of superintendents' circular no. 22, 1927-28.

The results of investigations made and records kept by teachers in 1925 and 1926 in the subject of Spelling were embodied in Cooperative Review Tests which were given in all grades above the second in October, 1925, and January, 1927.

The Cooperative Review Tests for 1928 include all the different words selected for the other two tests. It is proposed that these words be given first in the grade in which they are originally studied, and that each test also be given in every grade above the one where the words are originally studied.

In this way we shall discover what words persist in being difficult words from grade to grade, and, in general, about where certain words cease to be difficult for a great majority of children.
(1.) The information obtained from tests given in this way is valuable first of all to the individual pupil, because it enables him to gauge his spelling ability.
(2.) Next in importance is its value to the teacher, because she can review the particular words that her pupils most need to study; and we know that there is considerable variety to these words even in different rooms in the same grade in any school.
(3.) Last of all, but still important in promoting good spelling, is the value of these records to the Committee on Spelling and to teachers as a whole, because from the reports submitted a composite review list will be prepared that will enable teachers to review, each year, the words most likely to retain their difficulty from grade to grade.
III. board of superintendents' circular no. 14, 1928-29. General Introduction.
The immediate aim of the Cooperative Review Test in Spelling given recently in the Boston Public Schools was to discover what words, required to be taught in Grades III to VIII according to the Boston Word List, are the hardest for pupils in:
(a.) each grade where the words are taught, and,
(b.) subsequent grades where the words are supposed to be known because of previous teaching.
To fully discuss the value of these tests and their relation to the Boston Plan for Teaching Spelling would require a much longer report than seems desirable at the present time, but a few comments on some aspects of the tests as related to improvement in teaching are necessary to make it clear that they have a considerably broader aim than merely the compilation of a list of the "hardest words."

1. If the directions in the Boston Plan have been followed and applied to the Tests, each pupil will have made a list of all the words he has misspelled in these tests, in addition to his list of words misspelled in regular lessons during the year. This in itself is the foundation upon which the pupil's study of review spelling should rest, and if properly handled furnishes a most useful basis for individual work at the opening of school in September.
2. If the suggestion in the circular accompanying the Tests was followed (see Board of Superintendents' Circular No. 22, 1927-28) each teacher will have recorded in her copy of the New Boston Spelling List the per cent of error for each word in all the tests given, both those for her own grade and those of all grades below her own. This information will enable teachers, by an exchange of records, to make the spelling review with which each year's work should begin a much more personal and interesting exercise than a review of any city-wide list could be. In value this information is second only to the pupils' list of his own misspelled words, and it correlates with the teacher's percentage records of the class performance in daily tests throughout the year.
3. In addition to the individual and class records that may have been made as indicated in 1 and 2 above there has been prepared a list of all the words given in the various tests with a record after each word showing its relative difficulty in the respective grades. No general list of "hard words" can take the place of the lists referred to in 1 and 2 above. Such general lists usually lack the element of satisfying a felt or recognized need. Frequently the words are not derived from the experience of pupils and teachers who are to use them, and to a large, though variable, extent they may not be in accordance with such experience.

In the present instance, however, it was possible to prepare a general list which, although not as valuable as the specific lists kept by pupils and teachers, still must possess an element of personal interest because of the participation of the parties concerned.

It is of slight consequence to know merely what words are hardest in each grade for pupils who have just finished an intensive review of these words after more or less study through the year; but it is of great value in the general teaching of spelling to know whether these same words persist in difficulty from grade to grade as pupils continue to use them in their daily work.

In making the general spelling list of "hard words" for the City of Boston it was decided to pursue a course that would result in a list of permanent value, through the participation of pupils and teachers in Grades III to VIII, inclusive.

## Method of Procedure.

A test for each of these six grades was prepared, consisting of fifty or more words previously reported by teachers as being the hardest words in the regular grade assignments from the Boston Word List. (See Board of Superintendents' Circular No. 22, 1927-28.)

The third grade test was given in Grades III, IV, V, VI, VII and VIII, the fourth grade test in Grades IV, V, VI, VII and VIII, and so on, the eighth grade test being given only in Grade VIII.

Instead of averaging the percentage records of wrong spell-
ings for each word in all the grades and rooms, it was decided to rate the relative difficulty of each word on the basis of the number of teachers who included it among the twenty hardest words out of the fifty or more words in the respective tests. This method determined the words that were hardest for the greatest number of classes, and if there were any difference between it and a method based on per cent of error, the method of selection chosen would undoubtedly be the more valuable of the two and would probably yield substantially the same result.

Teachers were instructed to check the twenty hardest words in each test, and the results of this checking were tabulated in each school on special report sheets by means of which the record could be made for each test in a grade in about two minutes' time.

The records thus made were transcribed and added by one hundred third-year students in Teachers College, and the results thus obtained were copied, added and checked.

The final result shows the number of teachers who reported each word as among the twenty hardest. The words in the third grade test were reported on by teachers in Grade III and five higher grades, the words in the fourth grade test by the teachers in Grade IV and four higher grades, and so on.

Reports were submitted in proper form on or before May 10 from sixty-six school districts representing the following number of teachers (and classes) by grades:
VIII. 178 teachers. V. 236 teachers.
VII. 183 teachers. IV. 236 teachers. VI. 240 teachers. III. 219 teachers.

Assuming an average of forty pupils to a teacher:
Grade VIII. $178 \times 40$ pupils took 6 tests 42,720 pupil tests.
Grade VII. $183 \times 40$ pupils took 5 tests 36,600 pupil tests. Grade VI. $240 \times 40$ pupils took 4 tests 38,400 pupil tests. Grade V. $236 \times 40$ pupils took 3 tests 28,320 pupil tests. Grade IV. $236 \times 40$ pupils took 2 tests 18,880 pupil tests. Grade III. $219 \times 40$ pupils took 1 test 8,760 pupil tests.

173,680
Each test contained about fifty-five words, so that approximately nine and one-half million records were examined by pupils and teachers, of which twenty out of fifty-five or nearly three and one-half million were checked and results tabulated in
the schools. The number of records actually transcribed and added was 61,500 in the first grouping and 4,620 in the second. The final totals were recorded and other records checked for reasonable accuracy in the office of the Model School. This final summary resulted in 1,155 items showing the total number of teachers reporting certain words as among the twenty hardest in some grade, and it is believed that the results are substantially correct.

It is interesting to note that a wide variation in "hardest words" occurs in these reports from school districts. A similar variation was found in the reports of individual teachers on their grade lists as a result of the year's work. (See Board of Superintendents' Circular No. 15, 1926-27.)

The only words in all the tests that are not included by one or more districts as among the twenty hardest are two words in the seventh grade test given in Grade VII, the same two words and three others in the seventh grade test given in Grade VIII, and seven words in the eighth grade test given in Grade VIII.

The following lists contain all words given in the Cooperative Review Tests for 1928. The figures opposite each word represent the per cent of teachers in the grade who reported the word as being among the twenty hardest words in that particular test. A star in addition to the number indicates that the word is one of the twenty hardest, taking all reports into consideration.*

It should be borne in mind that the term "hardest" means "most frequently reported as misspelled." It may be that some words not so reported are intrinsically "harder," but that normal teaching, review and use have fixed the spelling more firmly in the minds of pupils.


| Grade III. | III. | IV. | V. | V'I. | VII. | VIII. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8. carried | 31 | 8 | 16 | 12 | 10 | S |
| 9. caught | 21 | 9 | 10 | 10 | 8 | 10 |
| 10. Christmas | 41 | * 42 | 40 | 30 | * 44 | * 49 |
| 11. circus | * 45 | 29 | 39 | 38 | 17 | 16 |
| 12. clothes | 29 | 20 | 24 | 36 | * 57 | * 56 |
| 13. couldn't | * 54 | 41 | * 49 | * 58 | * 63 | * 57 |
| 14. country | 23 | 5 | 2 | 3 | 1 | 1 |
| 15. cousin | * 43 | 12 | 14 | 7 | 8 | 11 |
| 16. doesn't | * 61 | * 76 | * 75 | * 81 | * 83 | * 84 |
| 17. eight | 6 | 2 | 2 | 3 | 5 | 8 |
| 18. February | * 60 | * 64 | * 63 | * 81 | * 83 | * 87 |
| 19. field | 33 | 19 | 25 | * 47 | 24 | * 40 |
| 20. friend | * 49 | 25 | 29 | * 43 | 23 | 25 |
| 21. fruit | 8 | 3 | - 3 | 2 | 1 | 1 |
| 22. guess | 23 | 32 | 32 | 21 | 27 | 36 |
| 23. instead | 23 | 12 | 8 | 5 | 7 | 7 |
| 24. knives | 26 | 35 | * 42 | 39 | * 41 | * 44 |
| 25. laughed | * 56 | * 64 | * 80 | * 80 | * 77 | * 83 |
| 26. listen | 20 | 15 | 37 | 27 | 37 | 33 |
| 27. minute | * 51 | * 71 | * 72 | * 64 | * 66 | * 60 |
| 28. naughty | 39 | 37 | * 43 | * 42 | 30 | 31 |
| 29. neither | * 72 | * 83 | * 88 | * 88 | *93 | * 81 |
| 30. October | 13 | 3 | 2 | 5 | 7 | 9 |
| 31. people | 24 | 3 | 3 | 0 | 1 | 2 |
| 32. piano | 36 | * 42 | * 58 | 37 | 39 | 38 |
| 33. picture | * 42 | 21 | 5 | 3 | 3 | 9 |
| 34. piece | 41 | 35 | * 62 | * 69 | * 59 | * 62 |
| 35. pitcher | * 64 | * 81 | *91 | * 90 | * 94 | * 92 |
| 36. pleasant | * 59 | * 82 | * 88 | * 84 | * 86 | * 73 |
| 37. primary | 36 | * 79 | * 73 | * 66 | * 72 | * 57 |
| 38. question | * 44 | * 79 | 27 | 9 | 7 | 8 |
| 39. quiet | 27 | * 53 | * 44 | * 56 | * 62 | * 60 |
| 40. Saturday | 31 | 37 | 30 | * 41 | * 59 | * 67 |
| 41. squirrel | * 67 | * 90 | * 96 | * 93 | * 94 | * 88 |
| 42. sugar | 14 | 5 | 2 | 4 | 3 | 7 |
| 43. their | * 53 | * 59 | * 49 | 40 | * 48 | * 40 |
| 44. thought | 16 | 5 | 4 | 5 | 4 | 4 |
| 45. through | * 62 | * 42 | 30 | 27 | 24 | 30 |
| 46. toward | 30 | * 51 | * 42 | 37 | 23 | 30 |


| Grade III. | III. | IV. | V. | VI. | VII. | VIII. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 47.trouble | $* 42$ | 17 | 37 | 23 | 26 | 22 |
| 48. | Tuesday | 22 | 17 | 16 | 14 | 26 |
| 49. Wednesday | $* 47$ | $* 65$ | $* 64$ | $* 79$ | $* 81$ | $* 73$ |
| 50. | which | 35 | $* 52$ | $* 55$ | 23 | 15 |
| 51. | whistle | $* 63$ | $* 87$ | $* 81$ | $* 70$ | $* 60$ |
| 52. | whole | 19 | 24 | 10 | 7 | 9 |
| 53. | whose | 27 | 14 | $* 42$ | 38 | 30 |
| 54. | writing | 24 | 31 | 15 | 12 | 24 |
| 55. | wrong | 14 | 2 | 2 | 5 | 1 |


| Grade IV. | IV. | V. | VI. | VII. | VIII. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. against | 3 | 1 | 1 | 0 | 2 |
| 2. answered | 7 | 3 | 3 | 4 | 2 |
| 3. beautiful | 12 | 8 | 3 | 2 | 2 |
| 4. beginning | 29 | 46 | 40 | 36 | * 57 |
| 5. behave | 1 | 1 | 0 | 1 | 1 |
| 6. believe | 16 | 15 | * 48 | 16 | 34 |
| 7. biscuit | 32 | 29 | 32 | * 54 | * 48 |
| 8. busily | 47 | * 61 | * 46 | * 76 | * 72 |
| 9. business | * 74 | * 85 | * 78 | * 79 | * 71 |
| 10. carriage | * 49 | 38 | * 52 | 39 | * 59 |
| 11. certain | 23 | 11 | 12 | 5 | 7 |
| 12. cough | 3 | 3 | 2 | 4 | 7 |
| 13. dessert | * 57 | * 79 | * 86 | * 91 | * 92 |
| 14. difficult | 30 | 11 | 13 | 22 | 8 |
| 15. drowned | 26 | 7 | 18 | 24 | 30 |
| 16. earliest | * 54 | * 67 | * 48 | * 47 | 30 |
| 17. eighth | 33 | 20 | 33 | 36 | 40 |
| 18. enough | 11 | 2 | 1 | 4 | 2 |
| 19. envelope | 25 | 22 | * 46 | * 50 | 13 |
| 20. fierce | * 75 | + 53 | * 73 | 36 | * 53 |
| 21. furniture | 33 | 15 | 13 | 12 | 10 |
| 22. geography | 17 | 5 | 5 | 1 | 3 |
| 23. groceries | * 55 | 35 | 38 | * 46 | 42 |
| 24. guard | 39 | 30 | 38 | 34 | 21 |
| 25. handkerchief | 21 | 18 | 27 | * 52 | * 70 |
| 26. journey | * 49 | 41 | 42 | 27 | 12 |



| Grade V. | V. | VI. | VII. | VIII. |
| :---: | :---: | :---: | :---: | :---: |
| 8. calendar | 10 | 12 | 33 | * 58 |
| 9. ceiling | 11 | 3 | 11 | 17 |
| 10. celebrate | 7 | 2 | 0 | 0 |
| 11. college | 20 | 14 | 16 | 8 |
| 12. column | 34 | 31 | 33 | * 49 |
| 13. courage | 7 | 3 | 3 | 1 |
| 14. eightieth | * 61 | 38 | * 79 | * 84 |
| 15. exercise | * 61 | * 63 | * 66 | * 61 |
| 16. favorite | 27 | 9 | 24 | 17 |
| 17. fertile | 25 | 3 | 7 | 4 |
| 18. finally | * 42 | 21 | 21 | 13 |
| 19. fragrant | 8 | 8 | 28 | 11 |
| 20. funeral | 16 | 4 | 5 | 2 |
| 21. governor | 29 | 13 | 17 | 21 |
| 22. hygiene | * 61 | * 68 | 43 | 28 |
| 23. invitation | * 54 | * 46 | 33 | 14 |
| 24. knuckie | 16 | 27 | 18 | 43 |
| 25. library | 20 | 14 | 8 | 4 |
| 26. luncheon | 12 | 7 | 3 | 2 |
| 27. manufacture | 4 | 1 | 2 | 1 |
| 28. medicine | * 42 | 25 | 31 | 31 |
| 29. molasses | * 47 | 42 | * 50 | * 59 |
| 30. museum | * 51 | * 48 | * 58 | 38 |
| 31. national | 23 | 8 | 3 | 0 |
| 32. opposite | 35 | 13 | 5 | 3 |
| .33. passenger | 10 | 6 | 3 | 2 |
| 34. phonograph | 37 | 14 | 23 | 11 |
| .35. practice | * 43 | * 48 | * 61 | * 56 |
| .36. prairie | * 78 | * 88 | * 96 | * 96 |
| :37. principal | * 58 | * 44 | * 48 | * 53 |
| :38. really | 15 | 8 | 14 | 13 |
| 39. respectfully | 34 | 22 | 20 | 8 |
| 40. scenery | * 56 | * 48 | 38 | 24 |
| 41. separate | 10 | * 45 | * 55 | * 71 |
| 42. several | 8 | 3 | 1 | 2 |
| 43. shepherd | 29 | * 74 | * 81 | * 88 |
| 44. signature | 35 | 39 | 21 | 22 |
| 45. sincerely | * 73 | * 59 | * 67 | * 78 |
| 46. source | * 43 | 33 | 15 | 8 |


| Grade V. | V. | VI. | VII. | VIII. |
| :--- | ---: | ---: | ---: | ---: |
| 47. sympathy | $* 64$ | $* 82$ | $* 74$ | $* 61$ |
| 48. temperature | $* 67$ | $* 73$ | $* 50$ | 40 |
| 49. thermometer | $* 64$ | $* 82$ | 27 | $* 78$ |
| 50. tobacco | 39 | 25 | 14 | 21 |
| 51. toboggan | $* 74$ | $* 84$ | $* 88$ | $* 92$ |
| 52. twelfth | $* 52$ | $* 78$ | $* 91$ | $* 109$ |
| 53. vinegar | $* 42$ | $* 63$ | $* 49$ | 48 |
| 54. wholly | 40 | $* 72$ | $* 62$ | $* 65$ |
| 55. wrestle | 35 | 33 | 25 | 32 |


| Grade VI. | VI. | VII. | VIII. |
| :---: | :---: | :---: | :---: |
| 1. absence | 6 | 2 | 9 |
| 2. advertisement | 13 | 1.4 | 12 |
| 3. affectionately | 25 | 33 | 37 |
| 4. alphabet | 9 | 5 | 7 |
| 5. apostrophe | 23 | * 52 | * 60 |
| 6. appetite | * 54 | 31 | 14 |
| 7. athletic | 12 | 7 | 14 |
| 8. canceled | 29 | * 72 | * 77 |
| 9. cemetery | 30 | * 60 | * 74 |
| 10. certificate | 1.3 | 6 | 4 |
| 11. conquer | S | 8 | 10 |
| 12. cordially | * 47 | 41 | 37 |
| 13. courtesy | * 51 | 28 | 41 |
| 14. deceive | 37 | * 63 | * 57 |
| 15. describe | 14 | 7 | 3 |
| 16. description | 26 | 21 | 19 |
| 17. electricity | 12 | 3 | 5 |
| 18. especially | * 60 | 27 | 12 |
| 19. expense | 22 | 5 | 3 |
| 20. familiar | 26 | 30 | * 47 |
| 21. foreign | * 49 | 40 | 13 |
| 22. foreigner | * 5 S | * 58 | 29 |
| 23. freight | 8 | 6 | 2 |
| 24. government | 6 | 1 | 1 |
| 25. gradually | 10 | 3 | 0 |
| 26. horizontal | 8 | 8 | 10 |
| 27. immediately | * 66 | * 47 | * 53 |



| Grade Vil. | VII. | VIII. | Girade Vil. | VII. | V111. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13. disappear | 14 | 9 | 33. parliament | * 63 | * 70 |
| 14. disappearance | 42 | 28 | 34. physician | * 51 | * 60 |
| 15. disappoint | 20 | 16 | 35. pneumonia | * 63 | * 60 |
| 16. formerly | 37 | 45 | 36. precede | * 50 | * 52 |
| 17. gymnasium | 28 | 23 | 37. prejudice | * 78 | * 93 |
| 18. gymnastics | 11 | 5 | 38. principal | * 58 | * 51 |
| 19. independence | 4 | 8 | 39. privilege | * 72 | * 87 |
| 20. judgment | 38 | * 58 | 40. recommendation | * 61 | * 74 |
| 21. knowledge | 5 | 2 | 41. reser voir | * 78 | * 84 |
| 22. legislature | 5 | 5 | 42. rheumatism | * 81 | * 85 |
| 23. leisure | 26 | 16 | 43. secretary | 31 | 14 |
| 24. license | 35 | 32 | 44. seize | 42 | 32 |
| 25. mischievous | * 70 | * 85 | 45. siege | * 57 | * 80 |
| 26. modern | 9 | 4 | 46. sieve | * 50 | * 78 |
| 27. mortgage | 44 | 41 | 47. specimen | 25 | 18 |
| 28. mystericus | 25 | 14 | 48. stationary | 11 | 27 |
| 29. naphtha | * 68 | * 74 | 49. stationery | 17 | 38 |
| 30. nuisance | * 59 | * 68 | 50. successful | 30 | 30 |
| 31. opportunity | 34 | 17 | 51. superintendent | * 53 | * 77 |
| 32. parallel | * 76 | * 81 |  |  |  |


| Grade VIII. | VIII. | Grade VIII. | VIII. |
| :---: | :---: | :---: | :---: |
| 1. accommodate | 37 | 16. convenient | 37 |
| 2. allegiance | * 63 | 17. correspondence | 20 |
| 3. amateur | * 47 | 18. counterfeit | 36 |
| 4. ammunition | 20 | 19. courageous | 39 |
| 5. anxiety | 9 | 20. criticise | * 81 |
| 6. apologize | 28 | 21. cylinder | 12 |
| 7. bachelor | 13 | 22. decision | * 54 |
| 8. benefited | 41 | 23. democracy | 4 |
| 9. campaign | 9 | 24. descendant | * 84 |
| 10. catalogue | 31 | 25. diphtheria | * 61 |
| 11. chauffeur | * 60 | 26. discipline | * 76 |
| 12. conscience | * 48 | 27. economical | 27 |
| 13. conscientious | * 83 | 28. elaborate | 4 |
| 14. conscious | * 57 | 29. guardian | 13 |
| 15. contagious | 22 | 30. hygienic | 25 |


| Grade Viif. | VIII. | Grade Vili. | VIII. |
| :---: | :---: | :---: | :---: |
| 31. imaginary | * 47 | 41. punctuality | 37 |
| 32. immigrant | * 68 | 42. pursuit | 12 |
| 33. lieutenant | * 68 | 43. representative | 27 |
| 34. majority | 7 | 44. responsible | 4 |
| 35. necessity | * 59 | 45. satisfactory | 3 |
| 36. neutrality | 10 | 46. similar | 42 |
| 37. occasionally | * 82 | 47. sovereign | * 76 |
| 38. occurrence | * 84 | 48. sufficient | 37 |
| 39. politician | * 47 | 49. surgeon | 18 |
| 40. possession | 43 | 50. villain | * 82 |

The results of these tests, and the careful and conscientious study made by hundreds of teachers over a period of several years in Boston, have given us a knowledge of word difficulties and spelling needs that should be of the greatest value in all grades. Except where principals and teachers desire to continue the percentage records on all words from day to day as part of the regular teaching program there is no reason why the percentage tables should be used any longer in every lesson.

It is hoped, and it seems reasonable to believe, that the method for determining word difficulties set forth in the Boston Plan for Teaching Spelling, and the general principles of procedure outlined for using the Boston Word List have made an appeal to teachers that will endure, and that there will be a constant and voluntary growth in individual practice based upon the Boston Plan, supplemented by the teacher's own interpretation.

> Respectfully submitted,
> Jeremiah E. Burke, Superintendent of Public Schools.

## SCHOOL DOCUMENT NO. 12-1928 BOSTON PUBLIC SCHOOLS

## SPECIIL SYLLLAUUS-SHOPWORK, REVISED

(CONTAINING INFORMATION RELATIVE TO THE CONDUCT OF SHOP COURSES AND PRODUCTIVE WORK)

MANUAL TRAINING
GRadES VI, VII, VIII
MECHANIC ARTS
GRadES VII, VIII, IX
GRADE VI (Elementary)

$$
1928=1929
$$

In School Committee, November 5, 1928.
Ordered, That the accompanying "Special Syllabus-Shopwork, Revised" is hereby adopted, and that one thousand $(1,000)$ copies be printed as a school document.

Attest:
ELLEN M. CRONIN,
Secretary.

## SHOPWORK FOR GRADES VI, VII, VIII, IX.

## INTRODUCTION.

There is now ample opportunity for specialized shopwork beyond the elementary and intermediate schools. The Boston Trade School, the Mechanic Arts High School, and the co-operative courses in a number of the general high schools all give such opportunity. Shopwork in elementary and intermediate schools, therefore, while continuing to emphasize technic, should embrace a great variety of experiences.

Edward C. Emerson, Associate Director of Manual Arts.

## COMMITTEE IN CHARGE OF REVISION.

Following is a list of committees participating in the revision of this shopwork syllabus:

## Grades VI, VII and VIII.

George F. Hatch, Assistant Director of Manual Arts.

Bookbinding:
Frank V. Kenney.

Electricity:
Earl R. Freeman.
Vashni Marchant.

Interior Decorating:
Norman P. Barker.

Machine Shop Practice:
Carl E. Janson.
Albert J. Pfau.

Printing:
Charles M. Doherty.
Blanche S. Hall.

Sheet Metal:
Hugh J. Cox.
Edward W. Malone.
William Moore.

Woodworking:
Grade VI.
Cornelia D. Burbank.
Florence P. Donelson.
Amalie F. Grutzbach.
Mary J. Marlow.
Grade VII.
Kate E. Coney.
Margaret A. Mahony.
William H. Powers.
Clarence R. Rees.
Grade VIII.
Marion C. Donelson.
William E. O'Connor.
L. Gertrude Sprague.

Harold R. Wise.
Mechanical Drawing:
Willis C. Brown.
Michael J. English.
Edward W. Malone.
Henry S. Needham.
Cyril W. Shovelier.

## Grade IX.

Francis L. Bain, Assistant Director of Manual Arts.

Auto Mechanics:
Cornelius T. Curtin.
Daniel J. Galvin.
Alexander MacGilvray.

Electricity:
Henry C. Fellman.
Earl R. Freeman.
Vashni Marchant.
Maurice J. Moriarty.

Machine Shop Practice:
Robert Baker.
Abraham S. Burnes.
James C. Clarke.
Carl E. Janson.
Francis J. Lee.
Walter H. Naylor.
Albert J. Pfau.

Patternmaking:
James B. Cummings.
Isaac Goddard.
Andrew J. Leahy.

Printing:
Richard V. Barry.
Charles M. Doherty.
Frederick L. Eames.
Frank V. Kenney.
John A. Rice.
Frank P. Rich.
Sheet Metal:
William Moore.
Arthur E. Olsen.
Thomas A. Roche.
Woodworking:
Arlon O. Bacon.
Celia B. Hallstrom.
William E. O'Connor.
Andrew Roswall.
Orren R. Tarr.
Arvid J. Wahlstrom.
Harold R. Wise.
Mechanical Drawing:
Arlon O. Bacon.
James C. Clarke.
Alexander MacGilvray.
Maurice J. Moriarty.
Walter H. Naylor.
Thomas A. Roche.

## PART I.-AIMS AND MEANS.

## AIMS.

## Grades VI, VII and VIII.

1. To develop interest in abstract problems and thinking through contacts with concrete problems.
2. To develop a general industrial and vocational intelligence by stimulating an interest in those industries which are fundamental to civilization; and through acquaintance with the particular industrial activities of the community.
3. To develop an ability to execute with a fair degree of skill a variety of tool manipulations in different materials.
4. To develop such general sense of construction and adaptability of materials as will aid the pupil in solving many of those mechanical problems which he will encounter in his daily life, thus contributing to worthy home membership.
5. To develop interests and powers which will contribute to the worthy use of leisure.
6. To develop discrimination in purchasing, and intelligence in using objects of everyday use.

## Grade IX.- Mechanic Arts Course.

(To prepare for the industries.)

1. The pupil on entering this course has chosen to follow some mechanical pursuit as a life work. He is planning to enter the tenth grade of the secondary school of his choice, either in preparation for a trade or for a higher technical school.
2. To develop a sense of true craftsmanship.
3. To develop a degree of skill and accuracy commensurate with trade requirements.
4. To develop a degree of speed in operation.
5. To become acquainted with manipulative operations required in industry.
6. To become acquainted with proper methods of quantity production.
7. To appreciate and enjoy a fine piece of construction and the pleasure which is derived from making it.

## MEANS.

## Grades VI, VII and VIII.

1. A graded series of manipulative experiences drawn from auto mechanics, woodworking, printing, bookbinding, machine shop practice, electrical work, sheet metal work, painting, and gardening.
2. Trips to manufacturing establishments and guided observation of building activities of industrial significance which may be in progress in the community.
3. The display of and frequent reference to instructive and illustrative material as follows:

Charts showing the evolution of tools and process of manufacture.
Books on tools and industry.
Specimens of the common woods.
Government bulletins pertaining to forestry, bird life, mining, industrial conditions, etc.

Catalogues of machines and tools.
Charts showing tools, screws, nails, hooks, and other hardware supplies and equipment.

Blueprints, drawings and photographs of interesting problems.

* Files of "Industrial Education."
* Files of "Industrial Arts Magazine."
* Files of "American Forestry."

Books in the Administration Library.
Motion pictures of industrial processes given from time to time through the co-operation of different manufacturers.
4. The undertaking of such construction and repairs as are within the ability of the pupil and are consistent with the principles of education. (See page 10, "Orders required.")

## Grade IX.- Mechanic Arts Course.

1. A graded series of manipulative exercises developing into actual production problems.

2, 3 and 4. Same as for Grades VI, VII and VIII.

[^50]
## PART II.-REGULATIONS GOVERNING SHOP ADMINISTRATION AND PROCEDURE.

## Admission of Pupils to Shopwork.

Only pupils who have reached Grade VI, or who are twelve years of age or over, may be admitted to classes in shopwork.

## Time Allotment.

## Manual Training.

Grade VI.- Two hours ( 120 minutes) each week are required for this grade. (See School Document No. 18, 1926, page 11; also Board of Superintendents' Circular No. 31, 1927-28.)

Grades VII and VIII.- One and one-half hours ( 90 minutes) are allowed for these grades. (See School Document No. 3, 1925, pages 33 and 34; Supplement to School Document No. 3, 1928; also Board of Superintendents' Circular No. 31, 1927-28.)

## Mechanic Arts.

Note.- In order to organize elementary mechanic arts classes in districts where they have not been established, it will be necessary to obtain the approval of the Board of Superintendents for submission to the Superintendent for action by the School Committee.

Grade VI. -450 minutes a week (ten 40 -minute periods) to which are added 50 minutes from recess and physical training time.

Grades VII and VIII.- 320 minutes a week (eight 40-minute periods) plus one-half the recess time for each morning class and physical training time for afternoon classes.

Grade IX.-Shopwork: 320 minutes a week (eight 40-minute periods) plus one-half the recess time for each morning class and physical training time for afternoon classes.

Mechanical Drawing: 80 minutes a week (instruction by shop teacher).

Technical Preparatory Course: In schools where this course is offered, pupils enrolled may elect four periods of mechanical drawing (instruction to be given by the shop teachers). (See School Document No. 3, 1925, pages 33 and 34; Supplement to School Document No. 3, 1928; also Board of Superintendents' Circular No. 31, 1927-28.)

## Courses Planned by Teachers.

Teachers originate courses of study which are consistent with local conditions, arrange their subject-matter in a manner to conform to the minimum requirements for each grade, giving special consideration to the first column in order that the several experiences shall be presented to the boy at such times in his development as to result in a vigorous mental reaction.

The plan of such a special course of problems must be available for approval at any time.

## Lesson Planning.

Each lesson should be carefully planned as to content before it is given. Interest and amount of ground to be covered must be fully considered. Teachers should keep a pupil record, so that they may plan all individual work in advance.

## Correlation.

Certain projects involving some of the principles and processes outlined in this syllabus will be carried out in co-operation with the teachers of mathematics, science, English composition and art. These projects with their correlated academic work will be found in a pamphlet which will accompany this course of study.

In order that the pupils shall get the greatest value from this related work it is necessary that the following points be kept in mind:

1. Correlation is the interrelation of academic subjects with shop activities carried on in a purely educational way.
2. To have the highest educational value, it is necessary that the shopwork in connection with these particular projects should parallel the academic work as completely as possible. It should at no time go on so rapidly that the principle of motivation for the academic subjects is lost sight of, neither should it be so far behind that no challenge nor demand for academic facts is ever experienced by the pupils.

## Productive Work.

Team work and industrial methods are recommended.

## Manual Training Classes.

Each pupil may be called upon to work a reasonable amount of time (about 10 per cent) for the schools, or on approved orders.

## Mechanic Arts Classes.

Each pupil may be called upon to work 50 per cent of his time for the schools, or on approved orders. Pupils in these classes may go outside of their own districts to do such work.

No productive work should be undertaken until a job order for the work is received from the Department of Manual Arts. It is the aim of the department to permit only such productive work as is of educational value, and to avoid exploitation of the pupil. Orders are to be accepted by the instructor only when the job is within the ability of the pupils of his class and can be done with educational profit.

Commercial orders may be accepted to a limited extent by the associate director of manual arts, with the approval of the assistant superintendent in charge, except in printing. Occasionally individual pupils may do a job for a parent. They may also accept small jobs for religious or charitable organizations in which they are personally interested. All other charitable work may be accepted by the department only through the Red Cross.

Printing for the home district may be done in reasonable quantities, provided it is not in the nature of lesson sheets, courses of study, or forms for school use. All other jobs must be requisitioned in the usual way (see page 12), sent to the Department of Manual Arts for approval of production, and are forwarded to the Superintendent for approval of subject-matter.

Payment for stock. - All jobs for the school other than those on requisitions approved by the Superintendent, must be printed on stock furnished by the principal.

School papers.- The Department of Manual Arts is very glad to co-operate in the publishing of limited editions of school papers. When material for these publications is furnished through the Department of Manual Arts, it is necessary for the department to receive a requisition from the principal covering the number of copies of the issue. The charge will be only the cost of material involved. When the stock for the issue is furnished from any other source, no requisition is necessary.

Note.-As a rule, stock needed for papers and pamphlets is not found upon the list of authorized material for elementary and intermediate schools, and may be ordered only by the department.

Advertisements in school periodicals. - The securing of advertisements for school publications printed by pupils is allowable.

## Orders Required.

The Schoolhouse Commissioners and the Business Manager have ruled that pupils should not do work affecting the structure of school buildings, nor involving the use, aside from the prescribed course of study, of materials supplied by the city, except upon their respective orders placed through the Department of Manual Arts.

## Kinds of Work.

Work can be done in woodworking, printing, bookbinding, machine shop work, electricity, sheet metal, painting and lettering.

Auto mechanics classes can accept only such work as may be done in a laboratory. Cars are not taken in for repairs.

## Charge for Work.

Work having the general character of school supplies must be ordered on School Committee requisitions and will be charged against the principal's per capita allowance at a fair market price.

Work in the nature of furniture or of structural alterations must be ordered upon requisitions of the Schoolhouse Commissioners. In such cases the School Committee acts as a contractor in the employ of the Schoolhouse Commissioners and is paid at commercial rates for the work.

## Sending Requisitions.

In all cases where the department can be of service, a requisition made on the proper form and signed by the principal should be sent to the office of the department. If the work is to be done in the local shop this requisition should be accompanied by the shop teacher's estimate of the price to be charged as described above.

Following are sample requisitions:
A. On the Schoolhouse Commissioners (for furniture, shelves attached to walls of buildings, etc., or repairs to any school property of which theSchoolhouse Commissioners are custodians).
B. On the School Committee (for small articles other than furnitureand not attached to any part of the school building).

## A.

NOTICE.
All Requests Must be Made on These Forms, and Addressed to the
Schoolhouse Commissioners. A Separate Form Should be Used
for Each Class of Work.
Boston,...................................... 19
To the SCHOOLHOUSE COMMISSIONERS:
I request that the following work be done:
Furnish one chestnut bookcase, size 3 feet 6 inches wide by 6 feet high by 10 inches deep, with 6 shelves (adjustable). Finish "Brown Oak."

I recommend that this work be done by the Department of Manual Arts.


[^51]


Principals will fill in Columns A, B, and Conly.

* Teachers must not fill in this blank.
$\dagger$ To be secured from the shop instructor.


## Home Mechanics and Material.

In so far as equipment will permit, emphasis should be placed upon home repair work such as: setting glass, soldering of utensils, making thresholds, repairing furniture, cane-seating, putting in window cords, placing new washers in faucets, etc.

Because of the very high cost of material, pupils may be encouraged, occasionally, to bring in from home such supplies as: tin cans and boxes, boards from packing cases, etc. Caution should be exercised by the teacher, however, to see to it that such salvage material is obtained legitimately.

## Disposition of Product to Pupils.

When problems are worked out in materials furnished by the school the products are technically the property of the city; but regular, personal problems, executed during shop periods, may be given to the pupils, with permission of the principal, as follows:

One object each year if desired by the pupil for a Christmas gift may be given him immediately after completion.

Class sets of problems may be given to the pupils when the next full set is completed, provided one or two specimens of each problem, and several examples of any work, required or original, correlating with art education or other subjects, have been selected to be kept for one year.

## Work for Individuals.

Work for other than school purposes, except printing (see page 10), when approved by the department may be done, but only in limited quantities, and must be charged at a reasonable market price, except when such work originates with the pupil for use by him or his family. (See Payment by Pupils.)

## No Concession to Former Pupils.

Pupils who have left the school are not to be permitted to purchase material nor work in the school shops.

## Payment by Pupils.

## For Materials.

The School Committee has ordered that "pupils be required to pay the cost of all materials used in making articles other than those termed the "regular models."" This is construed as meaning that if the pupil selects a problem which calls for materials disproportionate in amount or value, he should pay the difference between the price of such materials and those which he might reasonably be expected to use during the regular shop time. (Prices may be found on lists furnished, or upon application to the department office.)

## For Broken or Lost Tools.

The shop equipment, as in the case of books, is "loaned to pupil," and if any part of it be "lost or damaged by carelessness or accident beyond what may be reasonably allowed . . . it is to be replaced by the pupil to whom it is loaned, and in the way required by the School Committee."

## ADMISSIONS TO HIGH SCHOOLS FROM MECHANIC ARTS COURSES.

Pupils from Grade VIII, elementary schools, from all parts of the city will be admitted to the ninth grade co-operative courses in Brighton, Dorchester High School for Boys, East Boston, Hyde Park, Memorial High School for Boys, South Boston, and the co-operative agricultural course in the Jamaica Plain High School.

A limited number only from the schools in Charlestown may be admitted to the ninth grade co-operative course in the Charlestown High School. Other pupils electing a ninth grade electrical course may transfer to an intermediate school offering a ninth grade electrical course.

Pupils in intermediate districts will be required to pursue ninth grade work in their home districts, provided that such pupils wishing to attend the Mechanic Arts High School, a trade school, or a co-operative agricultural or industrial course may and should make their election at the completion of the eighth grade unless they are assigned in their home districts, in accordance with the following schedules, to ninth grade courses accepted as preparatory to the tenth grade courses desired.

Admissions to a tenth grade mechanic arts or full time industrial course from a ninth grade course will be in accordance with the following:

TO
FROM
Jamaica Plain High School - Any ninth grade course.
Mechanic Arts High School - Any ninth grade mechanic arts course.
Boston Trade School - Any ninth grade mechanic arts course in which the pupil has had one full year of shopwork in the shop subject of his choice.
Admissions to the tenth grade of a co-operative industrial course may be made when the pupil has successfully completed one full year in one of the ninth grade mechanic arts courses listed opposite the high school to which that pupil seeks admission.

Brighton High School - Auto Mechanics, Machine Shop Practice, or Electricity.
Charlestown High School - Electricity.
Dorchester High School for Boys - Woodworking.
East Boston and Hyde Park High Schools.- Machine Shop Practice or Woodworking.
Memorial High School for Boys - Printing.
South Boston High School - Sheet Metal.

## PART III.-MINIMUM REQUIREMENTS IN SHOPWORK.

## GRADES VI, VII, AND VIII.

The following statements represent the recommendations of the committees for the minimum requirements in shopwork. These requirements in any of the courses are based on an accomplishment mark of at least " 2 ".

The courses are arranged in unit form, so as to provide a full course of instruction for each year or portion of a year. Therefore, a pupil may begin any one of the courses without having had previous experience or previous instruction in shopwork.

The instruction should be of such a nature that the pupil will know the names and prominent characteristics of all materials used. He should have a general knowledge of the sources and methods of producing these materials, including the processes involved in the manufacture of each and in the final preparation for shop use.

## Mechanical Drawing.

The committee has planned the requirements in mechanical drawing to be given in connection with shopwork in grades six, seven and eight. These requirements will result in the attainment of definite knowledge and skills at the expiration of specified periods of time.

These attainments are to be the minimum requirements for each grade regardless of trade or shop activity. Thus, at a given time, all Mechanic Arts classes of the same grade will be in the same stage of advancement, and changing of shop activity will not interfere with a pupil's progress in drawing. The same is true of Manual Training classes.

Stated in general, the objective is to make it possible for the pupil to obtain knowledge of the Fundamental Principles of Mechanical Drawing and the ability:
(a) To convey mechanical ideas through mechanical sketches.
(b) To visualize and interpret the ideas of another as expressed in mechanical drawing.
(c) To use drawing instruments correctly.
(d) To use and understand drawing conventions.
(e) To appreciate the value of neatness, arrangement, and uniform lettering.

## Time Allotment.

One-eighth of total shop time should be given to mechanical drawing. On the basis of 30 school weeks in the year we have the following:

As there are approximately 60 forty-minute periods per year of manual training shopwork, 8 of these periods should be given to mechanical drawing.

As there are approximately 240 forty-minute periods per year of mechanic arts shopwork, 30 of these periods should be given to mechanical drawing.

In Manual Training classes, it is suggested that mechanical drawing instruction be given in single periods of 40 minutes, at regular intervals throughout the year. In Mechanic Arts classes mechanical drawing instruction should also be given at regular intervals throughout the year. Periods may be single or double, at the instructor's discretion.

## Methods.

In the elementary drawing, third-angle orthographic projection need not be taught as such, as the proper relation of views may be taught by placing them in their correct positions; i. e., top view above front view, side view at right of front view.

## Technic:

Methods of procedure, neatness, care and accuracy, attention to convention details, cleanliness of paper, etc., should be constantly checked.

Particular attention should be given to the care and use of instruments when introduced.

## Models and Projects.

In each shop activity, teach principles from models with which the pupils come in contact. Models should be selected, classified, and arranged progressively to meet the varying needs of the drawing course. When such models are not available, owing to the lack of them in certain activities, they will be supplied by the department.

## Pencils:

$3-\mathrm{H}$ and $4-\mathrm{H}$ pencils are recommended.
$3-\mathrm{H}$ for the sixth grade and for smooth paper work in the seventh and eighth grades.

4-H in the seventh and eighth grades, at the discretion of the teacher.
In grades six and seven pencils should be sharpened with conical point.

In grade eight pencils may be sharpened either with conical or chiselshaped point, at the discretion of the teacher.

## Paper:

Preliminary sketches may be made on squared or plain paper.
Paper should be placed near the upper left-hand corner of the board.

## Inking and Tracing:

Inking and tracing should be explained and a few lessons given, if possible, in the latter part of the eighth grade.

## Lettering.

Freehand Gothic letters, both vertical and inclined (approximately 70 degrees), may be used, although the latter is particularly suggested because it is standard practice.

The spacing basis for the height of letters is what is known as "2 plus 1 "; - that is, the body part of small letters will occupy two of the three spaces allotted to the height of capital letters. Drafting room practice usually specifies a lettering system in which all capitals and the following small letters shall be $\frac{8}{16}$ inch high:

The body part of $\mathrm{b}, \mathrm{d}, \mathrm{f}, \mathrm{h}, \mathrm{k}, \mathrm{l}$, and t shall be $\frac{1}{8}$ inch high, - the stems extending $\frac{1}{16}$ inch above. The body part of $g, j, p, q$, and $y$ shall be $\frac{1}{8}$ inch high, - the stems extending $\frac{1}{16}$ inch below the base line. The small letters $\mathrm{i}, \mathrm{m}, \mathrm{n}, \mathrm{o}, \mathrm{r}, \mathrm{s}, \mathrm{u}, \mathrm{v}, \mathrm{w}, \mathrm{x}, \mathrm{z}$ will be $\frac{1}{8}$ inch high.

Other dimensions for lettering may be used, but this proportion should be maintained whenever possible. Large and small capitals or capitals and small letters may be combined, but the indiscriminate use of vertical and slant letters in the same drawing should be avoided.

## Title Card or Strip.

The two general methods used in standard practice are a title card in the lower right-hand corner of the sheet, $1 \frac{1}{4}$ inches by $3 \frac{1}{4}$ inches, or a strip across the bottom not more than $\frac{3}{4}$ inch wide. As each method has its advantages, both are authorized and should give the following information: the name of object, the scale, the date, and the name of pupil.

## Lines.

1. Margin Lines should be full and heavy.

## Like this

2. Outlines and Visible Edges of objects should be represented by full lines of medium width.

## Like this

3. Invisible Edges should be represented by short dash lines in which the dashes should be $\mathrm{i}^{\frac{1}{6}}$ inch long and the spaces $\frac{1}{3 \cdot 2}$ inch long.

## Like this

4. Extension, Construction, and Blocking-in lines should be full and fine.
Like this $\qquad$

Extension lines should be continued slightly beyond the point where the dimension arrowheads will come in contact therewith, and a $\frac{1}{32}$-inch space should separate the ends of such lines from the corners of the views. Blocking-in lines should be very light and easily erasable. Construction lines should be lightly and accurately drawn and all erasing left until just before finishing the drawing.
5. Dimension Lines should be full and fine, interrupted or broken for the dimension figures, and terminated with small, neat arrowheads, long and slender.


Dimension lines should not cross on a view if it can be avoided.
6. Center Lines should consist of dashes, $\frac{1}{2}$-inch and $\frac{1}{8}$-inch alternating, $\frac{1}{32}$-inch spaces. These lines should be of the same weight as extension lines.
Like this

## Dimensioning.

The dividing line of fractions should always be in line with the dimension line.

Figures should be $\frac{3}{16}$-inch high. The total height of fractions should be slightly more than that of figures, extending a little above and a little below.

Dimensions may be placed between views, and at the bottom and the right sides of views, and should be read from the bottom and right of the drawing.

They should not appear on the face of a view unless necessary. Dimensions should not be repeated.

Over-all dimensions should be given and should be placed outside of sub-dimensions.

In two- and three-view drawings, a sufficient space should be provided between views to allow for necessary details, dimensions, and good proportion.

The standard designation for feet is $\left({ }^{\prime}\right)$, and for inches is $\left({ }^{\prime \prime}\right)$. Feet and inches in combination should be expressed thus: $2^{\prime}-6 \frac{1}{2}^{\prime \prime}$ and should be used for more than $24^{\prime \prime}$.

All arcs and circles should be located from their centers. Ares should be dimensioned by radius (indicated by a small r), the dimension line terminating at the center in a small enclosing circle, and at the circumference in a small arrowhead. Circles should be dimensioned by diameter, placed outside the circle, indicated by capital D.

Dimension lines in a series should be at least $\frac{1}{4}$ inch apart, and $\frac{1}{4}$ inch from the view.

## AUTO MECHANICS. <br> Grades VI, VII, and VIII.

Minimum requirements are now being compiled, and will be printed as a supplement to this document.
Minimum Requirements in Bookbinding.

Method of whip stitching．Tyix of
job demanding it．Reason．
Moh demanding it．Reason．
Reason for hammering；jogging
book；clamping in cutter；pull－
book；clamping in cutter；pull－
ing out slack．
What a started signature means．
Reason for tipping．Width of Reason for tipping．Width of
tipping．Folding for protection
sheet． tipping．Folding for protection
sheet．
Knowledge of rule．Figuring stock
to advantage．Fancy or plain end
to advantage．Fancy or plain end
papers．Kind suitable for job．
Type of end paper for heary blank
book；for faney extra job；for

Use of end sheet．Fanning out end 10 poyzว JW suiddy dof siaded
Reason for trimming．Method of trimming tops and bottoms． Method of gluing．Use of fancy
Action of cutter．Parts of cutter， Bleeding（print maps or plates）．
 Following rub－offs．Method of
sharpening knife．


Consistency of glue for joh．Finds
 Piling books for gluing．Jogging


| $\vdots$ | Book cutter，hammer．．．． |  |  |  |  |  |  |  | $\begin{aligned} & \text { Black or red sprinkle, } \\ & \text { sprinkle screen, brush. } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $=$ | $\stackrel{\sim}{\sim}$ | $\cdots$ | $\underset{-}{ \pm}$ | 12 | $\stackrel{\square}{\square}$ | 上 | $\stackrel{\infty}{\sim}$ | 9 | ¢ | 51 | © ${ }^{\text {c }}$ |
| $=$ | $\stackrel{\sim}{\sim}$ | $\cdots$ | $\pm$ | $\stackrel{20}{2}$ | $\bigcirc$ | $\stackrel{ }{-}$ | $\stackrel{\infty}{\sim}$ | $\stackrel{\square}{-}$ | － | 3 | $\stackrel{\text { cid }}{ }$ |
| ＝ | $\stackrel{1}{\sim}$ | $\because$ | $\pm$ | 15 | $\stackrel{\sim}{-}$ | $\stackrel{\sim}{-}$ | $\stackrel{\sim}{\sim}$ | 9 | ¢ | $\square$ | N |
| $=$ | $\stackrel{\sim}{\sim}$ | $\because$ | $\pm$ | $\stackrel{18}{7}$ | $\stackrel{\oplus}{\sim}$ | $\stackrel{\square}{\sim}$ | $\stackrel{\infty}{\sim}$ | 9 | 아 | $\stackrel{\rightharpoonup}{2}$ | ผ |
| $=$ | $\stackrel{\sim}{\sim}$ | $\cong$ | $\pm$ | 20 | $\stackrel{\ominus}{-}$ | $\stackrel{\sim}{\sim}$ | $\stackrel{\infty}{\sim}$ | 9 | ¢ | $\vec{N}$ | ल |
| $=$ | $\stackrel{\sim}{\sim}$ | $\because$ | $\pm$ | $\stackrel{10}{10}$ | $\stackrel{\square}{\sim}$ | $\stackrel{-}{-}$ | $\stackrel{\sim}{\sim}$ | $\stackrel{0}{-}$ | 안 | $\vec{N}$ | N |
| $=$ | $\stackrel{\sim}{\sim}$ | $\stackrel{\infty}{-}$ | $\pm$ | $\stackrel{18}{18}$ | $\stackrel{\square}{\sim}$ | $\stackrel{\sim}{\sim}$ | $\stackrel{\infty}{\sim}$ | $\stackrel{9}{\square}$ | ค | $\stackrel{\square}{2}$ | N |
| $=$ | ～ | $\stackrel{0}{=}$ | $\pm$ | 12 | $\stackrel{\sim}{\sim}$ | $\stackrel{\sim}{1}$ | $\stackrel{\infty}{\sim}$ | $\bigcirc$ | $\bigcirc$ | $\cdots$ | N |
| ＝ | $\stackrel{\sim}{\sim}$ | $\cong$ | $\pm$ | $\stackrel{12}{7}$ |  | $\stackrel{1}{-1}$ | $\stackrel{\infty}{\sim}$ |  | $\bigcirc$ | $\bar{\sim}$ | ： |
| ＝ | N | $\stackrel{9}{9}$ | \＃ | 12 |  | $\stackrel{\sim}{\sim}$ | $\stackrel{\infty}{\sim}$ |  | － | $\overline{\text { 人 }}$ | ： |
| Whip stitching |  |  | Getting out end papers. | E $\frac{\stackrel{a c}{\Xi}}{\frac{\pi}{\kappa}}$ گ్ | ご <br> ह <br> 號 <br> ＂水 츨云 | Trimming end papers | Putting on faney paper... | Cutting (or trimming) book. |  |  |  |
| ＝ | $\stackrel{\square}{\square}$ | $\stackrel{m}{2}$ | $\pm$ | 5 | $\dot{6}$ | $\stackrel{\vdots}{\sim}$ | $\underset{\sim}{\infty}$ | $\Phi$ | $\dot{\sim}$ | ㄱ | ล |

Minimum Requirements in Bookbinding.- Continued.

| No | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixth. |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M.T. | M.A. | м.T. |  | M.A. |  | M.T. |  | M.A. |  |  |  |
|  |  | ${ }^{\frac{1}{2} \text {-yr. }}$ | $\frac{1}{2}$-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| 23. | Backing. |  |  |  |  |  |  | 23 | 23 | 23 | 23 | Backer press, hammer.... | Taking up swelling. Size of joint Weight of board to be used. |
| 24. | Getting out boards. |  |  | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | Board shears, pencil, rule, | Knowledge of cardboard. Grain of cardboard. Weights. Proper kind of job. |
| 25. | Making headband. | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | Paste, print cloth, string | Cutting cloth. Pasting cloth. Folding over string. |
| 26. | Putting on headband. |  |  | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | Glue, glue brush, headband stock. | Kinds of headband. Method o sewing on silk headband fo extra work. |
| 27. | Lining back. |  |  |  |  |  |  | 27 | 27 | 27 | 27 | Glue, glue brush. Cartridge or tar paper. Lining-up folder. | Consistency of glue. Length of lining strip. |
| 28. | Tipping on boards. |  |  | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | Cardboard, glue or paste.. | Proper squares. Distance of board from joint according to size of book. |
| 29.. | Getting out covering material, |  |  | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | Rule, shears, stock knife, buckram, vellum, cansheep, buffings. vas, morocco, calf, sheep, buffings. | Buckram, vellum, canvas. How they differ from each other. Kind best suited for job. |
| $30 .$. | Skiving corners. | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | $\underset{\text { knife. }}{\text { Paring }}$ stone, skiving | Skiving corners and reason for same. Use of paring stone and skiving knife. |
| 31.. | Padding out corners . |  |  | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | Buffing corners, padding, glue, glue brush, press. | Methods of padding corners and reason for same. Thickness of padding. Method of beveling edges. |
| 32. | Binding edges............. | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | Vellum, bone folder, glue, glue brush. |  | rounding corners. Use of gouge. Cutting and turning in corners properly. Consistency of glue. and position of loose back strip.


Knowledge of leathers; kinds;
how bought. Method of laying out eyclets and
 punched paper. Construction
of marking gauge. of marking gauge.
Method of punching. Construction
and use of eyelet machine. Method of scoring and figuring size
 same. Weights of board necessary and kinds to be used (junk,
straw or newsboard). Grain of
stock. Accuracy in measuring. Method of scoring. Use of knife Method of scoring. ed se of knife
and straight edge. Depth of
scoring and need of same. Method of cutting corners. Tse hammer on heavy board. Need of clean cuts and of removing
corners.
Find of paper required, and differtypes. Testing adhesive properties of glue. Method of applying
binders to layout. Figuring amount of cartridge paper recuired and enst per hox. Round corner machine .. Casing-in folder, shears, glue, glue brush. Covering folder, band mippers,
head sticks, paste, paste
brush, morocco, calf, brush, morocco, calf,
Russia, sheep. Marking gauge.

- $\begin{array}{rr}\hat{\sim} & \vec{\sigma} \\ \hat{\infty} & \infty\end{array}$
 Punch, eyelet machine...
 Cartridge paper, bone
folder, glue, glue brush.
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| あ | ¢ | $\stackrel{\sim}{8}$ | $\infty$ | ® | \% | - |
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| : | $\because$ | - | $\infty$ | § | ? | F |


Minimum Requirements in Bookbinding. - Concluded.

| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixth. |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M.T. | M.A. | M.T. |  | M.A. |  | M.T. |  | M.A. |  |  |  |
|  |  | $\frac{1}{2}-\mathrm{yr}$. | $\frac{1}{2}$-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. |  |  |
| 42. | Applying cloth or paper strips, | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | Fancy paper, vellum, vellum de Luxe, book cloth, bone folder, glue glue brush, paste, paste brush, straight edge | Necessity for cloth or paper on box and method of applying same. Use of folder on turning-ins. Use corners. Grain of cloth or paper. |
| 43. | Pulling book apart. | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | Knife.................. | Folding for signatures. Number of folios to signature. Signature numbering or lettering. Inserts, Tipping in. Folding maps. |
| 44. | Putting into press. | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | Bar press, edge boards . . | Matching up books. Method of building into press. Setting grooves. |
| 45. | Pasting up book.... |  |  | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | Paste, paste brush | Setting squares. Pasting one or two sheets on. Kinds of paste. Uses of each kind. Right conmanufactured. |
| 46. | Getting out super cloth. | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | Super cloth. | Knowledge of rule. Square measure. Figuring to advantage. Why open weave. Method of applying. |

Minimum Requirements in Electricity.

Minimum Requirements in Electricity.- Continued.


Minimum Requirements in Electricity. - Concluded.


Minimum Requirements in Interior Decoration.

| No. | Processes. | Courses for $\frac{1}{2}-$ Yr $_{\text {r }}$ Grades. |  |  |  | Tools and Materials. | Related Knowledge. |
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|  |  | seventh. |  | еighth. |  |  |  |
|  |  | M. T. | M. A. | M. T. | M. A. |  |  |
| 1. | Interior Painting <br> (a) Theory of painting <br> (b) Color harmony <br> (d) Mixing paints (practice) <br> (e) Dusting. ........... <br> (g) Priming <br> (h) Sandpapering <br> (i) Second and third coats. <br> (k) Painting walls <br> (l) Matching colors. <br> $\left(\begin{array}{l}(n) \\ (n) \\ \text { Eraining. } \\ \text { Enameling }\end{array}\right.$ <br> (o) Stippling. | (a)( ${ }^{\text {b }}$ (c) |  | (a)(b)(b)(c)(d) |  | Duster, putty knife, paint brushes, shellac brushes, sandpaper, drop cloths, paint pails, laddersand staging, strainers, white whiting, linseed oil, turpentine, dryer, varnishes, tinting colors, dry colors, oil colors, water colors, Japan colors. | Preparation of wood for painting. Preparation of walls for painting. Preparation,of surfaces for painting. Preparation, chemistry, and study of paints. PrepaCare of brushes, brush technique, handling of tools. History of painting. Study of color. Science. Study and practice ofpaint mixing. Care of health in painting. |
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|  | Wood Finishing. <br> (a) Theory of wood finishing. <br> (b) Staining; filling. <br> (c) Shellacking; varnishing <br> (e) Mixing stains (practice) <br> (f) Removing varnish. <br> (g) Sandpapering <br> (h) Bleaching <br> (j) Waxing <br> (k) Refinishing furniture | $\begin{aligned} & 2^{2} \\ & (a) \\ & (b) \\ & (c) \\ & (d) \\ & (d) \end{aligned}$ | ${ }^{2}$ <br> $(a)$ <br> $(b)$ <br> $(c)$ <br> $(d)$ <br> $(d)$ <br> $(b)$ <br> $(o)$ <br> $(o)$ <br> $(h)$ <br> $(i)$ <br> $(b)$ <br> $(k)$ | (a)$\left(\begin{array}{l}\text { ( } \\ (b) \\ ()^{\prime} \\ (d) \\ (e) \\ (e)\end{array}\right)$ | ${ }^{2}$$(a)$$(b)$$(b)$$(d)$$(d)$$(f)$$(g)$$(h)$$(h)$$(i)$$(j)$$(k)$ | Varnish removers, bleaching fluids, stains, fllers, shellacs, varnishes, waxes, rubbing materials, oils, colors in oil, colors in sandpaper, oxalic acid, ammonia, pumice stone, rotten stone. |  |
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Minimum Requirements in Machine Shop Practice.

| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SIXTH. |  | SEVENTH. |  |  |  | EIGHTH. |  |  |  |  |  |
|  |  | M.T. | M. A. |  |  |  |  |  |  |  |  |  |  |
|  |  | $\frac{1}{2}-\mathrm{yr}$. | $\frac{1}{2}-\mathrm{yr}$ | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | $1-\mathrm{yr}$ | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. |  | 1-yr. |  |  |
| 1.. | Bench work. Cutting stock. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Scale, vise, hacksaw (hand or power). | Types and use of scales Methods of holding stock. Hand and power hack saw. (Construction and use.) |
| 2 | Bench work. Filing and polishing. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | Files, file card, try square, chalk, emery cloth. | Types, lengths, and cuts of files. Methods of use. Testing. Grades and uses of emery cloth. |
| 3. | Bench work. Chipping | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | Hammer, cold chisel, scale, scriber, try square, chalk. | Types and use of chisels. Methods of holding work and tools. Testing. |
| 4. | Drilling | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | Upright or sensitive drill, chuck, twist drill, vise, cutting compound. | Types and uses of drill presses. Methods of holding work. Driling requirements. Types and uses of cutting compounds. |
| 5. | Countersinking. | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | Countersink, drill press, twist drill, chuck, cutting compound. | Methods of countersinking. |
| $6 .$. | Laying out centers. |  | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | Scale, center punch, hammer, scriber, combination or try square, surface gauge, dividers, calipers, copper sulphate. | Methods of locating centers and testing out for same. |
| 7. | Tapping and threading (hand). | . . | . . | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | Vise, tap, tap wrench, die, die stock, scale, try square, cutting com- | Principles of threading. |


|  | les. |  |  |  |  |  |  |  |  |  |  | countersink, lathe, chuck, cutting compound. | struction and uses. Methods of holding stock. Combination drill and countersink requirements. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $9 .$. | Riveting. | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | Hammer, rivet, rivet set, burrs, file. | Principles of riveting. |
| 10.. | Grinding. |  |  | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | Bench or pedestal grinder, disc wheel dresser. | Types and uses of abrasive wheels. Essentials of grinding. Angles of clearance for various tools. |
| 11. | Straight turning |  | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | Engine lathe, dog, mandrel, lathe tools, calipers, scale, oil, wrenches, micrometer calipers. | Detail study of engine lathe types, construction and use. Requirements of elementary turning. Testing, lubrication. Principles of the micrometer. Reading of the micrometer. |
| 12. | Knurling. |  | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | Engine lathe, knurling tool (hand or machine), chuck, dog, scale, wrench, cutting compound. | Reasons for knurling. Construction of knurling tool. Types of knurl. |
| 13. | Chuck turning and drilling. |  |  | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | Lathe, chucks, calipers, scale, lathe tool, drill, drill holder or dog, cutting compound. spotting tool or combination countersink. | Types, construction and uses of chucks. Methods of holding drill. Principles of drilling. |
| 14. | Reaming, hand. |  |  | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 17 | Vise, reamer, wrench, cutting compound. | Principles and reasons for reaming. Types, construction and uses of reamers. |
| 15. | Taper turning |  |  |  |  |  | 15 |  |  | 15 | 15 | Same as for straight turning, and chalk. | Methods of taper turning. Determination of angles for tapers. |
| 16. | Shaper work |  |  | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | Shaper, cutting tools, square, scale, surface gauge, parallels, pinch downs, spirit level. | Requirements of shaper work. Methods of holding work in place. Setting the stroke. |
| 17. | Plain milling |  |  | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | Milling machine, cutter, scale, micrometer, caliper, vise, parallels, cutting compound. | Construction and uses of milling machine. Milling processes. |

Minimum Requirements in Machine Shop Practice. - Concluded.

|  | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SIXTH. |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M.T. | M.A. | M. T. |  | M. A. |  | M. т. |  | M. A. |  |  |  |
| 18. | Forge work |  | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | Forge (gas or down draft), anvil, tongs, scale, calimer. per, steel square, ham- | Prevention of cold shuts, fire cracks etc. Calculating length of stock Temperature requirements. necessary for bent work, etc |
| 19. | Heat treatment of steel. |  |  |  |  |  | 19 |  |  | 19 | 19 | Forge or gas furnace, oil, lap stick, water, brine, case hardening compound. | Fundamentals of hardening, tempering, and annealing. Case hardening. Properties of steel and alloys. |
| 20. | Dividing head work on milling machine. |  |  |  |  |  | 20 |  |  | 20 | 20 | Milling machine, dividing head, cutters, scale, calipers, micrometers cutting compound. | Index head, construction and principles of use. Common frac tions. |
| 21.. | Finishing work to size. |  |  |  |  |  | 21 |  |  | 21 | 21 | Various machines, files, file card, scale, caliper micrometer, oil, emery cloth, chalk. | Precision measurements. Method of finishing work for accurate results. |
| 22. | Thread cutting (machine). |  |  |  |  |  |  |  |  |  | 22 | Engine lathe, threading tools, center and thread gauges, calipers, scale thread calipers | Change gear calculations, types of threads. Proper angles for cut ting tools. Testing. |
| 23. | Power transmission |  |  |  | $\ldots$ |  | 23 |  | $\ldots$ | 23 | 23 | Motor with direct or belt drive, counter shaft, belt or sprocket chain Direct gear drive. | Types and uses of various transmission mediums, such as, belting, sprocket chain, gear and friction. Belt maintenance and repair. |

Minimum Requirements in Printing.

| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Relited Kinowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SIXTH. |  | seventh. |  |  |  | EIGHth. |  |  |  |  |  |
|  |  | M.T. | M.A. | M. T. |  | M. A. |  | M. T. |  | M. A. |  |  |  |
|  |  | $\frac{1}{2}-\mathrm{yr}$. | $\left.\right\|^{\frac{1}{2}-\mathrm{yr}}$. | \| $\left.{ }^{\frac{1}{2}-\mathrm{yr}} \right\rvert\,$ | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. |  | 1-yr. |  | 1-yr. |  |  |
| 1. | Learn layout of type cases.. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Cases of type: Capitals; lower case; California job case. | Location of characters in cases How to distinguish lower case letters $\mathrm{h}-\mathrm{d}-\mathrm{p}-\mathrm{q}, \mathrm{u}-\mathrm{n}$ : I ( ${ }^{\text {I }}$ (eapi- tal I)-1 (lower case ell)-1 (ome). |
| $2 .$. | Setting type. <br> (a) Three lines of straight matter. <br> (b) Stickful | $\begin{aligned} & (a) \\ & (b) \end{aligned}$ | $\begin{aligned} & (a)^{2} \\ & (b) \end{aligned}$ | (a) <br> (b) | $\left({ }_{(a)}^{2}\right.$ <br> (b) | $\begin{aligned} & (a) \\ & (\text { ( }) ~ \end{aligned}$ | (a) <br> (b) | $\begin{aligned} & \stackrel{2}{(a)} \\ & (b) \end{aligned}$ | (a) ${ }^{2}$ <br> (b) | $\underset{(a)}{2}$ <br> (b) | $\begin{aligned} & (a)^{2} \\ & (b) \end{aligned}$ | Cases of type, composing stick, leads, slugs. | Position at case, how to hold composing stick, use of leads, how to pick up type and place it in stick, use of spaces. |
| 3. | Distribution. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | Cases of type. Leads. Three lines; six lines; nine lines. | How to piek up mass of type from galley: Correct method of holding type for distribution. How to take up type with right hand and drop one letter at a time in case. |
| 4. . | Set small poem, two or three stanzas, from reprint copy. | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | Cases of type, composing stick, composing rule, line gauge, pica lettor m's. | Idea of alternating indentions. Poetry does not require changing of spaces between words. Ise of capitals. P'unctuation. How to set composing stick with piea m's. |
| 5.. | Distribution, three handfuls.. |  | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | Case of type, type, leads. | How to hold tyme. How to separate letters. P'osition of spaces and quads. |
| $6 .$. | Set page of straight matter, and a reprint typewritten manuscript. |  | 6 |  | 6 | 6 | 6 | 6 | 6 | 6 | 6 | Case of type, composing stick, leads, galleys. | Use of different size spaces. Division of words. Justification. Lise of leads between lines. Arrangement of sentences and paragraphs. |

Minimum Requirements in Printing.- Continued.

| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
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|  |  | sixth. |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M.T. | M. A. | M. T. |  | M. A. |  | M. т. |  | M. A. |  |  |  |
|  |  | 12-yr. | $\frac{1}{\frac{1}{2}-\mathrm{yr}}$. | $\frac{1}{2}$-yr. | 1-yr. | - ${ }^{\frac{1}{2} \text {-yr. }}$ | 1-yr. | 1-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| 7. | Emptying type on a galley... | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | Stick of type, galley. | Skill in handling type. Proper position of type on galley. |
| 8. | Tying up type, blocking type on galley. | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | Mass of type, galley, string, furniture for lock up on galley, tweezers. | Method of tying. Length of string How to secure string at each end Loop-knot. How to wind string around form. How to block up type on galley securely to get proof. |
| 9 | Pulling proof on proof press. | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | Proof press, type form brayer, ink, paper and galley, ink slab, benzine brush, benzine can. | How to place type in correct position on press. The use of ink, brayer and slab. How to place paper it from type. How to run roller over the paper. Need of moistening paper sometimes Benzine, solvent for ink. |
| 10. | Pounding a hand proof |  |  |  |  | 10 | 10 | 10 | 10 | 10 | 10 | Proof planer, mallet, type form, ink, paper, brayer. | How to hold, strike, and raise planer to prevent blurring of the proof. Necessity of moistening paper. |
| 11. | Proofreading marks. <br> (a) Copy marks and ex- <br> (b) Read proof.. | $\underset{(a)}{11}$ | $\underset{(a)}{11}$ | $\underset{(a)}{11}$ | ${ }_{(a)}^{11}$ | $\begin{aligned} & 11 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{aligned} & 11 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{gathered} 11 \\ (a) \end{gathered}$ | $\begin{aligned} & 11 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{aligned} & 11 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{aligned} & 11 \\ & (a) \\ & (b) \end{aligned}$ | List of proofreader's | Proofreader's marks. Significance of marks. How to write them. How to apply them. |
| 12 | Correct type |  | 12 |  |  | 12 | 12 | 12 | 12 | 12 | 12 | Mass of type. Corrected proof, tweezers. | Skill in handling tweezers. Need of careful rejustification. ... Need |


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Minimum Requirements in Printing.- Concluded.


|  |  | How to determine the proper dimen－ sions． |  |  |  |  | （a）to（g）Position in chase． |  |
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Minimum Requirements in Sheet Metal.

| No | Processes. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixth. |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M.T. | M. A. | M. T. |  | M. A. |  | M. т. |  | M. A. |  |  |  |
|  |  | $\frac{1}{2}$-yr. | $\frac{1}{2}$-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr | 1-yr. | $\frac{1}{3}$-yr. | 1-yr. |  |  |
| 1. | Measuring and cutting....... | 1 |  |  | $1$ |  | $1$$2$ |  |  |  |  | Scratch awl, square, rule straight and circular snips. | Reading rule. How to use scratch awl and snips. Use of straight edge. Notching. |
| 2. | Hemming. | 2 | $2$ | 2 | 2 |  |  | 2 | 2 | 2 | 2 | Scratch gauge and folder.. | Construction and use of scratch gauge. Characteristics of bar folder. |
| 3. | Locking | 3 | 3 | '3 | 3 | 3 |  | 3 | 3 | 3 | 3 | Bar folder, brake | Setting gauge on folder. Preparing lock for grooving. |
| 4. | Drafting. <br> (a) Shop sketching <br> (b) Parallel line development. Rectilinear. Cylindrical. | $\begin{gathered} 4 \\ \left(\begin{array}{l} (a) \\ (b) \end{array}\right. \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 4 \\ (a) \\ (b) \end{gathered}$ | Pencil and paper . <br> Drawing board, T-square, drawing instruments, triangles, scale and compasses, irregular | Ability to make and read simple sketches. <br> Use of drawing equipment. <br> Orthographic projection. <br> Simple development. |
|  | (c) Approximate devel- |  |  | (c) | (c) | (c) | (c) | (c) | (c) | (c) | (c) | Wing dividers, trammel points, framing square, scratch awl | Short-cut methods of developing problems. |
|  | (d) Radial line develop- |  |  |  | (d) | (d) | (d) | (d) | (d) | (d) | (d) | Wing dividers, trammel points, framing square, scratch awl. | Development of conic sections. |
| 5. | Braking. . | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | Prick punch, brake...... | Transfer of patterns. T'se of punch and brake. Different types of braking. |
| 6. | Soldering. <br> (a) Forging and tinning <br> (b) Making fluxes <br> (c) Cleaning the metal | $\begin{aligned} & { }^{6} \\ & \left(\begin{array}{c} a \\ (b) \\ (c) \end{array}\right) \end{aligned}$ | $\begin{gathered} 6 \\ (a) \\ \left(\begin{array}{c} 6 \\ (c) \\ (c) \end{array}\right. \end{gathered}$ | $\begin{aligned} & 6 \\ & (a) \\ & \left(\begin{array}{l} 6 \\ (b) \\ (c) \end{array}\right. \end{aligned}$ | $\begin{aligned} & 6 \\ & \left(\begin{array}{c} 6 \\ (b) \\ (b) \\ (c) \end{array}\right. \end{aligned}$ | (a) $\left(\begin{array}{l}\text { ( ) } \\ (c) \\ (c)\end{array}\right.$ | (a) $\left(\begin{array}{c}\text { b } \\ (c) \\ (c)\end{array}\right.$ | (a) $\left(\begin{array}{c}\text { ( }) \\ (c) \\ (c)\end{array}\right)$ | $\begin{aligned} & { }^{6} \\ & (a) \\ & \left(\begin{array}{l} 1) \\ (c) \end{array}\right. \end{aligned}$ | $\begin{gathered} { }^{6} \\ (a) \\ (b) \\ (c) \\ (c) \end{gathered}$ | $\begin{aligned} & { }^{6} \\ & (a) \\ & (b) \\ & (c) \end{aligned}$ | Solder, soldering copper, file, furnace, seraper, dip, sal ammoniac, flux heavy hammer, anvil. | Kinds of solder. Care of soldering copper. Proper heat for soldering. Kinds of fluxes and how to apply. Preparation of metal for solderine |


| 7.. | Punching. | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | Hammer, wooden lead block $\underset{\text { eake }}{\text { (end }}$ grain) solid punch, hollow punch, lever punch. | Different methods of punching. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8. | Riveting. | 8 | 8 | 8 | 8 | 8 | 8 | 8 | s | 8 | 8 | Rivet set, hammer, solid punch. | Proper use of hammer. Size of hole. Use of rivet, and solid punch. Types of rivets. |
| $9 .$. | Wiring. <br> (a) Machine. $\qquad$ <br> (b) Hand <br> (c) Irregular shaped projects. | $\begin{gathered} 9 \\ (a) \\ (b) \end{gathered}$ | $\begin{array}{r} 9 \\ (a) \\ (b) \end{array}$ | $\begin{gathered} (a) \\ (b) \end{gathered}$ | $\begin{gathered} 9 \\ (a) \\ (b) \end{gathered}$ | $\begin{array}{r} 9 \\ (a) \\ (b) \end{array}$ | $\begin{gathered} 9 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 9 \\ (a) \\ (b) \end{gathered}$ | $\begin{array}{r} 9 \\ (a) \\ (b) \\ (c) \end{array}$ | $\begin{aligned} & 9 \\ & (a) \\ & (b) \\ & (c) \end{aligned}$ | $\begin{array}{r} 9 \\ (a) \\ (b) \\ (c) \end{array}$ | Folder, mallet, wire, wire gauge, wire cutters, pliers, wiring marhine. | Use of wire cutter. How to strike glancing blow with mallet. CharMethod of wiring by hand. Meristics of wiring machine |
| 10. | Forming. <br> (a) Hand. <br> (b) Machine <br> (c) Irregular projects. shaped | $\begin{gathered} 10 \\ (a) \\ (b) \end{gathered}$ | $\begin{gathered} 10 \\ (a) \\ (b) \end{gathered}$ | $\begin{aligned} & 10 \\ & (a) \\ & \text { (b) } \end{aligned}$ | $\begin{aligned} & 10 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{aligned} & 10 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{aligned} & 10 \\ & (a) \\ & (b) \end{aligned}$ | $\begin{gathered} 10 \\ (a) \\ (b) \end{gathered}$ | $\begin{aligned} & 10 \\ & (a) \\ & (b) \\ & (c) \end{aligned}$ | $\begin{aligned} & 10 \\ & (a) \\ & (b) \\ & (c) \end{aligned}$ | $\begin{aligned} & 10 \\ & (a) \\ & (b) \\ & (c) \end{aligned}$ | Forming machine, mallet, hlowhorn stake. | Construction and use of forming machine. Method of forming by hand. |
| 11. | Grooving. |  | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | Hand groover, mallet. | Dressing down with mallet. Groorer size. |
| 12. | Burring.. |  |  | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | Burring machine, double seaming stake. | Method of holding metal. Construction and use of burring machine. Allowance for burr. |
| 13 | Beading. |  | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | Beading marhine. | Addition of strength to article. Ornamentation. Division of space. |
| 14.. | Double seaming |  |  | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | Setting hammer, double seaming stake. | Use of setting hammer and of double seaming stake. |
| 15. | Swerlging. |  |  |  |  | 15 | 15 | 15 | 15 | 15 | 15 | Swedge. | Characteristics of swedging machine. <br> Use of swedging machine. |
| 16. | Chiseling |  | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | Cold chisel, hammer... | Proper angle of cutting edice. |
| 17 | Turning. |  |  |  | 17 | 17 | 17 | 17 | 17 | 17 | 17 | Turning machine. | Allowance of metal and adjust memt of gange. Method of holding metal. |
| 18. | Drilling. |  |  |  |  | 18 | 18 | 18 | 18 | 18 | 18 | Drills, hammer, renter punch. | Determining size of required drill. Care of drill. lise of punch. |
| 19 | Hack sawing. |  |  | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | Hack saw.. | Types of hack saw blades and selection for particular kinds of work. |

Minimum Requirements in Sheet Metal. - Concluded.

| No | Procerses. | Grades. |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixth. |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M.T. | M. A. | M. T. |  | M. A. |  | M. т. |  | M. A. |  |  |  |
|  |  | 彦-yr. | 12-yr. | 12-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| $20 .$. | Raising. |  |  |  |  | 20 | 20 | 20 | 20 | 20 | 20 | Raising hammer, block. . | Allowance for stretching of metal Proper procedure. |
| 21.. | Machine cutting. |  |  | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | Squaring shears.. | Safety first. How to set gauge Pressure required. Machin squaring and trimming. |
| 22. | Solder making. |  |  |  |  | 22 | 22 | 22 | 22 | 22 | 22 | Mold, ladle, desilverized lead, straits tin. | Required degree of heat. Preparation of various elements. Method of purifying. |
| 23. | Timning sheet copper. |  |  |  |  | 23 | 23 |  |  | 23 | 23 | Cotton waste, pure block "tin, Noklled" muriatic acid. | Degree of heat required to prevent firing of flux. Method of covering surface with tin. Water bath for hot metal. |
| 24. | Oiling machines... | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | Oil can, machine oil, cotton waste. | Proper lubrication for various machines. |
| 25.. | Painting. |  |  | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | Brushes, emery cloth, oil, paints. | Preparation of surface. Types, use and care of brushes. Method of applying paint. |

Minimum Requirements in Woodworking.

| No | Processers. | Grades. |  |  |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Kinowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixtr. |  |  |  | seventh. |  |  |  | mighte. |  |  |  |  |  |
|  |  | M. T. |  | M. $A$. |  | M. т. |  | M. A. |  | M. т. |  | M. 1 . |  |  |  |
|  |  | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | 1-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| $1 .$. | Laying off distances for stock cutting. ( $1,2,5$, 10.) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Try square, rule, pencil. . | Bench rule and its characteristics. Care of try square. |
| 2. | Crosscut and rip sawing. $(12,14$. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | Crosscut, rip and back saws. Bench hook. | The characteristics of the common hand saws Care of saws to prevent damage. |
| 3. | Planing. (19-31) <br> (a) Adjusting and using jack plane | $(a)^{3}$ | $(a)^{3}$ | $(a)^{3}$ | $(a)^{3}$ | $(a)^{3}$ | $(a)^{3}$ | $(a)^{3}$ | $(a)^{3}$ | $\begin{array}{r} 3 \\ (a) \end{array}$ | $(a)^{3}$ | $(a)^{3}$ | ${ }_{(r)}^{3}$ | Jack plane. | Names and characteristics of the common bench planes. Reasons for |
|  | (b) Adjusting $\begin{gathered}\text { and } \\ \text { using } \\ \text { block }\end{gathered}$ |  | (b) | (b) | (b) | (b) | (b) | (b) | (b) | $(b)$ | (b) | (b) | (b) | Block plane. | planes. Reasons for hoice for specific work Familiarity with the |
|  | (c) $\begin{gathered}\text { plane. } \\ \text { planing. } \\ \text { plarface }\end{gathered}$ | (c) | (c) | (c) | (c) | (c) | (c) | (c) | (c) | (c) | (c) | (c) | (c) |  | common woods, noting weight, color, odor grain, cost, ete |
|  | (d) Broad surface planing. |  | (d) | (d) | (d) | (d) | (d) | (d) | (d) | (d) | (d) | (d) | (d) |  | grain, cost, ete. Board measure. |
|  | (c) End planing. . |  | (c) | (e) | (e) | (r) | (e) | (c) | (e) | (c) | (e) | (c) | (r) |  |  |
| 4. | Setting, testing and using marking gauge. | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | Marking gauge and rule. | The marking gatien and its parts. Condition ef spur necessary for goond work. |
| $5 .$. | Freehand gauging. | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |  |  |
| 6. | Scoring. | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | Kriite | Cindition of hnife moint. |
| 7. | $\begin{aligned} & \text { Through boring. } \\ & 38,39,43,44 \text {.) } \end{aligned}$ | 7 | 7 | 7 | ; | 7 | 7 | 7 | 7 | 7 | $\cdots$ | 7 | 7 | Brace, lits and drills... | Names of wool boring tools. How size of bit is determined from number on tang. |

Minimum Requirements in Woodworking.- Continued.

| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sİth. |  |  |  | SEventh. |  |  |  | EIGHTH. |  |  |  |  |  |
|  |  | M. T. |  | M. A. |  | M. T. |  | M. A. |  | M. T. |  | M. A. |  |  |  |
|  |  | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| $8 .$. | Isaying out curves . | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | Compasses. Patterns. | Names of parts of circle, as radius, diameter, circumference. |
| $9 .$. | Curve sawing | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | Coping saw, fret saw, turning saw. | Reason for choice of saw for specific work. Adjustment of tension, position, care of turning saw blade. |
| 10.. | Spokeshaving. (50)..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | Spokeshave. | Following the grain in working curves. |
| 11.. | Whittling. | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | Knife. | Use of knife in trimming curves inaccessible to spokeshave. |
| 12.. | Filing. | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | Half-round file | Use of file for smoothing curves inaccessible to spokeshave. |
| 13. | $\underset{\text { gether. }}{\text { Nailing }} \quad(65,66,67$. |  | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | Hammer, brads, nails.. | Sizes of brads. Sizes of nails. How to nail without splitting wood. Spacing of nails. |
| 14. | Setting nails or brads.... (68.) |  | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | Hammer and nail set | The names and characteristics of the common kinds of nails. |
|  | Drawing of nails. (69) |  | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | Hammer and pliers..... | Protection of stock. How to apply proper leverage to prevent breaking of hammer |


Minimum Requirements in Woodworking.- Continued.

| No | Procrsses. | Grades. |  |  |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Kionledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sIXTH. |  |  |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M. T. |  | M. A. |  | M. т. |  | M. A. |  | M. т. |  | M. A. |  |  |  |
|  |  | $\frac{1}{2}$-yr. | 1 -yr. | $\frac{1}{2}$-yr | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$ | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| 27. | Chamfering and beveling |  | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | Chisel or plane. . | How to make shearing cut at end grain. |
| 28. | Boring to given depth. |  |  | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | Bitgauge. Depth gauge. | How to estimate depth of hole by counting turns of bit. |
| 29. | Joints. <br> (a) Butt joint <br> (b) Lap joint <br> (c) Dowel joint <br> (e) Mortise and tenon, <br> (f) Dado <br> (g) (h) Mitre joint Gain...... |  | ${ }_{(a)}^{29}$ | $\begin{gathered} 29 \\ (a) \end{gathered}$ | $\begin{gathered} 29 \\ (a) \end{gathered}$ | $\begin{gathered} 29 \\ (a) \end{gathered}$ | ${ }_{(a)}^{29}$ |  | 29 $(a)$ $(b)$ $(c)$ $(d)$ ()$\left.^{\prime}\right)$ $(f)$ $(g)$ $(g)$ | 29 $(a)$ $\left(\begin{array}{l}\text { ( } \\ (c) \\ (d) \\ (d) \\ (e)\end{array}\right)$ | $\begin{aligned} & 29 \\ & (a) \\ & (b) \\ & (c) \\ & (c) \\ & (e) \\ & (e) \end{aligned}$ | $\begin{aligned} & 29 \\ & (a) \\ & (b) \\ & (c) \\ & (d) \\ & (d) \\ & \left(\begin{array}{l} () \\ () \\ () \\ (h) \end{array}\right) \end{aligned}$ | $\begin{aligned} & 29 \\ & (a) \\ & (b) \\ & (c) \\ & (d) \\ & (d) \\ & (c) \\ & (f) \\ & (9) \\ & (h) \end{aligned}$ | Try square, knife, block plane, jointer, chisels, back saw, gauge, doweling jig, auger bits, dowel bevel. bits, grooving plane, bevel. | Meaning of joint terms. Where to use certain joints. Uses and sizes of dowels. Uses of dowel bits. Appearance of common joints when used. |
| 30. | Gluing. |  |  |  |  |  |  | 30 | 30 | 30 | 30 | 30 | 30 | Hot and cold liquid glue. | Preparation of hot glue and conditions neces sary for successful use. liquid glue is more satisfactory. Cleaning off of surplus glue before it sets. |
| 31.. | Clamping glued stock. |  |  | . |  | . | $\ldots$ | 31 | 31 | 31 | 31 | 31 | 31 | Cabinet clamps, hand screws, "C" clamps, bar clamps, framing square or try square. | Adjustment of hand screws. Proper placing of elamps to hold work square. |
| 32. | Scraping glue. |  |  |  |  |  |  | 32 | 32 | 32 | 32 | 32 | 32 | Glue scraper. Cabinet scraper. | Scraping off surplus glue without injuring surface |


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Minimum Requirements in Woodworking.- Concluded.

| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Koowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixtr. |  |  |  | seventh. |  |  |  | eighth. |  |  |  |  |  |
|  |  | M. T. |  | M. A. |  | M. T. |  | M. A. |  | M. T. |  | M. A. |  |  |  |
|  |  | $\frac{1}{2}$-yr. | 1 -yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}-\mathrm{yr}$. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. | $\frac{1}{2}$-yr. | 1-yr. |  |  |
| 38. | Turning |  |  |  |  |  |  |  |  |  |  |  | 38 | Lathe, turning tools, turning chuck, gouges, mal let or lead hammer hammer, calipers, sandpaper, oil. | Cleaning and oiling machine. Starting and stopping. Names and uses of parts. Speed rates. Use of safety devices. Use of calipers. |
| 39. | Boring by machine, round hole mortising, depth boring, countersinking. |  |  |  |  |  |  |  |  |  |  | 39 | 39 | Lathe or mortising machine, chuck, drill bits, hollow chisel, bit, bushings, wrenches, guides jigs, countersink. | Oiling and cleaning. Starting and stopping. Setting up bits. Use of chisel. Adjustment of bit. Oiling to prevent Depth of adjustment. Adjustment of guides. jige. |
| or | Processes 35 to 39 , inclusiv Pardian to sign a permit w | shou | ld be preven | given <br> the | only t boy fr | o boy om ob | $\begin{aligned} & \text { ys who } \\ & \text { btaining } \end{aligned}$ | have <br> g a pa | permit assing | s, sign nark. | d by | paren | or gu | dian, to operate machin | The refusal of a parent |

Minimum Requirements in Mechanical Drawing．

|  | REF.ATED Kイ̛ow LEDGE. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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|  |  |  | $\xrightarrow[\sim]{u_{2}} \underset{\sim}{ \pm}$ | $\sim$ | ： 1 | $\cdots$ | $\because$ |
|  |  | $7$ | こ | $\checkmark$ | 81 | $\curvearrowright$ | $\because$ |
|  |  |  | ${ }_{n}^{\infty} \underset{m}{\infty}$ | $\cdots$ | N | $\cdots$ | $\because$ |
|  |  | $\begin{aligned} & \text { i } \\ & \text { R } \end{aligned}$ | － | $\square$ | － | $\cdots$ | $\because$ |
|  |  |  | 范 | $r$ | $\therefore 1$ | $\infty$ | $\cdots$ |
|  |  | $\sum$ | $\overbrace{\mathrm{N}}^{\stackrel{1}{1}}$ | $\rightarrow$ | C4 | $\cdots$ | － |
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|  | Processes. |  |  |  |  |  |  |
|  | $\stackrel{c}{z}$ |  |  | $m$ | $w$ | $\dot{\infty}$ |  |


| No. | Processes. | Grades. |  |  |  |  |  |  |  |  |  |  |  | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | sixth. |  |  |  | seventh. |  |  |  | еіghtr. |  |  |  |  |  |
|  |  | M. т. |  | M. A. |  | м. т. |  | M. A. |  | M. T. |  | M. A. |  |  |  |
|  |  | $\left.\begin{gathered} 1-\mathrm{ts} \\ \frac{1}{2}-\mathrm{yr} . \end{gathered} \right\rvert\,$ | $\begin{gathered} 2 \mathrm{c} \\ \frac{2 \mathrm{y}}{2}-\mathrm{yr} . \end{gathered}$ | $\left.\begin{gathered} 1-\mathrm{ts} \\ \frac{1}{2}-\mathrm{yr} . \end{gathered} \right\rvert\,$ | $\frac{2 \mathrm{i}-\mathrm{yr} .}{}$ | $\left\|\begin{array}{c} 1-1 \\ \frac{1}{2}-y r \end{array}\right\|$ | $\frac{2 \mathrm{~d}}{\frac{1}{2}-\mathrm{yr}}$ | $\begin{gathered} 1 \text { st } \\ \frac{1}{2}-\mathrm{yr} . \end{gathered}$ | $\left.\begin{array}{\|c\|} \hline \frac{2}{2}-\mathrm{yr} \end{array} \right\rvert\,$ | $\frac{1}{1} \frac{1}{2}-y r .$ | $\frac{2 \mathrm{t}-\mathrm{d}-\mathrm{dr}}{}$ | $\left.\begin{gathered} 1 \mathrm{st} \\ \frac{1}{2}-\mathrm{yr} . \end{gathered} \right\rvert\,$ | $\begin{gathered} 2 \mathrm{~d} \\ \frac{1}{2}-\mathrm{yr} \end{gathered}$ |  |  |
| 5. | $\begin{aligned} & \text { Three views - hidden } \\ & \text { lines. } \end{aligned}$ |  |  |  |  |  |  |  |  | 5 | 5 | 5 | 5 | Same as in 3. | How to make a complete working drawing of a simple object, three views, full size and half size. |
| 6. | $\begin{aligned} & \text { Scale drawings - re- } \\ & \text { cessed parts. } \end{aligned}$ |  |  |  |  |  |  |  | 6 | 6 | 6 | 6 | 6 | Same as in 3. | How to draw circles and arcs to scale. |
| 7. | Freehand sketching, including dimensions. |  |  |  |  |  |  |  | 7 | 7 | 7 | 7 | 7 | Squared paper. | How to make a freehand sketch of a simple project made or used in the shop. |
| $8 .$. | Complete instrumental drawings, three views; sections and dimensions. |  |  |  |  |  |  |  |  |  | 8 | 8 | 8 | T-square, two triangles, and set of drawing instruments. | How to show sectional views of objects. How to make a complete views, including sections |
| 9. | Simple isometric drawings. |  |  |  |  |  |  |  |  |  | 9 | 9 | 9 | Squared paper. | Value of an isometric drawing. How to make an isometric drawing of a simple object. |
| 10. | Geometric problems, simple. |  |  |  |  |  |  |  |  |  | 10 | 10 | 10 | Squared paper. | How to solve simple geometric problems by drawing room methods. How to draw straight lines, tangent circles or tangent to straightlines. |
| 11. | Assembly, detail drawings. |  |  |  |  |  |  |  |  |  |  |  | 11 | Squared paper. | How to make details from an assembly drawing, $\underset{\text { detail drawings }}{\text { and }}$ from to make a neat and accurate drawing, ascluding lettering and dimensioning. |
| 12.. | Demonstration: Making tracings and blueprints. |  |  |  |  |  |  |  |  |  |  |  | 12 | Blueprint paper and printing frame. | How a tracing is made. How a blueprint is made. |

## GRADE IX COURSES FOR INTERMEDIATE AND HIGH SCHOOLS.

## General Aims:

The minimum requirements for the ninth grade are those approved by the secondary schools for entrance into the tenth grade without loss to the pupil. They are effective in the ninth grade both in intermediate schools and in high schools. (See "Aims - Grade IX, Mechanic Arts Course," page 6.)

A boy who enters the ninth grade has theoretically chosen his rocation. Therefore, the ninth grade work becomes vocational in content. The instruction given should be such as will start trade preparation.

## Accuracy.

It is very essential that the boy should be taught the accuracy of measurements and manipulation. The product which he makes must be of commercial quality.

## Self=reliance.

He should be taught to think and act for himself.

## Speed.

Speed is very essential in productive work. He must be taught to apply himself constantly to the need of gaining rapidity as well as accuracy in his work.

## Attitude Towards Work.

He should be taught to appreciate a fine piece of work. He should be taught the pleasure which is to be derived from a fine piece of construction which he has done. He should be taught to treat all his tools and the product on which he is working with respect.

## Minimum Requirements.

In this grade, one of the first essentials is to know how to take care of tools, which includes proper setting and sharpening. Erery boy at the end of this grade should know how to keep the tools that he uses in proper condition. He should be made to realize that only with such tools can a good piece of work be accomplished.

Regardless of the number of years of experience he has had, it is necessary that he start at the beginning with a new attitude towards
his work, namely, that of the trade. He should be thoroughly drilled in the processes taught, so that, as far as he is able to advance, he has a thorough groundwork in tool manipulation.

For this reason, the list of minimum requirements is not as comprehensive as those for the seventh and eighth grades. The teacher should bear in mind, however, that these requirements are minimum, and that there is no limitation placed on additional information or additional processes that may be taught boys who are capable. This, however, should not be introduced at the expense of thorough groundwork in the requirements listed.

# Minimum Requirements for Ninth Grade Auto Mechanics Course. 

| No. | Processes. | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: |
| 1. . | Frames (Type jobs) : <br> (a) Inspect frame for alignment. <br> (b) Springs. Remove and lubricate springs. |  | Material. How manufactured. Construction. Different types. |
|  |  | Wire brush. Spring spreader. Putty knife. Open end and socket wrenches. Pliers. Jack. Oils, greases and graphite. | Spring types. Material and manufacture. Why lubricated. How removed. Jacking up car and safety first. How disassembled. Kind of lubricant. Common cause of spring breakage. Types of springs used on various cars. |
| 2... | Front Axle and Steering System: <br> Adjust front wheels. Steering system. Check alignment of front wheels. |  |  |
|  |  | Monkey wrench. Socket and open end wrenches. Pliers. Jack. Oil and grease. Grease gun. | Axle types. Method of construction. Steering knuckle types. Camber, gather, castor. Tie rod. Drag link. Steering mechanism. How lubricated. How brakes are secured and adjusted. |
| 3. . | Rear Axle and Wheels: <br> (a) Rear axle. Remove differential. |  | Housing types. Method of securing to springs. Torsion rod and torque tubes. Differential types. Purpose of differential. Differential drives. Types of bearings. Rear axle types. |
|  | (b) Grease Universal joint. | Screw driver, pliers, grease gun. | Purpose of universal joint. Construction and care. Different types. |
| 4. | The Clutch: <br> (a) Remedy trouble with slipping cone clutch. | Fuller's earth. Neat's-foot oil. | Characteristics of clutch facings. How removed. Method of laying out leather for cone clutch. Care and correct operation of clutch. |
|  | (b) Reface clutch plates. | Hammer, punch, drill, rivet set, rivets. | How to disassemble clutch. Proper method of attaching new lining to discs. Relative advantages and disadvantages of each type of clutch. |
| 5. | The Transmission: <br> Examine oil level in transmission. |  | The advantage of each type. Gear ratios. How car is reversed. Necessity of starting car in first speed. Standard gear shifts. Selection of proper grade of lubricant for season. |


| No. | Processes. | Tomis ajo Matemals. | Rematyd Knowheidie. |
| :---: | :---: | :---: | :---: |
| 6. | Wheels, Rims, and Tires: <br> (a) Removing wheel. | Jack, hub cap wrench, pliers. | Different types of wheels. Relative strength of each. Material and manufacture. |
|  | (b) Remove inner tube | Jack, rim wrench, pliers, tire irons. | Types of rims. Tire sizes. Tire construction. |
| 7. | Motors: <br> Grind valves and scrape carbon. |  | Cycle theory. How engine operates. <br> Material and construction of parts. <br> How gasolene vapor is let in and out of cylinders. Multi-cylinder <br> engines. Advantages and disadvantages of various motor types. How engines are cooled. How engines are lubricated. |

8. . Machine Shop Work:
(a) Cutting stock

Scale, vise, hack saw.....
(b) Chipping. . . . .......
(c) Filing and polishing.
(d) Drilling.
(e) Countersinking......
(f) Riveting.
(g) Grinding.
(h) Tapping and threading (hand).
(i) Reaming
(j) Heat treatment of steel.

Hammer, cold or cape chisel, scale, scriber, try square, chalk.
Files, file card, try square, emery cloth, chalk.

Upright drill, twist drill, chuck, cutting compound

Countersink, upright drill, twist drill, chuck, cutting sompound.

Hammer, rivet set, file....
Bench or pedestal grinder; diamond or disc wheel dresser.
Vise, tap, tap wrench die, die stock, scale, try square, cutting compound.
Vise,reamer, wrench, square, chuck, cutting compound
Forge, tongs, lap stick, oil, water, brine, cyanide of potassium crystals, pyrometer, lead bath.

Different types of wheels. Relative strength of each. Material and manufacture.
ypes of rims. Tire sizes. Tire construction.

Cycle theory. How engine operates. Material and construction of parts. out of cylinders. Multi-cylinder engines. Advantages and disadvantages of various motor types. engines are lubricated.

Types and use of scales. Methods of holding stock. Hand hack saws, construction and uses.

Types and use of chisels. Method of holding tools. Testing.

Types, cuts and lengths of files. Methods of use. Testing. Grades and uses of emery cloth.

Types and uses of upright drills. Methods of holding stock. Drilling requirements. Types and use of cutting compound.
Methods of countersinking.

Principles of riveting.
Types and uses of abrasive wheels. Essentials of grinding. Angles of clearance for various tools.
Principles of threading. Thread sizes. S. A. E. and U. S. S.

Principles of reaming. Types, construction and uses of reamers.
Fundamentals of annealing, hardening, tempering, case and pack hardening. Properties of steel and alloys. Use of pyrometer. Use of lead bath.

# Minimum Requirements for Ninth Grade in Electricity. 

| No. | Processes. | Tools and Materials. |
| :---: | :---: | :---: |
| 1.. | Bells. <br> Simple bell circuit. | Tools: Hammer, pliers, knife, awl, screw driver, rule, files, soldering copper, alcohol torch, bit brace, auger bits, hand drill, drills. |
| 2.. | Two bells in eeries, one button. | Materials: No. 18 damp proof office wire, staples, bells, buttons, dry cells, screws, soldering paste, solder, ground clamps, door-openers, indicating bells, annunciators, bellringing transformers. |
| $3 .$. | Two bells in multiple, one button. |  |
| 4.. | Two bells in multiple, two buttons in multiple. |  |
| $5 .$. | Two bells, two buttons, separate ringing. |  |
| $6 .$. | Return call circuit, three wire. |  |
| 7. | Return call circuit, threewire style, ground return. |  |
| $8 .$. | Return call circuit, two-wire, |  |
| $9 .$. | Return call circuit, two-wire style, ground return. |  |
| 10.. | Two-family house, front door only. |  |
| 11.. | Two-family house, front and rear door. |  |
| 12. | Two-family house, front and rear door, door-opener. |  |

Use of tools; Use of staples and screws; kind and size of wire; coils at battery and bell; idea of a circuit; correct method of installing bell and reasons therefor; path of current through bell; names of wires in this circuit.

Series is simplest way to connect two bells; reason for unsatisfactory operation; theory of operation of bell; one bell made single-stroke; proper use of series system.

Multiple is correct way for ordinary work; control of several bells from one point; bell troubles and remedies; common battery wire to bells.

Buttons connect in multiple for proper operation; control of bells from several places; common button-battery wire; battery connections.
Bells controlled separately using same battery; uses of this circuit.
Principle of returning or answering call using one battery and three wires between stations; uses of this circuit.
Use of ground connections; elimination of one wire by grounding. Advantages and disadvantages: When and where used. Pressure, current and resistance and their application to bell circuits.
Use of separate battery at each station saves one wire between stations; advantages and disadvantages, of this system, and its uses; Ohm's law.

Grounding one wire leaves only one wire between stations; advantages and disadvantages and uses of this system; Ohm's law applications; method of computing number of dry cells required for any job.

Principle of separate ringing from separate buttons from the same battery. Further applications, Ohm's law front door.

Use of bell-battery wire for back door circuits.

Same battery wire used for front and back door bells and door-opener buttons. Button-battery wire used as door-opener battery wire.


| No. | Processes. | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: |
| 1.. | Electric Lights. (Cleat Work.) <br> One light, no switch ... | Wire No. 14, rubber covered, cleats, porcelain tubes, receptacles, rubber compound, tape, switch bases, switches single pole; switches two-circuit electrolier; switches threecircuit electrolier; switches three-way; switches fourway; switches double pole. | Simple light circuit. National Electric Code Rules. Spacing of wires spacing of cleats; size of wires; kind of wires; distance from surface; cleats where used. |
| 2. | Two lights, no switch, series, then multiple. |  | How lights operate in series. Where the systems are used. How lights operate in multiple. Where this system is used. Code rules covering above. |
| 3. | One light with single pole, one light, no switch. |  | Use of switches. Rules for installation of switches. |
| 4. 5. | Two lights, two-circuit electrolier switch. <br> Three lights, three-circuit electrolier switch. |  | $\left\{\begin{array}{c} \text { Control of lights and groups of lights } \\ \text { from one switch. Code rules gov- } \\ \text { erning above. } \end{array}\right.$ |
| 6. 7. | One light, two three-way switches. <br> Two lights, two three-way switches. |  | Control of lights from two places. \{ Code rules covering above. |
| 8. . | Two lights, one four-way and two three-way switches. |  | Control of lights from three or more places. Code rules governing above. |
| 9. . | One light with single pole and one light with one fourway and two three-ways. |  | Combination of different types of switches on one job. Fuses, principle of operation and use. Code rules governing fuses and cut-outs. |
| 10. . | One light, double pole switch, changing from cleats to knobs. |  | Methods of changing type of construction for different locations. Code rules governing same. |
| 1... | Knob Work. <br> One light, no switch. | Knobs. | Construction and use. Code rules governing use of knobs. |
| $2 \ldots$ | Two lights, no switch. |  | Follow cleat work except where code rules require different construction for knobs. |
| 3. | One light with single pole, one light, no switch. |  |  |
| 4. | Two lights, two-circuit electrolier switch. |  | , |
| 5. | Three lights, three-circuit electrolier switch. |  |  |
| 6. | One light, two three-way switches. |  |  |


| No. | Processes. | Tools and Materials. | Refateio Kıowlemef. |
| :---: | :---: | :---: | :---: |
| 7. | Two lights, two three-way switches. |  |  |
| 8. | Two lights, one four-way and two three-way switches. |  |  |
| 9. | One light with single pole and one light with one four-way and two three-way. |  |  |
| 10.. | One light, double pole switch, changing from knobs to conduit. | - . ............ | Methods of changing from knobs to conduit and vice verss. Code rules for governing same. | conduit and vice verss. Code rules for governing same.

Nos. 1 то 5.
Conduit construction; where and when used; types of conduit fittings and their use; cutting, threading, reaming and bending conduit. Code rules for size. method of supporting.

## No. 6.

Outlet and junction boxes. Use of locknuts and bushings. Code rules governing use of outlet boxes and junction boxes. Other reasons for use of junction boxes.

## No. 8.

Methods of changing from conduit to B. X. and vice versa. Construction of armored cable or B. X. Where and when used. Rules governing same. B. X. connectors and their use.

## No. 10.

Method of changing from conduit or B. X. to wood moulding. Code rules governing above. Construction of wood moulding and its use. Wood moulding fittings and their use.

Proper methods of installing.

Making of corners using mitre box or without mitre box.

Code rules governing installation of moulding, joints, size of wire, etc.

Minimum Requirements for Ninth Grade in Machine Shop.


| No. | Processes. | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: |
| 10. . | Filing and polishing. | Engine or speed lathe, file, file card, scale, calipers, oil, emery cloth and micrometer. | How to file and polish properly. |
| 11. . | Taper turning. | Lathe, lathe tools, center gauge, file. | How to turn accurately to a gauge. Angles. |
| 12. . | Thread cutting. | Lathe, threading tools, center gauge, thread gauge caliper, scale, die, die stock. | How to rough cut standard threads and finish with die. How to calculate the change gears and set tool properly. Change gear tables. |
| 13. . | Simple boring. | Lathe, chuck, scale, inside and outside calipers, dog, lathe boring tool, centering tool, machiné reamer. | How to bore to proper size for reaming. Use three-jaw universal chuck. (Similar work may be performed on a drill press, but more. accurately on the lathe.) |
|  | Shaper. |  |  |
| 14. . | - Flat surfaces of jobs held in vise. | Shaper, cutting tools, square, scale, parallels, calipers. | How to properly regulate machine for its proper stroke and speed. How to grind and set the cutting tool. How to cut flat and smooth and within ${ }^{\frac{2}{4}-4}$ inch. (Similar work could be performed on a planer and milling machine.) |
|  | Milling Machine. |  |  |
| 15. | Flat surfaces of jobs held in vise. | Milling machine, cutters, arbor, scale, calipers, cutting compound, square, and parallels. | How to set the cutter on arbor so as to cut in proper direction and to regulate the belt for proper speed. How to cut the surface with the minimum amount of cuts and finish smooth and straight within ${ }^{\frac{1}{4}=}$ inch. (Similar work can be performed on the planer or shaper using a tool having only one cutting edge instead of a cylindrical cutter with many cutting edges.) |

## Minimum Requirements for Ninth Grade in Pattern Making.

| No. | Processes. | Tools and Materials. | Related Koowledge. |
| :---: | :---: | :---: | :---: |
| 1. | Making layout. | Shrinkage rule, gauge, knife, wing dividers, bevel. | History of trade, moulding. |
| 2. . | Selection and getting out of stock. | Hand saws, rule, pencil, square. | Characteristics of: (a) Lumber. <br> (b) Handsaws. |
| 3. | Truing working faces. | Planes, try square, bench plate. | Types and characteristics of planes. |
| 4. | Gauging | Marking gauge . | Type and proper use. |
| 5. | Scoring. | Back sa | Type and correct use. |
| 6. | Chiseling and gouging. | $\underset{\text { mallet. }}{\text { Paring }}$ chisels, gouges, | Types and characteristics of chisels and gouges. |
| 7. . | Gluing. | Sheet or flake glue, handscrews, clamps, dogs, glue heater. | Kinds and preparation of glue. Type and care of heater, proper adjustment of hand screws and clamps. |
| 8. | Boring Through. <br> (b) Blind. | Bit-brace; auger, German, drill and Forstner bits; bit gauge. | Type and proper use: <br> (a) Brace. <br> (b) Bits. <br> (c) Bit gauge. |
| $9 .$. | Dowelling. | Wood and metal dowels, router, machine drill bits, expansive bit. | Reasons for use of different types of dowels. |
| 10.. | Curved sawing (hand). | Turning, compass and pad saws. | Types and proper use of hand saws for curved work. |
| 11. | Hand shaping | Spokeshave, corner tool, pattern makers' knife. | Care and adjustment of hand shaping tool. |
| 12.. | Assembling.............. . <br> (a) Nailing. <br> (b) Screwing. <br> (c) Counter sinking. <br> (d) Counter boring. <br> (e) Plugging. | Hammer, nailset, screw driver, screw driver bit, counter sink, nails, brads, screws, plugs, soap or wax | (a) Selection and proper use of tools. <br> (b) Types and sizes of nails, brads and screws. |
| 13. | Rubbing in and cutting fillets. | Beeswax and leather fillets, fillet irons, beeswax gun alcohol lamp, shellac and glue. | Reasons for use, preparation and application of fillets. |
| 14. . | Bench Pattern Making. <br> Checking and testing patterns. | Surface gauge, calipers..... | Reasons for checking. |
| 15. . | Sandpapering | Sandpaper, sandpaper block. | Types and grades of sandpaper. |
| 16. | Shellacking and finishing. | Shellac, alcohol, dry colors, brushes, steel figures and letters, pattern figures and letters, tape. | Reasons for use, preparation and application of shellac and colors Proper container. Types and care of brushes. Reasons for marking. |
| 1.. | Core Box Making. <br> Preparing stock to dimensions. | Core box plane. | Reasons for cores, care and adjustment of core box plane. Method of testing arcs, use of templets. |
|  | Woodworking Machine <br> Processes. |  |  |
| $1 .$. | Turning. | Lathe and lathe tools, face plates, chucks. | Lathes: <br> (a) Types and characteristics. <br> (b) Care and operation. |


| No. | Processes. | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: |
| $2 .$. | Band sawing. . | Band saw and blades....... | Band saws: <br> (a) Types and characteristics. <br> (b) Care and operation. |
| $3 .$. | Cross cutting, rip sawing by power. | Saw table, saws, pushstick. | Circular saw: <br> (a) Types and characteristics. <br> (b) Care and operation. |
| $4 .$. | Jointing and surface planing by power. | Hand jointer or buzz planer, knives, pushstick. | Hand jointer: <br> (a) Types and characteristics. <br> (b) Care and operation. |
| $5 .$. | Routing or boring by power. | Boring machine or drill press, routers and fillet, cutters, drills and bits. | Boring machine or drill press: <br> (a) Types and characteristics. <br> (b) Care and operation. |
| $6 .$. | Sanding by power. | Disk or spindle sander, sandpaper disks and rolls. | Disk or spindle sander: <br> (a) Types and characteristics. <br> (b) Care and operation. |
|  | Moulding. <br> Moulding | Flasks, boards, moulding tools, moulding and parting sand. | Principles of foundry practice. |
|  | Core Making. <br> Making cores. | Core box, core sand, binders, vents, core oven. | Preparation of materials. Baking. |
|  | Melting and pouring. | Soft metal or crucible furnace, ladles, tongs, weights, clamps. | Preparation and types. |

## Minimum Requirements for Ninth Grade in Printing.

| No. | Processes. |
| :---: | :---: |
| $1 .$. | Learn layout of type cases. |
| $2 .$. | Straight matter and spacing . |
| $3 .$. | Distribution.. |
| $4 .$. | Set page of straight matter, reprint, and a typewritten manuscript. |
| $5 .$. | Emptying type on a galley. |
| $6 .$. | Tying up type, blocking type on galley. |
| 7. | Inking proof press. Pulling proof on proof press. |

ing and cleaning job press
(a) Oiling.
(b) Washing rollers, disk and fountain.
(b) Plate
(b) Type form.

Inking up press. . . . . . . . . . .
Placing chase in press.

Packing press

Cases of type:
(a) Capitals.
(b) Lower case.
(c) California job case.

Cases of type, composing stick, leads, slugs.

Cases of type, leads, galley.

Cases of type, composing stick, leads, galleys.

Stick of type, galley.

Mass of type, galley, string, furniture for lock-up on galley, tweezers.

Proof press, type form, brayer, ink, paper and galley, ink slab, benzine brush, benzine can.

Proof planer, mallet, type form, ink, paper, brayer.

List of proofreader's marks
(a) Copy marks and ex-
(b) Read proof. (Elementary.)
Correct type

Lock up job press form...... kerosene can and wiping rags.

Ink, job press with ink rollers.
Chase and press.

Pressboard and manila paper, screw driver.

Location of characters in cases. How to distinguish lower case letters b-d-p-q, u-n; I (capital I)-1 (lower case ell)-1 (one).

Position at case, how to hold composing stick, use of leads, how to pick up type and place it in stick, use of spaces.

How to pick up mass of type from galley. Correct method of holding type for distribution. How to take up type with right hand and drop one letter at a time in case.

Use of different size spaces. Division of words. Justification. Use of leads between lines. Arrangement of sentences and paragraphs.

Skill in handling type. Proper position of type on galley.

Method of tying. Length of string. How to secure string at each end. Loop-knot. How to wind string around form. How to block up type on galley securely to get proof.
How to place type in correct position on press. The use of ink, brayer and slab. How to place paper on type and how to remove it from type. How to run the roller over the paper. Need of moistening paper sometimes. Benzine, solvent for ink.

How to hold, strike, and raise planer to prevent blurring of the proof. Necessity of moistening paper.

Proofreader's marks. Significance of marks. How to write them. How to apply them. Not too much detail.

Need of careful rejustification. Need of care in correcting. Ability to understand proof marks.
How to place form in position. Arrangement of furniture, reglets, quoins, bearers. Use of key, mallét, planer. How to test for tightness. How to avoid spring, and how to lock up with sufficient squeeze. Two kinds of quoins and keys.

Use of oil can, waste, rags, kerosene. Necessity for neatness and cleanliness. Need for lubrication to prevent wear on bearings. Effect of kerosene on the ink and rollers. Need of washing ink to a void drying of ink on press.

Amount and method used in applying ink.
Relation of type form and bed of press. Use of form gripper.
Use of tympan and result of too much or too little packing.

| No. | Processes. | Tools and Materials. | Related Kinowledge. |
| :---: | :---: | :---: | :---: |
| 16. | Setting grippers and taking an impression. | Stock grippers. Type form, ink, rollers, tympan. | Necessity of noting position of these grippers. Amount of impression. |
| 17. | Making gauges | Rule and pencil, size of stock. | Amount of margins and how to distribute them. |
| 18. | Placing gauges . | Quads, glue, cardboard. | Guides to place the stock against when feeding the job. |
| 19. | Proof on stock for position and O . K . | Paper stock and press.. | Position of job is O. K. Ready to be made ready. |
| 20. . | Make-ready (simple); overlaying. | Tissue paper, French folio, overlay knife, paste. | How to mark out a sheet. How to patch up. How to secure an even impression. |
| 21. | Testing job make-read | Page stock and press | Results of make-ready. |
| 22. | Oil top sheet | Oil, top sheet. | Preventing a job from offsetting. |
| 23. | Taking impression for final O. K. | Paper stock and press | Proper appearance of job when printed. |
| 24. . | Counting machine | Counting machine on press. | Machine registers each sheet that is printed. |
| 25. . | Feeding press. <br> (a) Without form. <br> (b) With small cards. <br> (c) With envelopes. <br> (d) With paper. <br> (e) Accurate feed. | Job press, stock, ink. | Starting and stopping press. Use of gauges. How to place stock on the feedboard. How to place stock up to gauges. How to take sheets out of press. Need of careful feeding. |
| 26. | Handling and spreading job to dry. | Drying rack | Position of lifting and placing stock to dry. |
| 27. | Handling stock. <br> (a) Jogging. <br> (b) Cutting. <br> (c) Folding. <br> (d) Gathering. <br> (e) Counting. | Paper stock, paper cutter, bone folders. | Ability to square up stock and pile it neatly. Cut paper squarely. How to fold to corners. Prepare arrangement of sections of book. How to arrange stock and count accurately. |
| 28. | Set small poem, two or three stanzas, from reprint copy. |  | Idea of alternating indentions. Poetry does not require changing of spaces between words. Use of capitals. Punctuation. How to set composing stick with pica m's. |
| 29. | Set name cards and correspondence stationery. | Cases of type, composing stick, composing rule, line gauge, pica letter m's. | Plain types. Simple cards. Proper size cards, types and indentions. Proper leads. |
| 30. | Set plain business cards |  | Use of same families. White space. Different types. Proper margins. Proper leads. |
| 31. | Use of initials | Initials, type and stick, leads, type gauge. | Shape harmony and tone harmony. |
| 32. | Set tags. |  |  |
| 33. | Set notehead Set billhead. | Stick, type, leads, rules, galley, type gauge. | $\left\{\begin{array}{l} \text { Principles of display, shape harmony } \\ \text { tone harmony and the proper mar- } \\ \text { gins. } \end{array}\right.$ |
| 35. | Set letterhead |  |  |
| 36. | Job with rule border, butted. | Stick, type, leads, rules, galley, type gauge. | How rules are joined by butting. |
| 37. | Job with rule border, mitered. | Stick, type, leads, rules, galley, type gauge, also mitering machine. | Method of using a mitering machine and effect resulting. |
| 38. | Two-color job. (Elementary.) | Stick, type, leads, rules, galley, type gauge. | Methods of breaking a form for two colors. Proper spacing. |

## Minimum Requirements for Ninth Grade in Sheet Metal.

| No. | Jobs. | Tools and Materials. | Related Knowledge. |
| :---: | :---: | :---: | :---: |
| 1 | Rectangular work <br> (a) Match box. <br> (b) Aeroplane. <br> (c) Auto truck. <br> (d) Sail boat. <br> (e) Dust pan. <br> (f) Knife box. <br> (g) Medicine cabinet. | Scratch awl, prick punch, snips, hammer, mallet, hollow punch, rivet set, soldering iron, flux, soldering furnace. | Soldering processes, forging, filing, tinning, how to hold copper on work, |
| 2. | Flaring rectangular work <br> (a) Candy pan. <br> (b) Range pan. <br> (c) Flower box | Bar folder, cornice brake, soldering furnace, template. | Use of templates. |
| 3. | Cylindrical work. <br> (a) Straight pipe. <br> (b) Half-pint cup. <br> (c) Paint pail. <br> (d) Covered sink pail. | Bench stakes, forming rolls, hand groover, wiring machine, burring machine, turning machine. | Names of the different stakes and their uses in forming work; doubleseaming; raising covers. |
| 4 | Cylinders cut on a bevel..... <br> (a) Small sugar scoop. <br> (b) Large flour scoop. <br> (c) Two-piece, 60-degree elbow conductor pipe. <br> (d) Three-piece,90-degree elbow conductor pipe. | Beading machine | How to cut irregular curves; the forming of small cylinders; the method of turning an edge in a machine; assembling of pieces. |
| 5. | Conical work. <br> (a) Pitch top cover. . .... <br> (b) Tin funnel. <br> (c) Handle for dust pan. <br> (d) Sink strainer. <br> (e) Pint measure. | Solid punch | The forming of large cones; peined joint; cross rolling; tin wiring; the forming of small cones; correct use of solid punch. |
| 6 | Productive work. <br> The amount of commercial work a boy may do is determined by his ability. Small parts of commercial jobs, such as, making of braces, pieces to reinforce, hinges, handles, etc. | All necessary tools and machines. | Accurate and neat workmanship; knowledge of facility and speed required for shop practices; correct manipulative processes. |

Note.- The jobs here listed are type jobs only, representing necessary processes. The object to be made, covering the processes involved, should fit the need of the pupil and district.

## Minimum Requirements for Ninth Grade in Woodworking.

The following items are added to the Minimum Requirements of the course for Grade VIII. (See page 43.)

| No. | Processes. | Related Knowledge. |
| :---: | :---: | :---: |
| 15. | Nailing. | Selection of type of nails for job. |
| 18. | Sandpapering | Use of oil on shellacked surfaces. |
| 30. | Gluing | Preparation and use of casein glue. |
| 34. | Sharpening of tools. . <br> (i) Screw drivers. | Proper shape of screw driver tip. Why edge tool is made of steel. Difference between steel and iron. |
|  | Buzz planing: <br> (d) Rabbet. |  |
| 40. | Piling and selection of lumber. | Care in storing. Meaning of P2S and P4S. Warping. Checking. Sap and hardwood. Quartered and slash sawed. Wind check. Rift. |

## Minimum Requirements in Mechanical Drawing. <br> All Subjects in Grade IX.

I. Use of mechanical drawing instruments; also

Drawing board.
T square.
Triangles, 45 and 30-60.
Architect's scale.
II. Mechanical drawing conventions.
III. Geometrical Problems:

1. Bisect a line.
2. Bisect an angle.
3. Divide a given line into any number of equal parts.
4. Erect a perpendicular to a given line at any point on the line.
5. Construct any regular polygon on a given base.
6. Inscribe any regular polygon in a given circle.
7. Construct an ellipse by trammel method, or by tacks and string.
IV. Industrial freehand sketching (special problems suitable to the activity).
V. Principles of Third Angle Projection (two and three views).
VI. Freehand lettering.
VII. Blueprint reading.
VIII. Inking, tracing and blueprinting.

## INDEX.

Page
Introduction ..... 3
List of Committees participating in the revision of the Shopwork Syllabus ..... 4, 5
Part I. Aims and Means.
Grades VI, VII, VIII ..... 6, 7
Part II. Regulations Governing Shop Administrationand Procedure.
Admission of pupils to shopwork ..... 8
Time allotment ..... 8
Courses planned by teachers ..... 9
Lesson planning ..... 9
Correlation ..... 9
Productive work for the City ..... 9-12
Home Mechanics and Material ..... 12
Disposition of product to pupils ..... 13
Work for individuals ..... 13
No concession to former pupils ..... 13
Payments by pupils ..... 13
Admissions to high schools from Mechanic Arts Classes ..... 14
Part III. Minimum Requirements.
For Grades VI, VII and VIII (introduction to) ..... 15
Auto Mechanics (see note) ..... 19
Bookbinding ..... 20
Electricity ..... 25
Interior Decorating ..... 30
Machine Shop Practice ..... 32
Printing ..... 35
Sheet Metal ..... 40
Woodworking ..... 43
Mechanical Drawing ..... 49
For Grade IX (introduction to)
Page
Auto Mechanics ..... 5251
Electricity ..... 54
Machine Shop Practice
Pattern Making ..... 60
Printing ..... 62
Sheet Metal ..... 64
Woodworking ..... 65
Mechanical Drawing ..... 65

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[^0]:    * Prior to 1925 the financial year period covered from February first of one year to January thirty-first of the following year. (For details see Business Manager's report for the year 1925.)
    N. B.- Under the provisions of chapter 314 of the Acts of 1926 for the years succeeding 1928 there is but $\$ 0.68$ per $\$ 1,000$ of the valuation on which appropriations are based, available for lands, plans and construction of school buildings. Under existing conditions $\$ 0.68$ per $\$ 1,000$ provides approximately $\$ 1,279,000$. This sum will not be sufficient to carry the cost of future building programs.

[^1]:    * Complete details of appropriations will be found in the itemized budget and estimate for the year.

[^2]:    * This item does not include transfers affecting appropriations made during the financial year 1927.

[^3]:    * Exclusive of items credited to appropriations and sinking funds.
    $\dagger$ Included in general income of School Committee. (See income statement preceding.)

[^4]:    * Exclusive of interest and sinking fund.

[^5]:    * Including school physicians and nurses.

[^6]:    * Including school physicians and nurses.

[^7]:    * Exclusive of cost of pensions to teachers, pensions to attendance officers and custodians, new buildings, lands, yards, etc., repairs and alterations, interest and sinking fund charges.

[^8]:    * Includes principals, teachers of all ranks and clerks to principals.

[^9]:    * Includes principals, teachers of all ranks and clerks to principals.
    $\dagger$ Opened as a district during year 1927. Per capita cost not determined.
    $\ddagger$ Became two separate districts during year 1927. Per capita cost not determined.

[^10]:    * Includes principals, teachers of all ranks and clerks to principals.
    $\dagger$ Opened as a district during year 1927. Per capita cost not determined.

[^11]:    THE APPENDED NUMBERED TABLES SHOW IN DETAIL THE COSTS OF SCHOOLS AND ALL OTHER ACTIVITIES IN OPERATION DURING THE FINANCIAL YEAR. FROM THESE TABLES MAY BE ASCERTAINED THE COST OF RUNNING EACH SCHOOL, SCHOOL DISTRICT AND ACTIVITY. GROUP COSTS ARE ALSO SHOWN.

[^12]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^13]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^14]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^15]:    1 Including salary of matron.

[^16]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^17]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^18]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^19]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^20]:    * EXCLL USIVI: OF: COSTS OF: BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING r:UNI) CHAR(IL.S.

[^21]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^22]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^23]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^24]:    *I:XCLUSIVE OF COSTS OI: BUILDING, DEPRECIATION, RIEPAIRS, INTEREST AND SINKING FUND CHARGES.

[^25]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING FUND CHARGES.

[^26]:    

[^27]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING

[^28]:    * EXCLUSIVE OF COSTS OF BUILDING, DEPRECIATION, REPAIRS, INTEREST AND SINKING

[^29]:    * In addition, install false bottoms in old racks.

[^30]:    * Equipped with three shelves (adjustable) and no drawers.

[^31]:    * Holds Normal, Kindergarten-Primary Certificate.
    $\dagger$ Basis of rating, 900 points, as compared with 1,000 for examined candidates.

[^32]:    * Holds Normal, Kindergarten-Primary Certificate.
    $\dagger$ Basis of rating, 900 points, as compared with 1,000 for examined candidates.

[^33]:    * Holds Normal, Kindergarten-Primary Certificate.
    † Basis of rating, 900 points, as compared with 1,000 for examined candidates.

[^34]:    * Holds Normal, Kindergarten-Primary Certificate.
    $\dagger$ Basis of rating, 900 points, as compared with 1,000 for examined candidates.

[^35]:    * Holds Normal, Kindergarten-Primary Certificate.

[^36]:    * Holds Normal, Kindergarten-Frimary Certificate.

[^37]:    * Holds Normal, Kindergarten-Primary Certificate.
    $\dagger$ Holds Elementary School, Class A Certificate.

[^38]:    * Holds Normal School Special Certificate. Eligible for kindergarten service only.

[^39]:    * This section follows very closely "The Fundamentals of Advertising." Rowse and Fish. Southwestern Publishing Co.

[^40]:    * This section of the outline follows rather closely "Retail Merchandising." Fri. PrenticeHall, Inc.

[^41]:    * This section of the outline follows rather closely, "How to Know Textiles." Small, Ginn \& Co.

[^42]:    * This section of the outline follows rather closely, "Elements of Retailing." Leigh. D. Appleton \& Co.

[^43]:    * Including 104 boys who completed five year industrial course.

[^44]:    $\dagger$ Excludes one master, who is assigned Principal of the Model School.

    * Excludes one first assistant, who is also Director of Modern Foreign Languages.

[^45]:    $\ddagger$ A "General Leader" managed the Fenway School Center.

[^46]:    *By permission:- See the Twenty-fifth Yearbook of the National Society for the Study of Education, Part II.

[^47]:    * By permission:- See the Twenty-fifth Yearbook of the National Society for the Study of Education, Part II.

[^48]:    * Bureau of Education Bulletin (1917) No. 51.

[^49]:    * Table to be read as follows: 85 per cent of the correspondents believe they have promotional opportunity and 15 per cent believe they have none.
    $\dagger$ Number not given.

[^50]:    * Available for reference in the Administration Library.

[^51]:    * To be secured from the shop instructor.

