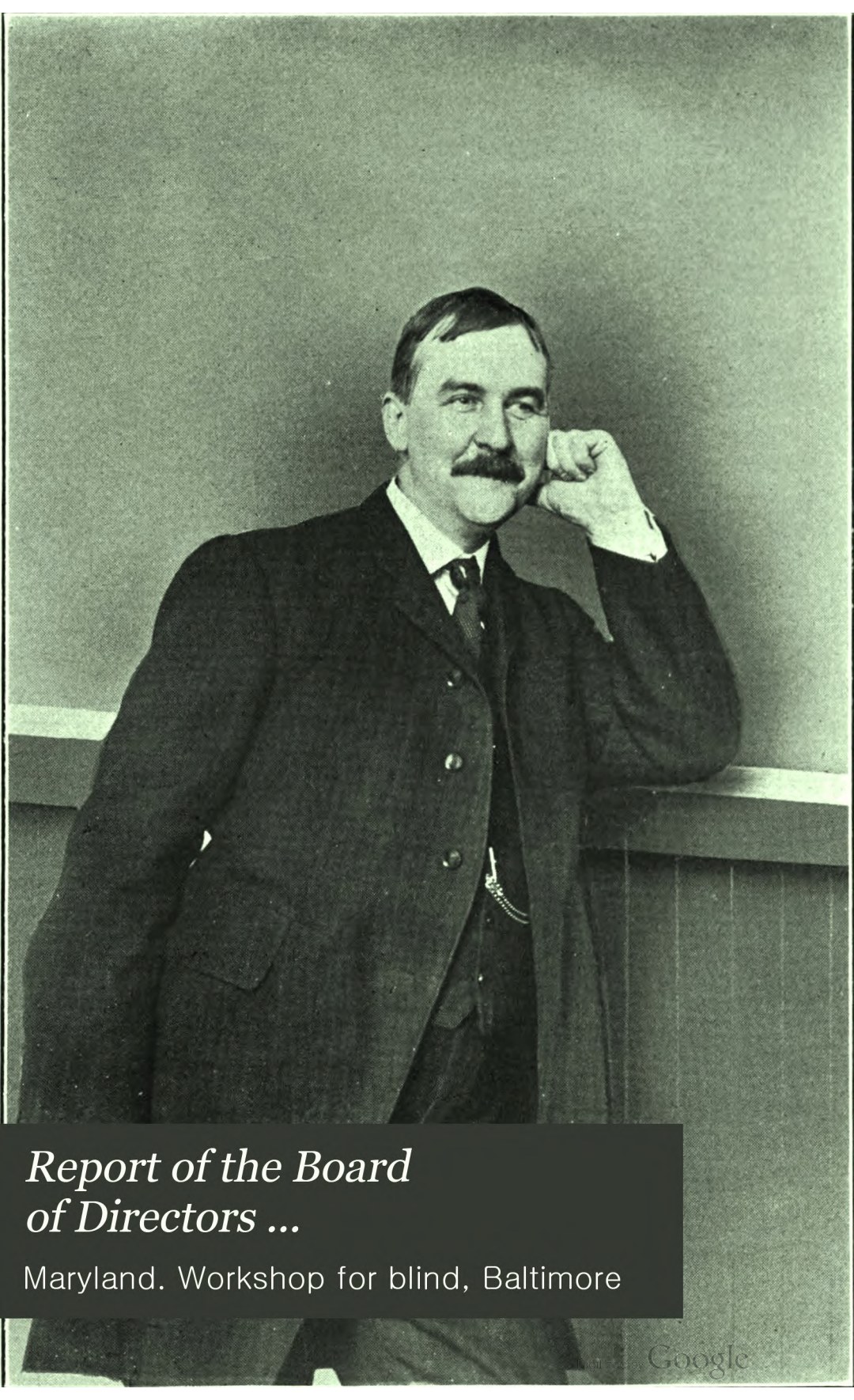
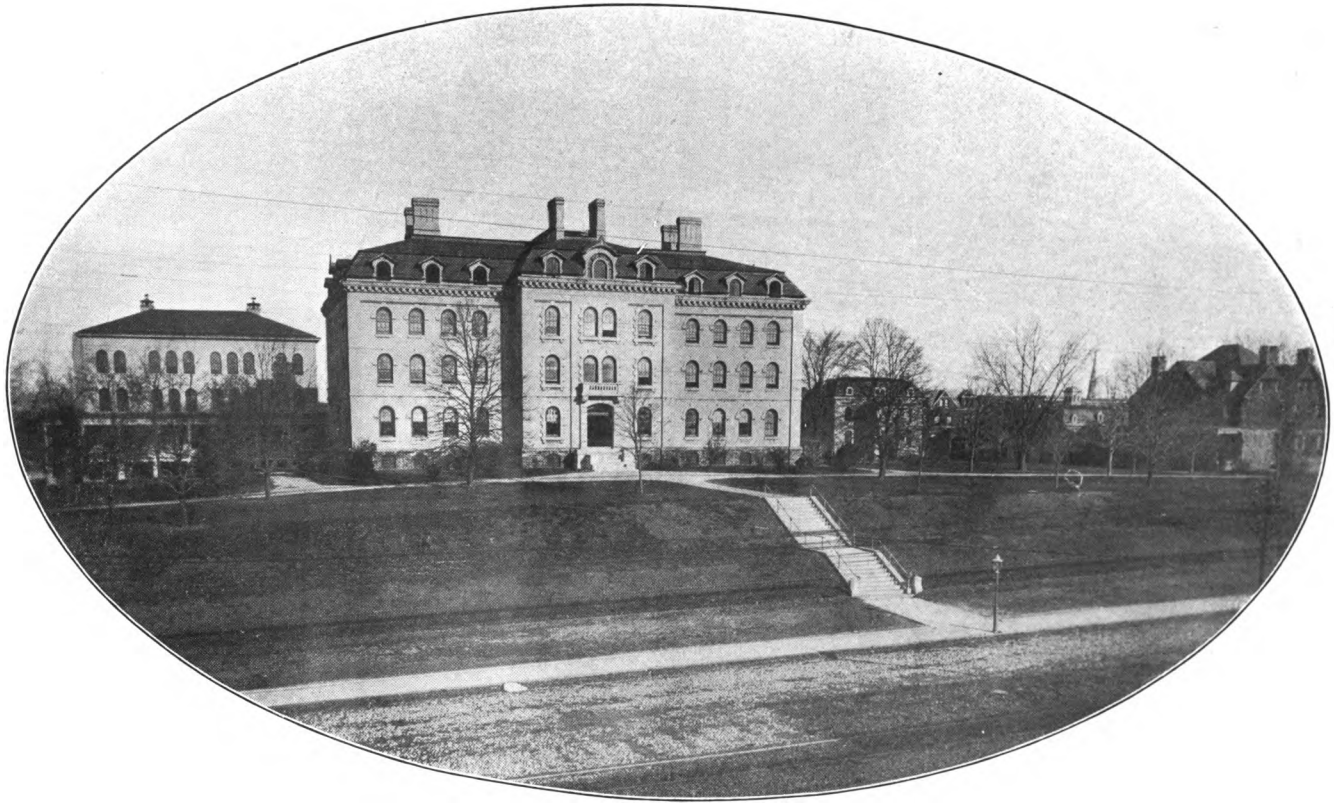


Report of the Board of Directors ...

Maryland. Workshop for blind, Baltimore



THE MARYLAND SCHOOL FOR THE BLIND,
220 East North Avenue,
Baltimore, Md.

BIENNIAL REPORT

(Forty-third and Forty-fourth Annual Reports)

OF THE

BOARD OF DIRECTORS

—OF—

The Maryland School for the Blind,

For period ending June 30th, 1907.

220 EAST NORTH AVENUE,

BALTIMORE, MD.

1907.

PUBLISHED BY THE SCHOOL.
WM. T. HYNES, Printer.
1908.

DIRECTORS

OF

THE MARYLAND SCHOOL FOR THE BLIND,

IN CHRONOLOGICAL ORDER,

From the time of its incorporation, 1853, with their terms of service.

Baker, Wm. Geo.....1853-1858
Cohen, Jacob I.....1853-1869
Glenn, John.....1853-1854
Hollins, J. Smith.....1853-1858
McJilton, John N.....1853-1868
Newcomer, B. F.....1853-1901
Fisher, William, M. D...1854-1880
Glenn, W. W..... ...1854-1876
McHenry, J. Howard....1854-1888
Trust, Jacob.....1854-1882
Crichton, Wm.....1856-1857
Lemmon, Richard.....1856-1863
Eaton, Geo. N.... 1857-1874
Howard, Charles.....1857-1869
Perine, W. B.....1857-1864
Robinson, A. C., M. D..1857-1872
Schumacher, A.....1857-1872
Wilkins, Joseph, M.D...1857-1860
Jenkins, Thos. C... 1859-1862
King, Francis T. 1859-1892
Stirling, A.....1859-1860
Baker, Chas. J.....1861-1894
Thomas, Sterling. 1861-1865
Wethered, Chas. E.....1861-1888
Morris, John T.....1863
Norris, C. Sidney.....1863-1864
Blanchard, E. Wyatt....1863-1880
Davis, Elias..... 1866-1872
Tome, Jacob 1866-1899
Brown, Geo. S.....1869-1891
Glenn, John.....1870-1896
Rogers, Geo. M.....1870-1880
Fisher, Wm. A.....1872-1891
Jackson, John J.....1872-1874
Brune, Fred W.....1873-1899
McLane, James L.....1874-1893
Roberts, Edward.. 1875-1880
Von Lingen, Geo. A.... 1878-1907
Foley, Daniel J.....1879-1906
Green, Jas. B 1879-1885
Keener, W. H.....1880-1881
Doyle, Wm. J. 1881-1897
Glenn, John M.....1881
Trust, Edwin H.. 1882-1884
Baker, W. S. G.....1885
Jenkins, Michael.....1885
Brattan, Robert F.....1891-1894
Cushing, Joseph M.....1891-1903
Leib, John L.....1891-1893
Walter, Moses R.....1891
Appold, Geo. J..... 1893-1897
Darby, Francis M.....1893-1905
Newcomer, Waldo..... 1895
Glenn, John, Jr.....1896
Morrison, F. D.... 1898-1904
Randall, Blanchard.....1898
Thomas, Douglas H.....1898-1906
Wilkins, Geo. C. 1898-1907
Whitridge, John A.....1898-1907
Morris, Thos. J.....1899
James, Nathaniel W.....1903
McLane, Allan.....1905-1906
Morrison, Geo. C.....1906

DIRECTORS

OF

THE MARYLAND SCHOOL FOR THE BLIND,

IN ALPHABETICAL ORDER,

From the time of its incorporation, 1853, with their term of service.

Appold, Geo. G.....1893-1897
Baker, Chas. J..... ... 1861-1894
Baker, Wm. G.....1853-1858
Baker, W. S. G.....1885
Blanchard, E. Wyatt ...1863-1880
Brattan, Rob't F.....1891-1894
Brown, Geo. S.....1869-1891
Brune, Fred W.....1873-1899
Cohen, Jacob I 1853-1869
Crichton, Wm.....1856-1857
Cushing, Joseph M.....1891-1903
Darby, Francis M.....1893-1905
Davis, Elias.....1867-1872
Doyle, Wm. J.....1881-1897
Eaton, Geo. N.....1857-1874
Fisher, Wm., M. D.....1854-1880
Fisher, Wm. A..... 1872-1891
Foley, Daniel J.....1880-1905
Glenn, John.....1853-1854
Glenn, John.....1870-1896
Glenn, John, Jr.....1896
Glenn, John M.....1881
Glenn, W. W.....1854-1876
Green, Jas. B.....1879-1885
Hollins, J. Smith.....1853-1858
Howard, Chas.....1857-1869
Jackson, John J..... 872-1874
James, Nathaniel W.....1903
Jenkins, Michael.....1885
Jenkins, Thos. C.....1859-1862
Keener, W. H..... 1880-1881
King, Francis T.....1859-1892
Leib, John L.....1891-1893
Lemmon, Richard.....1856-1863
McHenry, J. Howard....1854-1888
McJilton, John N.....1853-1868
McLane, Allan.....1905-1906
McLane, James L.....1874-1893
Morris, John T.....1863
Morris, Thos. J.....1899
Morrison, F. D.....1898-1904
Morrison, Geo. C.....1906
Newcomer, B. F.....1853-1901
Newcomer, Waldo.....1895
Norris, C. Sidney.....1863-1864
Perine, W. B.....1857-1864
Randall, Blanchard.....1898
Roberts, Edward.....1875-1880
Robinson, A. C., M. D...1857-1872
Rogers, Geo. M.....1870-1880
Schumacher, A.....1857-1872
Stirling, A.....1859-1860
Thomas, Douglas H.....1898-1906
Thomas, Sterling. 1861-1865
Tome, Jacob.....1866-1899
Trust, Edwin H.....1882-1884
Trust, Jacob.....1854-1882
Von Lingen, Geo. A.....1878-1907
Walter, Moses R.....1891
Wethered, Chas. E.....1861-1888
Whitridge, John A.....1898-1907
Wilkins, Geo. C.....1898-1907
Wilkins, Joseph, M. D...1857-1860

Maryland School for the Blind 4-21-05.

OFFICERS OF THE SCHOOL

From its incorporation in 1853, with their terms of service.

PRESIDENTS.

McHenry, J. Howard.....1853-1881
Newcomer, B. F.....1881-1901
Morris, John T.....1901

TREASURERS.

Cohen, Jacob I.....1853-1857
Wilkins, Joseph.....1857-1860
Newcomer, B. F.....1860-1881
Doyle, Wm. J.....1881-1896
Newcomer, Waldo.....1896

SECRETARIES.

Newcomer, B. F.....1853-1864
Morris, John T.....1864-1901
Morrison, F. D.....1901-1904
Newcomer, Waldo.....1904-1906
Morrison, Geo. C.....1906-1907

SUPERINTENDENTS.

Loughery, David M.....1853-1854
McKenny, Rev. J. A.....1854-1860
Keener, Chas. H.....1860-1865
Morrison, F. D.....1865-1904
Morrison, Geo. C.....1904-1906
Bledsoe, John F.....1906

BOARD OF DIRECTORS

1905-1906.

	Terms of continuous service.
John T. Morris	Since 1863
Geo. A. Von Lingen	" 1878
*Daniel J. Foley	" 1879
John M. Glenn	" 1882
Michael Jenkins	" 1885
W. S. G. Baker	" 1885
Moses R. Walter	" 1891
Thomas J. Morris	" 1899
†Allan McLane	" 1905
Waldo Newcomer	" 1895
John Glenn, Jr	" 1896
George C. Wilkins	" 1898
Blanchard Randall	" 1898
†Douglas H. Thomas	" 1898
John A. Whitridge	" 1898
Nathaniel W. James	" 1903
George C. Morrison	" 1906

PRESIDENT.

John T. Morris.

SECRETARY.

George C. Morrison.

TREASURER.

Waldo Newcomer.

*Deceased.
†Resigned.

BOARD OF DIRECTORS

1906-1907.

	Terms of continuous service.
John T. Morris	Since 1863
* Geo. A. Von Lingen	" 1878
John M. Glenn	" 1882
Michael Jenkins	" 1885
W. S. G. Baker	" 1885
Moses R. Walter	" 1891
Thomas J. Morris	" 1899
Waldo Newcomer	" 1895
John Glenn, Jr	" 1896
George C. Wilkins	" 1898
Blanchard Randall	" 1898
† John A. Whitridge	" 1898
Nathaniel W. James	" 1903
George C. Morrison	" 1906

PRESIDENT.

John T. Morris.

SECRETARY.

George C. Morrison.

TREASURER.

Waldo Newcomer.

* Resigned.
† Deceased.

STANDING COMMITTEES.

INSTRUCTION.

John Glenn, Jr., George C. Wilkins,
John A. Whitridge, Moses R. Walter,
Waldo Newcomer.

HOUSEHOLD.

John M. Glenn, Waldo Newcomer,
Michael Jenkins, Blanchard Randall,
Nathaniel W. James.

FINANCE.

Michael Jenkins, George A. Von Lingen,
Blanchard Randall.

BUILDINGS AND GROUNDS.

W. S. G. Baker, Michael Jenkins.

ADMISSION AND DISCHARGE.

Thomas J. Morris, John Glenn, Jr.,
John A. Whitridge.

COLORED SCHOOL.

John T. Morris, Waldo Newcomer,
John M. Glenn.

COMMITTEE OF FEMALE VISITORS.

*Mrs. S. M. Shoemaker, Mrs. H. B. Gilpin.

*Deceased.

OFFICERS AND TEACHERS.

1905-1906.	SUPERINTENDENT.	1906-1907.
George C. Morrison, A. B.		John F. Bledsoe, A. M.

TEACHERS.

DEPARTMENT OF LITERARY WORK.

KINDERGARTEN.

Miss Bertha L. Martien.	Miss Bertha L. Martien.

GRAMMAR AND HIGH SCHOOL.

Marshall E. Reddick,	James Boyd Kennedy, A. M.
H. Randolph Latimer, Ph. B.	H. Randolph Latimer, Ph. B.
John F. Bledsoe, A. M.	Mrs. M. H. Langstroth, A. B.
James Boyd Kennedy, A. M.	Miss Julia B. Ferguson, A. B.
J. Morrison Diven, LL. B.	Miss Annie D. Hobson,
Miss Annie D. Hobson,	Miss Emma Yarnall, Ph. D.
Miss M. Virginia Kelly,	Miss Jane N. Christopher.
Miss Emma Yarnall. Ph. D.	

DEPARTMENT OF MUSIC.

Frank T. Barrington,	Frank T. Barrington, Emeritus,
Chas. H. Bochau,*	Chas. H. Bochau,
J. George Siemonn,*	J. George Siemonn,
Francis C. Myers,*	Francis C. Myers,
Miss Margaret S. Madden.	Miss Margaret S. Madden.

DEPARTMENT OF MANUAL TRAINING.

SLOYD (BOYS).

Bradley Selleck Joice,

YARN SLOYD, BASKETRY, ETC.

Miss M. Virginia Kelly.	Miss M. Virginia Kelly.

SEWING AND KNITTING.

Miss M. B. Watkins.	Mrs. M. A. Hewitt.

DEPARTMENT OF TRADES.

BROOM-MAKING.

John H. Glady.	John H. Glady.

CHAIR-CANING AND MATTRESS-MAKING.

A. J. Bell.	A. J. Bell.

PIANO TUNING, CORD WORK.

Mordecai M. Garonzik.	Mordecai M. Garonzik.

DOMESTIC DEPARTMENT.

MATRON.

Mrs. M. A. Hewitt.	Mrs. M. A. Hewitt.

HOUSEKEEPER.

Miss Emily Greenfield.	Mrs. M. V. Muse.

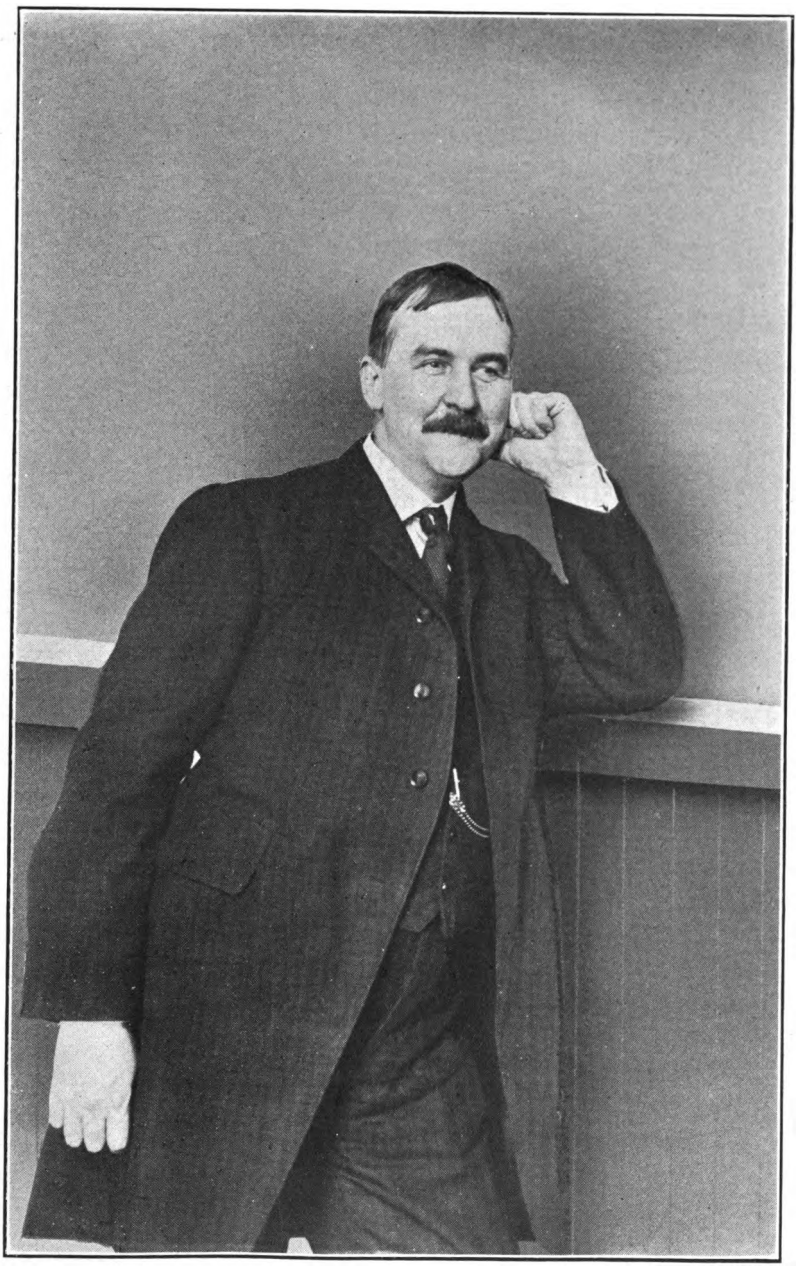
HOUSE MOTHERS.

Miss C. R. B. Cooke,	Miss C. R. B. Cooke, Miss C. E. Waite.

SUPERVISOR.

Miss Emma Mahle.	Miss Emma Mahle.

*Messrs. Bochau and Siemonn are full graduates of the Peabody Conservatory of Music, and Mr. Myers holds a teacher's certificate.



GEORGE C. MORRISON,
Superintendent 1904-1906.

Report of the Board of Directors.

To His Excellency, the Governor, and the General Assembly of Maryland:

The Board of Directors of the Maryland School for the Blind respectfully submits its report showing the condition and progress of the school for the biennial period ending June 30th, 1907, including the forty-third and forty-fourth annual reports.

The reports of the Superintendent and Treasurer, which follow, contain such careful descriptions of the work of the school during this time, that it is scarcely necessary to do more than direct your attention to their contents.

This school has always taken its rank among the best of its kind in the country, and during the period covered by this report it has continued to maintain its position.

Any changes that have been made tend toward extending and broadening its field of usefulness. The outlines which follow, showing the courses of study, revised, unified and somewhat enlarged, demonstrate clearly the policy which the school has always pursued; namely: to offer to the blind youth who seek admittance to its walls, every educational facility that will better equip them for life.

The courses of study embrace literary, musical and physical education extending from the Kindergarten to the High School, inclusive.

The general scheme is to encourage specialization after passing through the Grammar School.

During the past year there have been two pupils pursuing special work. At the end of another year one will have fulfilled all the College entrance requirements, and plans to enter the Woman's College the following session; the other is doing first-class work as a student of Music in the regular course at the Peabody Conservatory.

If past experience proves anything it is that the blind must be given every opportunity that general education and technical training can afford, to enable them to overcome the great handicap which the loss of sight places upon them.

The school has met the demand for more thorough and scientific manual training by the introduction of wood-sloyd. This, perhaps, as nothing else, will give to the pupils such elementary training in the use of their hands as will enable them to pursue any line of work later to which they may be best adapted.

The school has also extended its work to include that class of blind, commonly designated as the adult blind, or those who have lost their sight after maturity, and so have been deprived of the opportunity of such training as would enable them to adjust themselves to the new conditions imposed by the loss of this important sense.

This work was taken up as a supplement to the work of the Commission for Investigating the Condition of the Adult Blind, created by an Act of the last Legislature; and though carried on in so limited a degree, demonstrates beyond all question, its need. Therefore, this Board earnestly urges the most careful consideration of the findings and recommendations of the Commission as set forth in its report.

This report would be incomplete without special mention of the invaluable services rendered the school by Mr. George C. Morrison, whose term of service as Superintendent ended May 1st, 1906. Although serving in this official capacity but little more than a year, Mr. Morrison threw himself into the breech caused by the untimely death of our former Superintendent, serving the school in a way which could at that time have been done by no one else. The Board takes advantage of this opportunity to express publicly its appreciation of his excellent work.

Since our last report the Board has suffered a great loss in the death of three of its most faithful members, Messrs. Daniel J. Foley, John A. Whitridge and Geo. A. Von Lingen. Messrs. Von Lingen and Foley had been members of the Board since 1878 and 1879 respectively, and Mr. Whitridge since 1898. Mr. Foley died Nov. 28th, 1905, Mr Whitridge May 24th, 1907 and Mr. Von Lingen, June 26th, 1907.

Their interest in the welfare of the school was deep and abiding and their attendance at the meetings of the board was most regular as long as their health permitted it.

Their fellow members mourn the loss of valued friends and retain most pleasant memories of their genial personalities.

Fully cognizant of the generous manner in which the State has provided for the education of her blind for more than half a century, we most respectfully ask that the sum of $24.000 be appropriated annually as recommended by the Superintendent and the Board of State Aid and Charities, this amount being necessary in order to provide for those who should receive the advantages offered by the school.

Respectfully submitted,

JOHN T. MORRIS, *President.*

Report of the Superintendent

FOR THE BIENNIAL PERIOD ENDING JUNE 30TH, 1907.

To the Board of Directors:

GENTLEMEN:—In accordance with the requirements of my position, I submit for your consideration a report showing the condition and progress of the School since our last published report.

In the corps of officers and teachers there have been a few changes, as is indicated on the tabulated list which appears on page 8.

ENROLLMENT.

1905—1906.

Baltimore		Maryland		Washington		Georgia	Total
Male	Female	Male	Female	Male	Female	Female	
23	26	13	16	7	9	2	96

CAUSES OF DISCHARGE AND NON-ATTENDANCE.

Graduated	11	
Voluntarily withdrawn	4	
Withdrawn on account of improved sight	1	
Dismissed as ineligible	4	
Expelled	1	
		— 21
Present at end of fiscal year		75

ENROLLMENT.

1906—1907.

	Baltimore		Maryland		Washington		Georgia	Total
	Male	Female	Male	Female	Male	Female	Female	
Previously enrolled	17	21	10	14	5	7	1	75
New Pupils	2	4	2	2	2	1		13
Readmitted			1	1		1		3
Total								91

CAUSES OF DISCHARGE AND NON-ATTENDANCE.

Graduated	6	
Voluntarily withdrawn	4	
Withdrawn on account of improved sight	2	
Dismissed as ineligible	4	
Expelled	1	
Suspended indefinitely	1	
At home because of sickness	2	
		— 20
Present at end of fiscal year		71

Of the total number enrolled, twenty-three were new pupils. While the attendance during this time has been smaller than for several years, we have carried the full quota allowed from the State of Maryland. The law which provides for the education of the blind limits the number to seventy.

There are a number of children in the State who are proper subjects for the School, but it is impossible for us to admit them so long as the State makes provision for but this limited number. Provision should be made for at least ten more pupils, which would require the appropriation of $24,000 annually. This amount has been recommended by the Board of State Aid and Charities.

HEALTH.

The health of the School has been remarkably good. No serious illness has occurred.

I desire to call to your careful consideration the following extract from the report of our Oculist, Dr. Jas. J. Carroll:

"It is certainly a sad paragraph in our statistics to record that 32.69% of the pupils of the school are there as the result of diseases which are today regarded as distinctly preventable. This too does not include a number of congenital diseases, due to inherited syphilis, which have not been specially classified in this report for lack of confirmatory history."

About 30% of the cases of blindness included in this report are the result of Opthalmia Neonatorum, a disease that under proper care on the part of the nurse at the birth of the child, can be cured.

In 1894 Dr. Hiram Woods, and other interested Opthalmologists secured the passage of a law by the Legislature,

which if enforced, would practically wipe out this large percentage of blindness. There is need of education along this line among all classes, especially with the nurses; and the law should be revised so as to make it obligatory upon the physicians to report and have prosecuted every nurse who is found to have violated the provisions of this law.

Dr. Woods reports that so far as he is able to ascertain, with few exceptions the physicians have failed to present for indictment those nurses who have robbed these children of this most important sense. It is a notable fact that a number of the children in our school now who have thus suffered, were born after the passage of this law.

ORGANIZATION AND ADMINISTRATION.

When I accepted the position of Superintendent a little more than a year ago, I said:—"There are certain cardinal principles, the result of the experience of those who have had the management of such schools in this country as well as in Europe, upon which we can rest with assurance, and by which we can be guided. This School having already been conducted along these lines, no radical changes in our general plan of work are necessary. If one thing more than another is evident, as a result of the consensus of this experience, it is that the blind need the very best general education; physical, mental and moral, applied in such a way as to fit them practically to fight the battles of life."

The courses of study have been trimmed here and augmented there to make them conform as nearly as possible to the needs of the majority.

Recognizing the great handicap which the blind suffer in the loss of this most important sense, and in the light of past experience and present demands, we have organized the work of the School under the following heads:

1. Department of Literary Work.
   - (*a*) Kindergarten.
   - (*b*) Grammar School.
   - (*c*) High School.
2. Department of Music.
   - (*a*) Instrumental.
   - (*b*) Vocal.

3. Department of Physical Education.
   (*a*) Manual Training.
   (*b*) Physical Culture.
   (*c*) Trades.
4. Department of Domestic Work.

In the administration of the School, the intention has been to secure a unity of purpose by co-operation on the part of officers, teachers and pupils. Every one has been called upon to do his share toward securing this end.

TEACHERS' MEETING.

A Teachers' Meeting has been organized, which meets at the close of each week to discuss the practical questions which present themselves for consideration.

It has not been our purpose in these meetings to enter into theoretical discussions, nor to attempt scientific solutions of the many interesting problems which present themselves in connection with our work; but rather by exchange of practical ideas and suggestions to aid each other in the accomplishment of the object for which the School exists, the education of those under our care.

DISCIPLINE.

A firm discipline is maintained, based on a Demerit System, which throws the responsibility back upon the offenders. Demerits may be assigned by officers and teachers for misconduct, ranging, except in extreme cases, from one to five. Demerit slips are made out by the one reporting, giving date, name of teacher, offense, number of demerits assigned, extra punishment (if any), remarks, and name of pupil. These are filed each day in a book kept for that purpose in the office. At the end of each week a record of the number of demerits is made out and placed opposite the name of each offender, and these are read before the whole body of students on Saturday afternoon. If five or more demerits are received within a week, the student is required to perform such extra duty on the following Monday as the Superintendent may see fit to assign. Letters are written to parents, giving the deportment record for the week and asking their co-operation in the correction. We have found this system to work admirably.

The regular weekly holiday at the School is Monday, instead of Saturday.

GRADING AND PROMOTION.

In order to insure a sound and equitable basis for grading and promotion, we rely upon a system of marking the daily recitations and upon the recommendations of teachers. Any system of marking should serve both as a test of the pupil's actual knowledge and efficiency, and as a spur to greater effort.

In the present scheme, greater credit is given to the studies which in our opinion afford the best tests of knowledge and efficiency; while the necessity of arousing the average blind child to greater physical activity, leads to the introduction into our plan of some branches of education not usually considered in schemes of marking for grading and promotion.

Seven Units constitute the basis of the system; they are:

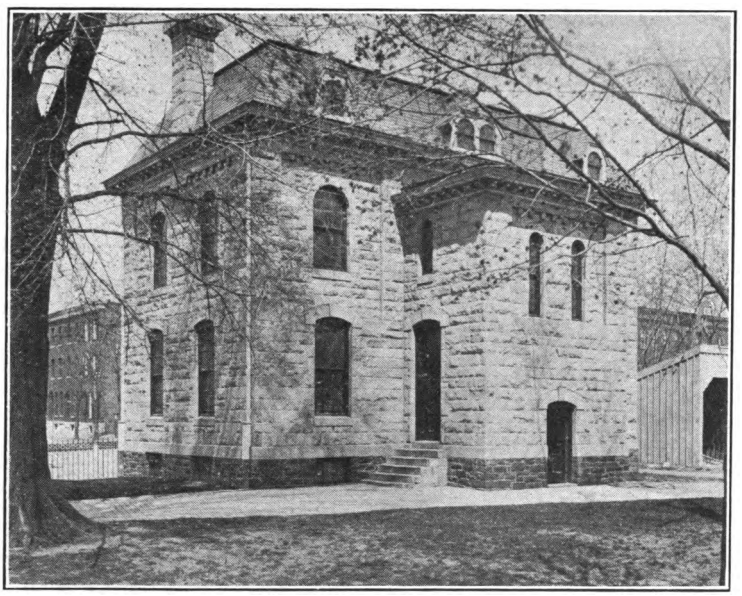
Units.	Credits.
1. Mathematics	20
2. Language, or English	20
3. Reading in the first three grades, Reading and Biography in the fourth and fifth, History in the sixth, seventh and eighth	13
4. Writing and Spelling	13
5. Form work in the first two grades, Geography and Science in the upper six	14
6. Music	10
7. Manual Training	10

A little thought will show that a pupil winning an average of seventy in each of the above units, will be entitled to the sum of seventy out of one hundred credits. On the other hand, should he fall to an average of sixty in the leading units, Mathematics, Language, Geography and Science, and yet make an average of eighty in the remaining four units, the sum of his credits would be only 69.2. In this way the studies which furnish the best tests of knowledge and efficiency exercise a controlling influence in determining the actual standing of the pupil, lessening the likelihood of ill-timed promotion and of unjust detentions. Pupils who do not take music are given an equivalent credit in Handicraft and Trades.

THE SCOPE OF THE WORK.

In the Literary Department it is our purpose to cover the same ground covered by the public schools of Baltimore, from

RECREATION PORCHES.



SHOP.

the Kindergarten through the High School; but as among the same number of normal children, so with the blind, only a limited number can be expected to accomplish the entire course.

SPECIALIZING ABOVE GRAMMAR SCHOOL.

It is our firm belief that after passing through the Grammar School, the pupils should specialize along those lines toward which their natural talents direct. If a pupil has talent for music, let the major part of his time during the High School period, and longer if necessary, be devoted to this line of work. If he is less talented in music, and has more ability along literary lines, let him take this as his major course and if possible, enter and pass through college. On the other hand, if special promise is not shown along either of these lines, he should be pushed along the lines of manual work and business. However, there should not be over-specialization in the work above the Grammar School. Care should be taken to insure a balance of character, which does not come by too great specialization. The special music student, the student for College, and the aspirant for business and trades lines alike, should be required to take certain culture studies in work outside of his own special line, tending to broaden and round out character and give a better general preparation for life. For instance, all pupils as near as possible, should be in the chorus classes, the special in music should continue certain literary culture studies and the elements of business, while the trades students should be continued in English and given special training along business lines.

At present we have two such special pupils, one has passed off all except one year of the College requirements and most likely will enter the Woman's College after one more year's work. The other is taking a course in music at the Peabody and is doing good work, her teacher having said recently that she is his best pupil in theory.

WRITING.

Writing in some form is taught throughout the entire Grammar School course. The importance of becoming accurate writers, whether with stylus, pencil, Kleidograph or

Typewriter, has been too little emphasized in many of our schools.

The work of the school will usually be accomplished slowly or rapidly in proportion to the ability of the children to become accurate and rapid writers.

POINT WRITING.

The teaching of Point Writing with the stylus commences in the Kindergarten and is continued through the Fourth Grade. Care is taken to teach the proper position of the slate, how to hold the stylus and adjust the paper. At first, accuracy in writing is the aim and when this is accomplished, attention is given to the development of speed.

THE PENCIL AND KLEIDOGRAPH.

In the fifth grade the teaching of Point Writing with the stylus gives place to the pencil and Kleidograph. Of late years the typewriter has driven out the teaching of pencil writing in our school, but we feel that every blind child should be able to write in this way, since only a few, perhaps, when their school days are over will be able to afford a typewriter.

Every appliance which will enable our pupils to execute their work more rapidly should be employed in the school. Hence, we have introduced the Kleidographs. These machines write the same New York Point that the children have learned to write on the stylus slates, but the dot appears on the upper side of the paper instead of the under so that it can be read as fast as written; and the writing is from left to right instead of right to left as on the slates. The kleidograph has other advantages over the slate in that whole letters—and sometimes more—can be made at one stroke instead of a single dot at a time, thus giving greater speed in writing; and the fact that the left hand only is used in writing, leaving the right hand free to read, greatly facilitates copying.

I am unable to understand why more of the schools which use New York Point have not availed themselves of this great time saver. We have failed to find it impractical according to the criticism of some who have given it but a trivial trial.

THE TYPEWRITER.

Typewriting is introduced in the seventh grade. The school is equipped with Remington and Smith Premier Typewriters, and each child taking the course is expected to become proficient in the use of both machines. Heretofore this school has used the Smith Premier only, which has the double key board, it having been claimed that this arrangement of keys was better adapted to the blind; but believing that the blind should be able to use all types of machines and especially that style which is the most common, we exchanged half of our Smith Premier machines for Remingtons, and after a year's trial failed to discover any difference in the ability of the pupils to use either machine.

The touch method is taught in practically the same way as to seeing people. After the child has become thoroughly familiar with the key board, his first exercises consist in writing lines of single words. These exercises are followed by others of the following kind:

1. Dictation of letters, short stories, hymns and other selections.
2. Exercises written in New York Point transcribed on the typewriter.
3. Letters, short stories, etc., read by the teacher and reproduced in the pupils' own words.
4. Speed exercises.

Outside of the class periods, the pupils use the typewriters in the preparation of lessons for the seeing teachers and for correspondence.

MANUAL TRAINING.

The demand for more thorough and scientific manual training for our pupils has been met by the introduction of wood sloyd for the boys, and cord, reed and raffia work for the girls.

The latest and most improved sloyd benches together with all necessary tools, have been purchased and installed in two rooms, in the basement of the main building, which have been thrown together and fitted up for the purpose.

All the boys from the third to the eighth grades, inclusive, are given not less than three hours a week in this work. A year's experience has confirmed our opinion that this training will be invaluable as a basis for further development along all lines, especially for the pupils who will later take up the trades as their special line of work. The blind piano tuner is often handicapped by being unable to mend an instrument as well as tune it. Six years of this preliminary training should prepare him to overcome this obstacle in the way of his complete success.

The girls from the third to the eighth grade, inclusive, now receive regular and systematic training in all forms of work possible in the manipulation of cord, reed, raffia, etc., in addition to the elementary work which precedes it. As heretofore they receive careful training in knitting, crocheting and in sewing by hand and machine. In the advanced grades, the work is made as practical as possible, instruction being given in mending, cutting and fitting as well as in the making of garments.

The field of employment for blind girls is more circumscribed than that of the boys, but if they are well trained in the feminine arts, they will be prepared to participate, in no small degree, in the work of the home and may enter certain lines of manual work and become partial bread winners at least.

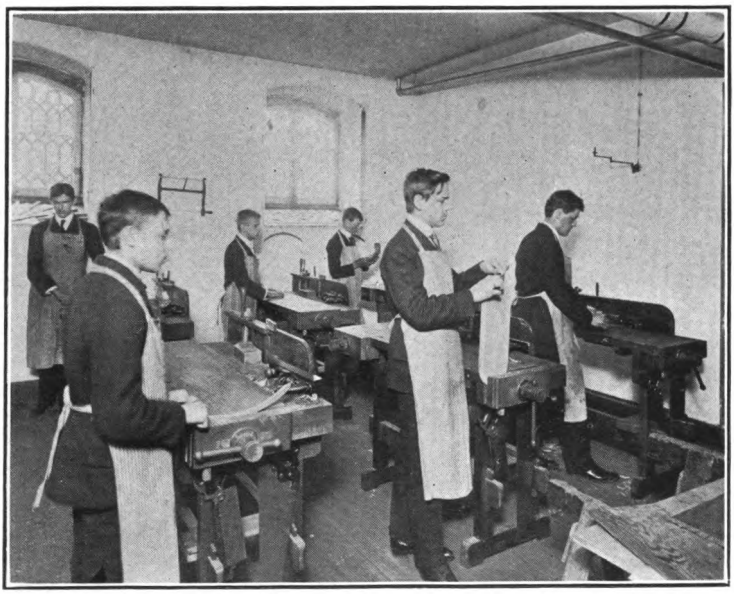
There are some graduates of our school, totally blind, who do most of the housework, including cooking, at their homes, and find time to earn fifty or seventy-five dollars a year for spending money as a result of such training as we are endeavoring to give.

HANDICRAFTS OR TRADES.

The trades taught at our schools are chair-caning, cord work, mattress making and broom making.

Chair-caning is taken up in the first years of the pupil's life and is one of the most important means of teaching them to use their fingers. It offers an early field for developing the earning capacity which, if properly guided, may be turned to good account in the establishment of habits of saving and the proper use of money.

CLASS IN REED, RAFFIA, CORD WORK, ETC.



CLASS IN SLOYD.

Cord Work involves the making of various articles of cord, such as hammocks, crab nets, horse nets, portiers, etc.

It has an educational value, as it trains and strengthens the fingers, and adds one more to the list of earning occupations. Some of our advanced pupils made and sold as much as seventy dollars worth of these goods in one year.

This work is in charge of the teacher of tuning.

Mattress-making, requiring greater skill and strength, more properly belongs to the trades' group and is taken up after the pupil has entered upon his special work. It may well be considered one of the best trades for a certain class of the blind under favorable conditions in certain localities.

Broom-making for a majority of the blind is, perhaps, the best trade. In a well regulated shop where the principles of division of labor are followed as among normal workmen, the blind can earn a fair living at this trade; and I am of the opinion that most blind men can learn to do some part of the work connected with the manufacture of brooms. We do not attempt to give this trade to the pupils of the school until they begin to specialize. In fact, it properly belongs to post graduate work as do practically all the trades.

The work in our broom shop is done mostly by adults. There have been employed during the past two years, about eleven blind men, who have earned an average wage of $6.50 each per week.

During the past year the receipts of the shop amounted to $14,538.25. The expenditures for material, wages and sundry expense during the same time were $13,753.89. This shows a net profit of $784.36. If, however, the shop had been charged with certain other expenses incident to the work; such as, coal, gas, stable hire, rent, etc., which would have to be reckoned with if the establishment were not situated at the school, as now, the net profit would be very little, if any. In fact, it has been our intention to pay the expenses, giving the workmen the benefit of all the profits.

The shop has had a ready sale for all its products, because our goods have a reputation of being the best on the market. The shop has been conducted on strictly business principles and the products sold on their merits. Should the Legislature

see fit to establish a central workshop for the adult blind, we shall be able to turn over to that department a well organized business in this line of work.

THE DOMESTIC DEPARTMENT.

This department is under the direction of the Superintendent assisted by a matron, a housekeeper, two house mothers and a Supervisor.

The aim is to eliminate as nearly as possible the atmosphere of an institution, making the school life of the children that of a well regulated home.

The matron is the mother for the whole family, as it were, and is assisted by two house mothers, one for the girls and one for the boys, who are in close touch with the pupils, administering to their wants, looking after their clothing, seeing to their personal appearance and nursing them when sick. The supervisor assists the matron in various ways.

The rooms of the teachers who reside in the school are so situated as to enable them to assist in the general oversight of the children when not in school

The housekeeper is in charge of the Culinary department and prepares menus which afford the necessary variety of food cooked and served in a manner to render it palatable.

SCHOOL EXTENSION OR HOME TEACHING OF THE ADULT BLIND.

There has always been a class of blind persons, commonly termed "the adult blind" who, having lost their sight after maturity, have not been permitted to avail themselves of the opportunities offered in our schools.

In 1900, the Perkins Institution and Massachusetts School for the Blind commenced the work of sending teachers to the homes of this class, to give them instruction. At this time $1000 was appropriated by the Legislature for this work, which has since been increased to $5000. The following quotation, from a recent report of the work done there, describes very clearly the character of the work which is accomplished among this class of unfortunates:

"The efforts for the benefit of these unfortunate persons are directed first of all to the breaking down of the barriers imposed by the loss of

sight, between the outer world and the victims of this terrible calamity, and to the overcoming of the timidity which hedges them about, hampers their every movement and deters them from taking the initiative in any endeavor. The plan of instruction permits individual attention to the needs of each pupil. For this purpose the teachers make regular visits to each blind person in their charge, giving him systematic instruction, encouraging him in independence and self-reliance, and seeking to inculcate that persistence and love of hard work which shall lift him by sheer force of will over the encompassing obstacles and into a glad sense of his own ability to achieve."

Instruction is furnished in reading, writing, sewing, chair caning and other easy handicrafts.

As a supplement to the work of the Commission appointed by the last Legislature to investigate the condition of the adult blind in the State of Maryland, this school undertook to give instruction to a limited number of its adult blind in the City of Baltimore. One teacher devoted half of her time during the past year to this work. The following brief summary from her recent report shows what has been accomplished:

"Since September, 1906, I have visited 52 homes, have made 654 visits, spent $38.32 car fare, have instructed 30 persons; 20 men and 10 women. Of these, 15 have learned to read New York Point and 4 others are learning. 10 have learned to write the Point System and 5 have learned to write with a pencil. One elderly lady has learned to read Moon type. 6 have learned to cane, while 6 others have learned net work and 1 is learning. 2 have learned to crochet and 3 to knit. Others have learned to make rattan and Indian basketry, to sew by hand and machine and to darn."

This conveys but a faint idea of the amount of good that has been accomplished. These blind men and women, never having had an opportunity to learn to adjust themselves to their new condition, become morbid and morose to the extent, at times, of suicide.

The teacher comes to them and instills confidence, making them realize that it is possible for them to get into touch with the outside world, through the point print books, and even to learn to work and become more or less independent. The following quotations from letters received from several of them illustrate the point more fully:

I.

"For many years, a large part of my time, I have had to sit with folded hands because I was not strong enough to be active always, could

not use my eyes, and did not know that I could learn to read, write, etc. without looking. What a 'thorn in the flesh' this has been.

Only about four months and a half have I been under your instruction, and today I find my thoughts turning backward with the purpose of knowing just how much, with your help, I have accomplished during this lapse of time.

Best of all I have learned to read. The first month was spent in learning the Alphabet and in trying to read the primer. Since then, I have read Cyr's Second, Third and Fourth Readers, the Gospel of St. Mark and the greater part of the last two numbers of 'The Matilda Ziegler Magazine.' At present I am reading Thomas Carlyle's Heroes and Hero Worship.

I am so glad that you taught me how to write, as it gives me much pleasure to be able to put my thoughts on paper; and I also find it quite useful in the way of copying anything that I wish to keep; then too, it enables me to write to my mother and to my teacher, which is indeed a great pleasure.

Now I want to tell you of some of the ways in which I have been helped this past winter and spring. First of all I gained new hope that I might yet be able to read and write; then, as my hopes began to be realized, I found that I was daily growing more independent, and that I might in the future be a help to humanity instead of a burden. My soul has been rid of the sin of envy and my hands have been kept out of mischief; for you know I used to be very envious of those whom I saw reading books and magazines. I was unhappy and discouraged; but now, with a heart full of gratitude to The Maryland School for the Blind, which is making such a noble effort in behalf of the Adult Blind, I have been reached. I can now read and, thanks to the Enoch Pratt Free Library and to Mrs. Ziegler, I have good books and a 'Magazine.'

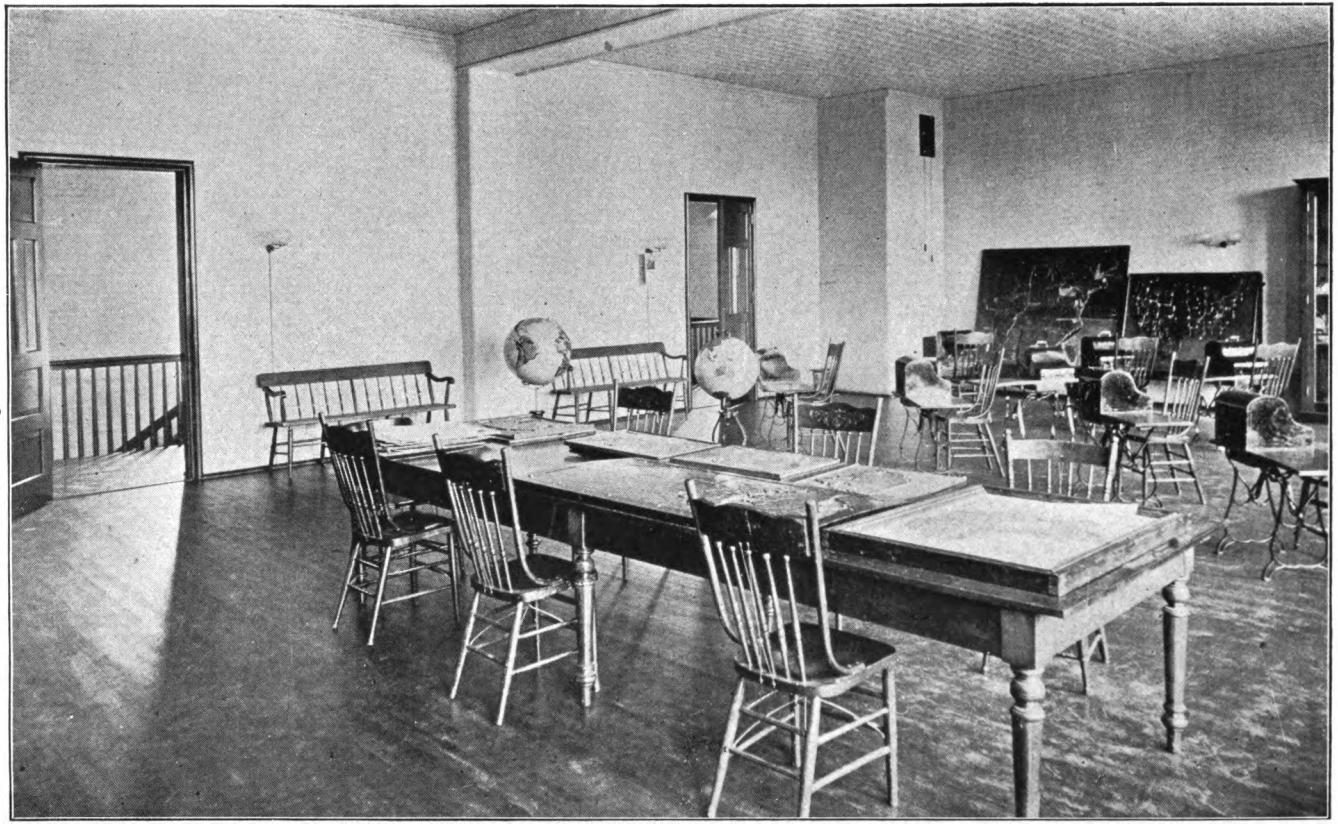
I have not forgotten other things you have taught me, nor do I depreciate their value. I have learned to knit, as you know, and I am beginning to consider myself quite an expert at knitting slippers, as I have knit three pairs this spring. I find it much harder to crochet without looking than to knit, but think it will grow easier from practice. You have also taught me how to make two kinds of baskets. I find this kind of work very pleasant as well as useful.

It makes me sad when I think how empty my life would have been had I not found hope in The School for the Blind. My heart aches for the homes that have not yet been reached and brightened by your teaching. However, there is a hope that they will all be found and helped in the future."

II.

"Since my instruction began I have made three baskets, which the Indians would, I hope, recognize as 'Lazy Squaw, Navaho and Whip Stitches.'

In the reed work, I have completed two mats and one basket, and I hope, if fortune favors me, to make a lace basket and learn several



MODEL ROOM.

Indian stitches, besides caning a chair—the most practical of all my new arts.

In the sewing room I have been taught to thread a needle with a horsehair and incidently that 'Patience is a virtue.' Since that useful lesson I have done some tucking and I am now at work on an apron.

I prefer reading to any other occupation but I have had time to read but a few books.

Between the first week of September and the middle of May, when the Ziegler Magazine came, I have read some of Macaulay's 'John Milton,' some of Browning, Tennyson, Longfellow and Whittier; but since then I have been able to read the Ziegler.

These things are easily measured—not so, however, the brightest things they have brought into my life. I am deeply grateful for the kindness and sympathy which have made this year brighter and happier than I had deemed possible."

III.

"Regarding the instructions which I have received from you, I beg to advise that they have benefitted me in innumerable ways. The most important of all is the comfort they have given me in knowing that if occasion should ever arrive, I could no doubt earn my living by selling the different articles which you have taught me to make. I am well pleased with the progress I am making and cannot tell you how much I appreciate the interest you have taken in me, and also to know that even in my blind state, through your instruction, I am now able to read the words of our Lord. The manual work which I have learned is to crochet baby sacques, shawls, bedroom slippers, slumber robes and sachet bags. to make rattan mats, raffia hats for dolls, and cane chairs."

IV.

"I commenced my lessons with you in New York Point System the latter part of last summer, beginning with the peg board to get the shape or for the position of the letters and signs; and from this we gradually worked into the Primer, then to readers and next into books of regular reading.

I got out my first book from the Pratt Library in October, and have had at least 35 books out up to this time.

As I gradually progressed you took up writing with me, also instructing me at the same time in the capital letters. I have received and sent probably 24 letters and have a fairly good knowledge of punctuation, paragraphing, etc.

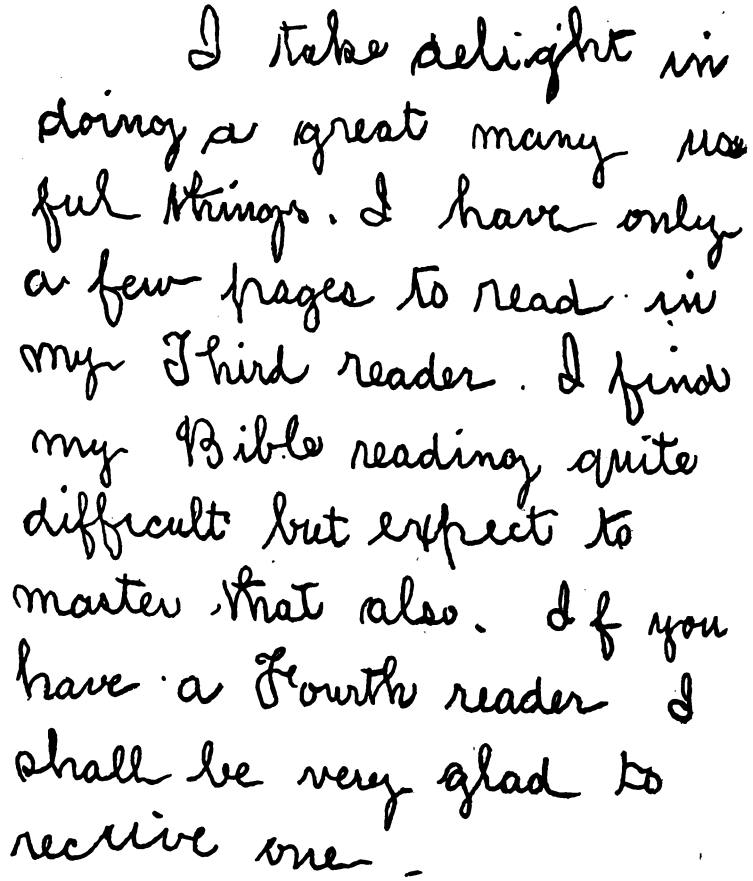
You can form some idea of my writing by this letter, and as you have heard me read you know just about what I have accomplished.

I am doing some little on the music you have been teaching me, and hope to do more. This doesn't come as easy to me as I would like it to.

For what I have accomplished I will ever be under lasting obligations to you. Your patience and painstaking efforts at all times, and cheering

words have helped me wonderfully. There will be, I hope, no change in your plans to stop your ever welcome visits."

SAMPLE OF PENCIL WRITING BY ONE OF THE ADULT BLIND STUDENTS.



I take delight in doing a great many useful things. I have only a few pages to read in my Third reader. I find my Bible reading quite difficult but expect to master that also. If you have a Fourth reader I shall be very glad to receive one.

Notwithstanding the limited amount of work we have been able to do in this important field, it has been sufficient to demonstrate beyond all question its great importance, and we most earnestly hope that the Legislature will make adequate provision for its more thorough prosecution.

* Courses of Study.

DEPARTMENT OF LITERARY WORK.

KINDERGARTEN.

Our ideal is to teach more than books contain, for the teachers, after the mothers, have the best opportunity of building noble character in the children. It does not require a formal course to do this for the daily routine of school life is a moral discipline.

First Year.

Our first effort is to draw out what is in the child, and then inspire him to work for the development of his own powers.

Songs, poems, games, stories illustrating animal life, flowers, trees, trades, etc. Practical nature study by observation in school grounds during the changing seasons and natural objects from our collection in mid-winter.

Stories reproduced and dramatized by the children.

Free play, never without supervision, directed play-games, teaching self confidence, freedom of motion, self control, consideration for others.

Sewing cards, weaving, folding and cutting and pasting simple geometrical figures, and clay modelling.

Froebel's 1st, 2d, 3d and 4th Gifts.

Beads, button-moulds, horse chestnuts and stones for counting to one hundred and playing store, giving first steps in mental arithmetic. Measurement on kindergarten tables with paper ribbon or strips for yards and inches, quart and pint measures in sand bin.

Second Year.

Oral spelling and reading through Appleton's First and Second Readers. Written spelling and short sentences, using signs and capitals, also the days and months with their abbreviations on stylus slates.

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* The Course of Study has been compiled and rearranged with the aid and cooperation of the teaching corps.

Writing numbers to one hundred on type slates, also multiplication tables to six. Telling of time.

Simple stories relating to historical events, noted characters, places and country's products. Divisions of land and water illustrated in sand bin.

Grammar School.

First Grade.

Unit I.

Arithmetic:—Time, three hours, twenty minutes per week.

Text:—Colburn's Mental Arithmetic, Sec. I, II, III.

Counting, numeration, and notation to one thousand.

Mental addition and subtraction of numbers to 100 and above.

Mental addition and subtraction of numbers involving from one to four places.

Construction and thorough memorizing of the multiplication tables to twelve times twelve.

Immediate application of each table to actual multiplication, written and mental, as soon as it has been memorized.

Mental multiplication involving the twelve tables with multiplicands of not more than two places.

Mental division involving the twelve tables with dividends not exceeding three places.

Written division involving the tables to twelve times twelve with dividend not exceeding four places.

Remarks. It is very necessary, especially with the blind, to lay special emphasis on rapid mental exercise. As far as possible, the problems should be based on experience of common every-day life.

Unit II.

Language:—Time, three hours, twenty minutes per week.

Text:—Mary F. Hyde's Practical Lessons in the Use of English, Part First.

Subjects:

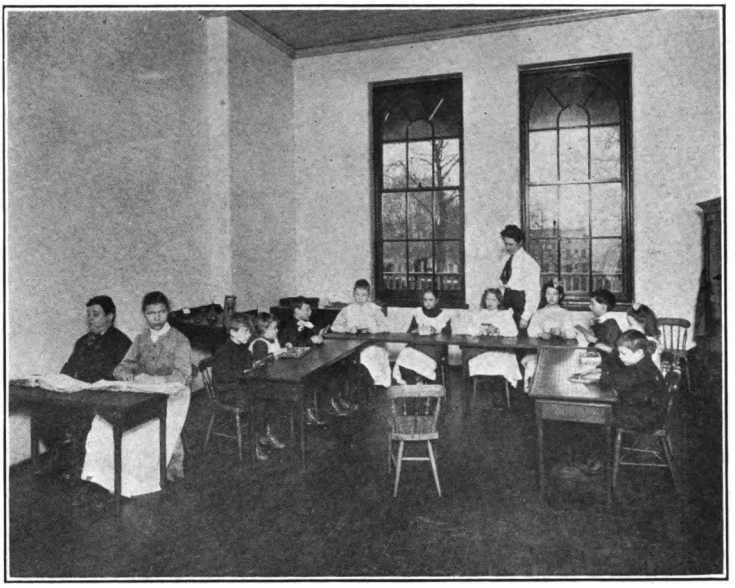
The sentence, statements, questions.

Names, how to write names.

Use of is and are, was and were, has and have.

The word I.

Names, of cities, streets, christian and surnames.



KINDERGARTEN.

CLASS IN LITERARY WORK.

How to write initials.
The words Uncle and Aunt, Mr. and Mrs.
Names of days, months, seasons.
How to write dates.
A letter.
Words to use with you.
The command, the comma.
Quotation marks, quotations.
Contractions.

Remarks. In this grade, in addition to dictation exercises and reviews, as much time as possible is given to elementary composition, memory reproduction and kindred work.

Note. The picture lessons in the above text are purposely omitted from the New York Point edition.

Unit III.

Reading:—Time, six hours and forty minutes per week.

Texts:—
Cyr's Children's First Reader,
Third Point Reader (based on Appleton's series),
Pieces for Primary Class,
First Nature Reader, by Julia McNair Wright.

Supplementary Reading:—
Stories for Children, by Mrs. Lane,
Fairy Stories and Fables, by Baldwin,
Jack, the Giant Killer,
Puss in Boots and Cinderella.

Remarks. The supplementary reading for this grade is done in the school room; for, though reading is taught in the Kindergarten, the pupils are not sufficiently advanced to read without attention and supervision. With certain exceptions left to the discretion of the teacher, all poetry given in the texts is memorized by the pupils of this and each succeeding grade. In this way a store of additional material is always in readiness for the Point Writing and Language lessons.

Unit IV.

Spelling and Point Writing:—Time three hours, twenty minutes.

The spelling lesson in this grade is selected from the reading, language and other lessons of the day.

The material for point writing is, for the most part, likewise taken from the other daily recitations.

Unit V.

Form Work:—Time, three hours and twenty minutes per week.

1. The shapes and forms of familiar objects. Counting of corners and sides. Building with half-inch square wooden blocks and cubes. Class and individual work with sand.
2. Outlining of designs and figures on cardboard with tacks. The same, using cloth-covered boxes instead of boards. Cardboard shapes taken from boxes and identified by touch.
3. Paper tearing and cutting. Considerable time devoted to this. Folding and tearing of paper into specified shapes is followed by scissors work.
4. Practical talks to the class once a week on the forms and uses of common things. Example:—Farm implements, shape, material and use.

Unit VI.

Music:—Time, three hours, twenty minutes per week.

See outline, page 57.

Unit VII.

Manual Training:—Time, three hours and twenty minutes per week.

See outline, page 59.

Unit VIII.

Physical Culture:—Time, two hours per week.

See outline, page 64.

SECOND GRADE.

Unit I.

Arithmetic:—Time, three hours, twenty minutes per week.

Text:—Colburn's Mental Arithmetic, Sec. IV, V, VI.

Brief review of first year's work.

Counting by alternate digits by arithmetical progression to two hundred and back again.

Mental addition and subtraction of numbers to one thousand.

Written addition and subtraction of numbers involving no more than six places.

Construction and memorizing of the multiplication tables to twenty times twenty.

Immediate application of each table to actual multiplication and division as soon as it has been memorized.

Mental multiplication to twenty times twenty involving multiplicands of not more than three figures.

Written multiplication involving the tables to twenty times twenty with multiplicands of not more than five places.

Mental division involving the tables to twenty times twenty with dividends not exceeding one thousand.

Written division involving the tables to twenty times twenty with dividends not exceeding five places.

Remark. Much attention is given to rapid mental exercise and, as far as practicable, transaction of every-day experience is made the basis of school room work. Excessive use of the type slate is discouraged, its principal use being to give the pupil a correct idea of arithmetical form, and to accustom him to handle large numbers. As the blind cannot use the pencil pad in their every-day life, they must be trained to a greater degree in mental arithmetic.

Unit II.

Language:—Three hours, twenty minutes per week.

Text:—Hyde's Practical Lessons in the Use of English, Part Second (omitting picture lessons).

Subjects:

The two parts of a sentence.

Names, proper and common.

Names that mean more than one, (plurals).

Words that denote possession, (possessive forms).

Words that describe, point out, (the, an or a).

Words that assert. Words that show how, when or where.

Words used instead of names. Words after is and was.

Words used as objects. Words that show relation.

Object forms (pronouns). Words that show possession (pronouns).

The Exclamation.

Remark. Composition, elementary letter writing, reproduction, dictation and frequent reviews make this course a very practical one.

Unit III.

Reading:—Time, six hours, forty minutes per week.

Texts:—Cyr's Second Reader, Fourth and Fifth Point Readers (based on Appleton's series), Grimm's Household Stories.

Supplementary Reading:

Stories of Great Americans, by Eggleston.

Fancies of Child Life.

Friends in Feathers and Fur, by Johonnot.

Seven Little Sisters, by Jane Andrews.

Stories Mother Nature told her Children, by Jane Andrews.

Boys of Other Countries, by Bayard Taylor.

Second Nature Reader, by Julia McNair Wright.

Remarks. The supplementary reading for this, as for all grades above, is done outside of school hours. Each pupil does all such reading assigned for his grade; and the teacher by periodic quizzes and other tests, stimulates this independent reading, and prevents deception and delinquency in the amount of reading actually done.

The intelligent and rapid reader often outstrips his grade, in which case he is supplied with additional reading at the discretion of the teacher.

Unit. IV.

Spelling and Point Writing:—Time, three hours, twenty minutes per week.

In this grade, as in the grade below, the spelling lesson is selected from the reading, language and other lessons of the day. The subject matter for the written work is taken in like manner from the other daily recitations, and consists of dictations, reproduction, definitions, etc.

Unit V.

Form Work:—Time, three hours, twenty minutes per week.

1. A continuation of the block and scissors work of the first year.

2. Modelling with sand developed and extended. Clay modelling. Familiar objects reproduced. Simple animal forms like the turtle and the snake.
3. Pencil work. Drawing taught along the same lines as work with the clay. Pencil work is very difficult for the blind but of especial value since it teaches direction and location so necessary in geography and other studies.
4. Practical talks once a week as in the first year. In the spring the work is an introduction to the Geography of the following year, geographical forms being studied with the help of clay and sand.

Unit VI.

Music:—Time, three hours and twenty minutes per week.
See outline, page 57.

Unit VII.

Manual Training:—Time, three hours, twenty minutes per week.
See outline, page 59.

Unit VIII.

Physical Culture:—
See outline, page 64.

THIRD GRADE.

Unit I.

Arithmetic:—Time, three hours, twenty minutes per week.
Colburn's Mental Arithmetic, Secs. VII, VIII, IX, X and XI.
Robinson's Practical Progressive Written Arithmetic to page 70 of the New York Point edition.
Brief review of second year's work.
Unlimited mental exercise in the four rules.
Introduction of common fractions, mental and written.
Unlimited written exercise in the four rules.
Thorough memorizing of denominate tables not involving fractions, and their immediate application to easy problems.
Introduction of decimal fractions, mental and written, to three places through the medium of United States money.

Remark. Considerable attention is given to Contraction, that is, to the briefer methods of multiplication and division, together with some insight into the principles of Exact Division.

Unit II.

Language:—Time, three hours, twenty minutes per week.

Text:—Hyde's Practical Lessons in the use of English, part third, lessons I to LXV, pages 1 to 80 of the ink print copy.

Subjects:

Kinds of Sentences. Subject and predicate. Nouns. When to use capital letters. Words derived from proper names. Pronouns. Adjectives, choice of, comparison of. The paragraph. Verbs, transitive and intransitive, active and passive. Adjectives and nouns that complete predicates. Adverbs, negatives. Position of modifiers. When to use adjectives. The Comma. Prepositions, choice of. Conjunctions. Interjections. Simple and compound sentences. Singular and plural forms of nouns. Possessive and compound possessive forms of nouns. Masculine and feminine nouns.

Remark. This course is made exceedingly practical and interesting by frequent composition, dictation exercise, letter-writing and review. As far as possible, the subject matter for such work is taken from what the pupils have already learned in the other recitations. In this way the emphasis is confined almost entirely to questions of correct English rather than to historical or other facts.

Unit III.

Reading:—Time, three hours, twenty minutes per week.

Texts:—Cyr's Third Reader, Sixth Point Reader (based on Appleton's series).

Supplementary Reading:

Old Stories of the East, by Baldwin.
Stories of American Life and Adventure, by Eggleston.
Andersen's Fairy Tales.
The Woodman's Nannette and Other Tales.
Sara Crewe, by Mrs. Burnett.

Little Miss Phoebe Gay, by Helen Daws Brown.
Two Little Confederates, by Page.
Captain January, by Laura E. Richards.

Remark. The poems given in the above texts are, with a few exceptions left to the discretion of the teacher, memorized by all the pupils of the grade. This is a great help in the direction of furnishing good and ready material for both the writing and language recitations.

Unit IV.

Spelling and Point Writing:—Time, three hours and twenty minutes per week.

Texts:—Swinton's Word Book (lessons 1 to 105 of first year's work.)

Additional words for spelling are selected from the other lessons of the day, and the recitations are both oral and written. The material for point writing consists of dictation exercises, poems already memorized, definitions and reproductions based on the reading lessons.

Remark. The chief aim in the Point Writing recitation corresponds to that of penmanship with the seeing, namely, neatness and accuracy. The comparatively clumsy character of the apparatus used by the blind for writing makes it a much more important feature in their primary education.

Unit V.

Geography and Science:—Time, three hours, twenty minutes per week.

(*a*) Geography:—Time, two hours per week.

1. What is Geography? Why is it studied? Geographical Definitions. (1). Hills. Valleys. Rivers. Lakes. Islands. This class of definitions concerns those things which lie within the range of the pupils' personal observation and experience.

(2). Mountains. Plains. Capes, etc. Phenomena illustrated by what corresponds to them on a small scale and lies within the understanding of the pupil.

(3). Physical conditions, Day and Night. Winds and Calms. Summer and Winter. Spring and Fall. Rain, Snow and Ice.

(4). Distribution of Life. (*a*) Men. (*b*) Animals. (*c*) Plants. This topic treated briefly wherever it stimulates the interest.

(5). Transportation. (*a*) Land. (*b*) Water.

2. World as a Whole. Shape of the Earth. Its relation to the Sun and Moon. Composition of the Earth's surface and interior. Division into Hemispheres.

3. The Continents. North America. Waters surrounding it. Names and location. The more important islands. Indentations of the coast.

The other Continents are studied in the same way as North America.

Note. Geography is studied for six years in three recitations a week. In the first three years the entire world is studied, and each year in a different way, leaving the detailed study of special countries for the last three years. For the first three years the work is oral with some notes, there being no suitable texts in the New York Point.

(*b*) Nature Study. Time, one hour and twenty minutes per week.

1. What is Nature? Why does it interest us?

2. Minerals. Sand, Clay and Rock identified. The uses of each. Changes. A collection of rocks and pebbles is made by the class.

3. Plants. How plants live and grow. Their value to mankind. Class divided into groups, each to study one tree during the year. For this year, the Linden, Spruce and Maple. A collection of the leaves and wood is made. The growing of plants from seeds in a window box.

4. (*a*) Animals. The common studied more at length than the unusual. The dog, horse, cat, etc., discussed from the experience of the pupils. The value of animals and how we should treat them. Wild animals described, usually in connection with a story. (*b*) Birds, Reptiles, Fish, etc., as above. (*c*). Insects. Silk worm as a type. Others described.

Note. The chief object of nature study during the first year as here described is to interest the pupil in all forms of life about us. No order is maintained in the subjects

studied, but the course follows the line suggested as one subject leads to another. No text book is required, though pupils are questioned on the contents of stories read to them. Daily observation and the cultivation of the faculties of touch and hearing are encouraged.

A partial list of books drawn on for reading:—Outing Magazine, Julia McNair Wright's Nature Readers, and the Natural History series of James Johonnot.

Unit VI.

Music:—Time, six hours, forty minutes per week. (See outline on page 57.)

Unit VII.

Manual Training:—Time, three hours, twenty minutes per week. (See outline on page 59.)

Unit VIII.

Physical Culture:—Time, three hours, twenty minutes per week. (See outline on page 64.)

Unit IX.

Handicraft and Trades:—Time, three hours, twenty minutes per week. (See outline, pages 20 and 63.)

FOURTH GRADE.

Unit I.

Arithmetic:—Time, three hours, twenty minutes per week.

Texts:—Colburn's Mental Arithmetic, Secs. XII, XIII, XIV.

Robinson's Practical Progressive Written Arithmetic, from page 70 to end of vol. 1 of the New York Point Edition.

Brief review of third year's work.

Exact division, prime factoring, greatest common divisor and least common multiple.

Immediate application of these principles to reduction of common fractions.

The four rules as applied to fractions, with special emphasis on the principles of least common denominator, and of cancellation.

Reduction of common fractions to decimals and of decimals to common fractions.

The four rules as applied to decimals.

Decimal Currency:—Aliquot parts of the dollar, buying by the hundred, by the thousand, by the ton of two thousand pounds, bills and receipts.

Remark. Abundant and rapid mental exercise is given in each case, while the idea of correct form is secured by the use of the type slate in more difficult problems.

Unit II.

Language:—Time, three hours, twenty minutes per week.

Text:—Hyde's Practical Lessons in the Use of English, Part Third, lessons LXVI to CII, pages 81 to 179 of the ink print copy.

Subjects:

Personal Pronouns. Gender forms of pronouns. Nominative, possessive, objective forms of pronouns. Adjective pronouns. Singular and plural forms of verbs. Time expressed by verbs. Regular and irregular verbs. Participles. Forms of verbs; write, blow, do, come, see, break, go, hear, know.

Forms of verbs lay and lie, sit and set, shall and will, should and would, learn and teach, may and can, stop and stay, love and like, think, expect, guess. Manner of asserting. The infinitive. Phrases. Clauses. Relative pronouns and forms of who. Interrogative pronouns. Explanatory expressions. Direct and indirect quotations. Analysis of sentences. Rules for capitals, plurals and possessives.

Remark. Here, as in the other grades, the work is greatly enlivened and enriched by abundant dictation, composition, letter writing, etc.

Unit III.

Reading and Biography:—Three hours, twenty minutes per week.

(*a*). Reading:—Two hours, twenty minutes per week.

Text:—Cyr's Fourth Reader (2 vols. in New York Point Edition).

Supplementary reading:

Aesop's Fables.

Seventh Point Reader (based on Appleton's Series).

Hawthorne's Wonder Book.

Tales from Arabian Nights.

Old Greek Stories, by Baldwin.

Wagner Story Book, by Frost.

Robinson Crusoe, by Defoe (2 volumes in the New York Point Edition).

Remark. In addition to poems and selections memorized from the text, this grade and the one above are given a few gems chosen at the discretion of the teacher.

(*b*). Biography:—One hour per week.

Biographical Stories told by the teacher and reproduced by the pupils. First half-year devoted to stories of Greek and Roman heroes. The following characters suggest the ground covered:

Hercules, Achilles, Patroclus, Ulysses, Romulus, Coriolanus, Cincinnatus, Julius Caesar, Alexander, Socrates, Demosthenes, Aristides.

The leading gods and goddesses of Roman and Greek mythology treated and explained.

Second half-year; stories selected from General History, including such characters as:

Alfred the Great, Richard Coeur de Lion and Saladin, Garabaldi, Florence Nightingale, General Gordon, Livingstone, Peter the Great, Le Chevalier Bayard, Sir Philip Sydney, Peter the Hermit, Michael Angelo, Sir Isaac Newton, Lord Clive, Admiral Coligny, Joan of Arc, William Wallace, Robert Bruce.

Remark. The object of this work in the fourth and fifth grades is to create an interest in the world's great people and events, to inspire a love for history, and to present high ideals through stories of noble character.

Unit IV.

Spelling and Point Writing:—Three hours, twenty minutes, per week.

Text:—Swinton's Word Book (lessons CVI to CC of first year's work).

Additional words for spelling are selected from the other lessons of the day and the recitations are both oral and written.

Material for Point Writing consists of dictation exercises, poems already memorized, definitions, reproductions of the reading lessons, and brief biographical sketches. The chief object, as in penmanship, is to perfect the pupil in neatness and accuracy.

Unit V.

Geography and Science:—Three hours, twenty minutes per week.

(*a*) Geography:—Two hours, per week.

Study of the earth's surface, continued. Elements of Political Geography.

1. North America. United States. The names and location of the States of the Union and the more important physical features of each. Direction from and relation to Maryland to be emphasized in all cases. Location of the capitals and larger cities.

Canada. Physical Features. Provinces, Cities, Government.

Mexico, Central America and the West Indies, studied like Canada.

2. South America. Division into Republics and Colonies. Physical features of each. Chief Cities.

3. Europe. Position and boundaries of each European country. Physical features and cities.

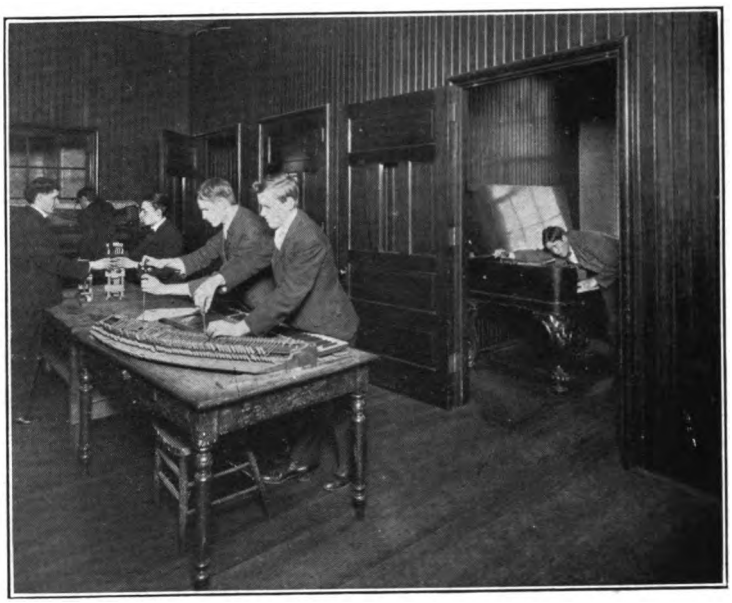
4. Asia. Like Europe, but more briefly.

5. Africa and Australia like Asia.

The distribution of animals and men is noted in connection with each country studied as lending interest to what might otherwise be merely a name. Differences of language, customs, etc., are mentioned.

There being no suitable text in the New York Point, Mitchell's Primary Geography is used. Intermediate geographies, such as Barnes' are drawn on as needed.

(*b*) Nature Study:—One hour, twenty minutes, per week.



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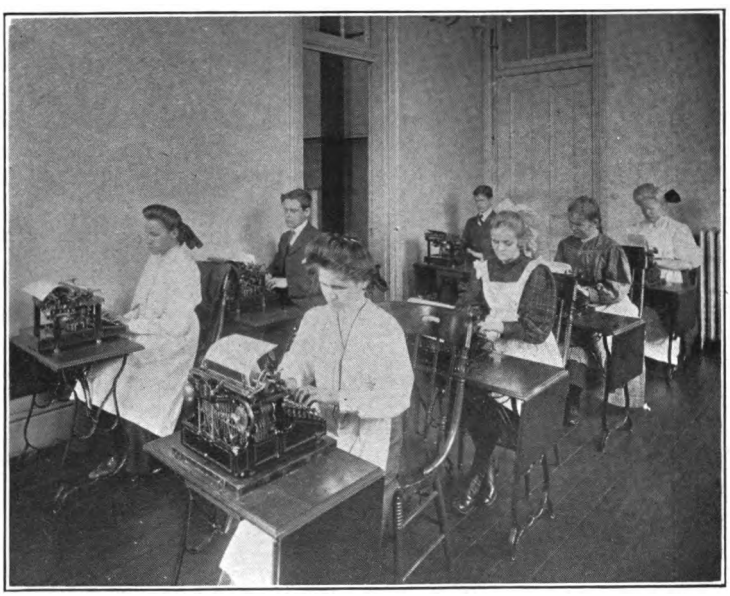

TYPEWRITING.

A continuation of the first year. During the second year of Nature Study a text is used with the aim of teaching classification. The text is Bert's First Steps in Scientific Knowledge—Natural History.

The course is flexible and often the assigned recitation is postponed for the discussion of some interesting topic.

No work with the text is given in the spring, outdoor work being assigned in place of it. The text serves merely as an outline, and animals taken as types are studied and discussed orally at length.

Plants are studied in the fall and winter. In the spring, plants are grown by members of the class.

Animal stories are frequently read to the class from the Outing Magazine, "Wild Animals I have known," by Ernest Seton Thompson and other books or publications.

Unit VI.

Music:—Six hours, forty minutes per week.
See outline, page 57.

Unit VII.

Manual Training:—Three hours, twenty minutes, per week.
See outline, page 59.

Unit VIII.

Physical Culture:—Three hours, twenty minutes per week.
See outline, page 64.

Unit IX.

Handicraft and Trades:—Three hours, twenty minutes, per week.
See outline, pages 20 and 63.

Fifth Grade.

Unit I.

Arithmetic:—Time, three hours, twenty minutes, per week.
Texts:—Colburn's Mental Arithmetic, Sec. XV.
Robinson's Practical Progressive Written Arithmetic, Vol. II of the New York Point Edition to Percentage.
Careful review of fourth year's work.

Thorough memory review of all denominate tables preparatory to entering upon this year's work.

Reduction of denominate numbers involving each table.

Changing weights of one denomination to another.

Changing capacities from denominations of one table to those of another.

Practical problems in long, square and cubic measures; in time and circular measures.

Denominate fractions involving the Four Rules.

Some insight into duodecimals.

Longitude and Time.

Remark. Second only to the development of this year's course, the teacher constantly bears in mind the necessity of perfecting the pupils in the principles of common fractions and decimals, which constitute the burden of the fifth year's work, but which lie at the basis of all higher mathematics.

Unit II.

Language:—Time, three hours, twenty minutes, per week.

Text:—Hyde's Practical Lessons in the Use of English, Parts IV and V.

Part IV consists entirely of letter-writing and affords abundant practice in this line of work. Part V is full and includes a good review of all the previous four years' work, together with much additional material.

This year's work, also, is a sort of transition from the more elementary language work of the lower grades to the more technical grammar of the upper grades. Parsing and analysis is well introduced during this course.

For further details, see parts IV and V of the text.

Unit III.

Reading and Biography:—Three hours, twenty minutes per week.

(*a*). Reading:—Two hours, twenty minutes, per week.

Text:—Cyr's Fifth Reader (2 vols. in the New York Point Edition).

Supplementary Reading:

Eighth Point Reader (based on Appleton's series).

Undine, by Foque.
Tanglewood Tales, by Hawthorne.
About Old Story Tellers, by Mitchell.
Grandfather's Chair, by Hawthorne.
Wild Animals I have Known, by Seton.
In His Name, by Hale.

Remark. Here, as in the grades below, all short poems in the text, and selected stanzas from the longer ones, are memorized by the class. A few other memory gems are added, from other sources, at the discretion of the teacher.

Reading, as a recitation, ceases with this grade. In the grades above, it is succeeded by history, but the supplementary reading is continued in the upper grades as a means of enriching the History and English courses.

(*b*). Biography:—One hour per week throughout the year.

In consecutive order stories of discovery, exploration, colonization, pioneering and heroism bearing on the history of America from the earliest times to the beginning of the Revolution, 1775.

A few characters suggested:

Columbus, The Cabots, Magellan, Champlain, La Salle, Marquette, Drake, John Smith and Pocahontas, John Winthrop and the Massachusetts Colony, Roger Williams and the Rhode Island Colony, John Harvard and Harvard College, The Lords Baltimore and Maryland, William Penn and Pennsylvania, James Oglethorpe and Georgia, Washington, Daniel Boone, George Rogers Clarke, Lewis and Clark.

Collateral reading available in New York Point:

Boone and Other Pioneers, by McCluny.
Tales of Adventure, by Hale.
Tales of Discovery, by Hale.
Stories of Great Americans, by Eggleston.
Stories of American Life and Adventure, by Eggleston.
Hero Tales from American History, by Lodge & Roosevelt.

Unit IV.

Spelling and Writing:—Three hours, twenty minutes, per week.

(*a*). Spelling:
Text:—Swinton's Word Book, lessons I to CV, inclusive of second year's work.

(*b*). Pencil Writing:—One hour and twenty minutes per week.
See general remarks on page 18.

(*c*). Kleidograph Writing:—Two hours per week.
See general remarks on page 18.

Unit V.

Geography and Science-—Three hours, twenty minutes, per week.

(*a*). Industrial Geography:—Two hours per week.
Products and industries of the world.

1. Definitions and discussion of Resources, Agriculture, Mining, Manufacturing, Commerce, etc., Recitations based on notes.

2. The United States and its Possessions. Wheat—where grown. Value and Uses. Description of a wheat farm, sowing, harvesting, etc. How brought to Baltimore. Place in Commerce. Corn, Rice, Tobacco, etc., as Wheat. Also the products of the Forests, Ranches, Waters and Mines.

3. Canada, Mexico, Central America and West Indies. Products and Industries. Exports to United States.

4. South America as a whole, its products considered according to regions of growth of each product.

5. Europe—Each important country studied separately with regard to resources and industries.

6. Asia—More important regions and countries. Example:—Furs, Siberia. Silk, Rice and Tea, China and Japan.

7. Africa and Australia—Like South America.

Remark. Among books drawn on for material in this course are Tarr & McMurry's Complete Geography, Tilden's Commercial Geography and the Standard Encyclopedia.

(*b*). Physiology:—One hour, twenty minutes, per week.
Text:—Physiology for Young People.

THE CROWELL CABINET OF PHYSICAL APPARATUS

Which may be used in an almost innumerable number of combinations for performing experiments.

The chapter headings are: Food, Alcohol, Fermentation, Digestion, Tobacco, The Nervous System, Opium, Respiration, Circulation, The Bones, Effects of Alcohol in Life, Nerve Action, Hygiene of the Nervous System and Special Senses.

This book is a manual of temperance and hygiene, and it is as an interpretation of lessons on these subjects that the parts dealing with Anatomy are presented.

During the year there are occasional readings to the class from supplementary texts.

Unit VI.

Music:—Six hours, forty minutes, per week.
See outline, page 57.

Unit VII.

Manual Training:—Three hours, twenty minutes, per week.
See outline, page 59.

Unit VIII.

Physical Culture:—Three hours, twenty minutes, per week.
See outline, page 64.

Unit IX.

Handicraft and Trades:—Three hours, twenty minutes, per week.
See outline, pages 20 and 63.

Sixth Grade.

Unit I.

Arithmetic:—Three hours, twenty minutes, per week.

Texts:—Colburn's Mental Arithmetic, Part II to end of book.

Robinson's Practical Progressive Written Arithmetic, Percentage to end of Vol. II of the New York Point edition.

Brief review of fifth year's work.

Review of decimal currency.

Percentage—the three forms, per cent, common fraction and decimal.

Commission and brokerage, stock jobbing, stock investment, gold investment, taxes, custom house business, insurance.

Simple interest, the six per cent. method.

Compound interest.

Varied practical problems involving all phases of percentage and interest. Partial payments under the United States Law, Banking and Exchange.

Remark. Recitations in this grade, as in the lower grades, are both oral and written; but great emphasis is laid upon the rapid mental work as the blind must, for practical purposes, develop more independence in mental calculation than the seeing, for they cannot avail themselves of the usual convenience of pencil and paper. The type slate is used to give an idea of correct form and to aid in the solution of complicated and difficult problems, but the pupil is discouraged from depending too much upon it even in his own voluntary work.

Unit II.

*English:—Three hours and twenty minutes per week.

Text:—Reed and Kellogg's Higher Lessons in English, lessons I to LXXXIV, inclusive.

Subjects:

Language, Thoughts and Sentences, Sounds and Letters, Analysis, Composition, Classes of Words, Capital Letters, Abbreviations, Verbs, Modified Subjects, Adjectives, Modified Predicates, Adverbs, Prepositional Phrases and Prepositions, Compound Subjects and Predicates, Connected Terms and Interjections, Analysis and Parsing (oral and written), Nouns as object complements, Nouns and Adjectives as attribute complements, Objective complements, Nouns as adjective modifiers, as adverb modifiers, Verbs as adjectives and as nouns, Participles.

Verbs as nouns—Infinitives, Words and Phrases used independently, Sentences classified with reference to meaning, Arrangement of sentence—natural and trans-

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*In the three upper grades—six, seven and eight—the English work falls into three parts,

1. The study of a text book for the technacalities of language written and spoken.

2. Composition writing to enable pupils to express their thoughts freely, clearly and coherently.

3. Reading or literature with this aim—to enable students to read intelligently and appreciatively with some realization that literature is a representation of life.

posed order, the Complex sentence (adjective, adverb and noun clause), Complex and Compound Clause, Expansion of Participles, Phrases and Infinitive Clauses.

Short compositions on everyday subjects are required occasionally and prepared written exercises or dictations are given daily.

Supplementary Reading:

Rab and His Friends, by Brown.
Selections from Longfellow's Poems.
Gulliver's Travels, by Swift.
Tales of the White Hills, by Hawthorne.

Remark. The Text abounds in analytic and synthetic exercises, and the frequent reviews are valuable in aiding the teacher to test the depth and accuracy of the pupil's knowledge.

Unit III.

History:—Three hours and twenty minutes per week.

Text:—Barnes' Primary History of the United States.

Required collateral reading in New York Point:

Tales of Discovery, by Hale.
Hero Tales from American History, by Lodge & Roosevelt.
Autobiography of Benjamin Franklin.
Montgomery's U. S. History.
Eggleston's U. S. History.
Patriotic Poems.

Remarks. Special attention given to cause, action and effect; character sketches, reference to parallel English history.

Unit IV.

Spelling and Writing:—Three hours, twenty minutes, per week.

(*a*). Spelling:

Text:—Swinton's Word Book, lessons CVI to CC of Second year's work.

(*b*). Pencil Writing:—One hour and twenty minutes per week.

See general remarks, page 18.

(*c*). Kleidograph Writing:—Two hours per week.

See general remarks, page 18.

Unit V.

Geography and Science:—Three hours, twenty minutes, per week.

(*a*). Geography:—Two hours per week.

Text:—Werner's Complete School Geography, pages 53-106.

Detailed study of the United States:

1. Physical features. Climate. Rainfall, etc.

2. Forests. Agriculture. Animal and Mineral Products. Manufactures. Commerce. Cities. Government.

3. Geographical influences in American History.

4. Divisions of the United States. New England, Middle Atlantic, Southeastern, Southwestern, East Central, West Central, Mountain and Plateau States, Pacific States.

Familiarity with the outline and surface of each State is acquired through constant use of sectional maps.

Each State is given at least one recitation for study and discussion.

There are occasional readings on topics of special interest.

Supplementary books are Tarr & McMurry's Complete Geography and Frye's Complete Geography.

(*b*). Physiology:—One hour, twenty minutes, per week.

Text:—Steele's Hygienic Physiology, Abridged.

A thorough study of the body, its structure and organs and of hygiene for which the work done in the fifth grade serves as a basis.

The Skeleton, the Muscles, the Skin, Respiration and the Voice, the Circulation, Digestion and Food, the Nervous System, the Special Senses.

To supplement the above text, additional readings are assigned in Huxley's Lessons in Elementary Physiology which is available in New York Point.

Health is considered throughout the year as a reward of effort and the means of attaining and keeping it are discussed in that light. Emphasis is placed upon the condition of health rather than upon that of disease.

OFFICE.

LIBRARY.

Unit VI.

Music:—Six hours, forty minutes, per week.
See outline, page 57.

Unit VII.

Manual Training:—Three hours, twenty minutes, per week.
See outline, page 59.

Unit VIII.

Physical Culture:—Three hours, twenty minutes, per week.
See outline, page 64.

Unit IX.

Handicraft and Trades:—Three hours, twenty minutes, per week.
See outline, pages 20 and 63.

SEVENTH GRADE.

Unit I.

Mathematics:—Three hours, twenty minutes per week.

(*a*). Arithmetic:—Two hours per week.

Text:—Robinson's Practical Progressive Written Arithmetic, Vol. III of New York Point Edition.

Subjects:

Brief review of sixth year's work.
Ratio, proportion—rule of three.
Compound proportion, partnership.
Analysis.
Allegation—medial and alternate.
Involution, evolution.
Square root, cube root.
Arithmetical and Geometrical Progression.
Mensuration.
The Metric System.

(*b*). Algebra:—One hour, twenty minutes, per week.

Text:—Peck's Manual of Algebra, Chapters I, II, III, IV.

Subjects:

Definitions and explanation of signs.
Fundamental operations, addition, subtraction, multiplication and division, useful formulas and factoring.

Greatest common divisors and least common multiples.
Fractions: definitions and principles, addition, subtraction, multiplication and division.

Remarks. This year's work completes the science of Arithmetic so far as special topics are concerned, but the eighth year is devoted to a general review of the science with the object of giving the pupil a broader idea of the branch as a whole, and to lay special emphasis on those features of it which lie more particularly at the base of higher mathematics and commercial life.

Unit II.

English:—Time, three hours and twenty minutes per week.

Text:—Reed and Kellogg's Higher Lessons in English, Lessons LXXXV to CLXIV, inclusive.

Subjects:

Classes of nouns and pronouns, construction; classes of adjectives, construction; classes of adverbs, construction; prepositions; classes of conjunctions and other connectives; construction of connectives; various uses of what, that and but; modification of the parts of speech; number, gender, person and case forms; analysis and parsing; declension; comparison of adjectives—rules for spelling; modifications of the verb, voice, mode, tense, number, person; conjugation, etc., (see text); quality of style; the paragraph; how to write a theme; letter-writing.

Supplementary reading in New York Point:

Snowbound, by Whittier.
Thanatopsis and other Poems, by Bryant.
Feathertop, by Hawthorne.
Old Manse and a Few Mosses, by Whittier.
Selections from Holmes' Poems.
Lady of the Lake, Scott.

Besides the occasional short narrative and descriptive composition, exercise work is given in synthesis of the sentence and reproduction, while special attention is paid to letter-writing both in point and on the typewriter. The text abounds in analysis and parsing. This course practically completes technical grammar.

Unit III.

History:—Time, three hours and twenty minutes per week.

Text:—Barnes' Brief History of the United States, Epoch I-IV.

Supplementary reading in New York Point required of pupils:

Frontenac, Vols. I, II. Parkman.

Pioneer History Stories, McMurray.

Supplementary reading in class by teacher:

Same books as with sixth grade, also:

Miss Yonge's Young People's History of England, in parts.

Unit IV.

Spelling and Writing:—Three hours and twenty minutes.

(*a*). Spelling. Text:—Westlake's 3000 Word Speller, Part I, together with rules in the Appendix.

(*b*). Typewriting:—Two hours per week.

See General Remarks, page 19.

(*c*). Kleidographing:—One hour, twenty minutes, per week.

See General Remarks, page 18.

Unit V.

Geography and Science:—Three hours and twenty minutes.

(*a*). Geography:—Two hours.

Text:—Werner's Complete School Geography, pages 161-250.

The New World (except the United States) and Europe studied in detail.

1. Canada, Mexico, The West Indies.
2. South America. Each Republic studied in turn.
3. Europe, British Isles, France, Germany, Austria-Hungary, Balkan Peninsula, Turkey, Greece, Italy, Switzerland, Spain, Portugal, Belgium, The Netherlands and the Russian Empire studied in the above order.

The members of this class are assigned supplementary reading in the form of stories of travel. For the present year, Tropical America and Glimpses of Europe in the Companion Series are used.

Books consulted include Tarr & McMurry's Complete Geography and Frye's Complete Geography.

(*b*). Physics:—One hour and twenty minutes per week.

Text:—Bert's First Steps in Scientific Knowledge, Part IV.

Topics treated during the year include: States which Bodies Assume, Heat, Light, Sound, Electricity, Magnets, Weight and Gravitation.

A few recitations in the spring are reserved for an introduction to Chemistry.

This course gives the essentials of the theory of Physics together with a number of simple experiments.

Sound is given more than its usual proportion of time and attention.

Supplementary reading in New York Point:
Gage's Elements of Physics.

Reference books include:—Elements of Physics by Carhart and Chute, Theory of Physics by J. S. Ames.

Unit VI.

Music:—Six hours and forty minutes per week.
See outline, page 57.

Unit VII.

Manual Training:—Three hours and twenty minutes per week.
See outline, page 59.

Unit VIII.

Physical Culture:—Three hours, twenty minutes, per week.
See outline, page 64.

Unit IX.

Handicraft and Trades:—Three hours and twenty minutes per week.
See outline, pages 20 and 63.

EIGHTH GRADE.

Unit I.

Mathematics:—Three hours and twenty minutes per week.

(*a*). Arithmetic:—Two hours.

Text:—Walsh's New Grammar School Arithmetic, entire.

Remark. The object of this year's work is to round out the pupil's knowledge of Arithmetic, and to emphasize such features of the science as most frequently recur in higher mathematics and commercial life; such as, Exact Division, Factoring, Greatest Common Divisor and Least Common Multiple. Currency—bills, etc. Percentage, as applied to finance. Square and Cube Root. Ratio and Proportion. Mensuration as applied to practical problems. The Metric System.

(*b*). Algebra:—One hour, twenty minutes, per week.

Text:—Peck's Manual of Algebra, Chaps. V, VI, VII, VIII.

Subjects:

Equations of the first degree, one unknown quantity. Two unknown quantities and more, elimination, solution of groups of equations. Explanation of symbols and discussion of problems.

Radicals, transformation, addition, subtraction, multiplication, division, reduction, imaginary quantities.

Solution of radical equations.

Remark. In teaching the blind, emphasis is laid, in all branches of mathematics, upon mental work. The slates or tablets, are used primarily to give a correct idea of form, and to aid in the solution of the most difficult problems.

Unit II.

English:—Three hours and twenty minutes per week.

Text:—Waddy's "Elements of Composition and Rhetoric," Chapters I-VIII.

Subjects:

The simple sentence—elements, position of phrase, synthesis; The complex sentence—clauses, synthesis; Compound sentences—connectives, contracted compound sentences, synthesis; Concord—rules of syntax; Synthesis of sentences into paragraph; Variety of expression; Change of Structure; Change of Phraseology; Style—purity, propriety, precision and simplicity of diction, synonyms; Construction of sentences, neatness, unity, energy and harmony of construction.

Remark. Weekly compositions are carefully corrected and discussed in class. The work is mostly reproduction—paraphrasing or developing—that the greatest attention may be given to the expression of the thought.

Supplementary readings in New York Point:

Tales from Shakespeare, by Lamb.
Whittier's Poems.
Lays of Ancient Rome, by Macaulay.

Remark. The text contains "copious exercises in both criticism and construction," and is excellently adapted as a transition from Grammar-School to High-School English.

Unit III.

History:—Three hours and twenty minutes per week.

Texts:—

Barnes' Brief History of the United States, Epochs V and VI.
Constitution of the United States.
Parallel English and French History read by teacher in class.

Supplementary reading in New York Point required of pupils:

Adams and Jefferson, Webster.
Bunker Hill Orations, Webster.
William E. Gladstone, by Bryce.

Selected chapters from:

Young People's History of England, Miss Yonge.
Young People's History of France, Miss Yonge.

Collateral reading in class by teacher, same as in Grade VII with the addition of selections from Miss Yonge's Young People's History of France.

Unit IV.

Spelling and Writing:—Three hours and twenty minutes per week.

(*a*). Spelling. Text:—Westlake's 3000 Word Speller, Parts II, III and IV, together with rules in the Appendix.

(*b*). Typewriting:—Two hours per week.

See general remarks, page 19.

(*c*). Kleidographing:—One hour, twenty minutes, per week. See general remarks, page 18.

Unit V.

Geography and Science:—Three hours and twenty minutes per week.

(*a*). Geography:—Two hours per week.

Text:—Werner's Complete Geography, pages 251-351.

1. Half of the year is given to a study of the portions of the earth not covered in the two preceding years.

(1). Asia, Asiatic Turkey, Arabia, Plateau of Iran, India and Indo-China, Chinese Empire, Japan.

(2). Africa, Barbary States, Egypt, Southern Africa, Western Africa.

(3). Australia and Islands of the Pacific.

2. The remainder of the year is devoted to a study of Comparative Geography and of Special Topics. For the first the material contained in Werner, pages 309-351, is used. For the latter, notes are given to serve as an outline which is filled in with discussion.

Some of the special topics considered are: Races of Men, Governments, Religions, Professions and Commerce.

In this grade Current Events are taught in connection with Geography by a reading and brief discussion of items of news as printed in the daily papers.

Reference books include: Deniker's Races of Men, Spencer's Sociology, Vol. III and Woodrow Wilson's "The State."

(*b*). Business:—One hour and twenty minutes per week.

Text:—Mayhew's Eclectic Complete Book-keeping.

1. What is "Business"? Kinds of business classified and discussed.

2. Bookkeeping, Single and Double Entry Systems. The latter includes use of the Day Book, Journal and Ledger. Definitions of Titles of Account, Opening Books, Trial Balance, Closing Books, Commercial papers and forms.

3. Elements of Economics. Money, Banking, Production and Consumption. Cooperation, Labor Unions, Monopolies, Trusts, Railroads, Business Community, Buying and Selling.

Reference books for Economics include: Seager's Introduction to Economics, Labor Problems by Adams and Sumner.

The work is designed to aid the student in solving such problems of every-day life as may arise in any profession or calling.

Unit VI.

Music:—Six hours and forty minutes per week.
See outline, page 57.

Unit VII.

Manual Training:—Three hours and twenty minutes per week.
See outline, page 59.

Unit VIII.

Physical Culture:—Three hours and twenty minutes per week.
See outline, page 64.

Unit IX.

Handicraft and Trades:—Three hours and twenty minutes per week.
See outline, pages 20 and 63.

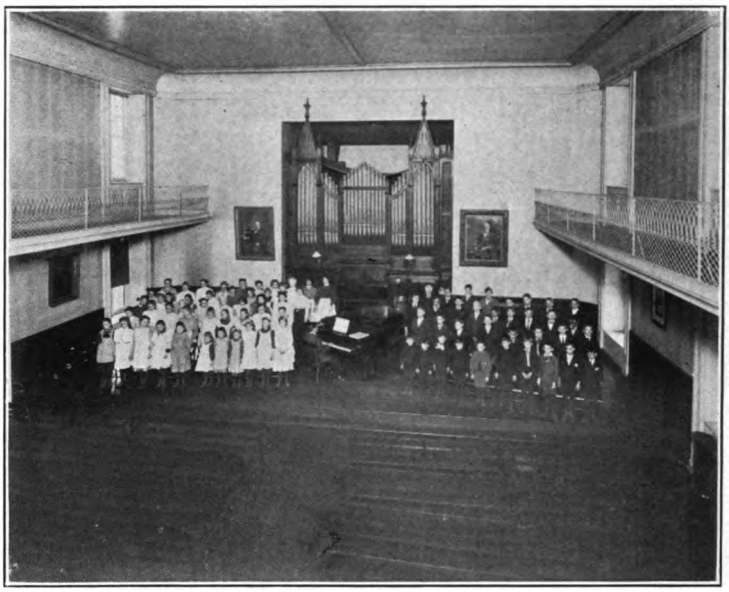
High School.

The work in the High School embraces the usual college entrance requirements, according to the college course contemplated.

That which is the most practical for the blind is the classical, eliminating as nearly as possible the applied sciences.

The special pupil who is now preparing for college, at the end of another year will have accomplished:

3 points in Modern Languages,
3 points in English,
3 points in Mathematics,
4 points in Latin,
2 points in History.



CHORUS CLASS.

MUSIC CLASS.

DEPARTMENT OF MUSIC.

PIANO.

Grade I.

Class instruction.

The motion of arms, hands and fingers. The keyboard. The metronome. Playing of short pieces in black and white keys. The time unit of tone and rest. Normal major and minor five-key positions. The time units in musical notation. Chromatic steps. Letter names of keys. Major and minor scales. Ear training in all possible branches in this grade. Pieces in major and minor five-key positions.

Grade II.

Development of material of grade I. Playing of major and minor scales. Technical exercises. Expansion and contraction of hands. Counting of smallest and intermediate units. The double and triple dotted notes. Irregular time division. Reading and writing Point Notation. Ear training.

Some of the following studies and pieces in point notation.

F. Burgmüller, Studies Op. 100.
A. Ehmant, 36 Studies, book 1.
L. Kohler, Studies Op. 190.
R. Schumann, Pieces, Op. 68, 1-10.
And other material of same difficulty.

Grade III.

Further development of material of grade II. Principals of fingering, with practical application. The names of scale-degrees. Consonance and disconsonance. Relationship of keys. Development of point notation. Ear training.

Studies and pieces.

J. B. Duvernoy, Op. 176.
A. Ehmant, 36 Studies, book 2.
C. Gurlitt, Op. 130.
M. Clementi, Op. 36. Sonatinas.
Etc., etc.

Grade IV.

Technical exercises in major and minor scales, chords and arpeggio. Enharmonic relationship of keys. Scale formation

in connection with intervals. Further development of point notation. Ear training.

Studies and pieces.

C. Gurlitt, Op. 130 continued.

F. Baumfelder, Op. 270, 1-8.

T. Kullak, Op. 81.

L. Oesterle, "Pianists first and second year."

Various numbers from this collection.

Grade V.

Class and individual instruction.

Development of technical material of previous grades. Scales in thirds and sixths. Octaves and special exercises. Classified intervals. Key-analysis. Embellishments. Principals of interpretation. Triads and chords of the sevenths, their formation and how to finger them. Ear training.

Studies and pieces in this and the following grades are selected by the teacher to suit the individuality of each pupil.

Grades VI-VIII.

Further development of material of previous grades. Staff notation.

ORGAN.

Talented pupils who have completed the work of Piano department in grade V, receive individual instruction in Organ playing.

VIOLIN.

Pupils who have shown talent in other departments and are capable of reading point notation, receive instruction in Violin playing, graded as follows:

Holding of bow and violin. Tone on open strings. Position of fingers on strings. Easy scales in first position. Beginning of Schubert Violin School (the only available publication in New York Point Notation.) After going through special numbers of this book, pupils are started on a group of studies sequentially arranged to meet the demands for advanced technic, such as Alard Violin Method, Kayser 36 Studies and Fiorillo Etudes. These studies have been transcribed into point notation but have not been published. In connection

with the above studies, scales and arpeggio embracing the higher positions are given, as are Concerti and compositions in smaller forms.

VOICE.

Individual instruction in voice culture.

THEORY.

Harmony, modulation, counterpoint, imitation and form.

HISTORY OF MUSIC.

Weekly lectures on the history of music.

CHORUS.

Grades I-III—Juvenile Chorus. Weekly meetings.

Grades IV-VIII—Female and Mixed Chorus. Weekly meetings.

DEPARTMENT OF MANUAL TRAINING.

Manual Training here is carried on for its educational value. Since most of our boys purpose to support themselves by *doing* something, it is necessary that they be trained for the most efficient doing. Action, in order to produce the best results, must be initiated and directed by clear and logical thinking. Every conscious motion of the body is first acted out in the brain and in turn reacts on the cells of the corresponding part of the brain, developing them.

Since no two muscular movements react on the brain cells in just the same way, it follows that, in order to develop the whole motor area of the brain, there must be a great variety of volitional muscular exercises. As soon as a motion becomes so familiar that it is made without thought, it ceases to be educational. So in order to get a proper brain development, expressed by a connected and efficient way of doing things, we must have a course of graded exercises, each succeeding project employing a greater number of movements.

A series of models is selected and arranged so that each succeeding model, besides deepening the impressions made by preceding models, through repetition of exercises, brings in a new process of construction thereby causing reaction on a greater number of nerve centers and developing brain power.

Boys' Department.

The sloyd-knife and bench work as taught in this school is based on the Swedish system and is sometimes called "Americanized Swedish Sloyd."

LIST OF MODELS.

Plant marker.
Cord winder.
Thread winder.
Plant label.
Key tag.
Calendar back.
Trellis.
Bench hook.
Vise handle.
Coat hanger.
Mantle shelf.
Garden stick.
Bread board.
Key board.
Knife-polishing board.
Plant-jar stand.
Sleeve board.
Foot stool.
Window stick.
Book rack.
Knife box.
Hat and Coat rack.
Handkerchief box.
Picture frame.
Newspaper rack.
Cutting board.
Taboret.
N. Y. Point slate.
Pen tray.
Towel roller.
Cord Reel.
Hammock needle.
Cord-mesh boards.
Glove box.
Cutting table.
Piano seat.
Screen frame.
Easel.
Stationery box.
Towel rack and comb tray.
Corner seat.
Point-book rack.

This course of models is intended to cover six years' work, from the third to the eighth grades inclusive. It has not seemed expedient to divide this course of models into grade groups because of the varying physical and visual conditions in the same grade, as a whole, of different years, and in the individuals of each grade at the same time. So instead of having the same schedule of work for the same grade every year, we prefer to have them follow the same general course and judge the progress of a certain class by the ground covered by the majority of the members of that class. Again—it may be that, because of individual advantages in point of partial sight, physical aptitude, or home environment, where they have been allowed and encouraged to use themselves instead of being petted and waited upon, one or more boys in a class will outstrip the others. To overcome such individual differ-

ences and keep the work of the class about on a level without sacrificing the interests of these boys by holding them back, they are allowed to work on special models involving exercises similar to those the class as a whole is working out.

The equipment of our shop is very similar to that of a shop in a seeing school. In fact, with the exception of the brass bound boxwood rules which are marked in N. Y. Point numbers with brass tacks and the trysquares and marking guages which are notched, our boys work out similar exercises with the same tools, in the same way, as do the seeing boys in the public school.

Girls' Department.

AIM.

1. To teach distance and measurement.
2. To use both hands equally.
3. To give deftness to the fingers.
4. To strengthen the muscles in the arms.
5. To put the child's senses and hands in harmonious relation with her mind.

Sewing and Fancy Work.

KINDERGARTEN.

Small Bead Work—chairs, baskets, pin trays, thimble cases, etc.

FIRST AND SECOND GRADES.

Threading needles by use of horse hairs, turning down hems and basting, hemming, seaming and making doll clothes.

THIRD AND FOURTH GRADES.

Sewing, use of scissors, darning, all stitches used in plain sewing. Knitting with cord and wool.

FIFTH AND SIXTH GRADES.

Sewing continued with more difficult models. Knitting spreads, sacques and infant wear, lace, and any article made of wool, cotton or thread. Also first lessons in crocheting.

SEVENTH AND EIGHTH GRADES.

Sewing machine work, knitting and crocheting. Cutting out articles. Knitting and crocheting infants' wear a specialty.

The child is required to write the directions for every article knit or crocheted. If correct, they are returned to her at the end of the year in book form as a pattern book for future use, should she forget how an article is made. If not correct, she makes the article over until she can write correct directions.

CORD WORK, REED, RAFFIA, ETC.

The following models form the basis of the work in this department:

In the third grade we begin the *Cord Work* in which the child learns to measure, to braid, to tie knots, to use the scissors. In the *Whistle Cord* and *Scissors Cord*, he measures, learning the use of the yard stick, 12 inches, 1 ft., 3 ft., 1 yd., 18 inches, ½ yd., 9 inches, ¼ yd., 27 inches, ¾ yd.

The *Napkin Ring* involves the use of the blanket, commonly known as the button hole stitch, on flat rattan, in which the children get a very good idea of working a button hole.

In *the whip*, knots and the blanket stitch are combined. In the *Horse Reins* the chain stitch is made with the fingers preparatory to using the crochet needle. In the *Doll Hammock* the children are taught to measure, cut notches and string up the loom which is made of paste board, then the twining preparatory to weaving. The *combination* of colors is impressed, and the terms *warp* and *woof* are learned.

In the Fourth Grade the *four braid in raffia* is taught, measured and sewed into mats, making fancy borders. *Hats* are made which the pupils are encouraged to trim. *Cord Bags* are made of raffia, knotted in the simple over hand and Solomon knots. *Picture Frames* are made of raffia on card board.

In the *Bartlett Loom Work* the child not only has the incentive of dressing "Little Red Riding Hood," "Boy Blue" and others, but is at the same time learning to darn.

The Fifth Grade does more intricate *Bartlett Loom Work*, makes simple mats and *baskets of rattan*, learning the terms diameter, circumference, horizontal, perpendicular, open and closed borders, handles, rings and fastenings.

The "*Lazy Squaw*," the *Knot* and the *Whip* stitches are learned, of which we make simple baskets and table mats.

The Sixth Grade takes up the *Indian* arrangements of *spokes*, *twining*, and *triple* weaving in rattan, and fancy borders and bases. Simple designs with the Indian stitches learned in the previons grades.

In the Seventh Grade the Indian stitches, of which there are ten, are taught, more intricate designing, larger and more original work in rattan is done.

Eighth Grade. Rattan Work, Indian Basketry, on round and flat rattan, more intricate designs and the uses of sweet grass and splints.

Hammock netting with shuttle and *chair-caning* are taught in this grade when practical.

PIANO TUNING.

The requisites for becoming a good piano tuner are:

1. A musical ear that enables one to distinguish the difference in pitch between strings belonging to the same unison.
2. A familiarity with the key board of the piano.
3. A knowledge of intervals, such as, major and minor thirds, major sixths, fourths, fifths, diminished fifths and octaves.

The steps involved in the instruction are:

1. The reading of pins.
2. The tuning of unisons.
3. The tuning of octaves.
4. The tuning of fourths and fifths.
5. The tuning of temperament.

This last is the foundation of tuning, and the ability to master it depends on a peculiar ear and constant practice.

The pupils take up tuning in the seventh and eighth grades. The first year half an hour a day is all the time that is necessary to devote to this work. The second year an hour a day should be given, and the third and fourth years not less than two or three hours per day should be spent in practice.

A number of our graduates are employed in stores and factories, while others get work in their respective localities. Those employed in the factories are earning from nine to

fifteen dollars per week, and those who work in stores receive a stated salary, one of whom receives twelve dollars per week.

We are under obligations to Messrs. Wm. Knabe and Chas. M. Steiff, who for years have given employment to a number of our graduates.

PHYSICAL CULTURE.

There is not a more important course in our curriculum than this. Many blind children, before entering school, because of ignorance, over indulgence or wilful neglect on the part of parents, are physically weak and often deformed. Our first lesson is to teach them to move about unguided, and to restore a confidence in their ability to do for themselves. In order to overcome these abnormal conditions, the work in this department must be done in a most careful and scientific manner.

The aim of the School through this department is to maintain the health of its pupils and co-ordinate the forces of the mind and body. To this end the training may be considered under three divisions.

First.—Swedish gymnastics in the gymnasium where free standing and apparatus work is given to increase bodily vigor, improve the health, educate in attention, overcome repression and train for quick response in thought and action. Drills of every kind are avoided because they tend more or less to constriction, but games are freely used in connection with the regular exercises and the spirit of play is fostered.

Second.—Physical training from the psychic standpoint is given through Harmonic gymnastics. Liberating exercises are given to overcome constriction to which the blind are peculiarly subject, and practical applications of principles are made to emphasize deep breathing, improve the carriage and train the body to respond to thought.

Third.—A sense of rhythm is taught through fancy steps with music, and the motor senses are stimulated and trained.

The School does not desire to train for great athletic skill in any one direction, but it strives to develop its pupils in an all round way, so that they may have good health and be able to use to advantage their natural powers.

PHYSICAL CULTURE.

ATHLETICS.

COMPULSORY EDUCATION AND ENUMERATION LAW IN BEHALF OF THE YOUNG BLIND AND DEAF.

The last Legislature passed a law making the education and enumeration of young blind and deaf children compulsory. It has had good effect, but there must be a number of children that have not been reached. All are urged to aid in enforcing its provisions. The following is the law:

GENERAL LAWS OF MARYLAND, 1906.

CHAPTER 236.

"Every deaf or blind child between six and sixteen years of age shall attend some school for the deaf or blind for eight months or during the scholastic year, unless it can be shown that the child is elsewhere receiving regular, thorough instruction, during the said period, in studies usually taught in said public school to children of the same age, provided that the Superintendent or Principal of any school for the deaf or blind, or person or persons duly authorized by said Superintendent or Principal, may excuse cases of necessary absence among its enrolled pupils; and provided, further, that the provisions of this section shall not apply to a child whose physical condition is such as to render its instruction, as above described, inexpedient or impracticable."

"Every person having under his control a child between six and sixteen years of age shall cause such a child to attend school or receive instruction as required by this section."

"Provided that where the parents, guardian or any other person having control of a deaf or blind child, is not financially able to pay for the transportation of the child to and from such school, the same shall be paid out of the State appropriations for the school which the child attends; provided that three reputable male citizens, over the age of twenty-one years, residents of the school district in which the said child resides, shall certify under oath that to the best of their knowledge and belief the parents, guardian or other person having control of such child is not financially able to pay the expenses of the child to and from the school."

"Any person who has such a child under his or her control, and who fails to comply with any of the provisious of the preceeding section, shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, before a justice of the peace, be fined a sum not exceeding five dollars for each offense."

"Any person who induces or attempts to induce any deaf or blind child to absent himself or herself unlawfully from school, or employs or harbors any such child absent unlawfully from school, while said school is in session, shall be deemed guilty of a misdemeanor, and shall upon conviction thereof before a justice of the peace, be fined a sum not exceeding fifty dollars for each offense."

"The principal teacher of every public school in the counties and truant officers of the city of Baltimore shall within thirty days from the beginning of the school year succeeding the passage of this Act, furnish the Board of County School Commissioners or the Board of Education of Baltimore City, as the case may be, with the names of all children who are deaf, blind or feeble minded, between the ages of six and sixteen years inclusive, living within the boundaries of his or her school district and who do not attend school. And the Board of County Commissioners

or Board of Education of Baltimore City shall certify forthwith the names of all such deaf, blind and feeble minded children to the respective principals of State schools for such children." Act takes effect from the date of its passage.

EXHIBITIONS AND CONCERTS.

Throughout the school year a number of exhibitions and concerts are given, designed to demonstrate the work of the school.

The following calendar and programs indicate the character of the annual exercises held at the close of school last June.

CALENDAR.

1.—Athletics, in competition with other schools for the blind, on the School Grounds. Saturday, June 9th, 2.30 P. M.

2.—(*a*). The School at work. Monday, June 11th, 8-11 A. M.
(*b*). Cantata:—"Little Snow-white."—*Abt.* In the School Chapel, 11-12 A. M.

3.—Annual Exhibition and Concert. Albaugh's Theatre, Tuesday, June 12th, 8 P. M.

FIELD DAY EXERCISES.

PROGRAM.

TRACK EVENTS.

1.—90 yd. dash. Trial heats.	5.—880 yd. run.
2.—440 yd. run. Trial heats.	6.—Finals. 90 yd. dash.
3.—Semi-finals. 90 yd. dash.	7.—Finals. 440 yd. run.
4.—Semi-finals. 440 yd. run.	8.—Finals. 880 yd. run.

FIELD EVENTS.

1.—Standing broad jump.	5.—Hop, step and jump.
2.—Standing high jump.	6.—Shot put (12 lb.)
3.—Running broad jump.	7.—Hammer throw (12 lb.)
4.—Running high jump.	8.—Base Ball throw.

OFFICIALS.

Referee, Wm. Grant, M. D.

Track Judges.

Wm. Hallawell, Joseph J. Rettaliatta, Dr. B. Merrill Hopkinson.

Field Judges.

Prof. Wm. Becker, Prof. Thos. Cornelius, Prof. Theodore Kistler.

Timers.

Dr. Harry E. Kelsey, Gustavus Brown, A. J. Goodrich.

Starter, George S. Robertson.

Clerk, Joseph T. England.

Scorer, John P. Baer.

EXHIBITION AND CONCERT.

PROGRAM.

PART I.

1. March Militaire (Two pianos, eight hands) *Schultze-Schubert.*
   { Edward W. Mauldin, } { *John Henry Evans, }
   { Elmer A. Vogts, } { Benjamin Feinstein. }
   *Sick.—Place filled by Elizabeth Pattillo.

2. Soprano Soli and Chorus from Cantata "Little Snow-white." *Abt.*
   (*a*). In the forest.
   (*b*). In the cottage.
   (*c*). Snow-white and the dwarfs.
   Katherine E. Warkmeister and Female Chorus.

3. Recitations.—Original poems written for Arbor Day, 1907.
   (*a*). "The Blessings of Arbor Day." - - Elizabeth Pattillo.
   (*b*). "On Planting a Vine by an Old Tree." - Mary Melvin.

4. Serenade for violin. *Gounod.*
   Benjamin Feinstein.

5. Sonata, Op. 26, in A flat, for piano. *Beethoven.*
   Andante con variazioni
   Allegro.
   Virginia Thompson.

6. A Glimpse at our Manual Training Department.

7. Soprano Soli. (*a*). "Rose dark the solemn sunset." *Hastings.*
   (*b*). "I love thee." *Foerster.*

PART II.

1. Ballet from "Rosamunde" (Two pianos, eight hands) *Schubert.*
   { Helen Pyles, } { Elizabeth Pattillo, }
   { Mary Weigles, } { Bertha Keeney. }

2. Lullaby from the opera "Ermine." *Jacobowski.*
   Solo and mixed Chorus.

3. Violin Concerto No. 7, 2nd movement. *De Beriot.*
   Elmer Vogts.

4. A Glimpse at our Literary Work.

5. Erotikon, Nos. 2 and 3 (for piano). *Emil Sjoogreen.*
   Marie McCourt.

6. Awarding Certificates, etc.

7. Flag Drill. Girls of School.

8. Greeting to Spring (Blue Danube Waltz) *Lichter-Strauss.*
   Mixed Chorus.

ACKNOWLEDGMENTS.

Schools of this character cannot fulfil their highest mission without the aid and cooperation of a large circle of friends.

Since its founding in 1853, this school has not been without such a circle, who have contributed of their time and material wealth to insure its establishment and successful operation.

The period covered by this report is no exception to the rule. A number of friends have shown their interest in numberless ways. While it is impossible to mention specifically all who have contributed in one way or another to the work of the school, we desire to record here our sincere appreciation of aid given by the following:

Mrs. H. B. Gilpin for tickets to the Oratorio Society and a buss ride picnic for the children.

Mr. J. B. Noel Wyatt for a number of season tickets to the Boston Symphony.

Mr. Harold Randolph for tickets to the Peabody Recitals.

The Manager of the Lyric Theatre for tickets to an entertainment.

Messrs. Michael Jenkins, N. W. James and Robt. Biggs for contributions to the tuition of a special pupil at the Peabody.

Mr. W. S. G. Baker and Miss Baker for a delightful evening's entertainment of the children at the school.

The editors of the various newspapers who have sent us their publications free of charge.

All other friends who, by word or deed, have given encouragement to officers, teachers and pupils in their work.

Respectfully submitted,

JOHN F. BLEDSOE, *Superintendent.*

Report of Librarian.

To the Superintendent.

SIR:—It gives me pleasure to state that the individual lockers and other conveniences for books asked for in my last report, have been graciously supplied, with the result that our younger children are doing much more independent reading than was possible in the absence of these conveniences. The great need for text books, however, has prevented any great increase in the number of books of a more elementary character for general readimg.

Two years ago, the total number of volumes was 2912, it is now 3090. The number of volumes in New York Point (our practical working system) was then 2577, it is now 2740. Two years ago our music library contained 3016 sheets or pieces of music, only a few in Braille, it now shows 3208 pieces.

On the whole the library is becoming more and more adequate to the needs of the school, and we are looking forward confidently to the time when all practical needs in this direction will be fully met.*

Respectfully submitted,

H. R. LATIMER, *Librarian.*

*The School is very much in need of a fund to be used for the purpose of increasing our library and we most sincerely hope that friends of means who wish to invest their funds in a charitable field that will yield the greatest increase will remember us.
SUPERINTENDENT.

Physician's Report.

To the Superintendent and Board of Directors of the Maryland School for the Blind.

GENTLEMEN:—I submit herewith a short report for the biennial period ending June 30, 1907.

June 30, 1905 to June 30, 1907, there were several cases of pneumonia, several cases of chicken-pox, bronchitis, quinsy rheumatism and other simple cases of illness. All cases requiring it were vaccinated. I also had two cases of broken bones; there were no other casualties.

Yours very truly,

I. R. TRIMBLE, M. D.

Report of Oculist.

To the Superintendent and Board of Directors of the Maryland School for the Blind.

GENTLEMEN:—I have the honor to submit my first report as oculist to your institution, covering a period of little more than two years. Immediately upon taking up my duties in the spring of 1905, I examined the eyes of ninety-one (91) pupils who were at that time under instruction at the School. My records of these examinations show the causes of the complete or partial loss of sight in these children to be due to the following disesases:—ophthalmia neonatorum, 25; sympathetic ophthalmia, 5; corneal nebulae from ulceration, 1; congenital coloboma of iris, 1; congenital coloboma of choroid, 1; dislocation of lens, 1; congenital cataract, 7; secondary cataract, 1; glaucoma, 2; chorioiditis, 4; chorioido-retinitis, 6; detachment of the retina, 1; retinitis pigmentosa, 4; neuro-retinitis, 2; atrophy of the optic nerve, 8; panophthalmitis, 5; anophthalmos, 2; hydrophthalmos, 1; albinism, 3; myopia associated with chorioiditis, 10; mixed astigmatism with amblyopia, 1.

The number of newly admitted pupils examined for the year, June 30, 1906 to June 30, 1907, was thirteen (13). The ocular diseases, responsible for the loss of sight in these pupils, were as follows:—ophthalmia neonatorum, 3; corneal nebulae from ulceration, 1; congenital cataract, 2; neuro-retinitis, 2; atrophy of the optic nerve, 2; albinism, 2; myopia with chorioditis, 1.

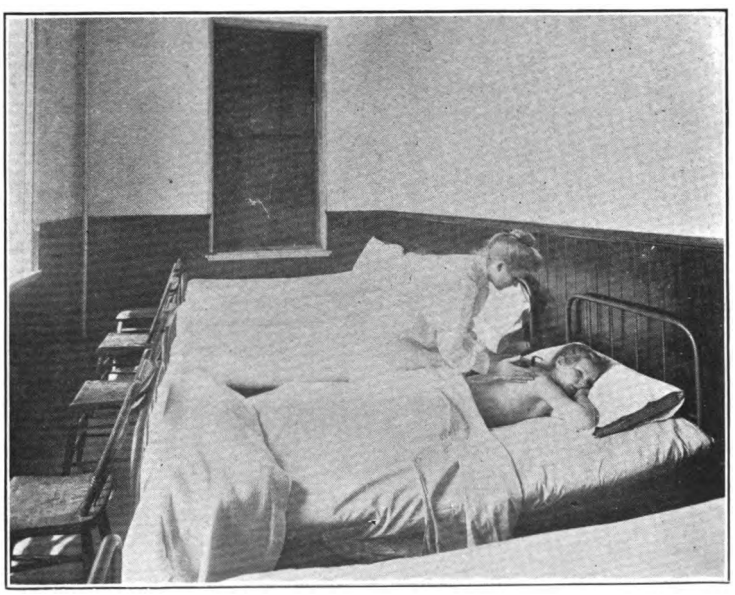
In summing up the examinations made for 1905, 1906 and 1907, 104 in all, the number of pupils with defective eyes from congenital diseases was thirty-three (33), the number from acquired diseases, seventy-one (71). The number of pupils with defective eyes from preventable diseases was thirty-four (34), the number from non-preventable diseases, seventy (70).

It is certainly a sad paragraph in our statistics to record that 32.69% of the pupils of the Maryland School for the

Blind are there as the result of diseases which are today regarded as distinctly preventable. This, too, does not include a number of congenital diseases, due to inherited syphilis, which have not been specially classified in this report for lack of confirmatory history. The preventable diseases herein reported include twenty-eight (28) cases of ophthalmia neonatorum, five (5) cases of sympathetic ophthalmia and one (1) case of neuro-retinitis due to typhoid fever.

My records of these examinations also show that the highest visual power found in these children was 20/40 or one-half the normal, and the lowest was inability to see light. One sees immediately that there is a vast difference between these two extremes. It might seem rather diffcult to get a method of teaching adaptable to children whose visual power is so vastly different. A method, for instance, which is suitable for a child who sees nothing, and depends entirely on the sense of touch, is hardly applicable to a child whose visual power is 20/40 and who will instinctively employ the sight in reading point print instead of the fingers. Point reading by sight may become far more injurious to organically weak eyes with one-half or one-quarter the normal vision remaining, than the reading of large print in the ordinary school books. Hence it would seem to me, viewing the question solely from the view-point of an ophthalmologist, that children with such a vast difference in seeing-power, would require two methods of training; first, the New York point or some similar system for the absolutely blind, for those who are, by the nature of their disease, almost certain to become absolutely blind, and for those having a permanent visual power of 20/200; and another method, not yet determined, which would be suitable for children with sight from 20/200 to 20/40. About 26% of the children in your institution could be placed in the latter class. It is clear that these children have sight entirely too bad to be able to follow the public schools. Several of this number tried the public schools, found themselves greatly handicapped by their defective sight and asked admission to the Maryland School for the Blind. These children form a distinct class, their sight being too defective for the public school system and still too good to be committed to a method

CLASS IN SEWING AND FANCY WORK.



MASSAGE.

which depends entirely upon the sense of touch for the transmission of knowledge. *

It may be said in conclusion that organically diseased eyes, such as are found in the pupils of your institution, are not infrequently the seat of acute outbreaks of inflamation, necessitating medical and even surgical treatment. One of the pupils during the past year required the removal of an old degenerated non-seeing eye which was the seat of chronic iriodocyclitis and was the cause of no little distress and pain to the patient. Several pupils needed attention on account of chronic suppuration of the middle ear, and one in the year 1905 underwent an operation for removal of adenoids.

One pupil of the class of 1905 was advised to leave the institution and follow the courses at the public school. Her right eye had been previously injured, but a timely enucleation prevented the possibility of sympathetic ophthalmia in the left eye, which on May 13, 1905 was found to be entirely normal and capable of doing ordinary school work.

Respectfully submitted,

JAMES J. CARROLL, M. D.

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*The test as to the eligibility of pupils for our school is the practical one of whether or not they are able to pursue their education in ordinary schools.

It is quite a vexing question as to just how children who have considerable sight shall be treated.

So far the most practical solution that we have found has been to require all pupils to use the touch method exclusively *in the performance of their school work*. If proper precaution is taken to enforce this rule the danger of unduly taxing the eyes is avoided, and pupils with partial sight are on the same basis with the entirely blind. No exception is made to this rule unless the oculist advises the use of the eyes for the purpose of strengthening them, in which case, a prescribed print is used under the careful supervision of the teacher. All are strictly prevented from using their eyes in reading the point print.

That this plan is a wise one is shown by the fact that a number of pupils whose sight when they entered school was very defective, by this rest method regained their sight almost entirely and were able to return to the sight method of reading.

SUPERINTENDENT.

Statistics.

TREASURER'S STATEMENT

To the President and Board of Directors of the Maryland School for the Blind.

GENTLEMEN:—I hand you herewith a condensed statement of the moneys received and disbursed by me for the year ending June 30, 1906.

INCOME ACCOUNT.

RECEIPTS.

By cash from United States Government for board and tuition of beneficiaries	$5,175 00
By cash from the State of Maryland for board and tuition of beneficiaries	20,925 00
By cash from the State of Maryland, from Surplus Revenue, account 1905	1,775 00
By cash from the Income from Investments	5,604 94
By cash from the Interest on Bank Balances	226 71
By cash from the sale of products of Broom Shop	11,639 79
By cash from the Caning and Mattress Shop	606 53
By cash from the board of Frank Smith	147 00
By cash from the board and tuition of Daisy Matthews and Elizabeth Pattillo	600 00
	$46,699 97

DISBURSEMENTS.

To cash paid Geo. C. Morrison, Superintendent, per his receipts	$27,500 00
To cash paid John F. Bledsoe, Superintendent, per his receipts	16,993 32
To cash paid Hans Schuler, Bas Relief of Mr. F. D. Morrison	500 00
To cash paid State and City Taxes for 1906 on personal property	304 32
To cash paid Sundries	5 40
To cash paid over to Principal Account	1,396 93
	$46,699 97

PRINCIPAL ACCOUNT.

Cr.

June 30, 1905—By balance on hand	$12,946 21
June 30, 1907—By cash transferred from Income Account	1,396 93
	$14,343 14

Dr.

March 19, 1906—To cash paid Safe Deposit & Trust Co. for $2,000 Atl. Coast Line R. R. of S. C. 4% Bonds at 102½	$2,050 00	
$4,000 Atl. Coast Line R. R. Cons. 4% Bonds at 99½	3,980 00	
	$6,030 00	
June 30, 1906—To Balance	8,313 14	
		$14,343 14
June 30, 1906—By Balance		$ 8,313 14

Respectfully submitted,

WALDO NEWCOMER, *Treasurer.*

Baltimore, November 8, 1906.

This is to certify that we have examined both the Income and Principal Accounts of the Treasurer of the Maryland School for the Blind, for the year ending June 30, 1906, and counted the securities belonging to the school, and find all correct and in order.

G. VON LINGEN,
BLANCHARD RANDALL. } Finance Committee.

SUPERINTENDENT'S STATEMENT

OF

RECEIPTS AND DISBURSEMEMTS FOR FISCAL YEAR ENDING JUNE 30TH, 1906.

RECEIPTS.

Balance June 30th, 1905		$ 491 39
Received from Treasurer	$31,500 00	
Received from Broom Shop	11,639 79	
Received from Caning Shop	507 12	
Received from Tuition	600 00	
Received from Printing	51 00	
Received from Board	147 00	
		$44,444 91
		$44,936 30

DISBURSEMENTS.

To cash paid.

Broom Shop	$13,417 79	
Caning and Mattress Shop	694 33	
Tuning Shop	71 22	
Sustenance	8,268 37	
Repairs	2,805 73	
Fuel	1,893 75	
Wages, Domestic	2,834 00	
Salaries	9,658 68	
General Expense	3,821 64	
Light	344 73	
Medicines and Treatment	498 30	
Insurance	255 00	
		$44,563 72
Balance on hand June 30th, 1906		$ 372 58

Respectfully submitted,

GEO. C. MORRISON, *Superintendent.**

Examined and approved.

WALDO NEWCOMER,
JOHN GLENN, JR. } Auditing Committee.

* Mr. Morrison had charge of the finances of the school to the end of the fiscal year.

TREASURER'S STATEMENT.

To the President and Board of Directors of the Maryland School for the Blind:

GENTLEMEN:—I hand you herewith a condensed statement of the moneys received and disbursed by me for the year ending June 30, 1907.

INCOME ACCOUNT.

RECEIPTS.

By cash from the United States Government for board and tuition of beneficiaries		$ 4,350 00
By cash from the State of Maryland for board and tuition of beneficiaries		20,825 00
By cash from the State of Maryland from Surplus Revenue account 1906		2,075 00
By cash from Income from Investments		5,844 94
By cash from Interest on Bank balance		390 05
By cash receipts reported by J. F. Bledsoe, Superintendent:		
Broom Shop	$14,538 25	
Caning and Mattress Shop	655 49	
Tuition, E. Pattillo	300 00	
Tuition, M. McCourt (Peabody)	127 50	
Board, F. Smith and M. Madden	187 00	
Account Adult Blind	88 84	
General Expenses (G. C. M.)	160 12	
Sundry Sales	30 21	
Guarantee Fund	2 00	
Tuning Shop	44 91	
		$16,134 32
		$49,619 31

DISBURSEMENTS.

To cash paid John F. Bledsoe, Superintendent, per orders	$29,500 00
To cash paid State and City taxes for 1907 on personal property	262 04
To cash paid Insurance on ground rents	26 00
To cash receipts reported by J. F. Bledsoe, Superintendent and retained by him	16,134 32
To cash paid over to Principal Account	3,696 95
	$49,619 31

PRINCIPAL ACCOUNT.

Cr.

June 30, 1906—By balance on hand	$8,313 14
April 3, 1907—By cash, gift from Henry Henderson, Elkton, Md., through J. F. Bledsoe, Superintendent	5 00
June 30, 1907—By cash transferred from Income Account	3,696 95
	$12,015 09

Dr.

June 30, 1607—To Balance	$12,015 09
June 30, 1907—By Balance	$12,015 09

Respectfully submitted,

WALDO NEWCOMER, *Treasurer.*

Baltimore, November 29, 1907.

This is to certify that we have examined both the Income and Principal Accounts of the Treasurer of the Maryland School for the Blind for the year ending June 30, 1907, and counted the securities belonging to the School, and find all correct and in order.

BLANCHARD RANDALL,
JOHN R. CARY,
MICHAEL JENKINS,
} Finance Committee.

SUPERINTENDENT'S STATEMENT.

To the President and Board of Directors of the Maryland School for the Blind:

GENTLEMEN:—I beg leave to submit the following statement of moneys received and disbursed by me for the year ending June 30, 1907.

RECEIPTS.

By balance on hand July 1st, 1906		$ 372 58
By cash from Treasurer	$29,500 00	
By cash from sale of brooms	14,538 25	
By cash for work done in caning and mattress shop	655 49	
Cash received for tuition and board	614 50	
Cash received from adult blind work	88 84	
Cash received from sundry sales	30 21	
Cash received from guarantee fund	2 00	
Cash received for work done by tuning shop	44 91	
		$45,474 20
		$45,846 78

DISBURSEMENTS.

To cash paid.

Betterments	$ 435 15	
Fuel	2,175 25	
Light	444 95	
Medicine	158 99	
Ice	132 54	
Milk	786 13	
Bread	433 15	
Butter and Eggs	946 16	
Vegetables and Fruit	795 74	
Dry Goods and Notions	75 43	
Household Furnishings	138 35	
Clothing	95 12	
Tuning Shop	157 52	
Adult Blind	73 67	
Water rent	89 20	
Insurance	974 15	
Stable Expense	101 83	
Advertising	267 12	
Carried forward		$ 8,280 45

Total Receipts		$45,846 78

DISBURSEMENTS.—*Continued.*

Brought forward	$ 8,280 45	
Wages	2,731 30	
Salaries	10,884 46	
Repairs	2,819 04	
Groceries	981 52	
Library	13 67	
Meats	2,546 34	
Plumbing	7 05	
Sundry Expense	1,256 00	
Material for caning shop	310 27	
Caning Shop Expenses	80 41	
Caning Shop Wages	592 90	
Broom Shop Material	8,887 28	
Broom Shop Expense	11 65	
Broom Shop Wages	4,854 96	
Tuition and Board	106 00	
School Material	488 75	
Laundry	36 32	
		$44,888 37
Balance		$ 958 41
Brooms sold but not paid for	890 51	
Goods purchased but not paid for	144 91	
	$745 60	
Cash on hand	$ 50 00	
Cash in bank	162 81	212 81
		$ 958 41

Respectfully submitted,

JOHN F. BLEDSOE, *Superintendent.*

Examined and approved.

WALDO NEWCOMER,
JOHN R. CARY. } Auditing Committee.

Enrollment for each session, number of pupils admitted each session and the total enrollment from the establishment of the school to the present time, including the session 1906-1907 to June 30th.

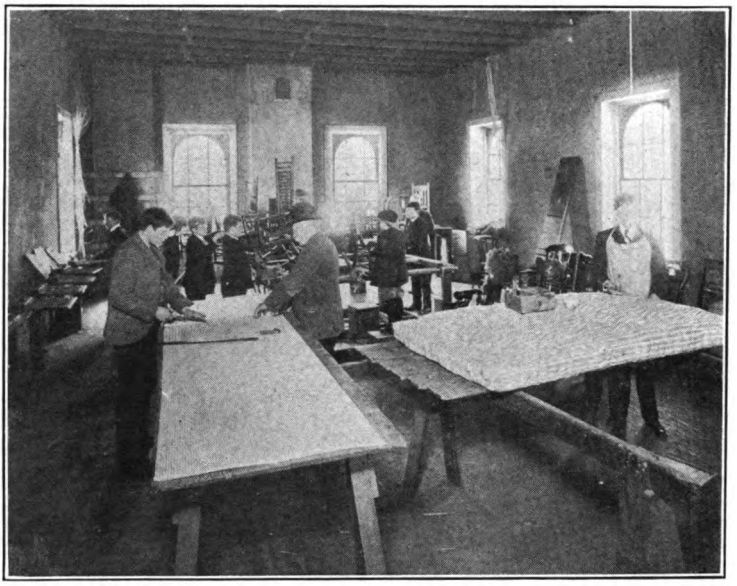
Session.	New pupils.	Total.	Average Age.
1853	1	1	
1854	2	3	14
1855	10	13	14.1
1856	1	14	18
1857	8	22	16.3
1858	2	24	12
1859	1	25	12
1860	9	34	11.2
1861	6	40	12.3
1862	1	41	20
1863	8	49	10
1864	3	52	13
1865	13	65	13
1866	3	68	15
1867	6	74	13
1868	14	88	13
1869	12	100	13
1870	13	113	14.4
1871	5	118	10
1872	7	125	11.4
1873	10	135	13.5
1874	14	149	15.5
1875	12	151	12.5
1876	10	171	12.4
1877	10	181	17.8
1878	23	204	16
1879	16	220	12
1880	11	231	13.6
1881	16	247	13.2
1882	11	258	13.4
1883	13	271	15.7
1884	13	274	14
1885	15	299	12.4
1886	12	311	12.5
1887	21	332	15
1888	23	355	13.4
1889	21	376	14
1890	15	391	11.2
1891	14	405	11.5
1892	21	426	9.9
1893	17	443	9.9
1894	16	459	10.3
1895	8	467	9.4
1896	7	474	13
1897	18	492	10.5
1898	18	510	9.1
1899	17	527	10.6
1900	11	538	12
1901	15	553	9.8
1902	14	567	11.2
1903	16	583	12.3
1904	18	601	9
1905	9	610	10.2
1906	10	620	10.4
1907	13	633	10.7

List of Pupils.

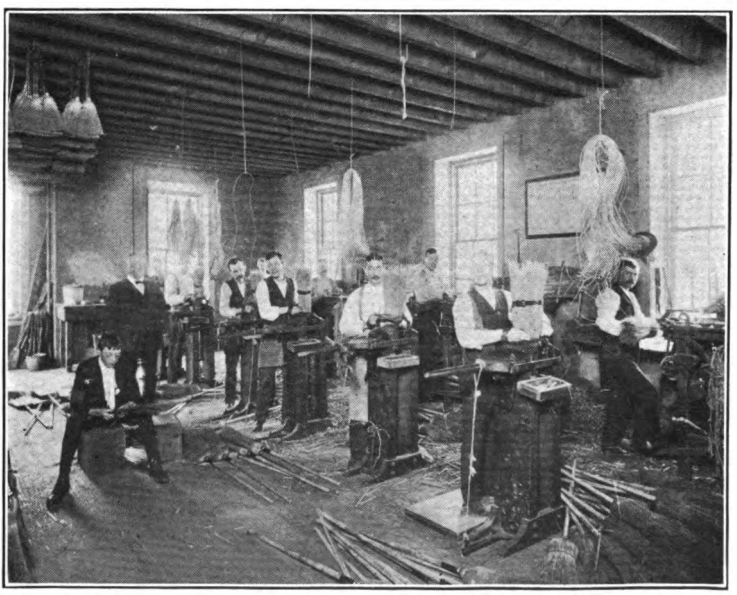
1905-1906.

Males.

Alfred Willis Bell.....Baltimore City.
George H. Bentz.....Baltimore City.
Edwin E. Bergman.....Dayton, Howard County, Md.
George Biddle.....Baltimore City.
Walter L. Bond.....Tompkinsville, Charles County, Md.
Edward Caskey.....Baltimore City.
David Milton Crandall.....Baltimore City.
Joseph Doyle.....Washington, D. C.
John Henry Evans.....Washington, D. C.
Christopher Daniel Franck.....Baltimore City.
Percy P. Fawcett.....Washington, D. C.
Benjamin Feinstein.....Baltimore City.
John Royston Green.....Pleasantville, Harford County, Md.
Lemont Hackett.....Still Pond, Kent County, Md.
Leonard Halstead.....Baltimore City.
Evan Higgins.....Washington, D. C.
Walter E. Hobbs.....Marriottsville, Carroll County, Md.
William Horner.....Somerset County, Md.
French S. Hufty.....Washington, D. C.
Joseph S. Keene.....Baltimore City.
Chas. H. Manning.....Baltimore City.
Lawrence H. Marvin.....Washington, D. C.
Edward Mauldin.....Cecil County, Md.
Wm. H. Morseberger.....Baltimore City.
Christopher B. Mouring.....Baltimore City.
Lynn W. Parsons.....Hebron, Wicomico County, Md.
George Pfahl.....Baltimore City.
Andrew Raymond.....Washington, D. C.
Arthur H. Richmond.....Baltimore City.
Wm. Alexander Rothe.....Grange, Baltimore County, Md.
William H. Rudy.....Brunswick, Frederick County, Md.
Charles T. Russell.....Baltimore City.
Earl Shewell.....Baltimore City.
Arthur L. Smith.....Baltimore City.
Bayard R. Sweetman.....Baltimore City.
Thomas Totta.....Baltimore City.
Elmer A. Vogts.....Baltimore City.
Geo. Conrad Wagner.....Baltimore City.
Elmer Weisheit.....Hamilton, Baltimore County, Md.



CHAIR CANING AND MATTRESS MAKING.



BROOM MAKING.

WM. A. WEST.....Aberdeen, Harford County, Md.
ALBERT T. WILLIAMS.....Baltimore City.
LUKE WILLIAMS.....Baltimore City.
MILTON STEWART WOLFENDEN..Mt. Washington, Baltimore Co., Md.

FEMALES.

NETTIE ALLISON.....Baltimore City.
KATHERINE ASPELMEIER.....Westport, Baltimore County, Md.
ROSIE G. BAKER.....Hagerstown, Washington County, Md.
ANNIE BENNETT.....Baltimore City.
AUGUSTA BOLLINGER.....Baltimore City.
BESSIE M. BULLOCK.....Baltimore City.
AUDREY BURCH.....Berlin, Worcester County, Md.
JANE N. CHRISTOPHER.....Baltimore City.
IDA VIRGINIA CROSS.....Govanstown, Baltimore County, Md.
MARY GRACE CROUCHER.....Baltimore City.
MARY DAVIS.....Rosedale, Baltimore County, Md.
BERTHA DEAN.....Federalsburg, Caroline County, Md.
ELLA DUVALL.....Baltimore City.
ESTHER L. ELKINS.....Baltimore City.
EMMA M. EVANS.....Baltimore City.
CORA A. FITTON.....Washington, D. C.
MARY GLENN.....Baltimore City.
LENA GUNTHER.....Highlandtown, Baltimore County, Md.
CATHERINE HOWE.....Baltimore City.
CAROLINE HUGHES.....Baltimore City.
BERTHA M. KEENEY.....Woodsboro, Washington County, Md.
CATHERINE G. KERNS.....Baltimore City.
ANNA LEDER.....Baltimore City.
ESTELLE LEVIS.....Washington, D. C.
STELLA M. LEWIS.....Washington, D. C.
DAISY MATTHEWS.....Atlanta, Ga.
MARIE MCCOURT.....Washington, D. C.
MARY MELVIN.....Ellicott City, Howard County, Md.
INEZ MILLS.....Baltimore City.
HELEN L. MOORE.....Washington, D. C.
NANNIE A. MOURING.....Baltimore City.
CATHERINE M. MURONEY.....Baltimore City.
CAROLINE O. NECESSON.....Baltimore City.
MAZIE S. OWENS.....Baltimore City.
BLANCHE PARKS.....Baldwin, Baltimore County, Md.
GRACE E. PARRAN.....Baltimore City.
ELIZABETH PATTILLO.....Atlanta, Georgia.
PANSEY PENNINGTON.....McCool, Allegany County, Md.
RUTH L. PERRY.....Harris Lot, Charles County, Md.
GRACE E. PIERPONT.....Fulton, Howard County, Md.
HELEN E. PYLES.....Washington, D. C.

BESSIE SELIGER.....Baltimore City.
FLORENCE SIPE.....Washington, D. C.
VIRGINIA THOMPSON.....Baltimore City.
MARIE TRESCHMAN.....Baltimore City.
F. MILDRED TURNER.....Blackhorse, Harford Co., Md.
RUTH N. UTERMAHLEN.....Linwood, Carroll County, Md.
GRACE H. VOORHEES.....Washington, D. C.
MARY V. WATERS.....Baltimore City.
BLANCHE I. WATSON.....Baltimore City.
MARY J. WEIGLE.....Lonaconing, Allegany County, Md.
IDA WEITZEL.....Baltimore City.
M. BEATRICE WILLIAMS.....Baltimore City.
NELLIE WINKLEMAN.....Washington, D. C.

ENROLLMENT BY CITIES AND COUNTIES.

Allegany County	2	Kent County	1
Baltimore City	50	Somerset County	1
Baltimore County	8	Washington County	2
Carroll County	2	Wicomico County	1
Caroline County	1	Worcester County	1
Cecil County	1	Atlanta, Ga	2
Charles County	2	Washington, D. C	16
Frederick County	1		
Harford County	3	Total	97
Howard County	3		

1906-1907.

MALES.

ALFRED WILLIS BELL.....Baltimore City.
GEORGE H. BENTZ.....Baltimore City.
EDWIN E. BERGMAN.....Dayton, Howard County, Md.
WALTER L. BOND.....Tompkinsville, Charles County, Md.
EDWARD CASKEY.....Baltimore City.
DAVID MILTON CRANDALL.....Baltimore City.
ROBERT M. CUMBERLAND.....Washington, D. C.
JOHN HENRY EVANS.....Washington, D. C.
BENJAMIN FEINSTEIN.....Baltimore City.
CHRISTOPHER DANIEL FRANCK.....Baltimore City.
JOHN ROYSTON GREEN.....Pleasantville, Harford County, Md.
LEMONT HACKETT.....Still Pond, Kent County, Md.
LEONARD HALSTEAD.....Baltimore City.
GROVER CLEVELAND HENDERSON.....Pleasant Hill, Cecil County, Md.
EVAN HIGGINS.....Washington, D. C.
WALTER EDWARD HOBBS.....Marriottsville, Carroll County, Md.
JOSEPH S. KEENE.....Baltimore City.

PAUL W. LOCKER.....Baltimore City.
CHARLES H. MANNING.....Baltimore City.
LAWRENCE H. MARVIN.....Washington, D. C.
EDWARD MAULDIN.....Cecil County, Md.
LYNN W. PARSONS.....Hebron, Wicomico County, Md.
GEORGE PFAHL.....Baltimore City.
ANDREW RAYMOND.....Washington, D. C.
ARTHUR H. RICHMOND.....Baltimore City.
WM. ALEXANDER ROTHE.....Grange, Baltimore County, Md.
WILLIAM H. RUDY.....Brunswick, Frederick County, Md.
CHARLES T. RUSSELL.....Baltimore City.
EARL SHEWELL.....Baltimore City.
OTTO SPIELMANN.....Baltimore City.
CARL A. STRICKLER.....Washington, D. C.
LEE TYLER.....Crisfield, Somerset County, Md.
ELMER ANDREW VOGTS.....Baltimore City.
GEORGE C. WAGNER.....Baltimore City.
ELMER WEISHEIT.....Hamilton, Baltimore County, Md.
ALBERT T. WILLIAMS.....Baltimore City.
LUKE WILLIAMS.....Baltimore City.
MILTON STEWART WOLFENDEN..Mt. Washington, Baltimore Co., Md.

FEMALES.

NETTIE ALLISON.....Baltimore City.
KATHERINE ASPELMEIER.....Westport, Baltimore County, Md.
ROSIE BAKER.....Hagerstown, Washington County, Md.
ANNIE BENNETT.....Highlandtown, Baltimore County, Md.
AUGUSTA BOLLINGER.....Baltimore City.
LENA BROCKMEYER.....Baltimore City.
AUDREY BIRCH.....Berlin, Worcester County, Md.
FLORENCE BURR.....Baltimore City.
GRACE CHURCH.....Baltimore City.
IDA VIRGINIA CROSS.....Govans, Baltimore County, Md.
MARY GRACE CROUCHER.....Baltimore City.
MARY DAVIS.....Rosedale, Baltimore County, Md.
BERTHA DEAN.....Federalsburg, Caroline County, Md.
ELLA DUVALL.....Baltimore City.
ESTHER L. ELKINS.....Baltimore City.
EMMA M. EVANS.....Baltimore City.
CORA A. FITTON.....Washington, D. C.
MARY GLENN.....Baltimore City.
KATHERINE HOWE.....Baltimore City.
ELECTA MABEL HUDLOW.....Washington, D. C.
CAROLINE HUGHES.....Baltimore City.
BERTHA M. KEENEY.....Woodsboro, Frederick County, Md.
CATHERINE G. KERNS.....Baltimore City.
CLARA LEONA KLINE.....Big Pool, Washington County, Md.

ANNA LEDER.....Baltimore City.
ESTELLE LEVIS..... Washington, D. C.
MARIE MCCOURT..... .....Washington, D. C.
MARY MELVIN.....Ellicott City, Howard County, Md.
INEZ MILLS..... .....Baltimore City.
HELEN LOUISE MOORE..... Washington, D. C.
CATHERINE M. MURONEY..... .....Baltimore City.
CAROLINE O. NECESSON.....Baltimore City.
MAZIE S. OWENS.....Baltimore City.
BLANCHE PARKS.....Baldwin, Baltimore County, Md.
GRACE E. PARRAN.....Baltimore City.
ELIZABETH PATTILLO..... .....Atlanta, Georgia.
PANSEY PENNINGTON.....Big Pool, Allegany County, Md.
RUTH L. PERRY.....Harris Lot, Charles County, Md.
MARY PRINCE.....Baltimore City.
HELEN E. PYLES.....Washington, D. C.
BESSIE SELIGER.....Baltimore City.
FLORENCE SIPE.....Washington, D. C.
DAISY STERLING..... .....Crisfield, Somerset County, Md.
VIRGINIA THOMPSON.....Baltimore City.
MILDRED TURNER.....Blackhorse, Harford County, Md.
RUTH N. UTERMAHLEN.....Linwood, Carroll County, Md.
GRACE H. VOORHEES.....Washington, D. C.
KATHERINE WARKMEISTER.....Baltimore City.
MARY V. WATERS.....Baltimore City.
MARY JANE WEIGLE.....Lonaconing, Allegany County, Md.
IDA WEITZEL.....Baltimore City.
M. BEATRICE WILLIAMS.....Baltimore City.
NELLIE WINKLEMAN..... .....Washington, D. C.

ENROLLMENT BY CITIES AND COUNTIES.

Allegany County	2	Kent County	1
Baltimore City	45	Somerset County	2
Baltimore County	8	Washington County	2
Carroll County	2	Wicomico County	1
Caroline County	1	Worcester County	1
Cecil County	2	Atlanta, Ga.	1
Charles County	2	Washington, D. C.	15
Frederick County	2	Total	91
Harford County	2		
Howard County	2		

The following Counties are not represented in our school:

Anne Arundel, Calvert, Dorchester, Garrett, Montgomery, Prince George, Queen Anne, St. Mary, Talbot.

Questions Concerning Applicants.

All these questions are important. Their object is to help us know more of the causes of blindness and to enable us better to understand and help the applicant in case he is admitted and becomes a pupil. Parents and guardians, and where possible, *physicians*, will assist us by answering the questions carefully and fully to the best of their knowledge.*

1. What is the applicant's full name?
2. Residence—Town, County, State?
3. Where was the applicant born? (Give State, County, City or Town.)
4. When was the applicant born? (Give year, month and day.)
5. Was the applicant born blind? If not at what age was sight impaired?
6. Is the blindness total or partial? If partial, what per cent. of sight is there?
7. At what age did the applicant first walk alone?
8. What is tha supposed cause of blindness?
9. When was it noticed that the applicant's eyes were not all right? What home remedies were used and how soon was a physician called?
10. Has the applicant ever been subject to fits or had any kind of brain disease or serious illness? Name what he has had?
11. Has the applicant ever sustained any severe accident?
12. Is the applicant now in good health and free from eruptions and from contagious diseases of the skin?
13. Has the applicant ever shown any signs of mental weakness or deficiency?
14. Has the applicant any infirmity or disease other than blindness? If so, what?
15. Has the applicant ever been to school or had any instruction before or since blindness; if so, where and of what kind?
16. Please state in full how the applicant has employed the time at home; that is, how much in playing or working, or in sitting idly around?
17. Why has the application for admission into a school for the blind been delayed until now?
18. What is the general moral character of the applicant?
19. Is the applicant gentle and docile in temper, or the contrary?
20. How many living brothers and sisters has the applicant? If any have died, please state at what ages and of what disorders?
21. Was or is there any known peculiarity among the brothers and sisters of the applicant; that is, were or are any of them blind or

*Blank forms of this list of questions may be had on application to the Superintendent.

of defective sight, deaf or hard of hearing, or feeble minded, or afflicted with any infirmity of body or mind? Do any of them wear glasses?

22. What is or has been the FATHER'S occupation?
23. Of what country was the father of the applicant a native?
24. What is or was the general bodily condition of the father,—is or was he vigorous and healthy, or the contrary?
25. Is or was the father of the applicant ever subject to fits or scrofula? Did he ever have or has he any serious diseases? Name them?
26. Are or were all of his senses perfect? (Sight, hearing, taste, smell and touch)
27. Is or was he always a temperate man?
28. About how old was he when the applicant was born?
29. If dead, at what age did he die, and of what disorder?
30. Was there any known peculiarity in the family of the father of the applicant; that is, were any of his grand-parents, parents, uncles, aunts, brothers, sisters or cousins, blind, deaf or insane, or afflicted with any infirmity of the body or mind?
31. If the applicant's grand-parents are still living, about how old are they?

    Father's father..... Father's mother.....
    Mother's father..... Mother's mother.....

32. If the applicant's grand-parents are dead, at about what ages did they die?

    Father's father..... ..... Father's mother.....
    Mother's father..... Mother's mother.....

33. Has any serious disease appeared more than once in the family of the applicant's father? If so, specify what disease and how many times it has appeared. (The chief diseases meant are insanity. idiocy, intemperance, consumption and cancer)
34. Where was the MOTHER of the applicant born? What was her maiden name?
35. What is or was the general bodily condition of the mother of the applicant,—strong and healthy or the contrary? Is or was she subject to headaches or nervousness? Name the diseases that she has or has had?
36. Is or was she ever subject to scrofula or to fits?
37. Are or were all her senses perfect? (Sight, hearing, taste, smell and touch)
38. Is or was she always a temperate woman?
39. About how old was she when the applicant was born?
40. Was she subject to any extraordinary influences before the birth of the applicant?
41. How many children had she before the applicant was born?
42. Was she related by blood to her husband? If so in what degree,—1st, 2d or 3d cousin?
43. If dead, at what age did she die and of what disorder?
44. Was there any known peculiarity in the mother's family; that is, were any of her grandparents, parents, uncles, aunts, sisters, brothers or cousins, either blind, or deaf, or insane, or afflicted with any infirmity of body or mind?
45. What church is it desired the applicant should attend?

46. What are the pecuniary means of the parents or immediate relatives of the applicant?
47. How much can they afford to pay toward the support and education of the applicant?
48. State full names of both the applicant's parents, and in case of their decease, also the names of guardian or nearest relative.
49. Give their full and exact post-office addresses.

Information Concerning
The Maryland School for the Blind.

HISTORY.

The Maryland School for the Blind was established in 1853 by an Act of the General Assembly of Maryland. It has been supported by donations from individuals, the City of Baltimore and the State of Maryland.

The school was incorporated through the intercession of the following named gentlemen of Baltimore who became its first Board of Directors:

Messrs. Wm. Geo. Baker, Jacob I. Cohen, John Glenn, J. Smith Hollins, John N. McJilton, B. F. Newcomer.

From time to time gentlemen representing some of Baltimore's most distinguished families have served on its board.

The board is now composed of eighteen members, as follows:

John T. Morris,	Charles S. Bradley,
Waldo Newcomer,	Thomas J. Morris,
John R. Cary,	John M. Glenn,
Michael Jenkins,	Blanchard Randall,
N. W. James,	Moses R. Walter,
Isaac M. Cate,	Geo. C. Morrison,
John Glenn, Jr.,	B. Abner Betts,
W. S. G. Baker,	Edward L. Robinson,
B. C. Steiner,	John W. Marshall.

Officers.

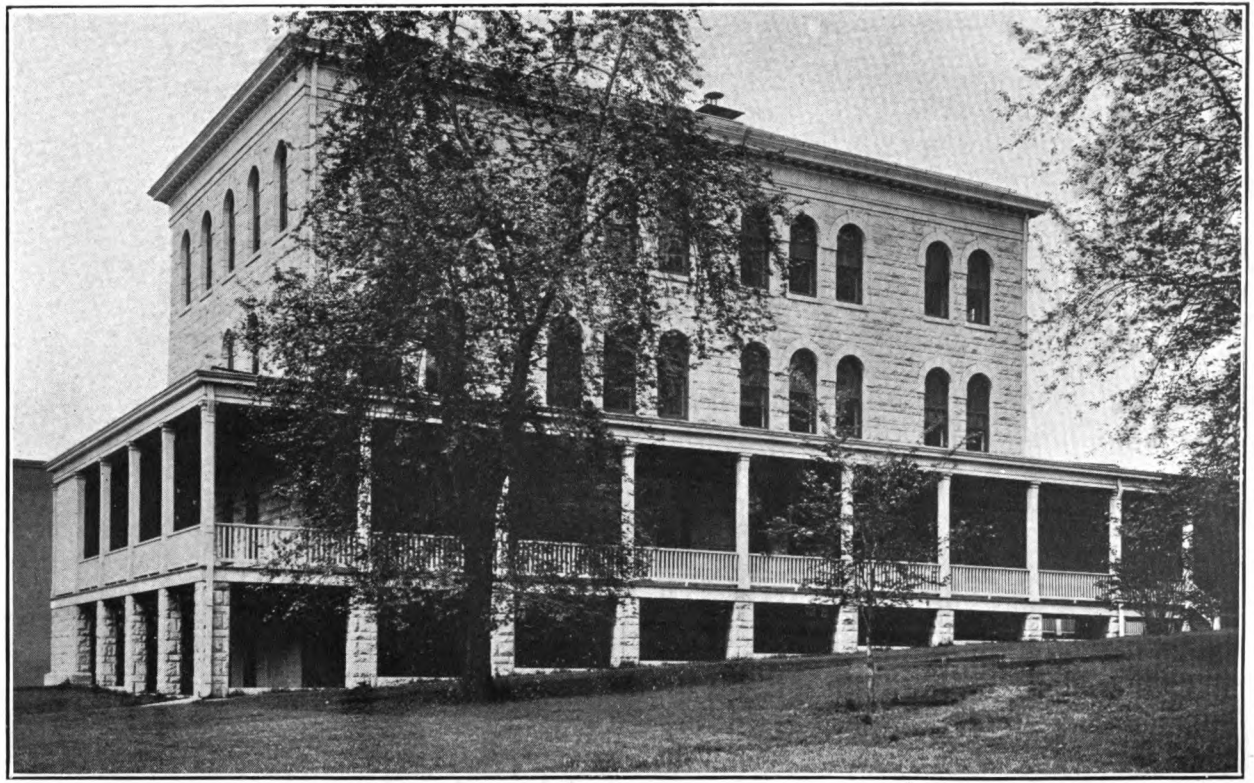
John T. Morris, *President.* Waldo Newcomer, *Treasurer.*
John F. Bledsoe, *Secretary.*

MAINTENANCE.

The School is maintained by private donations and by per capita payment for its pupils.

THE OBJECT OF THE SCHOOL.

The School is designed for the education of blind children and offers unusual advantages throughout the Primary, Grammar and High School courses in Literary, Musical and Physical education.



SCHOOL BUILDING. NEWCOMER HALL.
Gift of the late B. F. Newcomer.

LOCATION.

The school is beautifully located in one of the best residence sections of Baltimore, at Calvert Street and North Avenue. Its situation is high and healthful. The grounds and buildings are commodious and well adapted to the requirements of the school.

HOW TO REACH THE SCHOOL.

The school is within a few blocks of Union Station and may be reached from any part of the city by the St. Paul, Guilford or North Avenue cars or any car that transfers to these.

THE BUILDINGS.

The plant of the School consists of the Main Building, the School Building, the Gymnasium, the Shop and the Superintendent's residence. They are thoroughly equipped with every modern appliance that is conducive to their comfort and efficiency.

OFFICERS AND TEACHERS.

The affairs of the School are administered by a Superintendent and an efficient corps of officers and teachers carefully selected for their adaptability to their different tasks.

THE SCHOOL YEAR.

The School term begins the second Wednesday in September and ends the second Wednesday in June.

VACATIONS.

The regular vacations of the school are at Thanksgiving, Christmas and at Easter. The length of the vacation will depend on the circumstances existing at the time and will be gauged accordingly, at the discretion of the Superintendent.

Parents who live at any great distance from the school are advised to allow their children to remain at the school during the entire school year.

Day pupils are discouraged, since the books and appliances used in the preparation of lessons cannot be easily carried back and forth.

SUMMER VACATION.

Children must be taken home during the Summer vacation. Pupils who reside in the city may work in the shops, during the summer, if they desire it and there is a demand for their help.

TERMS OF ADMISSION.

All blind persons, of sound body and mind, between the ages of seven and eighteen years (in special cases beyond this age limit, the Board of Directors sometimes makes exception where the applicant seems specially deserving and capable of receiving instruction), actual residents of Maryland and the District of Columbia, may be admitted free of charge. This includes all those whose sight is so defective as to render their education in the public schools impossible. Application should be made to the Superintendent.

Tuition, board and washing, medicine and medical attendance, books and all other necessary appliances for their proper education are furnished free of charge. Parents are required to furnish a good supply of comfortable clothing and to pay travelling expenses to and from school.

Those residing in the District of Columbia should make application to Dr. Edward M. Gallaudet, Gallaudet College, 7th and M. Streets, N. E., Washington, D. C.

CLOTHING.

Every pupil entering the school should be supplied with the following articles of clothing, well made and of good material, or money enough to buy them:

FOR BOYS.

2 suits for weekday wear,
1 suit for Sunday wear,
3 colored and 1 light day shirt,
6 pairs socks or stockings,
1 hat and 1 cap,
3 suits of light underwear,
3 suits of winter underwear,
3 pairs of shoes,
1 pair of mittens or gloves,
1 comb and 1 tooth brush,
Handkerchiefs and collars.

FOR GIRLS.

2 dresses for every day,
1 dress for sunday wear,
2 white underskirts,
3 colored underskirts,
3 night dresses or gowns,
6 pairs of stockings,
1 Winter jacket and hat,
3 suits of light underwear,
3 suits of Winter underwear,
3 pairs shoes, 1 pair overshoes,
1 pair mittens or gloves,
1 comb and 1 tooth brush,
Handkerchiefs.

WRITING HOME.

The children are required to write home at least once a month. Parents desiring to hear oftener than this should send postage to the Superintendent. All letters received or sent by the pupils are subject to inspection. No correspondence which may be considered distracting or in any way detrimental to the progress of the pupil will be permitted.

GUARANTEE FUND.

For each pupil entering school, a fee of $2 must be deposited with the Superintendent for a guarantee in case of wanton destruction of property belonging to the school, or to be used in the purchase of any article of clothing in case of urgent need before communication can be had with the parents of the child. The money, if not used, will be refunded when the child's education is finished.

VISITING THE SCHOOL.

We are always glad to have the parents and friends of the pupils visit the school. It is impossible, however, for us to entertain them with lodging or meals.

The regular visiting day at the school is Saturday from nine to twelve a. m. and from two to four p. m. The public is most cordially invited to inspect the school. Every courtesy possible will be extended to insure a hearty welcome to those interested in this special line of work. Parents may come at other times, when the regular visiting hours are not convenient, but are requested to time their visits so as to interfere as little as possible with the routine of school life.

MONDAY, THE WEEKLY HOLIDAY.

The School is in session on Saturdays and the weekly holiday is *Monday*. This plan has been adopted on account of the impossibility of pupils preparing their lessons at home.

Under this arrangement pupils who are at home over Sunday return to the school Monday afternoon in time for a study period in the evening. By this arrangement the proverbial "blue Monday" is avoided.

THE SCHOOL NON-SECTARIAN.

The School is strictly non-sectarian. Moral instruction is a part of the work of the school. Religious exercises are

confined to the reading of the scriptures, the singing of hymns and repeating in unison the Lord's Prayer.

On Sundays the children attend the churches of their parents' choice.

SENDING MONEY AND PACKAGES.

All money should be sent by check, post office order or registered letter direct to the Superintendent. All packages should be directed in care of the Superintendent. The Superintendent should be notified by letter when packages are sent, stating how and when they were sent. The receipt of money and packages will be promptly acknowledged.

THE USE OF INTOXICANTS AND NARCOTICS FORBIDDEN.

The use of intoxicants and tobacco or other narcotics on the part of pupils is strictly forbidden.

This rule will be strenuously enforced and parents are asked to cooperate with the school by enforcing it while the children are at home.

THIS IS A SCHOOL AND NOT AN ASYLUM.

By unfortunate naming and a general misconception in the minds of the public as to the object of a number of the earlier schools for the blind, the name *Asylum* attaches itself, even now, to schools of this character. The schools for the blind are in *no sense asylums or homes*. They are educational in the strictest sense of the word; and the courses of study as pursued by the pupils in them compare most favorably with those in schools for children who have not been so unfortunate as to lose this most important sense. It is quite true that the methods used in their education differ somewhat from those in vogue in the ordinary school, but the results obtained are practically the same. Don't speak of this school as the *Blind Asylum*. *Asylum as applied to such schools is a misnomer.*

PREVENTION OF BLINDNESS.

A WARNING TO NURSES AND PARENTS.

It is a lamentable fact that many persons are blinded each year by preventable diseases. Statistics gathered concerning the pupils who have entered the Maryland School for the Blind during the past few years, show conclusively that at least

thirty per cent. of these cases of blindness became so because of carelessness on the part of the nurse or physician, or both; and of a disease known as Opthalmia Neonatorum, or inflammation of the eyes of new born infants. This disease is due to the infection of the eyes of the child at birth. Two or three days after birth—in some cases earlier, in others later—the child's eyelids become red and swollen and a yellowish secretion may be seen forming and discharging from the eyes. The nurse should at once call a physician and in the meantime carefully cleanse the eyes by wiping them with a clean piece of cloth or absorbent cotton, every half hour, until the physician arrives, who will at once take the necessary steps to insure relief. Care should be taken to burn the cloths or cotton used, at once, as the matter is highly infectious and may destroy the sight even of adults.

Dr. F. Park Lewis, Chairman of the New York Commission for the Blind, who has devoted much care to the study of the subject of preventable diseases that cause blindness, says: "This is one of the commonest and at the same time one of the most dangerous maladies of the eyes to which the child is subject. It is not confined to the tenement district; it may occur in any class of society." He states further that while the disease is sometimes cured by careful washing, this precaution is often not sufficient; and hence steps should be taken at once to insure a cure by the use of a proper preventative by consulting a physician. He contends for such a revision of the laws of each State as will make them more effective.

The law of Maryland seems to be a good one as far as it goes. It is as follows:

ACTS 1894—CHAPTER 511.

ENTITLED

An Act Protecting the Eyes of Children at Birth.

If any time within two weeks after the birth of any infant one or both of its eyelids be reddened, inflamed, swollen or discharging pus, the mid-wife, nurse or person other than a legally qualified physician in charge of such infant, shall refrain from the application of any remedy for the same, and shall immediately report such condition to the Health Commissioner or to some legally qualified physician in the City, County or Town, wherein the infant is cared for.

Any person or persons violating the provisions of this section shall, on conviction, be punished by a fine not to exceed one hundred dollars, or by imprisonment in jail not to exceed six months, or by both fine and imprisonment.

This law was passed through the influence of Dr. Hyram Woods and other leading opthalmologists of Baltimore. Dr. Woods reports that so far as he is able to ascertain, with few exceptions the physicians have failed to present for indictment, nurses who through ignorance or neglect have deprived such a large number of innocent children of their sight.

It is evident therefore that the law should be revised to make it more effective. This could be done by making it the duty of all physicians to report and cause to be prosecuted such mid-wives and nurses as have violated this law.

THE NEGLIGENCE OF PARENTS AS TO THEIR CHILDREN'S WELFARE.

The parents of blind children are often unmindful of their children's welfare, since through negligence or a false sentiment, many constantly refuse to take advantage of the opportunities which are afforded by the State for their education.

We could cite a number of cases whose parents thus refusing to send their children to school, allowed them to grow up in ignorance, and died leaving them helpless and penniless to eke out an existence as best they can. The handicap under which they live is great enough when everything that modern education can do for them has been done, but how pitiable and helpless is their condition if they are deprived of the advantages which the school so generously provides.

John F. Bledsoe,

Superintendent.

A Worthy and Needy Charitable Investment.

There are those in our midst whom fortune has favored with a goodly share of this world's goods. After the comfortable necessities of life are supplied, there is very little real pleasure that wealth can give save by its bestowal for the uplifting and improvement of ones fellows. When one considers the helplessness of those who have been so unfortunate as to lose their sight, and can be made to realize how much they are benefitted by the kind of work this school is doing, it would seem that no better field for charitable investment could be found.

The education of the blind is a costly process and may be extended and improved in proportion to the means at the disposal of the school.

There is great need of a permanent fund for our library. Printing books in embossed type is exceedingly costly, and the supply of books thus far provided is inadequate to the requirements.

The School is also in need of a new gymnasium with running track, shower baths and swimming pool attached, so as to make provision for thorough and scientific physical training.

Will not those who are anxious to place their funds where they will yield the greatest revenue in accomplishing good, remember the little blind children of our community by making a donation to the school?

For form of bequest see next page.

Form of Bequest.

MONEY LEGACY.

I give and bequeath to the Maryland School for the Blind (incorporated by the General Assembly of Maryland) the sum of.....Dollars.

REAL ESTATE.

I give and devise to the Maryland School for the Blind (incorporated by the General Assembly of Maryland).

DESCRIBE THE PROPERTY GIVEN.

New York Point Alphabet.

CAPITALS.

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y
Z				

SMALL LETTERS.

a	b	c	d	e
f	g	h	i	j
k	l	m	n	o
p	q	r	s	t
u	v	w	x	y
z				Number sign

NUMERALS.

1	2	3	4	5
6	7	8	9	0

WORD AND PART-WORD SIGNS.

the	and	of	that	ing
ch	ou	sh	th	wh
ph				gh

PUNCTUATION MARKS.

Comma	Semi-colon	Colon
Interrogation	Dash	Period
Exclamation	Parenthesis	Quotation
Apostrophe		Hyphen

KEY

TO THE

NEW YORK POINT SYSTEM

OF

Tangible Writing and Printing

FOR

LITERATURE, INSTRUMENTAL AND VOCAL MUSIC,
AND MATHEMATICS,

DESIGNED FOR THE USE OF THE BLIND.

Revised from Editions of 1872, 1882 and 1893.

BY WM. B. WAIT,

Principal of The New York Institution for the Blind from 1863 to 1905; Emeritus Principal from 1905.

1908.

Preface.

By courtesy of the author, Mr. William B. Wait, we are enabled to give a full and revised key to the New York Point System of Tangible Printing and Writing. Special attention is called to the foreword, which gives a careful description of the development of the system, its consideration and adoption by a majority of the schools for the blind in this country after its critical comparison with other systems, and finally of the introduction of a third point system at a time when the opportunity was ripe for uniting upon one.

This school has used the New York Point since it was first published and our experience fully justifies all that is claimed for it by its most ardent advocates.

FOREWORD.

A brief reference to the origination, development and general adoption of the New York Point System of tangible literature and Music will be fitting in this place.

Immediately after taking charge of the New York Institution in 1863, I made an effort to establish the course of instruction upon a text-book basis, and in this way to enlarge the opportunities of the pupils for reading and study, and to lessen their almost total dependence upon their teachers, who, because of the lack of suitably embossed text-books, were obliged to impart instruction in all branches almost wholly by the oral method.

As a first step, a test of the reading power of each pupil was made, which disclosed that a majority of the pupils were unable to read at all, while only a few could read well.

The system then accepted and in general use was the Boston Line, a form of the ordinary Roman type, and as the only books then available were in that style, an intensive effort was made to impart to every pupil the power of facile finger reading.

This special effort, covering two years, proved that a large proportion of the pupils, including many having excellent mental endowments, were wholly unable to read the Boston Line books, and from data furnished by other schools, confirmed by my own observations, it was clear that similar inability to read existed in all the schools.

But, besides the lack of tangible power, the Roman form was found deficient in two other vital points: it is tangibly unwritable, and cannot be adapted to musical notation.

The conclusion inevitably was that the Roman or Line letters do not possess the three qualities—tangibility, writability and

adaptability—essential in a system of embossed literature, and that the problem could be solved only by the adoption of embossed points in both writing and printing.

There was in use in this school at that time, and for some years prior, a point alphabet on a vertical base of six points, arranged by one of the teachers, Mr. Adam McClelland, himself blind, and possessing rare intellectual gifts.

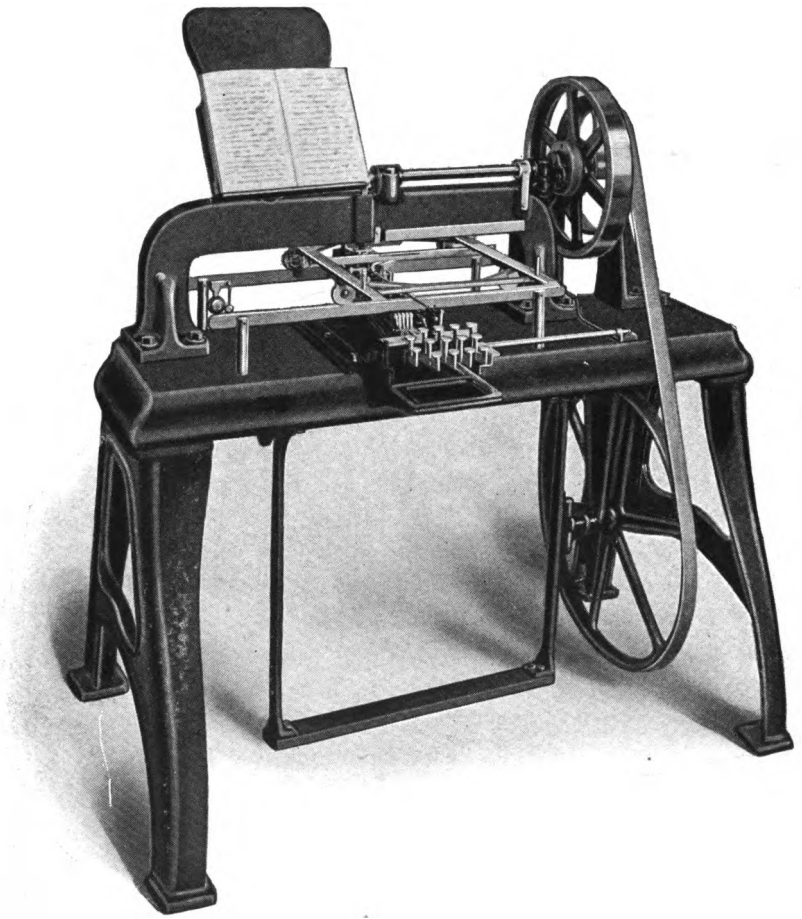
It is a matter of interest that Prof. Louis B. Carll while a pupil learned the system, and afterward used it in writing his great work, "Calculus of Variations." Mr. J. V. Armstrong, Principal of the Tennessee School for the Blind, Mr. Stephen Babcock, for many years a teacher in this school, and many others who were educated here, have largely used Mr. McClelland's arrangement.

It was with this alphabet that my first tests of the comparative tangible power of points and lines were made with pupils who could not read the latter, and which demonstrated the superiority of point signs over line signs.

But while Mr. McClelland's alphabet could be written as easily and appealed to the touch as strongly as any of the vertical systems, it was not adaptable to the structure of a musical notation, and this caused me to take up the original vertical point system of M. Louis Braille.

My examination of the structure and application of this system developed the fact that it is defective in several important respects: it is much more bulky and hence more costly than the Boston Line (which in the absence of any other system was then taken as a standard, and the cost of which was almost prohibitive); the number of possible single signs, *sixty-three*, is inadequate to the requirements of Literature, of Mathematics and of Music, so that none of these subjects can be correctly and fully represented by them.

From anything that could be learned from other sources about the Braille system, the existence of these inherent and grave defects had not been suspected, and when as the result of this inquiry they were disclosed, but one course was left open, which was to devise some different method of sign building, by which



STEREOGRAPH FOR EMBOSSING METAL PLATES USED IN PRINTING.

the structural defects of the Braille might be avoided, the number of signs greatly increased, and the cost of books reduced to the lowest possible minimum. Obviously, two things only could be done: employ two points instead of three points vertically, and a series of base forms developing horizontally, and holding two, four, six, eight, ten, etc., points each.

With infinite care and labor I put this idea into effect, the final outcome being the New York Point System.

All the facts and data acquired throughout the years of study and laborious experiment that seemed to have no end can be found in full in the yearly reports of this Institution. In the reports for 1866 and 1867 the subject of embossed alphabets and books was generally considered. In the report for 1868 the New York Point Alphabet is given. In this connection it is proper to state that no details of the system were published until after I had stated to Dr. S. G. Howe, of the Boston School, and to Mr. William Chapin, of the Philadelphia School, that I had constructed a system demonstrably superior to that of M. Braille, but that in the interest of uniformity I would abandon any further effort on a new line if they would join me in adopting, improving and establishing the Braille system. My proposal was not received with favor, and I was therefore under no obligations either to adopt or advocate the defective Braille system as against a demonstrably better one, and the New York System was published.

In 1871, at the Indianapolis meeting of the American Association of Instructors of the Blind, the New York and Braille Codes were critically examined and compared, after which the Convention voted without a dissenting voice that the New York System ought to be taught in all schools for the blind.

In 1872, at the Boston meeting, I presented an outline of a system of Musical Notation complementary to the literary system, and was requested by the Convention to complete the system in detail, so that the schools might have the use of it as soon as possible.

The first edition of the Notation was printed in our report for 1872.

In 1878 the Music Notation was considered at length, and again approved by the Association.

Down to 1882 the entire United States Fund had been used in printing Boston Line books, but in that year 50 per cent. of the fund was set apart for books in New York Point.

In 1892 it was decided by the American Association of Instructors of the Blind that only reprints of Line books should be issued, and that any part of the 50 per cent. that had been reserved for Line books, not so needed, should be used in printing books in New York Point.

At the same time, 1892, twenty-four years after the New York Code had been published and twenty-one years after it had been accepted by the American Association and commended for general adoption, and after the Association had six times confirmed the New York System and six times refused to recognize any form of Braille, either original or derived, French, English or American, a small minority of the principals, in defiance of these repeated sanctions of the New York System and disavowals of all varieties of Braille by the Association, and willfully disregarding the great importance of having only one point system, needlessly and harmfully thrust forward a schismatic form of the Braille code, which they named American Braille.

In 1894, at a meeting of the trustees of the American Printing House for the Blind, and as a climax of a two years' campaign of propaganda, a motion was made to change the by-laws so as to recognize and promote American Braille. Twenty-six institutions were represented, and after full consideration five voted for and twenty-one voted against such recognition.

The facilities for writing and printing the New York Point System consist of a desk tablet, a pocket tablet and two machines: the Kleidograph for paper writing, and the Stereograph for embossing metal plates for use in printing.

The tablets have been improved by substituting a rectangular groove in place of a V-shaped groove or of separate pits.

Patents were granted for the Kleidograph and the Stereograph, which were at once transferred to the New York Institution without pecuniary advantage to myself.

The Franklin Institute of Philadelphia, after a searching examination into the system and into the design and merit of these machines, conferred the John Scott medal.

In this place a word or two may be said about a "universal type" for finger reading.

Roman letterpress type are common to the schoolbooks, newspapers and magazines of the nations of Western Europe, but this uniformity of type does not enable a native of one country to read or understand a language other than his own.

The only purpose of letters is to express language, and therefore a universal type or alphabet can have no use or value except to express a universal language.

"Esperanto" claims to be a universal language, and as the claim appears to have been substantiated, it is worthy of consideration in connection with embossed writing and printing.

Let it ever be remembered, however, that comparative recurrence of letters is the primary and only consideration that can properly determine the size and position of the type bodies or base forms, the number of points on each base, the number of signs that will be available for Literature, Mathematics, Music and short forms, and the use to which each sign should be applied.

These are the essential and controlling factors in the treatment of a universal language, as they are in the working out of a tangible system for any racial tongue, and a system constructed in any other way, as is the Braille and all its English and American imitations, will inevitably be unscientific in design and wasteful of money and time in practice.

This laborious and perplexing work has not been done solely from personal preference on my part, but primarily as a matter of duty, and to improve the methods and enlarge the means of education here and elsewhere.

It has ever been to me a source of satisfaction and encouragement that the Managers of this Institution have warmly sustained me throughout and have furnished every needed facility for putting the fruits of my efforts into permanent practice.

I desire to make mention here of the valuable services rendered by Mr. Stephen Babcock, who, being blind and filling the responsible position of principal teacher, was able to promote this work with deep interest and broad understanding.

The greatest number and most difficult of the problems met with are involved in the Music notation. After the general plan governing the derivation and correlation of the various classes of signs had been laid down and the general structure of the notation indicated, there still remained a vast amount of detail to be worked out, many comprehensive rules to be lucidly framed, and finally a library of music to be selected, edited and published. For the scholarly, skillful and thorough execution of this arduous task it is both duty and pleasure to express my sense of grateful obligation to Miss Hannah A. Babcock, who with unflagging interest and unusual insight has devoted herself for more than thirty years to the study of this subject, and to the accomplishment of the practical ends for which this notation was designed.

WILLIAM B. WAIT,
Emeritus Principal.

THE NEW YORK INSTITUTION FOR THE BLIND,
January 22, 1908.

KEY

TO THE

NEW YORK POINT ALPHABET, NUMERALS, PUNCTUATIONS AND ABBREVIATIONS.

The signs are constructed in a series of base forms, viz: First base, ⠁; second, ⠉; third, ⠋; fourth, ⠛; fifth, ⠟; sixth, ⠿, etc. The number of signs furnished by each of the first six bases, respectively, is: 3, 9, 27, 81, 243, and 729; total, 1,092.

For convenience the points in the upper row are known as 1, 3, 5, 7, 9, etc., and in the lower row as 2, 4, 6, 8, 10, etc.

This order will be the same for both writing and reading. Writing is done with a stylet and tablet, with the Kleidograph (a machine designed for embossed writing on paper), and with the Stereograph (a machine for embossing metal sheets to be used in printing). In writing with the tablet the point *one* is in the *right* hand upper row. In writing with the Kleidograph or with the Stereograph the point *one* is in the *left* hand upper row, as it is also in reading.

RULES FOR WRITING.

First. Between all letters leave a blank space equal to one point.

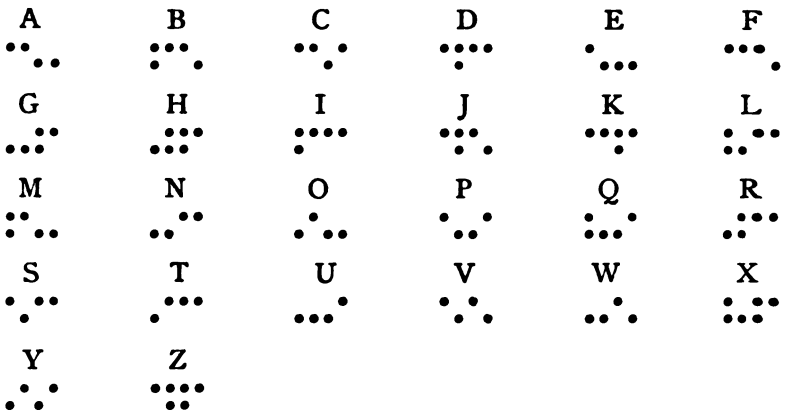
Second. Between all words leave a blank space equal to two points.

Third. In writing with the tablet, write from *right* to left. In writing with the Kleidograph or Stereograph, write from *left* to right.

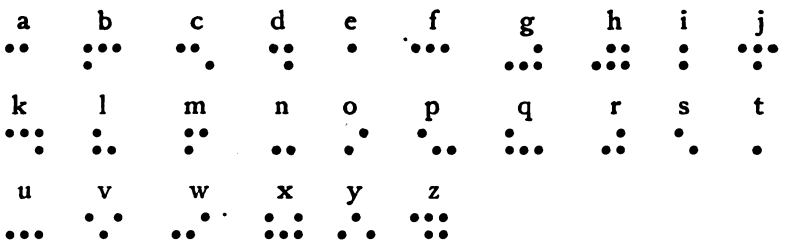
Written pages may be coated on the back side with a solution of shellac and alcohol.

THE ALPHABET.

CAPITAL LETTERS.



SMALL LETTERS.



It will be observed that the capital letters are derived from he small letters, by suffixing to each of them as many points as will form a new character four points in length, in the following manner:

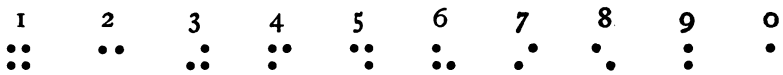
First. When the small letter ends with a point in the upper row, as in the letter a, add the suffix in the lower row.

Second. When the small letter ends with a point in the lower row, as in c, or in both upper and lower rows, as in d, add the suffix in the upper row.

With the Kleidograph and Stereograph the small letters can be made into capitals by means of stylets which form larger points than those in the small letters.

NUMERALS.

1 2 3 4 5 6 7 8 9 0



Prefix, indicating that the characters which follow are numerals, ⠼ Thus, 1908, ⠼⠁⠊⠚⠓.

The vertical line indicates a blank space equal to one point.

PUNCTUATION MARKS.

Period, ⠲ , preceded and followed by a blank space equal to two points.

Comma, ⠂ , preceded and followed by a blank space equal to two points.

Semi-colon, ⠆ , preceded and followed by a blank space equal to two points.

Colon	⠒	Acute Accent	⠈
Apostrophe	⠄	Grave Accent	⠘
Hyphen	⠤	Circumflex	⠐
Exclamation	⠖	Diæresis	⠸
Interrogation	⠦	Cedilla (French)	⠯
Parenthesis *	⠐⠣ ⠐⠜	Tilda (Spanish)	⠔
Asterisk	⠔	Italics	⠨⠂
Quotation *	⠘⠦ ⠘⠴	Italics ended	⠨⠄
Dash	⠠⠤		

* Placed before and after the word or words affected by the sign.

ADAPTATIONS FOR GREEK.

Coronis	⠡	Ps	⠯
Long e	⠌	Iota subscript	⠅
Long o	⠬	Rough breathing	⠈

The accents are placed before accented letters and syllables, and are separated from them by one blank.

SIGNS OF ABBREVIATION.

First class: Abbreviation by initial capital letters. Any proper name may be represented by its initial letter. The same letter may stand for different proper names in different books, or in different parts of the same book, but they should not be used in such a way as to obscure the meaning.

In each case, the word to be abbreviated should be written in full when it first occurs.

When desirable, a full list of abbreviated words should accompany the book, with a partial list at the head of each chapter.

When an initial capital stands for a word, a word space should precede and follow it.

Second class: Abbreviations by small letters, to be used only as separate words.

ABBREVIATIONS BY SMALL LETTERS.

b	c	f	g	h	j	k
but	can	for	great	had	just	kind
⠃	⠉	⠋	⠛	⠓	⠚	⠅

n	p	s	u	v	w	y
not	part	some	under	very	will	you
⠝	⠏	⠎	⠥	⠧	⠺	⠽

ABBREVIATIONS FOR WORDS AND PARTS OF WORDS BY SIGNS OTHER THAN CAPITAL OR SMALL LETTERS.

and	almost	could	change	come	ever
⠯	⠁⠍	⠉⠙	⠡	⠒	⠑⠧

from	good	have	large	of	shall	their
⠋⠗	⠛⠙	⠓⠧	⠇⠁⠗	⠷	⠩	⠮

there	that	the	think	when	what
⠹	⠞	⠮	⠹	⠱	⠸⠱

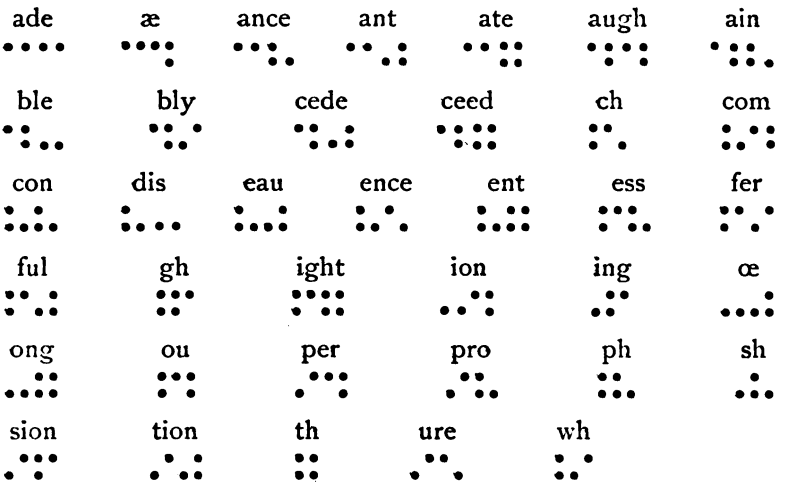
was	were	with	which	would
⠵	⠻	⠾	⠺	⠳

These signs may stand for separate words, or may form parts of words.

In using a contraction to form part of a word, syllabication and pronunciation should be strictly observed.

Thus: Mo*th*er, not Mo*th*er; Finger, not F*ing*er; Andante, not *And*ante.

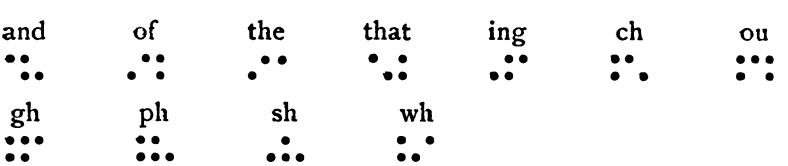
SIGNS FOR SYLLABLES, DIPHTHONGS, TRIPHTHONGS, DIGRAPHS, ETC.



It will be helpful for the student to arrange the contractions in reference to their base forms.

The Second base has but one contraction, viz: th ⠹

The Third base has 11 contractions, viz:



The Fourth base has 81 signs divided into nine groups of nine signs each.

The signs in each group of nine may be considered as made up of the signs formed on the Second base by a regular mode of compounding. Thus the signs of the Second base are:

a d l m n o r s th

Beginning with the first one, ⠂⠂ a new series may be formed by adding to it each one in order thus: ⠂⠂⠂⠂ ⠂⠂⠂⠆ ⠂⠂⠂⠒ ⠂⠂⠂⠲ etc.

Beginning with the second one, ⠂⠆ we have ⠂⠆⠂⠂ ⠂⠆⠂⠆ ⠂⠆⠂⠒ etc.

In this way the nine groups are formed. These signs represent 26 capitals, 9 punctuations and 47 contractions, one sign of the ninth group having a double use. The entire series in nine groups can be readily acquired on the principle of association.

The following are the signs of the Fourth base, arranged in nine groups:

FIRST GROUP.

ade æ ance K A C

ant F ate

SECOND GROUP.

D augh ain Z ble bly

cede J ceed

THIRD GROUP.

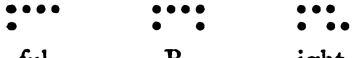
L com con X dis Q

eau ence ent

FOURTH GROUP.

I apostrophe ess hyphen M fer

ful B ight



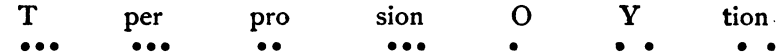
FIFTH GROUP.

N ion asterisk G dash U

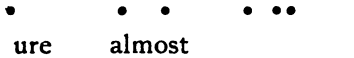
œ W ong

SIXTH GROUP.

T per pro sion O Y tion



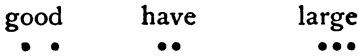
ure almost



SEVENTH GROUP.

R could come H ever from

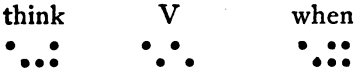
good have large



EIGHTH GROUP.

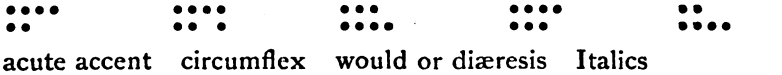
S shall their there E P

think V when

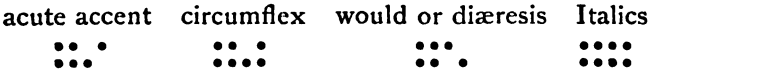


NINTH GROUP.

what was were with grave accent



acute accent circumflex would or diæresis Italics

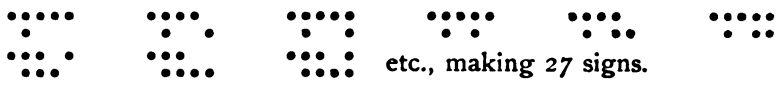


The Fifth base has 243 signs derived by suffixing to each of the 81 signs of the Fourth base the three signs respectively of the first base, viz: ⠁, ⠂ and ⠃. Thus:

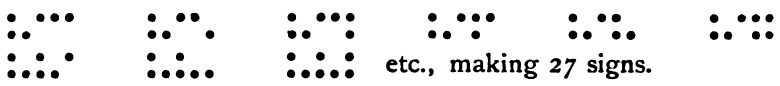
FIRST GROUP.


etc., making 27 signs.

SECOND GROUP.


etc., making 27 signs.

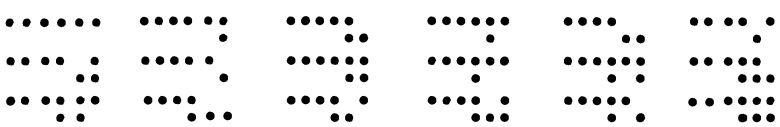
THIRD GROUP.


etc., making 27 signs.

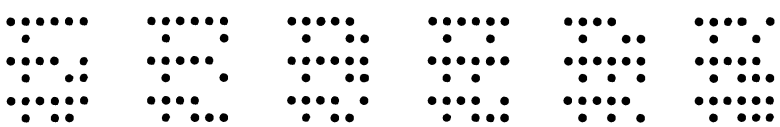
The remaining six groups follow the same form.

The Sixth base has 729 signs derived by suffixing to each of the 81 signs of the Fourth base the 9 signs respectively of the Second base. Thus:

FIRST GROUP.


etc., making 81 signs.

SECOND GROUP.

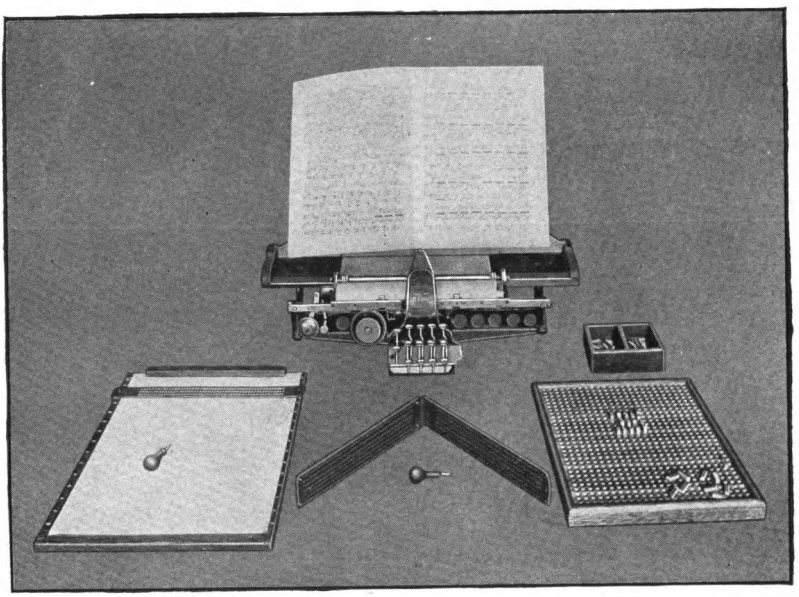

etc., making 81 signs.

The remaining seven groups are similarly formed.

The use of the signs of the Fifth and Sixth bases lies in an extension of the important field of contraction for both writing and printing, without the further development of which no economy in the bulk and cost of books can be hoped for beyond that already secured by the present practice of the New York Point System.

Larger bases than the Sixth are used for special purposes.

Kleidograph for Embossed Writing.



Desk Writing Tablet. Pocket Tablet. Frame and Type for Mathematics.

KEY

TO THE

NEW YORK POINT SYSTEM OF MUSICAL NOTATION.

Remark. In learning these signs it is well to describe them in two ways: *First.* By numbering the points, thus—D a quarter note ⠒⠂ 1, 3; 3, 2, 4; or, 1, 3, 7; 6, 8. *Second.* To give the alphabetic equivalent, thus—mezzo forte ⠐⠒ | ⠂ | ⠐ s, d, blank, i, blank, e.*

Accent ⠐⠶⠂

Accelerando ⠐⠶⠶

Accidentals are placed before notes, intervals, turns and mordents. They are also sometimes placed after the turn and mordent signs, and in all cases the accidental is separated by one blank.

Appoggiatura, short ⠐⠄⠒

Appoggiatura, long ⠶⠐⠄⠒

Arpeggio ⠒⠄

Arpeggio, *continuously* through both hands ⠒⠄ | ⠐

A tempo ⠶⠶

Bar ⠶; double bar ⠶ | ⠶

Bridge sign ⠶⠶

Crescendo ⠐ | ⠂

Diminuendo ⠐ | ⠐ | ⠂

Discontinuance ⠂ When this sign is separated from other signs by *two* blanks it discontinues a preceding slur. When it discontinues any other sign *it follows such sign* and is separated from it by *one* blank.

Dolce ⠄⠐ | ⠐

* The vertical lines indicate a blank space made by omitting the points.

Dot. One point in the upper row after a duration sign, and separated from it by one blank. The double dot has two points in the upper row, separated from the duration sign and from each other by one blank, thus—C a quarter double dotted ::.: | • | • The triple dot has three points.

Down bow •:•.

Finger signs. First, •:: ; second, .:: ; third, •.: ; fourth, ..: ; fifth, ••:

Flat. One point in the lower row before a note, interval, turn or mordent, and separated from it by one blank. The double flat has two points in the lower row, separated from each other and from the sign which it affects by one blank.

Forte : | •

Fortissimo : | • | • ; very fortissimo : | • | • | •

Forte piano : | • | : | .

Forzando :•..

Group ..•

Group discontinued ..• | :

Half bow .:.. | .:: | :••

Harmonic in guitar and in violin .::.:

Heel in organ pedaling .::

Interval signs. First, ::. ; second, ••. ; third, .:. ; fourth, :•. ; fifth, •:. ; sixth, :.. ; seventh, .•. ; eighth, •..

Left foot in organ pedaling :.:

Left hand :.:

Lower half of bow .:.. | :. | :••

Lower third of bow .:.. | . | :••

Melody sign •:•.

Mezzo forte •.•: | : | •

Mezzo piano •.•: | : | .

Middle of bow .:.. | :• | :••

Middle third of bow .:.. | :• | . | :••

Mordent •.:. ; mordent inverted •.:. | •.:.

Music ⠑⠒ This is used in the body of *text* where an illustration of *music* occurs.

Music discontinued ⠑⠒ | ⠃ or, word sign ⠚⠒ may be used.

Natural ⠃ One point in each row before a note, interval, turn or mordent, and separated from it by one blank.

Notes. The pitch sign for C is ⠛, for D is ⠉, for E is ⠚, for F is ⠋, for G is ⠙, for A is ⠓, for B is ⠊ The duration sign for a whole note is ⠛, for a half is ⠉, for a quarter is ⠚, for an eighth is ⠋, for a sixteenth is ⠙, for a thirty-second is ⠓, for a sixty-fourth is ⠊, for a one hundred and twenty-eighth is ⠊⠁, rarely used. When both pitch and duration are used, the pitch is written first, followed by the duration sign. Thus C a quarter ⠛⠚

Number sign ⠛⠃ This sign shows that the characters following it will be numerals.

Nut of bow ⠚⠒ | ⠒ | ⠋⠁

Octave signs. First octave, ⠛⠁; second, ⠉⠁; third, ⠚⠁; fourth, ⠋⠁; fifth, ⠙⠁; sixth, ⠓⠁; seventh, ⠊⠁; eighth, ⠑⠁

Open string ⠚⠒ | ⠊ | ⠑

Pause ⠊⠑

Pedal ⠒⠑

Pedal discontinued ⠒⠑ | ⠃

Piano ⠃ | ⠂

Pianissimo ⠃ | ⠂ | ⠂; very pianissimo ⠃ | ⠂ | ⠂ | ⠂

Piano forte ⠃ | ⠂ | ⠃ | ⠁

Pizzicato ⠒⠒⠁

Point of bow ⠚⠒ | ⠑⠂ | ⠋⠁

Portamento ⠑⠋ placed before the note affected by it.

Pro forma ⠉⠒

Rallentando ⠙⠒

Repeat part of a measure, or one or more measures ⠒ viz, two points in the lower row.

Repeat note, chord, group or rest ⠄ viz, one point in the lower row.

Rest. Two points in lower row before the character expressing its length; thus, rest a whole, ⠤⠭; rest a half, ⠤⠉; rest a quarter, ⠤⠬; rest an eighth, ⠤⠍; rest a sixteenth, ⠤⠩; rest a thirty-second, ⠤⠥; rest a sixty-fourth, ⠤⠌; rest one hundred twenty-eighth ⠤⠌⠁

Right foot in organ pedaling ⠍⠅

Right hand ⠍⠅

Ritardando ⠩⠤

Ritenuto ⠥⠤

Rinforzando ⠍⠤

Sforzando ⠍⠤

Sharp. One point in the upper row before a note, interval, turn or mordent, and separated from it by one blank. The double sharp has two points in the upper row, separated from each other and from the sign which it affects by one blank.

Slur ⠄ | ⠅

Slur discontinued ⠅

Sostenuto ⠭⠤

Staccato ⠡⠡

Staccatissimo or very staccato ⠡⠡⠡

Stroke of the glottis in singing ⠡

Swell ⠡⠌

Take breath in singing ⠡⠤

Tenuto ⠭⠤

Thumb in guitar ⠅ | ⠅

Tie ⠌⠅

Toe in organ pedaling ⠩⠅

Tremolo ⠌⠤

Trill ⠍⠡

Turn ⠥⠡; turn inverted ⠥⠡ | ⠥⠡

Up bow ⠄⠆⠄

Upper half of bow ⠄⠆⠶ | ⠶ | ⠆⠶

Upper third of bow ⠄⠆⠶ | ⠄ | ⠆⠄

Whole bow ⠄⠆⠶ | ⠄⠄ | ⠆⠶

With sign ⠄

Word sign ⠄⠆⠶ This is used in the body of *music* when *words* are to be used; at the close of the words the word sign with the discontinuance are used thus ⠄⠆⠶ | ⠆ or the music sign ⠄⠶ may be used.

WORKING RULES FOR THE MUSICAL NOTATION.

RULES FOR THE USE OF ABBREVIATIONS, APPOGGIATURAS, FINGER SIGNS, GROUPS, INTERVALS, MORDENTS, OCTAVES, REPEAT SIGNS, SIGNATURES, SLURS, TIME SIGNS, TURNS AND *WITH* SIGNS, ALSO SIGNS FOR DR. HUGO RIEMANN'S NOTATION.

ABBREVIATIONS.

Rule First. When two or more notes in succession are of the same length, the value of the first note only is expressed.

Rule Second. A succession of chords having seconds, thirds, fourths, fifths, sixths, sevenths or octaves, may be abbreviated by making the interval sign twice in the first chord and once in the last chord, followed by the discontinuance sign, and separated from it by one blank.

Rule Third. When the sign for staccato, accent, tenuto, sforzando, turn, trill, mordent, etc., appears on four or more successive notes, write such sign twice (separated from each other by two blanks) before the first of such notes, and once after the last of such notes, followed by the discontinuance sign.

APPOGGIATURAS.

Rule First. The sign $\cdot_{\cdot}^{\cdot\cdot}$ always represents the short appoggiatura, the value of which need not be written.

Rule Second. When the appoggiatura is *long* the letter l will precede the sign $\cdot_{\cdot}^{\cdot\cdot}$ thus, $:_{\cdot}^{\cdot}{}_{\cdot}^{\cdot\cdot}$ The value must be expressed.

Rule Third. When the appoggiatura consists of three tones or less, the sign must be placed before each note.

Rule Fourth. When the appoggiatura consists of four or more tones, make the sign ⠠⠠ twice before the first note and once after the last note, followed by the discontinuance sign, and separated from it by one blank.

FINGER SIGNS.

The finger signs are formed from the numerals ⠉, ⠃, ⠑. The numeral one with a point in the upper row before it makes first finger, with a point in the lower row before it makes second finger. The numeral three with a point in the upper row before it makes third finger, with a point in the lower row before it makes fourth finger. The numeral five with a point in the upper row before it makes fifth finger.

GROUPS.

Rule First. A single group is expressed by placing the group sign ⠶ before the first note and after the last note of the group, followed by the discontinuance sign.

Rule Second. When a group is repeated, follow rule first and place a single point in the lower row once for each repetition.

Rule Third. In a succession of groups composed of different notes, the group sign is placed before each group, but the group and discontinuance signs may be omitted after each group except the last.

INTERVALS.

The intervals are: first, second, third, fourth, fifth, sixth, seventh and octave. The signs are formed by adding a single point in the lower row after the numeral showing the number of the interval. Thus, first interval, ⠉⠂; second interval, ⠃⠂; third interval, ⠋⠂, etc.

Rule First. In expressing chords, write the lowest note, then the intervals of the chord in order upward. Unless the interval

exceeds an octave, the intervals are all reckoned from the lowest note of the chord.

Rule Second. When an interval exceeds an octave it is expressed by the sign *with* ⠤, followed by the octave sign and then the note. Thus, ⠤⠒⠀⠸⠸⠀⠤⠀⠸⠒⠀⠄⠄

Rule Third. Should more than one note exceed an octave, proceed as in rule second and reckon the intervals from the first note after the *with* sign. Thus, ⠤⠒⠒⠀⠸⠸⠀⠤⠀⠸⠒⠀⠄⠄⠀⠄⠄

Rule Fourth. The value of the lowest note only of a chord is expressed, and the intervals take the same value.

Rule Fifth. When any interval of a chord is changed by an accidental, such accidental sign should be placed before the interval sign affected and separated from it by one blank.

Rule Sixth. Finger signs are placed before intervals the same as before notes.

MELODY SIGN.

Rule First. The melody sign is ⠤⠒⠤ and is written before a note, when it is desired to distinguish it from the other notes.

Rule Second. When there are four or more melody notes in succession, write the melody sign twice before the first note and once with the discontinuance after the last one.

MORDENTS.

The mordent is indicated by the sign ⠤⠄⠄

Rule First. The sign of the mordent ⠤⠄⠄ is placed before the note affected, and is separated from it by two blanks.

Rule Second. The inverted mordent is expressed by the sign made twice before the note affected, separated from each other by *one* blank, and from the note by two blanks.

Rule Third. When a sharp, flat or natural is placed above or at the left of the mordent sign *in ink print,* such sharp, flat or

natural should *precede* the sign for the mordent and be separated from it by *one* blank.

Rule Fourth. When a sharp, flat or natural is placed below or at right of the mordent sign *in ink print,* such sharp, flat or natural should *follow* the mordent sign and be separated from it by *one* blank.

Rule Fifth. When the mordent appears on four or more successive notes, write the sign ⠠⠣⠄ twice (separated by *two* blanks) before the first note and once after the last note followed by the discontinuance sign; thus, ⠠⠣⠄ ⠠⠄

OCTAVE SIGNS.

The octaves are: first, second, third, fourth, fifth, sixth, seventh and eighth. The octave signs are formed by adding a single point in the upper row after the numeral showing the number of the octave. Thus, first octave, ⠠⠠⠂; second octave, ⠠⠠⠠; third octave, ⠄⠠⠂, etc.

Rule First. The octave sign will *not* be placed before any note which is a second or third from the preceding note.

Rule Second. The octave sign will *not* be placed before any note which is a fourth or fifth from a preceding note, *unless* such note falls in a different octave.

Rule Third. The octave sign will *always* be placed before any note which is more than a fifth from the preceding note.

Rule Fourth. The same rules will regulate the use of octave signs before the *lowest* notes of chords.

REPEAT SIGNS.

Rule First. When part of a measure from the beginning is repeated, the repeat sign ⠆ is made in the measure once for each repetition.

Rule Second. When a measure is repeated, the repeat sign ⠆ is made once in each repeated measure. The bars must also be indicated.

Rule Third. When two or more measures are repeated the number sign ⁝ is written, then the numeral showing how many measures are to be repeated, and then the repeat sign made once for each repetition.

Rule Fourth. When at the end of a passage, any number of measures not including the last one of the passage, are repeated, the number sign ⁝ is written, and then the numeral which shows how many measures must be counted backward to the place where the repeat begins, then is written the number sign and numeral which shows how many measures are included in the repeat and then follows the repeat : sign made once for each repetition.

Rule Fifth. When a passage is repeated one or more octaves higher or lower, proceed as in rule first, second, third or fourth, as the case may require, and insert before the repeat sign the sign for the octave in which the repeated passage begins.

Rule Sixth. When a passage preceding the first double bar, or one included between two double bars, is repeated, write the double bar ⁝ | ⁝ followed by the repeat sign : and then the double bar.

Rule Seventh. When a note, chord, group or rest is repeated, it is expressed by placing one point in the lower row for each repetition.

Rule Eighth. A passage in which the order of tones by letter and the characters affecting them are the same consecutively as in a preceding passage, but which begins upon a different note, may be expressed by the repeat sign : followed by the *pro forma* sign ·:· and after it the note which begins the transposed form.

Rule Ninth. When the number sign is used in connection with the repeat sign, or when the double bar and repeat sign are used, the octave sign will be written at the beginning of the passage which follows the repeated passage.

SIGNATURES.

To indicate a signature, write a sharp or flat, as the case may be, then after one blank space write the number sign ⁝⁝ followed by the numeral which shows the number of sharps or flats in the signature. Thus, . | ⁝⁝ | •• gives a signature of two flats.

The signature is placed at the beginning of the right hand part of a piece, and is not written again unless a change occurs in the signature. It need not be placed at the beginning of the left hand part, but should be expressed in that part at a change of signature during the piece.

SLURS.

Rule First. The sign for the slur . | : is placed before the notes slurred. The sign for discontinuance : is placed after the notes slurred together and indicates the end of the slurred passage.

Rule Second. When a slur ends on the same note on which a new slur begins, write the second slur, then the note, and then the discontinuance of the first slur. This discontinuance cannot stop the second slur, as it had not slurred the note to any following note.

Rule Third. When the slurs meet between two notes and not on the notes, the end of the first slur will be written just after the second slur and separated from it by two blanks.

This need not be mistaken for the slur discontinuance in the compound slur, for two reasons: first, because there has been no sign for the compound slur, and second, the discontinuance is separated from the slur by two blanks instead of one.

SLURS—COMPOUND.

Rule First. When one slur ends two or more notes after the second slur begins, write the slur sign . | : at the beginning of the first slur, and two slur signs . | : || . | : at the

beginning of the second slur; at the end of the first slur write ⠲ | ⠒ | ⠒; at the end of the second slur write ⠲ | ⠒ || ⠲ | ⠒ | ⠒

Rule Second. When two slurs begin upon the same note but end upon different notes, make the slur sign twice at the beginning, and the discontinuance sign only at the end of the short slur; at the end of the long slur make the slur sign twice with the discontinuance.

Rule Third. When a long slurred passage includes a shorter slurred passage, the slurs neither beginning nor ending with the same note, make the slur sign twice at the beginning of the long slur, and make it once at the beginning of the short slur; at the close of the short slur make it once with the discontinuance ⠲ | ⠒ | ⠒; and at the end of the long slur make it twice with the discontinuance ⠲ | ⠒ || ⠲ | ⠒ | ⠒

Rule Fourth. When two slurs begin upon different notes but end upon the same note, make the slur sign twice at the beginning of the first slur, and once at the beginning of the second slur, and at their close make the slur sign twice with the discontinuance.

TIME SIGNS.

To indicate the time of a piece, write the number sign and then the numeral which is the upper figure in ink print, followed by the numeral which is the lower figure, using one blank for each space. Thus, three four time, ⠼⠉⠀⠼⠙ | ⠼⠉⠀⠼⠲ | ⠼⠉⠀⠼⠒

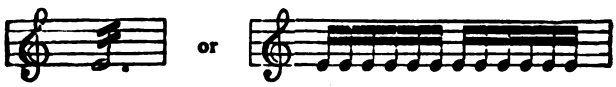
If either the upper or lower number consists of two figures, as twelve or sixteen, then this number should be separated from the other by two blanks. Thus, twelve eight time, ⠼⠁⠃⠀⠼⠓ | ⠼⠁⠃⠀⠼⠦ || ⠼⠁⠃⠀⠼⠲

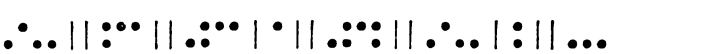
The time sign follows the signature in the right hand part, and is not written again unless the time changes.

It need not be placed in the left hand part unless the time changes during the piece; then it is well to express it at the point of change.

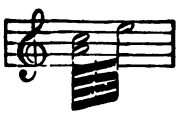
TREMOLO SIGN.

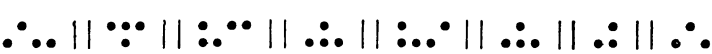
Rule First. When one note or chord is played tremolo, write the sign ⁝ then the note or chord, giving as its value the time covered by the tremolo, then the same note or chord, giving as its value the kind of note to be played in the tremolo, then the tremolo discontinue sign. Thus,





Rule Sccond. When two notes, a note and a chord, or two chords are alternated, write the tremolo sign, then the first note or chord, giving as its value the time covered by the tremolo, then the same note or chord, giving as its value the kind of note to be played in tremolo, then the note or chord which is played in alternation, followed by the tremolo discontinue sign. Thus,





Remark. In many cases the tremolo may be expressed by the use of the repeat sign without the tremolo sign, but in extended cases the use of the tremolo sign is more concise.

TURNS.

The turn is indicated by the sign ⁝.

Rule First. The horizontal turn is expressed by the sign ⁝ placed before the note affected, and is separated from it by two blanks.

Rule Second. The inverted turn is expressed by the sign ⁘ made twice before the note affected, separated from each other by *one* blank, and from the note by two blanks.

Rule Third. When a sharp, flat or natural is placed above or at the left of either the horizontal or inverted turn in ink print, such sharp, flat or natural should *precede* the sign for the turn and be separated from it by *one* blank.

Rule Fourth. When a sharp, flat or natural is placed below or at the right of either the horizontal or inverted turn in ink print, such sharp, flat or natural should *follow* the sign for the turn and be separated from it by *one* blank.

Rule Fifth. When the turn is placed after the note which it affects, in ink print, it will be expressed by writing the note, followed by the turn sign, separated by *one* blank. If any ambiguity should arise, as, when the turn has an accidental over it or the note a dot after it, it will be better to write the notes of the turn with their value as played, rather than to use the turn sign.

Rule Sixth. When the turn sign appears on four or more successive notes, write the sign ⁘ twice (separated by *two* blanks) before the first note and once after the last note followed by the discontinuance sign; thus, ⁘ | ⁘

WITH SIGN.

When the notes of a chord are not of the same length, or where several notes are played against one or more notes of greater value, one class or kind of notes which compose the measure should be expressed, followed by the *with* sign •, and then the other notes which are played against those already written. Either the longer or shorter, or the higher or lower, may be written first, as will be most explicit. For the use of the *with* sign • in chords where an interval exceeds an eighth, see *Rule Second* for Intervals.

WORDS TO BE SET TO MUSIC.

Rule First. Words and music are written separately.

Rule Second. Write one syllable for each note unless otherwise indicated.

Rule Third. Write the bar sign in the text, preceded and followed by two blanks. The music sign is not needed.

Rule Fourth. When two or more syllables are sung to one whole note in the measure, as in chants, write all such syllables and then the bar.

Rule Fifth. When two or more syllables are sung to one note, there being other notes in the measure, write such syllables and then leave a space of three blanks before writing the next syllable.

Rule Sixth. When separate syllables of a word are sung to separate notes, the hyphen may be used, especially before the bar sign.

Rule Seventh. When one syllable extends over two or more notes, the slur sign in the music should show how long to continue that syllable. If no slur sign is used, a dash may be used after the syllable, either for each note or for each rhythmical division of the measure.

Rule Eighth. If rests occur in the music, rest signs will also be written in the text. The music sign is not needed.

THE RIEMANN SIGNS.

Dr. Hugo Riemann uses certain new signs of notation, the point print signs for which will be as follows:

Two diagonal strokes at the end of a slur, called the interrupted slur . | ˙.

A single or double vertical stroke across a staff line (or lying diagonally over a bar), called a reading mark | | ˙ | |

An obtuse angle with the apex at the top, called rubato accent .˙ | .

A comma placed in a horizontal position, called the half tie ⠂ | ⠒

A comma placed in a vertical position, called the comma ⠆ | ⠂

An obtuse angle with the apex at the bottom and a numeral in the angle to indicate the number of measures in the meter, called great meter ⠢ | ⠔ followed by the number sign and numeral.

NOTES ON SPACING.

There are two methods of spacing, viz, *open* and *close.*

In open spacing two blanks are regularly used between all single or simple signs, the parts of compound signs being separated by one blank.

In close spacing one blank is regularly used between all signs, except when two blanks are required to render the construction clear.

The open spacing obviates some problems which occasionally arise in close spacing, and hence may be preferred in writing from dictation.

THOROUGH BASS WRITING.

In elementary work in harmony, the position or soprano note of a chord is often indicated by a numeral (generally placed over the bass note) before the student meets with figuring for the indication of harmonies.

RULES FOR POSITION.

Rule First. The position will be expressed by the word sign ⠚⠒, followed by ⠑⠂, the initial of *position*, and then the number sign and numeral for position. Thus, C a whole note, position of the octave, ⠛⠛ || ⠚⠒ | ⠑⠂ | ⠛⠃ | ⠑ ||

Rule Second. In ink print, if the position is to be high, a plus sign is sometimes placed before the numeral, and if low, a minus sign is thus placed.

In point print the initial of the word *high* or *low* is used as the case may require. Thus, C a quarter, high position of the octave, ⠛⠚ || ⠚⠒ | ⠚⠃ | ⠑⠂ | ⠛⠃ | ⠑ || F a whole, low position of the third, ⠋⠛ || ⠚⠒ | ⠓ | ⠑⠂ | ⠛⠃ | ⠚ ||

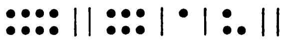
Rule Third. If two positions are given to one chord the sign for position will be used with each numeral. Thus, C a half, position of the third and of the octave, ⠛⠉ || ⠚⠒ | ⠑⠂ | ⠛⠃ | ⠚ || ⠚⠒ | ⠑⠂ | ⠛⠃ | ⠑ ||

RULES FOR FIGURED BASS.

Rule First. The thorough bass figuring is expressed by the number sign and numerals. When two or more numerals are used they are separated from the number sign by one blank and from each other by two blanks. Thus, C a whole note figured six four ⠛⠛ || ⠛⠃ | ⠓ || ⠋ ||

Rule Second. When a note has more than one set of bass figurings the number sign will precede each set. Thus, G a

half, figured six four and then five three 

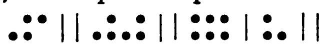

Rule Third. An accidental which affects a numeral will precede it by one blank. Thus, C a whole note figured sharp six 

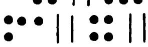
Remark. In ink print a line is sometimes drawn through a numeral to show that that interval is to be raised. In point print the proper accidental will be used with the numeral. Again, an accidental sometimes appears without a numeral and affects the third interval. In point print the accidental will precede the numeral *three* in such cases.

RULE FOR USE OF BOTH POSITION AND FIGURED BASS.

When a note has figuring for both position and bass, the position will follow the note and then the bass figuring, Thus, F a quarter, position of the third, figured five three and then four two 


RULE FOR NOTES FOLLOWING A NUMERAL.

Notes of the same value, but which follow any numeral, must have the value expressed, unless such notes are preceded by an octave sign or a bar. Thus, third octave E a quarter figured six, D a quarter figured six four, bar, C a quarter position of the octave, fourth octave C a quarter 



TREATMENT OF THE HORIZONTAL LINE FOUND IN FIGURED BASSES.

In ink print, figured basses and positions are sometimes abbreviated by means of horizontal lines, thus, a bass note figured *six* may have a line at the right of the six with a *five* under the line. The line shows the continuance of the six and

will be read six and then six five. In point print the numeral will be written whenever the line occurs.

Again, a position figure may have a line at the right of it, extending over the following note, which shows that the same soprano is retained. Thus, F position of the octave, with a line at the right of the numeral eight, extending over the next note G, which is figured seven, shows that the F, which was the octave position of the first chord, is retained in the soprano of the second chord. In point print the position of the *seventh* of the second chord should be expressed instead of the horizontal line.

Furthermore, the horizonal lines are sometimes used to indicate the continuance of the *same harmony* during a change of bass notes. Thus, G figured six four may have lines drawn at the right of the six and of the four; these two lines may pass under C, E and another G, followed by G figured five three. This indicates the chord of C in its second inversion, fundamental form, first inversion, and then again second inversion, followed by the chord of G. In point print each bass note will have its own figuring, viz: G six four, C five three, E six, G six four, and G five three.

VOCAL MUSIC ON THE TONIC SOL FA BASIS.

In this method the voice parts are written separately.

For singing, the tones of the scale are called (as pronounced) doh, ray, me, fah, soh, lah, te, and are represented as follows:

doh	ray	me	fah	soh	lah	te
⠙	⠚	⠋	⠛	⠑	⠓	⠊

In vocal music, these signs and names are used instead of the letter names, c, d, e, f, g, a, b. All major scales are read as doh, ray, me, fah, soh, lah, te, doh, and all minor scales as lah, te, doh, ray, me, fah, soh, lah.

The time values are indicated in the same manner as when letters are used. Thus, doh a quarter is ⠙⠚; te an eighth dotted is ⠊⠋ | ⠁, etc.

Above each scale tone except me and te, there is a sharp chromatic tone, and below each scale tone except doh and fah, there is a flat chromatic tone.

The names of the sharp chromatic tones are de, re, fe, se, le, giving the vowel its long sound. Thus the accidental sharp fah is written ⠁ | ⠛ and is sung fē.

The names of the flat chromatics are ta, la, sa, ma, ra, giving the vowel the sound heard in flat. Thus the accidental flat lah is written ⠂ | ⠓ and is sung lă.

When a change of key occurs, new tones not heard in the old key are introduced, and some tones of the old key are retained in the new key, but under different names, which are determined by the new key tone. Thus, in changing from the key of C to the key of G, the tone soh of the old key becomes doh in the new key, a new tone sharp fah, which is sung fe, being introduced, which tends strongly upward, and gives to soh the

strength and quality of doh. This new tone is then called te, while the other tones of the old key of C, which are used in the new key of G, also take their names according to their distance from the new doh or tonic.

At the point of change a tone which is common to the old and the new key is called a bridge tone.

Bridge tones are indicated by the bridge sign ⁝⁝

The bridge tone is first written with the syllable belonging to it in the old key, followed by the bridge sign and then the syllable belonging to it in the new key.

The bridge signs are not used in a transient modulation, but only when the transition to a new key is complete.

LIST OF GENERAL ABBREVIATIONS.

WORD AND PART-WORD SIGNS.

For	ch	write		For	ph	write	
"	ou	"		"	the	"	
"	sh	"		"	and	"	
"	th	"		"	of	"	
"	wh	"		"	that	"	
"	gh	"		"	ing	"	

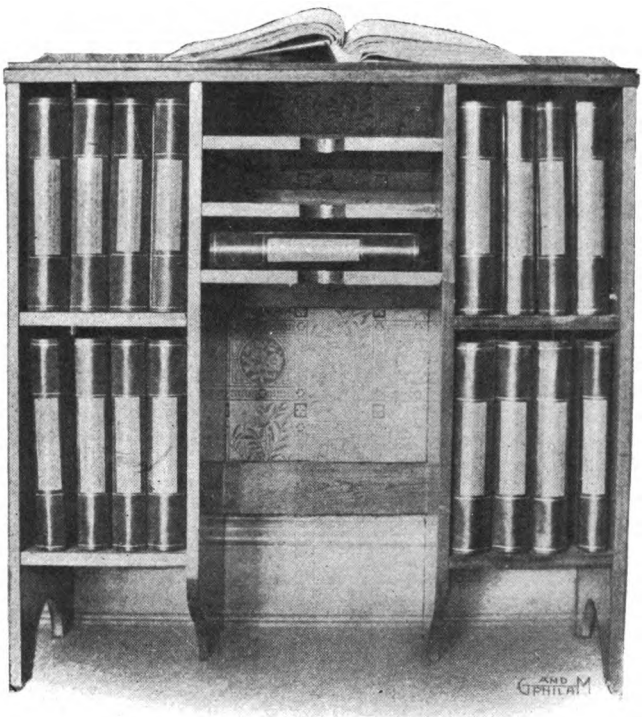
The use of the foregoing signs in the following lists is indicated by italics:

For	*Write*
Able } as ending Ible }	bl
Abo*ut*	abt
Above	abv
Acco*u*nt	acct
Accord*ing*	acrd*ing*
Accord*ing*ly	acrd*ing*l
After	af
Afterward	afwd
Again	agn
Against	agnst
Almost	al
Altoge*th*er	alg*th*r
Always	alws
Among	amg
Amo*u*nt	amt
Ano*th*er	an*th*r
Answer	ans
Any*wh*ere	any*wh*r
Because	bcs
Been	bn
Before	bfr
Begin, begun or began	bgn
Below	blw
Benea*th*	bn*th*
Beside, besides	bsd, bsds
Between	btwn
Better	btr
Business	bzns
*Ch*ange	*ch*ng
*Ch*ang*ing*	*ch*ng*ing*

For	*Write*
Come	cm
Com*ing*	cm*ing*
Common	com
Convenient	convnt
Convenience	convnc
Conveniently	convntl
Could	cd
Definition	defntn
Demonstration	dmnstn
Differ	dfr
Difference	dfrnc
Different	dfrnt
Differently	dfrntl
Does	ds
Down	dn
Downward	dnwd
Ei*th*er	e*th*r
Elsew*h*ere	lsw*h*r
Except	xcpt
Except*ing*	xcpt*ing*
Exception	xcptn
Express	xprs
Expressed	xprsd
Expression	xprsn
Extraordinary	xtrdny
First	fst
Forward	frwd
Found	fnd
Ful, as ending	fl
Fur*th*er	fr*th*r
General	gen

For	*Write*
Give	gv
Goes	gs
Gone	gn
Government	govt
Greater	gtr
Greatest	gtrst
Hence	hnc
Henceforth	hncf*th*
Henceforward	hncfwd
Here	hr
Hereafter	hrftr
Heretofore	hrtfr
Herewith	hrw*th*
Herein	hrn
Herself	hrsf
Him	hm
Himself	hmsf
His	hs
Instead	instd
Inward	inwd
Inwardly	inwdl
Itself	itsf
Kind	k
Kinds	ks
Know or knew	kn
Knows	kns
Known	knn
Know*ing*	kn*ing*
Large	lg
Less	ls
Like	lk
Likewise	lkws
Little	ltl
Live	lv
Made	md
Make	mk
Man	mn
Ment, as ending	mt
Mi*gh*t	mgt
Mister	Mr
Mu*ch*	m*ch*
Must	mst
Myself	msf
Nearly	nrly
Necessary	nec
Necessarily	necl
Nei*th*er	n*th*r
Nei*gh*bor	nbr
Ness, as ending	ns
Never	nv
None	nn
Nor	nr
No*wh*ere	n*wh*r
Object	obj
Objection	objtn

For	*Write*
Occasion	ocsn
Often	ofn
Onward	onwd
Opinion	opn
Opportunity	optnty
O*th*er	o*th*
O*th*erwise	o*th*ws
Outward	outwd
Outwardly	outwdl
Point	pnt
Principal or principle	prin
Probable	prbl
Probably	prbly
Quarter	qr
Quarters	qrs
Question	qn
Questionable	qnbl
Reference	rfnc
Ri*gh*t	rt
Ri*gh*tly	rtl
Ro*u*nd	rnd
Self	sf
Several	svl
*Sho*uld	*sh*
Sion, as ending	sn
Take	tk
*Th*an	*th*n
*Th*is	*th*s
Tion, as ending	tn
Toge*th*er	tg*th*r
Underneat*h*	ndrn*th*
Understa*nd*	ndrsta*nd*
Unless	nls
Until	ntl
Upon	upn
Upward	upwd
Ward, as ending	wd
Was	ws
Were	wr
*Wh*at	*wh*t
*Wh*ether	*wh*th*r*
*Wh*en	*wh*n
*Wh*ere	*wh*r
*Wh*erefore	*wh*rf
*Wh*erein	*wh*rn
*Wh*ereby	*wh*rb
*Wh*ereto	*wh*rt
*Wh*ereupon	*wh*rpn
*Wh*ile	*wh*l
*Wh*ose	*wh*s
*Wh*om	*wh*m
*Wh*omsoever	*wh*msvr
Willing	wl*ing*
You	y



THE STANDARD INTERMEDIATE SCHOOL DICTIONARY OF THE ENGLISH LANGUAGE.

Embossed on brass plates in New York Point at the Maryland School for the Blind and printed at the American Printing House for the Blind, Louisville, Ky. It contains 38,000 words and some additional features such as abbreviations, method of compounding words, faulty diction, etc., taken from the Standard Dictionary.

It is the most complete Dictionary ever published for the use of the blind, and supplies a long felt need.

ABBREVIATIONS FOR WORDS CHIEFLY USED IN MUSICAL LITERATURE.

For	*Write*
Accent	ac
Accented	actd
Accidental	acl
Accompaniment	acmp
Action	actn
Alto	alt
Altered	altrd
Alternation	altrtn
Alternat*ing*	altrnt*ing*
Anticipation	antcpn
Anticipated	antcpd
Arpeggio	arp
Augmented	aug
Bad	bd
Bass	bs
Cadence	cad
Cadences	cads
Canto fermo	cf
*Ch*ord	*ch*
*Ch*ords	*ch*s
*Ch*romatic	*ch*ro
*Ch*romatically	*ch*romly
Consonance	cnsnc
Consonances	cnsncs
Consonant	cnsnt
Contrary	cont
Consecutive	consec
Concealed	concld
Counterpoint	cp
Degree	deg
Degrees	degs
Dependent	dep
Diatonic	dia
Diatonically	dialy
Diminished	dim
Dissonant	dis
Dissonance	disnc
Dominant	dom
Double	dbl
Doubled	dbld
Doubl*ing*	dbl*ing*
Example	ex
Exercise	exe
Fif*th*	f*th*
Finger	fng
Fingers	fngs
Finger*ing*	fng*ing*
First	fst
Four*th*	fr*th*
Fundamental	fndmtl
Good	gd
Harmony	har
Harmonic	harc
Harmonically	harcly
Hidden	hdn
Independent	indp

For	*Write*
Interval	int
Intervals	ints
Inversion	inv
Inversions	invs
Inverted	invd
Imperfect	imper
Leading tone	lt
Legato	leg
Lowered	lwd
Major	maj
Measure	msr
Measures	msrs
Mediant	med
Melody	mel
Melodic	melc
Melodies	mels
Metronome	met, or M
Minor	min
Modulate	mdlt
Modulation	mdltn
Modulations	mdltns
Modulat*ing*	mdlt*ing*
Motion	motn
Nei*gh*bor*ing* note	nbr*ing* nt
Nei*gh*bor*ing* notes	nbr*ing* nts
Nin*th*	n*th*
Octave	oct
Octaves	octs
Opus	op
Organ	org
Organ Point	org pnt
Parallel	par
Period	prd
Perfect	per
*Ph*rase	*ph*
Position	posn
Positions	posns
Practise	prc
Practised	prctd
Practis*ing*	prc*ing*
Preparation	prepn
Prepared	prepd
Principal	prin
Progression	prog
Progressions	progs
Progressed	progd
Raised	rsd
Resolve	res
Resolved	resd
Resolution	resn
Rhy*th*m	rh
Rhy*th*mic	rhc
Rhy*th*mical	rhcl
Rhy*th*mically	rhcly
Rhy*th*ms	rhs
Scale	sc

For	*Write*
Scales	scs
Second	scnd
Section	sec
Seven*th*	sv*th*
Six*th*	sx*th*
Sixteen*th*	sxn*th*
Soprano	sop
Staccato	stac
Subordinate	sub
Subdominant	subdom
Submediant	submed
Subtonic	subton
Substitution	substn
Substitut*ing*	subst*ing*
Supertonic	supton
Suspension	susp

For	*Write*
Suspensions	susps
Suspended	suspd
Syncopation	syn
Syncopated	syntd
Tenor	ten
Ten*th*	tn*th*
Tonic	ton
Triad	tr
Triads	trs
Triplet	trp
Triplets	trps
Unaccented	unactd
Unison	un
Unisons	uns
Voice	vc
Voices	vcs

WORDS RELATING TO THE ORGAN.

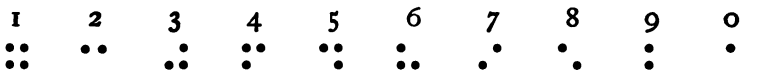
For	*Write*
Bassoon	bsn
B*ou*rdon	brdn
*Ch*oir	*chr*
Clarinet	clr
Diapason	diap
Dulciana	dul
English Horn	Eng hn
Feet or Foot	ft
Flute	fl
Flute Traverse	fl trav
Fifteen*th*	ftn*th*
Gamba	gam
Gemshorn	gmshn
Harmonic Flute	harc fl
Hautboy	obo
Hohlflöte	hlfe
Keraulophon	ker
Manual	mnl
Mixture	mix
Open	opn
Pedal	ped

For	*Write*
Pedals	peds
Piccolo	pic
Quint	qnt
Rohrflöte	rfl
Salicional	sal
Solo	sol
Sesquialtera	sesalt
Spitzflöte	spfl
Swell	sw
Stop	stp
Stops	stps
Stopped	stpd
Trombone	trom
Trumpet	trm
Twelf*th*	tlf*th*
Viola	vla
Violin	vln
Violoncello	cello
Vox Humana	v h
Waldflöte	wlfl

LIST OF SIGNS AND ABBREVIATIONS ADAPTED TO MATHEMATICS.

NUMERALS.

1 2 3 4 5 6 7 8 9 0



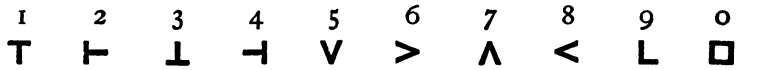
The sign ⠼, called number sign, is placed before these signs to show that they are used as numerals. These numerals are used in arithmetic and for all ordinary purposes.

The decimal point is ⠲

For algebra, however, the signs representing numerical and literal quantities should be quite distinct. Hence, in algebraic work the following signs are used for numerals.

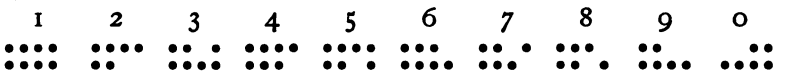
In printed books:

1 2 3 4 5 6 7 8 9 0



In *written* algebra the numerals are:

1 2 3 4 5 6 7 8 9 0



The number sign is not used in connection with this series.

Sign for division ⠌

" " division ended ⠌ | ⠆

" " equality ⠨⠅

" " exponent ⠆⠔

" " exponent ended ⠆⠔ | ⠆

" " inequality (*greater* than) ⠣⠆ | ⠲

" " " (*less* than) ⠣⠆ | ⠲

" " infinity ⠨⠆⠨

" " is to, in stating a ratio ⠆ | ⠲

" " as, in stating a proportion ⠆⠲

Sign for minus ⠒⠒

" " multiplication ⠐⠣⠒

" " multiplication ended ⠐⠣⠒ | ⠒

" " plus ⠐⠒⠒

" " plus and minus ⠐⠒⠒ | ⠒⠒

" " parenthesis ⠐⠣

" " double parentheses ⠐⠣⠣

" " triple parentheses ⠐⠣⠣⠣

" " quadruple parentheses ⠐⠣⠣⠣⠣

" " radical ⠩⠒

" " radical ended ⠩⠒ | ⠒

" " subscript ⠐⠩ | ⠒⠒

NOTE.—The vertical lines indicate a blank space made by omitting the points.

NOTE.—In *printed* algebra numerical quantities will be expressed by the T V signs, and all literal quantities by the alphabetic *point* signs. In *written* algebra point signs only are used.

SUGGESTIONS.

First. The structure of every expression should be carefully studied and fully understood before attempting to write it.

Second. The use of the parenthesis is of special importance, as it serves to identify quantities which should be construed together as one, and to distinguish the whole from the parts of an expression.

Third. The numerator of a fraction, unless it be a monomial, should be included in a single parenthesis followed by the sign for division, and then the denominator followed by the sign for division ended. The denominator may or may not be inclosed in parentheses, as the case may require.

Fourth. When the numerator or denominator is a fraction, it should be written as above, the whole fraction being included in a double parentheses.

If a fraction appears in both numerator and denominator, the whole expression should be included in a triple parentheses, the fractional numerators each in a double and the sub-numerators in a single parenthesis.

Fifth. In general, the parentheses should be used so as to secure an exact reading. A parenthesis of any grade greater than the single one will indicate that parenthetical quantities of lesser grade are included.

The above suggestions furnish a general idea of the plan by which any algebraic expression may be recorded in tangible form.

ABBREVIATIONS FOR WORDS CHIEFLY USED IN MATHEMATICS.

For	*Write*
Add*ing*	ad*ing*
Addition	adtn
Algebra	alg
Algebraic	algc
Angle	ngl
Acute angle	ct ngl
Antecedent	antc
Binominal	bnl
Circle	cir
Circumference	crcm
Coefficient	coef
Comparison	comp
Compar*ing*	comp*ing*
Compared	compd
Consequent	cons
Continued	cont
Cube	cb
Decimal	dec
Denominator	dntr
Denominators	dntrs
Diameter	dmr
Difference	dif
Divide	dv
Divided	dvd
Divid*ing*	dvd*ing*
Dividend	dvnd
Division	dvn
Divisor	dvr
Elimination	elim
Equation	eqtn
Equivalent	eqv
Exponent	xpnt
Exponential	xpntl

For	*Write*
Extremes	xtms
Factor	ftr
Factor*ing*	ftr*ing*
First	fst
Fif*th*	f*th*
Follows	fols
Follow*ing*	fol*ing*
Form	fm
Formula	fmla
Four*th*	fr*th*
Fraction	ftn
Hexagon	xgn
Homogeneous	homo
Lateral	ltrl
Ma*th*ematics	ma*th*
Measure	meas
Measured	measd
Measur*ing*	meas*ing*
Member	mem
Members	mems
Minuend	mnd
Monomial	mon
Multiply	ml
Multiplied	mld
Multiple	mlpl
Multiplier	mlpr
Multiplic*and*	mlc*and*
Multiplication	mltn
Negative	neg
Negatively	negl
Nin*th*	n*th*
Numeral	nmrl
Numerical	nmcl

For	*Write*
Numerically	nmcly
Number	num
Numerator	nmr
Octagon	octgn
Obtuse angle	ob ngl
Order	ord
Operation	optn
Operations	optns
Parallel	par
Parallelogram	pargm
Paren*th*esis	prn*th*s
Pentagon	pngn
Perform	prfm
Performed	prfmd
Perform*ing*	prfm*ing*
Perpendicular	pr
Plane	pl
Polygon	plgn
Polynomial	plnl
Positive	pstv
Positively	pstvl
Prime	prm
Product	pdt
Proportion	prpn
Power	pwr
Powers	pwrs
Quantity	qnt
Quantities	qnts
Quadrilateral	qdl
Quotient	qnt
Radical	rdl
Radius	rad
Ratio of diameter to circumference	pi
Reciprocal	rcpl
Rectangle	rcngl
Reduce	rdc
Reduced	rdcd
Reduc*ing*	rdc*ing*
Remainder	rem
Represent	repr
Represented	reprd
Represent*ing*	repr*ing*
Require	req
Required	reqd
Ri*gh*t angle	rt ngl
Root	rt
Second	scnd
Secant	sec
Seven*th*	svn*th*
Similar	smlr
Six*th*	sx*th*
Subtraction	subtn
Subtrahend	subnd
Subtract	subt
Subtracted	subtd
Substitute	subst
Substituted	substd
Substitut*ing*	subst*ing*
Square	sq
Tangent	tan
Ten*th*	tn*th*
Time	tm
Times	tms
*Th*ird	*th*d
Transformation	trnsf
Transpose	trnsp
Transposed	trnspd
Transpos*ing*	trnsp*ing*
Transposition	trnsptn
Trinomial	tnl
Triangle	tngl
Value	val

In a similar manner abbreviations may be formed for the principal words of any subject. When these are used in printed books, an alphabetical list of the abbreviated words should be printed at the beginning of the book.

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